

# Exhibit 4

# LOVETTE REPORT

I, Gail E. Lovette, do hereby affirm and state:

**Introduction and Qualifications:**

I am a licensed teacher, administrator, and reading specialist in the Commonwealth of Virginia. I am currently an Assistant Professor in Research and the Director of Turnaround Projects at the Curry School of Education at the University of Virginia. Over the past three years, I have led several partnerships between the Curry School of Education and school districts with Virginia Department of Education (VDOE) priority-identified schools. In order to receive identification as a *priority school* from the VDOE, under the federal Every Student Succeeds Act (ESSA), a school is performing in the bottom 5 percent of Title 1 schools in reading and/or mathematics. The Michigan Department of Education (MDE) identifies priority schools in a similar way: “Priority schools are those schools in the bottom 5% of a complete ‘top to bottom’ list of schools....This placement is often indicative of minimal student outcomes in a number of subject areas over time, poor achievement coupled with dramatic declines in student performance or substantial achievement gaps, or all of these factors.”<sup>1</sup> The VDOE priority identified schools that I have worked with have been persistently low-performing schools, many for well over a decade, and have similar percentages of economically disadvantaged students to the schools within the Flint Community Schools (FCS).

In our priority school partnerships, my team and I collaborate closely with school and district stakeholders to build instructional and leadership capacity in sustainable ways through professional learning and the responsive coaching of teachers and administrators. This work begins by conducting comprehensive needs assessments of our partner schools in the areas of instruction, leadership, and school and classroom culture. Utilizing these data, we coach teachers and leaders in a variety of evidence based practices shown to positively impact both student achievement and school and classroom culture. Our team continuously monitors the effectiveness of our partnerships, and has the ability to adjust the intensity, frequency, and type of support, when appropriate, based on the dynamic nature of low-performing schools and school districts. Our team regularly reports to the school leadership, school districts, and the VDOE.

I also have extensive clinical experience in the McGuffey Reading Center in the Sheila C. Johnson Center for Human Services at the Curry School of Education at the University of Virginia, beginning in 2011. My clinical work involves administering a variety of reading assessments, including standardized assessments frequently used during the Child Find process, to clients at the clinic who have ranged from preschool to adulthood, and designing targeted, research-based reading interventions. I currently teach graduate level courses to both preservice and practicing teachers and have taught a variety of undergraduate and graduate classes

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<sup>1</sup> Michigan Department of Education:  
[https://www.michigan.gov/documents/mde/Priority\\_FAQ\\_427729\\_7.pdf](https://www.michigan.gov/documents/mde/Priority_FAQ_427729_7.pdf)

including the diagnosis and remediation of reading difficulties, curriculum, instruction, and assessment, and differentiating reading instruction.

Prior to my work at the University of Virginia, I was an elementary school teacher and an elementary and middle school administrator in urban public schools in northern Virginia for 9 years. My first teaching position was in a persistently low-performing, urban school very similar to the schools in FCS. I was a teacher and administrator in Title I schools for over seven years.

I received a Ph.D. in Curriculum and Instruction with a focus in Reading Education from the University of Virginia in 2014. Additionally, I hold an M.A. in Educational Leadership and Administration from The George Washington University that was awarded in 2006, and a B.S. in Elementary Education from the State University of New York College at Geneseo, awarded in 2000. I have published and presented research that focuses on the need to increase teacher and administrator knowledge of reading, best practices in literacy instruction, supporting struggling readers, and adolescent literacy. I serve as a peer reviewer for two journals and a proposal reviewer for the Literacy Research Association's annual conference. Finally, I served as a grant reviewer from 2013 through 2015 for the Striving Readers Comprehensive Literacy Program through the Georgia Department of Education. My *curriculum vitae* is attached as Exhibit A.

**Declaration:**

The sworn testimony of Flint Community Schools Superintendent Bilal Tawwab on February 10, 2016 to the United States House of Representatives House Democratic Steering and Policy Committee refers to the prolonged exposure of the FCS community to lead in the water in their homes and schools as an “emergency situation facing our educational community.” (Exhibit B) Mr. Tawwab acknowledges that the impacts of the water crisis “cannot be fully reversed” for FCS students and he cites the need for “full wraparound services” for all students.

In October of 2017, I participated in a series of interviews and conversations with current Flint Community Schools (FCS) teachers and parents. The teachers who I spoke with had an average of 20 years of teaching experience in FCS and one had retired about six months ago after over 25 years of teaching in FCS. Additionally, I reviewed files of FCS students along with public resources and documents from the Michigan Department of Education (MDE), the Genesee Independent School District (GISD), and the Flint Community Schools (FCS). Based upon my review of these documents and my interviews of FCS parents and teachers, there is no question that the water crisis in Flint continues to adversely impact the FCS school community. The “emergency situation” that Mr. Tawwab identified in 2016 appears to continue to be without adequate resolution today.

After the proven and prolonged lead poisoning of all of the students and employees of FCS, there is little evidence that demonstrates a reasonable effort on the part of FCS, GISD, and MDE to

proactively provide the “full wraparound services” that Mr. Tawwab indicates are necessary to support the FCS educational community. The 2015-2016 MDE Annual Report (Exhibit C) cites five actions that the department took to address the Flint water crisis that entire school year, none of which relate to instructional or behavioral support for the FCS community (p. 9). When there is a mass event that impacts an entire school community like widespread lead poisoning, one would expect to see a good faith and *proactive* effort on the part of the schools, school district(s), and affiliated departments of education to react with urgency to this “emergency situation,” and at the very least, provide immediate and swift access to the resources available at each of these levels. This has not been the case for the Flint Community Schools.

Prior to the lead poisoning of all of the students and teachers in FCS, student achievement data for FCS were already significantly well below national averages. For example, only 40% of FCS fourth grade students were reading at or above proficient levels at the end of the 2012-2013 school year (Exhibit M) compared to 68% of fourth graders nationally<sup>2</sup>. At the end of the 2014-2015 school year, only 16% of FCS fourth grade students were reading at or above proficient levels compared to 69% nationally. The FCS student achievement data for grades 3-8 demonstrates steady declines in subsequent years (Exhibit N). At the end of the 2016-2017 school year, less than 11% of all FCS third grade students were reading at or above proficient levels. To put it another way, at the end of the 2016-2017 school year, out of the 429 FCS third grade students who were assessed, only *28 students read at proficient levels* and only 18 students read above grade level (Exhibit M).

Although the persistent failure of FCS to provide students with, at the very least, an adequate and comparable educational experience predates the water crisis, it has most certainly been exacerbated by it. In my opinion, the most egregious act of FCS, GISD, and MDE leadership is the complete lack of a proactive, responsive approach to address the comprehensive FCS community needs that Mr. Tawwab identified in his sworn testimony. In its 2015-2016 Annual Report (Exhibit C), MDE announced that FCS would participate in the implementation of the Michigan Behavior Learning Support Initiative (MiBLSi) (p. 24). This is at least the second time that FCS has participated in the implementation of MiBLSi, a 2009 report from the MDE highlights the implementation of MiBLSi by FCS (Exhibit D). For many reasons that I will detail below, the years-long and phased implementation of MiBLSi (Exhibit E) is not nearly sufficient enough to identify those students in need of additional support or “wraparound services” and most certainly does not do so within the type of *reasonable* time frame one would expect in response to an “emergency education situation.” In fact, this gradual implementation of MiBLSi allows FCS students to continue to go unidentified and unsupported in their classrooms.

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<sup>2</sup> National Center for Education Statistics: [https://nces.ed.gov/programs/coe/indicator\\_cnb.asp](https://nces.ed.gov/programs/coe/indicator_cnb.asp)

**MiBLSi, MTSS, and RTI**

MiBLSi utilizes a Multi-Tiered System of Supports (MTSS) for students<sup>3</sup>. MTSS is another term used to describe a Response to Intervention (RTI) model. An RTI/MTSS model is designed to be a *proactive* model that identifies at-risk students who may need additional support in behavior and/or academics.<sup>4</sup>

RTI/MTSS is most often used in school districts as a three tiered model. A universal screening measure, usually in reading, math, and behavior, is the foundation of an RTI/MTSS model. The universal screening is meant to *proactively and preventatively identify* and continuously *monitor* students who are at-risk of not meeting expected grade level or behavioral benchmarks. Once students are identified through screening, they are continuously monitored and may receive targeted interventions that are in addition to the instruction and/or behavioral support that they already receive within the regular classroom setting. In earlier support models utilized before RTI, commonly referred to as *wait-to-fail* models<sup>5</sup>, students would have to repeatedly fail to meet grade level or behavioral expectations prior to receiving any additional support and the process for identification of these students could take several years, if at all, meaning greater deficits would develop as the child aged. It is clear from the aforementioned FCS data that the vast majority of students are already failing to meet grade level benchmarks.

It is critical to understand that the MiBLSi/MTSS model is designed to “improve academic and behavior outcomes in students”<sup>6</sup> and should not be utilized as the sole pathway to identification for special education services, as a method for excluding a child with a suspected disability, nor should it be utilized in the place of or to prolong the Child Find process. The FCS *Learning Support Services* page links<sup>7</sup> a 2010 US Department of Education letter (Exhibit F) that forbids the use of these tactics to delay or deny special education services. Data from the progression of a student through an MTSS model can be utilized as a one component of the Child Find process but should not be the sole evaluation criteria for eligibility for special education services. It would be a gross misuse of an RTI/MTSS model to attempt to utilize the model to “measure the intellectual and emotional damage done to each, and possibly every child” or as the method to deliver the “complete testing - both medical and intellectual assessment” that Mr. Tawwab

<sup>3</sup> <https://miblsi.org/>

<sup>4</sup> National Center on Response to Intervention: <http://www.rti4success.org/>

<sup>5</sup> Vaughn, S., & Fuchs, L. S. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research and Practice*, 18, 137-146. doi:10.1111/1540-5826.00070

<sup>6</sup> <https://miblsi.org/miblsi-model>

<sup>7</sup> Link for “RTIMemo 1-21-11”

[http://www.flintschools.org/apps/pages/index.jsp?uREC\\_ID=715809&type=d&pREC\\_ID=967584](http://www.flintschools.org/apps/pages/index.jsp?uREC_ID=715809&type=d&pREC_ID=967584)

emphasizes as crucial to provide for the students of FCS. In fact, the use of an MTSS/MiBLSi would actually prolong a student's access to the critical assessments.

Precedent exists from other state Departments of Education for identifying and supporting students who have suspected exposure to lead. In August of 2015, the Connecticut Department of Education published their protocols for supporting students with *suspected* exposure to lead (Exhibit G).<sup>8</sup> These protocols begin by utilizing the Child Find process to assemble a school-based team of specialists who meet to identify the suspected lead exposure and then to develop increasing levels of support for the student based on the length of exposure, levels of lead present in the bloodstream, and observation of associated delays. There are three levels of support provided to the student with the third level resulting in the eligibility of the student for special education services. In this protocol, at the first and most basic level of support, students in grades K-12 who have had *short term exposure* to lead, have no other risk-factors, and demonstrate no developmental delays, are *automatically* provided with a school-based team who develops a continuous, *proactive* "monitoring plan (regular education accommodation)" for the student with a specific focus on "attention, executive functioning, language, behavior" issues. This team also schedules a "formal annual review" of the student, and makes a referral for the student to receive additional support. Despite known and prolonged exposure to lead in their homes and schools, this basic quality of support is not automatically or proactively provided to the students of FCS.

#### **Tiered Support:**

The first tier of an RTI/MTSS model, commonly referred to as *Tier 1*, consists of *effective* classroom instruction. Effective classroom instruction includes universal supports for all students (i.e., the differentiation of instruction or behavioral supports to meet the individual needs of students in the general classroom setting). Universal supports are *not* an intervention, rather they are effective instructional practices for *all* students and are based on the use of continuous formative assessment of students, and the understanding that if more than roughly 20% of students do not demonstrate mastery of a focus skill or behavior then the Tier 1 instruction was not effective and reteaching is necessary within Tier 1.<sup>9</sup>

The overall effectiveness of an MTSS model is largely dependent on the quality of instruction/behavioral support in Tier 1. FCS student data demonstrate that Tier 1 instruction has been ineffective and inadequate for the vast majority of students for many years and there

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<sup>8</sup> Connecticut Department of Education, *Education Guidelines for the prevention and management of lead poisoning in children:*

[http://www.sde.ct.gov/sde/lib/sde/pdf/publications/lead\\_poison/leadPoisonGuide.pdf](http://www.sde.ct.gov/sde/lib/sde/pdf/publications/lead_poison/leadPoisonGuide.pdf)

<sup>9</sup> Johnson, E., Mellard, D.F., Fuchs, D., & McKnight, M.A. (2006). *Responsiveness to intervention (RTI): How to do it*. Lawrence, KS: National Research Center on Learning Disabilities.

continues to be a cause for great concern about FCS's ability to effectively implement a RTI/MTSS model.

1. Effective Tier 1 instruction requires high quality teachers. Many long and short term vacancies<sup>10</sup> for FCS Tier 1 classrooms are currently filled by employees of a Professional Education Staffing Group (PESG)<sup>11</sup>, an outside contractor to FCS; therefore FCS has no evaluative authority over them. PESG does not require that all employees have a teaching license to substitute (short and long term) for a Tier 1 classroom position.
2. After the discovery of lead in the water in the homes and schools of all FCS students, FCS, GISD, and MDE have not provided FCS teachers with targeted or responsive professional development on the impacts of lead poisoning on students and how to best address and support these students in the Tier 1 classroom.
3. Access to curricular resources and professional development for effective implementation of these resources is crucial for effective Tier 1 instruction. The availability of both varies significantly between FCS teachers and between FCS schools.
4. As of October 15, 2017, FCS Tier 1 teachers have not been trained in the universal screener for reading (DIBELS Next) and they currently do not have access to the screening data that were collected for students in their Tier 1 classrooms.
5. Implementation of the FCS Tier 1 behavioral support program, Positive Behavioral Intervention and Supports (PBIS), is inconsistent across all FCS schools. In the Tier 1 classroom, expectations for addressing student behaviors vary between FCS schools. Tier 1 teachers are permitted to suspend a student from school for the day through the use of a SNAP suspension (Exhibit O, p. 12).<sup>12</sup>
6. Teachers are frequently moved between FCS buildings and have been expected to teach subject areas and grade levels that they are not qualified or licensed to teach. Moreover, teacher evaluations are based upon their *current* students' performance and FCS, GISD, and MDE have not provided training to FCS teachers in how to support known impacts of lead in children.

The second and third tier of an RTI/MTSS model, Tiers 2 and 3, involve evidence based and targeted interventions in instruction and/or behavior for students who fail to meet expectations in an *effective* Tier 1 classroom with 80% or more of students meeting the benchmark. Student(s) should be identified by the Tier 1 teachers as needing additional support and a team of school-based specialists—what GISD calls the Student Assistance Team (SAT)- should meet to determine the appropriate intervention, as outlined by the GISD protocol: *Behavior Support*

<sup>10</sup> Flint Community Schools Vacancies:

<https://www.applitrack.com/gcaps/onlineapp/jobpostings/view.asp?district=724&all=1> (also see exhibit

<sup>11</sup> Professional Education Staffing Group: <http://www.subpass.com/>

<sup>12</sup>FCS Code for Student Conduct pg. 12

[http://www.flintschools.org/apps/pages/index.jsp?uREC\\_ID=448678&type=d&pREC\\_ID=9676](http://www.flintschools.org/apps/pages/index.jsp?uREC_ID=448678&type=d&pREC_ID=9676)

*Guidelines and Procedures* (Exhibit H). As a student moves through RTI/MTSS, interventions in Tiers 2 and 3 should be delivered by a highly trained and specialized interventionist. These interventions should increase in intensity and/or frequency, continue for a predetermined amount of time, and the student should be consistently monitored for progress by the Interventionists and the SAT. Essentially, Tiers 2 and 3 measure whether an identified student *responds to (an) intervention*. Based upon my interviews with FCS teachers and parents, Tiers 2 and 3 in FCS schools appear to be grossly ineffective at providing targeted, explicit interventions to identified at-risk students:

1. In FCS, SAT only meets monthly and these meetings are not consistently attended by school-based specialists. Moreover, there are a predetermined number of slots for each of these meetings and many student cases do not make it to SAT to develop and monitor Tier 2/3 interventions for many months. Mr. Tawwab stressed that all FCS students have been impacted by the water crisis, yet the FCS schools only meet on a monthly basis to discuss student concerns.
2. There are no SAT meetings occurring in at least one of the FCS high schools meaning there is no regular opportunity for specialists and Tier 1 teachers to collaborate to support at-risk students in that high school. This is especially concerning in the area of reading as FCS data show that only 34 eighth grade students in FCS read at or above proficient levels at the end of the 2016-2017 school year<sup>13</sup>. (Exhibit M)
3. Until as recently as three years ago, reading Interventionists delivered Tier 2 and 3 reading interventions to students, likely through the first FCS implementation of MiBLSi. However, these reading Interventionist positions have since been eliminated from FCS schools.
4. FCS Tier 1 teachers have not been effectively trained in evidence based instructional and behavioral interventions and resources for interventions are inconsistent between FCS schools and grade levels.
5. FCS Tier 1 teachers are responsible for designing, monitoring, and providing Tier 2 instructional interventions, some during their Tier 1 instructional time. If there is a Tier 1 classroom with an unqualified substitute teacher, the students in that classroom do not receive any additional support.
6. There are Behavior Specialist positions in FCS schools; however, these positions are filled through the use of the outside contractor, PSEG, so the specialists are not FCS employees. Teacher licensure in Michigan is not required for employees in the Behavior Specialist positions.

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7. In several FCS schools, the Social Worker is responsible for designing a behavior plan for a student in need of additional behavioral support. There are current vacancies posted for Social Workers for FCS and the current FCS Social Workers have massive caseloads of students and are often shared between many FCS schools. There are currently not enough Social Workers in FCS to be able to adequately and effectively provide students with targeted Tier 2 behavioral interventions.
8. Tiers 2 and 3 are intended to be short-term and continually progress monitored. Neither are being consistently enforced in FCS.

From my review of resources and discussions with FCS teachers and parents, it is clear that this second implementation of MiBLSi by MDE, GISD, and FCS is wholly inadequate as a means of providing all FCS students with sufficient, much less equitable and immediate, behavioral and instructional support in the aftermath of the widespread lead poisoning. More specifically:

1. Given the widespread and prolonged exposure of FCS students to lead in the water in their homes and schools and the known impacts caused by this type of exposure, all FCS students should automatically be considered *at-risk* and eligible for additional behavioral and instructional support across all tiers.
2. The MiBLSi cohort model that FCS is proposing as a solution to addressing the needs of FCS students has never been implemented in a school district that has had the vast majority of its community, students and employees, subjected to prolonged lead poisoning; therefore, the effectiveness of the MiBLSi implementation on identifying and supporting FCS students is completely unknown.<sup>14</sup>
3. The full implementation of MiBLSi will take several years meaning that all FCS students are *still* being forced to wait for adequate instructional and/or behavioral support. For example, MiBLSi support in FCS does not even propose the collection of initial behavioral data through the screening of each FCS student until the spring of 2018 (Exhibit E), over two and half years after. Dr. Mona Hanna-Attisha held the press conference that started the Flint “water crisis”<sup>15</sup> and more than two years after her sworn testimony (Exhibit B). In fact, in 2016, the FCS Superintendent testified under oath that the water crisis presents “an evolving educational emergency and we haven’t the time for five year planning cycles – we need support now and into the future”.
4. Even more concerning is that MiBLSi reports that components of the initiative have not been validated for use beyond the middle school level, leaving doubt that MiBLSi is adequate to support high school students, let alone FCS high school students who have had prolonged exposure to lead and many years of ineffective Tier 1 instruction. A study in Massachusetts demonstrated that lead poisoning impacts were significant on high school students: “after controlling for other sociodemographic factors, the persistent toxicity of lead was directly associated with serious impairments in academic success,

<sup>14</sup> <https://miblsi.org/results>

<sup>15</sup> <http://www.freem.com/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/>

including a seven-fold increase in failure to graduate from high school, lower class standing, greater absenteeism, and impairment of reading skills...”<sup>16</sup> (Exhibit I, p. 12)

5. MiBLSi has no authority over local FCS decision-making and is only as effective as the fidelity to which FCS implements the MiBLSi/MTSS model. In fact, the MiBLSI research cites the lack of implementation fidelity by some participating school districts as one reason for the “less dramatic increases in reading scores and inconsistent reduction in discipline referrals.” (Exhibit J) Moreover, MiBLSi also acknowledges that “while implementing with fidelity may increase the likelihood that students will benefit from an integrated Multi-Tier System of Supports, attaining fidelity requires substantial focus and hard work on the part of school staff.” Considering that all FCS teachers have not received training in MiBLSi, it is difficult to determine that the focus and hard work needed will actualize in FCS.
6. The ability to fill the essential MiBLSi support positions with *qualified* individuals is critical to the effective implementation of the MTSS. As of October 16, 2017, the FCS website shows vacancies for an MTSS Coordinator (Exhibit K), classroom teachers, Social Workers (Exhibit L), and a Data Coach (Exhibit P).
7. MiBLSi only addresses the areas of reading and behavior. There are no consistent math interventions for students in FCS<sup>17</sup>.

The lack of consistent training and capacity building of all FCS employees in the effective use of an MTSS model, let alone best practices in instruction and behavior for Tier I, further compounded by the use of untrained substitutes in positions vital to the effectiveness and fidelity of the MiBLSi implementation, cause a tremendous amount of concern for the validity of support currently offered to the FCS community by MDE, GISD, and FCS leadership. As Mr. Tawwab rightly stated, “the day has come to stop asking the children of the Flint community to pay the price for the mistakes of others.” The inadequate education provided to FCS students coupled with the complete lack of expedient, comprehensive and responsive support from FCS, GISD, and MDE leadership in the aftermath of the widespread, prolonged lead poisoning of all FCS students continues to make victims of the very community who have already paid so significantly for the mistakes of others.

I declare under penalty of perjury that the foregoing is true and correct.



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Gail E. Lovette, Ph.D.

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Date

<sup>16</sup> Needleman et al. 1990, as cited in Center for Disease Controls (2015). *Educational interventions for children affected by lead*.

<sup>17</sup> <https://miblsi.org/practices>



# LOVETTE REPORT

## Exhibit A

## **Gail E. Lovette**

Ruffner Hall 168, Curry School of Education, University of Virginia  
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gail@virginia.edu  
434-982-4879

### **EDUCATION**

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**University of Virginia**, Charlottesville, VA

**Ph.D.**, Reading Education, 2014

Dissertation: *Reading preparation of principals: A review of U.S. initial principal licensure requirements*

Advisor: Michael C. McKenna, Ph.D.

**The George Washington University**, Washington, DC

**M.A.**, Educational Leadership and Administration, 2006

**State University of New York, College at Geneseo**, Geneseo, NY

**B.S. in Education**, Elementary Education, 2000

### **PROFESSIONAL LICENSURE**

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Virginia Postgraduate Professional License, Administration and Supervision, PK-12

Virginia Postgraduate Professional License, Elementary Education, PK-6

Virginia Postgraduate Professional License, Reading Specialist

### **UNIVERSITY EXPERIENCE**

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**University of Virginia**, Curry School of Education, Charlottesville, VA

**Assistant Professor, Research Faculty & Director of Turnaround Projects**,  
2016-present

Principle Investigator and Director of Curry partnerships with Virginia Department of Education priority-identified elementary schools to sustainably build leadership and instructional capacity through coaching, modeling, and collaborative professional learning through federal School Improvement Grant (SIG) funding.

Total overall funding: \$3.3 million

#### **Instructor**

- EDIS 5730, Reading Diagnosis and Remediation I: PreK-2<sup>nd</sup> grade, Fall 2017, 2016
- EDIS 5740: Reading Diagnosis and Remediation II: Grades 3 through High School, Spring 2018, 2017, 2014
- Instructional Leadership in Literacy and Numeracy Workshop, Summer 2017
- EDIS 7700, Foundations of Reading Instruction, Spring 2016, Summer 2016
- EDIS 7720, Word Study: Language Structures and Phonics, Fall 2015, Spring 2016, Summer 2016
- EDIS 5310: Differentiating Reading Instruction, Fall 2014, Spring 2015

- EDIS 7710: Reading in the Content Areas (online), Spring 2013, Summer 2014
- EDIS 5710: Reading in the Content Areas (online), Fall 2013
- EDIS 5010: Curriculum and Instruction for Elementary and Special Education, Fall 2011
- EDIS 5410: Young Adult Literature (online), Summer 2012, Summer 2011
- EDIS 2010 and 2881: Teaching as a Profession and Field Experience, Spring 2011, Fall 2010

**Longwood University**, School of Education and Human Services, Farmville, VA  
**Adjunct Instructor**

- READ 550: Literacy and Learning in the Content Classroom, Summer 2015, 2016
- READ 530: Adolescent Literacy, Summer 2016

### **CLINICAL UNIVERSITY EXPERIENCE**

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**McGuffey Reading Center**, Sheila C. Johnson Center for Human Services, Curry School of Education, University of Virginia, Charlottesville, VA  
*Clinician*, 2014-present

*Education and Outreach Specialist*, 2014-2015

**McGuffey Reading Center**, University of Virginia, Charlottesville, VA

*Doctoral Supervisor*, Afterschool Reading Clinic, Fall 2012

Clinical Supervisor: Latisha Hayes, Ph.D.

*Clinician*, Summer Reading Clinic, Summer 2012

*Doctoral Student Clinician*, Diagnostic Reading Clinic, Spring 2012, Fall 2011

Clinical Supervisors: Marcia Invernizzi, Ph.D., Latisha Hayes, Ph.D.

*Graduate Student Tutor*, Summer Reading Clinic, Summer 2011

Clinical Supervisor: Latisha Hayes, Ph.D.

### **PROFESSIONAL K-12 EXPERIENCE**

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**Falls Church City Public Schools**, Falls Church, VA

*Administrator*, 2008-2010

**Alexandria City Public Schools**, Alexandria, VA

*Administrator*, 2006-2008

*Teacher*, 2001-2007

### **PUBLICATIONS**

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#### **Peer Reviewed Publications**

**Lovette, G. E.** (2013). Reading preparation of secondary ELA teachers: A U. S. survey of state licensure requirements. *Journal of Adolescent and Adult Literacy*, 57, 193-203. doi:10.1002/JAAL.222

Ruday, S., Conradi, K., Heny N., & **Lovette, G. E.** (2013). "You can't put the genie back into the bottle": English teachers' beliefs and attitudes regarding digital

literacies in the classroom. *Literacy research, theory, method and practices* (formerly the *LRA yearbook*, 62<sup>nd</sup> edition), 198-214.

#### **Invited Commentary**

Willingham, D. T., & Lovette, G. E. (2014, September 26). Can reading comprehension be taught? *Teachers College Record*. Retrieved from <http://www.tcrecord.org/Content.asp?ContentID=17701>

#### **Manuscripts in Review**

Lovette, G. E., & McKenna, M. C. (in review). Reading preparation of principals: A review of U.S. initial principal licensure requirements

#### **Invited Book Chapter**

McKenna, M. C., Franks, S., & Lovette, G. E. (2011). Using reading guides with struggling readers in grades 3 and above. In R. L. McCormick & J. R. Paratore (Eds.), *After early intervention, then what?: Teaching struggling readers in grades 3 and beyond* (2nd ed.). Newark, DE: International Reading Association.

#### **Other Publications**

- Lovette, G. E., Smith, J., & Brodeur, K. (2013). *Literacy Research Association Doctoral Student Innovative Community Group Summer Newsletter*.
- Lovette, G. E., Smith, J., & Brodeur, K. (2013). *Literacy Research Association Doctoral Student Innovative Community Group Winter Newsletter*.
- Schudlt, L. C., Lovette, G. E., & Smith, J. (2012). *Literacy Research Association Doctoral Student Innovative Community Group Fall Newsletter*.
- Schudlt, L. C., Lovette, G. E., & Smith, J. (2012). *Literacy Research Association Doctoral Student Innovative Community Group Summer Newsletter*.
- Schudlt, L. C., Lovette, G. E., & Smith, J. (2012). *Literacy Research Association Doctoral Student Innovative Community Group Winter Newsletter*.
- Hughes, E. M., Schudlt, L. C., & Lovette, G. E. (2011). *Literacy Research Association Doctoral Student Innovative Community Group Fall Newsletter*.
- Hughes, E. M., Schudlt, L. C., & Lovette, G. E. (2011). *Literacy Research Association Doctoral Student Innovative Community Group Summer Newsletter*.
- Hughes, E. M., Schudlt, L. C., & Lovette, G. E. (2011). *Literacy Research Association Doctoral Student Innovative Community Group Winter Newsletter*.

#### **PRESENTATIONS**

- Lovette, G. E. (2014, December). *Reading preparation of principals: A review of U.S. initial principal licensure requirements*. Paper presented at the meeting of the International Reading Association, Marco Island, FL
- Lovette, G. E. (2014, December). *Academia 101: Navigating the journey from doctoral student to literacy professional*. Alternative session presented at the meeting of the International Reading Association, Marco Island, FL.
- Lovette, G. E., Smith, J., & Brodeur, K. (2013, December). *Doctoral Student Innovative Community Group Study Group Series*. Daily study groups presented at the annual meeting of the Literacy Research Association, Dallas, TX.
- McKenna, M. C., Cohen, J., China, K., Lovette, G. E., & Copp, S. B. (2013, April). *Technology and literacy: The Microsoft Teacher Education Initiative's new open-*

- access tools for teacher educators*. Paper presented at the meeting of the International Reading Association, San Antonio, TX
- Lovette, G. E., & Copp, S. B.** (2012, November). *Reading preparation of secondary ELA teachers: A national survey of state requirements*. Paper presented at the annual meeting of the Literacy Research Association, San Diego, CA.
- Ruday, S., Heny, N., Conradi, K., & **Lovette, G. E.** (2012, November). *Secondary English Teachers' Beliefs and Attitudes Regarding Digital Literacies in the Classroom*. Paper presented at the annual meeting of the Literacy Research Association, San Diego, CA.
- Schuldt, L. C., **Lovette, G. E., & Smith, J.** (2012, November). *Doctoral Student Innovative Community Group Study Group Series*. Daily study groups presented at the annual meeting of the Literacy Research Association, San Diego, CA.
- Jang, B. G., Paik, H., & **Lovette, G. E.** (2012, November). *Korean literacy teachers' beliefs about the Korean national curriculum and standards and their implications for American education*. Paper presented at the annual meeting of the National Council of Teachers of English, Las Vegas, NE.
- Salerno, A.S., & **Lovette, G. E.** (2012, March). *Licensure Requirements: A State-by-State Synthesis of Regulations for ESOL and Content Area Teachers*. Paper presented at the annual meeting of the TESOL International Association, Philadelphia, PA.
- Hughes, E. M., Schuldt, L. C., & **Lovette, G. E.** (2011, November). *Doctoral Student Innovative Community Group Study Group Series*. Daily study groups presented at the annual meeting of the Literacy Research Association, Jacksonville, FL.

## **CONSULTING**

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Virginia Episcopal School, Lynchburg, Virginia, Leadership coaching and providing literacy screening and intervention support with identified secondary students, 2016-17, 2017-18

## **HONORS AND AWARDS**

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*George Graham Scholarship*, Curry Foundation, University of Virginia, 2012-2013  
*Ullin W. Leavell Award*, Curry Foundation, University of Virginia, 2013, 2012, 2011  
*All-University Graduate Teaching Assistant Award in Social Sciences and Education*, Teaching Resource Center, University of Virginia, 2012  
*Outstanding Graduate Teaching Assistant Award*, Curriculum Instruction and Special Education Department, Curry School, University of Virginia, 2012  
*Jean R. Butcher Fellowship*, Curry Foundation, University of Virginia, 2011-2012  
*Barbara Labrecque-Corbin Scholarship*, Curry Foundation, University of Virginia, 2010-2011  
*ETS Recognition of Excellence Award (Praxis II)*, Educational Testing Service, 2003

## **LEADERSHIP AND PROFESSIONAL INVOLVEMENT**

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*Peer Reviewer, The Journal of Adolescent and Adult Literacy*, 2017- 2018  
*Peer Reviewer, P. David Pearson Scholarly Impact Award, Literacy Research Association*, 2016-2018  
*Peer Reviewer, Literacy Research: Theory, Method, and Practice*, 2017

*Proposal Reviewer, Literacy Research Association, 2017, 2015, 2014, 2013*  
*Grant Reviewer, Georgia Striving Readers Comprehensive Literacy Program, Georgia Department of Education, 2015, 2014, 2013*  
*Session Chair, Literacy Research Association, 2017, 2015, 2013*  
*Peer Reviewer, The High School Journal, 2014*  
*Alumni Liaison, Doctoral Students Innovative Community Group, Literacy Research Association, 2013- 2014*  
*Co-Chair, Doctoral Students Innovative Community Group, Literacy Research Association, 2010- 2013*  
*Peer Reviewer, Literacy Research Association Yearbook, March 2013*  
*Guest Area Co-Editor, Journal of Literacy Research, December 2010*

**PROFESSIONAL AFFILIATIONS**

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American Educational Research Association  
International Literacy Association  
Literacy Research Association  
National Middle School Association  
Society for the Scientific Study of Reading

# LOVETTE REPORT

## Exhibit B

**Testimony of Dr. Mona Hanna-Attisha**

**House Democratic Steering and Policy Committee**

***“The Flint Water Crisis: Lessons for Protecting America's Children”***

**February 10, 2016**

Good afternoon. I would like begin by thanking Leader Nancy Pelosi, Co-chairs Congresswoman Rosa DeLauro and Congresswoman Donna Edwards, and of course Congressman Dan Kildee, for the opportunity to speak to the Democratic Steering and Policy Committee regarding the Flint Water Crisis. This is a very important topic and I am pleased you have chosen to devote this hearing to discuss the situation and the urgent needs of the Flint community.

**Background**

On April 26, 2014, the city of Flint changed its water source from Detroit-supplied Lake Huron to the Flint River water as a temporary measure until a new pipeline to Lake Huron was completed. Water from the Detroit Water and Sewage Department had very low corrosive potential for lead, while the Flint River water had a higher corrosive potential. This is due to a number of factors, including higher levels of chloride, a high chloride-to-sulfate mass ratio, and most importantly, a lack treatment with corrosion inhibitor. Additionally, due to population loss and high water rates, water usage in Flint decreased significantly. The change in the water corrosivity - coupled with the decreased water usage and aging lead-based infrastructure - resulted in a perfect storm for lead to leach into the water.

Lead is a potent, irreversible neurotoxin with lifelong, multigenerational impacts. Blood lead levels (BLL) 5 ug/dL and greater are considered elevated blood lead levels (EBLL). Increasing evidence shows that there is no safe blood lead level and that lead disproportionately impacts low income children. Lead has been linked to decreased IQ and an increased likelihood of ADHD, delinquent behaviors, total arrests, and increased rates of arrests involving violent offenses. There are other adverse effects on health attributable to lead exposure, including but not limited to hematological, cardiovascular, immunological, and endocrine. To examine the impact of the water switch on young children's lead levels, we examined the blood lead levels of children less than 5 years old living in the city of Flint before and after the change in water source. We looked to see what proportion of children had elevated blood lead levels in each time period. We limited the time period to January to September 15, 2013 for the pre-period and January to September 15, 2015 for the post-period. We found that 2.4% of children had elevated blood lead levels in the pre-period compared to 4.9% in the post-period. This doubling was a statistically significant change. When we looked at those areas with the highest reported water lead levels, we found that the rates of elevated blood lead levels in young children more than tripled. (For example, in ward 5 of Flint, there was an increase of 4.9% to 15.7%.) There was no statistically significant change in blood lead levels outside of Flint water limits.

A link to the research publication is provided for reference:

(<http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2015.303003>)

Our data greatly underestimates the number of children affected by lead in the water. We routinely measure blood lead levels for children around age 1 and 2 years. This is because these ages represent when hand-to-mouth behaviors are strongest and children may be exposed to lead through old paint and dust, the “traditional” sources for lead exposure. Lead in water disproportionately impacts developmentally-vulnerable formula-fed infants and pregnant mothers who were not screened for lead in our community.

We know that for about 25% of infants drinking formula made from tap water at 10 ppb, blood lead would rise above the CDC level of concern of 5 ug/dL. Also, blood lead levels may have peaked before being measured as the half-life of lead in the blood is only 20-30 days.

Our data is just a snapshot of a small group of children at one point in time. Due to the extended time period of potential exposure, the likelihood that most living in the area ingested the water directly or cooked with it, and the short time period in which we are able to detect blood lead levels in children, it is highly likely that there are a large number of children whose elevated blood lead levels have gone undetected. All of this has resulted in our need to treat this crisis as a population-wide exposure.

We now have a known population-wide exposure and a traumatized population due to governmental betrayal and the unknown consequences of lead exposure. There is an existential fear among the Flint community, and others, that their children have been poisoned and will have life-long irreversible effects.

### **Moving Forward**

We are now focused on moving forward. Although state of emergency has been declared, it is sadly two years too late. Those of us in the medical and public health fields have an obligation and professional responsibility to help our community rebuild and create a sanctuary where the community's children can recover and flourish. We are now attempting to build a model public health program, the Pediatric Public Health Initiative, to help the children of Flint thrive.

The Pediatric Public Health Initiative is a joint venture between Michigan State University, a land grant university, and Hurley Medical Center, a public academic children's hospital located in the city of Flint. The Pediatric Public Health Initiative has three main aims: we want to assess what has happened; we want to monitor the effects from the water lead exposure, and most importantly and where our greatest energy is focused, we want to intervene so that these children can have the brightest future possible. It is through evidence-based interventions that we believe we can mitigate the effects of the lead exposure and make a difference in a community and in a generation of children. And finally, we hope to use our experiences from this crisis to share best practices with the nation.

The evidence-based interventions we have proposed span the domains of education, nutrition, and medical/health. These are proven interventions to optimize children's health, especially for children with toxic stress. This is a population that faces multiple stressors on a daily basis, given the lower socioeconomic status of over 40% of Flint's population. We are considering the lead exposure essentially one more toxic stress that these children were exposed to.

Within education, these high priority, evidence-based interventions includes universal early education, school nursing, and early intervention (Early On in Michigan). Early education can help to mitigate toxic stress, buffer potential cognitive impact of lead exposure, and promote school readiness. These strategies have a proven return on investment. For school nursing, it is recommended that the minimum student to school nurse ratio should be 1 nurse to 750 well students. Tragically, Flint schools have one general nurse for every 6500 students (1:6500). Unfortunately this is a state-wide problem - Michigan ranks last in the nation in nurse to student ratio. Finally, early interventions (Early On), which provide early developmental services for children with delays, is hamstrung by chronic underfunding. This has created limited capacity and long waitlists for an important program to tackle these problems head on.

Within nutrition, there are both short term and long term needs. We need to address the issues of food insecurity, availability, and access. To put it bluntly, Flint is a food desert. We need to increase capacity of food bank resources to address food insecurity, which could be accomplished through a voucher system. If established, we could create a model program to allow physicians to provide vouchers to families with children when a food insecurity is assessed and recognized as a clear barrier for that family. We should also consider establishing innovative ways to subsidize neighborhood stores. Finally, we should implement

mobile food markets to reach all city wards on a recurring basis with use of centers especially in targeted, at-risk areas.

Within medical/health, we want to promote caregiver capacity. Genesee County runs several evidence-based state, federal, and foundation-funded home visiting programs. All of them have the potential to increase their capacity to serve more families. We also would like to see relaxed eligibility criteria so more mothers and infants can participate in these programs. And finally, we want to increase pediatric healthcare access to a patient centered medical home and encourage initiatives between Medicaid HMOs and Flint/Genesee County medical homes.

These are important interventions to create the wrap around services needed for the lead-exposed people of Flint, both in the short and the long term. I firmly believe that it is imperative for public policy makers at all levels of government, regardless of party or affiliation, to act quickly to address the urgent needs of the Flint community. We need congressional lawmakers to respond to this man-made disaster with the same impetus and robust response as they would for any other kind of disaster. It is my hope that our discussion today, and this committee's interest in Flint, will help spur action by Congress.

Thank you again for the opportunity to address the committee today and I look forward to your questions.



## Testimony of Dr. Yanna Lambrinidou

### House Democratic Steering and Policy Committee

#### *“The Flint Water Crisis: Lessons for Protecting America's Children”*

February 10, 2016

Congresswoman Pelosi, Congressman Kildee, and members of the House Democratic Steering and Policy Committee, I thank you for inviting me to testify at this hearing.

My name is Yanna Lambrinidou, I am the president of Parents for Nontoxic Alternatives, a children’s environmental health organization in Washington, DC, and affiliate faculty in Science and Technology Studies at Virginia Tech. In my capacity as researcher, teacher, and advocate, I have spent the last 9 years conducting ethnographic, investigative, and policy research on lead in drinking water, locally and nationally. In 2014 and 2015, I served on an Environmental Protection Agency (EPA) National Drinking Water Advisory Council (NDWAC) working group convened to develop recommendations for how to best strengthen the federal Lead and Copper Rule (LCR). The working group issued its final report this past August. I filed the group’s sole dissent (attachment 1).

#### **LEAD IN US DRINKING WATER**

The science of lead in drinking water and the history of the LCR point to a sobering reality that we cannot continue to ignore:

Flint and Washington, DC twelve years ago are not outliers. They are canaries in a coalmine. I am not the first to deliver this message. Serious weaknesses in the LCR and evidence of its often suboptimal implementation and enforcement have been noted steadily for the past 12 years in Congressional testimonies,<sup>i,ii,iii</sup> independent governmental and non-governmental investigations,<sup>iv,v</sup> and many media reports.<sup>vi,vii,viii,ix,x,xi</sup>

The LCR is a public health law. It was enacted under the Safe Drinking Water Act (SDWA) of 1974 to protect consumers from lead and copper in drinking water. Yet 25 years after its promulgation, we know this: just in the 4-year period between 2000 and 2004, 274 water utilities exceeded the Rule’s Lead Action Level (LAL) and triggered its remediation requirements.<sup>7</sup> These exceedances alone placed 11.5 million residents at risk of exposure to lead for weeks, months, and potentially even years.<sup>7 1</sup>

What separates these cases from Flint and DC, is that in Flint and DC the contamination was first discovered through lead poisoned children and their parents at a time when the utility met federal standards and assured everyone that the water was safe to drink.<sup>4,xii,xiii</sup> In Flint, it took 18 months for the problem to be confirmed, not by the City but by Virginia Tech;<sup>xiv</sup> in the District it took 2.5 years for the problem to be made public, not by the water utility but by the *Washington Post*.<sup>xv</sup> Subsequently, large-scale health harm was confirmed.<sup>2</sup> When we couple scientific evidence of increased miscarriages, fetal deaths,<sup>xvi</sup> and elevated

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<sup>1</sup> Under the current LCR, water utilities on reduced monitoring are required to sample for lead only once every 3 years. This means that lead-in-water contamination that occurs between sampling rounds can go undetected and unaddressed for extended periods of time.

<sup>2</sup> It is estimated that between 6,000 and 12,000 Flint children and 42,000 DC children may have suffered prolonged exposures (Sanchez, M. 2016. Poisoning Flint’s Water: Political Contempt in Action. *Chicago Tribune*, 1/22; Leonnig, C. D. 2009. High Lead Levels Found in D.C. Kids. *Washington Post* 1/27).

blood lead levels among children<sup>xvii,xviii</sup> with documented deficiencies in the LCR's design, implementation, and enforcement, we are confronted with the harrowing possibility that Flint and DC may have been the "lucky" ones to have gotten caught.<sup>3</sup>

Evidence is mounting that the problem of lead in US drinking water is underestimated and inadequately addressed. Most homes in the country are likely to contain some lead-bearing plumbing – lead solder, leaded brass, a lead service line, or other plumbing components that did not contain lead at first but with time "picked up" lead migrating from other materials. Although all these sources pose a potentially serious health risk to consumers, there is consensus that full and partial lead service lines are the most dangerous. Indeed, current knowledge about these lines ought to give us pause:

- EPA estimates that there are approximately 10 million lead service lines across the country.<sup>xix</sup>
- A 2011 Centers for Disease Control and Prevention (CDC) study found that children in a home with a lead service line were twice as likely as children in a home with no such line to have elevated blood lead levels; and children in a home with a partially replaced lead service line were four times as likely to have elevated blood lead levels as children in a home with no lead pipe.<sup>xx 4</sup>
- A 2013 EPA study found that in water systems with lead service lines, the LCR sampling protocol misses worst-case lead to which consumers may be exposed through routine drinking and cooking practices. The same study reported that lead from service lines tends to peak for indeterminate durations following physical disturbances of these lines.<sup>xxi</sup> In most jurisdictions, such disturbances take place daily (e.g., water main work, other infrastructure work, home renovations, heavy traffic in a home's vicinity). Consequently, chronic and acute exposures to very high lead in water could be occurring in lead service line homes far more frequently and for far longer periods of time than has been documented to date, even in jurisdictions that meet LCR standards.<sup>5</sup>
- A 2015 water industry study found that if the LCR testing protocol for lead were changed to capture water that sat in lead service lines prior to sampling, 50% to 70% of water utilities would exceed the LCR lead action level.<sup>xxii</sup> This means that up to 96 million consumers who are currently being told their tap water is safe, would need to receive urgent alerts about widespread lead contamination and guidance on steps they can take to protect themselves.

As important as this new science is, it comprises only one of many signals that without significant revisions, the current LCR is incapable of preventing large-scale health harm and even death to fetuses, infants, and young children across the US. For example, in 2006, a Government Accountability Office (GAO) investigation found that, "The experiences of EPA, states, and water systems in implementing the lead rule have revealed weaknesses in the regulatory framework, including both oversight and the regulations themselves, which may be undermining the intended level of public health protection. Consequently, some changes to the regulatory framework are necessary."<sup>5</sup> Most of the holes that GAO

<sup>3</sup> There are more cities with similar fates that received media attention due to the fact that knowledge about large-scale contamination was withheld from the public (see Durham, NC in 2006-2007, Sebring, OH in 2015-2016, and Jackson, MS in 2015-2016).

<sup>4</sup> This association stood even when the water met the LCR lead standard; CDC controlled for confounding factors.

<sup>5</sup> This means that chronic and acute exposures to high lead in water could be occurring in lead service line homes far more frequently and for longer periods of time than we have ever documented. According to Miguel Del Toral, EPA Region 5, there is reason to suspect that work by Flint's electric utility company near Lee Ann Walters' lead service line may have contributed to the exceedingly high levels of lead in Ms. Walters' tap water (personal communication).

exposed have still not been closed.<sup>6</sup> That same year, EPA's own review of lead in water in the US revealed that over 2/3 of water utilities that exceed the LAL fail to inform consumers about the contamination.<sup>xxiii</sup> I have seen no evidence that this problem has been fixed. To the contrary, news about Sebring, OH<sup>xxiv</sup> and Jackson, MS<sup>xxv</sup> just in the last few weeks fuel my concern that it has not.

In 2010, EPA's audit of the Michigan Department of Environmental Quality (MDEQ) Water Bureau found significant deficiencies in the agency's capacity to enforce the LCR and ensure the Rule's correct implementation.<sup>xxvi</sup> Six years later, we are faced with a catastrophic lead-in-water crisis, enabled in large part by MDEQ. In 2004 and 2016 the *Washington Post* and the *Guardian* respectively revealed that irregularities in how water utilities monitor for lead and report test results are widespread, and may leave millions of consumers falsely assured about the safety of their tap water.<sup>7,8,9</sup> The same message was delivered to the NDWAC LCR working group in 2014 by Virginia Tech lead corrosion expert Dr. Marc Edwards who emphasized that current levels of lead in US drinking water pose an "unacceptable acute and chronic health threat to consumers," in large part because our water utilities conduct LCR compliance sampling in ways known to miss lead.<sup>xxvii</sup> I have personally uncovered irregularities in water utility sampling methods many times.<sup>7</sup> To date, EPA has taken no decisive measures to put an end to these deficiencies.

### **WHY HAS THE LCR NOT BEEN FIXED YET?**

The honest answer is, I do not know.

Surely, we must take into account the 15% cut in EPA's drinking water budget since 2006 and the resulting reductions in agency staff.<sup>xxviii</sup> But these developments do not explain EPA's long-standing inertia on lead in water or the agency's persistent mantra that "lead in water is not a national problem," even in the face of a steady stream of contradictory evidence from affected communities, independent scientists, the news media, and EPA itself.

For example, two years after the DC lead-in-water crisis that EPA was found to have abetted,<sup>4</sup> the agency received notice that a child in Durham, NC had been lead poisoned from the water, and that Dr. Edwards had expressed concern that similar contamination problems were widespread. EPA's response was that "there is no evidence of a huge public health threat originating from lead in drinking water," and that "[Edwards] wants to say there is an emerging problem" in the absence of evidence.<sup>xxix</sup> Two weeks later, the agency issued its 2006 report on the state of lead in water nationally.<sup>23</sup> Even though this report revealed serious deficiencies in the LCR's implementation and enforcement, EPA concluded that its investigation "did not find a nation-wide problem of high lead levels in drinking water."<sup>xxx</sup>

Nine months later, EPA endorsed a citywide lead-in-water testing initiative in DC public schools that employed a sampling protocol requiring a 45-minute pre-flush at every building the night before water collection.<sup>xxxi</sup> This practice was recognized to be, even at the time, as a remedial measure to temporarily minimize established contamination problems, not to identify whether problems existed in the first place. To this day the agency also allows partial lead service line replacement, a practice that occurs daily in jurisdictions across the US and affects million of consumers, even though studies both in the US and Canada have associated this intervention with short- and long-term lead spikes.<sup>xxxii,xxxiii,xxxiv,xxxv,xxxvi,xxxvii,xxxviii</sup> Perhaps EPA's most ironic failing in relation to lead in water is that 25 years after the LCR's promulgation,

<sup>6</sup> Examples include the need for comprehensive inventories of service line materials that many utilities continue to lack, and procedures to ensure that the homes targeted for LCR-compliance sampling are indeed highest risk for lead in water.

<sup>7</sup> See, for example, <http://flintwaterstudy.org/2016/01/lead-sampling-national-concerns-lambrinidou-letter-to-philly-residents/> and <http://www.washingtonpost.com/wp-dyn/content/article/2008/08/01/AR2008080102964.html>.

the agency cannot claim success in the most fundamental responsibility that that the Rule assigns to the nation's large water systems: implementation of corrosion control treatment that minimizes lead levels at the tap to the greatest degree possible. According to EPA lead corrosion expert Mike Schock, to date no large water utility has implemented the corrosion control studies necessary to achieve this goal as specified by the Rule (see attachment 1).

Against this backdrop, EPA's delayed reaction in Flint was not a complete surprise to me or to my colleagues. Our experience with the agency and its state counterparts is that they have placed the water utility industry in the driver's seat, with one simple rule for the ride: "Anything goes." They have also granted utilities almost complete authority to write the narrative about the supposed success of the LCR in protecting public health. I have heard this narrative many times. It is built on exaggerated claims about how corrosion control treatment has been "optimized" and is effectively addressing lead at the tap. It is filled with unsubstantiated rejections of (or persistent failure to address) evidence revealing suboptimal implementation and enforcement of the Rule in jurisdictions across the nation.<sup>8</sup> More disturbingly, it tends to attribute lead contamination problems to consumers who are the "owners" of leaded plumbing, or who collected water from the wrong tap, or who could not follow simple sampling instructions, or who would not agree to full lead service line replacement against their own best interests.<sup>xxxix</sup>

This is the cultural context in which DC's and Flint's crises unfolded. It is a context that allows for the treatment of innocent people as incompetent and subhuman, their lives and futures as expendable, and any harm inflicted on them from lead in their water as banal. Alternative perspectives are rarely invited to the table or given credence when they are expressed. The end result is an EPA and state apparatus trapped in an echo chamber of assurances that are divorced from the science and the history of harm. One EPA employee I know who stepped out of this echo chamber is Miguel Del Toral of EPA Region 5. In March 2014, Mr. Del Toral cancelled his membership with the powerful trade and lobby group the American Water Works Association (AWWA) in protest against the group's positions on lead in water. In his letter to AWWA, he wrote that he could not support their agenda "in good conscience as a scientist and public servant" (see attachment 2). I think that in our efforts as a nation to prevent more DCs and Flints, we would be remiss to overlook EPA's and the states' relationship with the water utility industry.<sup>9</sup>

### **WHAT IMPROVEMENTS ARE NEEDED?**

My October 2015 dissenting statement to the EPA NDWAC offers a detailed discussion of the regulatory improvements I recommend. My position is echoed in separate recommendations from the Northeast-Midwest Institute and a national coalition of groups and individuals spearheaded by Earthjustice (see attachments 3 and 4). For the purposes of this testimony, I would like to highlight the following five points:

1. The current Rule allows for every home to dispense up to 15 ppb lead, and for up to 10% of homes to dispense any concentration of lead whatsoever. The end result is that water claimed to be safe from a strictly regulatory standpoint can, in reality, dispense high enough levels of lead to cause miscarriages, fetal deaths, and chronic and acute exposures to lead in infants and young children. This contradiction must be eliminated immediately through revisions to the Rule that link utility compliance to public health protection, both in terms of lead level minimization and in terms of robust public education.

<sup>8</sup> See, for example, the 2/8/16 PA Department of Environmental Protection misleading assurance to the public that Pennsylvania tap water is safe because it meets the LCR lead action level, despite current concerns about Philadelphia's lead-in-water monitoring program: <http://www.pnnewswire.com/news-releases/pennsylvania-water-systems-not-the-cause-of-lead-exposure-300216823.html>; <http://www.theguardian.com/environment/2016/jan/22/water-lead-content-tests-us-authorities-distorting-flint-crisis>.

<sup>9</sup> In 2014, Dr. Edwards also terminated his membership with AWWA due to similar concerns (see attachment 5).

2. On a related note – unlike any other drinking water regulation, the LCR is a “shared responsibility” rule that renders consumers partly responsible for protecting themselves from lead at the tap. The catch? It does not tell consumers about this arrangement. For the LCR’s shared responsibility regime to work, the public must be treated as a partner who has a right to complete and accurate information about lead in water, easy access to all of utility lead-related data and interventions, and a seat at the table at all discussions about lead in water, locally and nationally. It is now all too clear that consumer perspectives and oversight are essential for achieving necessary improvements to the LCR.
3. We must demand that EPA bans all irregularities in lead-in-water monitoring and that for areas with lead service lines, it requires utilities to capture lead service line water.
4. We must make it a national priority to remove all lead service lines – intact and partially replaced – as soon as possible. In the meantime, we must ensure first, that corrosion control treatment is strengthened to address the high lead that leaches from these lines, and second, that robust public education is delivered to alert the millions of people in lead service line homes to the risk involved.
5. We must fund EPA’s severely underfunded water infrastructure research branch (i.e., Mike Schock and Darren Lytle) for work on lead in drinking water that can offer direct support to utilities, states, and the community of engineering consultants, who are trying to balance complex corrosion control treatment requirements with all other drinking water regulations in an aging infrastructure.

#### **WHAT COULD HAVE BEEN DONE TO PREVENT THE HARM IN FLINT?**

Preventing public health harm in a city with lead service lines where the utility and/or state ignore the requirements of the LCR can be difficult. However, I think that measures can be taken to increase the chances that improper implementation of the LCR and potential problems with lead in water are identified and addressed sooner than they were in Flint.

These measures would include:

- Complete transparency in accessible language (and with links to the Rule’s actual language) describing the LCR’s requirements both in terms of corrosion control treatment and monitoring for lead at consumer taps.
- Complete transparency of all lead-related data and interventions, including what corrosion control treatment is used; what (if any) changes to this treatment are made, when, why, and who approved them; which homes are sampled for LCR-compliance purposes (with disclosure of full addresses upon resident consent); what protocol is used for the sampling; and what the lead-in-water test results are.
- Citizen involvement in the design and execution of lead-in-water monitoring for every monitoring cycle.
- Regular training of utility and state staff about the science, health effects, and history of lead in water in the US, the LCR, and their responsibilities as employees of regulated entities or oversight agencies respectively.
- Regular training of EPA employees about the agency’s responsibility in relation to the LCR’s implementation and enforcement, as well as about the agency’s authority to issue violations and emergency orders when the public’s health is at imminent risk.

We must keep in mind that Flint's lead-in-water problem was uncovered because Lee Anne Walters thought to contact EPA, EPA brought her in touch with Mr. Del Toral, and Mr. Del Toral took the time to explain to Ms. Walters how lead leaches into water and what the LCR requires utilities to do to minimize human exposures. This partnership between informed and active consumer, on the one hand, and informed and conscientious public servant, on the other, was key to preventing worse harm in Flint than what we are confronted with today. In fact, it is what enabled Ms. Walters to discover that corrosion control treatment had not been used after the City's switch to Flint River water. According to Mr. Del Toral, hearing this discovery from Ms. Walters was confusing, if not hard to believe.<sup>xi</sup> And yet it turned out to be true.

Without significant revisions to the LCR and changes to institutional cultures of alienation from consumers, I fear that more generations of innocent people will continue to get harmed unnecessarily.

## REFERENCES

- <sup>1</sup> Schwartz, P. 2004. Congressional Testimony. <http://www.dwatch.com/wasa/040521i.htm>.
- <sup>1</sup> Edwards, M. 2004. Congressional Testimony. <http://www.dwatch.com/wasa/040305h.htm>.
- <sup>1</sup> Edwards, M. 2016. Congressional Testimony. <https://oversight.house.gov/wp-content/uploads/2016/02/Edwards-VA-Tech-Statement-2-3-Flint-Water.pdf>.
- <sup>1</sup> Holder, E. H., Jr. 2004. Summary of Investigation Reported to the Board of Directors of the District of Columbia Water and Sewer Authority, Covington & Burling (7/16).
- <sup>1</sup> Government Accountability Office (GAO). 2006. Drinking Water: EPA Should Strengthen Ongoing Efforts to Ensure that Consumers are Protected from Lead Contamination. <http://www.gao.gov/new.items/d06148.pdf>.
- <sup>1</sup> Stith, P. 2006. Lead Threat. *IRE Journal* (11/1).
- <sup>1</sup> Leonnig, C. D. and D. Nakamura, 2004. Several U.S. Utilities Being Investigated for Lead: Water Agencies Have Hidden or Misrepresented Test Results, Records Show. *Washington Post* (10/13). <http://www.washingtonpost.com/wp-dyn/articles/A30896-2004Oct13.html>.
- <sup>1</sup> Leonnig, C. D. et al., 2004. Lead Levels in Water Misrepresented Across U.S.: Utilities Manipulate or Withhold Test Results to Ward Off Regulators. *Washington Post* (10/4). <http://www.washingtonpost.com/wp-dyn/articles/A7094-2004Oct4.html>.
- <sup>1</sup> Milman, O. 2016. US Authorities Distorting Tests to Downplay Lead Content of Water. *The Guardian* (1/22). <http://www.theguardian.com/environment/2016/jan/22/water-lead-content-tests-us-authorities-distorting-flint-crisis>.
- <sup>1</sup> Schmidt, S. and D. J. Hall. 2016. Lead in Drinking Water Remains a Danger. *Post Crescent* (1/31). <http://www.postcrescent.com/story/news/investigations/2016/01/31/lead-drinking-water-remains-danger/79462854/>.
- <sup>1</sup> Kaplan, S. and C. Hiar. 2012. Toxic Taps: How the EPA's Plan to Get Lead Out of the Water Backfired. *Investigative Reporting Workshop* (8/8) <http://investigativereportingworkshop.org/investigations/toxic-taps/story/toxic-taps-lead-is-still-the-problem/>.
- <sup>1</sup> Lurie, J. 2016. Meet the Mom Who Helped Expose Flint's Toxic Water Nightmare. *Mother Jones* (1/21). <http://www.motherjones.com/politics/2016/01/mother-exposed-flint-lead-contamination-water-crisis>.
- <sup>1</sup> Lambrinidou, Y. Documents obtained via Freedom of Information Act (FOIA) request (available upon request).
- <sup>1</sup> FlintWaterStudy.org. 2015. Flint Town Hall Meeting Presentation and Distribution of Lead Results Across Flint by Ward and Zip Codes. <http://flintwaterstudy.org/2015/09/distribution-of-lead-results-across-flint-by-ward-and-zip-codes/>.
- <sup>1</sup> Nakamura, D. 2004. Water in D.C. Exceeds EPA Lead Limit. *Washington Post* (1/31). [http://www.ewatertek.ca/hm%20files/washingtonpost\\_com%20Water%20in%20D\\_C\\_%20Exceeds%20EPA%20Lead%20Limit.htm](http://www.ewatertek.ca/hm%20files/washingtonpost_com%20Water%20in%20D_C_%20Exceeds%20EPA%20Lead%20Limit.htm).
- <sup>1</sup> Edwards, M. 2014. Fetal Death and Reduced Birth Rates Associated with Exposure to Lead-Contaminated Drinking Water. *Environmental Science and Technology* 48(1):739-746.
- <sup>1</sup> Hanna-Attisha, M., et al. 2016. Elevated Blood Lead Levels in Children Associated With the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response. *American Journal of Public Health* 106(2):283-290.
- <sup>1</sup> Edwards, M., et al. 2009. Elevated Blood Lead in Young Children Due to Lead-contaminated Drinking Water: Washington, DC, 2001-2004. *Environmental Science and Technology* 43(5):1618-1623.
- <sup>1</sup> Delaney, A. 2016. Lots Of Cities Have The Same Lead Pipes That Poisoned Flint. *Huffington Post*. [http://www.huffingtonpost.com/entry/lead-pipes-everywhere\\_us\\_56a8e916e4b0f71799288f54?ir=Homepage](http://www.huffingtonpost.com/entry/lead-pipes-everywhere_us_56a8e916e4b0f71799288f54?ir=Homepage).
- <sup>1</sup> Brown, M. J., et al. 2011. Association Between Children's Blood Lead Levels, Lead Service Lines, and Water Disinfection, Washington, DC, 1998-2006. *Environmental Research* 111(1):67-74.
- <sup>1</sup> Del Toral, M. A., et al. 2013. Detection and Evaluation of Elevated Lead Release from Service Lines: A Field Study. *Environmental Science and Technology* 47(16):9300-9307.
- <sup>1</sup> Slabaugh, R. M., et al. 2015. National Cost Implications of Potential Long-Term LCR Requirements. *Journal of the American Water Works Association* 107(8):E389-E400.
- <sup>1</sup> Environmental Protection Agency (EPA). 2006. Lead and Copper Rule State File Review: National Report (EPA 816-R-06-001).
- <sup>1</sup> Mellino, C. 2016. Another Lead Water Poisoning Scandal Has Erupted, This Time in Ohio. *Ecowatch.com* (1/27). <http://ecowatch.com/2016/01/27/sebring-lead-water-poisoning/>

- <sup>1</sup> Sanburn, J. 2016. Another U.S. City Finds Lead in Its Drinking Water. *Time* (2/5), <http://time.com/4206974/jackson-lead-water-flint/>
- <sup>1</sup> Environmental Protection Agency (EPA) Public Water System Supervision Program. 2010. Final Report: Program Review for the Michigan Department of Environmental Quality Water Bureau, [http://www.epa.gov/sites/production/files/2015-11/documents/program-review-mdeq-water-bureau-20100830-76pp\\_0.pdf](http://www.epa.gov/sites/production/files/2015-11/documents/program-review-mdeq-water-bureau-20100830-76pp_0.pdf)
- <sup>1</sup> Edwards, M. 2014. Lead in Drinking Water 101 [webinar], <http://flintwaterstudy.org/2016/01/lead-in-drinking-water-101/>
- <sup>1</sup> Wines, M. and J. Schwartz. 2016. Unsafe Lead Levels in Tap Water Not Limited to Flint. *New York Times* (2/8). <http://www.nytimes.com/2016/02/09/us/regulatory-gaps-leave-unsafe-lead-levels-in-water-nationwide.html?smprod=nytcore-ipad&smid=nytcore-ipad-share&r=1>
- <sup>1</sup> Clabby, C. 2006. Expert Faults EPA on Lead. *News & Observer* (6/30):A1.
- <sup>1</sup> Environmental Protection Agency (EPA). 2006. Lead and Copper Rule State File Review: National Report [Memorandum], [https://owpubauthor.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/2006\\_07\\_26\\_lcrmr\\_pdfs\\_memo\\_leadreview\\_statefilereview.pdf](https://owpubauthor.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/2006_07_26_lcrmr_pdfs_memo_leadreview_statefilereview.pdf)
- <sup>1</sup> Leonnig, C. D. 2007. Parents Demand New Tests of School Water. *Washington Post* (4/29), <http://www.washingtonpost.com/wp-dyn/content/article/2007/04/28/AR2007042800929.html>
- <sup>1</sup> Britton, A. and Richards, W.N., 1981. Factors Influencing Plumbosolvency in Scotland. *Journal of the Institute for Water Engineers and Scientists* 35(5):349-364.
- <sup>1</sup> Cartier, C. et al. 2013. Impact of Treatment on Pb Release from Full and Partially Replaced Harvested Lead Service Lines (LSLs). *Water Research* 47(2):661-71.
- <sup>1</sup> Cartier, C. et al. 2012. Effect of Flow Rate and Lead/Copper Pipe Sequence on Lead Release from Service Lines. *Water Research* 46(13):4142-52.
- <sup>1</sup> St. Clair, J. et al. 2013. Long-term Behavior of Partially Replaced Lead Service Lines. Oral Presentation at CaNv-AWWA 2013 Inorganic Contaminants Symposium. Sacramento, CA, <https://www.filesanywhere.com/fs/v.aspx?v=8b7062885d6770b6a4ad>.
- <sup>1</sup> Hu, J. et al. 2012. Copper-Induced Metal Release from Lead Pipe into Drinking Water. *Corrosion* 68(11):1037-1048.
- <sup>1</sup> Wang, Y. et al. 2013. Effect of Connection Methods on Lead Release from Galvanic Corrosion. *JAWWA* 105(7): E337-E351.
- <sup>1</sup> Triantafyllidou, S. and M. Edwards 2011, Galvanic Corrosion after Simulated Small-Scale Partial Lead Service Line Replacements. *JAWWA* 103(9):85-99.
- <sup>1</sup> Atkin, E. 2016. Does The EPA Bear Responsibility For Flint? *ThinkProgress* (1/26), <http://thinkprogress.org/politics/2016/01/26/3741139/epa-flint-water-crisis/>
- <sup>1</sup> Smith, L. 2016. After blowing the whistle on Flint's water, EPA "rogue employee" has been silent. Until now. *Michigan Radio* (1/21), <http://michiganradio.org/post/after-blowing-whistle-flints-water-epa-rogue-employee-has-been-silent-until-now#stream/0>.



**Testimony of Dr. Eric Scorsone**

**House Democratic Steering and Policy Committee**

***"The Flint Water Crisis: Lessons for Protecting America's Children"***

**February 10, 2016**

Good Afternoon,

My name is Eric Scorsone and I am an Associate Professor and Director of the Center for Local Government Finance and Policy at Michigan State University. My work has focused on the city of Flint since 2011 and that work includes assisting city officials and the city council with strategic planning, financial analysis and training.

The tragic situation in Flint has many causes. Currently, much of the focus has been on the regulatory process, the question of individual culpability and the water switch. These are all critical questions for which we are still seeking clear answers in many cases. I would like to turn your attention to a root cause that has led to the fiscal distress of Flint, MI and cities like it.

Municipal governments across the country, but especially in Michigan, face the difficult task of maintaining a balanced budget while providing public services to residents. For economically disadvantaged communities like Flint, this tight rope can force a nearly impossible tradeoff between high local taxes or a cut in services. Deep cuts to public services can lead to service level insolvency. Service level insolvency was defined by Judge Rhodes in the city of Detroit bankruptcy case as a situation where, "what this means is that the City is unable to provide basic municipal services such as police, fire and EMS services to protect the health and safety of the people here"<sup>10</sup>.

In short, Flint, MI is an example of where policies to resolve the financial balance sheet crisis have only deepened the lack of critical public services especially important in economically disadvantaged communities. The crux of this crisis lies in the architecture of the local public finance system and our response when that system fails.

Like all states, the state of Michigan is the architect of the local public finance system. As an architect, it decides questions such as what local tax options will be made available and under what restrictions, debt issuance policies, mandated spending and service responsibilities, budget and accounting rules, the amount and type of state aid and even has oversight over the type of local city charter that can be adopted. These rules set the very framework from which local officials must operate and make decisions.

Because of the Michigan Constitution, these local public finance rules must be general for all communities. This means that the rules may favor some communities over others. In Michigan, the local public finance system we have built places our older, central cities at a severe and significant disadvantage<sup>11</sup>. Let us examine several specific factors of how this system works.

First, property taxes are the financial mainstay for most Michigan city governments. The Michigan property tax system severely restricts the ability of city governments to growth their tax base to maintain

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<sup>10</sup> <https://www.mied.uscourts.gov/PDFFiles/DBOralOpinionSummary.pdf>

<sup>11</sup> <http://community-wealth.org/sites/clone.community-wealth.org/files/downloads/paper-mallach-scorsone.pdf>

vital services<sup>12</sup>. MSU research reveals that Michigan ranks 49<sup>th</sup> amongst all states for restricting local property taxes<sup>13</sup>. Today, many urban communities will see property tax revenue growth of barely one half of one percent. Not only does it restrict the growth of property taxes, but in a deep recession can force an almost permanent reduction in the tax base for a generation.

Flint's property tax base has shrunk from over \$1.5 billion ten years ago to just over \$750 million in 2015 and it is still shrinking. Flint property tax revenues have fallen \$10 million in the past decade. Flint's tax base is now smaller than many of its suburban neighbors. Because of Michigan property tax laws, the city's tax base will now only be to grow at the rate of inflation under the best of circumstances meaning several generations before it is anywhere near where it was ten years ago. Current estimates are that Flint's property tax base will not reach its former peak in 2007 until about 2045.

Second, another important revenue source is state aid. A bargain was made in the 1930's that Michigan cities would not levy lots of local taxes in exchange for state revenue sharing. This bargain was particularly important for funding critical local public service such as police and fire. The state has massively reduced revenue sharing over the past decade (over \$5 billion in total for Michigan communities since 2001) in an attempt to balance its own budget<sup>14</sup>. Flint city government has experienced a nearly \$54 million in accumulated cuts in revenue sharing since 2001<sup>15</sup>. Even now as the economy is growing, revenue sharing is barely keeping up with local costs.

Finally, the state mandates a great deal of costs and cost pressures on communities. This combination of cost pressures and restricted revenues leads to an ongoing structural deficit for many city governments. In some urban communities, this structural deficit may be manageable but for those places facing long term economic distress and divestment it is a vice grip.

For these communities, and Flint is a prime example of such a community, there are very few fiscal options. Raising local taxes, as limited as those options are, will simply lead to an outflow of investment and people to surrounding communities. Best estimates are that raising tax rates or leaving new taxes can actually reduce overall local revenues in these communities over time. The surrounding jurisdictions have a lower tax rates and larger tax bases and are at natural advantage at this point in time.

These fiscal policies have had a direct impact on Flint. Flint city government provides the basic public services that citizens use everyday such as police and fire protection, street travel and road safety, neighborhood development, parks and recreation and of course sewer and water service. The city's governmental funds to pay for these services was just about \$100 million in 2005 and as of 2015, ten years later, stands at \$80 million. Revenue losses were felt in state aid (-12%), city income taxes (-32%) and city property taxes (-35%).

The city of Flint has lost 20 percent of its purchasing power before accounting for inflation. Once inflation adjustments are made, the city of Flint lost double or 40 percent of its purchasing power for municipal services. The reduction in purchasing power shows up as direct reductions in services including cuts to public safety. The city has cut two-thirds of its staffing and reduced maintenance for infrastructure and other capital items.

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<sup>12</sup> [https://www.michigan.gov/documents/FINAL\\_Task\\_Force\\_Report\\_5\\_23\\_164361\\_7.pdf](https://www.michigan.gov/documents/FINAL_Task_Force_Report_5_23_164361_7.pdf)

<sup>13</sup> [http://msue.anr.msu.edu/resources/beyond\\_state\\_takeovers](http://msue.anr.msu.edu/resources/beyond_state_takeovers)

<sup>14</sup> [http://www.mlive.com/lansing-news/index.ssf/2014/03/michigan\\_revenue\\_sharing\\_strug.html](http://www.mlive.com/lansing-news/index.ssf/2014/03/michigan_revenue_sharing_strug.html)

<sup>15</sup> *ibid* 5

The city was forced to make up for deficits in the governmental funds by diverting money from the water and sewer enterprises. These diversions from the water and sewer system help partially explain the policy decisions that were to come later. According to state financial review team report in 2011, the city had drained millions from the water and sewer system in an attempt to maintain solvency<sup>16</sup>. Essentially, Flint was using the water and sewer system (and some other pots of money) as an internal loan mechanism to keep itself afloat. All told, the city's water and sewer system were losing millions of dollars via operations and then being drained further through diversions to the governmental funds. These financial decisions were necessary and unavoidable given the ongoing fiscal pressure the city was experiencing from rapidly declining property and income taxes and cuts to state revenue sharing.

These diversions caused a financial crisis in the water supply and sewer system whose balance sheets were running significant deficits in 2011. Flint's Emergency Managers, beginning in 2012, were then forced into a situation of massive increases in water and sewer rates. In total, rate hikes in 2011 and 2012 amounted to a nearly 200 percent increase and the average Flint sewer and water bill was \$168 a month by the summer of 2012<sup>17</sup>. These rate hikes, while creating a degree of temporary financial stability in the city sewer and water balance sheets, had the consequence of creating some of the most unaffordable water rates in the nation<sup>18</sup>. In these rate decisions, the consequences of being forced to address balance sheet solvency while ignoring the implications for public services to residents are in clear view.

Even as Michigan cities are operating under severe fiscal constraints, the state has designed a policy to address local financial emergencies via the emergency manager (EM) law. The law is premised on the concept that the basic problem is local mismanagement and inefficiencies. These local inefficiencies are then presumed to translate into budget deficits. If this is the only source of fiscal troubles, the law may purport to work as stated. However, as we have documented above, Michigan cities are operating with a set of policies that create a structural deficit. In this environment, EM's will be of limited use at best.

Emergency managers are "an accounting solution to a structural problem". They are unable to change state policies, redirect state aid or force consolidation with their neighboring jurisdictions. The one tool that EM's may be said to have that city councils and mayors do not is the power to terminate contracts and disregard city charter provisions. However, even some of those powers are being challenged on constitutional grounds in federal court.

Flint's emergency managers, lacking any real tools to address the underlying economic and fiscal distress facing the community, have been forced to take actions to partially restore fiscal stability at the expense of citizen's economic interests and public service provision. EM's focus most of their efforts at cost cutting and every EM has left a city with a balanced budget. The EM's have been able to restore balance sheet solvency, but at what cost?

The cost has clearly come in the form of service level insolvency. Today, the city of Flint can barely manage to provide the most critical public services that one would expect in a modern American city. The private sector has not come in and restored those services because there is no market that exists. In 2013, Flint was tallied as having the nations highest arson rate and only one full time arson inspector<sup>19</sup>. At the same time, a 2015 report indicated that Flint had the highest homicide rate in the nation. This is the face of a nearly 60 percent reduction in overall police staffing for the city over the last decade<sup>20</sup>. According to

<sup>16</sup> [http://www.michigan.gov/documents/treasury/Flint-ReviewTeamReport-11-7-11\\_417437\\_7.pdf](http://www.michigan.gov/documents/treasury/Flint-ReviewTeamReport-11-7-11_417437_7.pdf)

<sup>17</sup> [http://www.mlive.com/news/flint/index.ssf/2012/05/drill\\_baby\\_drill\\_flint\\_water\\_r.html](http://www.mlive.com/news/flint/index.ssf/2012/05/drill_baby_drill_flint_water_r.html)

<sup>18</sup> [http://www.mlive.com/news/flint/index.ssf/2015/03/erin\\_brockovich\\_associate\\_says.html](http://www.mlive.com/news/flint/index.ssf/2015/03/erin_brockovich_associate_says.html)

<sup>19</sup> [http://www.mlive.com/news/flint/index.ssf/2013/03/burning\\_flint\\_10\\_cities\\_with\\_t\\_1.html](http://www.mlive.com/news/flint/index.ssf/2013/03/burning_flint_10_cities_with_t_1.html)

<sup>20</sup> [http://www.mlive.com/news/flint/index.ssf/2015/09/homicide\\_rate\\_spikes\\_as\\_flint.html](http://www.mlive.com/news/flint/index.ssf/2015/09/homicide_rate_spikes_as_flint.html)

engineering studies, the city has water loss rate from poor infrastructure of upwards of 35 percent annually. Across the board, spending cuts have directly impacted city services.

Flint's Emergency managers have left the city in 2015 with a balanced budget. Balance sheet solvency does not necessarily translate into service level solvency. The reality is that the financial balance sheet, unlike in the case of a private corporation, cannot capture the true value of the services provide by a city government. Michigan, and many other states, need to begin the process of crafting an urban fiscal policy that rebuilds the state-local government relationship. As the architect of the local public finance system, the state can seek out a different set of plans that foster fiscal and service level solvency. Such a plan might include enhanced and stable revenue sharing, relaxation of some local tax options, partnerships for intergovernmental cooperation and infrastructure development and the elimination of some state mandates<sup>21</sup>. In so doing, Michigan may be able to prevent many of these municipal financial emergencies from occurring in the first place. As in medicine, prevention can be a much better cure than remediating the problem after the fact.

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<sup>21</sup> [https://www.michigan.gov/documents/FINAL\\_Task\\_Force\\_Report\\_5\\_23\\_164361\\_7.pdf](https://www.michigan.gov/documents/FINAL_Task_Force_Report_5_23_164361_7.pdf)

**Testimony of Superintendent Bilal Kareem Tawwab**

**House Democratic Steering and Policy Committee**

***“The Flint Water Crisis: Lessons for Protecting America's Children”***

**February 10, 2016**

Minority Leader Pelosi, Representative Kildee, and Honorable members of the committee, my name is Bilal Tawwab, Superintendent of the Flint Community Schools, and I am pleased to testify on behalf of the more than 5,400 students of Flint Community Schools, and the emergency situation facing our educational community as a result of the Flint water crisis.

Permit me to clarify the impact of this emergency from the point of view of our students. In August 2015 I started as superintendent of Flint Community Schools and in September 2015 I was faced with making a decision that I no one should have to make. In September 2015, after listening to the press conference lead by Dr. Mona Hanna-Attisha, I made the decision that no student of Flint Community Schools will drink the water. Since my decision we have supplied students with bottled water. Flint Community Schools has been operating in crisis mode since last September. Now when I visit a classroom I may find cases of water for student consumption or a bottle of water on a student's desk. My students cannot walk to the nearest fountain to quench their thirst. This has become their new normal.

For our students, life has changed. There is the constant stress over unsafe water that disrupts the life of a community that already face a multitude of challenges. These circumstances make providing a sound and joyful education even more difficult when students cannot use the drinking fountains or wash an apple to eat. We are counseling students and families on managing the risks of lead contamination. There is an inherent struggle between trying to balance the educational needs of the students while meeting their physical and emotional needs in light of this crisis. Across the city, the threat of significant disability is even more serious for Flint's youngest students, those not yet in school, or the unborn. We have to be practical and organized to support these children, and as Dr. Hanna-Attisha has argued, education and a nutritional diet can help mitigate the effects of lead exposure. We must stay ahead of this aspect of the water crisis so that we do not create additional complications. These children will require our dedicated support as much as two years before they would normally be enrolled in early child education. Some young children who are not yet school age will have unknown health and educational needs that the Flint Community Schools will need to address. While the effects of lead poisoning on our children cannot be fully reversed, there are things we can do to assist our children and provide them full wraparound services.

The Flint Community Schools will need additional support in the form of expanded special education resources. We need lead-free facilities for all students so time can be spent on what matters most – teaching and learning. We need resources to measure the intellectual and emotional damage done to each, and possibly every child. This will require complete testing – both medical and intellectual assessment – to understand the magnitude of our issues. We need early intervention programs to provide the educational support so that each student will have the opportunity to lead a productive life, and year-round schooling to deliver these services. We need the resources to attract and retain talented specialists who are trained in special learning needs. These needs are crucial at time when the district has a looming deficit over ten million dollars. We need your leadership in realizing that this is an evolving educational emergency and we haven't the time for five year planning cycles – we need support now and into the future.

I am asking the members of this Committee and your colleagues in the Congress to join me, our teachers, principals, and parents in remediating this crisis, and in making Flint a better, safer, and more secure place to raise and educate a child. Our current situation is an anxious, heartbreaking challenge, but it is the challenge we face now and well into the foreseeable future. As superintendent, I am dedicated to providing a quality education to all of our students – every child matters. And therefore, I conclude by reminding you that Flint has lost jobs; we have lost infrastructure; we have lost families from our public schools; and now our students have lost faith in our institutions.

The day has come to stop asking the children of the Flint community to pay the price for the mistakes of others. On behalf of the children of Flint, the students that we serve, and the employees of the Flint Community Schools, I thank you for your interest and support.

**Testimony of Flint Mayor Karen Weaver**

**House Democratic Steering and Policy Committee**

***“The Flint Water Crisis: Lessons for Protecting America's Children”***

**February 10, 2016**

To the Honorable Leader Nancy Pelosi, the Honorable Co-Chair Rosa DeLauro, the Honorable Co-Chair Donna Edwards and all the other esteemed Members of this Committee:

Let me begin by thanking the Honorable Chairman Jason Chaffetz and the Honorable Elijah Cummings for starting the Congressional Hearings on this important issue last week. I would like to thank the U.S. Conference of Mayors for standing with me today—and thank you to the President of the Conference, Baltimore Mayor Stephanie Rawlings-Blake, for offering and lending your support. I would also like to thank Congresswoman Brenda Lawrence and Congressman Dan Kildee.

Thank you Leader Pelosi for giving me the opportunity to come before you today, I am humbled and also honored. My name is Dr. Karen Williams Weaver, Mayor of the City of Flint in the Great Lakes State of Michigan. The Great Lakes happen to be the largest fresh surface water system on earth.

I am hoping my presence as well as my testimony today will help move this process forward. On December 14 of 2015, I held a press conference in Flint where I declared a “man-made” disaster: My beloved hometown has had its water supply poisoned by lead, which means it is undrinkable, it cannot be used for cooking, and although the experts claim it is safe to bathe in, and to wash one’s clothes in, the citizens of Flint complained of skin rashes, hair loss and other ailments that they attribute to the water. The water supply in Flint is also unsafe for animals, and pet owners have been instructed to give their pets’ bottled water only. The most vulnerable people have been pregnant mothers, babies and children up to age 6, as well as those with compromised immune systems and the elderly.

As a licensed, clinical psychologist, I know firsthand the effects of lead poisoning on children. It is toxic to many organs and tissues, resulting in permanent learning and behavior disorders, lowered IQ, developmental delays, cognitive deficits. As Mayor of Flint, I have witnessed businesses closing, people getting sick, people moving out. Our tax base has eroded; fear, frustration and anger are beginning to consume the residents who were already dealing with high unemployment, lack of jobs, and a loss of trust and confidence in government officials who have had charge over them.

We are a people who have had our democratic rights taken away from us by the Emergency Manager Law that has been imposed on us in Michigan. Our elected officials have no power to govern themselves and there is no accountability for what these managers do, because they only report to the Governor. We have been subjected to this law since 2011 and because of decisions made under this law, we now find ourselves in this situation. Flint has faced challenges before, but this situation has taken our rights away as citizens of this great nation. When these decisions are made, the people of Flint basically have taxation without representation.

We are living day-to-day getting bottled water from fire stations and other designated sites thanks to the generous donations of people from across the country. Let me say that we are grateful for the outpouring of our fellow citizens for the water donations, however, this is a Band-Aid fix, and the people want a more

permanent solution in regard to fixing our pipes and service lines to individual homes. I have submitted a plan to do this. I believe this is a solution and that it can expedite an end to this manmade disaster.

Flint is ready to move now on a \$55,000,000 "Fast Start" program to address the immediate needs of removing 15,000 local service lines at our houses. I am pleased that, this morning, the Office of the Governor announced it would move to create a \$25 million fund to begin Fast Start; we need that other \$30 million too, whether from the state or the federal government or both. Beyond the Fast Start effort to address the immediate crisis at the service lines, we will need what may be hundreds of millions of dollars to address the broader crisis to the overall Flint water system. I am grateful that the State of Michigan will consider an additional package of \$195 million, announced today, and I am hopeful that the Congress will take up our Congressman Dan Kildee's proposed "Families of Flint Act" to provide more resources for critical water infrastructure.

But our needs and our crisis go far beyond the immediate drinking water contamination. I support the Michigan Congressional delegation's efforts for federal funding that includes funding for infrastructure, education, health services and many other things that my community needs. The "Families of Flint Act" that has been proposed in the House is a step in the right direction because it would provide resources to address the short-term water infrastructure crisis, as well as resources for our longer term challenges to children's health, children's development, jobs and economic development, and other key factors necessary for dignified and productive family lives for the people of Flint – all of which have been put at tremendous risk by the water crisis. Flint needs to address the short-term water crisis, and the longer-term challenge of rebuilding, revitalizing, and remaining a viable and sustainable community. We need the resources in the Families of Flint Act from the federal government, we need the State of Michigan to lead with resources to rectify this crisis, and we need bipartisan support now to move Flint forward.

I implore you on behalf of the citizens of Flint to help us restore our city and rebuild trust and confidence in our government. I submit to you that we are not a disposable people. We deserve equal protection under the law. Safe and clean water is a basic right to all people, including the citizens and residents of Flint, Michigan. We need you on this journey to restore clean water to Flint, and restore trust and confidence to our community who have been poisoned by this man-made disaster.

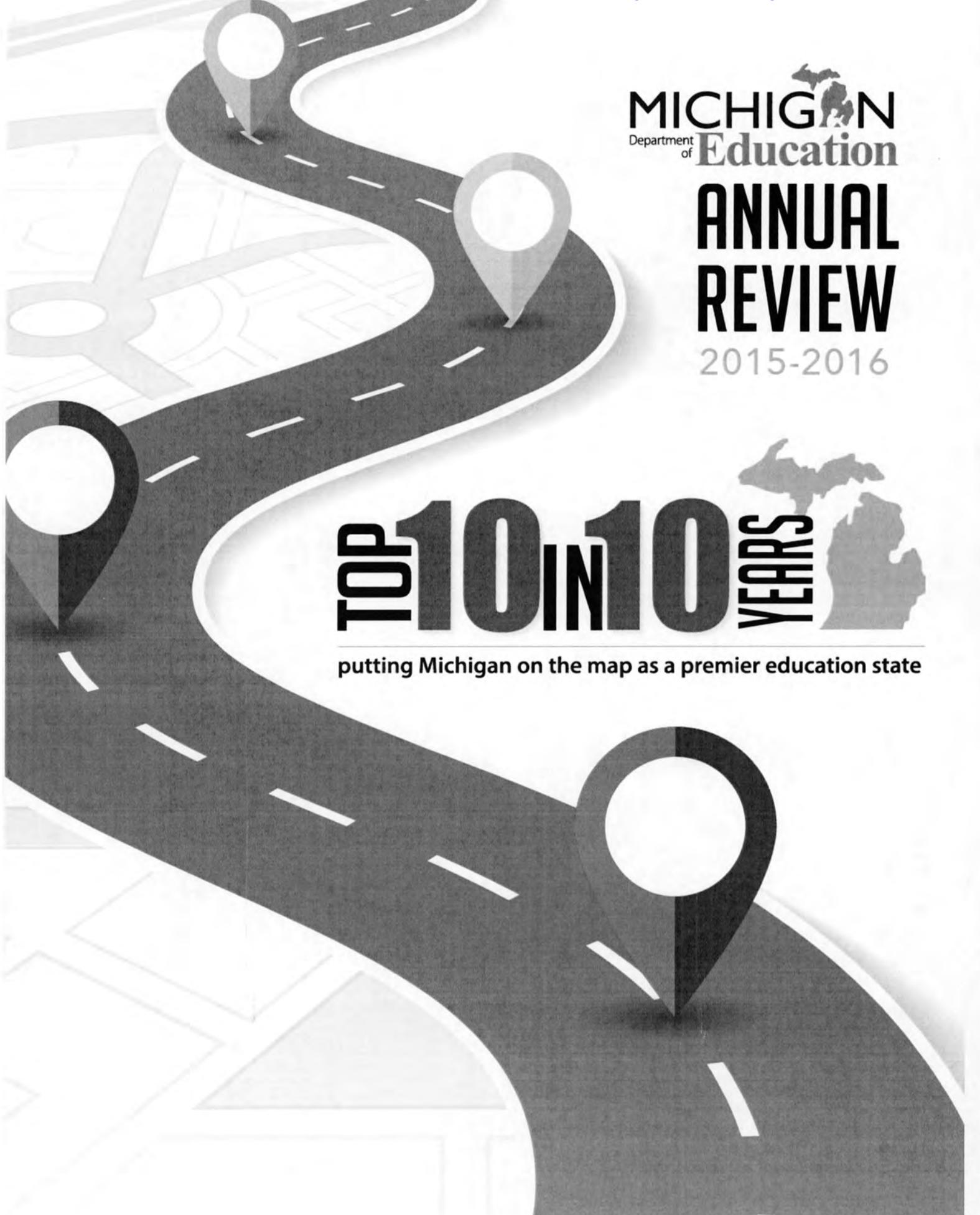
Thank you. I am happy to address any questions or comments you have.

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# LOVETTE REPORT

## Exhibit C



**MICHIGAN**  
Department of **Education**  
**ANNUAL  
REVIEW**  
2015-2016

**TOP 10 IN 10 YEARS**



putting Michigan on the map as a premier education state

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STATE OF MICHIGAN  
DEPARTMENT OF EDUCATION  
LANSING

RICK SNYDER  
GOVERNOR

BRIAN J. WHISTON  
STATE SUPERINTENDENT

Friends,

I am pleased to present you with the 2015-16 Annual Report for the Michigan Department of Education. My first year as State Superintendent has been extraordinarily rewarding as we have begun our work focusing on building Michigan into a Top 10 education state over the next 10 years. It is a vital, if not an easy task and will take the collaboration of everyone in Michigan to make it happen.

This Annual Report is designed to highlight the great strides made in the Michigan Department of Education in supporting schools, districts, educators, students, and parents – through a lens of providing premier customer service.

Also included in this Annual Report are summaries of the major initiatives that are in development and various stages of implementation to improve student and educator success. We are committed to engaging the many stakeholders who have a direct impact on Michigan's system of education – from early childhood learning to post-secondary education and career fulfillment.

With the support and direction from the State Board of Education, the Michigan Department of Education continues to move forward in steering state policy in a positive direction with Governor Rick Snyder and the Michigan Legislature. Building strong, trusting relationships with local school districts, as well as policy and opinion leaders across the state, will foster a respectful conversation to benefit all children in Michigan.

Please read this Annual Report with a hopeful vision that Michigan is just stepping off on a 10-year process to become a Top 10 education state. This won't happen overnight. We need to build the foundation for success and give the plan time to work. Every stakeholder has a role and responsibility to make this happen and we all need to be invested in this effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian J. Whiston".

Brian J. Whiston  
State Superintendent

STATE BOARD OF EDUCATION

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## REPORT SUMMARY

MDE is proud to celebrate the following successes during the past year:

- Meeting the needs of Michigan learners:
  - increasing access to quality early childhood education;
  - focusing on best practices for early literacy in grades K-3;
  - improving K-12 science standards;
  - operating the Michigan School for the Deaf in Flint, serving students from throughout the state who are Deaf or Hard of Hearing and their families;
  - providing flexibility to meet students where they are through seat time, innovative practice, and calendar waivers;
  - ensuring access to nutrition through breakfast and lunch programs;
  - developing a world-class educator evaluation system;
  - expanding opportunities for early/middle college and other post-secondary credit attainment;
  - preparing and supporting students and educators in the use of new technology through the Technology Readiness Infrastructure grants; and
  - requiring fewer hours of testing and improving turnaround time on assessment reporting.
- Engaging education and business leaders to drive education reform and develop a cohesive vision to make Michigan a **Top 10 education state in the next 10 years.**
- Establishing a **partnership model** for academically and financially struggling districts by gathering statewide and local stakeholders to work with these districts address financial and academic improvements.
- Promoting a **customer service focus**:
  - department leadership visiting Michigan's schools across the state;
  - easing reporting burden on school districts by continuing to streamline data requests;
  - providing supports to districts on meaningful educator evaluations; and
  - developing a strong working relationship with the Governor and the State Legislature.



## TOP 10 IN 10 OVERVIEW



One of Superintendent Whiston's initial efforts as State Superintendent was to engage in a statewide public discussion about what it would take to make Michigan one of the Top 10 states with respect to educational systems and outcomes, within the next 10 years. Recognizing that such moves would require considerable engagement and ownership from Michigan's educational stakeholders, the State Superintendent and State Board of Education sought considerable input, both through the presentation of a range of suggestions from major stakeholder organizations at State Board meetings and through an online public forum and survey intended to gather considerations and input. The response was overwhelming, with nearly 4,200 suggestions from more than 800 individuals and organizations across Michigan over a two-month span.

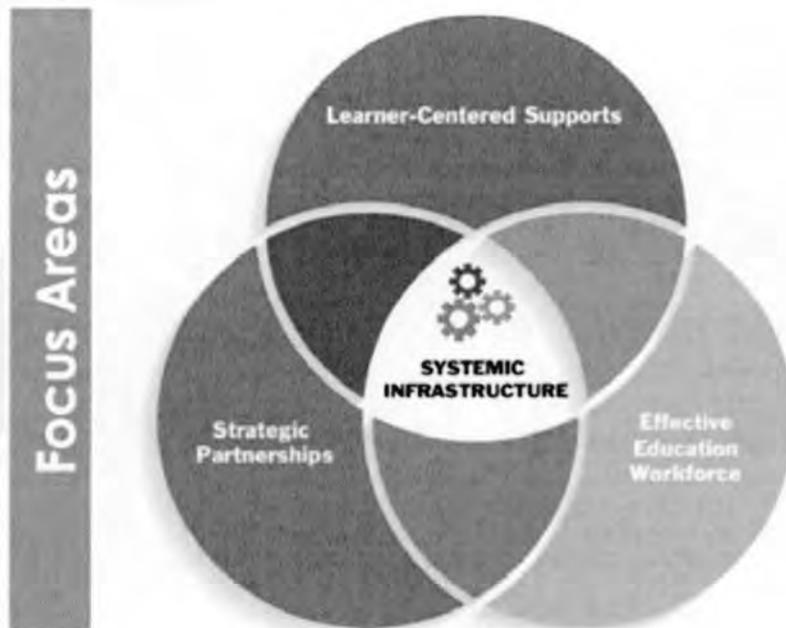
The Michigan Department of Education (MDE) worked with a considerable stakeholder group to coalesce these suggestions into a set of major goals to drive the planning and activities of the state's education community, from state policy-makers to individual classrooms and educators. In December 2015, the State Board adopted a set of broad goals, which were followed up two months later with a set of 44 specific strategies that will support these goals:

- construct a solid and sustainable P-20 system to educate all children for success;
- meet and support the learning needs of ALL children;
- meet and support the professional needs of ALL educators;
- design systems to overcome the disparities experienced by children and schools;
- empower parents and families to actively participate in their child's education;
- partner with employers to develop a strong, educated, and highly-skilled workforce; and
- lead and lift Michigan education through greater service from Lansing.

Since that time, a small group of MDE and external educational leaders have convened to further process these strategies, recognizing that the strategies alone needed greater coherence with one another, and would require actionable, strategic planning to implement. This group engaged in considerable discussion and analysis to better understand the nature of the individual strategies, the potential coherence of multiple strategies within current or future statewide initiatives, and the prioritization of such initiatives into Focus Areas to help guide the education community in Michigan to implement these efforts.



## TOP 10 IN 10 SUMMARY (CONTINUED)

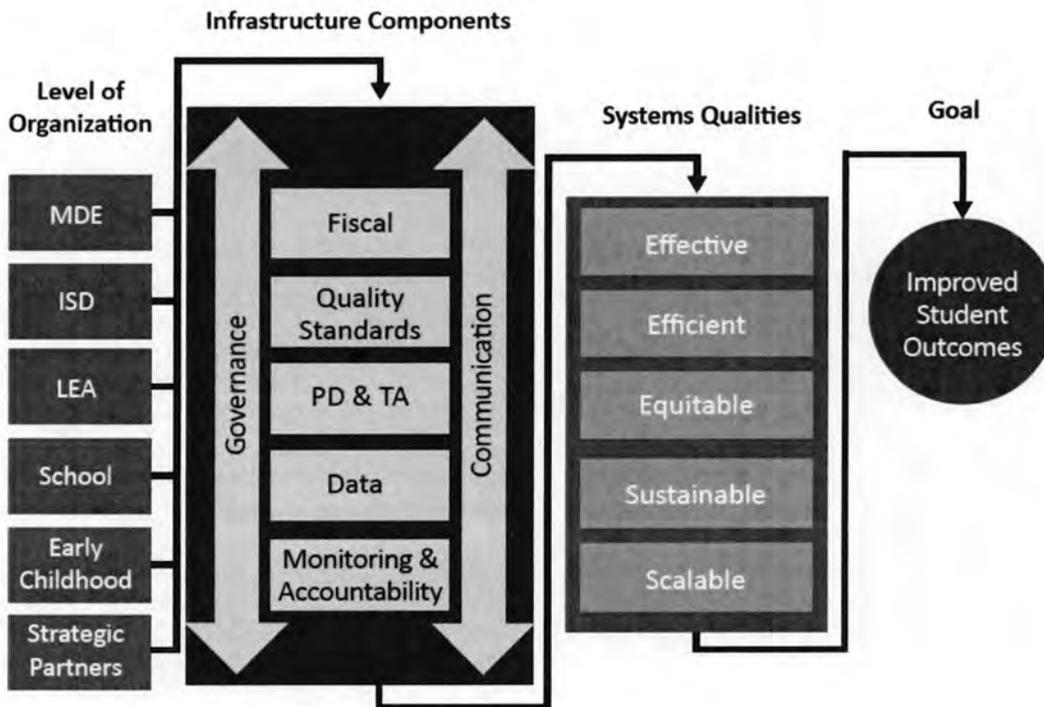


We have identified three basic domains that could serve as Focus Areas for the ongoing work of the state's Top 10 Strategy Plan moving forward. A focus on Learner-Centered Supports situates considerable work around Michigan's primary "customers" of our education system - our students. Within this, Michigan will roll out a series of "Priority Initiatives" that will help align focus and activities for educators, policy makers, and others around major topics such as "Early Literacy" or "Personalized Learning."

The second Focus Area centers on developing an Effective Education Workforce for the state. Again, major cross-cutting initiatives, such as educator evaluation, a reform of educator and administrator preparation, and equitable access to quality educators throughout the state's schools likely will be major initiatives that become priorities for program development, system building, and public awareness and engagement in the coming years of implementation.

The third Focus Area addresses strategic partnerships that are required to ensure quality transitions between educational service fields, ranging from pre-natal family supports to early childhood to the K-12 system to higher education and the business and industry fields that rely on a productive and engaged workforce. This priority focuses on the institutional connections and collaboration that are required to make Michigan a top state, both educationally and economically.

One other effort of the smaller stakeholder groups was to prioritize strategies to determine considerations for early versus later implementation, knowing that it is impossible to focus on everything at once. Using a number of organizational and analysis processes, the group identified the deepest driver to support the quality implementation of the various strategies - the development of our state education agency and our broader educational infrastructure. This work sits at the intersection of these other Focus Areas, and will be a key priority in aligning our education system to support the strategies and goals to be a Top 10 education state. Such efforts also will be incorporated in MDE's state plan for the Every Student Succeeds Act (ESSA), and is being used to engage in a multi-stage reorganization of the department to better support the goals and strategies of this plan.



MDE now is conducting in final stakeholder engagement around these concepts, which will lead to an overall systemic plan, followed by strategic plans on major initiatives that will be implemented in stages so as to develop and build systems and gather implementation feedback as we proceed. MDE also is partnering with multiple technical assistance providers at the state and national level to support the planning, adoption, and implementation of this work moving forward.

## MDE OFFICES RETROSPECTIVE

Throughout the 2015-16 school year, MDE staff engaged in a broad range of activities in support of Michigan's more than 1.5 million public school students and the schools and districts that serve them. The sections below highlight multiple points of pride and key efforts our team was involved in over the past year, as shared by MDE Office Directors.

### SUPPORTS FOR SCHOOLS, DISTRICTS AND EDUCATORS - WITH A FOCUS ON CUSTOMER SERVICE

Superintendent Whiston set forth a charge to MDE to provide excellent customer service to those we serve in the state's educational system. The service and support MDE provides to educators, the higher education programs preparing future educators, local and intermediate school districts, and individual schools across the state takes many forms, including technical assistance, grant funding, streamlined monitoring and review processes, flexibility through waivers, and numerous other partnership efforts. Below are just a few examples:

- **Flint Water Crisis** - MDE is focused on providing increased support and resources for schools, children, and families of Flint. Our efforts are centered in three primary areas: increased access to healthy food, expanded early childhood programs, and enhanced school nursing services. Highlights include:
  - Distributed emergency funds to Genesee ISD and Flint Community Schools.
    - ✓ awarded \$320,000 for 9 nurses in Flint Community Schools;
    - ✓ awarded \$140,000 for fruits, vegetables, low-fat dairy, and other snacks with key nutrients for affected students in all schools within the Genesee Intermediate School District (GISD) (not just Flint schools, but multiple districts that educate children who reside in the City of Flint and attend school outside the Flint district);
    - ✓ reallocated \$750,000 USDA Food commodities to Genesee County school districts serving Flint City students; and
    - ✓ awarded \$2,250,000 to GISD for Early On services, communication resources, and a community wraparound service coordinator.
  - Worked with the U.S. Department of Agriculture (USDA) Child Nutrition Program sponsors to maximize participation in all USDA Food and Nutrition Services Child Nutrition Programs available to them as a means of increasing the exposure to healthy foods and nutrition education. This includes enrolling eligible districts for the Community Eligibility Provision, allocating carryover USDA Commodity Foods entitlement funds, and maximizing best practices for school breakfast and summer meals.

- o Partnered with USDA to provide an additional \$62,700 to enroll additional, non-participating eligible schools serving preK-8 students to participate in the Fresh Fruit and Vegetable Program (FFVP). Many Flint-area pre-K-8 schools are already participating in FFVP, including Flint Community Schools.
  - o Secured a \$1.2 million USDA Summer Electronic Benefits Transfer (EBT) Card grant in partnership with the Michigan Department of Health and Human Services. Over 15,000 additional children in Flint will receive an EBT card that will provide monthly resources to purchase healthy foods high in calcium, iron and vitamin C.
  - o Coordinated with the Michigan Departments of Licensing and Regulatory Affairs and Environmental Quality on fixture replacement and water testing for all public and private school buildings in the City of Flint, including the Michigan School for the Deaf.
- **Quick Turnaround on Quality Supports for Educator Evaluations** - With the passage of Public Act 173 in November 2015 and the approval of MDE's spending plan to support the implementation of educator evaluations, the Office of Educator Talent (OET) has acted quickly to:
    - o consolidate all MDE resources related to educator evaluations into a centralized and easily-accessible webpage;
    - o develop initial guidance documents, including "Educator Evaluations At-a-Glance" and Frequently Asked Questions, to guide districts' implementation of local evaluation systems based on state law; and
    - o develop and implement three grant programs totaling \$15.8 million to support local district training, regional staffing, and statewide research and evaluation activities to ensure high-quality implementation of Michigan's system of local educator evaluations.

This work is tied directly to Goal 3 of MDE's Top 10 in 10 strategic plan. The Office of Educator Talent has received a number of compliments from ISDs, districts, associations, and other stakeholders on the quality of the deliverables produced; the responsiveness and consistency of OET staff members; and the willingness of the office and the MDE to honor local needs in designing and implementing programming to support local evaluation systems.

- **Establishing a Partnership Model** to assist school districts struggling with unique financial and academic success. Multiple offices in MDE are partnering together and with selected school districts, intermediate school districts, professional organizations, and other agencies to support data analysis for school and district improvement and turnaround efforts, training of personnel, financial management of grants and federal program funds, and systems development and implementation in several schools. These efforts include the Financial Independence Team, which works with deficit and consent agreement districts, and the MI Excel Statewide System of Support, which is implementing a nationally-recognized Blueprint for Rapid Turnaround in districts with Priority and Focus schools.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- The Public School Academies (PSA) Unit in the Office of Education Improvement and Innovation, is working with charter schools around a variety of topics and subject matter. Public school academies are requesting that PSA team members assist in reflecting on data, training of PSA board members around important duties, and alignment of curriculum to the charter contract and best practices for English language learners. The technical assistance was first offered to Priority PSA schools, but has been made available to all charter schools in the state. The PSA staff has a wide range of expertise as all consultants were school leaders and/or were professional staff trainers. The team has teaching experience that ranges from kindergarten through high school. Additionally, the team also takes the time to provide an "Authorizer 101" training for any interested or brand new authorizers or authorizing agents. The PSA Unit works with charter schools teachers to improve their teaching methods with the intent that this will impact students.
- Increased interest by districts in the *Post Labor Day Start waiver*, coupled with the Department's desire to promote learning options that extend into the summer, led the State Aid and School Finance Office to reexamine the standards used to qualify district requests for the waiver as well as the application and internal workflow processes. The development of an expanded criteria for qualifying districts for the waiver called for cross-office collaboration, the result of which now allows for additional innovative standards to be considered for approval. Increasing interest, additional standards, and a second office entering the review process called for a more streamlined application and workflow. An online form was introduced to capture district responses to the specific criteria required for the review process, and an online mechanism to track applications internally was introduced. The result was a decrease in review and response turnaround time from 3-4 weeks to 1-2 weeks using the new systems.
- **Seat Time Waivers (STW)** - Since 2008-2009, the authority to waive seat time has been available for grades 6-12. From 2011-12 to 2014-15, there were a small number of districts (<10) that were approved to operate K-5 STW programs. For 2015-16, a competitive process was introduced to allow more districts to apply and receive K-5 STWs.

Grade 6-12: Over 300 districts have received STWs since 2011-12. In 2014-15, approximately 275 districts reported serving at least one STW student in the Michigan Student Data System (MSDS).

Grade K-5: In 2015-16, the program was expanded and 25 districts were approved to operate STW programs.

In addition to typical reporting in the Michigan Student Data System (MSDS), the district submits a separate STW report yearly which includes:

- o student growth measures for all subject areas delivered by grade level;
- o a description of assessment data and measures used to show student growth; and
- o a narrative section that asks about the use of integration, student selection, additional teaching experiences, professional development, etc.

- **Alternative Education (Reduction of Hours and Days) Waivers** - Hours and Days waivers have been available to districts since 1996. Under MCL 388.1701 (9), waivers can be granted to districts for the minimum number of hours (as low as 878.4) and days (to 146) of student instruction. This waiver can be granted for a MDE-approved alternative education program or another approved innovative program. Additionally, a district or PSA not offering a K-6 program may request a 50% waiver. This allows the threshold for countable days to drop to 50% of the student body attendance. In 2015-16, 145 programs/buildings were approved for Hours and Days waivers.

In addition to typical reporting in MSDS, the district submits a separate Hours and Days Waiver report yearly that includes various questions regarding:

- o general program results;
- o student engagement and achievement;
- o time not reported as instructional time;
- o drop-out considerations; and
- o what measures are being utilized to increase attendance if approved for the 50% option

- **Early Warning Legislation** was enacted July 7, 2015 to address districts and PSAs with early warning indicators of financial stress. The Office of State Aid and School Finance worked collaboratively with the Treasury Department to determine the indicators of financial stress. MDE will continue to work with the Department of Treasury to help those identified as having potential financial stress either through an administrative review conducted by the school's Intermediate School District (ISD) or the academy's authorizer as well as through increased reporting to the Treasury Department. The goal is to prevent the district/academy from going into deficit.
- The number of existing deficit districts is trending downward. Through collaborative meetings, deficit elimination plan analysis, and technical assistance, the number of deficit districts has decreased from 58 in 2013-14 to 41 in 2014-15. Furthermore, another 18 districts project to eliminate their deficit at the end of 2015-16. Our supportive efforts also have lead to a decrease in the number of existing districts entering deficit. While 21 districts ended 2013-14 in deficit for the first time, there were four new districts that entered deficit in 2014-15, and only one new district currently projects to end 2015-16 in deficit.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- **Math/Science Partnership Grant Programs (Title IIB)** – Teachers across the state receive high-quality, nationally-recognized professional learning opportunities in mathematics and science, funded by the federal Title IIB Mathematics/Science Partnership Grant (MSP) program. This year the four new projects were started and six received a second or third year of funding. Nearly \$4 million was distributed this year.

Last year, the grant projects reached over 950 teachers responsible for teaching nearly 60,000 students across the state. Partners also included 31 Math/Science Centers, 17 universities, and 545 LEAs. Data from projects that have been working with teachers for more than two years show that these projects are having a positive impact on students.

- **Section 99 and 35a Grant Activities** - Curriculum and Instruction staff in the Office of Educational Improvement and Innovation were responsible for distributing over \$4 million in grant funds from seven different grant programs funded under Section 99 of the State School Aid Act. Some of these funds went directly to nearly 300 districts to support student participation in Science Olympiad as well as district-wide teacher professional learning opportunities. Other funds went to ISDs and universities to provide high-quality learning experiences for teachers. Still other funds supported student-centered projects such as coding and robotics.

Several Curriculum and Instruction consultants served on the MDE Early Literacy Action Teams and took lead roles in distributing the funds from Section 35a of the State School Aid Act.

- The Office of Career and Technical Education (OCTE) streamlined existing processes under a very compressed timeframe to successfully implement section 61b of the State School Aid Act, approving nearly 90 Early/Middle College Career (E/MC) and Technical Education (CTE) programs for 61b funding. These five-year high school programs prepare students for high-skill, high-demand occupations resulting in an Associate's Degree, industry-recognized certificate, apprenticeship, or up to 60 transferable credits in a CTE-focused field. In the abbreviated first year of funding (the 2015-16 school year), almost \$550,000 was generated and distributed to support and improve instruction for over 400 students. The OCTE expects the number of participating schools and programs to grow in the coming years as programs are marketed on the successful outcomes of their participants.
- In July of 2015, MDE created an **Innovation Council**. Over the past year this select group of individuals has delved into the discussion of educational innovation in the state of Michigan.

In order to assist in this endeavor, MDE developed a process to allow districts to propose new models of innovation. The Council is embedded within this process and acts as an intermediary for districts to present new models of innovation for review and recommendation to the State Superintendent.

The Innovation Council is composed of a diverse group of individuals from around the state. Representatives on the council include local educators, superintendents, county pupil accounting auditors, private sector partners, and numerous subject matter experts from the MDE. The goal of the council is to foster innovative projects and practices across the state leading to improved student outcomes. In order to reach this objective, the council is designed to be a supportive body that can advise districts on how best to formulate their creative models.

The Council assists local public school districts and intermediate school districts in the following ways:

- o serve in an advisory and problem solving capacity for innovative proposals;
- o navigate innovative ideas through the various laws, rules, and accountability requirements;
- o review proposals for innovative projects and make a recommendation to the State Superintendent for approval or denial;
- o develop legislative agendas to support increased innovation; and
- o gather and disseminate information regarding flexible and creative programming in education

For additional information regarding the Innovation Council, its guiding principles, members, and/or the application process, please visit the webpage at: [http://www.michigan.gov/mde/0,4615,7-140-28753\\_65799\\_74275--,00.html](http://www.michigan.gov/mde/0,4615,7-140-28753_65799_74275--,00.html).

- **Technology Readiness Integration Grant (TRIG) Update** - School districts and other educational entities struggle to manage data. The primary cause of this struggle is that districts use a variety of data systems that don't talk with each other well, creating silos of information. Local and intermediate school districts lacking the time, money and talent to integrate their systems struggle with duplicate entry, poor data quality, and difficulty collating usable information across systems. The districts and ISDs that are able to gather sufficient resources to manually integrate systems experience fewer data issues, but still struggle to keep up with changing environments and data demands.

Further complicating the matter is that each district has a unique combination of applications from other districts in the state. Integration solutions that work for one district must be tailored or re-written for other districts. Any attempt to pull data consistently across districts is challenged by the different data definitions and export formats that are provided by each system. In short, data management is a major challenge for schools.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

The vision of the Data Integration Activity of the TRIG is to streamline the use of educational information statewide, through common data and common solutions. The concept is to take the most commonly used systems in the state, in each category (Student Information Systems (SIS), Special Education, Food Service, Library, Learning Management, etc.) and have each category of data system exchange information using a common set of specifications. Once all systems are "talking" in this common language, information can be exchanged between systems easily. The initial result of this effort will be a significant reduction in cost and the amount of time expended on integration itself. However, the real benefit lies in the ability to pull data from systems more quickly and easily so actionable information can be used at the school, district, regional and state levels to improve education.

The Data Integration Activity has created a "data hub" concept that will serve as the mechanism to manage school data well into the future. Specifically, through this work, five regional data hubs have been created that will provide for data integration of the districts in each TRIG region. A regional data hub has been deployed in each of the five TRIG regions and districts are already being brought on board. At present, 17 districts are live, with a goal of having 180 ready to go by the start of school in the fall of 2016. By June 30, 2017, the goal is to have all districts in Michigan integrated if they are on a SIS that has an Ed-Fi connector, would represent nearly 95% of the students in the state.

- MDE's Office of Financial Management (OFM) is responsible for **completing reviews of school audits in a timely manner**. OFM assures that federal revenues provided to schools are expended according to federal guidelines. OFM reviews the schools' audit reports to assure that the audits meet the federal requirements, provides follow up on audit findings and corrective actions and audit quality issues, performs quality control reviews of selected audit firms, and takes actions with auditors found to be performing substandard work. OFM processes approximately 1,000 audits each year.
- **Support for School Nutrition** - Since 1996, MDE Office of School Support Services (OSSS) has received 19 consecutive Team Nutrition training grants equating to over \$6.6 million awarded to the state of Michigan. These funds are designed to leverage partner resources to increase student (pre-K -12) consumption of healthy foods meeting the U.S. Dietary Guidelines. OSSS has used this funding to promote school gardens, classroom nutrition education, training of school nutrition professionals, and school breakfast. Current grant efforts focus on creating a smarter lunchroom statewide technical assistance provider program - utilizing Michigan State University Extension educators to partner with local schools. Follow what the team is doing on: <http://www.facebook.com/michiganteamnutrition>; <http://twitter.com/TeamNutritionMI> ; and <http://www.youtube.com/user/miteamnutrition1>.

Since 2011, Michigan has seen a greater than 30% increase in the number of children receiving nutritious meals through the Meet Up and Eat Up Summer Food Service Program (SFSP). Due to having a strong SFSP state work plan, MDE, as well as its partners, continue to have a clear focus on how to increase participation and excitement for the program by increasing communication, working together, and engaging community partners. From MDE's digital marketing campaign and providing thousands of books to children, to engaging our Governor and receiving a formal proclamation, attention directed to the availability of nutritious summer meals throughout the state of Michigan continues to grow.

- **Regional Training and Support for School Improvement Plans** – Extensive regional training on developing and implementing school improvement plans using state and federal grant funds was provided to serve districts throughout 2015-16. Consultants also provided extensive detailed support to individual districts in hundreds of one-on-one meetings throughout the year. The result was that grant funds became available to districts earlier and were more focused on implementing quality plans to improve student achievement and close subgroup gaps.

Title I Part A Schoolwide Flexibility Resources were developed and communicated to support districts implementing the building flexibility including: PowerPoints, sample templates, and a Q and A that is updated regularly. More districts are taking advantage of this flexibility without losing focus on student achievement.

- In December 2015, the Michigan eLibrary (MeL) Team hired an Education Specialist to work with educators to help them understand and incorporate MeL resources into their classroom curriculum. As a former teacher, this specialist understands what resources teachers will use for instruction and is able to help them see the value of using MeL resources in the classroom by providing free professional development, conference presentations, and consultations.
- Beginning October 1, 2015, BritannicaSchool from Britannica Digital Learning was added to the many other excellent eResources available in the Michigan eLibrary for use by K-12 teachers, students, and into adulthood. BritannicaSchool has four distinct access points for classroom use: Learning Zone (PreK-1/2), Early, Middle, and High School. It not only contains information from the encyclopedia, but articles, images, videos, podcasts and much more. Teachers can find lesson plans and create resource packs and students can access content using three reading levels and in multiple languages. As with all eResources found in MeL, BritannicaSchool is available at no cost to all Michigan residents.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- GaleCengage, one of the content providers for the Michigan eLibrary, began a partnership with Google that enables its digital content to be made seamlessly available in Google Classroom and Google Drive. Michigan teachers who access any Gale resource in MeL can easily move that content into their own Google Classroom or Drive for students to access and respond to an assignment/questions etc., thereby enhancing their classroom experience and learning. The MeL Education Specialist works with teachers to show them how easy it is to integrate MeL's Gale resources into their curriculum using Google Classroom or Google Drive.
- MDE's Strategic Research staff increased its capacity and responsiveness to strategic research and data analysis and reporting requests by internal and external stakeholders.

### REDUCED REPORTING AND STREAMLINED OPERATIONS

As part of its efforts to ease the burden on local schools and school districts, in the 2015-16 school year, MDE streamlined its processes, consolidated data collection, and worked to eliminate unnecessary or redundant reporting requirements. Below are several examples of these efforts.

- The School Improvement Support Unit (SIS) in the Office of Education Improvement and Innovation (OEII) recently completed work to streamline school improvement plans (SIPs) submitted annually by schools to meet the requirements of Section 1277 of the Revised School Code (also known as "PA 25"). The work was conducted with the input and assistance of the Michigan Continuous School Improvement Team "MI-CSI," which consists of school improvement facilitators and specialists from intermediate school districts across the state.

The combined efforts resulted in a significantly simplified and abbreviated format designed to facilitate deep conversation and analysis of achievement data while reducing the paperwork burden on schools and districts as SIPs are created every 3-5 years. The group also mapped out the 3-5 year school improvement planning cycle centered around "mid-course corrections" based on local and state data. Particular emphasis is placed on understanding that SIPs are not written anew annually, but are modified as indicated by that data and demonstrated need.

- MDE's Office of Field Services (OFS) approved consolidated applications earlier this year than in the previous five years. All but 10 of 848 applications are in grant funds available status as of June 23, 2016. \$683 million of grant funds are approved of the \$691 million available this year.
  - o 65.6% were approved by October 1, 2015 vs. 53.6% in the previous year;
  - o 86.0% were approved by December 1, 2015 vs. 78.3% in the previous year; and
  - o 92.8% were approved by February 1, 2016 vs. 85.2% in the previous year.

The first step in getting consolidated applications approved and funds available to districts starts with the complex task of calculating and communicating allocations for districts. The fiscal unit has accomplished the tasks by May prior to the school year beginning in both 2015-16 and 2016-17 school years.

The OFS financial unit conducted 97 fiscal reviews and provided extensive training on grant funds management to serve school districts throughout the State of Michigan.

- MDE is in the process of hiring a **Chief Information Officer** to coordinate all of the information and data input from within the department and from the reporting agencies outside of MDE (local school districts; intermediate school districts; early childhood programs; Educator Preparation Institutions; etc.).
- MDE's Office of Administrative Law (OAL) has been active in MDE's efforts to reduce reporting and other requirements imposed on school districts. OAL activity during the 2015-2016 school year has included the rescission of the entire unnecessary administrative rule set concerning the Child Development and Care program, as well as the amendment of rules related to postsecondary dual enrollment, boarding school licensure, and youth employment standards. The office also was involved in amending the administrative rule related to the qualifications of interpreters for deaf individuals in order to eliminate confusion in the field related to such qualifications. OAL also has worked with MDE's legislative team in support of several bills pending in the State Legislature, which would, if enacted, eliminate requirements for administrative rule sets found to be outdated or to impose obsolete requirements on local and intermediate school districts.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- **Child Development and Care (CDC)** - Changes in the CDC program have improved customer service for Michigan parents and providers, made resources more user friendly and readily available for parents so that they can remain engaged in their children's education, increased access to high quality learning programs, and improved training activities to help support and develop education providers. Improvements to the CDC program that made this progress possible include:
  - o implementation of an improved case management system for CDC policy;
  - o an updated CDC website that is more user friendly, ADA compliant, and that contains simplified forms, and more parent and provider resources;
  - o an improved Time & Attendance Review process that is more customer oriented, keeps staff workloads manageable, and reduces the number of CDC Provider disqualifications, while continuing to meet the federal monitoring requirement;
  - o implementation of Trainer and Training Approval Process to ensure high quality trainings are available for the field; and
  - o policy changes extending eligibility, improving the program exit process, and rates tied to quality level, all of which helped to create continuity of care and increased access to high quality programs for Michigan's children.
- **MDE's Office of Professional Preparation Services (OPPS)** oversees the certification process for educators and the state's institutions of higher education responsible for educator preparation. This year, OPPS supported a measure enacted by the State Legislature to lift the fee cap on educator assessments to allow the tests to be updated, in support of student achievement.

In 2015-16, the state's systems were updated to merge the professional learning system for educators into the Michigan Online Educator Certification System (MOECS), to streamline the certificate renewal process for Michigan educators.

OPPS also successfully worked with Michigan's 32 Educator Preparation Institutions (EPI) and the national accrediting agency to pilot the new accreditation process for EPI programs.

- For 2015-16, MDE's Office of Career and Technical Education developed a process for expediting state approval of new CTE programs, recognizing local workforce need and in-demand occupations. In prior years, schools were able to apply for new programs only once per year and districts were required to wait an extra year for the program to generate funding, even if the program met a recognized industry talent need. Starting in 2015-16, OCTE revised its processes so that schools may submit new program applications at any time during the year and new program applications are reviewed twice a year. Programs qualify for funding in the school year in which they applied and were approved.
- OTCE provided professional development to over 1,200 CTE teachers, administrators, special populations professionals, career development professionals, and counselors at CTE-specific events throughout the 2015-16 school year. The Michigan Career Education Conference was rated as good, very good, or excellent by 97% of attendees, and 96% rated the variety of sessions and the relevance and importance of session topics as good, very good or excellent.
- During the first quarter of this year, MDE's special education information line received 599 contacts and 95.5% were answered within one business day.
- MDE's Office of Special Education conducted an internal assessment of its dispute resolution process. As a result, OSE is implementing improvement activities, the outcome of which will better support an effective problem solving process for parents and districts.
- The Annual State Aid to Public Libraries report certification element has been revised to electronic submission, which eliminated the need for original signature pages to be mailed to Library of Michigan each year. This process change has created efficiency in the receipt of required reporting internally by eliminating nearly 400 additional letters to be mailed and opened at MDE and externally for Michigan public libraries that now no longer need to complete this additional process via regular mail to certify their data for the Annual State Aid to Public Libraries report. Additionally, other State Aid to Public Libraries correspondence now is being sent electronically whenever possible. Letters now are sent as attachments to emails as well as reports generated for libraries, cooperatives and governmental municipalities.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

### INCREASED EDUCATIONAL ATTAINMENT

The ultimate goal of all of MDE's work is to support increased educational attainment for all Michigan's students. Many of the department's programs began or continued efforts to accomplish this goal in the 2015-16 school year.

- **Science Standards** - In November 2015, the State Board of Education adopted new standards for science education after more than three years of development, review, and public information sessions on the proposed standards. The new Michigan K-12 Science Standards replace the standards adopted in 2006, and introduce science and engineering practices.

The new Michigan K-12 Science Standards represent a set of student performance expectations. These performance expectations incorporate three main elements:

- o Disciplinary Core Ideas (science specific concepts in the life, earth, and physical sciences);
- o Science and Engineering Practices (the practices of engaging in scientific investigation to answer questions, and engineering design to solve problems); and
- o Cross-Cutting Concepts (conceptual ideas common to all areas of science).

These expectations are also interwoven across disciplines, including connections to language arts and mathematics.

MDE is in the process of incorporating these standards into a broader strategic plan for integrated STEM (science, technology, engineering, and mathematics) education, which will be a major initiative of the Top 10 in 10 efforts of the state. MDE also is finalizing similar standards revision efforts for social studies.

- **Early Childhood Special Education (ECSE)** - ECSE has improved access to the high quality learning opportunities available in Michigan's P-20 system by meeting state targets on all six subcomponents of federally-reported Preschool Child Outcomes.
- **Race to the Top Early Learning Challenge Grant** - Michigan's early educators will have more professional development opportunities as nine Michigan Colleges are set to pursue accreditation or reaccreditation. **Developing early childhood educators** is key to improving access to high quality early learning and development programs for Michigan families. The Michigan Association for the Education of Young Children (MiAEYC), in partnership with the MDE's Office of Great Start Race to the Top Early Learning Challenge, awarded MiAEYC National Association for the Education of Young Children

(NAEYC) Early Childhood Associate Degree Accreditation Grants to nine Michigan Institutions of Higher Education.

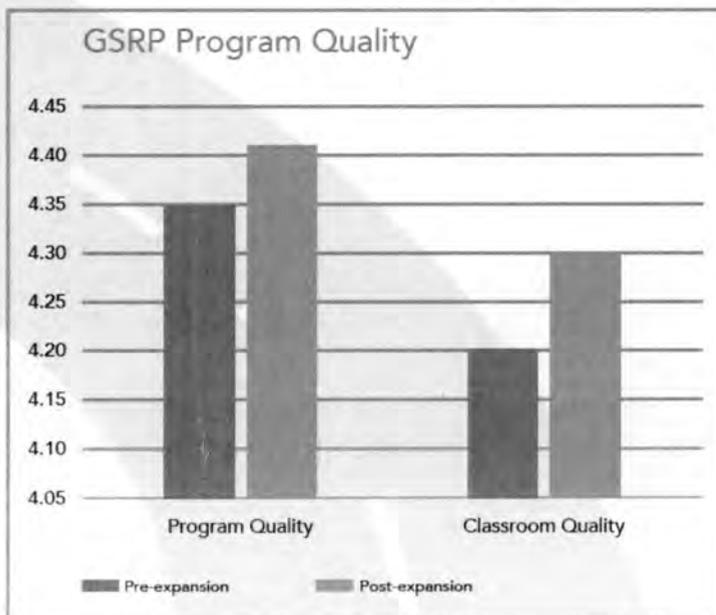
Grants were awarded to: Bay de Noc Community College, Henry Ford College, Monroe County Community College, Mott Community College, Muskegon Community College, Oakland Community College, Siena Heights University, Washtenaw Community College, and West Shore Community College.

As recipients of this grant, these Michigan Institutions for Higher Education will be seeking NAEYC Early Childhood Associate Degree Accreditation or Reaccreditation to be completed by the end of 2017. The resulting accredited programs will provide more opportunities for early learning educators to expand their skills and knowledge and transfer that knowledge to improving opportunities for our youngest learners.

- **Early On®** - Early On continued to support the social and emotional development of children birth to age three by developing a plan that includes activities to promote family engagement, provider preparedness, and analysis and improvement of services. A four-site pilot for the plan soon will begin, with the intention of eventually expanding effective strategies statewide.
- **The Head Start State Collaboration Office (HSSCO)** - participated in activities to increase access to high quality learning programs, helped develop and support the early education workforce, and promoted activities that will lead to improvements in early learning programs. Highlights include:
  - o partnership with Early Head Start grantees to support implementation of grants to expand access to full-day, full-year child care for infants and toddlers;
  - o integration of Head Start Data into the Statewide Longitudinal Data System, ensuring availability of data necessary to make better decisions about early learning and development programs; and
  - o support of a Health Institute attended by approximately 200 to support the development of Head Start and Early Head Start health staff.
- **Approval and Implementation of Michigan's Plan to Ensure Equitable Access to Excellent Educators** - Michigan's State Plan to Ensure Equitable Access to Excellent Educators was approved without revisions by the U.S. Department of Education on October 22, 2015. The plan was developed in collaboration with a diverse group of stakeholders to identify gaps in access to excellent educators for students of color and from low-income families in order to develop strategies for closing those gaps and ensuring high-quality teachers and leaders in every classroom and school building in Michigan. Implementation of the plan began with the first quarterly meeting of the Excellent Educators Advisory Group in February 2016.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- **Initiation of the Internal Teaming Structure to support MDE’s Early Literacy Initiative** - MDE launched a department-wide teaming structure to support implementation of the Early Literacy Initiative based upon a broad set of programs established by the Legislature, Governor’s Office, and MDE for the current fiscal year. This teaming structure included a brand new process of collaboration, communication, and program implementation to cultivate an unprecedented level of department-wide coordination and decision-making. MDE is learning from this process to utilize and plans the same approach to increase coherence on major initiatives of the Top 10 in 10 efforts, which will be supported through the new Office of Strategic Planning and Implementation.
- **21st Century Community Learning Centers (CCLC)** - CCLC is working to ensure that parents are engaged in their children’s education by developing a **Family Engagement Guide** outlining standards, expectations, “how-to” strategies, and ideas for family engagement. The guide provides guidance for planning and evaluating effective family engagement policies and practices.
- **Great Start Readiness Program (GSRP)** - GSRP has improved access to the high quality learning opportunities available in Michigan’s P-20 system. After two years of expansion funding, GSRP is now serving 38,770 children annually, with 83% of children being served in school-day length programs. Additionally, GSRP Classroom Quality and Program Quality have both risen with a 2.3% increase and 1.4% increase, respectively, as measured on a five-point scale, with 5 being highest quality (see chart below).



- **Support for English Language Learners** - In collaboration with the English Learner Advisory Committee, MDE's Office of Field Services created a three-year strategic plan for English Learners (EL) to improve language and literacy skills across content areas, engage parents and prepare effective EL teachers. Broad stakeholder support is leading to better education of the growing number of Michigan's English learners.

The EL and migrant programs trained more than 45 coaches on evidence-based instruction and provided in-service training to more than 3,500 teachers on standard-based language and literacy instruction. Schools implementing the training with fidelity are showing impact on student achievement.

- **Michigan School for the Deaf (MSD)** - The MSD is a public residential school located in Flint for students who are Deaf or Hard of Hearing (DHH), established by the Michigan Legislature in 1848. Students are referred to the school by their local school district, and placement is determined by an Individual Education Program (IEP) team. The MSD serves DHH students ages 30 months through 25 years and their families throughout Michigan. Students who attend the MSD receive a unique combination of services and intense exposure to two languages, American Sign Language (ASL) and English, as well as academic and residential support services.

- **The MDE Low Incidence Outreach (MDE-LIO) project** provides technical assistance and resources statewide to serve and improve the quality of education for students who are blind or visually impaired and students who are Deaf or Hard of Hearing, including those with multiple impairments.

The MDE-LIO also has direct oversight of Camp Tuhsmeheeta (Camp T), located in Greenville. Camp T is a 300-acre outdoor education facility that provides year-round programming for students with a visual impairment and others throughout the state.

- On February 9, 2016, MDE approved a 17th **Career Cluster in Energy** for CTE. This approval represents the culmination of a nine-month collaborative partnership between the MDE Office of Career and Technical Education (OCTE) and the Michigan Energy Workforce Development Consortium (MEWDC). The MEWDC was awarded a \$90,000 grant by the United States Chamber of Commerce Foundation (USCCF) as part of its national Talent Pipeline Management (TPM) initiative in closing America's Skills Gap. The conclusion of this work was an agreement by industry, postsecondary institutions, and the OCTE to use the Center for Energy Workforce Development's Energy Industry Foundation Bundle (EIF) of competencies as a career cluster, credit-bearing courses, and degree offerings. This agreement allows students to earn industry-recognized certificates that are acknowledged for credit through dual enrollment, articulation, or Early/Middle College (E/MC) programs. Embedded within the EIF Bundle are core academic competencies used in the workplace, such as algebra, geometry, and physics. Completers of energy programming have the opportunity to earn stackable credentials, such as the National Career Readiness Certificate (NCRC), Cardiopulmonary Resuscitation (CPR), the Energy Industry Fundamentals Certificate, and MIOSHA/OSHA Safety Certifications.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

- One hundred percent of Michigan secondary schools offering Agriculture, Food & Natural Resources (AFNR) CTE programs award general academic credit toward state high school graduation requirements.
- In the last year, the OCTE was able to increase the system outcomes for CTE student pathways with the signing of five additional statewide articulation agreements. Statewide articulation is a method of granting college or university-level course credit to Michigan students for postsecondary level content and skills accomplished as part of their secondary school instruction in CTE programs. Since all secondary CTE programs adhere to the same instructional program standards, colleges and universities can offer credit opportunities for students regardless of where they attended high school. These agreements will increase the likelihood that students will transfer to a postsecondary institution to receive college credit and cut their time and the cost to earn a postsecondary degree in their chosen career area. The schools that were added are: Lake Superior State University, Michigan State University, Mid-Michigan Community College, Saginaw Valley State University, and Washtenaw Community College.
- The Office of Special Education IDEA Grant Funded Initiative, Michigan's Integrated Behavior Learning and Supports Initiative (MiBLSi) will be adding three staff to its organization to support early literacy and behavior intervention practices in 12 elementary schools in the Flint Community Schools, beginning the 2016-17 school year.
- Results of the OSE IDEA Grant Funded Initiative for Middle School Math included:
  - o growing interest in Foundations of Math;
  - o 400+ trained facilitators and practitioners of both Foundations of Math and Enhancing Mathematics with follow-up support throughout the state;
  - o identification of usability sites to co-construct targeted and intensive assistance to support implementation; and
  - o forward movement on math training for teachers of students with low incidence disabilities, bringing together General Education math teachers and Special Educators around low incidence, aligning current Professional Learning efforts.

### STAKEHOLDER AND PARTNER ENGAGEMENT

MDE has many partners in its efforts to support Michigan's schools, students and educators. In the 2015-16 school year, MDE staff worked with and engaged these stakeholders in a number of ways, including through the development of the state's Top 10 in 10 recommendations, convening, supporting, and sharing information at numerous conferences and meetings across the state, and through direct outreach to advocate on educational issues with members of the State Legislature.

- MDE Leadership Visits Michigan's Schools** - This year Superintendent Whiston made it a priority that he and each member of the MDE leadership team make regular visits to local school districts throughout Michigan. Each deputy superintendent and office director was asked to select ten or more local districts or schools in the state to visit over the course of the 2015-16 school year. In all, more than 150 districts hosted MDE staff visits. MDE leadership enjoyed the opportunity to learn firsthand about the great things going on in Michigan's public schools, both large and small. While on the visits, staff were able to bring back information and address any concerns that had been raised by those in the district.

School visits will be an ongoing MDE outreach effort in the years to come. Any district or school wishing to host an informational visit from a member of MDE's leadership team should contact [mde-communications@michigan.gov](mailto:mde-communications@michigan.gov) to extend the invitation.



## MDE OFFICES RETROSPECTIVE (CONTINUED)

- **Speaking Engagements/Presentations at Conferences** - MDE convened, presented at, and participated in hundreds of meetings, trainings, and conferences on a variety of topics this year. Some of these events were targeted toward specific program staff, such as school health and safety educators or lunchroom staff, Native American educational leadership, educators working with blind or visually impaired students, and librarians serving rural communities. Others were more broadly focused, covering career and technical education, early childhood education, afterschool learning, and school improvement.

In March 2016, MDE supported and participated in the Governor's Education and Economic Summit, featuring keynote speaker Jaime Casap, Google's Chief Education Evangelist, who spoke about the future of education. This year's event featured a Best Practices competition, in which winning program presenters in the categories of Talent Attraction, Talent Development, and Talent Retention were awarded cash prizes to support future programming.

Superintendent Whiston has personally met and spoken with more than 400 education groups and other partners to outline his vision for education in the state and seek the input from group members.

- **Vision Groups** - In tandem with the Top 10 in 10 outreach efforts, MDE also convened several topic-specific Vision Groups to seek further stakeholder input on Accountability, Assessments, and School Funding, with another group recently convened around Educator Preparation. These groups, comprised of subject matter experts, reviewed and developed recommendations that will support the Top 10 in 10 implementation work, as well as inform MDE's development of the state's plan for the federal Every Student Succeeds Act (ESSA) over the next year.
- **State Cross Agency Partnerships** - MDE staff worked closely with many other state agencies on a number of aligned efforts this year. These activities included the ongoing work with multiple state agencies as part of the Flint Water Interagency Coordinating Committee working to address water issues in the City of Flint, ongoing partnerships on school justice and safety with the Michigan Department of Health and Human Services, and career readiness with the state's Workforce Development Agency. In 2015, Governor Snyder issued *Executive Order 2015-09*, which moved the State School Reform/Redesign Office (SRO) to the Michigan Department of Technology, Management and Budget (DTMB). MDE's staff continues to work closely with SRO staff in support of Michigan's lowest performing schools. MDE and the Michigan Department of Treasury share responsibility for working with local school districts in financial distress. Educational data

and information reporting is housed in the DTMB's Center for Educational Performance and Information (CEPI). MDE and CEPI partner to provide the MiSchoolData website, which contains a wealth of data and information for all Michigan public schools.

- **Legislative Outreach** - Since July 2015, the Office of Public and Government Affairs (OPGA), the State Superintendent and MDE senior staff have met 364 times with Legislators and their staff regarding various educational issues. These issues range from accountability in schools to year round calendars. OPGA also has responded to over 700 recorded individual constituent-related questions from legislative offices in the last 11 months. The Office of Public and Government Affairs takes pride that, on average, its response time to these concerns is within 24 hours of the inquiry.
- **Communicating with Media** - Since July 2015, OPGA has responded to more than 700 media contacts from around the state, as well as national media outlets - an average of approximately 60 per month. Most-often requested inquiry topics include: snow days, charter schools, MDE press releases, assessments, deficit districts, Labor Day waivers and the State Board of Education's Draft Guidance document on Safe and Supportive Learning Environments for Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Students.
- **MDE Weekly Communications** - Each Thursday, MDE distributes the MDE Weekly Communications publication to all local and ISD superintendents, principals, PSA directors and authorizers, state educational leaders, stakeholders and others who have signed up to receive these updates. In addition to timely information on MDE programs, all official MDE memos are shared first in the Weekly Communications, and are archived on the MDE website. Sign up to receive these and other MDE updates or to manage existing subscriptions at [https://public.govdelivery.com/accounts/MIMDE/subscriber/new?topic\\_id=MIMDE\\_145](https://public.govdelivery.com/accounts/MIMDE/subscriber/new?topic_id=MIMDE_145).

## IMPROVED STATE ASSESSMENTS AND DECREASED TESTING TIME

2015-16 saw several changes in Michigan's school assessment system.

- **M-Step Adjustments After Receiving Feedback From Spring 2015 Surveys:** After a very successful first administration of the Michigan-Student Test of Educational Progress (M-STEP) in spring 2015, MDE surveyed students, parents, and education leaders on their opinions regarding how the administration went. Feedback from these surveys was crucial in helping MDE modify the system to create an improved experience for students and educators.

Respondents to the Spring 2015 M-STEP online surveys:

Student Survey: 26,125 students

Parent Survey: 5,794 parents

Online Administration Survey: 3,411

Online Administration Technology Survey: 277

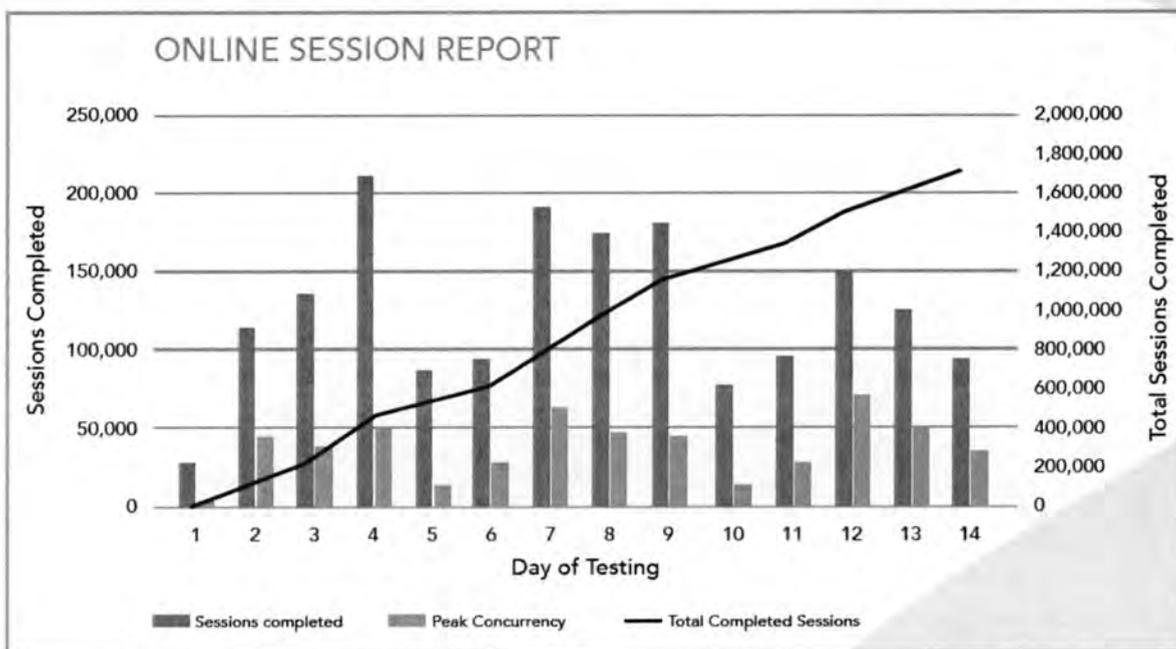
## MDE OFFICES RETROSPECTIVE (CONTINUED)

Two concerns expressed were: the assessment process overall took up too much instructional time in the spring, and the overall student testing experience was too long, especially in English language arts.

Given this feedback, the MDE was able to make several modifications to improve the 2016 M-STEP:

- o there is no longer an M-STEP English language arts and mathematics component for the MME, reducing state-required testing time in 11th grade by up to 8 hours;
  - o the Performance Task portion of the English language arts assessment now is administered only once in elementary school (grade 5) and once in middle school (grade 8), reducing testing time by 2.5 hours in each of the 3rd, 4th, 6th, and 7th grades;
  - o MDE improved the testing experience by providing the test in smaller portions, which may be administered over multiple days, so that students are not required to complete the test in one sitting; and
  - o MDE shortened the overall testing window for M-STEP 2016. The testing schedule for the M-STEP and MI-Access assessments began after most spring breaks ended and concluded before Memorial Day. The window spanned seven weeks: April 11-May 27, 2016. This adjustment, along with moving the administration of SAT and ACT WorkKeys to April, reduced the overall footprint of testing in schools and still allowed the flexibility to administer online.
- **M-STEP 2016 Preliminary Report Speed** – An understandable concern raised from the 2015 M-STEP administration was the speed at which reports were delivered back to schools. MDE heard this feedback and was able to improve the preliminary reporting system so educators were able to receive Preliminary Student Roster Reports in less than 48 hours after a student completed an entire subject area test. This was well received and educators reported that they used the information right away in their schools. The ability to return information back to schools with the complexity of item types the M-STEP offers was a first-in-its-kind in the world of assessment.
  - **Successful Transition To The SAT** – The 2015-2016 school year was one of transition from using the ACT for the college entrance exam of the MME to the SAT. MDE, in collaboration with the College Board and multiple education groups around the state, was able to support a very successful transition of this new exam for 11th grade students. The availability of the Khan Academy platform, which is used for practice and preparation for the exam, as well as the new redesign of the SAT to more closely measure standards for today's students, made this transition a huge success.

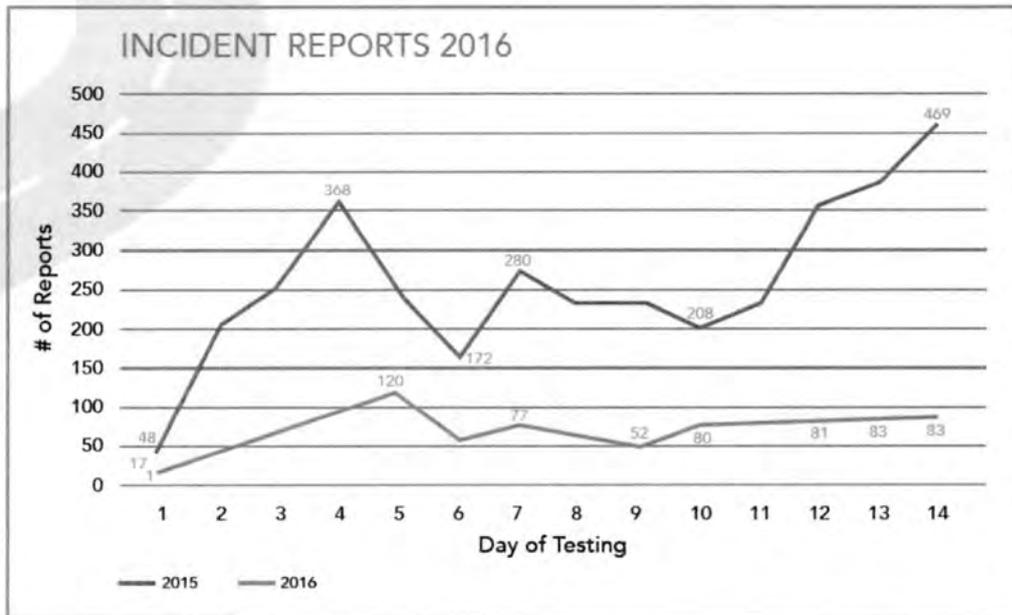
- **Final Reports** - Student Data File and Final Reports are planned to be available to our customers before Labor Day. Several MDE offices collaborated to develop and implement preliminary M-STEP and MI-Access reporting for schools and districts in Spring 2016, and provided even quicker turnaround time in these reports to schools and districts than the 48 hours predicted.
- This was the first year of WIDA online tests with DRC as the administration vendor. This also was the first year for College Board’s SAT test in Michigan. Each vendor change and each contract startup process takes an immense team effort to make sure the systems, data interfaces and the myriad quality processes support a successful testing experience for every student.
- **Online Testing** has been successful for the second year in a row. This year, MDE is projecting approximately 95% of schools and students will be testing online, which is an increase from approximately 80% in the first year of online testing across the state in 2015.



- The Secure Site (MDE’s online interface for interacting with districts around assessment administration and reporting, including pre-identification of students, materials orders, and downloading student results) was updated to allow the entry of Incident Reports by district/school customers within the Secure Site. In prior years, it took approximately 10 minutes to enter one incident report on a separate survey system and now it takes approximately 30 seconds to do the same task, all within the Secure Site.

## MDE OFFICES RETROSPECTIVE (CONTINUED)

The chart below shows the reduction in the number of incident reports from districts and schools through the first 14 days of testing for the spring 2016 assessments compared to the spring 2015 assessments.



- **Balanced Assessment Website** - the MDE's Curriculum & Instruction Unit collaborated with multiple offices across MDE and with external stakeholders to develop an assessment literacy website ([http://www.michigan.gov/mde/0,4615,7-140-28753\\_65803-362792-,00.html](http://www.michigan.gov/mde/0,4615,7-140-28753_65803-362792-,00.html)). This website is a tool to assist districts with understanding the assessments given, the reason for the assessments, and data provided after administering the assessment. Districts may use this tool to help refine district-level testing, to fill in gaps where assessment may be needed, and to communicate with stakeholders. The intent of this tool is to help district leaders with developing a balanced assessment system using high quality assessments that show where all students' strengths exist.
- MDE's Office of Evaluation, Strategic Research, and Accountability (OESRA) engaged a referent group of stakeholders in the development of a proposed accountability system for alternative schools, and successfully ran a feasibility of this proposed system. This proposed accountability system for alternative schools will be presented at a national conference in June.

- OESRA also collaborated with the Office of Standards and Assessment to develop and approve over 160 MI-Access and M-STEP test maps for state summative assessments for Spring 2016.
- Each Thursday, MDE's Assessment and Accountability team issues its Weekly Spotlight on Student Assessment and Accountability highlighting news and information regarding Michigan's assessment and accountability system. Sign up for these updates, see summaries or past editions, or manage your existing subscription at <http://www.michigan.gov/mde-spotlight>.



# MDE FAST FACTS 2015-2016

## Statistics for Michigan Schools

**MDE Mission Statement:** Through leadership, policy implementation and light-of-day reporting, the Michigan Department of Education will increase full-time, full-access systems of education that support success for every student.



### 2015-16 PUPIL COUNT DATA

Grade	Total
PK	48,854
K	113,304
1	106,062
2	107,793
3	111,558
4	111,267
5	110,266
6	113,735
7	113,362
8	113,641
9	127,137
10	125,841
11	114,917
12	114,762
Total Female	747,240
Total Male	792,765
Total PK - 12 Pupil Count	1,540,005

Source: Center for Educational Performance and Information

### 2014-15 NONPUBLIC SCHOOL DATA

(Reported to Michigan Dept. of Education)

Category	Totals
Nonpublic School Buildings	598
K-12 Nonpublic Students	113,190
K-12 Home School Students	561

Source: Michigan Department of Education

### SCHOOL FINANCIAL DATA

Category	Totals
K-12 State School Aid	\$11.7 Billion
Avg State Aid Per-Pupil	\$7,529
Avg Salary of Teachers (reported)	\$61,978
Pupil/Teacher ratio	23:1

Source: Michigan Department of Education

For information on local school districts, go to <https://www.mischooldata.org>.

Updated June 2016

### PUBLIC SCHOOL DISTRICTS

Type of School District	Number
Intermediate School District (ISD)	56
Local Education Agency (LEA)	548
Public School Academy (PSA)	300
Total Districts	904

Source: Center for Educational Performance and Information

### STUDENT OUTCOMES

Category	Prior	Current
Third Grade Reading Proficiency	70.0%	50.1%
Students Showing Progress in Math and Reading 3-8	14.3%	N/A
Students Proficient in Math and Reading 3-8	38.5%	31.5%
Students Proficient on M-STEP	19.2%	18.0%
ACT Composite Score	19.8	19.9
ACT College Readiness Benchmarks	20.0%	20.2%
4 year Graduation Rate	78.58%	79.79%
4 year Dropout Rate	9.61%	9.12%

Source: Center for Educational Performance and Information

### FREE/REDUCED LUNCH PARTICIPATION BY ELIGIBLE STUDENTS

	Prior	Current
K-12 Percent Eligible	79.4%	73.6%

Source: Center for Educational Performance and Information

### EARLY/MIDDLE COLLEGES 2016

Number of Early/Middle Colleges	Total Enrollment
23	7,870

Source: Michigan Department of Education

### STUDENT OUTCOMES

Category	Number
Students in One or More CTE Programs	104,038
Percent of Eligible Students Enrolled in CTE	1,754
Percent of Students who Completed a CTE Program, Left School in 2014, and are:	33%
• Continuing Education and Employed	41.8%
• Continuing Education and Not Employed	32.6%
• Employed and Not Continuing Education	21.4%
• Not Employed and Not Continuing Education	4.2%

Source: Michigan Department of Education

## MDE CONTACT INFORMATION

Brian Whiston  
State Superintendent

Wendy Larvick  
Chief of Staff

Norma Jean Sass  
Chief Deputy Superintendent

Susan Broman  
Deputy Superintendent, P-20 Systems and  
Student Transitions

Kyle Guerrant  
Deputy Superintendent, Finance, and  
Operations

Venessa Keesler  
Deputy Superintendent, Educator, Student, and  
School Supports

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Martin Ackley  
Office of Public and Governmental Affairs

Stephen Best  
Office of Strategic Planning and Implementation

Erika Bolig  
Office of Strategic Research

Leah Breen  
Office of Professional Preparation Services

Lisa Brewer-Walraven  
Office of Child Development and Care

Patty Cantú  
Office of Career & Technical Education

Teri Chapman  
Office of Special Education

Reneé DeMars-Johnson  
Office of Early Childhood Development  
and Family Education

Ann Dennis  
Office of Financial Management

Kaitlin Ferrick  
Head Start-State Collaboration Office

Linda Foward  
Office of Education Improvement and  
Innovation

Abbie Groff-Blaszak  
Office of Educator Talent

Daniel Hanrahan  
Office of State Aid and School Finance

Dave Judd  
Office of Data Services

Richard Lower  
Office of Preschool and Out-of-School Time  
Learning

Andrew Middlestead  
Office of Student Assessment

Marla Moss  
Office of School Support Services

Joetta Parker  
Office of Human Resources  
(Civil Service Commission)

Mike Radke  
Office of Field Services

Michelle Ribant  
Director for 21st Century Learning

Randy Riley  
State Librarian

Marilyn Roberts  
Office of Assessment Business Operations

Marilyn Schneider  
State Board Executive

Bob Taylor  
Office of Administrative Law

Cecelia Winkler  
Principal, Michigan School for the Deaf

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### Frequently Called Numbers:

MDE Main Phone Number: 517-373-3324

Office of Special Education Support Hotline: 888-320-8384

Michigan Online Educator Certification System (MOECS) Help Desk: 517-373-3310

# STATE BOARD OF EDUCATION ACTIONS

## **June 9, 2015**

Rick Joseph 2015-2016 Michigan Teacher of the Year Resolution  
Melody Arabo 2014-2015 Teacher of the Year Resolution  
Michael P. Flanagan, State Superintendent Resolution  
State Board of Education Statement Regarding Detroit School Plans  
State Board of Education Statement Regarding Truancy  
State Board of Education Statement Regarding School Counselors  
State Board of Education Statement Regarding Home Schooling

## **October 13, 2015**

State Board of Education Statement on Blood Testing Children  
State Board of Education Statement on Weapons in Schools  
State Board of Education Statement on Senate Bill 103  
State Board of Education Statement on House Bill 4822

## **November 10, 2015**

New Michigan K-12 Science Standards  
State Board of Education Statement on Detroit Education Proposal

## **December 8, 2015**

Strategic Goals to Help Make Michigan a Top 10 Education State in 10 Years  
State Board of Education Statement on Senate Bills 279-280  
State Board of Education Supplemental Statement on Detroit Education Proposal

## **January 12, 2016**

State Board of Education Statement on House Bill 4552

## **February 9, 2016**

State Board of Education Statement on Senate Bills 713-15  
State Board of Education Statement on Opening and Closing Public Schools  
State Board of Education Statement on Senate Bill 710  
Citizens Research Council Centennial Resolution

## **March 8, 2016**

State Board of Education Statement on House Bills 5384-5387

## **May 10, 2016**

State Board of Education Statement on House Bills 5409-5416

# MEET THE MICHIGAN STATE BOARD OF EDUCATION



**Mr. John C. Austin**  
President  
Ann Arbor, MI  
Term Expires 1/1/17



**The Honorable Rick Snyder**  
Governor  
ex officio



**Dr. Casandra E. Ulbrich**  
Vice President  
Rochester Hills, MI  
Term Expires 1/1/23



**Mr. Brian J. Whiston**  
Chairman  
State Superintendent  
ex officio



**Ms. Michelle Fecteau**  
Secretary  
Detroit, MI  
Term expires 1/1/21



**Dr. Pamela Pugh**  
Treasurer  
Saginaw, MI  
Term Expires 1/1/23



**Ms. Lupe Ramos-Montigny**  
NASBE Delegate  
Grand Rapids, MI  
Term Expires 1/1/21



**Mrs. Kathleen N. Straus**  
Detroit, MI  
Term Expires 1/1/17



**Mrs. Eileen Weiser**  
Ann Arbor, MI  
Term Expires 1/1/19



**Dr. Richard Zeile**  
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# LOVETTE REPORT

## Exhibit D

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Office of Special Education and Early Intervention Services

November 2009

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**FOCUS on Results** offers valuable, up-to-date information for education stakeholders, including parents, teachers, school administrators, counselors, and others.

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This guidance and technical assistance article tells the story of Flint Community Schools effectively mobilizing the skills and talents of diverse stakeholders to address the issues of dropout rate, over identification for students in special education, students in special education being taught outside of the general education setting (least restrictive environment), and rates of suspension and expulsion. This story shares the perspective of Flint Community Schools' administrative staff who embraced the challenges of Continuous Improvement Monitoring by the Michigan Department of Education (MDE), Office of Special Education and Early Intervention Services (OSE-EIS) and developed an improvement plan that lead to actions resulting in full compliance with the federal *Individuals with Disabilities Education Act* (IDEA).

## Flint Community Schools: Changing Strikes Into Home Runs for All Students



Stories like Flint Community Schools are beginning to emerge around the state in light of significant school

improvement efforts that result in positive outcomes for students. These stories help build understanding about what is working in Michigan schools and offer a coherent frame of reference for other districts. As you read this story, think of your district's own emerging story and the audience that might benefit from hearing the story.

### Flint Community Schools From the Continuous Improvement Monitoring Perspective

The *Individuals with Disabilities Education Act* (IDEA) of 2004 requires state educational agencies to develop and implement a monitoring, technical assistance, and enforcement system. The Continuous Improvement and Monitoring System (currently known as CIMS-2) is the Michigan Department of Education (MDE), Office of Special Education and Early

Intervention Services (OSE-EIS) system that meets these federal requirements. The CIMS-2 is the recently revised system used by the OSE-EIS to help local school districts and the state monitor, analyze, and interpret data and ensure compliance with the IDEA as well as focus on results for students.

The CIMS-2 allows local districts to see the data that the state uses when making monitoring decisions. That information is stored in a single location so that status updates, notes, and other information are easily accessible. For more information about CIMS-2, refer to *FOCUS on Results*, Packet 15, Volume 7, Issue 3: *The Continuous Improvement and Monitoring System (CIMS-2) Helps Schools Ensure Positive Outcomes for Students* at [www.cenmi.org/Documents/FocusOnResults.aspx](http://www.cenmi.org/Documents/FocusOnResults.aspx) or learn more about CIMS-2 at [www.cenmi.org/cims](http://www.cenmi.org/cims).

Shirley Young, a monitoring consultant for OSE-EIS, noted that the case opened by state monitors on Flint Community Schools in 2006 has been closed. She explained that Flint



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was selected for focused monitoring for high numbers of students with disabilities dropping out of school, a high identification rate of students in special education, and high numbers of students with Individualized Education Programs (IEPs) being taught outside of the general education setting. See boxed item below on least restrictive environment (LRE).

Flint Community Schools was selected for focused monitoring again in 2008 for rates of suspension and expulsion. Young acknowledged that while the focused monitoring was initially a source of distress for local staff, they methodically reframed the challenge and created an opportunity for reorganizing their operations. The result was a significant increase in the level of engagement of virtually all stakeholders including parents, students, community, the United Teachers of Flint, Genesee Intermediate School District administrators, and staff. After overcoming initial resistance and progressively engaging in collective

problem solving, Flint Community Schools took action and turned focused monitoring into an opportunity for improvement.

### Leadership, Community Collaboration, and Teamwork

*The Flint Journal* newspaper reported on May 11, 2009, "The Flint schools' once-struggling special education program has pulled an about-face in a little more than a year. Thanks to the dedication of one administrator and her team, more students with special needs have been mainstreamed into general education classes...And the best part is, it happened well in advance of a state-imposed deadline."

The article is referring to Patrica Gilcrest-Frazier, Director of Special Education (known as Learning Support Services) for Flint Community Schools, who shared her thoughts about how the process of continuous improvement monitoring has impacted the district. "Because of the focused monitoring, I think that

## Least Restrictive Environment (LRE)

The *Individuals with Disabilities Education Act* (IDEA) of 2004 states that, to the maximum extent appropriate, all students with disabilities, birth through 21 years of age (birth through 25 years of age in Michigan) are to be educated with age appropriate peers, both with and without disabilities. This is known as least restrictive environment (LRE). The LRE is the appropriate balance of settings and services to meet the student's individual needs. The district shall have an array of services and a continuum of educational setting options available to meet the individual LRE needs of each student.

An appropriate LRE is one that enables the student to make reasonable gains toward goals identified in an Individualized Education Program (IEP). The student's IEP shall indicate the LRE for the student and explain to what extent, if any, the student will or will not participate in the general education environment...and extracurricular or other nonacademic activities. The provision includes students with disabilities placed in public or private institutions or other care facilities.

Special classes, a separate school, and other removals of a student with a disability from the general education environment may occur only when the nature or severity of the disability is such that education in the general education class, even with the use of supplementary aids and services, cannot be achieved satisfactorily.

Source: *Learning Support Services Handbook: A Guide to Services, Flint Community Schools, Office of Curriculum and Instruction, August 2007.*

everything that we do now is aligned, and it's aligned to the data. Everything we do is now aligned to the state curriculum and to the district's vision and mission. We are now more focused on the main thing, effective instruction for the students in Flint Community Schools."

Also quoted in *The Flint Journal* article, Superintendent Linda Thompson said, "The district has pushed for more intervention and support for students with special needs."

Flint Community Schools hired more certified and qualified special education teachers in recent years. According to Thompson, they have also found alternative ways to support some students who had been misidentified as special needs students because of troubled backgrounds. "The first line of intervention happens in the general education classroom," Thompson said. "A polished, practiced teacher will know, second nature, the students who are understanding the instruction, and those who are not. The vision is to make sure that a general education teacher practices teaching skills that address that group of students who have IEPs."

"Change the culture of teaching and it changes the culture of the school," Thompson continued. "We are an urban district with a lot of challenges. We still have a lot of work to do, but we're getting there."

In addition to focused monitoring by the state, Flint Community Schools faced a budget crisis and the lowest enrollment of students in 40 years. "In 1968, GM employment peaked at approximately 80,000 workers. About the same time, the Flint Community Schools enrolled its largest K-12 class of 46,557 students. In the 40-year period following the enrollment peak, the school district's student population declined 70 percent, from 46,557 students to 14,056 students," according to the district's 2009 strategic plan *Looking Forward: A Plan of Action for Transforming the Flint Community Schools*. "The Superintendent's role was essential," said Gilcrest-Frazier.

"Superintendent Thompson was not the superintendent when we started these initiatives, but she was an administrator. She was here from the beginning. Her transition was smooth, and her leadership was key. Superintendent Thompson has a background in special education. She was a teacher of students with emotional impairments. It also helped that our executive director for secondary education, Cheryl Tate, has a background in special education. Many of our elementary school principals come from special education backgrounds as well."

"Union leadership, building level staff, curriculum directors, the intermediate school district, and others embraced this challenge and understood that the focused monitoring was leading Flint Community Schools toward what we needed to make happen," Gilcrest-Frazier pointed out. "We partnered with the community by bringing in our community partners, including Community Mental Health (CMH). We talked about student assistance teams and other team processes we used for identifying students for special education. The community is excited to be a part of our team! All the things we did fell into place. The right people were in the right places. The timing was right."

Gilcrest-Frazier is enthusiastic about the changes that have happened in Flint Community Schools. Her pride for the team, the work accomplished, and the district is evident. "Even though we have been lifted out of focused monitoring, the efforts have continued," she said. "There is not anything that happens in the planning process anymore where the special education director, the bilingual director, or the title one director aren't present. We're all at the table! I think that we realize that because of the special education monitoring, it really wasn't just about special education. It is about all students and how we we're serving them. We have so many kids who are at risk. When we improved our practices and our procedures for students with disabilities, we really did help the entire district."

A common goal of the Flint Community Schools team was to meet the needs of



The Center for Educational Networking (CEN) is a statewide education information network that produces and disseminates publications and documents related to the education of students with Individualized Education Programs (IEPs).



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**Behavioral Intervention Plan (BIP)**—A plan comprising practical and specific strategies designed to increase or reduce a definable behavior. These strategies address preventive techniques, teaching replacement behaviors, and crisis management, if necessary.

**Differentiated Instruction**—Techniques in which the teacher proactively plans/carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest, and learning needs.

**Functional Behavior Assessment (FBA)**—A systematic process for defining problem behavior and gathering medical, environmental, social, and instructional information that can be used to hypothesize about the function of student behavior.

**General Education Curriculum**—The curriculum designed for all students, usually consisting of a common core of subjects and curriculum areas adopted by a district that are aligned and defined by the Michigan Content Standards.

**Least Restrictive Environment**—The 2004 requirement under IDEA that students with

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all children regardless of abilities. Communication efforts across the district brought teams together, and activities were centered around that common goal. "We listened to teachers' thoughts and opinions," Gilcrest-Frazier said. "We came together to make decisions. We have a very supportive administrative staff."

### Understanding Data Leads to Improved Practice

"Through the focused monitoring process, we learned that we were not understanding the data we were collecting," Gilcrest-Frazier said. "We now know how to read the data and act on the changes that needed to be made. We had been collecting a lot of data, but we weren't using it to make the changes that we needed to make. You can be data rich, but if you're not interpreting the data, making changes because of the data, you aren't doing anything. The data has helped us to understand where we need to change our practices, and we are using data to show our administration the things we need, including programs and staffing."

"Leonard Bianchi, Director of Research System and Evaluation, did a five-year analysis of our student achievement data in math and reading," Gilcrest-Frazier said. "We shared the results with the teachers participating in the IEP process. The data helped teachers to see the achievement comparisons of Flint Community Schools students with students in the county and students in the state. It helped us to see that students with IEPs aren't just spending time in the general education classrooms inclusion is making a difference in their achievement."

"Students with IEPs are now performing right up there, aligned with the rest of the students in special education around the state," Gilcrest-Frazier said. "When we look back five years, we can see that math scores were significantly lower. We can see the difference our efforts are making."

"In the past, achievement data for students with disabilities wasn't taken into consideration by the district," Gilcrest-Frazier continued. "Now, it's a

given. Dr. Bianchi has since started asking special education staff specifically, 'What data do we need to collect?' In addition, data about special education is presented to the Board of Education, and the Board is asking to see more special education data as a result of our work."

One example of data analysis that has made a significant difference in curriculum planning, according to Gilcrest-Frazier, is observations about reading gains at the elementary grades. Levels appeared to decrease for the majority of students when they reached high school. This analysis encouraged a move toward more content reading activities often used only for students with special needs to be used for all students at the secondary level.

Data strategies to monitor the effectiveness of practices implemented due to focused monitoring include the following:

1. Increase academic achievement of students with disabilities as measured by the Michigan Educational Assessment Program (MEAP), the Michigan Merit Exam (MME), and WORKKEYS.

#### Measurement/Evaluation:

Compare MEAP/MME/WORKKEYS data for students with disabilities for the 2006-2007 school year to the MEAP data for the 2007-2008 school year. Compare data with students that are in basic self-contained settings.

2. Increase stakeholders (parents, students, teachers, and administrators) confidence and acceptability for inclusive programming.

#### Measurement/Evaluation:

Have stakeholders (parents, students, teachers, and administrators) complete pre/post surveys at the beginning and end of the 2007-2008 school year.

3. Increase the school attendance of students with disabilities for the 2007-2008 school year.

#### Measurement/Evaluation:

Collect data regarding the number of days students with disabilities did not attend school during the 2006-2007

school year as compared to attendance for the 2007-2008 school year. Compare attendance of general education students.

4. Decrease behavioral office referrals and suspensions of students with disabilities.

**Measurement/Evaluation:** Collect data regarding the number of students with disabilities who had office referrals and/or suspensions during the 2006-2007 school year as compared to office referrals and/or suspensions during the 2007-2008 school year. Compare data to general education students.

"In the past, we were always changing policies and practices mid-stream, but we no longer do that," Gilcrest-Frazier said. "We really work to continue this change process together. It belongs to the whole school community. With written policies and procedures in place, we know, each year, where we need to focus our energy. For example, we know we want curriculum improvements, strategies to help kids pass algebra, and strategies to help kids to read better. We have data not only for last year but also comparison data including the past five years. I feel good, and the staff feels good because we are making improvements. The bar is going up. We are moving forward.

"This process got us to look at not just the students in special education, but how all the students in our district were being served," Gilcrest-Frazier said. "Our executive director of curriculum and instruction, Eugene Rutledge, used focused monitoring data to develop a district curriculum that is not just textbook driven. We built differentiated instruction into the new curriculum from the start. All staff are now focused more on differentiated instruction. There is a common understanding that the first line of intervention will take place in the general education classroom."

### Practices That Made a Difference for Flint Community Schools

Flint Community Schools got busy with professional development according to

Gilcrest Frazier. "We talked about the difference between an accommodation and a modification. Flint teachers learned about effective co-teaching practices, student assessment teams, response-to-intervention, positive behavior support, differentiated instruction, and other effective classroom practices. We concentrate now on the main thing, which is instruction."

Learning Support Services created a handbook to assist all teachers and the Flint Community Schools in understanding terminology, language from the IDEA, and practices being implemented in the district. The handbook is titled, *Learning Support Services Handbook: A Guide to Services, Flint Community Schools*.

"We are working on getting Algebra II training for our teachers. We make sure that the right staff get the right professional development and that students get the right interventions. We can really focus on that now. I think that we are so in tune to being in compliance that the new activities are becoming habit."

Flint Community Schools applied for a grant from Michigan's Integrated Behavior and Learning Support Initiative (MiBLSi) (see boxed item on page 6). "Training from MiBLSi has been so effective that the superintendent wanted the whole district to apply," Gilcrest-Frazier said. This year, five new schools are participating in MiBLSi training.

"All the elementary principals are interested and taking the time to learn from one another since MiBLSi," Gilcrest-Frazier continued. "Principals and teachers are rallying each other around new initiatives to help students. So many staff really took the ball and ran with it. They are doing great things and they are self-motivated to get things done.

"It's funny," Gilcrest-Frazier mused, "I had wanted to apply for the MiBLSi grant for a while, but didn't get the required interest from the district. Because of focused monitoring, we applied, and suddenly it's a program that everyone wants! The initiative has reduced expulsion and suspension at the elementary levels to almost nothing.

*Continued from page 4*

disabilities, including those in public or private institutions or other care facilities, be educated with students who are nondisabled, to the maximum extent possible.

#### Multidisciplinary Evaluation Team

**(MET)**—A group of people, including the parent or adult student, charged with the responsibility to make recommendations regarding evaluation, assessments, and eligibility. This team includes the same membership as the IEP team (although not necessarily the same individuals) and other qualified professionals.

#### Student Assistance

**Team (SAT)**—A general education team established at the local level, with the purpose to problem-solve regarding the educational needs of any student. Procedures, meeting schedules, and team membership are established locally. The team is likely to include general educators and administrators and could include counselors, specialists, and special education personnel. Parent participation is valued but not required.

*Source: Learning Support Services Handbook: A Guide to Services, Flint Community Schools, Office of Curriculum and Instruction, Learning Support Services, 08-01-07.*



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"We are also looking at including what we've learned from MiBLSi at the secondary level. The district has decided to go forth with positive behavior support (PBS) at the secondary level. Planning is underway," Gilcrest-Frazier said.

### **Points of Pride and A New Vision of Special Education**

"The synergy that came from the focused monitoring carried over into our practice," said Tony Sitko, principal at Potter Elementary School. "We got everyone on board at the building level by modeling the process taking place at the district level. We used the same protocol and procedures across the district. We all spoke the same language and stayed on the same page. Data review is incorporated into our procedures. Everyone is more proactive when looking at our achievement, discipline, and attendance data and using it to make improvements in their work. Focused monitoring opened up everyone's understanding and created a purposeful mindset.

"We no longer think of ourselves as 'special education people,'" said Suzie MacWilliams, Department Chair, Southwestern Academy. We think of ourselves as teachers of all children, and I think that has made a major difference in our work and our approach with general education. In my building, there are two special education staff on the leadership team. We are no longer doing things separately. We are able to see what we do well and that's helpful. The

focused monitoring process helped us to see not only our weaknesses, but our strengths, and we do have some strengths. The focused monitoring reports were never negative. The reports explained what we do well and what we needed to do to improve. We tried to keep that same tone when we went to work on our improvements. Everyone took ownership of the improvements we needed to make."

Flint Community Schools has changed the name of their special education department to Learning Support Services. "This is not just a name change in writing," Gilcrest-Frazier said. "It was about sticking with the positive. We knew that some of our students felt bad about saying that they received special education services or that they were in a special education classroom. We changed our name to reflect just what we do. We asked people all over the district about what they thought the name should be. There were several suggestions, but we decided on this one because it represents what we do. The Board members love it. Even general education teachers now think of us as a support in a good way. We have some people say, 'I don't know if this department is special education or not.' I smile and think, good!"

"Flint people are resilient people," said Sitko. "Our intent is to do what is best for children. We kept our students and their families in mind first as we set about fixing the problems. We're all a part of the plan for improvement. Every time we peeled a problem away, we found others,

### **Michigan's Integrated Behavior and Learning Support Initiative (MiBLSi)**

Funded by the Michigan Department of Education (MDE), MiBLSi\* is designed to help schools develop schoolwide support systems in reading and behavior. MiBLSi is a Response to Intervention (RtI) model that takes approximately three years to fully implement. Schools that participate in MiBLSi have a series of trainings designed to help implement reading and behavior systems.

The training sequence is heavy in the first year and tapers off in the second and third years. Schools typically have a leadership team of five to seven people participate in the trainings. Principal attendance is essential.

**\*MiBLSi is one improvement initiative within Michigan's Integrated Improvement Initiatives (MI3). For more information, visit [www.cenmi.org/miblsi](http://www.cenmi.org/miblsi).**



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and as we continue to work on those problems we are making improvements in areas that weren't even identified."

"There's hardly anything that goes on around here now that one of the learning support supervisors Linda Burroughs, Samuel Dykstra, or I are not included in," Gilcrest-Frazier concluded. "Special education is represented, we bring the special education voice to the district table at every level. You can tell that I'm really happy about all the work that's going on," Gilcrest-Frazier exclaimed. "There's just so much going on!"

### State Closes Flint's Corrective Action Case

According to Shirley Young, all corrective action for Flint Community Schools in the areas of identification, LRE, drop-out rate, and suspension and expulsion for students with IEPs are complete. When asked about the key factors in the Flint Community Schools improvement process, Young stated that the following key corrections have been made:

- The district's psychologists have been retrained to consistently implement the required eligibility criteria for the identification of students with a cognitive impairment (CI).
- Written procedures for the involvement of general education teachers in the multidisciplinary evaluation team (MET) process have been developed, and principals are monitoring the teachers' participation.\*
- The Student Assistance Team (SAT) process has been revised and is being implemented in all buildings with oversight from principals (see Figure 1 on page 8). Each building has a designated, trained behavior intervention team who consults with the SAT when needed.\*
- A district-wide PBS team reviews and recommends models for principals to implement based on each building's suspension data. Professional development has been provided to all teams.
- Data from the Michigan Compliance Information System (MICIS) shows a

decrease in the identification rate of students with CI over the last three years.

- Professional development has been provided to staff regarding the development and provision of accommodations in general education.
- Behavior intervention teams were created in every building and trained.
- MICIS data shows a marked increase in the amount of time students with disabilities spend in general education settings over the last three years.
- The special education department provided training in evaluating students' behavioral needs and completing functional behavioral assessments (FBAs) and behavioral intervention plans (BIPs).\*
- A "Community of Learners," consisting of parents, staff, and community members, was organized with the collaboration of a local foundation and has begun to explore the factors that affect the district's drop-out issues.
- Transition assessments have been administered to all students age 14 and older and a "Summary of Academic Achievement and Functional Performance" has been provided to all graduating seniors.
- All students receiving special education services now have Educational Development Plans (EDP). Aligning EDPs with transition plans is underway.
- Teacher consultants have been assigned to provide services to students with disabilities who are enrolled in the district's alternative education settings.
- All students with disabilities are now coded as such in the district Student Performance Manager (SPM) program. The SPM is updated every 30 days. General education administrators can now determine whether a student has a disability at the time of a potential suspension. Special education chairs have been trained and have access to the discipline records in the SPM system.

\*See glossary of terms on pages 4-5.

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Patricia Gilcrest-Frazier, Director of Special Education (known as Learning Support Services in Flint) was presented with the Michigan Association of Administrators of Special Education (MAASE) "Award of Distinction" for 2009. The annual award recognizes the outstanding service and leadership in the role of a local district special education director. For more information, visit [www.maase.org](http://www.maase.org).

To learn more about Flint's Learning Support Services Department, contact: Pat Gilcrest-Frazier at (810) 760-1022, ext. 118 or [pfrazier@flintschools.org](mailto:pfrazier@flintschools.org).

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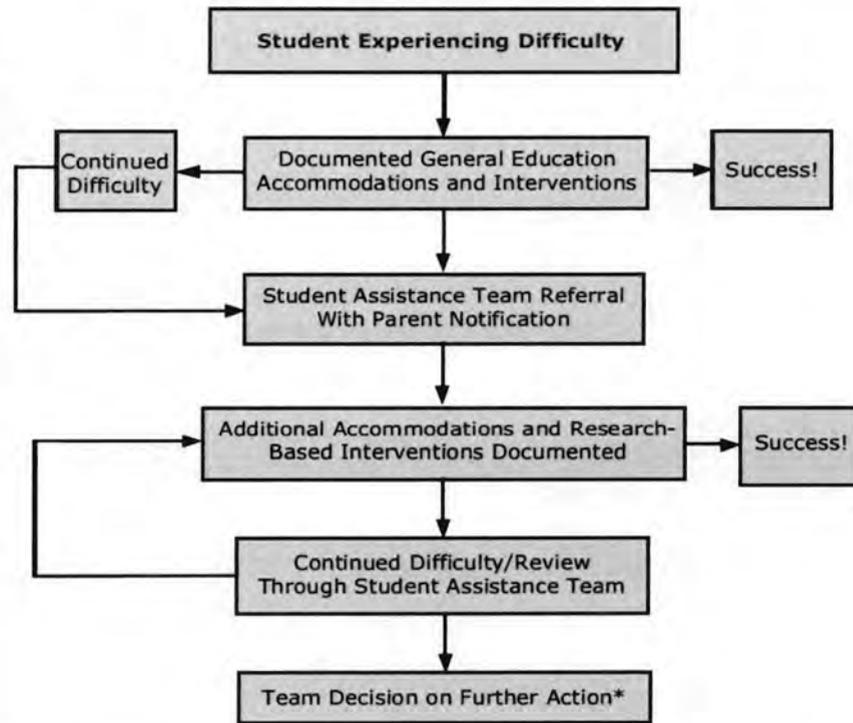
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**Figure 1: Student Assistance Team Flowchart**



**\*Possible Further Actions:** Retention at Grade Level, Learning Support Referral, Section 504 Referral (Letter), Further General Education Interventions

Source: *Learning Support Services Handbook: A Guide to Services, Flint Community Schools, Office of Curriculum and Instruction, Learning Support Services, Patricia Gilcrest Frazier, Director, August 1, 2007.*

**RESOURCES**

**Michigan's Integrated Behavior and Learning Support Initiative (MiBLSi)**  
[www.cenmi.org/miblsi](http://www.cenmi.org/miblsi)

**National Center on Response to Intervention (RTI)**  
[www.rti4success.org](http://www.rti4success.org)

**Flint Community Schools**  
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# LOVETTE REPORT

## Exhibit E



**“Detail outlining exactly what that work entails as it relates to screening, coaching, and instructional strategies, timelines for implementation of the MIBLSI screening, specific dates of the commencement and termination of the grant program, etc.”**

MIBLSI support for Flint Community Schools through Michigan Department of Education

Proposed duration of support: August 2016 – June 2021

**Screening:**

Districts participating in MIBLSI use curriculum-based measures for reading (e.g., DIBELS Next) three times a year to screen their students in reading, as well as the Student Risk Screening Scale (SRSS; Drummond, 1994) three times a year to screen their students in behavior (for more details on assessments, see <https://miblsi.org/evaluation/student-assessments/universal-screening>)

On June 6 -7, 2017, 20 individuals identified by the Flint Community School (FCS) district Implementation Team will receive initial professional learning in the administration and scoring of DIBELS Next assessments. These 20 individuals will be considered the district’s DIBELS Assessment Team. The use of an assessment team will serve three distinct purposes:

1. Increase the efficiency in the data collection across all elementary schools to reduce the loss of instructional time.
2. Increase the timeline for teacher’s having access to data for instructional decision making.
3. Increase the confidence the administration and scoring guidelines have been consistently used across all elementary school classrooms.

There will be two additional professional learning sessions scheduled throughout the school year for teachers to learn how to administer and score the DIBELS Next screening assessments. Teachers that have received the appropriate professional learning will have an opportunity to assist the Assessment Team in the data collection for their assigned classroom of students. The FCS District Implementation Team has agreed that teachers should not be collecting assessment data without the proper professional learning.

Three professional learning sessions will be scheduled in the fall and winter in DIBELS Data Interpretation. This is a professional learning session developed by the DIBELS team to teach staff how to interpret their DIBELS data and use that data for decision making across multiple levels: school-wide (across all grade levels within the school); grade-level, classroom-level, and individual student level.

One MIBLSI staff is assigned to FCS to provide the professional learning and on-going consultation in the use of the DIBELS assessments. The MIBLSI staff assigned to FCS is endorsed by the authors of the DIBELS assessments and Dynamic Measurement Group (DMG) to provide the same level of high-quality professional learning and technical assistance in the administration, scoring and use of the DIBELS assessments. The MIBLSI staff will be working with the Assessment Team to reteach and provide “refresher training” in the administration and scoring guidelines prior to assessment windows during the 2017-2018 school year. In addition to the specific professional learning in the administration, scoring and data interpretation of the DIBELS assessments, MIBLSI staff will assist the FCS in establishing an Assessment System that includes:



- Assessment timelines for fall, winter, and spring screening
- Decisions about the frequency in which students with reading deficits will be progress monitored
- Data analysis timelines for School Leadership Teams and Grade-Level Teams
- Decisions about how the administration and scoring guidelines will be reviewed prior to each assessment window to ensure the integrity in the data collection
- Timelines for when all screening data need to be entered into the data system so data reports can be generated and used by schools and staff.
- Procedures for how assessment materials will be ordered and disseminated to teachers. (FCS is using hand-held devices to collect screening data; however, for progress monitoring of students with reading deficits will require teachers to have access to paper copies of the appropriate assessments.)
- FCS individuals that will provide screening data coordination (coordination of all the screening assessment supports).

Screening Timelines: Fall DIBELS data will be collected in August-September 2017. Winter screening data will be collected in January 2018 and spring assessment data will be collected in May 2018.

The Student Risk Screening Scale (SRSS) is a universal screening tool used three times per year to identify students who may be at risk for challenging, antisocial behavior. The SRSS is conducted to better inform instruction. It is not used to exclude students from the instructional environment. Rather, it is used to select appropriate supports for students. The SRSS is not used independently to determine special education eligibility or make other high stakes decisions. The SRSS, like all universal screening tools, is not used to label students. The SRSS is not intended as an assessment of traits or personality. It should be used as one of multiple data sources to indicate student risk. The SRSS will be introduced in the Tier 2 Behavior Systems training day (10/11/17) with the anticipation of the Flint school collecting the first round of data by the Spring of 2018. We work to ensure that there are practices and behavior support systems in place so that students identified through the screening process are provided with interventions in response to identification of "at risk".

### **Coaching:**

MIBLSI works to develop and enhance coaching capacity within existing systems. The project provides coaching support to the district leadership team. At the district and school level, we view coaching as a function (meaning activities that individual do rather than a job title). MIBLSI works to develop coaching at the school level. Individuals are identified within the district and school to provide coaching functions. MIBLSI has training content for the district and school coaches.

The FCS District Implementation Team has is ensuring that each elementary school will select a person to provide coaching support for the reading components of a Multi-Tiered System of Support and that there is an infrastructure to support the coaches. This Coaching System will serve the following purposes:

- Outline the roles, responsibilities for both the individuals providing coaching and for the recipients of coaching
- Define the process of selecting coaches and developing their knowledge, skills, and abilities in an on-going way
- Ensure schools have access to high-quality coaching in comparable areas of focus that are differentiated across schools based on their data



- Identify mechanisms to communicate successes and implementation barriers across schools with the FCS district Implementation Team
- Define the accountability structures for the individuals providing coaching supports

MIBLSI has provided initial professional learning to the FCS District Implementation Team in the components of a Coaching System (with purposes defined above). Additionally, support has been offered to assist in the development and use of a high-quality selection process for coaches.

MIBLSI will be identifying 1.0 FTE to support the use of the data, systems of support, and instructional practices and programs across elementary schools. The MIBLSI staff identified to support FCS will be communicating with the identified FCS coaches on a regular basis; providing further professional learning for coaches to further develop their knowledge, skills and abilities; and will assist in the communication of successes and barriers to the FCS District Implementation Team.

Additionally, all coaches will attend the professional learning provided to schools in the administration and scoring of screening assessments data interpretation; intervention programs, and infrastructures needed to facilitate students' access to high-quality reading instruction and intervention. There is a professional learning schedule that has been developed for the professional learning topics.

**Timelines to Select Coaches:** It is anticipated coaches will be selected prior to the start of the 2017-2018 school year for implementation of school-wide reading MTSS.

Coaches and coordinators from FCS are invited to participate in the following professional development sessions for Positive Behavioral Interventions and Supports (PBIS) during the 2017-2019 school year.

<b>Date</b>	<b>Training Title</b>	<b>Training Focus</b>
9/14/17	Tier 2 Behavior Systems	Coaching Support Session
11/9/17	Tier 2 Behavior Check-in, Check-Out	Coaching Support Session
2/1/18	Tier 3 Behavior Systems	Coaching Support Session
3/1/18	Data Review	Coaching Support Session

**Instructional Strategies (included in evidence-based programs):**

MIBLSI will be providing direct support to FCS teaching staff in the initial teaching and use of evidence-based reading intervention programs and materials. The selected intervention programs align with the Third-Grade Reading Legislation because they have been chosen to address the "Essential Components of Reading" outlined in the legislation (phonemic awareness, phonics, fluency, vocabulary, and comprehension). Teachers will receive the teacher materials during the initial training and will have opportunities to practice teaching from the programs and materials. Teachers will be asked to bring their DIBELS fall assessment data with them to understand how to prioritize students that require access to the intervention programs and materials. They will also learn how to progress monitor their students using the DIBELS Next progress monitoring assessment materials.

Professional learning in the intervention programs will begin in October 2017. This window of time was intentionally selected to ensure all teachers had access to fall screening



assessment data so they can bring it with them to the professional learning sessions. Additional intervention program professional learning sessions will be provided in January 2018. The sequence of intervention program professional learning will continue throughout the 2018-2019 school year.

The MIBLSI support to the FCS District Implementation Team began in November 2016. It will expand to the elementary schools and staff starting June 2017 through June 2021.

### **Professional Development in Positive Behavioral Interventions and Supports (PBIS)**

School leadership teams and coaches from FCS have participated in the following PBIS training events during the 2016-2017 school year. Below is a table describing the events and training focus.

<b>Date</b>	<b>Training Title</b>	<b>Training Focus</b>	<b>Number of Participants</b>
8/11/2016	School-wide PBIS Day 1	Coaching Support Session	48
9/22/2016	School-wide PBIS Day 1	Behavior - Tier 1	112
9/28/2016	School-wide PBIS Day 2	Coaching Support Session	63
10/19/2016	School-wide PBIS Day 2	Behavior - Tier 1	101
11/2/2016	School-wide PBIS Day 3	Coaching Support Session	53
11/17/2016	School-wide PBIS Day 3	Behavior - Tier 1	87
3/8/2017	Class-wide PBIS SLT	Coaching Support Session	40
3/16/2017	Class-wide PBIS SLT	School Level Training	74

The following training events are scheduled for the 2017-2018 school year. MIBLSI is collaborating with Genesee ISD to support leadership team implementation of PBIS at the school level.

<b>Date</b>	<b>Training Title</b>	<b>Training Focus</b>
10/11/17	Tier 2 Behavior Systems	School Leadership Team
11/15/17	Tier 2 Behavior Check-in, Check-Out	School Leadership Team
2/14/18	Tier 3 Behavior Systems	School Leadership Team
3/28/18	Data Review	School Leadership Team

Additionally, staff from FCS are invited to participate in the follow Data Coordinator Training sessions.

<b>Date</b>	<b>Training Title</b>	<b>Training Focus</b>
8/31/17	SRSS Coordinator Training	Data Coordinator Session
-	PBIS Assessment Coordinator	Webinar available continuously through miblsi.org
8/15/17-8/17/17 repeat 9/12/17-9/14/17	SWIS Facilitator Training	Data Coordinator Session
11/13/17	Check-in Check-out Facilitator	Data Coordinator Session

# LOVETTE REPORT

## Exhibit F



UNITED STATES DEPARTMENT OF EDUCATION  
OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES

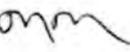
JAN 21 2010

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OSEP 11-07

**MEMORANDUM**

TO: State Directors of Special Education

FROM: Melody Musgrove, Ed.D.   
Director  
Office of Special Education Programs

SUBJECT: A Response to Intervention (RTI) Process Cannot Be Used to Delay-Deny an Evaluation for Eligibility under the Individuals with Disabilities Education Act (IDEA)

The provisions related to child find in section 612(a)(3) of the Individuals with Disabilities Education Act (IDEA), require that a State have in effect policies and procedures to ensure that the State identifies, locates and evaluates all children with disabilities residing in the State, including children with disabilities who are homeless or are wards of the State, and children with disabilities attending private schools, regardless of the severity of their disability, and who are in need of special education and related services. It is critical that this identification occur in a timely manner and that no procedures or practices result in delaying or denying this identification. It has come to the attention of the Office of Special Education Programs (OSEP) that, in some instances, local educational agencies (LEAs) may be using Response to Intervention (RTI) strategies to delay or deny a timely initial evaluation for children suspected of having a disability. States and LEAs have an obligation to ensure that evaluations of children suspected of having a disability are not delayed or denied because of implementation of an RTI strategy.

A multi-tiered instructional framework, often referred to as RTI, is a schoolwide approach that addresses the needs of all students, including struggling learners and students with disabilities,

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and integrates assessment and intervention within a multi-level instructional and behavioral system to maximize student achievement and reduce problem behaviors. With a multi-tiered instructional framework, schools identify students at-risk for poor learning outcomes, monitor student progress, provide evidence-based interventions, and adjust the intensity and nature of those interventions depending on a student's responsiveness.

While the Department of Education does not subscribe to a particular RTI framework, the core characteristics that underpin all RTI models are: (1) students receive high quality research-based instruction in their general education setting; (2) continuous monitoring of student performance; (3) all students are screened for academic and behavioral problems; and (4) multiple levels (tiers) of instruction that are progressively more intense, based on the student's response to instruction. OSEP supports State and local implementation of RTI strategies to ensure that children who are struggling academically and behaviorally are identified early and provided needed interventions in a timely and effective manner. Many LEAs have implemented successful RTI strategies, thus ensuring that children who do not respond to interventions and are potentially eligible for special education and related services are referred for evaluation; and those children who simply need intense short-term interventions are provided those interventions.

The regulations implementing the 2004 Amendments to the IDEA include a provision mandating that States allow, as part of their criteria for determining whether a child has a specific learning disability (SLD), the use of a process based on the child's response to scientific, research-based intervention<sup>1</sup>. See 34 CFR §300.307(a)(2). OSEP continues to receive questions regarding the relationship of RTI to the evaluation provisions of the regulations. In particular, OSEP has heard that some LEAs may be using RTI to delay or deny a timely initial evaluation to determine if a child is a child with a disability and, therefore, eligible for special education and related services pursuant to an individualized education program.

Under 34 CFR §300.307, a State must adopt, consistent with 34 CFR §300.309, criteria for determining whether a child has a specific learning disability as defined in 34 CFR §300.8(c)(10). In addition, the criteria adopted by the State: (1) must not require the use of a severe discrepancy between intellectual ability and achievement for determining whether a child has an SLD; (2) must permit the use of a process based on the child's response to scientific, research-based intervention; and (3) may permit the use of other alternative research-based procedures for determining whether a child has an SLD. Although the regulations specifically address using the process based on the child's response to scientific, research-based interventions (i.e., RTI) for determining if a child has an SLD, information obtained through RTI strategies may also be used as a component of evaluations for children suspected of having other disabilities, if appropriate.

The regulations at 34 CFR §300.301(b) allow a parent to request an initial evaluation at any time to determine if a child is a child with a disability. The use of RTI strategies cannot be used to delay or deny the provision of a full and individual evaluation, pursuant to 34 CFR §§300.304-

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<sup>1</sup> The Department has provided guidance regarding the use of RTI in the identification of specific learning disabilities in its letters to: Zirkel - 3-6-07, 8-15-07, 4-8-08, and 12-11-08; Clarke - 5-28-08; and Copenhagen - 10-19-07. Guidance related to the use of RTI for children ages 3 through 5 was provided in the letter to Brekken - 6-2-10. These letters can be found at <http://www2.ed.gov/policy/speeed/guid/idea/index.html>.

Page 3

300.311, to a child suspected of having a disability under 34 CFR §300.8. If the LEA agrees with a parent who refers their child for evaluation that the child may be a child who is eligible for special education and related services, the LEA must evaluate the child. The LEA must provide the parent with notice under 34 CFR §§300.503 and 300.504 and obtain informed parental consent, consistent with 34 CFR §300.9, before conducting the evaluation. Although the IDEA and its implementing regulations do not prescribe a specific timeframe from referral for evaluation to parental consent, it has been the Department's longstanding policy that the LEA must seek parental consent within a reasonable period of time after the referral for evaluation, if the LEA agrees that an initial evaluation is needed. See Assistance to States for the Education of Children with Disabilities and Preschool Grants for Children with Disabilities, Final Rule, 71 Fed. Reg., 46540, 46637 (August 14, 2006). An LEA must conduct the initial evaluation within 60 days of receiving parental consent for the evaluation or, if the State establishes a timeframe within which the evaluation must be conducted, within that timeframe. 34 CFR §300.301(c).

If, however, the LEA does not suspect that the child has a disability, and denies the request for an initial evaluation, the LEA must provide written notice to parents explaining why the public agency refuses to conduct an initial evaluation and the information that was used as the basis for this decision. 34 CFR §300.503(a) and (b). The parent can challenge this decision by requesting a due process hearing under 34 CFR §300.507 or filing a State complaint under 34 CFR §300.153 to resolve the dispute regarding the child's need for an evaluation. It would be inconsistent with the evaluation provisions at 34 CFR §§300.301 through 300.111 for an LEA to reject a referral and delay provision of an initial evaluation on the basis that a child has not participated in an RTI framework.

We hope this information is helpful in clarifying the relationship between RTI and evaluations pursuant to the IDEA. Please examine the procedures and practices in your State to ensure that any LEA implementing RTI strategies is appropriately using RTI, and that the use of RTI is not delaying or denying timely initial evaluations to children suspected of having a disability. If you have further questions, please do not hesitate to contact me or Ruth Ryder at 202-245-7513.

References:

Questions and Answers on RTI and Coordinated Early Intervening Services (CEIS), January 2007

Letter to Brekken, 6-2-2010

Letter to Clarke, 4-28-08

Letter to Copenhaver, 10-19-07

Letters to Zirkel, 3-6-07, 8-15-07, 4-8-08 and 12-11-08

cc: Chief State School Officers  
Regional Resource Centers  
Parent Training Centers  
Protection and Advocacy Agencies  
Section 619 Coordinators

# LOVETTE REPORT

## Exhibit G



Education Guidelines for the  
**PREVENTION AND MANAGEMENT**  
**OF LEAD POISONING**  
in Children



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## Preface

### *A Call to Action!*

Childhood lead poisoning remains a critical environmental health concern in Connecticut. Childhood lead exposure has been linked to a number of adverse cognitive outcomes, including reduced performance on standardized intelligence quotient tests, decreased performance on cognitive functioning tests, adverse neuropsychological outcomes, neurobehavioral deficits, decreased end-of-grade test scores and classroom attention deficit behaviors.

In response to these health concerns, the Connecticut State Department of Education (CSDE) and the State Department of Public Health (DPH) engaged researchers at Duke University's Children's Environmental Health Initiative to conduct an analysis of the effects of early childhood lead exposure on test performance among Connecticut schoolchildren.

Results from this study include the following:

- early childhood lead exposure negatively affected Connecticut Mastery Test scores in both reading and mathematics;
- disparate exposures by race suggest that exposure to lead may account for part of the achievement gap among Connecticut schoolchildren; and
- negative associations were statistically significant at blood lead levels well below the current Centers for Disease Control and Prevention's blood lead action level of 10µg/dl.

The importance of these results prompted the CSDE's development of the *Education Guidelines for the Prevention and Management of Lead Poisoning in Children* to inform the practice within school districts in:

- lead prevention;
- early identification of students exposed and affected by lead; and
- educational programming in response to lead exposure in order to mitigate existing or potential deficits.

The *Education Guidelines for the Prevention and Management of Lead Poisoning in Children* is available on the CSDE's Health Promotion Services/School Nurse Web site at <http://www.sde.ct.gov/sde/cwp/view.asp?a=2678&q=320768>. For more information, contact:

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# 1

## Introduction

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### Why is learning about lead exposure in children important?

Lead is a poisonous metal found in small amounts in the earth's crust. It is ever-present in the human environment today because of industrialization.<sup>1</sup> Lead provides no known physical benefit for human beings, and its toxic effects, which are extensive, are especially dangerous for children. Children are more vulnerable than adults are to these toxic effects because:

- a greater proportion of ingested lead is absorbed from the gastrointestinal tract of children than of adults;
- a greater proportion of lead circulating in the body gains access to the brains of children, especially those 5 years of age or younger, than of adults; and
- the developing nervous system is far more vulnerable to lead's toxic effects than the mature brain.<sup>2</sup>

Lead poisoning, for the most part, is silent: most poisoned children have no symptoms and the vast majority of cases go undiagnosed and untreated. Although lead poisoning is disproportionately a problem of inner city and minority children, no socioeconomic group, geographic area, or racial or ethnic population is spared.<sup>3</sup> While lead poisoning can affect every system in the body, it is especially dangerous to the developing brains and nervous systems of unborn children and children under 6 years old.

Lead poisoning in children presents a critical challenge for educators because even at very low levels of exposure evidence shows that:

- it can cause serious, permanent damage to a child's developing brain;
- its neurotoxic effects can interfere with a child's ability to think, learn, pay attention, and behave appropriately;
- it is directly associated with lower IQ scores and lower scores on standardized performance tests; and
- research shows that it is a contributing factor to the achievement gap among Connecticut children.



It is also important for educators to address because:

- lead poisoning is entirely preventable;
- its neurotoxic and behavioral effects may be ameliorated by early enrichment; and
- educators have abundant opportunity, in collaboration with others, to contribute to the prevention and effective management of lead poisoning in children.

## History of lead poisoning — an overview

The toxic effects of lead exposure in children were observed and reported in the medical literature as early as the late 1800s. Initially, the most severe cases were recognized by major symptoms such as seizures and other neurological abnormalities, mental retardation, coma, and death. As physicians in the 1920s and 1930s were better prepared to recognize the symptoms of lead poisoning, including milder symptoms such as vomiting, colic, abdominal pain and irritability, the majority of cases still went undiagnosed because symptoms were easily confused with those related to other conditions, such as meningitis, brain tumors, and gastrointestinal conditions. Nevertheless, before 1940, both the medical community and the lead industry recognized that lead posed a major public health problem, especially for children.

Early in the 1900s, paint containing lead was recognized internationally as a major source of lead poisoning in young children, and by the end of the 1920s, several countries had banned the use of lead paint indoors and on certain products such as cribs and toys. By the 1940s, the lead industry in the

United States had begun to decrease the amount of lead used in interior paints, but it was not until 1978 that lead-based paint was actually banned from use and subsequently phased out. Most homes built before 1978, like so many in Connecticut, were painted both inside and out with lead paint. In 1998, of the 16.4 million US homes with one or more children younger than 6 years, 25 percent still had significant amounts of lead-contaminated deteriorated paint, dust, or adjacent bare soil.<sup>3</sup>



It takes very little exposure to cause high blood lead levels.

Dust and soil become a final resting place for airborne lead from gasoline and dust from old paint and industrial sites. Lead in dust and soil can re-contaminate cleaned houses and contribute to elevating blood lead concentrations in children who play on bare, contaminated soil.<sup>4</sup> When old paint deteriorates,

or during remodeling, paint dust becomes prevalent in the environment. Exposed pregnant women can inhale the dust, increasing lead in their blood and in the blood of the fetus. Exposed young children can breathe in paint dust and ingest it by putting their dust-covered hands and toys to their mouths. They may also be exposed to lead by playing with paint chips or contaminated soil, or chewing on painted toys, cribs, or windowsills. It takes very little exposure to cause high blood lead levels.

While dust from old paint is not the only source of potential lead exposure for children, today it is the main source of high-dose exposure.<sup>6</sup> Contaminated soil and water from lead pipes also continue to be sources of lead exposure. Leaded gasoline was considered the greatest source of environmental lead contamination in the United States from the 1950s through the 1980s; it was phased out for use in cars starting in 1973 and completely banned for use in on-road vehicles in 1996. This phase-out resulted in an estimated 78 percent drop in average blood lead levels in this country between 1976 and 1991. Leaded gas can still be sold for off-road uses, such as farm equipment, racing cars, and aircraft. Furthermore, individual children may still be exposed to airborne lead in fumes or breathable dust resulting from sanding or heating old paint, burning or melting automobile batteries, or melting lead for use in a hobby or craft.<sup>7</sup>

## Scientific Evidence

The Centers for Disease Control and Prevention (CDC) defines lead poisoning according to the amount of lead found in a person's blood; it is measured in micrograms (mcg) per deciliter (dL). Over time, the CDC has identified a "blood lead level of concern" based on available scientific evidence. This level of concern, which designates the standard for diagnosis and intervention by public health officials and physicians, has significantly changed over time. In 1960, the CDC minimum level of concern was 60 mcg/dL; in 1985, it was 25 mcg/dL, and in 1991, it was decreased to 10 mcg/dL. In June 2012, the CDC eliminated the term "blood lead level of concern" and adopted the term "reference value." The "reference value" is based on the population of children ages 1–5 years in the United States whose blood lead levels are in the highest 2.5 percent of children tested. Today, that level is 5 mcg/dL. However, current scientific evidence has established that there is no safe level of lead in a child's body.<sup>8</sup>



Any lead is too much lead!<sup>9</sup>

Scientific research findings provide evidence that blood lead levels (BLLs) in children between 1 mcg/dL and 5 mcg/dL and 5 mcg/dL and 9 mcg/dL cause a more precipitous drop in IQ than BLLs in ranges above 10 mcg/dL.<sup>10, 11</sup> Of greater concern, research demonstrates that even when the drop in IQ is small (two to three points),



Effective interventions to improve cognitive functioning in children with lead poisoning must be multifaceted.

there can be significant neuropsychological deficits in one or more domains of brain function.<sup>12, 13, 14</sup> Research in children further suggests that the adverse health effects of BLLs less than 10 mcg/dL extend beyond cognitive function to include cardiovascular, immunological, and endocrine effects. The evidence is based on studies with large numbers and diverse groups of children with low BLLs and associated IQ and neuropsychological deficits. Effects at BLLs under 10 mcg/dL are also reported for behavioral domains, particularly attention-related behaviors and academic achievement, and do not appear to be confined

to lower socioeconomic status populations.<sup>15, 16, 17</sup>

Research confirms that elevated lead concentrations in the blood are more common among children living in poverty and provides some evidence that socioeconomic status and parenting influence associations between lead and child outcomes.<sup>18, 19</sup> Micronutrients that have been shown to influence the effects of lead include iron and zinc, indicating a relationship between lead poisoning and nutritional status. Also of importance, research findings indicate that effective interventions to improve child cognitive functioning must be multifaceted, including identification and reductions of toxins in the environment; monitoring and addition of appropriate nutrients in children's diets; parental education to increase involvement and other parenting skills such as limit setting and effective requests for child compliance,<sup>20</sup> and early enrichment.

Despite strong evidence of the harmful effects of lead poisoning in children demonstrated through population-based research, individual case studies also confirm that there can be considerable variability in functional outcomes among children with lead poisoning. One child with exposure to lead resulting in BLLs between 5 mcg/dL and 9.9 mcg/dL may sustain brain damage resulting in significant neurocognitive and behavioral deficits, while another child with an exposure level resulting in BLLs far exceeding 10 mcg/dL may not show any functional deficits in cognition or behavior.<sup>21, 22</sup> The reasons for this variability in functional outcomes are not fully understood, and are likely to be multifactorial. Furthermore, study outcomes vary on the relative importance of duration of exposure, peak BLL, and age of exposure.

Several studies indicate that concurrent (current BLL of school age child) or lifetime average blood lead concentrations are better predictors of children's IQ scores than measures taken in early childhood.<sup>23</sup> In any event, a blood lead level alone is not a reliable biomarker of total lead exposure, except for short-term exposure, since the half-life of lead in the blood is 36 days. From the blood stream, lead is deposited in the brain, other soft tissues of the body, bones, and teeth, where it may remain for years; some of it is eliminated through the kidneys and gastrointestinal tract. Blood lead levels do not measure lead deposits in the brain or other tissues of the body. Additionally, lead stored in the bones and other tissues can leach back into the blood stream and recirculate through the body under certain circumstances, for example, during pregnancy.

The next section discusses research specific to the effects of lead exposure on Connecticut children.

## Lead Exposure: A Contributor to the Achievement Gap in Connecticut

In response to the health concerns cited by experts in Connecticut and nationally, the Connecticut State Department of Education (CSDE) in collaboration with the State Departments of Public Health (DPH) and Social Services engaged researchers at Duke Uni-



One child with exposure to lead resulting in BLLs between 5 mcg/dL and 9.9 mcg/dL may sustain brain damage resulting in significant neurocognitive and behavioral deficits, while another child with an exposure level resulting in BLLs far exceeding 10 mcg/dL may not show any functional deficits in cognition or behavior.

versity's Children's Environmental Health Initiative (CHEI) to conduct an analysis of the effects of early childhood lead exposure on test performance among Connecticut school children. Early in 2011, the first phase of the study results were released in a report titled, *The Impact of Early Childhood Lead Exposure on Educational Test Performance among Connecticut Schoolchildren, Phase I Report* (also referred to as "The Miranda Study"). Phase II of the Miranda Study was released in 2013 (<http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking.lead.and.education.data.phaseii.pdf>). Based on scientific analysis of the Connecticut data, Dr. Marie Lynn Miranda and other researchers at CHEI found the following:

- early childhood lead exposure negatively affected Connecticut Mastery Test scores in reading and mathematics;
- disparate exposures by race suggest that exposure to lead may account for part of the achievement gap among Connecticut schoolchildren;<sup>24</sup> and
- negative associations were statistically significant at blood lead levels below the current Centers for Disease Control and Prevention's blood lead action level of 5 mcg/dL.<sup>25</sup>

These results emphasize the ongoing, critical necessity of protecting children from lead exposure, and underscore important implications for Connecticut's students and educators. Indeed, the study's outcomes provided the motivating force for the development of these guidelines and collaborative statewide efforts to inform practice within school districts regarding:

- lead poisoning prevention;
- effects of lead exposure on early childhood development;
- early identification of students with a history of exposure to lead;
- educational programming in response to lead exposure in order to mitigate or eliminate existing and potential deficits; and
- educational resources available for educators.

## Prevalence of Childhood Lead Poisoning in the U.S. and Connecticut

Approximately 250,000 children in the United States today are identified with blood levels equal to or greater than 10 mcg/dL.<sup>26</sup> Approximately 450,000 U.S. children have BLLs at or above 5 mcg/dL, almost double the total number with BBLs at or above 10 mcg/dL.

In Connecticut, state and local officials follow the current CDC standard for public health and medical interventions (see appendixes E and F). Based on the 2011 Connecticut screening data, 84,008 children, age birth to 6 years, were screened in 2011.<sup>27</sup> Of the 84,008 children tested, 4,365 (6.5%) had blood lead levels (BLLs) between 5 mcg/dL and 9.9 mcg/dL, 355 (0.8%) had BLLs between 10 mcg/dL and 14.9 mcg/dL, 153 (0.3%) had BLLs between 15 mcg/dL and 19.9 mcg/dL, and 111 (0.1%) had BLLs greater than or equal to 20 mcg/dL.



In Connecticut, public health officials follow the current CDC standard of BLL equal to or greater than 5 mcg/dL to activate public health and medical interventions for children with lead poisoning.

## Primary Prevention Goals and Persistence of Lead Poisoning

In 1991, the U.S. Department of Health and Human Services made eradication of lead poisoning in children a public health goal for the nation.<sup>38, 39</sup> Also in 1990–91, the U.S. Department of Housing and Urban Development and the Environmental Protection Agency released plans dealing with the elimination of lead hazards. Eradication of lead poisoning in children was also included in *Healthy People 2010: Objectives for Improving Health*, as a priority health goal for the nation to achieve within the 2000–2010 decade.<sup>40</sup> Eradication of lead paint and dust in housing and soil was deemed the best method of primary prevention because it eliminates the source of the problem before exposure occurs. Early screening of young children and rapid intervention to prevent lead poisoning as defined by the CDC was recognized as the next best step in prevention efforts.



Despite the significant reduction in average BLLs in recent decades, exposure in unborn and young children persists, as do racial and income disparities.

Although progress has been made with state and federal funding targeted both to educational programs about lead poisoning, housing improvement and abatement projects, and early childhood screening and intervention programs, many children in Connecticut and across the country continue to live and play in homes where they are exposed to lead. In the objectives for environmental health in *Healthy People 2020*, the U.S. Department of Health and Human Services states:

*The number of children with elevated blood lead levels in the U.S. is steadily decreasing. As a result, determining stable national prevalence estimates and changes in estimated prevalence over time...is increasingly difficult. **Eliminating elevated blood lead levels in children remains a goal of utmost importance to public health.** The sample sizes available...preclude the ability to have a viable target for HP2020...Efforts must and will continue to reduce blood lead levels and to monitor the prevalence of children with elevated blood lead levels.*<sup>41</sup>

Thus, reducing lead poisoning remains a high public health priority at the federal, state, and local levels for the 2011–2020 decade. While a priority objective, it is unclear what level of funding will be available to support ongoing primary prevention programs over this decade.

Despite the significant reduction in average BLLs in recent decades, exposure in unborn and young children persists, as do racial and income disparities.<sup>42, 43</sup> According to the ACCLPP report, racial and income differences can be traced to differences in housing quality, environmental conditions, nutrition, and other factors.<sup>44</sup> Others point out that those who are poor and disadvantaged are more likely to:

- live in lead-contaminated environments, especially in dilapidated housing with flagrant lead paint hazards;
- live in urban neighborhoods where years of traffic have left tons of lead deposits from leaded gasoline; and
- live near point sources of lead, such as smelters, or hazardous waste sites.<sup>45</sup>

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## Public Health Standard for Intervention

"In January 2012, the Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) recommended that the CDC change its 'blood lead level of concern,' which has been 10 micrograms of lead per deciliter. Over the last several years, a growing body of scientific evidence has suggested adverse effects in children with BLLs below 10 micrograms of lead per deciliter of blood. On May 16, 2012, the ACCLPP officially announced their agreement with that recommendation and the change in the CDC policy.

The ACCLPP recommends that CDC eliminate the term 'level of concern.' Instead, the committee recommends linking elevated blood lead levels to data from the National Center for Environmental Health (NCEH) National Exposure Report to identify children living or staying for long periods in environments that expose them to lead hazards. This new level, called a 'reference value,' is based on the population of children aged 1-5 years in the United States whose blood lead levels are in the highest 2.5 percent of children tested. Today, that level is 5 micrograms of lead per deciliter of blood.

For more than 20 years, NCEH's work to eliminate lead poisoning in children has been one of CDC's most visibly successful initiatives. It has contributed significantly to lowering blood lead levels, increasing the number of children tested for elevated blood lead levels, and promoting state and local lead screening plans and abatement laws."<sup>16</sup>



# 2

## Educational Implications

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**B**ASED ON CURRENT RESEARCH FINDINGS RELATED TO THE EFFECTS OF LEAD POISONING ON THE LEARNING AND behavior of individual children, schools have a responsibility to contribute to primary prevention and early intervention efforts to eliminate the occurrence of lead poisoning and address its effects on children. It is critical that communities work together to:

- prevent lead exposure in children through elimination of lead paint in old homes, improvement of dilapidated housing, enhancing the nutrition status of at-risk children and parent education (primary prevention); and
- intervene rapidly when exposure has occurred to counteract potential toxic effects on neurocognitive development, learning, and behavior (early intervention).



The purpose of these guidelines is to clarify the role of schools in meeting the needs of children and families affected by lead.

While much work to prevent and to intervene early with lead poisoning in children has already been achieved through public health, housing, and medical officials, the role of schools in identifying and providing appropriate educational services to children who may have been exposed to lead has been less clear. The purpose of these guidelines is to clarify that role and assist educators in meeting the needs of children and families affected by lead.

## What can schools do?

There are important steps that school districts can take to contribute to both primary prevention and early intervention efforts on behalf of children in their communities. Those steps are listed below. Specific details and issues related to each of these steps are then provided in individual sections that follow. In addition, two flowcharts are provided to visually demonstrate the process for steps 4 and 7 through 10; one is for preschoolers and the second is for students in kindergarten through Grade 12.

1. Develop school district policy and procedures regarding children who may be affected by lead.
2. Educate school personnel.
3. Collaborate with parents and community partners to educate families and students.
4. Immediately refer any child known to have exposure to lead to their medical provider and if appropriate, referral for housing assistance. Students with symptoms consistent with lead toxicity should be referred for urgent medical evaluation.
5. Use Child Find processes to locate, identify and refer as early as possible children with disabilities and their families who are in need of Birth-to-Three (Part C) or Preschool Special Education (Part B) services of the Individuals with Disabilities Education Improvement Act (IDEA).
6. Monitor children and young people birth to 21 who are at high risk for lead poisoning but do not have evidence of a BLL equal to or greater than 5 mcg/dL.
7. Obtain a lead history for all students ages 3–21 identified as having a BLL equal to or greater than 5 mcg/dL.
8. Develop a monitoring plan within a Scientific Research-Based Intervention (SRBI) framework, addressing the needs of all students ages 3–21, as appropriate, with a history of BLLs equal to or greater than 5 mcg/dL.
9. Refer preschoolers and young school-age children with a history of BLLs equal to or greater than 5 mcg/dL for enrichment opportunities as indicated.
10. Refer students, when indicated, to a Section 504 team or PPT for determination of a disability and eligibility under Section 504 of the Rehabilitation Act or the IDEA.



### *Step 1: Develop school district policy and procedures*

A policy addressing students affected by lead poisoning should briefly state a school district's commitment to collaboration with parents and community partners to identify and intervene early with children who have been exposed to lead. Alternatively, if the district already has a policy on educating students with special health care needs, lead poisoning can be one of the health conditions that is addressed within the broader policy.

School district policy and procedures regarding students who may be affected by lead should include:

- a. staff education;

- b. collaboration with community partners;
- c. parent education strategies;
- d. child find identification of children suspected of having a disability;
- e. referral of identified students to the appropriate school team for monitoring;
- f. referral of identified students for enrichment opportunities, lead screening, medical care, public health interventions and housing assistance; and
- g. when indicated, referral for an evaluation to determine eligibility for special education or accommodations/modifications under Section 504.

Generally school districts already have procedures in place for Child Find, general education accommodations (e.g., individualized health care plans), SRBI, Section 504, and special education. Districts should review those procedures and ensure that they properly address the prevention, early intervention, or other needs of students with a positive history of lead exposure at BLLs equal to or greater than 5 mcg/dL. A district can use the steps outlined in these guidelines to develop new procedures specific for these students or revise existing ones to include the recommended actions.

### *Step 2: Educate school personnel*

All members of a school team need to understand that:

- a. Lead poisoning, even at low levels of exposure (under 10 mcg/dL), may cause serious, permanent damage to an individual child's developing brain and interfere with a child's ability to:
  - i. think
  - ii. learn
  - iii. pay attention
  - iv. behave appropriately
- b. Lead poisoning can be found in any child regardless of race, socioeconomic status or location of home.
- c. Lead poisoning disproportionately affects urban and minority populations.
- d. A history of lead exposure, even with BLLs levels at higher levels, does not, in an individual child, automatically indicate adverse effects.
- e. Interventions to improve child outcomes should be multifaceted.
- f. Prevention and early intervention strategies, such as enrichment, good nutrition, and effective parenting skills, can improve learning and behavior outcomes.
- g. Educational interventions must be provided equitably within the context of applicable laws and regulations.

Many health and education providers today are not knowledgeable about the continuing existence of lead poisoning among children in Connecticut or the current research that provides evidence of neurotoxic effects of lead on the developing brain, even at low levels of exposure previously considered safe. It is important for staff to learn about the current research, understand the potential for permanent harm in affected children, and recognize their responsibilities in the prevention, identification of children exposed to lead, and early interventions to counteract the harmful effects of lead poisoning.

Staff members also need guidance in understanding both the obligations and the limitations for addressing the needs of children with lead poisoning that federal law and regulation impose on school districts, particularly those related to discrimination and the education of children with disabilities. These guidelines are intended to help educators pursue best practice standards for educational interventions given those obligations and restrictions.

It may be helpful for school districts to identify a core group of professional staff (i.e., school nurses, school psychologists, school social workers and school counselors) to be responsible for providing consistent professional development programs within the district.

This core group must first gain knowledge about lead poisoning and a more in-depth understanding of the research and its implications for education than other staff may require. They can review the resources for educators discussed in [section 3](#), use the PowerPoint provided in the Lead Action for Medicaid Primary Prevention (LAMPP) program, discussed in that section, and access some of the professional literature regarding the effects of lead poisoning on children.

*Step 3: Collaborate with parents and community partners to educate families and students*

Schools should collaborate with parents and community partners to educate families and students about:

- a. lead poisoning;
- b. lead exposure prevention strategies;
- c. sources of lead exposure;
- d. lead screening;
- e. the importance of enrichment and effective parenting; and
- f. resources for education and intervention.



Primary prevention of lead poisoning and early intervention with those affected by lead's presence in the environment require a broad community approach

Primary prevention of lead poisoning and early intervention with those affected by lead's presence in the environment require a broad community approach. Schools can contribute to primary prevention programs already established by local health departments and housing and medical providers funded to provide such programs in several ways. They can:

- a. incorporate lead poisoning prevention information into health and science curricula for students;
- b. collaborate with public health officials and pediatric medical providers in delivering educational programs for parents on lead poisoning prevention and effective parenting skills, and distributing educational information to families in the community;
- c. alert staff, parents and community partners of known or potential lead hazards affecting the community or a segment of the community; and
- d. identify children at high risk for lead poisoning and intervene through collaborations with public health officials before exposure occurs.

Schools can — and are obligated to — contribute to early intervention efforts through Child Find activities, which are discussed in the next subsection. Schools should also establish working relationships

with providers of preschool enrichment opportunities, such as Head Start and School Readiness programs, to facilitate referral and placement.

*Step 4: Immediately refer any children known to have exposure to lead to their medical provider and, if appropriate, refer for housing assistance. Students with symptoms consistent with lead toxicity should be referred for urgent medical evaluation.*

School personnel are often in a good position to identify children who may have been exposed to lead. When this information comes to their attention, school personnel should make a referral to the child's medical provider and refer the family for housing assistance, if indicated. It is important to make these referrals as early as possible since lead poisoning often occurs with no obvious symptoms and, therefore, goes unrecognized.<sup>37</sup>

Signs and symptoms, if any, usually do not appear until dangerous amounts of lead have accumulated in the child's brain and body. Severe symptoms of acute lead poisoning are rare, and are usually seen at levels of 70 mcg/dL and above. They require emergency intervention and include:

- a. seizures;
- b. unconsciousness;
- c. paralysis; and
- d. swelling in the brain.

Children may show symptoms after extended periods of blood lead levels at lower levels. The following symptoms, while not specific to lead poisoning, may be indicative of lead poisoning, and should be considered by school nurses and other educators in assessing students who demonstrate:

- a. irritability;
- b. loss of appetite;
- c. weight loss;
- d. fatigue;
- e. sluggishness, lethargy;
- f. abdominal pain;
- g. vomiting;
- h. constipation;
- i. learning difficulties; and
- j. behavior problems, including hyperactivity and aggression.

Students with symptoms should be referred for medical evaluation and, if not already provided, a BLL screening.



Schools should establish working relationships with providers of preschool enrichment opportunities, such as Head Start and School Readiness programs, to facilitate referral and placement.



State law requires that health care providers consider blood lead testing for any child regardless of age with the following: unexplained seizures, neurologic symptoms, hyperactivity, behavior disorders, growth failure, abdominal pain, or other symptoms consistent with lead poisoning or associated with lead exposure; recent history of ingesting, or an atypical behavior pattern of inserting, any foreign object (even if the foreign object is unleaded) into a body orifice.

*Step 5: Use Child Find processes to locate, identify and refer as early as possible children with disabilities and their families who are in need of Early Intervention Program (Part C) or Preschool Special Education (Part B) services of the Individuals with Disabilities Education Improvement Act (IDEA).*

Schools must actively use Child Find processes and collaborate with parents and community partners to identify, locate, and evaluate children from birth through age 21 who are suspected of having a disability or who have a known disability. This includes children who have a history of exposure to lead or a BLL equal to or greater than 5 mcg/dL. While not mandated by Child Find under IDEA or Section 504, school districts can also help identify children in the community at high risk for lead exposure and refer them for housing and public health assistance.

School districts are required under Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Amendments Act of 2008 and the IDEA of 2004 to actively identify children who may have a disability, as defined in the laws, and who may require accommodations in the classroom or special education. Because children who have BLLs equal to or greater than 5 mcg/dL may have sustained permanent brain damage, they should be identified through Child Find activities in collaboration with community providers such as Birth to Three, local hospitals, pediatric providers, public housing authorities, child care providers, school readiness programs, and nursery schools.

Among children from birth to attendance in kindergarten, Child Find activities may include:

- a. identifying all infants, toddlers, and preschoolers with elevated BLLs equal to or greater than 5 mcg/dL;
- b. monitoring those identified for early identification of neuropsychological and behavioral deficits or developmental delays that may develop, indicating the need for further assessment; and
- c. referring families of those identified for assistance with parent education, housing, medical care, social services, and child enrichment opportunities, such as Head Start and School Readiness programs.



#### Child Find

The Child Find process is used to identify, locate, and evaluate children from birth through age 21 who are suspected of having a disability or who have a known disability.

To attend early childhood programs in Connecticut, attendees must provide the program with the state mandated Early Childhood Health Assessment ("yellow" form) completed by their health care provider. This form asks for information on the child's BLL screening results at one and two years and the health care provider must check "yes" or "no" to indicate if the child had a BLL equal to or greater than 5 mcg/dL. Community preschool providers, including public schools, should review those forms and identify children who should receive monitoring and referral services as identified above. That applies to all those meeting the current CDC standard of equal to or greater than 5 mcg/dL.

Infants and toddlers from birth to 3 years are automatically eligible for IDEA Part C early intervention

supports when a BLL greater than 45 mcg/dL has been confirmed. Infants and toddlers with lower BLLs are eligible when two standard deviations (SD) below the mean is found in one developmental domain or a 1.5 SD below the mean is found in two or more developmental areas, whether or not the delay is due to lead exposure. It is critical to collaborate with Birth to Three providers to ensure a smooth transition to school services and to request any information they may have regarding a child's BLL history, which may be shared with parent consent. This information can help Child Find teams to identify children with a history of lead exposure for monitoring and referral purposes as described above.

Early identification as well as Child Find efforts to identify students in kindergarten through Grade 12 also require collaborative parent and community partnerships since it may be parents, pediatric providers, hospitals, public health officials and housing authorities who can alert schools to a family that is newly exposed to lead (e.g., through building reconstruction or industry) or a school-age child who is newly diagnosed with lead poisoning. Educational programs for parents and periodic communications with community partners are useful strategies.

School nurses have a special role to play in the early identification and Child Find processes for students entering public schools, regardless of age. At entry into school, every child is required to have a health assessment documented on either the Early Childhood Health Assessment Record ("yellow") form or the Health Assessment Record (HAR-3) ("blue") form. The HAR-3 has been revised to ask health care providers to document whether a student has a *history* of BLL equal to or greater than 5 mcg/dL, rather than the student's current BLL (see [appendix A](#)). Since school nurses should always review these forms for health information relevant to school attendance and learning, this is not an added burden for school districts and nurses. See the next subsection on obtaining a lead history for children with a BLL equal to or greater than 5 mcg/dL.

All school personnel must understand their responsibilities under the Child Find requirements. Any staff member who has a reason to suspect that a child may have been exposed to lead or has had elevated BLLs equal to or greater than 5 mcg/dL, should notify the appropriate school team, which includes any of the following:

- Child Find
- Preschool
- General education team
- SRBI
- IHCP (individualized health care plan) team
- Building pupil services team
- Section 504 team
- Planning and Placement Team (PPT)



School nurses have a special role to play in the early identification of children exposed to lead and in the Child Find process for students entering public schools, regardless of age.

The team may now ask the school nurse to gather more specific lead and other health history informa-

tion before meeting to decide the next appropriate action.

*Step 6: Refer and monitor children and young people birth to 21 who are at high risk for lead poisoning but do not have evidence of a BLL equal to or greater than 5 mcg/dL.*

For children at high risk for lead poisoning due to their environment, but without evidence of a blood level at or above 5 mcg/dL, it is important to:

- a. Ensure that they have been screened appropriately for blood lead. If not, referral for screening and medical monitoring is critical.
- b. Refer, as appropriate, to social services, public health officials and medical providers for information regarding and assistance with prevention, housing, parenting, and financial, nutritional, and health care needs.
- c. Monitor for screening results and changes in health status or living arrangements.
- d. Re-refer as needed.

At-risk infants and toddlers (under age 3) are followed by their medical providers and may also be followed by local public health and social service officials.

*Step 7: Obtain a lead history for all students ages 3-21 identified as having a BLL equal to or greater than 5 mcg/dL.*

For all students ages 3–21 attending school and identified as having a BLL equal to or greater than 5 mcg/dL, the school nurse at a minimum should:

- a. obtain a focused BLL history from the child's pediatrician or health care provider (see appendix B for a sample Blood Lead History form); and
- b. refer the child to the appropriate school team after obtaining the child's complete lead history.



While it is neither required nor appropriate to evaluate every child who has been exposed to lead, it is reasonable and important to monitor them for early signs of a disability.

A history of a child's blood lead levels over time is a much better indicator of overall exposure to lead than a single blood lead level (see *Scientific Evidence* in the Introduction). Even though the child may not show a functional deficit at an early age, research supports that educators should have a very high level of suspicion of brain damage from lead poisoning, including BLLs below 10 mcg/dL. Only individual assessment provides evidence of such effects and their specific nature in any given child. Deficits may persist<sup>38</sup> and not be evident until the child is older<sup>39</sup> and learning tasks are more challenging. While it is neither required nor appropriate to evaluate every child who has been exposed to lead, it is reasonable and important to monitor them for early signs of a disability.

In the case of a child with a complex health or education history, it may be appropriate to request

permission from the parent to complete a comprehensive health history and summary for the school team before referral is made to determine a child's eligibility for special education or accommodations/modifications under Section 504. A comprehensive health history includes the lead history. The school nurse, in consultation with the school nurse supervisor, school district medical advisor and other team members as appropriate, should make this decision.

For students in prekindergarten through Grade 12 attending public schools or private, nonprofit schools receiving health services through the public schools, the school nurse may obtain the information in any of the following ways:

- a. the health care provider checks "yes" to the question of "history of elevated BLL" on the HAR-3 ("blue") form;
- b. the health care provider indicates a BLL at or above 5 mcg/dL on the Early Childhood Health Assessment Record ("yellow") form; or
- c. a parent or community partner reports that a child has a BLL equal to or greater than 5 mcg/dL.

Parental permission signed on the HAR-3 and Early Childhood Health Assessment Record form permits the school nurse to follow up with the child's health care provider regarding details of the child's history of elevated BLLs. Nevertheless, best practice is to inform the parent in advance of the nurse's concern, plan to communicate with the physician, and anticipated next steps.

In the case of a preschooler attending a program not receiving health services through the public schools (e.g., a community nursery school), parental permission signed on the Early Childhood Health Assessment Record form permits the program's health/nurse consultant/coordinator to contact the health care provider for the lead history.



See pages 21 and 22 for flowcharts that demonstrate the process schools should follow for steps 7 through 10; one is for preschoolers and the second is for students in kindergarten through Grade 12.

As above, best practice is to inform the parent, in advance, of the consultant or coordinator's concern, plan to communicate with the physician, and anticipated next steps. Next steps in this situation should include, with parental permission, sharing the information with the family's local school district Child Find coordinator. The school district's Child Find coordinator, preschool nurse, or other staff member should be designated to follow up on the history obtained and the need for a monitoring or other action plan.

*Step 8: Develop a monitoring plan within a Scientific Research-Based Intervention (SRBI) framework, addressing the needs of all students ages 3–21, as appropriate, with a history of BLLs equal to or greater than 5 mcg/dL.*

Students with a history of BLLs equal to or greater than 5 mcg/dL should be monitored as discussed above. The plan can be very simple, for example,

*The general education team will meet to review the child's progress on an annual basis, or more frequently (e.g., at progress monitoring intervals within the SRBI framework) should changes in health status, learning, or behavior occur.*

These monitoring plans can be IHCPs, SRBI plans, student success plans, or if eligible, part of a Section 504 plan or IEP.

*Step 9: Refer preschoolers and young school-age children with a history of BLLs equal to or greater than 5 mcg/dL for enrichment opportunities as indicated*

Since the research demonstrates that early enrichment and effective parenting skills can significantly enhance neuropsychological outcomes for students exposed to lead, school district teams should actively seek enrichment opportunities for these students. For preschoolers, districts can work with local program administrators of such programs, for example Head Start and School Readiness, to establish and facilitate placement of lead poisoned children in these programs. Young school age students with lead exposure may also benefit from enrichment through afterschool programs in the school district or community.

School teams should facilitate parental participation in educational programs related to enrichment activities at home and effective parenting skills when available.

*Step 10: Refer students, when indicated, to a Section 504 team or PPT for determination of a disability under Section 504 of the Rehabilitation Act or the Individuals with Disabilities Education Act*

If at any point in the Child Find process, regardless of age or grade, a staff member or team *suspects* that a child may have a disability related to lead exposure, the staff member or team must refer the child to a Section 504 team or PPT for determination of eligibility under Section 504 of the Rehabilitation Act or the IDEA. The respective team must decide what evaluation is needed in order to determine eligibility and should follow established policy and procedures for making decisions regarding evaluation and eligibility.

If a 504 team determines that a child has an impairment (lead poisoning) and the impairment, without the use of mitigating measures, substantially affects learning, or another major life activity such as attention that in turn substantially limits learning, the 504 team should refer the child for evaluation under IDEA.



Intelligence tests alone are unsatisfactory for evaluating children with lead poisoning because they do not satisfy the requirements of a comprehensive evaluation and are not sufficiently sensitive to the effects of brain injury.

If the PPT is considering whether a child may be disabled due to lead poisoning, best practice suggests a two-step evaluation.<sup>40</sup> The first step should be an evaluation to confirm deficient performance in the area where the deficiency is suspected. If a deficiency is confirmed, the PPT should consider if the child with a history of lead poisoning needs a comprehensive neuropsychological evaluation to look for other cognitive and functional deficits.<sup>41-42</sup> Brain injury from lead poisoning is similar to other types of brain injury where there is no single cognitive profile. Therefore, specific areas of the brain affected and the extent of the damage in any one area are variable child to child. The results of a neuropsychological assessment help the team to understand the discrete areas of the brain affected, including specific deficits, as well as compensatory strengths. This information helps the team to develop an appropriate IEP to meet the child's individual learning needs.

Intelligence tests alone do not satisfy the requirements of a comprehensive evaluation and, therefore, are unsatisfactory for evaluating children with lead poisoning. They are not sufficiently sensitive to the effects of brain injury. IQ or its equivalent is a single number that is determined based on the child's overall performance on a battery of subtests that assess multiple and often unrelated functions. Brain injury, whether from trauma, oxygen deprivation or toxic exposures such as lead, frequently affects functioning in a limited number of neurobehavioral systems. Intelligence test batteries underestimate the effects of such injuries.<sup>43</sup>

It is for this reason that, once a deficit is identified in one area, consideration of a neuropsychological assessment of all areas is warranted. These areas include, depending on the age of the child:

- Executive function
- Working Memory Capacity
- Processing Speed
- Attention
- Memory
- Language - Perception
- Language - Reading
- Language - Speech Comprehension
- Language - Expressive Speech
- Language - Writing
- Perceptual - Motor
- Social/Emotional Behavior
- Adaptive Behavior<sup>44</sup>

See appendix C for a sample neuropsychological assessment model for lead poisoning. This model is especially targeted for school-age students.

In preschoolers, comprehensive developmental assessment is the best method for identifying neuropsychological deficits.<sup>45</sup> This assessment should include the following domains:

- Measure of intelligence
- Executive functioning
- Working memory capacity
- Processing speed
- Attention
- Memory
- Language – perception
- Language – early reading
- Language – speech comprehension
- Language – expressive speech
- Language – early writing
- Perceptual-motor
- Social-emotional behavior<sup>46</sup>

See appendix D for a sample assessment model for lead poisoning in preschool children. This model is very comprehensive. The PPT can use this model as guidance in developing an evaluation for an individual child.

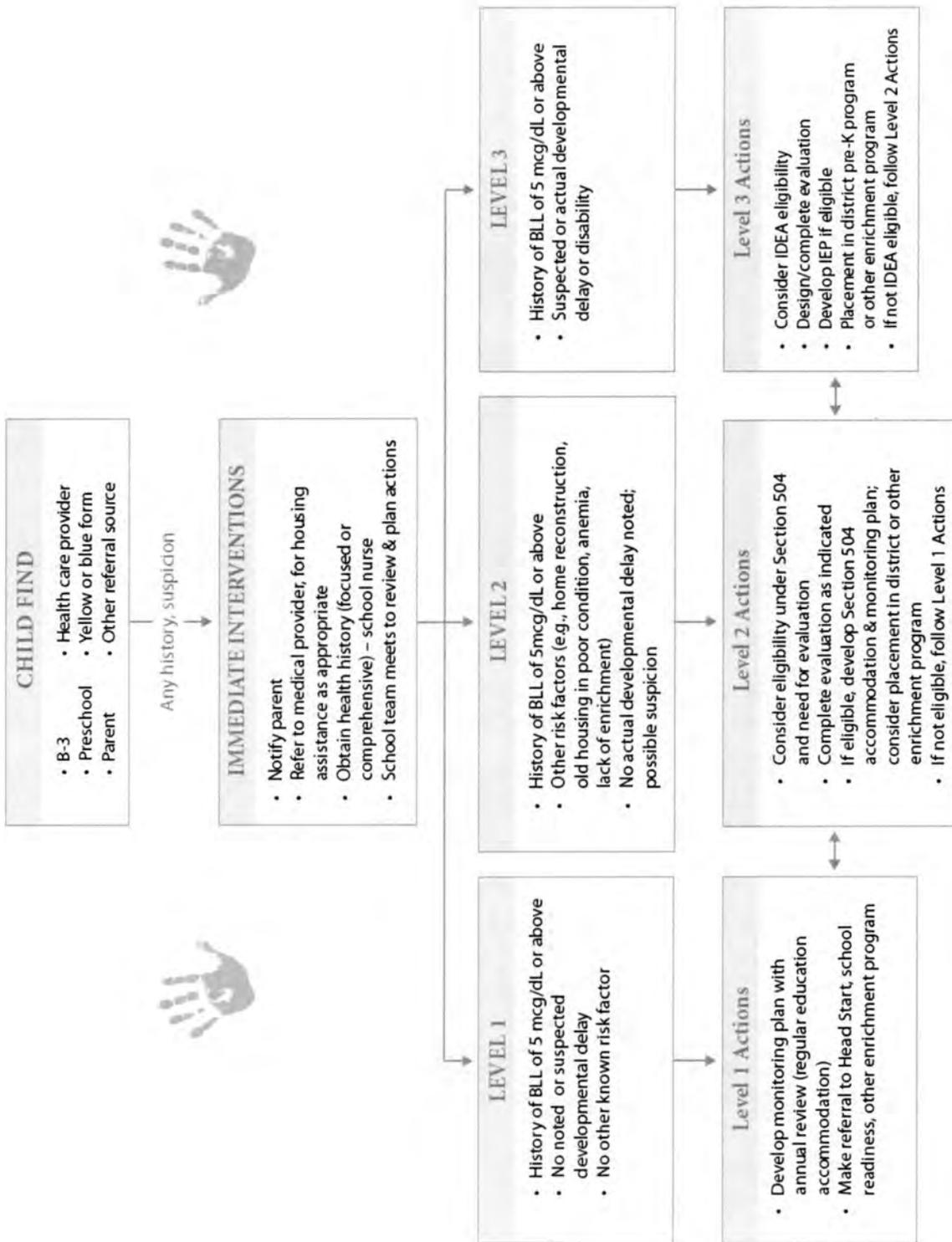
Eligibility determination for special education must be made according to the evaluation results. Children with lead poisoning may be found eligible under the category "Other Health Impairment." Lead poisoning is one chronic condition mentioned in the definition as defined in the federal regulations:

*Other health impairment means having limited strength, vitality or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—(i) Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia; and (ii) Adversely affects a child's educational performance.<sup>17</sup>*

In addition, children may be found eligible under other categories, such as "Specific Learning Disability," "Developmental Delay (3 through 5 years of age)," and "Speech or language impairment." It is the evaluation results, rather than the history of lead poisoning per se, that should determine the most appropriate category for eligibility.

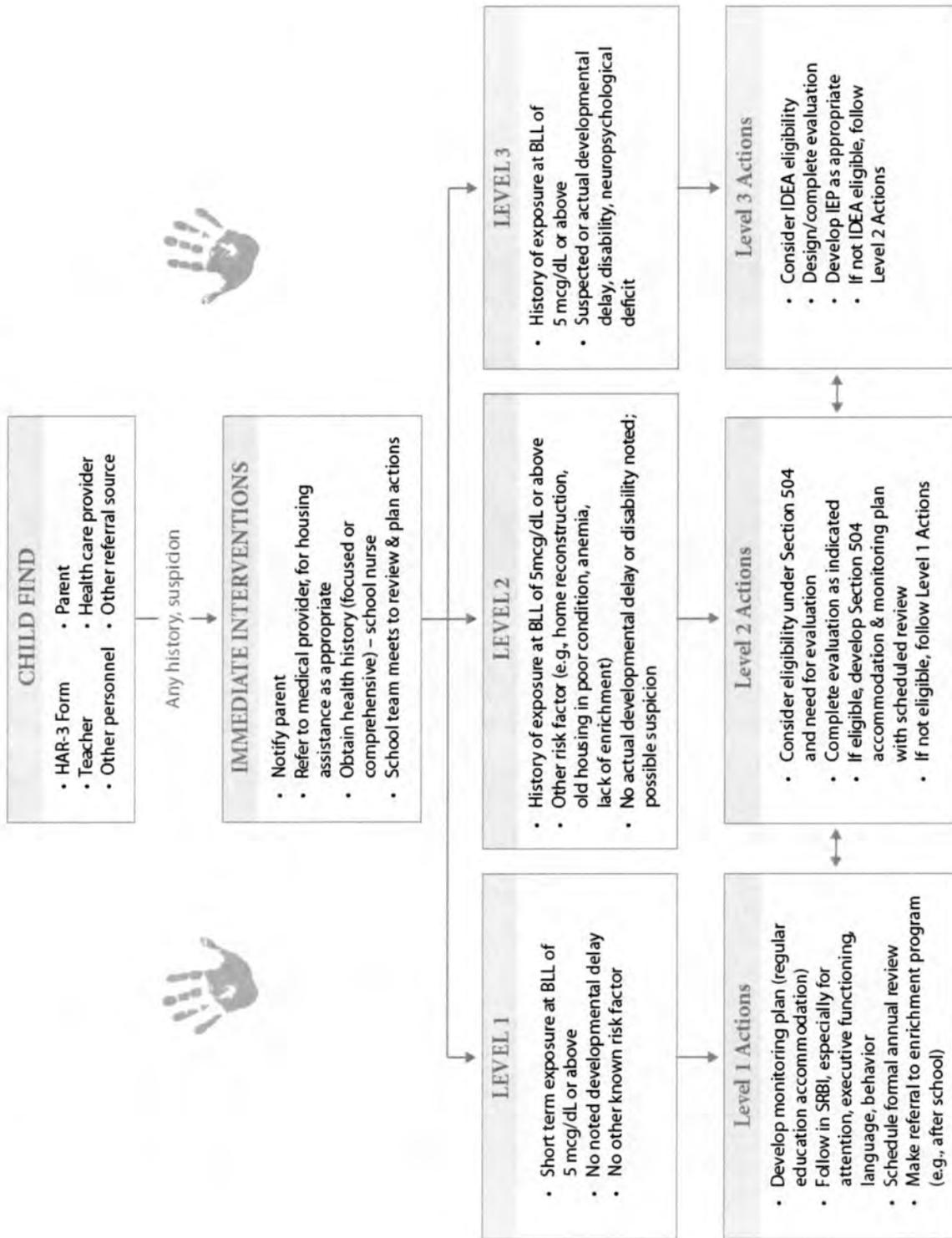
# MANAGING PRESCHOOL STUDENT WITH LEAD EXPOSURE

*Every child presents differently.*



# MANAGING K-12 STUDENT WITH LEAD EXPOSURE

*Every child presents differently.*



# Professional Development Opportunities for Educators

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**E** DUCATORS, IN COLLABORATION WITH FAMILIES AND OTHER PROFESSIONALS, CAN MAKE A SIGNIFICANT DIFFERENCE for children who have been exposed to lead. To do so, they need to be well informed about lead poisoning, especially:

- educators' roles in prevention;
- current research establishing the relationship between early lead exposure and neurocognitive deficits, learning disabilities, and negative behavioral outcomes *even at very low levels of exposure*;
- its general presentation and course; and
- individual differences in presentation and course.

Connecticut currently has available three educational programs for educators. The first is a funding and workshop opportunity (see *Lead Awareness and Management Challenge: A Funding and Workshop Opportunity* below).

The other two programs are both online courses that address lead poisoning prevention and management in children and the effects of lead exposure on child development, learning and behavior. These online courses are different. Both are valuable, and educators can read the descriptions below to determine if one or both courses are appropriate for their professional background, level of responsibility, knowledge, and interest. Each course is described below: *Lead Poisoning: Limiting the Ability to Learn* and *The Health Education Lead Poisoning (H.E.L.P.) Course Series*.

## Lead Awareness and Management Challenge: A Funding and Workshop Opportunity

In May 2012, the Connecticut State Department of Education (CSDE), in collaboration with the Connecticut State Department of Public Health (DPH) offered a funding opportunity for public school districts and private non-profit schools, titled the *Lead Awareness and Management Challenge*. This funding opportunity provided support for school districts to form "Lead Advisory Teams," and released the teams to participate in a "train-the-trainer" workshop on lead poisoning prevention and intervention for educators. The advisory teams were expected to assist their agency to develop policy and procedures related to the education of staff and the prevention and management of lead poisoning among students. The CSDE may offer additional workshops in 2012, 2013, and 2014 so long as funding continues to be available. Accordingly, school superintendents will receive information regarding the *Lead Awareness and Management Challenge*.



## Lead Poisoning: Limiting the Ability to Learn

*Lead Poisoning: Limiting the Ability to Learn* is an awareness training course for educators regarding lead poisoning in children. This training was developed for the LAMPP Project (Lead Action for Medicaid Primary Prevention Project) by the Healthy Environments for Children Initiative, Department of Extension, University of Connecticut and is available on the Connecticut Children's Medical Center's Web site at <http://www.connecticutchildrens.org/community-child-health/lampp-green-healthy-homes-project/lead-poisoning-training/>.

This course provides content developed specifically for administrators, educators, and child care personnel. It covers current research, prevention, interventions, and specific implications for teaching and learning. The complete course takes a little more than one hour. It has both a PowerPoint and audiovisual component; both the PowerPoint and audio script are available for download and make excellent resources for staff awareness and professional development programs from the homepage. Also available on the homepage (see above), the course provides a certificate of completion (not continuing education units) and additional resources for parents. The information is up-to-date and pertinent for all educators.

## The Health Education Lead Poisoning (H.E.L.P.) Course Series

The Health Education Lead Poisoning (H.E.L.P.) Course Series is sponsored in partnership with Connecticut Television Network (CT-N), the Foundation for Educational Advancement, Inc., Connecticut State Department of Public Health and Central Connecticut State University. The course information and directions for accessing continuing education units is found at <http://ctn.net/education/training/lead-poisoning>. It is also available at the Connecticut Department of Public Health (DPH) Lead Poisoning and Control Program Web





# 4

## Lead Prevention and Intervention: Resources and Services for Parents

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**B**ECAUSE OF THE NATIONAL OBJECTIVES IN *HEALTHY PEOPLE 2000, 2010 AND 2020* RELATED TO ERADICATING LEAD poisoning in children, funding has been made available to state and local agencies to:

- develop educational literature and training programs for parents and health and education professionals;
- support housing improvement and abatement projects;
- ensure medical monitoring of poisoned children; and
- provide screening programs to identify affected children and assess the success of prevention activities.

Since these funding opportunities have resulted in the development of prevention and intervention programs and educational resources in and beyond Connecticut, the purpose of this section is to identify and assist parents to access some of those services and resources. This section can also assist educators in collaborating with others in helping parents access public health, housing, social service and medical resources in their communities, and making appropriate referrals.

Resources for parents are numerous. Many of them in Connecticut are listed below, first by agency provider and type of resource, as follows:

- Connecticut Department of Public Health: resources for prevention, screening, and education
- Connecticut Department of Education: resources on Section 504 and special education (IDEA)
- Other Connecticut resources: education, medical treatment, and housing

A few national resources are also provided following the Connecticut resources.

## Connecticut Department of Public Health: Resources for Prevention, Screening, and Education

- a. The Connecticut State Department of Public Health (DPH), Lead Poisoning and Control Program homepage, provides links to many prevention and intervention resources, relevant laws and standards, the mandated lead poisoning screening program, educational programs on lead poisoning and other information. It is located online at <http://www.ct.gov/dph/lead>.
- b. The specific statutes and regulations relating to lead in Connecticut are available online at <http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387554>.

- c. **Universal Blood Lead Screening:** Connecticut law requires that health care providers screen for blood lead all children at age 12 months and again at age 24 months using a blood lead test. Health care providers are also required to screen any child between 25–72 months of age who has not previously been screened, regardless of risk. Additional blood lead screening is indicated for any child less than 72 months of age with developmental delays, especially if associated with pica. Finally, all children six–72 months of age in HUSKY Part A Medicaid must be assessed for risk, and at a minimum, screened at 12 months and 24 months of age per federal requirements. In addition, blood lead testing must be considered for any child regardless of age with the following: unexplained seizures, neurologic symptoms, hyperactivity, behavior disorders, growth failure, abdominal pain, or other symptoms consistent with lead poisoning or associated with lead exposure; recent history of ingesting, or an atypical behavior pattern of inserting, any foreign object (even if the foreign object is unleaded) into a body orifice.



- d. For information on Connecticut screening results for 2010, the most recent data available, see online at [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/CY\\_2010\\_Surveillance\\_Report\\_final\\_12-21-2012.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/CY_2010_Surveillance_Report_final_12-21-2012.pdf) (it may be necessary to copy and paste this URL into your computer URL address box).  
A map of towns indicating the rate of screening by town is provided on page 8 of the report, Map #1. Prior years are available at <http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387576>.
- e. Officials in the DPH Lead Program and in local health departments are very knowledgeable about lead poisoning prevention, screening and intervention. Local school district personnel are encouraged to collaborate with local health department representatives in identifying educational, prevention and intervention resources for families in their community. Find your local health department at <http://www.ct.gov/dph/lead>.

f. Educational Literature for Parents

- The DPH Lead Poisoning and Control Program's homepage provides links to many resources for families and professionals. The following link brings the reader to that homepage: [http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387550&dphNav\\_GID=1828&dphPNavCtr=%7C](http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387550&dphNav_GID=1828&dphPNavCtr=%7C).
- In the same location, there is an educational form for parents, *Birth to Three Developmental Milestones*, or click on [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/b-2-3\\_letter\\_milestones.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/b-2-3_letter_milestones.pdf).

- **Educational documents**

On the Lead Program's Homepage ([http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387550&dphNav\\_GID=1828&dphPNavCtr=%7C](http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387550&dphNav_GID=1828&dphPNavCtr=%7C)), many DPH documents are provided under the Resources link. There are educational documents. Many of those listed below are available in Spanish and the top three are available in many other fact sheets in many different languages as well. To access any of these documents, including translated versions, it will be necessary to have a PDF reader to open the files. The Adobe Acrobat Reader can be downloaded free from [get.adobe.com/reader/](http://get.adobe.com/reader/).

**Child prevention topics**

Keep Your Child Safe From Lead: [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/Keep\\_Your\\_Child\\_Safe\\_From\\_Lead.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/Keep_Your_Child_Safe_From_Lead.pdf)

Protect your Child from Lead Poisoning: [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/Protect\\_your\\_Child\\_LP.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/Protect_your_Child_LP.pdf)

Keep Your New Baby Lead Safe

Toys and Childhood Lead Exposure: [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/NCHH\\_Factsheet\\_-\\_Toys\\_and\\_Childhood\\_Lead\\_Exposure.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/NCHH_Factsheet_-_Toys_and_Childhood_Lead_Exposure.pdf)

Lead Poisoning Prevention

How Eating Right Helps Fight Lead Poisoning

**Housing topics**

Protect your Family from Lead in your Home

Lead in your Home: A Parents Reference Guide

A Parent's Guide for the Interim Control of Lead Hazards in Housing

What You Need to Know About Childhood Lead & Imported Vinyl Mini Blinds

Ways to Reduce Lead Dust in your Home or Apartment

How to Check for Lead Hazards in your Home

Reducing Lead Hazards in the Home

A Landlord's Guide for the Interim Control of Lead Hazards in Housing

**Other Topics**

Lead Poisoning and Pregnancy

A Resource for Child Day Care Providers - Fact Sheet

Preventing Childhood Lead Poisoning in Connecticut

Testing for Lead Poisoning  
Occupations & Hobbies May Expose You to Lead  
What is Lead Paint Abatement?

**Other documents** not listed here, such as technical information on encapsulation, may also be found at <http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387548>.

## Connecticut State Department of Education: Resources on Section 504 and special education (IDEA)

Parents are encouraged to ask representatives from their local schools for written resources on Section 504 and IDEA (special education), including information on the rights of students with disabilities under each law. They may also want to review school district procedures implementing these federal laws, and speak with a school official regarding questions they may have. Parents can also make a referral to the school team if they suspect that their child has a disability.

An excellent resource for parents is the State Education Resource Center (SERC) in Middletown, Connecticut. Parents can become members at no cost and can request information and publications for review. SERC is located at 25 Industrial Park Road, Middletown, CT, near exit 21 off Interstate 91 in Cromwell. Parents can also call SERC for assistance at 860-632-1485.

The best publication for parents to request for information on special education is *A Parent's Guide to Special Education in Connecticut* (2007).

See the list below for further information with links to the Parents Guide, as well as other CSDE publications.

Special Education Publications	Best Practice Resources; Eligibility Documents; Guidance Documents/Topic Briefs; Parent/Family Resources; and Secondary Transition Resources.	<a href="http://www.sde.ct.gov/sde/cwp/view.asp?a=2626&amp;q=322672">http://www.sde.ct.gov/sde/cwp/view.asp?a=2626&amp;q=322672</a>
<i>The State Board of Education's Position Statement On the Education of Students with Disabilities</i> (2001)	Position Statement On the Education of Students with Disabilities	<a href="http://www.sde.ct.gov/sde/LIB/sde/pdf/board/disabilities.pdf">http://www.sde.ct.gov/sde/LIB/sde/pdf/board/disabilities.pdf</a>
CSDE's Division of Legal and Governmental Affairs Law: <i>Individuals with Disabilities Education Act (IDEA)</i>	Individuals with Disabilities Education Act (IDEA)	<a href="http://www.sde.ct.gov/sde/cwp/view.asp?a=2683&amp;q=320334">http://www.sde.ct.gov/sde/cwp/view.asp?a=2683&amp;q=320334</a>

<i>A Parent's Guide to Special Education in Connecticut</i> (2007)	Provides information for parents, guardians and other family members about laws, regulations, and policies affecting special education programs and services.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Parents_Guide_SE.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Parents_Guide_SE.pdf</a>
<i>Before, During &amp; After the PPT Meeting</i>  <i>Preparing for the PPT Meeting &amp; Development of The Individualized Education Program</i> (2008)	Planning and Placement Team (PPT) Checklist	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Before_PPT.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/Before_PPT.pdf</a>
<i>PPT 101: Understanding the Basics of the Planning and Placement Team Meeting</i>	Provides information on the process and procedure for referral and eligibility for special education; Individualized Education Programs; PPT; and parent's role in the PPT process.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/PPT101.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/PPT101.pdf</a>
<i>Making the PPT Process More Effective for You and Your Child</i>	Provides information on the PPT process.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/PPT_Process.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/PPT_Process.pdf</a>
<i>IEP Manuals and Forms</i> (2010)	CSDE's guidance to school districts in Connecticut to assist in utilizing the IEP forms.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/IEPManual.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/IEPManual.pdf</a>
<i>Writing Standards-based IEP Goals and Objectives</i>	This multimedia presentation is designed to provide a tool and a process for helping Connecticut educators develop standards-based IEPs.	<a href="http://ctserc.org/s/index.php?option=com_content&amp;view=article&amp;id=516:using-a-word-bank-process-to-develop-standards-based-iep-goals-a-objectives-&amp;catid=51:8-professional-development&amp;Itemid=144">http://ctserc.org/s/index.php?option=com_content&amp;view=article&amp;id=516:using-a-word-bank-process-to-develop-standards-based-iep-goals-a-objectives-&amp;catid=51:8-professional-development&amp;Itemid=144</a>
<i>Guidelines for Identifying Children with Learning Disabilities</i> (2010)	This document provides a comprehensive description of the changes in IDEA 2004 regarding the identification and eligibility determination of children with a specific learning disability.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/2010_Learning_Disability_Guidelines_Acc.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/2010_Learning_Disability_Guidelines_Acc.pdf</a>

The most current information regarding the rights of students with disabilities under Section 504 is found online at the following two sites:

- <http://www2.ed.gov/about/offices/list/ocr/docs/dcl-504faq-201109.pdf>
- <http://www2.ed.gov/about/offices/list/ocr/504faq.html>

The following list provides other publications about Section 504 with associated links.

CSDE's Circular Letter C-13, Series 2008-09, <i>Section 504 of the Rehabilitation Act of 1973: Procedural Safeguards Reissue of CIRCULAR LETTER C-9, Series 2000-2001</i>	Section 504 of the Rehabilitation Act of 1973: Procedural Safeguards	<a href="http://www.sde.ct.gov/sde/lib/sde/pdf/circ/circ08-09/c13.pdf">http://www.sde.ct.gov/sde/lib/sde/pdf/circ/circ08-09/c13.pdf</a>
Protecting Students With Disabilities: Frequently Asked Questions About Section 504 and the Education of Children with Disabilities	This document is a revised version of a document originally developed by the Chicago Office of the Office for Civil Rights (OCR) in the U.S. Department of Education (ED) to clarify the requirements of Section 504 of the Rehabilitation Act of 1973, as amended (Section 504) in the area of public elementary and secondary education. The primary purpose of these revisions is to incorporate information about the Americans with Disabilities Act Amendments Act of 2008 (Amendments Act), effective January 1, 2009, which amended the Americans with Disabilities Act of 1990 (ADA) and included a conforming amendment to the Rehabilitation Act of 1973 that affects the meaning of disability in Section 504.	<a href="http://www2.ed.gov/about/offices/list/ocr/504faq.html">http://www2.ed.gov/about/offices/list/ocr/504faq.html</a>
CSDE's Division of Legal and Governmental Affairs Law: <i>Section 504</i>	Section 504 Law	<a href="http://www.sde.ct.gov/sde/cwp/view.asp?a=2683&amp;q=320334">http://www.sde.ct.gov/sde/cwp/view.asp?a=2683&amp;q=320334</a>
<i>CSDE's Accommodating Special Dietary Needs in School Nutrition Programs</i> (2011)	Contains information on providing meals for children with special dietary needs, based on federal laws, U.S. Department of Agriculture regulations and Connecticut laws and regulations.	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Student/NutritionEd/AccommodatingSpecialDiets.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Student/NutritionEd/AccommodatingSpecialDiets.pdf</a>
School Readiness Technical Assistance Alert (1999), Number TA/SR # 99-02: Serving 3-, 4-, and 5-year-old Children with Disabilities	Section 504 and School Readiness Programs	<a href="http://www.sde.ct.gov/sde/LIB/sde/pdf/deps/readiness/SR/TA_SR_99_02.pdf">http://www.sde.ct.gov/sde/LIB/sde/pdf/deps/readiness/SR/TA_SR_99_02.pdf</a>
<i>CSDE's Guidelines for Managing Life-Threatening Food Allergies in Connecticut Schools</i>	Allergy management in schools	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Food_Allergies.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/Food_Allergies.pdf</a>
<i>CSDE's Guidelines for Blood Glucose Self-Monitoring in School</i>	Diabetes management	<a href="http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/GlucoseGuidelines.pdf">http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/GlucoseGuidelines.pdf</a>

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## Connecticut Resources for Education, Medical Treatment, and Housing

- Connecticut Children's Medical Center, Lead Action for Medicaid Primary Prevention (LAMPP): see general information and "Related Links" related to housing and education at [http://www.connecticutchildrens.org/body\\_dept.cfm?id=1183&fr=true](http://www.connecticutchildrens.org/body_dept.cfm?id=1183&fr=true). For treatment, see information at [http://www.connecticutchildrens.org/body\\_dept.cfm?id=66](http://www.connecticutchildrens.org/body_dept.cfm?id=66).
- Hartford Regional Lead Treatment Center at St. Francis Hospital: See temporary housing information and links to prevention and treatment information at [http://www.saintfranciscare.org/Lead\\_Treatment\\_Center.aspx](http://www.saintfranciscare.org/Lead_Treatment_Center.aspx).
- Yale-New Haven Children's Hospital Lead Poisoning and Regional Treatment Center: See information on local resources for treatment, housing and education at <http://www.ynhh.org/yale-new-haven-childrens-hospital/medical-services/lead-program-regional-treatment-center.aspx>.

## U.S. Centers for Disease Control and Prevention: Education and General Information

- Prevention Tips: <http://www.cdc.gov/nceh/lead/tips.htm>
- Lead Recalls: <http://www.cdc.gov/nceh/lead/Recalls/default.htm>
- CDC's Childhood Lead Poisoning Prevention Program: <http://www.cdc.gov/nceh/lead/about/program.htm>



## 5

## Lead Prevention and Intervention: Resources for Educators

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**B**ECAUSE EDUCATORS WORK CLOSELY WITH CHILDREN AND FAMILIES, THEY ARE LIKELY TO KNOW OF A FAMILY OR child in the community who may be at high risk for exposure to environmental lead or who has recently been identified as having an elevated blood lead level. Because preventive education and early intervention are critical in reducing the toxic effects of lead on children, educators should become familiar with the resources and services for families identified in section 4 “Lead Prevention and Intervention: Resources and Services for Parents.” Educators must be knowledgeable about these resources in order to provide or direct families to them, and to refer families to appropriate medical, public health, social service, and housing services. Educators should also review the DPH screening data and map indicating the rate of screening by town (see section 4 under *Connecticut Department of Public Health: Resources for Prevention, Screening, and Education*). In towns where compliance has been low, school districts should encourage provider and parent compliance with mandated screening requirements.

This section contains citations for many professional articles published in peer-reviewed professional journals and a few related publications covering a variety of topics on lead poisoning in children, prevention and intervention, and the effects of lead exposure on the developing brains of children, including effects related to intelligence, learning, and behavior. For articles where a link for access to a free copy existed at the time of publication of the guidelines, that link is provided. If the link does not work directly, the reader can copy the URL and paste it into a computer’s URL address box.

For other articles, readers can search for access to a free copy online and seek assistance from a medical library. School nurses can access most, if not all, of these articles through the Yale School of Nursing

School "Information Resources for School Nurses" program. Information is available at [http://doc.med.yale.edu/school\\_nursing/](http://doc.med.yale.edu/school_nursing/). School nurses can contact a librarian for assistance from this online location.

The articles cited below include those where controversy exists among experts, particularly related to the effects of lead exposure on brain development. It is important to read many of these articles in order to understand all sides of the controversies regarding lead, its effects in children, and the research methodologies used to identify those effects. Past controversies are critical to understand and must also be considered in light of the current literature and the breadth and depth of the research available today.

## Best Review Article

The following article is recommended as an excellent overview of the state of knowledge, as of 2003, related to lead exposure in children, dispersion of lead in the body, effects on the brain, effects on cognitive/behavioral development, and strengths and limitations of related research. It is available online, if not by clicking directly on the "Full Text (PDF)" option, then by copying the URL and pasting it into your computer's URL address box. Readers are advised to read other articles, especially those published after this one for more recent studies.



Lidsky TI; Schneider JS. Lead neurotoxicity in children: basic mechanisms and clinical correlates. *Brain*. 2003;126(1):5-19. AbstractFull TextFull Text (PDF). Available online at <http://brain.oxfordjournals.org/content/126/1/5.full.pdf>.

## Articles Providing a General Overview of Lead Poisoning in Children and Lead Poisoning Prevention

Advisory Committee on Childhood Lead Poisoning Prevention. (January, 2012). *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*. U.S. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services: [http://www.cdc.gov/nceh/lead/ACCLPP/Final\\_Document\\_010412.pdf](http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_010412.pdf).

Bellinger DC. Effect modification in epidemiological studies of low-level neurotoxicant exposures and health outcomes. [Review]. *Neurotoxicol Teratol* 2000; 22: 133±40.

Centers for Disease Control and Prevention (CDC) Ten great public health achievements—United States, 2001-2010. *MMWR Morb Mortal Wkly Rep*. 2011 May 20;60(19):619-23. Available online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm>.

Committee on Environmental Health, American Academy of Pediatrics. (2005; reaffirmed, 11/2008). Lead Exposure in Children: Prevention, Detection, and Management. *Pediatrics* Vol. 116 No. 4, pp. 1036-1046. Available free online in full text at <http://pediatrics.aappublications.org/content/116/4/1036.abstract>.

Lanphear BP, Dietrich KN, and Berger, O. Prevention of Lead Toxicity in US Children. *Ambulatory Pediatrics*, Volume 3, Issue 1, January–February 2003, Pages 27–36.

Lanphear BP. Childhood lead poisoning prevention—too little, too late. *JAMA*. 2005;293(18):2274-6.

Lin-Fu JS. Undue absorption of lead among children: a new look at an old problem. *N Engl J Med*. 1972;286(13):702-10.

Moyer PA, Pivetz T, Dignam TA, et al. CDC Centers for Disease Control and Prevention (CDC). Surveillance for elevated blood lead levels among children - United States 1997-2001. *MMWR*. 2003;52(SS10):1-21.

Needleman H. Lead poisoning. *Annu Rev Med*. 2004;55:209-22.

Nicholson, JS. Get the lead out: Reducing lead exposure for children in poverty.

*Dissertation Abstracts International: Section B: The Sciences and Engineering*. Vol.72(4-B), 2011, pp. 2468.

Rosen J, Mushak P. Primary prevention of lead poisoning—the only solution. *N Engl J Med*. 2001;344:1470–1471.

Silbergeld, E.K. Preventing Lead Poisoning in Children. *Annu. Rev. Public Health*. 1997. 18:187–210. Available free online at [https://docs.google.com/viewer?a=v&q=cache:5EskDZayaAAJ:www.rstz.edu/ties/lead/university/resources/experts/pdf\\_articles/3leadpoisoningbysilbergeld.pdf+Hisotry+of+lead+poisoning+eradication+in+US&hl=en&gl=us&pid=bl&srcid=ADGEE5isfBUqeQyAn1uL2VXmFblez\\_OL-Mj52hADktoZC132DDQYjJvtGzwJbIO3ImOWMIfu1rn1jQKoWLT4hqbloryu\\_c-xhe8XxkwktZNEk6zM2Kz-6PsZEXOROuKT4h2s1luE-l\\_7H1&sig=AHIEtbRp8XsFvK1NPZdXxkR2QkE8GKeJ4w&pli=1](https://docs.google.com/viewer?a=v&q=cache:5EskDZayaAAJ:www.rstz.edu/ties/lead/university/resources/experts/pdf_articles/3leadpoisoningbysilbergeld.pdf+Hisotry+of+lead+poisoning+eradication+in+US&hl=en&gl=us&pid=bl&srcid=ADGEE5isfBUqeQyAn1uL2VXmFblez_OL-Mj52hADktoZC132DDQYjJvtGzwJbIO3ImOWMIfu1rn1jQKoWLT4hqbloryu_c-xhe8XxkwktZNEk6zM2Kz-6PsZEXOROuKT4h2s1luE-l_7H1&sig=AHIEtbRp8XsFvK1NPZdXxkR2QkE8GKeJ4w&pli=1).

Warniment C, Tsang K, Galazka SS. Lead poisoning in children.

*Am Fam Physician*. 2010 Mar 15;81(6):751-7. Available online at <http://www.aafp.org/afp/2010/0315/p751.html>.

## Articles Related to Lead and Neuropsychological, Cognitive and Learning Deficits

See also "Best Review Article" above by Lidsky and Schneider.

Adler, T. Questioning Lead Standards: Even Low Levels Shave Points off IQ. *Environ Health Perspect.* 2005 July; 113(7): A473–A474. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1257668/>.

Bellinger, DC. Lead. *Pediatrics.* 2004;113(Supplement\_3):1016-1022. Available online at website for Abstract.

Bellinger, DC. Interpreting the literature on lead and child development: The neglected role of the "experimental system." *Neurotoxicology and Teratology.* Volume 17, Issue 3, May–June 1995, Pages 201–212.

Bellinger DC, Stiles KM, Needleman HL. Low-level lead exposure, intelligence and academic achievement: a long-term follow-up study. *Pediatrics.* 2001;90(6):855–861. Free full text PDF available online at [http://pediatrics.aappublications.org/content/90/6/855?ijkey=3f28349db7394f3ea6a49ac80aa096010c198452&keytype2=tf\\_ipsecsha&linkType=ABST&journalCode=pediatrics&resid=90/6/855](http://pediatrics.aappublications.org/content/90/6/855?ijkey=3f28349db7394f3ea6a49ac80aa096010c198452&keytype2=tf_ipsecsha&linkType=ABST&journalCode=pediatrics&resid=90/6/855).

Bellinger D, Hu H, Titlebaum L, Needleman HL. Attentional correlates of dentin and bone lead levels in adolescents. *Arch Environ Health* 1994; 49: 98±105.

Canfield RL, Henderson CR Jr, Cory-Slechta DA, Cox C, Jusko TA, Lanphear BP. Intellectual impairment in children with blood lead concentrations below 10 µg per deciliter. *N Engl J Med.* 2003;348 :1517– 1526. Available online at <http://www.nejm.org/doi/full/10.1056/NEJMoa022848>.

Canfield, RL; Kreher, DA; Cornwell, C; Henderson, CR Jr. Low-level lead exposure, executive functioning, and learning in early childhood. *Child Neuropsychology.* Vol.9(1), Mar 2003, pp. 35-53.

Chen, A; Cai, B; Dietrich, KN; Radcliffe, J; Rogan WJ Lead Exposure, IQ, and Behavior in Urban 5- to 7-Year-Olds: Does Lead Affect Behavior Only by Lowering IQ? *Pediatrics.* 2007;119(3):e650-e658. Available online at <http://pediatrics.aappublications.org/content/119/3/e650.full.html>.

Chandran, et al. (2010). Poisoning: Basics and New Developments. *Pediatr. Rev.* 2010; 31:10 399-406

Chiodo LM, Jacobson SW, Jacobson JL. Neurodevelopmental effects of postnatal lead exposure at very low levels. *Neurotoxicology.* 2004;26(3):359-71.

Coscia, Juliet M; Ris, M. Douglas; Succop, Paul A; Dietrich, Kim N.

Cognitive development of lead exposed children from ages 6 to 15 years: An application of growth curve analysis. *Child Neuropsychology.* Vol.9(1), Mar 2003, pp. 10-21.

Ernhart, C. Effects of Lead on IQ in Children" *Environ Health Perspect.* 2006 February; 114(2): A85–A86. (an answer to Lanphear, 2005 below).

Gentile, Jennifer K. Relationship between pediatric lead poisoning and executive system functioning. *Dissertation Abstracts International: Section B: The Sciences and Engineering.* Vol.67(5-B), 2006, pp. 2834.

Goldstein GW. Lead poisoning and brain cell function. *Environ Health Perspect.* 1990 Nov; 89:91-4. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1567775/?tool=pubmed>.

Hornung RW, Lanphear BP, Dietrich KN. Age of greatest susceptibility to childhood lead exposure: a new statistical approach. *Environ Health Perspect.* 2009 Aug;117(8):1309-12. Epub 2009 May 7. Available online at <http://ehp03.niehs.nih.gov/article/info:doi/10.1289/ehp.0800426>.

Hubbs-Tait, L., Mulugeta, A., Bogale, A., Kennedy, T.S., Baker, E.R., Stoecker, B.J. Main and interaction effects of iron, zinc, lead, and parenting on children's cognitive outcomes. *Developmental Neuropsychology.* Volume 34, Issue 2, March 2009, Pages 175-195.

Hubbs-Tait, L., Nation, J.R., Krebs, N.F., Bellinger, D.C. Neurotoxicants, micronutrients, and social environments individual and combined effects on children's development ( Review ). *Psychological Science in the Public Interest, Supplement.*

Volume 6, Issue 3, December 2005, Pages 57-121.

Kaufman, A.S. How dangerous are low (not moderate or high) doses of lead for children's intellectual development? (Review) *Archives of Clinical Neuropsychology* Volume 16, Issue 4, 2001, Pages 403-431.

Kaufman, A.S. Do low levels of lead produce IQ loss in children? A careful examination of the literature *Archives of Clinical Neuropsychology* Volume 16, Issue 4, 2001, Pages 303-341

Koller K, Brown T, Spurgeon A, Levy L. Recent developments in low-level lead exposure and intellectual impairment in children. *Environ Health Perspect.* 2004 Jun;112 (9):987-94. Available online at <http://www.ncbi.nlm.nih.gov/pubmed/15198918>.

Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. *Environ Health Perspect.* 2005;113(7):894–899. WEB OF SCIENCE | PUBMED.

Lanphear BP, Hornung R, Khoury J, et al Lead and IQ in Children: Lanphear et al. Respond *Environ Health Perspect.* 2006 February; 114(2): A86–A87.

Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations <10mg/dl in US children and adolescents. *Public Health Rep* 2000; 115: 521±9.

Lidsky, T I, and J S Schneider. Adverse effects of childhood lead poisoning: the clinical neuropsychological perspective. *Environmental research* 100.2 (2006):284-293.

Liu, et al. Do Children With Falling Blood Lead Levels Have Improved Cognition? *Pediatrics*. 2002;110(4):787-791. Abstract

Mendelsohn, AL; Dreyer, BP; Fierman, AH; Rosen, CM; Legano, LA; Kruger, HA; Lim, SW; Barasch, S; Au, L; Courtlandt, CD. Low-level lead exposure and cognitive development in early childhood. *Journal of Developmental and Behavioral Pediatrics*. Vol.20(6), Dec 1999, pp. 425-431.

Min, MO., Singer, LT., Kirchner, HL, Minnes, S., Short, E., Hussain, Z. and Nelson, S. Cognitive development and low-level lead exposure in poly-drug exposed children. *Neurotoxicology and Teratology*. Volume 31, Issue 4, July–August 2009, Pages 225–231

Miranda ML, Kim D, Reiter J, Overstreet Galeano MA, Maxson P. Environmental contributors to the achievement gap. *Neurotoxicology*. 2009 Nov;30(6):1019-24. Epub 2009 Jul 28. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789840/?tool=pubmed>.

Needleman HL, Bellinger D. Studies of lead exposure and the developing central nervous system: a reply to Kaufman. *Arch Clin Neuropsychol*. 2001 May;16(4):359-74. Available online at <http://www.science-direct.com/science/article/pii/S0887617700000871>.

Needleman HL, Gunnoe, C, Leviton, A, Reed, R, Peresie, H, Maher, C, and Barrett, P. Deficits in Psychologic and Classroom Performance of Children with Elevated Dentine Lead Levels. *N Engl J Med* 1979; 300:689-695. Available at <http://www.nejm.org/doi/full/10.1056/NEJM197903293001301> (cut and paste URL).

Needleman HL, Schell A, Bellinger D, Leviton A, Allred EN. The long-term effects of exposure to low doses of lead in childhood: an 11-year follow-up report. *N Engl J Med*.1990;322 :83– 88.

Rogan WJ Intellectual impairment in children with blood lead concentrations below 10 microg per deciliter. et al. *J Pediatr*. Nov;143(5):687-8 (2003).

Ruff, Holly A. Population-based data and the development of individual children: The case of low to moderate lead levels and intelligence. *Journal of Developmental and Behavioral Pediatrics*. Vol.20(1), Feb 1999, pp. 42-49.

Surkan PJ, Zhang A, Trachtenberg F, Daniel DB, McKinlay, S. and Bellinger DC. Neuropsychological function in children with blood lead levels <10 µg/dL.

*NeuroToxicology*, Volume 28, Issue 6, November 2007, Pages 1170–1177.

Tellez-Rojo MM, Bellinger DC, Arroyo-Quiroz C, Lamadrid,-Figuerola H, Mercado-Garcia, A, Schnaas-Arrieta L, Wright RO, Hernandez-Avila M, and Hu H. Longitudinal Associations Between Blood Lead Concentra-

tions Lower Than 10 µg/dL and Neurobehavioral Development in Environmentally Exposed Children in Mexico City. August 1, 2006. *Pediatrics* Vol. 118 No. 2 pp. e323 -e330. Available online at <http://pediatrics.aappublications.org/content/118/2/e323.abstract>.

Tong S, Baghurst PA, Sawyer MG, Burns J, McMichael AJ. Declining blood lead levels and changes in cognitive function during childhood: the Port Pirie Cohort Study. *JAMA*.1998;280 :1915 Available online at <http://jama.ama-assn.org/content/280/22/1915.full>.

Wasserman, GA; Factor-Litvak, P; Liu, X; Todd, AC; Kline, JK; Slavkovich, V; Popovac, D; Graziano, JH. The relationship between blood lead, bone lead and child intelligence. *Child Neuropsychology*. Vol.9(1), Mar 2003, pp. 22-34.

Wasserman GA, Factor-Litvak P. Methodology, inference and causation: environmental lead exposure and childhood intelligence. *Arch Clin Neuropsychol*. 2001 May;16(4):343-52. Available online at <http://www.sciencedirect.com/science/article/pii/S0887617700000858>.

## Articles Related to Lead and Behavior

Bellinger D, Leviton A, Allred E, Rabinowitz M. Pre- and postnatal lead exposure and behavior problems in school-aged children. *Environ Res*. 1994;66:12-30.

Fergusson D M , Boden J M , Horwood L J. Dentine lead levels in childhood and criminal behaviour in late adolescence and early adulthood *J. Epidemiol. Community Health*. 2008;62(12):1045-1050. Abstract available online at <http://jech.bmj.com/content/62/12/1045.abstract?sid=badecd62-ffe0-4e33-a9d7-7cabd8bd897a>.

Marcus, David K; Fulton, Jessica J; Clarke, Erin J. Lead and conduct problems: A meta-analysis. *Journal of Clinical Child and Adolescent Psychology*. Vol.39(2), Mar 2010, pp. 234-241.

Mendelsohn, AL; Dreyer, BP; Fierman, AH; Rosen, CM; Legano, LA; Kruger, HA; Lim, SW; Courtlandt, CD. Low-Level Lead Exposure and Behavior in Early Childhood. *Pediatrics* Vol. 101 No. 3 March 1, 1998 pp. e10. Available online at <http://pediatrics.aappublications.org/content/101/3/e10.full>.

Narag, RE, Pizarro J, Gibbs, C. Lead Exposure and Its Implications for Criminological Theory Criminal Justice and Behavior. 2009;36(9):954-973. Abstract.

Needleman HL, McFarland C, Ness RB, Fienberg SE, Tobin MJ. Bone lead levels in adjudicated delinquents. A case control study. *Neurotoxicol Teratol*.2002;24 :711- 717 CrossRefMedlineWeb of Science.

Needleman HL, Riess JA, Tobin MJ, Biesecker GE, Greenhouse JB. Bone lead levels and delinquent behavior. *JAMA*.1996;275 :363– 369. Free full text PDF available online at [http://jama.ama-assn.org/content/275/5/363.abstract?ijkey=faacefb534c4946d4a3b29e5429575dce03ffec&keytype=tf\\_ipsecsha](http://jama.ama-assn.org/content/275/5/363.abstract?ijkey=faacefb534c4946d4a3b29e5429575dce03ffec&keytype=tf_ipsecsha).

Needleman, Herbert L. The neurobehavioral consequences of low lead exposure in childhood. *Neurobehavioral Toxicology & Teratology*. Vol.4(6), Nov-Dec 1982, pp. 729-732.

Nevin, Rick. Understanding international crime trends: the legacy of preschool lead exposure. *Environmental Research*. 104(3):315-36, 2007 Jul.

Olympio KP, Gonçalves C, Günther WM, Bechara EJ. Neurotoxicity and aggressiveness triggered by low-level lead in children: a review. *Rev Panam Salud Publica*. 2009 Sep;26(3):266-75. Available online at [http://www.scielo.org/scielo.php?script=sci\\_arttext&pid=S1020-49892009000900011&lng=en&nrn=iso&tlng=en](http://www.scielo.org/scielo.php?script=sci_arttext&pid=S1020-49892009000900011&lng=en&nrn=iso&tlng=en).

Shaheen, Sandra J. Neuromaturation and behavior development: The case of childhood lead poisoning. *Developmental Psychology*. Vol.20 (4), Jul 1984, pp. 542-550.

Stretesky PB; Lynch MJ. The Relationship Between Lead Exposure and Homicide. *Arch Pediatr Adolesc Med*. 2001;155(5):579-582. AbstractFull TextFull Text (PDF) Available online at <http://archpedi.ama-assn.org/cgi/content/full/155/5/579>.

Wright, J.P., Boisvert, D, and Vaske, J. Blood Lead Levels in Early Childhood Predict Adulthood Psychopathy. *Youth Violence and Juvenile Justice* July 2009 7: 208-222, first published on May 11, 2009.

## Articles on Lead and Other Clinical Issues

Dietrich KN, Ware JH, Salganik M, Radcliffe J, Rogan WJ, Rhoads GG, Fay ME, Davoli CT, Denckla MB, Bornschein RL, Schwarz D, Dockery DW, Adubato S, Jones RL; Treatment of Lead-Exposed Children Clinical Trial Group. Effect of chelation therapy on the neuropsychological and behavioral development of lead-exposed children after school entry. *Pediatrics*. 2004 Jul;114(1):19-26. Available online at <http://pediatrics.aappublications.org/content/114/1/19.long>.

Fadowski JJ, Navas-Acien A, Tellez-Plaza M, Guallar E, Weaver VM, Furth SL.

Blood lead level and kidney function in US adolescents: The Third National Health and Nutrition Examination Survey, *Arch Intern Med*. 2010 Jan 11;170(1):75-82. Available online at <http://archinte.ama-assn.org/cgi/content/full/170/1/75>.

George M; Heeney MM; Woolf AD. Encephalopathy from lead poisoning masquerading as a flu-like syndrome in an autistic child. *Pediatric Emergency Care*. 26(5):370-3, 2010 May.

Piomelli S. Childhood lead poisoning. *Pediatric Clinics of North America*. 49(6):1285-304, vii, 2002 Dec.

Sood A, Midha V, Sood N. Pain in abdomen-do not forget lead poisoning. *Indian J Gastroenterol*. 2002;21(6):225-226.

Woolf AD, Goldman R, Bellinger DC. Update on the clinical management of childhood lead poisoning. *Pediatr Clin North Am*. 2007;54(2):271-294.

## Articles Related to Sources of and Risk Factors for Lead Exposure

Brown MJ, Raymond J, Homa D, Kennedy C, Sinks T. Association between children's blood lead levels, lead service lines, and water disinfection, Washington, DC, 1998-2006. *Environmental Research*. 111(1):67-74, 2011 Jan.

Centers for Disease Control and Prevention (CDC). Childhood lead poisoning associated with lead dust contamination of family vehicles and child safety seats - Maine, 2008.

MMWR - Morbidity & Mortality Weekly Report. 58(32):890-3, 2009 Aug 21.

Centers for Disease Control and Prevention (CDC). Childhood lead poisoning from commercially manufactured French ceramic dinnerware-- New York City, 2003.

MMWR Morb Mortal Wkly Rep. 2004 Jul 9;53(26):584-6. Available online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5326a4.htm>.

Eisenberg KW, van Wijngaarden E, Fisher SG, Korfmacher KS, Campbell JR, Fernandez ID, Cochran J, Geltman PL. Blood lead levels of refugee children resettled in Massachusetts, 2000 to 2007. *Am J Public Health*. 2011 Jan;101(1):48-54. Epub 2010 Nov 18. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3000732/?tool=pubmed>.

George M, Heeney MM, Woolf AD. Encephalopathy from lead poisoning masquerading as a flu-like syndrome in an autistic child. *Pediatric Emergency Care*. 26(5):370-3, 2010 May.

Gorospe EC, Gerstenberger SL. Atypical sources of childhood lead poisoning in the United States: a systematic review from 1966-2006. *Clinical Toxicology: The Official Journal of the American Academy of Clinical Toxicology & European Association of Poisons Centres & Clinical Toxicologists*. 46(8):728-37, 2008 Sep.

Jacobs DE, Clickner RP, Zhou JY, et al. The prevalence of lead-based paint hazards in U.S. housing. *Environ Health Perspect*. 2002;110 :A599- A606

Khan DA, Qayyum S, Saleem S, Ansari WM, Khan FA. Lead exposure and its adverse health effects among occupational worker's children. *Toxicol Ind Health* 2010; 26:8 497-504. AbstractFull Text (PDF)

Lambrinidou Y, Triantafyllidou S, Edwards M. Failing our children: lead in U.S. school drinking water. *New Solutions*. 20(1): 25-47, 2010.

Lin CG, Schaidler LA, Brabander DJ, Woolf AD. Pediatric lead exposure from imported Indian spices and cultural powders. *Pediatrics*. 2010 Apr;125(4):e828-35. Epub 2010 Mar 15. Available online at <http://pediatrics.aappublications.org/content/125/4/e828.long>

Miranda ML, Anthopolos, R and Hastings, D. 2011 October. A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels., *Environ Health Perspect.*: 119(10): 1513–1516. Published online 2011 July 13. doi: 10.1289/ehp.1003231

Rabito, F A, Iqbal, S, Shorter, C F, Osman, P, Philips, P E, Langlois, E, White, L E. The association between demolition activity and children's blood lead levels.

*Environmental Research*. 103(3):345-51, 2007 Mar.

Sharmer L, Northrup-Snyder K, Juan W. Newly recognized pathways of exposure to lead in the middle-income home. *Journal of Environmental Health*. 70(3):15-9, 48; quiz 51-2, 2007 Oct.

Zierold KM, Havlena J, Anderson H. Exposure to lead and length of time needed to make homes lead-safe for young children. *American Journal of Public Health*. 97(2):267-70, 2007 Feb.

## Articles Related to Nutrition

See also above, Best Review Article by Lidsky and Schneider.

Hubbs-Tait, L., Nation, J.R., Krebs, N.F., Bellinger, D.C. Neurotoxicants, micronutrients, and social environments individual and combined effects on children's development (Review ). *Psychological Science in the Public Interest*, Supplement Volume 6, Issue 3, December 2005, Pages 57-121.

Kwong WT, Friello P, Semba RI. Interactions between iron deficiency and lead poisoning: epidemiology and pathogenesis. *Sci Total Environ*. 2004;330(1-3):21-37.

Liu J, McCauley L, Compher C, Yan C, Shen X, Needleman H, Pinto-Martin JA. Regular breakfast and blood lead levels among preschool children. *Environ Health*. 2011 Apr 1;10:28.. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079601/?tool=pubmed>.

Ramos CL, Barros HM, Stein AT, Costa JS. Risk factors contributing to childhood poisoning. *J Pediatr (Rio J)*. 2010 Sep-Oct;86 (5):435-40.

[Article in English, Portuguese]. Available online at <http://www.jped.com.br/ArtigoDetalhe.aspx?varArtigo=2129>.

## Articles on Lead and Children with Pervasive Developmental Disorders

Accardo P, Whitman B, Caul J, et al. Autism and plumbism. A possible association. *Clin Pediatr (Phila)*. 1988;27(1):41-44. SFX [Context Link]

George M. Heeney MM. Woolf AD. Encephalopathy from lead poisoning masquerading as a flu-like syndrome in an autistic child. *Pediatric Emergency Care*. 26(5):370-3, 2010 May.

Kaiser MY. Kearney G. Scott KG. DuClos C. Kurlfink J. Tracking childhood exposure to lead and developmental disabilities: examining the relationship in a population-based sample. *Journal of Public Health Management & Practice*. 14(6):577-80, 2008 Nov-Dec.

Shannon M, Graef JW. Lead intoxication in children with pervasive developmental disorders. *J Toxicol Clin Toxicol*. 1996;34:177.

## Articles on Lead and Maternal/Prenatal Exposure

Cleveland LM. Minter ML. Cobb KA. Scott AA. German VF. Lead hazards for pregnant women and children: part 1: immigrants and the poor shoulder most of the burden of lead exposure in this country. Part 1 of a two-part article details how exposure happens, whom it affects, and the harm it can do. *American Journal of Nursing*. 108(10):40-9; quiz 50, 2008 Oct.

Jedrychowski W, Perera F, Maugeri U, Miller RL, Rembiasz M, Flak E, Mroz E, Majewska R, Zembala M. Intra-uterine exposure to lead may enhance sensitization to common inhalant allergens in early childhood: a prospective prebirth cohort study.

*Environ Res*. 2011 Jan;111(1):119-24. Epub 2010 Nov 20. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079601/?tool=pubmed>.

Patel, AB; Mamtani, MR; Thakre, TP; Kulkarni, H. Association of umbilical cord blood lead with neonatal behavior at varying levels of exposure. *Behavioral and Brain Functions*. Vol.2 Jun 2006, ArtID 22.

## Other Articles

Bellinger, DC. Interpreting epidemiologic studies of developmental neurotoxicity: Conceptual and analytic issues. *Neurotoxicology and Teratology*. Volume 31, Issue 5, September–October 2009, Pages 267–274.

Bernard SM. McGeehin MA. Prevalence of blood lead levels  $\geq 5$  micro g/dL among US children 1 to 5 years of age and socioeconomic and demographic factors associated with blood of lead levels 5 to 10 micro g/dL, Third National Health and Nutrition Examination Survey, 1988-1994. *Pediatrics*. 112(6 Pt 1):1308-13, 2003 Dec.

Chung EK. Webb D. Clampet-Lundquist S. Campbell C. A comparison of elevated blood lead levels among children living in foster care, their siblings, and the general population. *Pediatrics*. 2001 May. 107(5):E81,

Lin-Fu JS. Undue absorption of lead among children—a new look at an old problem. *N Engl J Med*. 1972;286(13):702-710.

Muennig P. The social costs of childhood lead exposure in the post-lead regulation era.

*Arch Pediatr Adolesc Med*. 2009 Sep;163(9):844-9. Available online at <http://archpedi.ama-assn.org/cgi/content/full/163/9/844>.

Raymond JS. Anderson R. Feingold M. Homa D. Brown MJ. Risk for elevated blood lead levels in 3- and 4-year-old children. 2009 Jan. *Maternal & Child Health Journal*. 13(1):40-7.

Schmidt CW. Poisoning young minds. *Environ Health Perspect*. 1999 Jun;107(6):A302-7. Available online at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1566584/?tool=pubmed>

## Other Publications

DPH 2010 surveillance report, [http://www.ct.gov/dph/lib/dph/environmental\\_health/lead/pdf/CY\\_2010\\_Surveillance\\_Report\\_final\\_12-21-2012.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/lead/pdf/CY_2010_Surveillance_Report_final_12-21-2012.pdf)

Miranda ML Kim D; Osgood C; Hastings D. The Impact of Early Childhood Lead Exposure on Educational Test Performance among Connecticut Schoolchildren, Study Phase 1, 2011, February 14. Children's Environmental Health Initiative, Duke University: Durham, North Carolina. Available at [http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking\\_lead\\_and\\_education\\_data.pdf](http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking_lead_and_education_data.pdf)

Fiedler, Nancy L. Gender (sex) differences in response to prenatal lead exposure. In Lewis, Michael [Ed]; Kestler, Lisa [Ed]. (2012). *Gender differences in prenatal substance exposure*. (pp. 171-185). xviii, 227 pp. Washington, DC, US: American Psychological Association; US.

Stanford, Lisa D. *Lead Astray: The Controversies of Childhood Lead Poisoning*. Heilbrunner, Robert L [Ed]. (2005). *Forensic Neuropsychology Casebook*. (pp. 218-235). xiv, 370 pp. New York, NY, US: Guilford Press; US.

Morley, R. (Reviewer). *The Cost of Being Poor: Poverty, Lead Poisoning, and Policy Implementation*. Review in *JAMA* 2006; 295:14 1711-1712 .

Richardson, JW. *The Cost of Being Poor: Poverty, Lead Poisoning, and Policy Implementation*. 2005. 204 pp, ISBN 0-275-96912-6, Praeger: Westport, Conn.



# Appendixes

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6

## Appendix A

### *Connecticut State Department of Education Health Assessment Record (HAR-3)*

Located on the CSDE Health Promotion Services/School Nurse Web site at <http://www.sde.ct.gov/sde/cwp/view.asp?a=2678&q=320768>.

## Appendix B

### Blood Lead Level (BLL) History Form (to be completed by child/student's health care provider)

**To the Attention of the Parent/Guardian:** (Please complete this section)

Child/student's Name: (last) \_\_\_\_\_ (first) \_\_\_\_\_ DOB: \_\_\_\_\_

Parent/Guardian's Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**To the Attention of the Health Care Provider:** (Please answer the following questions)

1. What was the age and blood lead level when diagnosed with elevated BLL (BLLs  $\geq$  5mcg/dL)?  
\_\_\_\_\_
2. What is the highest BLL this child/student has had? \_\_\_\_\_
3. What was the duration of exposure to lead (if known)? \_\_\_\_\_
4. What was the duration of the child/students' BLL? \_\_\_\_\_
5. What kind of treatment did the child/student have? \_\_\_\_\_ AND  
How many courses of treatment? \_\_\_\_\_

Please complete this section by listing **all** documented BLL results for this child/student (continue over)

Blood Lead Test Date	Blood Lead Results ( <i>Indicate if venous or capillary</i> )		
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary
_____	_____ mcg/dL	_____ Venous or	_____ Capillary

Name of Health Care Provider: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Telephone \_\_\_\_\_ Email \_\_\_\_\_

Child/student's Name: (last) \_\_\_\_\_ (first) \_\_\_\_\_ DOB: \_\_\_\_\_

Blood Lead Test Date	Blood Lead Results <i>(Indicate if venous or capillary)</i>		
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
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	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary
	_____ mcg/dL	_____ Venous or	_____ Capillary

Name of Health Care Provider: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

*This form was adapted with permission from the work of Dr. Vivian Cross, Education / Health Consultant and Executive Director of the Foundation for Educational Advancement, Inc., Dr. Helen Binns, Director, Lead Evaluation Clinic and the Nutrition Evaluation Clinic; Professor of Pediatrics, Northwestern University Feinberg School of Medicine and Francesca Provenzano, Health Program Supervisor for the CT State Department of Public Health, with additional contributions from Dr. Sherin Stahl, Director of Psychological Services, Yale Child Study Center and Lead Poisoning and Regional Treatment Center at Yale New Haven Children's Hospital.*

## Appendix C

### *Sample Assessment Model for Lead Poisoning*

While criteria referenced, curriculum referenced, and informal assessments can be employed to identify specific deficiencies, a comprehensive assessment is recommended employing norm referenced tests with adequate validity and reliability and preferably yielding scaled scores or standard scores with confidence intervals and percentile scores. The following is a suggested model for a comprehensive evaluation of mental abilities.

<b>FUNCTION/DOMAIN</b>	<b>TEST/SCALE EXAMPLES</b>
Measure of Intelligence	WISC-IV, KABC-II
Executive	D-KEFS, WCST, BRIEF, BASC-2 Executive
Working Memory Capacity	WISC-IV Working Memory, CMS Working Memory
Processing Speed	WISC-IV Processing Speed, W/J-III (NU) Processing Speed or Academic Fluency Clusters
Attention	Connors-3, BASC-2 scales, PADDs, CPT-II, NEPSY-2
Memory	CMS, WRAML-2
Language - Perception	CTOPP, W/J-III Phonemic Awareness, Visual Matching, LAC-3
Language - Reading	W/J-III (NU), WIAT-III, GORT-4, GSRT
Language - Speech Comprehension	PPVT-4, OWLS Listening Comprehension CASL, CELF-4
Language - Expressive Speech	CASL, WIAT-III, W/J-III (NU), CELF-4
Language - Writing	WIAT-III, W/J-III (NU), TOWL-4
Perceptual-Motor	NEPSY-2, Rey-Osterrieth Complex Figure,
Social/Emotional Behavior	BASC-2, Connors-3, M-PACI, SMALSI, CAIR
Adaptive Behavior (optional)	VADS- II

The suggested tests are not meant to constitute endorsements for using those methods. Mental processes and domains of cognitive abilities are multi-dimensional. Alternative or additional measures may be employed, particularly when specific deficiencies have been identified.

**Key to Test Abbreviations**

BASC-2	Behavioral Assessment System for Children - Second Addition
BRIEF	Behavioral Rating Inventory of Executive Function
CAIR	Clinical Assessment of Interpersonal Relationships
CASL	Comprehensive Assessment of Speech and Language
CEL F-4	Clinical Evaluation of Language Fundamentals - Fourth Edition
CMS	Children's Memory Scale
CPT-II	Connors Continuous Performance Test - Second Edition
CTOPP	Comprehensive Test of Phonological Processing
D-KEFS	Delis-Kaplan Executive Function System
GORT-4	Gray Oral Reading Test - Fourth Edition
GSRT	Gray Silent Reading Test
KABC-II	Kaufman Assessment Battery for Children - Second Edition
LAC-3	Lindamood Auditory Conceptualization Test - Third Edition
M-PACI	Millon Pre-Adolescent Clinical Inventory
NEPSY-II	(Not an acronym - "neuropsychological" assessment battery)
OWLS	Oral and Written Language Scales
PADDS	Pediatric Attention Disorders Diagnostic Screener
PPVT-4	Peabody Picture Vocabulary Test - Fourth Edition
SMALSI	School Motivation and Learning Strategies Inventory
WCST	Wisconsin Card Sorting Test
WIAT-III	Wechsler Individual Achievement Test - Third Edition
WISC-IV	Wechsler Intelligence Scale for Children - Fourth Edition
W/J-III (NU)	Woodcock-Johnson Psychoeducational Battery - Third Edition (Norms Updated)
VADS-II	Vineland Adaptive Behavior Scales - Second Edition

## Appendix D

### *Sample Assessment Model for Lead Poisoning – Preschool Children*

While criteria referenced, curriculum referenced, and informal assessments can be employed to identify specific deficiencies, a comprehensive assessment is recommended employing norm referenced tests with adequate validity and reliability and preferably yielding scaled scores or standard scores with confidence intervals and percentile scores. The following is a suggested model for a comprehensive evaluation of mental abilities.

<b>FUNCTION/DOMAIN</b>	<b>TEST/SCALE EXAMPLES</b>
Measure of Intelligence	WPPSI-IV, KABC-II, DAS-2
Executive Functioning	BRIEF-P, BASC-2, NEPSY-2
Working Memory Capacity	WPPSI-IV Working Memory, DAS-2 Working Memory Cluster
Processing Speed	WPPSI-IV Processing Speed, DAS-2 Processing Speed Cluster
Attention	BASC-2, NEPSY-2
Memory	WJ-III(NU) Memory for Words, Memory for Sentences, Retrieval Fluency; NEPSY-2, DAS-2
Language - Perception	W/J-III Sound Awareness, CTOPP
Language – Early Reading	W/J-III (NU) (Letter-Word Identification, Passage Comprehension, Word Attack), KTEA-2 Letter and Word Recognition, DAS-2 School Readiness Cluster
Language - Speech Comprehension	PPVT-4, OWLS Listening Comprehension, CASL, CELF-4, KTEA-2 Listening Comprehension, PLS-5, NEPSY-2 Comprehension of Instructions
Language - Expressive Speech	CASL, W/J-III (NU), OWLS Oral Expression, CELF-4, KTEA-2 Oral Expression, KTEA-2 Oral Fluency Composite, PLS-5, EVT-2
Language – Early Writing	OWLS Written Expression, KTEA-2 Written Expression
Perceptual-Motor	NEPSY-2, Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI)

Social/Emotional Behavior	BASC-2, ITSEA
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Adaptive Behavior (optional)	VABS- II
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The suggested tests are not meant to constitute endorsements for using those methods. Mental processes and domains of cognitive abilities are multi-dimensional. Alternative or additional measures may be employed, particularly when specific deficiencies have been identified.

Suggested tests/subtests are not necessarily appropriate for all ages of the preschool years, and care should be used in selecting tests/subtests that are suitable. In some situations, developmental testing may be preferable.

### **Key to Test Abbreviations**

BASC-2	Behavioral Assessment System for Children - Second Addition
BRIEF-P	Behavioral Rating Inventory of Executive Function – Preschool Version
CASL	Comprehensive Assessment of Speech and Language
CELF-4	Clinical Evaluation of Language Fundamentals - Fourth Edition
CTOPP	Comprehensive Test of Phonological Processing
DAS-2	Differential Abilities Scales – Second Edition
EVT-2	Expressive Vocabulary Test – Second Edition
KABC-II	Kaufman Assessment Battery for Children - Second Edition
KTEA-2	Kaufman Test of Educational Achievement – Second Edition
NEPSY-II	(Not an acronym - “neuropsychological” assessment battery)
OWLS-2	Oral and Written Language Scales
PLS-5	Preschool Language Scales – Fifth Edition
PPVT-4	Peabody Picture Vocabulary Test - Fourth Edition
WPPSI-IV	Wechsler Preschool and Primary Scales - Fourth Edition (As of Fall, 2012)
W/J-III (NU)	Woodcock-Johnson Psychoeducational Battery – third Edition (Norms Updated)
VABS-II	Vineland Adaptive Behavior Scales - Second Edition

## Appendix E

### Connecticut Department of Public Health Lead Provider Letter

# STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Jewel Mullen, M.D., M.P.H., M.P.A.  
Commissioner



Dannel P. Malloy  
Governor  
Nancy Wyman  
Lt. Governor

April 12, 2013

Dear Clinical Partners:

On January 4, 2012, the national Advisory Committee on Childhood Lead Poisoning Prevention (ACLPP) released a report to the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) which acknowledged the cumulative scientific evidence concerning a range of health impacts associated with blood lead levels less than 10µg/dL in children. The ACLPP recommendations and the CDC responses can be found on the CDC website at: [www.cdc.gov/nceh/lead/ACCLPP/CDC\\_Response\\_Lead\\_Exposure\\_Recs.pdf](http://www.cdc.gov/nceh/lead/ACCLPP/CDC_Response_Lead_Exposure_Recs.pdf).

Specific recommendations that were made by the ACLPP and accepted by the CDC were to:

- (1) base blood lead re-testing requirements and timelines on a "reference value" of 5 µg/dL; and
- (2) have clinicians take the primary role in educating families about *preventing* childhood lead exposure during well-child visits prior to blood lead testing occurring.

The Connecticut Department of Public Health (CT DPH) reconvened the state's Childhood Lead Poisoning Prevention Screening Advisory Committee to revise Connecticut's blood lead screening requirements and medical follow-up guidelines to align with the national recommendations. The two-page advisory entitled, *Requirements and Guidance for Childhood Lead Screening by Health Care Professionals in Connecticut* are attached.

Major revisions to the requirements and guidelines include: (1) lowering the blood lead level for retesting from 10µg/dL to 5µg/dL; (2) testing and re-testing timelines; and (3) streamlining the risk assessment questions.

The CT DPH has developed a simple educational packet, to be provided at well child visits, consisting of two informational sheets that cover the basics about lead poisoning prevention and nutrition. The information included is: *Lead Poisoning Prevention* and *Eating Right Helps Fight Lead Poisoning*.



*If you require aid or accommodation to participate fully and fairly in this meeting, please phone (860) 509-7293*

Phone: (860) 509-7299 • Fax: (860) 509-7295 • VP: (860) 899-1611  
410 Capitol Avenue, P.O. Box 340308  
Hartford, Connecticut 06134-0308  
[www.ct.gov/dph](http://www.ct.gov/dph)

*Affirmative Action/Equal Opportunity Employee*

To summarize, CT DPH seeks your assistance with:

1. Reminding parents that there is no safe blood lead level.
2. Reminding parents that it is the law to have their child tested.
3. Ensuring medical re-testing according to established timelines when a child is identified as having a blood lead level at or above the new 'reference value.'
4. Providing lead poisoning prevention educational information during well child visits.

Primary prevention is paramount in our collective efforts to reduce and eliminate childhood lead poisoning and clinicians are essential to this effort. Your collaboration on this effort is critical to the health of your patients.

Please feel free to contact the CT DPH Lead and Healthy Homes Program at 860-509-7299 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jewel Mullen", with a long horizontal flourish extending to the right.

Jewel Mullen, MD, MPH, MPA  
Commissioner

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<sup>1</sup>The reference value is based on the 97.5th percentile of the blood lead level distribution in children 1-5 years of age in the U.S. Based upon current data the reference value blood lead level is 5µg/dL.

## Appendix F

### Connecticut Department of Public Health Requirement and Guidance for Childhood Lead Screening by Health Care Professionals in Connecticut



Connecticut Department  
of Public Health

www.ct.gov/dph

#### Requirements and Guidance for Childhood Lead Screening by Health Care Professionals in Connecticut Lead Poisoning Prevention and Control Program

Revised April 2013

#### A. Universal Blood Lead Testing is Mandated

Test children:

- Between 9 months and 36 months of age, each year for elevated blood lead levels
  - Most providers test at 12 months and 24 months of age
- Between 25-72 months of age, if not previously been tested, regardless of risk
- < 72 months of age, with developmental delays (especially if associated with pica)

#### B. Diagnostic Testing and Follow-up

##### Timetable for Confirming Capillary (Screening) Blood Lead Results with a Venous Blood Lead Test\*

If result of screening test ( $\mu\text{g}/\text{dl}$ ) is	Perform Venous Blood test within:
5-19	3 months
20-44	1 month-1 week*
45-59	48 hours
60-69	24 hours
$\geq 70$	Immediately

\*The higher the result on the capillary test, the more urgent the need for venous testing.

##### Schedule for Follow-up Venous Blood Lead Testing for Children with an Elevated Blood Lead Level<sup>a</sup>

Blood Lead Level ( $\mu\text{g}/\text{dl}$ )	Early follow-up (1 <sup>st</sup> 2-4 tests after identification) test within:	Late follow-up (after BLL begins to decline) test within:
5-14	3 months <sup>b</sup>	6 - 9 months
15-19	1 - 3 months <sup>b</sup>	3 - 6 months
20-24	1 - 3 months <sup>b</sup>	1 - 3 months
25-44	2 weeks - 1 month	1 month
> 45	As soon as possible	Chelation and follow-up

<sup>a</sup>Seasonal variations of BLLs exists and may be more apparent in colder climates. Greater exposure in the summer months may necessitate more frequent follow ups.

<sup>b</sup>Some case managers or PCPs may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL is not rising more quickly than anticipated.

- If a capillary blood test is elevated (equal to or greater than  $5\mu\text{g}/\text{dL}$ ), confirm with a diagnostic (venous) blood lead test.
- Children with an elevated diagnostic blood lead test require additional follow-up blood testing at appropriate intervals.
- Children should be tested according to schedule above until BLL is below the reference value of  $<5\mu\text{g}/\text{dL}$ .
- Providers can contact one of Connecticut's Regional Lead Treatment Centers for guidance and assistance with clinical management of a lead poisoned child (see below).

**Consultation and supportive services are available by contacting:**  
Hartford Regional Lead Treatment Center, (860-714-5184)  
Yale-New Haven Regional Lead Treatment Center, (203-764-9106)

**For more information contact:**  
State of CT Department of Public Health Lead Poisoning Prevention and Control Program  
(860-509-7299)

**C. Provide Anticipatory Guidance to Families**

- Provide educational information about lead poisoning
- Written materials, along with verbal education, should be provided in the family's primary language (at an appropriate reading level)
- Resources available at [www.ct.gov/doh/lead](http://www.ct.gov/doh/lead)

**D. Risk Assessment**

- In addition to testing children at the recommended time intervals, at each well-child visit, health care providers shall evaluate children 6 months to 72 months of age for risk of lead exposure using the following risk assessment questions.

**Risk Assessment Questions**

1. Does your child live in or regularly visit a house built before 1978?
2. Does your child have a brother or sister, housemate, or playmate being followed or treated for lead poisoning?
3. Does your child frequently come in contact with an adult whose job or hobby involves exposure to lead (e.g., construction, welding, automotive repair shop, other trades, stained glass making; using lead solder, artist paints or ceramic glazes; etc.)?
4. Has your child been exposed to any imported products (spices, foods/vitamins, ethnic home remedies, or ethnic cosmetics)?
  - Some examples include: azarcon (also known as rueda, Maria Luisa, alarcon, liga); albayalde; greta; pay-loo-ah; ghasard; bala goli; kandu; kohl; litargirio; bebetina; chyawaw prash.

Ask any additional questions that may be specific to situations that exist in a particular community (e.g. operating or abandoned industrial sources; waste disposal sites; drinking water; has your child ever lived outside the U.S.; does your family use pottery for cooking, eating or drinking; etc.?).

**If the answer to any of the above questions is YES or UNKNOWN, then the child is considered to be at risk and should be tested.**

**NOTE: Blood lead testing shall also be considered for any child regardless of age, with:**

- Unexplained seizures, neurologic symptoms, hyperactivity, behavior disorders, growth failure, abdominal pain, or other symptoms consistent with lead poisoning or associated with lead exposure;
- Recent history of ingesting, or an atypical behavior pattern of inserting, any foreign object (even if the foreign object is unleaded) into a body orifice.

## Appendix G

Connecticut Department of Public Health Lead Educational Handouts



CT DPH LEAD & HEALTHY HOMES PROGRAM

**FACT SHEET**

# Lead Poisoning Prevention

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## Where is Lead Found?

- **Paint:** Lead can be found in paint that was made before 1978. This paint can be on any painted surface in your home, like doors, windows, and porches.
- **Dust:** Lead dust in the home is comes from lead painted surfaces that are chipping and peeling. Sanding and scraping old paint when repainting or remodeling can also cause a lead dust problem.
- **Soil:** Old paint that has fallen off the outside of your house onto the ground may have left lead in the soil.
- Lead can also be found in ceramic dishes, crystal, food cans from outside the U.S., water pipes, solder and fittings, and some ethnic cosmetics and home remedies.
- Some jobs and hobbies can expose children and adults to lead. Some examples are painters, house remodelers, plumbers, mechanics, bridge workers, making jewelry, ceramic/pottery or stained glass, and going to indoor firing ranges.

---

## Is Your Child At Risk For Lead Poisoning?

If you answer yes to any of these questions you may want to have your child tested, even if your child is older.

- Does your child live in or often visit a building built before 1960?
- Does your child live in or often visit a building built before 1978 that is being or was just repaired or remodeled?
- Does your child live in or often visit a building that has peeling or chipping paint?
- Does your child live with an adult or often visit an adult whose job or hobby exposes them to lead?
- Does your family eat or drink from dishes made outside the U.S.?
- Does your family use home remedies?

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## How does a child get lead poisoned?

- Lead poisoning usually happens when children ingest (eat) dust that has lead in it. Children may also eat chips of lead paint or soil that has lead in it.

---

## What Does Lead Do to the Body?

- No amount of lead in the body is safe. The damage lead can cause is forever! Lead can damage the brain. It can cause growth problems, hearing loss, and learning problems.
  - Many children do not show signs of lead poisoning. Some signs of high levels of lead poisoning are the same as other childhood illnesses, like the common cold or teething.
-

**What Does Lead Do to the Body? (continued)**

- If a pregnant woman is around lead, she and her unborn child may become lead poisoned. Lead can cause lasting damage to the mother and her baby.

**How Can You Reduce The Risk?**

Replace, fix or manage all lead hazards in a lead safe way.

**Steps you can take to prevent children from being lead poisoned:**

- Keep children and pregnant women away from all lead hazards.
- Clean up lead dust and paint chips by wet wiping window sills and window wells or wet mopping floors. Do NOT dry sweep or vacuum, this will spread the lead dust.
- Block places with peeling or chipping paint. Do not use windows that have chipping paint.
- Move your child's bedroom or play area to a room that has no peeling or chipping paint.
- Place washable mats inside and outside entry doors.
- Have people remove their shoes before coming in the home.
- Do not let your child (or pet) play in dirt.
- Wash and dry your child's hands, toys and pacifiers often. Wash and dry your child's hands before playing, eating, and bedtime.
- Use cold water from the tap for drinking, cooking and making formula. Let water run for 1-2 minutes before using.
- Give your child healthy meals and snacks to eat. An empty stomach takes in lead faster than a full stomach.

**Steps adults can take to help prevent themselves or children from becoming lead poisoned from their job or hobby:**

- Don't eat, drink or smoke in your work/hobby area.
- Wash your hands and face before eating, smoking or drinking.
- Wear protective clothing (such as disposable gloves, hat, and shoe covers) when you work with lead. Use a NIOSH-approved respirator.
- Shower, wash your hair, and change into clean clothes and shoes before you leave the work area. Leaving dust on your clothes can contaminate your home and car.
- Put your work clothes and shoes in sealed plastic bags.
- Wash work clothes in a different load than the family's laundry.

**Does your child need to be tested for lead poisoning?**

- Yes, all children, at about ages one and two, must be tested for lead poisoning...it's the law!
- Blood tests will tell how much lead is in your child's blood at the time of the test. If the level is high, your child will need more testing.
- If your child is at risk at other ages, have your child tested at those times too.

**Connecticut Lead and Healthy Homes Program****(860) 509-7299**[www.ct.gov/dph/lead](http://www.ct.gov/dph/lead)[www.ct.gov/dph/healthyhomes](http://www.ct.gov/dph/healthyhomes)



CT DPH LEAD & HEALTHY HOMES PROGRAM

FACT SHEET

## Eating Right Helps Fight Lead Poisoning

Lead tricks the body into thinking it is iron, calcium or zinc. Eating healthy can help decrease the lead from staying in the body.

Don't let your child go through the day on an empty stomach!

### Five Basic Food Groups

- Breads, cereals and grains
- Vegetables
- Fruit
- Milk and milk products
- Meat, chicken, fish, nuts, and beans



### Foods Rich in Calcium

- Milk
- Yogurt
- Cheese (*for snacks, in cooking such as macaroni and cheese, pizza, tortillas, vegetables*)
- Foods made of milk (*pudding, soup, ice cream, custard*)
- Sardines or canned salmon (*with bones*)
- Green vegetables (*kale, collard greens, broccoli*)



### Foods Rich in Zinc

- Chicken or turkey
- Lean meat
- Fish
- Milk and cheese
- Clams, oysters, mussels, crab
- Dried beans and lentils
- Eggs



---

### Foods Rich in Iron

- Lean red meat, chicken, turkey and fish
- Iron-fortified hot and cold cereals
- Clams, oysters or mussels (*use canned to make soup or sauce for pasta*)
- Dark green leafy vegetables
- Dried beans, split peas, and other beans (*pinto, red, navy, kidney, garbanzo*)
- Eggs
- Dried fruit



*The iron in vegetables, grains, beans, nuts and eggs may be made more usable to the body when you eat a food high in Vitamin C at the same meal. Oranges, grapefruit, strawberries, cantaloupe, green peppers, cauliflower, broccoli and potatoes are some foods high in Vitamin C.*

---

### Healthy Tips:

- Don't fry foods. Bake or broil them.
  - Try not to eat high fat foods. When you do eat them, eat small portions.
  - Vitamin C helps your body absorb iron.
  - Children under the age of 2 should have whole milk after they no longer drink formula or breast milk. Most children 2 and older can have lower fat milk. Children with milk allergies can have tofu, leafy green vegetables, sardines, or canned salmon for their calcium needs.
  - Younger children need smaller servings than older children or adults. More active people need larger numbers of servings from each of the 5 food groups.
- 

Connecticut Lead and Healthy Homes Program

(860) 509-7299

[www.choosemyplate.gov](http://www.choosemyplate.gov)

[www.ct.gov/dph/lead](http://www.ct.gov/dph/lead)

[www.ct.gov/dph/healthyhomes](http://www.ct.gov/dph/healthyhomes)





PROGRAMA SOBRE PLOMO Y SALUD EN EL HOGAR DEL  
DEPARTAMENTO DE SALUD PÚBLICA DE CONNECTICUT

## HOJA INFORMATIVA

### Prevencción de envenenamiento por plomo

#### ¿Dónde se encuentra el plomo?

- **Pinturas:** es posible hallar plomo en las pinturas fabricadas antes de 1978. Estas pinturas pueden encontrarse en cualquier superficie pintada de su hogar, como puertas, ventanas y porches.
- **Polvo:** el polvo con plomo en el hogar proviene de las superficies pintadas con pinturas a base de plomo que se están desprendiendo y descascarando. El lijado y rasqueteo de la pintura vieja cuando se vuelve a pintar o remodelar un lugar también pueden generar un problema con el polvo que contiene plomo.
- **Tierra:** la pintura vieja que se ha desprendido de la parte exterior de la casa sobre el suelo puede haber dejado residuos de plomo en la tierra.
- El plomo también se halla en los platos hechos de cerámica, los cristales, las latas de alimentos de países extranjeros, las cañerías del agua, las soldaduras y accesorios, en ciertos productos cosméticos para pieles de distintos orígenes étnicos y en los remedios caseros.
- Ciertos empleos y hobbies pueden exponer a los niños y adultos al plomo. Entre los ejemplos se encuentran los pintores, los remodeladores, los plomeros, los mecánicos, las personas que trabajan en puentes, en la fabricación de joyas, cerámicas, alfarería o vitrales y quienes ingresan a polígonos de tiro bajo techo.

#### ¿Su hijo corre riesgo de envenenarse con plomo?

Si responde afirmativamente a cualquiera de las siguientes preguntas, tal vez desee someter a su hijo a un análisis, aunque ya sea mayor.

- ¿Su hijo vive o visita con frecuencia un edificio construido antes de 1960?
- ¿Su hijo vive o visita con frecuencia un edificio construido antes de 1978 que está en proceso de reparación o remodelación o que ha sido reparado o remodelado recientemente?
- ¿Su hijo vive o visita con frecuencia un edificio cuya pintura se está desprendiendo o descascarando?
- ¿Su hijo vive con un adulto o visita con frecuencia a un adulto cuyo trabajo o hobby lo expone al plomo?
- ¿Su familia come o bebe utilizando platos o vasos fabricados fuera de los EE. UU.?
- ¿Su familia utiliza remedios caseros?

#### ¿Cómo se envenena por plomo un niño?

- El envenenamiento por plomo suele ocurrir cuando los niños ingieren polvo que contiene plomo. Los niños también pueden comerse restos de pintura o tierra con plomo.

#### ¿Qué provoca el plomo en el cuerpo?

- Ninguna cantidad de plomo en el cuerpo es segura. ¡El daño provocado por el plomo es para siempre! El plomo puede dañar el cerebro. Puede causar problemas de crecimiento, pérdida de audición y trastornos de aprendizaje.
- Muchos niños no exhiben signos de envenenamiento por plomo. Algunos signos de niveles altos de envenenamiento por plomo son los mismos que en otras afecciones infantiles, como el resfriado común o la dentición.

### ¿Qué provoca el plomo en el cuerpo? (cont.)

- Si una mujer embarazada se encuentra en un ambiente donde hay plomo, ella y el bebé por nacer pueden envenenarse por plomo. El plomo puede causar un daño prolongado a la madre y al bebé.

### ¿Cómo se puede reducir el riesgo?

Reemplace, arregle o gestione todos los peligros relacionados con el plomo en forma segura.

#### Pasos a seguir para evitar que los niños se envenenen por plomo:

- Mantener a los niños y a las mujeres embarazadas alejadas de todo peligro relacionado con el plomo.
- Limpiar el polvo con plomo y la pintura desprendida en los alféizares y huecos de las ventanas con un paño húmedo o limpiar los pisos con agua. NO limpiar en seco ni usar una aspiradora, ya que esto puede esparcir el polvo que contiene plomo.
- Bloquear los lugares donde hay pintura desprendida o descascarada. No usar ventanas con pintura desprendida.
- Trasladar la habitación o el área de juegos de los niños a un espacio donde no haya pintura desprendida o descascarada.
- Colocar felpudos lavables dentro y fuera de las puertas de entrada.
- Hacer que las personas se quiten los zapatos antes de ingresar a la casa.
- No permitir que los niños (o mascotas) jueguen con tierra.
- Lavar y secar las manos, los juguetes y chupetes de los niños a menudo. Lavar y secar las manos de los niños antes de jugar, de comer y al acostarse.
- Usar agua fría de la canilla para beber, cocinar y preparar la leche de fórmula. Dejar correr el agua entre 1 y 2 minutos antes de usarla.
- Ofrecer a los niños comidas y bocadillos sanos. Si una persona tiene el estómago vacío, el plomo se absorbe con más rapidez que con el estómago lleno.

#### Pasos que los adultos pueden seguir para ayudar a evitar que ellos o niños se envenenen por plomo debido a su trabajo o hobby:

- No comer, beber ni fumar en su lugar de trabajo o hobby.
- Lavarse las manos y el rostro antes de comer, fumar o beber.
- Usar vestimenta de protección (como guantes descartables, gorra y fundas para zapatos) al trabajar con plomo. Usar un espirador aprobado por el Instituto Nacional de Salud y Seguridad Ocupacional (NIOSH).
- Ducharse, lavarse el cabello y colocarse ropa y zapatos limpios antes de dejar el área de trabajo. Si queda polvo en la vestimenta, puede contaminar su casa y automóvil.
- Colocar la ropa y los zapatos de trabajo en bolsas de plástico selladas.
- Lavar la ropa de trabajo en una carga separada de la ropa sucia de la familia.

### ¿Es necesario someter su hijo a la prueba para detectar envenenamiento por plomo?

- Sí, todos los niños que tengan entre 1 y 2 años de edad deben someterse a la prueba de detección de envenenamiento por plomo. ¡Es la ley!
- Los análisis de sangre indicarán la cantidad de plomo en la sangre de su hijo al momento del análisis. Si el nivel es alto, su hijo necesitará pruebas adicionales.
- Si su hijo está en riesgo en otras edades, también debe someterlo a los análisis en esos momentos.

Programa sobre Plomo y Salud en el Hogar de Connecticut

(860) 509-7299

[www.ct.gov/dph/lead](http://www.ct.gov/dph/lead)

[www.ct.gov/dph/healthyhomes](http://www.ct.gov/dph/healthyhomes)





CT DPH LEAD & HEALTHY HOMES PROGRAM

HOJA DE DATO

## Comer Saludable Ayuda Prevenir El Envenenamiento De Plomo

El plomo engaña el cuerpo haciéndole creer que es hierro, calcio o cinc.  
Comer saludable para que el cuerpo absorbe menos plomo.

¡No deje que su niño esté con el estómago vacío!

### Cinco Grupos Básicos de Alimentos

- Pan, cereal y granos
- Verduras
- Frutas
- Leche y productos lácteos
- Carne, pollo, pescado, nueces y frijoles o lentejas



### Alimentos Ricos en Calcio

- Leche (al menos 2 pero no más de 3 tazas al día)
- Yogur
- Queso (para entrecomidas, para cocinar fideos, pizza, tortillas, verduras)
- Comidas hechas con leche (budín, sopa, helado, natilla)
- Sardinas o salmon en lata (con espinas)
- Verduras verdes (col, col verde, broccoli)



### Alimentos Ricos en Cinc

- Pollo o pavo
- Carne sin grasa
- Pescado
- Leche y queso
- Almejas, ostras, mejillones y cangrejo
- Frijoles y lentejas
- Huevos



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### Alimentos Ricos en Hierro

- Carne roja sin grasa, pollo, pavo y pescado
- Cereal frío y caliente fortificado con hierro
- Almejas, ostras y mejillones (en lata para sopa o salsa para pasta)
- Verduras de hoja verde oscuro
- Frijoles, garbanzos o lentejas (pintos, rojos, azules, morados, garbanzo)
- Huevos
- Frutas secas



*El hierro que contienen las verduras, los granos, los frijoles, las nueces y los huevos puede ser mejor aprovechado por el cuerpo si se come con un alimento alto en contenido de Vitamina C en la misma comida. Las naranjas, las toronjas, las fresas, los melones, los pimientos verdes, la coliflor, el brocoli y las papas son alimentos altos en contenido de Vitamina C.*

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### Healthy Tips:

- No fría alimentos. Hornee o áselos.
  - Trate de no comer alimentos con mucha grasa. Cuando coma ellos, coma pequeñas porciones.
  - La vitamina C ayuda su cuerpo absorbe hierro.
  - Los niños menores de 2 años deben tomar leche sin desnatar después de dejar la fórmula o el pecho. La mayoría de los niños de 2 años o mayores pueden tomar leche desnatada. Los niños con alergia a la leche pueden comer tofu, verduras de hoja verde y sardinas o salmón en lata para satisfacer sus necesidades de calcio.
  - Los niños pequeños necesitan porciones más pequeñas que los niños grandes o los *adultos, y las personas más activas necesitan porciones más grandes de cada uno de los 5 grupos de alimentos.*
- 

Connecticut Lead and Healthy Homes Program

(860) 509-7299

[www.choosemyplate.gov](http://www.choosemyplate.gov)

[www.ct.gov/dph/lead](http://www.ct.gov/dph/lead)

[www.ct.gov/dph/healthyhomes](http://www.ct.gov/dph/healthyhomes)



## Endnotes

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1. Agency for Toxic Substances & Disease Registry. Online at <http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=22>
2. Lidsky TI; Schneider JS. Lead neurotoxicity in children: basic mechanisms and clinical correlates. *Brain*. 2003;126(1):5-19. AbstractFull TextFull Text (PDF). Available online at <http://brain.oxfordjournals.org/content/126/1/5.full.pdf>
3. US Dep. Health Hum. Serv., Public Health Serv. Centers for Disease Control and Prevention. 1991. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. DHHS Publ. (PHS) 91-5022.
4. Jacobs DE, Clickner RP, Zhou JY, et al. The prevalence of lead-based paint hazards in U.S. housing. *Environ Health Perspect*. 2002;110 :A599- A606
5. Committee on Environmental Health, American Academy of Pediatrics. (2005, reaffirmed, 11/2008). Policy Statement: Lead Exposure in Children: Prevention, Detection, and Management. *Pediatrics*, 116(4):1036-1046. Available online at <http://pediatrics.aappublications.org/content/116/4/1036.full>
6. Lanphear BP, Dietrich KN. And Berger, O. Prevention of Lead Toxicity in US Children. *Ambulatory Pediatrics*, Volume 3, Issue 1, January-February 2003, Pages 27-36

7. Committee on Environmental Health, American Academy of Pediatrics. (2005, reaffirmed, 11/2008). Policy Statement: Lead Exposure in Children: Prevention, Detection, and Management. *Pediatrics*, 116(4):1036–1046. Available online at <http://pediatrics.aappublications.org/content/116/4/1036.full>
8. Advisory Committee on Childhood Lead Poisoning Prevention. Recommendations of the Advisory Committee on Childhood Lead Poisoning Prevention. January 4, 2012. Atlanta: U.S. Centers for Disease Control and Prevention.
9. Enton, E. Any lead is too much lead. *The Atlantic*. January 12, 2012. Available online at [www.theatlantic.com/health/archive/2012/01/any-lead-is-too-much-lead/251226/](http://www.theatlantic.com/health/archive/2012/01/any-lead-is-too-much-lead/251226/)
10. Tellez-Rojo MM, Bellinger DC, Arroyo-Quiroz C, Lamadrid-Figueroa H, Mercado-Garcia, A, Schnaas-Arrieta L, Wright RO, Hernandez-Avila M, and Hu H. Longitudinal Associations Between Blood Lead Concentrations Lower Than 10 µg/dL and Neurobehavioral Development in Environmentally Exposed Children in Mexico City. August 1, 2006. *Pediatrics* Vol. 118 No. 2 pp. e323–e330. Available online: <http://pediatrics.aappublications.org/content/118/2/e323.abstract>
11. Hubbs-Tait, L., Mulugeta, A., Bogale, A., Kennedy, T.S., Baker, E.R., Stoecker, B.J. Main and interaction effects of iron, zinc, lead, and parenting on children's cognitive outcomes. *Developmental Neuropsychology*. Volume 34, Issue 2, March 2009, Pages 175-195.
12. Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations <10mg/dl in US children and adolescents. *Public Health Rep* 2000; 115: 521±9.
13. Koller K, Brown T, Spurgeon A, Levy L. Recent developments in low-level lead exposure and intellectual impairment in children. *Environ Health Perspect*. 2004 Jun;112 (9):987-94. Available online at <http://www.ncbi.nlm.nih.gov/pubmed/15198918>
14. Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. *Environ Health Perspect*. 2005;113(7):894–899. WEB OF SCIENCE | PUBMED
15. Advisory Committee on Childhood Lead Poisoning Prevention. Recommendations of the Advisory Committee on Childhood Lead Poisoning Prevention. January 4, 2012. Atlanta: U.S. Centers for Disease Control and Prevention.
16. Hubbs-Tait, L., Mulugeta, A., Bogale, A., Kennedy, T.S., Baker, E.R., Stoecker, B.J. Main and interaction effects of iron, zinc, lead, and parenting on children's cognitive outcomes. *Developmental Neuropsychology*. Volume 34, Issue 2, March 2009, Pages 175-195.
17. Surkan PJ, Zhang A, Trachtenberg F, Daniel DB, McKinlay, S. and Bellinger DC. Neuropsychological function in children with blood lead levels <10 µg/dL. *NeuroToxicology*, Volume 28, Issue 6, November 2007, Pages 1170–1177
18. Hubbs-Tait, L., Nation, J.R., Krebs, N.F., Bellinger, D.C. Neurotoxicants, micronutrients, and social environments individual and combined effects on children's development (Review). *Psychological Science in the Public Interest*, Supplement. Volume 6, Issue 3, December 2005, Pages 57-121.

19. Hubbs-Tait, L., Mulugeta, A., Bogale, A., Kennedy, T.S., Baker, E.R., Stoecker, B.J. Main and interaction effects of iron, zinc, lead, and parenting on children's cognitive outcomes. *Developmental Neuropsychology*. Volume 34, Issue 2, March 2009, Pages 175-195.
20. Hubbs-Tait, L., Mulugeta, A., Bogale, A., Kennedy, T.S., Baker, E.R., Stoecker, B.J. Main and interaction effects of iron, zinc, lead, and parenting on children's cognitive outcomes. *Developmental Neuropsychology*. Volume 34, Issue 2, March 2009, Pages 175-195.
21. Personal communication with Armin Thies, April 5, 2012
22. Ruff, Holly A. Population-based data and the development of individual children: The case of low to moderate lead levels and intelligence. *Journal of Developmental and Behavioral Pediatrics*. Vol.20(1), Feb 1999, pp. 42-49.
23. Lanphear BP, Hornung R, Khoury J, et al Lead and IQ in Children: Lanphear et al. *Respon Environ Health Perspect*. 2006 February; 114(2): A86–A87.
24. Miranda Study Phase I, 2012. Available at [http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking\\_lead\\_and\\_education\\_data.pdf](http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking_lead_and_education_data.pdf).
25. Miranda Study Phase II, 2013. Available at <http://www.sde.ct.gov/sde/lib/sde/pdf/deps/student/health/linking.lead.and.education.data.phaseii.pdf>.
26. <http://www.cdc.gov/nceh/lead/>.
27. <http://www.cdc.gov/nceh/lead/> and Report of the Advisory Committee.
28. Silbergeld, E.K. Preventing Lead Poisoning in Children. *Annu. Rev. Public Health*. 1997. 18:187–210.
29. US Dep. Health Hum. Serv., Public Health Serv. 1991. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. DHHS Publ. (PHS)91–5022.
30. [http://www.cdc.gov/nchs/healthy\\_people/hp2010/hp2010\\_final\\_review.htm](http://www.cdc.gov/nchs/healthy_people/hp2010/hp2010_final_review.htm)
31. <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=12>
32. Advisory Committee on Childhood Lead Poisoning Prevention. (January, 2012). *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*. U.S. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services: [http://www.cdc.gov/nceh/lead/ACCLPP/Final\\_Document\\_010412.pdf](http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_010412.pdf)
33. <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=12>
34. Advisory Committee on Childhood Lead Poisoning Prevention. (January, 2012). *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*. U.S. Centers for Disease Control

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and Prevention, U.S. Department of Health and Human Services: [http://www.cdc.gov/nceh/lead/ACCLPP/Final\\_Document\\_010412.pdf](http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_010412.pdf)

35. Mushak P, Davis JM, Crocetti AF, Grant LD. 1989. Prenatal and postnatal effects of low-level lead exposure: integrated summary of a report to the US Congress on childhood lead poisoning. *Environ. Res.* 50:11–36; and Silbergeld, E.K. Preventing Lead Poisoning in Children. *Annu. Rev. Public Health.* 1997. 18:187–210.
36. CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in “Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention”. May 16, 2012 [http://www.cdc.gov/nceh/lead/ACCLPP/CDC\\_Response\\_Lead\\_Exposure\\_Recs.pdf](http://www.cdc.gov/nceh/lead/ACCLPP/CDC_Response_Lead_Exposure_Recs.pdf)
37. CDC. Available online at [www.cdc.gov/lead/](http://www.cdc.gov/lead/)
38. Needleman HL, Schell A, Bellinger D, Leviton A, Allred EN. The long-term effects of exposure to low doses of lead in childhood: an 11-year follow-up report. *N Engl J Med.* 1990;322 :83– 88
39. Tong S, Baghurst PA, Sawyer MG, Burns J, McMichael AJ. Declining blood lead levels and changes in cognitive function during childhood: the Port Pirie Cohort Study. *JAMA.* 1998;280 :1915
40. Communication with Dr. Armin Thies, PhD, ABPP/ABCN, Associate Clinical Professor and Clinical Neuropsychologist, Yale School of Medicine; Consultant, Westport Public Schools, April 5, 2012.
41. *ibid*
42. Communication with Dr. Sherin Stahl, PhD, Director of Psychological Services, Yale New Haven Regional Lead Treatment Center and Healthy Homes Program, May 1, 2012.
43. Lidsky TI; Schneider JS. Lead neurotoxicity in children: basic mechanisms and clinical correlates. *Brain.* 2003;126(1):5-19, p. 11 AbstractFull TextFull Text (PDF). Available online at <http://brain.oxford-journals.org/content/126/1/5.full.pdf>
44. Communications with Dr. Armin Thies, April, 2012.
45. Communications with Dr. Armin Thies, April 5, 2012 and Dr. Sherin Stahl, May 1, 2012.
46. Communication with Dr. Sherin Stahl, May, 2012
47. 34 Code of Federal Regulations § 300.8(c)(9)

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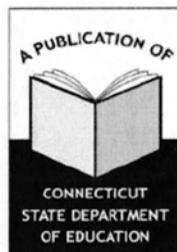
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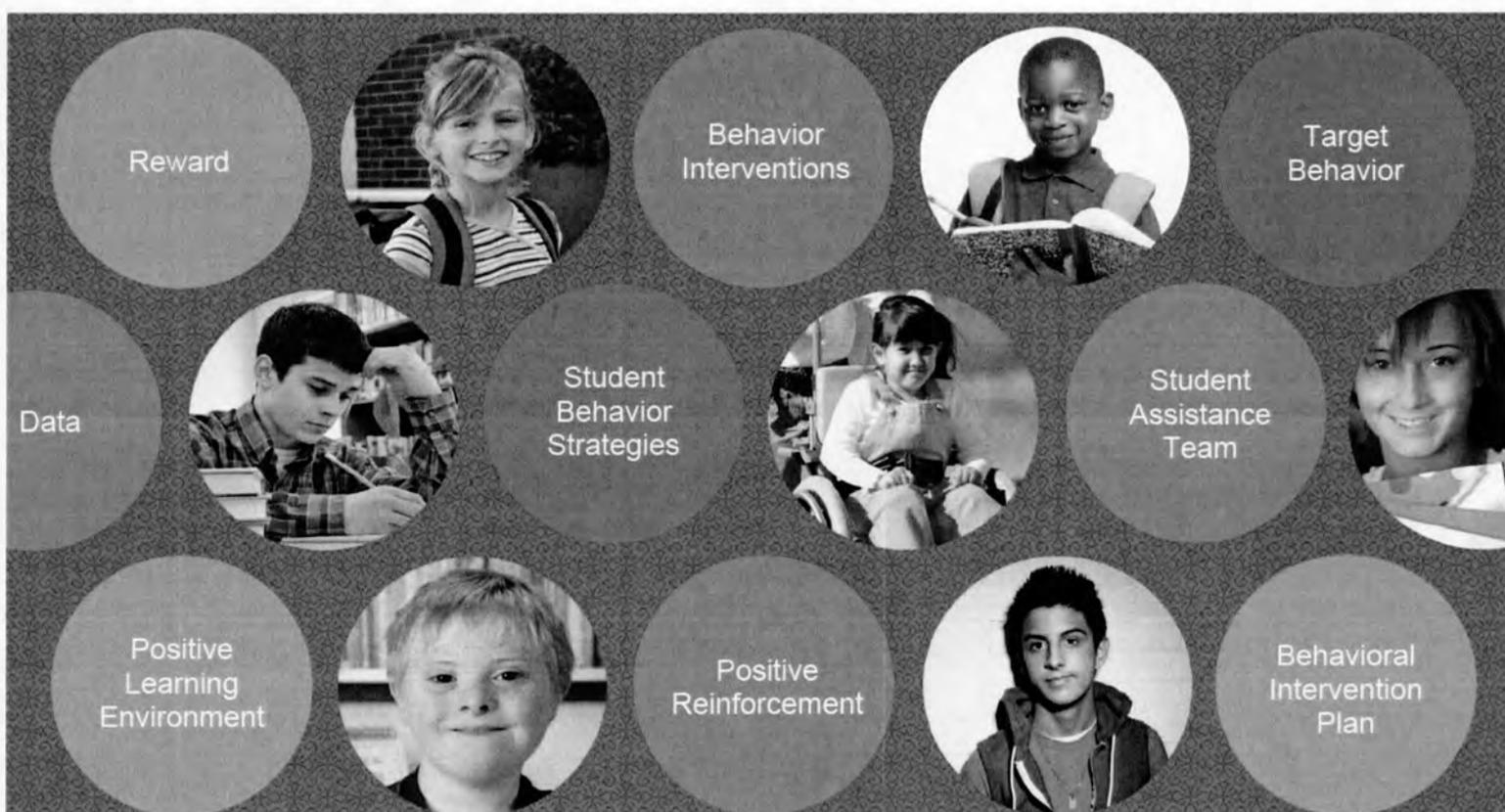


# LOVETTE REPORT

## Exhibit H

# Behavior Support Guidelines and Procedures

June 2011



Genesee Intermediate School District  
*Genesee County's Regional Educational Service Agency*



Genesee Intermediate  
School District

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Sue O'Brien, Principal – Marion D. Crouse Instructional Center .....	591-4507
Jeanne Quinlan, Principal – Elmer A. Knopf Learning Center .....	591-4489
Lori McLean, Program Coordinator/Teacher Consultant .....	591-5018

## **FORWARD**

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Genesee Intermediate School District Special Education Services began to develop behavior management guidelines and procedures during the late 1970s. Although each of the centers had some form of guidelines by 1986, a committee was developed to formalize and standardize all guidelines into one department-wide document. A committee comprised of twenty special education personnel representing all centers and employee groups, worked diligently for two years. In 1988, the first version of "Behavior Management Guidelines and Procedures" was completed. In 1990 and 1995, committees reviewed and revised the previous document. Since that time, the Michigan State Board of Education adopted two policies regarding student behavior: "Positive Behavior Support Policy" and "Supporting Student Behavior: Standards for the Emergency Use of Seclusion and Restraint." As a result, a new committee facilitated by Cherie Wager, Director, Compliance and Special Services Administration, convened to review and revise this important document. The revisions include language regarding positive behavioral interventions and supports, emergency use of seclusion and restraint, and updated procedures and forms for staff and parent use. It continues to emphasize a process for providing behavioral support for GISD students and serves as a resource guide for all GISD staff.

Jan D. Russell  
Assistant Superintendent  
Special Education Services  
Genesee Intermediate School District

## ***Introduction***

---

We believe the learning environment is an integral part of student behavior. This environment includes students, staff, caregivers, parents, curriculum, and physical surroundings and also the way in which they interrelate. Educational team members and caregivers have the responsibility to develop and/or implement strategies that enhance student learning and build student self-esteem. As a part of this process, students also have a responsibility for their success based on their unique needs and developmental ability.

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### Appendix A Glossary of Terms

### Appendix B – Forms

- ◆ Student Assistant Team Referral – Request for Assistance
- ◆ Student Assistance Team Support Plan
- ◆ Adaptive and Protective Equipment Rationale
- ◆ Behavior Incident Report
- ◆ Functional Behavioral Assessment/Behavior Intervention Plan



## ***Philosophy***

---

### **Definition:**

Positive Behavioral Interventions and Supports (PBIS) is a broad range of systematic and individualized strategies for achieving important social and learning outcomes while preventing problem behavior with all students. The emphasis is on a school-wide system of support that includes proactive strategies for defining, teaching, and supporting appropriate student behaviors to create positive school environments.

### **Rationale:**

On, September 12, 2006, the State Board of Education adopted a policy that each school district in Michigan implements a system of positive behavioral interventions and supports strategies. In the past, school-wide discipline was focused mainly on reacting to specific student misbehavior by implementing punishment based strategies including reprimands, loss of privileges, office referrals, and suspensions. Research has shown that implementation of punishment in the absence of other positive strategies are often ineffective. A positive behavioral interventions and supports system is a proactive, skill-building approach for the teaching and learning of successful student behavior. The purpose of school-wide positive behavior support is to establish a climate in which students can effectively manage their own behavior, and achievement is increased as a result.

### **Components of Positive Behavioral Interventions and Supports:**

- Identify common behavior expectations
- Teach behavior expectations
- Monitor expected behaviors
- Acknowledge and encourage expected behaviors
- Address and correct inappropriate behaviors

A positive behavior support system is a data-based effort that concentrates on adjusting the system that supports the students. This system is implemented by collaborative, school-based teams using person-centered planning. Functional assessment of learning and behavior challenges is linked to an intervention that focuses on skill building. The effectiveness of the selected intervention is evaluated and reviewed, leading to data-based revisions. Positive interventions that support adaptive and pro-social behavior build on the strengths of the student which leads to an improved learning environment. Students are offered a continuum of methods that help them learn and maintain appropriate behavior and discourage violation of codes of student conduct.

**What do we hope to achieve?**

The Genesee Intermediate School District wants to create a school-wide social culture that is predictable, positive, safe, consistent and successful. A system of positive behavioral interventions and supports will be used in GISD buildings during school activities including the classroom and non-classroom settings. The goal of this program is to support students' efforts to manage their own behavior and assure success.

## **Positive Behavioral Interventions and Supports**

Genesee Intermediate School District is committed to educational programming, which prepares students to function as independently as possible.

Effective social behaviors include the development of the following:

- Respect for privacy
- Acceptance of others
- Cooperation and sharing
- Respect for private property and ownership
- Control and appropriate display of emotions
- Acceptance of responsibility for a student's own actions

These behaviors are best taught and strengthened by the use of positive reinforcement and other behavioral teaching techniques with the involvement and cooperation of parents.

Educational team members of Genesee Intermediate School District recognize the importance of positive behavioral interventions and supports systems. This includes the systematic arrangement of the learning environment which reinforces positive behavior for all students.

Positive educational practices include:

- Identifying specific, measurable student outcomes
- Developing specific goals and objectives
- Contingency plans for unexpected situations

Effective planning allows the team to focus on the educational practices which maximize student learning. These techniques are chosen based on the unique needs of the student.

### **Guidelines of a positive learning environment:**

- Focus on student strengths and/or preferences
- Clear expectations of student behavior, communicated by written form, verbal and/or visual cues (such as pictures, sign, gestures)
- Few and simple rules enforced consistently
- Reinforce and model appropriate behavior
- Determine the length of the activity based on the attention span of the student(s)
- Reinforce and praise frequently
- State directives in positive terms
- Pair verbal communication with physical prompts, use of sign, or other cues

- Remain calm
- Frequently assess the effectiveness of reinforcers and routines
- Assess contributing factors (such as medical, social, environmental, sensory and educational needs)
- Use tactile reinforcement (such as pat on back, hand shake, slight touch)
- Re-state expectations and remind student of planned outcome
- Teach appropriate communication skills
- Model appropriate play and peer interaction
- Change supportive teaching strategies (such as pace of instruction, what materials you use, how you position yourself and student, which students you group together)
- Identify how the student learns best
- Engineer the learning environment to facilitate student success
- Vary content and amount of information given according to how the student responds
- Maintain consistent expectations of student behavior in all learning environments
- Provide instructional routines which enhance a positive learning environment

**Guidelines for giving directions:**

- Establish student attention
- Use visual, verbal and tactile cues
- Eliminate unnecessary words
- Give step-by-step directions allowing time for student to process
- Assess student's level of understanding
- Repeat and/or reword
- Be aware of tone, cadence and volume

**Guidelines for task analysis:**

- Present one task at a time
- Change the demands of the activity to ensure success
- Increase opportunities to practice parts of the task in short blocks of time

**Guidelines for effective use of reinforcers:**

- State reason for reinforcer; be clear and concise
- Reinforcers should be immediate according to student's needs and/or preferences
- Provide positive reinforcers throughout the day
- Provide age and socially appropriate reinforcers
- Frequently assess student response to reinforcer to determine effectiveness
- Change the type, amount, timing, quality, intensity, and schedule of reinforcers depending upon the student's response

**Positive student reinforcers:**

- Preferred activities
- Time with favorite staff or peer
- Stickers
- Classroom job
- Errands
- Games
- Computer time
- Music
- Healthy edibles
- Extra mobility time
- Sensory activities
- Social reinforcers (such as verbal, nonverbal, tactile)
- Positive notes
- Out of building community activities
- Other reinforcers to be determined by staff based on student preference

There are a wide variety of learning theories that are effective in supporting positive behavior in the classroom. Effective instructional planning and structured approach to positive behavioral interventions and supports will lead to a successful experience for students and staff. This approach to classroom management utilizes team planning, data collection based on observable and measurable behavior and ongoing review. It also promotes appropriate behavior and provides safeguards for students and staff.

Federal law requires that each student's IEP Team consider the need for strategies, positive behavioral interventions, and supports for students whose behavior impedes his or her learning or that of others. If a student's inappropriate behavior persists, consideration must be given to the further development of behavioral support and strategies.

## ***Hierarchy of Positive Behavioral Interventions and Supports***

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In some cases, students need the additional support of more structured and individualized teaching strategies. Behavior strategies and intervention planning will include staff and parents. Therefore the following hierarchy of behavioral support should be considered and used in sequence.

### **Level I: Individualized Student Behavior Strategies**

The following is a list of strategies to help students develop socially appropriate behavior. These serve to teach replacement skills and prevent inappropriate behavior. Level I strategies do not require a written Behavior Intervention Plan.

**Strategies:** (See "Glossary of Terms" for definition.)

- Assessing communication needs
- Chaining
- Differentiated instruction
- Graduated guidance
- Natural consequences
- Personal property removal
- Planned ignoring
- Positive reinforcement
- Preferential seating
- Problem solving
- Prompts – verbal, gestural and/or physical
- Proximity control
- Redirection
- Reinforcing replacement behavior
- Restoration
- Schedules of reinforcement
- Sensory breaks and strategies
- Shaping
- Token system
- Visual schedules

### **Staff Support**

If the Level 1 strategies are unsuccessful, the instructional staff shall complete a Student Assistance Team (SAT) referral form and return it to the appropriate building level administrator or designee. The team will minimally consist of the referring instructional staff and program administrator or designee. Program administrator may require additional members to attend.

The Student Assistance Team (SAT) shall:

1. Review the Student Assistance Team Referral (Appendix B)
2. Review student medical and health information
3. Identify and define behavior, including antecedents
4. Discuss function of behavior
5. Identify alternative techniques, strategies and/or interventions
6. Determine format of data collection, if recommended
7. Complete the SAT Support Plan (Appendix B)
8. Monitor SAT Support Plan

If the inappropriate behavior(s) defined by the SAT increase or do not respond to the techniques or strategies identified and implemented by staff, the SAT will reconvene and follow procedures for the development of a Behavior Intervention Plan (see Level II).

### **Level II: Individualized Behavior Intervention Plan (BIP)**

When Level I strategies are unsuccessful in improving the student's behavior and the behavior continues to impede the student's learning or the learning of others, a Behavior Intervention Plan (Appendix B) shall be developed. Prior to developing a BIP, a functional assessment of behavior shall be conducted. A Behavior Intervention Plan may include techniques and strategies from Level I or more comprehensive interventions. BIPs should be addressed in the student's IEP.

### **Staff Support**

Prior to the proposal of a Behavior Intervention Plan (BIP), instructional staff will request a Student Assistance Team (SAT) meeting and prepare information for the development of the BIP. The team will assist the classroom staff with the development of a draft Behavior Intervention Plan. Parents will be invited to attend the SAT meeting. Students will be invited when appropriate. The team shall minimally consist of referring instructional staff and program administrator or designee. The SAT may request the services of other resource personnel.

The Student Assistance Team (SAT) shall:

1. Review previous SAT Support Plan, Behavior Incident Reports, Data Collection and Functional Behavioral Assessment
2. Develop Behavior Intervention Plan
3. Assist instructional staff with the implementation and monitoring of the Behavior Intervention Plan as indicated

If the behaviors identified in the BIP continue to increase, intensify, or pose a risk to student or staff safety, instructional staff shall request a reconvening of the SAT and/or move to Level III.

### **Level III: Individualized Behavior Intervention Plan (BIP)**

When Level II strategies are unsuccessful in changing a student's behavior and/or the behavior poses a risk to students or staff safety a Level III Behavior Intervention Plan is required with parental consent. Level III Behavior Intervention Plans must be addressed in the student's IEP. **Adaptive and protective equipment, medically ordered devices, planned physical intervention strategies, including seclusion and restraint, shall be addressed specifically on the student's IEP, consistent with federal and state law.** The determination for use of adaptive or protective equipment for behavior support will be based on medical or safety needs. The rationale will be indicated on the Adaptive and Protective Equipment Rationale form (Appendix B) and submitted to the program administrator for review. Level III interventions require informed parent consent.

The Level III BIPs must include the following:

- Updated Functional Behavioral Assessment
- Documentation that Level I and Level II interventions have been implemented
- Data indicating that the implementation of these interventions have not resulted in a significant decrease in frequency or intensity of the behaviors
- Plans for the reduction or elimination of Level III interventions
- Student medical and health information
- Documentation used to monitor the BIP and inform the parents of the student's progress and the implementation of procedures
- Must include documentation and reporting behavior incident to administration or designee

### **Staff Support**

Prior to the proposal of a Level III Behavior Intervention Plan (BIP), instructional staff shall request a Student Assistance Team (SAT) meeting and prepare information for the development of the BIP. The team will assist the classroom staff with the development and implementation of the modified Behavior Intervention Plan.

The Student Assistance Team (SAT) shall:

1. Minimally consist of referring instructional staff, program administrator or designee and the school social worker (The team may also consist of medical personnel, transportation staff, consultant for behavior support, parents and/or other resource personnel.)
2. Review previous SAT intervention plans, reports, Behavioral Intervention Plans, Behavior Incident Reports, data collection and Functional Behavioral Assessment

3. Update the Behavior Intervention Plan
4. Assist instructional staff with implementing and monitoring the Behavior Intervention Plan as indicated
5. Recommend additional staff training, if appropriate
6. Consider additional resources needed to implement the Behavior Intervention Plan

## ***Emergency Procedures***

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Emergency procedures, including physical interventions, may be used when the student poses an imminent risk to their own safety or the safety of others

### ***Emergency Procedures Guidelines***

1. The use of emergency procedures shall involve the lowest level of intervention necessary to ensure safety.
2. Emergency procedures may require the use of Nonviolent Crisis Intervention Strategies® or other intervention strategies.
3. If emergency procedures are used, a Behavior Incident Report shall be completed within 24 hours of the incident and submitted to the program administrator or designee.
4. All attempts to notify parents will be documented.
5. The parents will be notified of the behavioral incident and the emergency procedure used as soon as possible or within 24 hours. Written notification will be provided to the parent by the administrator or designee.
6. A debriefing will be held to review and document the incident.
7. A SAT meeting may be held after implementation of an emergency procedure. The purpose of this meeting is to review the Behavioral Incident Report in which emergency procedures were used and to determine if the incident was an isolated occurrence or if the behavior requires development of a Behavior Intervention Plan.

NOTE: Staff may use reasonable physical force upon a pupil, as necessary, to maintain order and control for the purpose of providing an environment conducive to safety and learning. Such force is permitted in Act 451 of 1976, Section 380.1312(4).

## ***Student Assistance Team Process***

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During each school day, staff is faced with a variety of challenges and should seek assistance when strategies they have used are not working. Usually assistance is given through informal contacts with peers, principals, school social workers, teacher consultants, behavior specialists, and others. A systematic process for assisting teachers and staff is the Student Assistance Team.

### **Purpose**

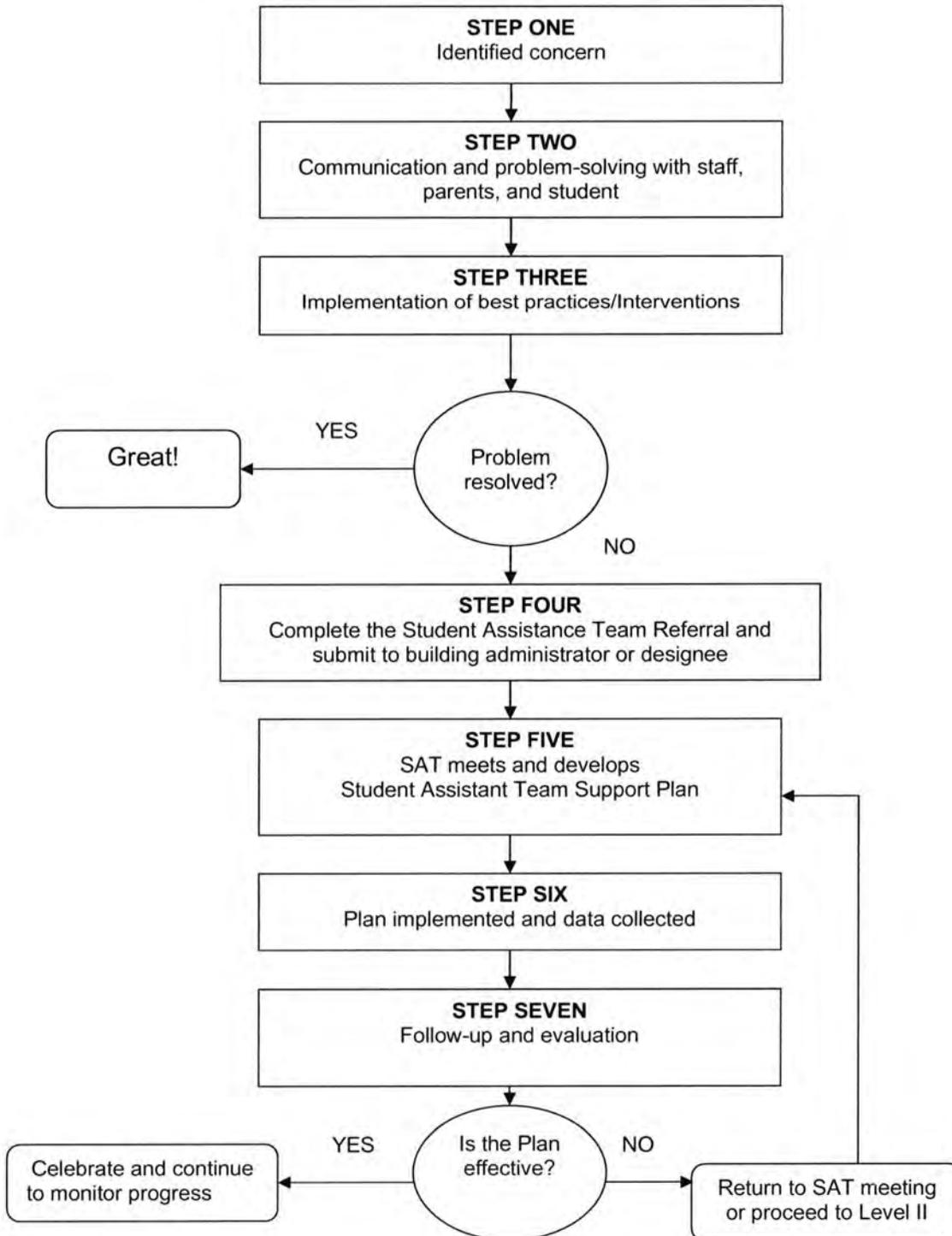
The Student Assistance Team provides a problem solving process for all school staff. The team and referring staff member jointly engage in a process of defining the problem, brainstorming solutions, and planning interventions for students experiencing instructional, behavioral, and medical difficulties.

Students, parents, and other specialists can also participate in the process. The nature of the student's problem determines which team members are needed to explore and recommend possible solutions. The interventions recommended by the team may include school, home, and community resources. Follow-up meetings are held with the consultee to determine whether or not recommendations are working and to give the staff member or parents further assistance if necessary.

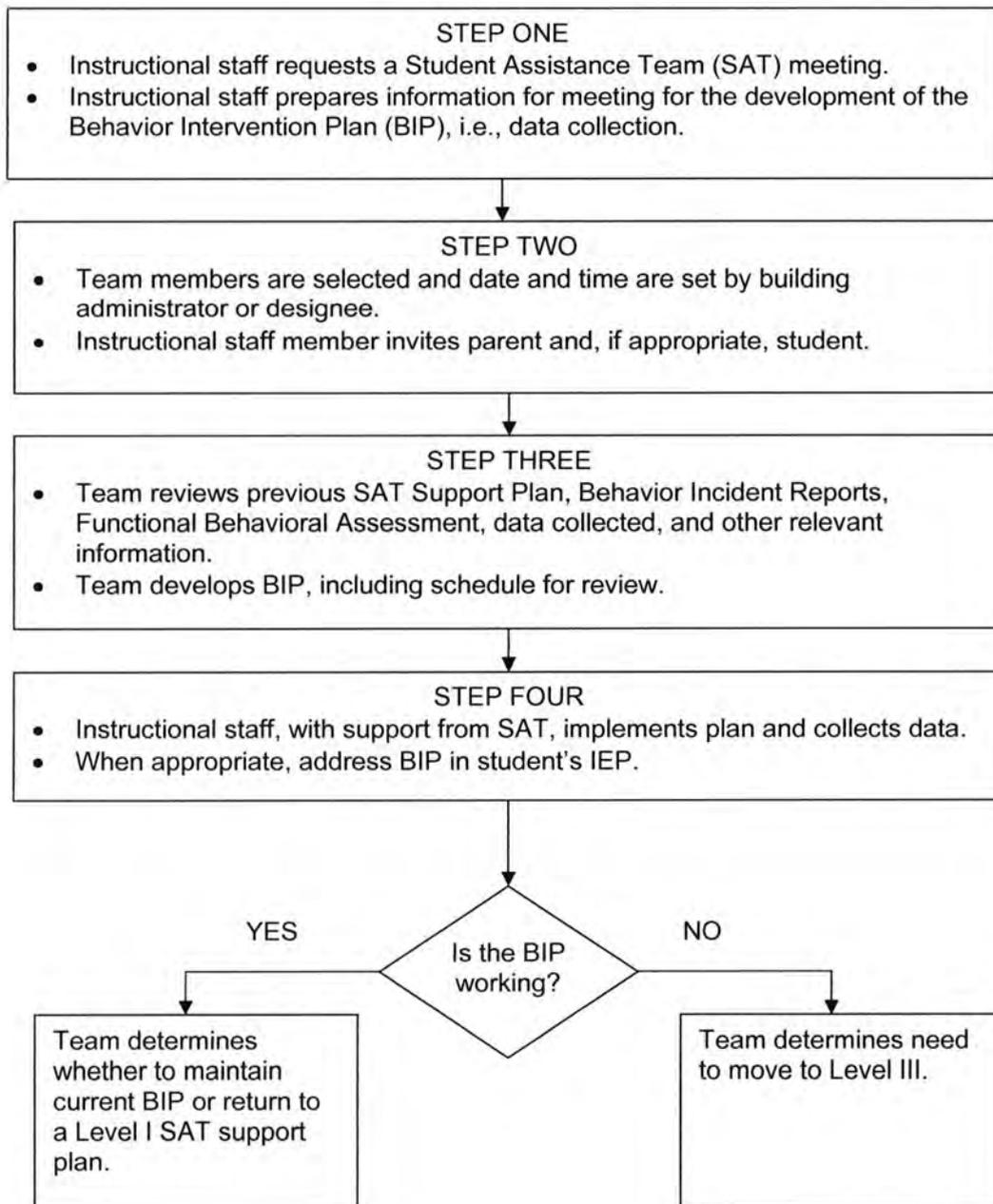
Staff members are expected to utilize best practices and/or interventions before referring a student to the Student Assistance Team.

There are seven steps to the school-based student assistance team process. The procedures used by the Student Assistance Team are the same for almost any problem brought to the team. The next few pages outline the Student Assistance Team process.

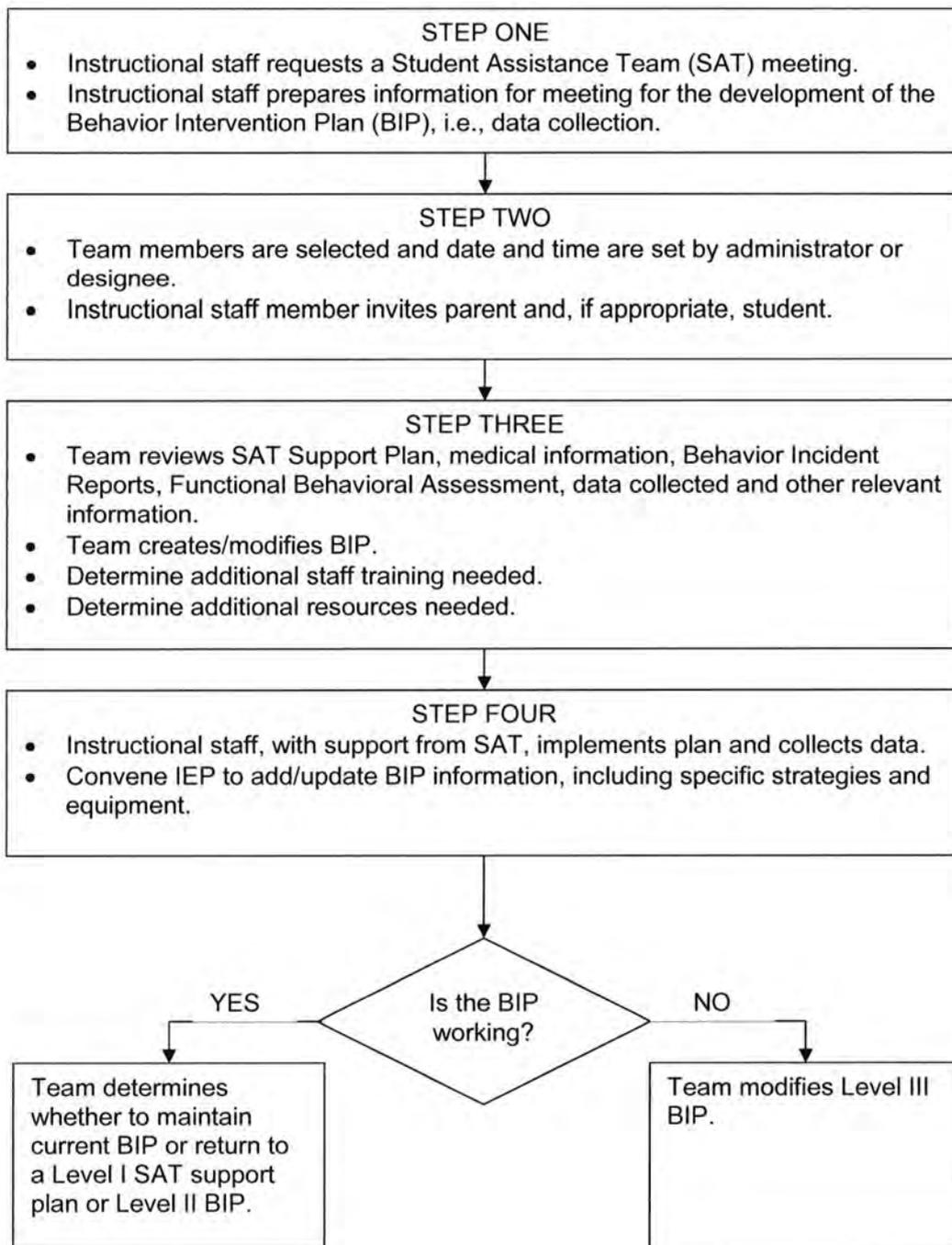
## Level I Student Assistance Team Process



## Level II Behavior Intervention Plan



## Level III Behavior Intervention Plan



## ***Acknowledgments***

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We would like to thank all GISD teachers, ancillary staff, teacher consultants, para-educators, secretaries, and administrative staff who contributed to this document.

## ***Resources***

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Supporting Student Behavior: Standards for the Emergency Use of Seclusion and Restraint, Adopted by the State Board of Education December 12, 2006

GISD Behavior Management Guidelines, Revised May 1995

Wayne RESA Guidelines for Behavior Intervention 2008

## ***Appendix A***

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## **GLOSSARY OF TERMS**

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### **A**

Activity Reinforcers	A form of positive reinforcement may include favorite activities, use of preferred objects, or increased responsibilities.
Adaptation	The phase in a behavioral or instructional program during which the student is allowed to adjust to new challenges/interventions in the learning environment.
Adaptive Equipment	Equipment which assists a student to adapt to the environment.
Aggression	Verbal or physical contact which does or could hurt another, e.g., swearing, screaming, threats, hitting, spitting, pinching, kicking, scratching, pushing.
Agitation	Refers to a state of extreme excitement, irritation, or alarm.
Antecedent	The event/incident which triggers the behavior.

### **B**

Baseline	A record of the behavior prior to introducing the intervention.
Behavior	Any observable and measurable act of a student.
Behavior Intervention	The use of positive behavior strategies in a systematic manner to produce changes in student behaviors.
Behavior Momentum	A differential reinforcement approach, which refers to ignoring and redirecting misbehavior, by guiding the problem behavior into a more appropriate response. The force that is driving the behavior is used to direct the person's energy and efforts toward a more appropriate response.
Behavior Supports	Supports within the environment, such as visual, social, or physical cues, which increase the likelihood that the individual will exhibit appropriate behaviors.
Break	An opportunity, either student or teacher, led to promote positive behavior. Breaks serve a variety of purposes and can be implemented in multiple ways.

## C

Chaining	Sequencing the steps of an activity or skill and putting the steps together for the individual to learn new, complete skills.
Communication System	Refers to any form of communication (gestures, signs, objects, pictures, or words) that provides a way for the individual to express wants, needs, thoughts, and feelings across a variety of settings, persons, and tasks.
Compliance Training	Used to increase the amount of instructional control over an individual. This refers to teaching the individual to follow another person's directions through planned, practiced sessions in which various cues are given. The learner's response is followed by consistent, pre-planned consequences.
Consequence	Refers to conditions that follow a behavior and affects the frequency of future behavior.
Consultation	A verbal discussion between the student and teacher or therapist regarding the appropriateness or inappropriateness of behavior. The discussion may include verbal instruction regarding replacement behaviors in future situations. Discussion should be provided using even tones, volume, and cadence.
Contingency	The relation between the target behavior and the reinforcer.
Contingent Observation	Removal of the student's opportunity to earn reinforcement for a defined period of time without removing the student from the learning environment.
Contingent Work	A non-preferred task performed by the student to demonstrate compliance prior to returning to the learning environment.
Cueing Procedures	A verbal or physical reminder.

## D

Data	Results of observation and measurement of behavior.
Differential Reinforcement	Uses positive reinforcement for acceptable behavior while ignoring misbehaviors.

Differential Reinforcement of Appropriate Behavior (DRA)	Refers to reinforcing a target behavior (hand raising and waiting for a response) while ignoring the misbehavior (calling out).
Differential Reinforcement of Incompatible Behavior (DRI)	Refers to rewarding a student for a behavior (staying in his seat) that cannot occur simultaneously with the unwanted behavior (walking around the room).
Differential Reinforcement of Other Behavior (DRO)	Also referred to as <i>differential reinforcement of the omission of the behavior</i> , refers to rewarding a student for not exhibiting a specific behavior, regardless of other behaviors that occur during the time period. For example, reinforcing the individual for not hitting during recess even though other inappropriate behaviors were exhibited.
Differentiated Instruction	To differentiate instruction is to recognize students' varying background knowledge, readiness, language, preferences in learning, interests, and to react responsively. Differentiated instruction is a process to approach teaching and learning for students of differing abilities in the same class. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is and assisting in the learning process.
Discrete Trial Training	One method of discrete trial training involves isolating and teaching a specific task to an individual by repeatedly presenting the same task to the person. Responses are recorded for each trial.
Disruption	Stops instruction.
Duration	The length of a behavior in a given period of time; e.g., John's body rocks an average of 241 minutes during a 300 minute school day.

## E

Emergency	A situation in which a student's behavior poses imminent risk to the safety of an individual, student, or others. An emergency requires an immediate intervention.
Escape	Leaving the classroom or building without permission.

Escape Behavior A student's behavior that avoids or escapes something that is unpleasant to the student.

Extinction Refers to eliminating or decreasing a behavior by removing reinforcement from it.

## **F**

Fading The process of gradually changing or removing the cues or support in specific behavioral situations or settings as related to a student's response until it occurs naturally.

Frequency The number of instances a behavior occurs in a given period of time, e.g., John bites his hand an average of 27 times during his one-half hour lunch.

Functional Behavioral Assessment (FBA) Refers to a procedure used to examine behaviors to determine what happens before, during, and after behaviors occur. Behaviors are examined in terms of the purposes and functions that the behavior serves.

## **G**

Generalization Refers to the ability to take a skill learned in one setting, such as the classroom, and use it in another setting like the home or community. It may also be taking a specific skill and using it in a slightly different way.

Graduated Guidance Systematic and gradually reducing the amount of physical guidance used.

## **H**

Hierarchy of Responses Refers to the technique of using several consequences to lessen an individual's behavior. The consequences are generally presented from least to most restrictive.

## **I**

Inappropriate Verbalization A vocal stimulation or a form of communication which may include screaming, swearing, threats, and name calling, with no intent to cause harm. Most often it is a characteristic of the student's disability.

Intensity The severity of a behavior; mild, moderate, or severe that occurs in a given period of time.

Intermittent (Random) Reinforcement When some, but not all, of the specific responses are reinforced.

Intervention The action that is taken to change a target behavior.

Intrusive Techniques Activities designed to impinge upon the bodily integrity or the personal space of the student to achieve the desired response.

## **M**

Modeling Providing the person with a visual, verbal, and/or manual representation of the positive behavior you want him or her to engage in.

## **N**

Negative Reinforcement Refers to the effect of removing a disliked experience or event following a behavior to strengthen the behavior.

Noncompliance Failure to following an instruction.

Nonviolent Crisis Intervention The practice of early intervention and non-physical strategies for preventing or managing disruptive behavior. The emphasis is to provide for the care, welfare, safety, and security of all parties involved.

## **O**

Out of Area Leaving from the designated area without permission.

Overreaction Refers to a student's behavior (reaction) that appears to be excessive compared to the event. For example, a student may go into a rage because the teacher tells him that it is time for work.

Overstimulation Refers to a state of being in which some individuals become so overwhelmed by sensory stimuli that acting out behaviors, such as screaming, aggression, self-abuse, or tantrums, occur in reaction to the stimulation. Other individuals may withdraw or "shut-down" as a method of reacting to overstimulation.

**P**

Physical Restraint	See restraint.
Pica	Eating inedible items; e.g., toys, cigarettes, clothing, dirt, feces.
Planned Ignoring	A procedure where the teacher/aide avoids all eye contact or direct involvement with student. There should be no conversation or verbal direction during this intervention.
Positive Practice	The student is prompted to practice appropriate behaviors in the situation in which the student normally misbehaves, e.g., closing door quietly.
Positive Reinforcement	Refers to any object or activity following a behavior which strengthens the behavior.
Precorrection	Strategy which involves discussing an activity and expectations for behavior with a student immediately prior to its taking place.
Premack Principle	A procedure in which a behavior the student performs frequently is used to reinforce a behavior the student seldom performs.
Property Disruption	When behaviors are directed toward property and/or objects, e.g., pushing a chair, clearing a table, tipping the table.
Protective Devices	Equipment recommended by a physician or therapist for the purpose of providing safety for a student whose behavior (e.g., self-injurious head banging or self-biting) may present an imminent risk to the safety of himself/herself or others.
Proximity Control	An intervention where an adult positions him/herself near the student to promote appropriate behavior.

**R**

Redirection	Redirection is defined as the interruption of an ongoing undesired behavior and attempts to have the student willingly engage in socially acceptable behavior as an alternative. This may include: having a person sit down, listen, put headphones on, or lie down; active redirection (play ball, go for a walk or play a game). Examples list: offering alternative activities, visual or sensory.
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Reinforcement	Providing consequences, activities, or other reinforcers that will increase the probability that a person will do the task or skill again.
Reinforcer	Consequences that should strengthen positive behaviors. They may take the form of tangible reinforcers (generally food or toys), social reinforcers (smiles), or activity reinforcers (listening to music).
Replacement Behavior	Teaches the student to replace undesired behavior with a desired behavior.
Restoration	This procedure requires the student who has damaged the environment to restore the situation to its original condition.
Restraint	There are three types of restraint: physical, chemical and mechanical.

Physical restraint involves direct physical contact that prevents or significantly restricts a student's movement. Restraint is last resort emergency safety intervention. Restraint is an opportunity for the student to regain self-control. This policy on physical restraint is not intended to forbid actions undertaken:

- to break up a fight
- to take a weapon away from a student
- the brief holding by an adult in order to calm or comfort
- the minimum contact necessary to physically escort a student from one area to another
- assisting a student in completing a tasks/response if the student does not resist or resistance is minimal in intensity or duration
- to hold a student for a brief time in order to prevent an impulsive behavior that threatens the student's immediate safety (e.g., running in front of a car)

Chemical restraint is the administration of medication for the purpose of restraint. Chemical restraint does not apply to medication prescribed by and administered in accordance with the directions of a physician.

Mechanical restraint means the use of any device or material attached to or adjacent to a student's body that restricts normal freedom of movement and which cannot be easily removed by a student. Mechanical restraint does not include:

- an adaptive or protective device recommended by a physician or therapist (when it is used as recommended)
- safety equipment used by the general student population as intended (for example, seat belts, safety harness on school transportation)

Reward	A consequence that follows a behavior that is intended to increase the behavior.
Routine	Refers to a customary or regular sequence of procedural steps, such as following a daily schedule.
Rumination	Repeated regurgitation and reswallowing of food.

## **S**

Satiation	Occurs when a reinforcer loses its reinforcement value.
Schedule of Reinforcement	The specific behaviors will be reinforced consistently and as scheduled.
Seclusion	Seclusion is a last resort emergency safety intervention that provides an opportunity for the student to regain self-control. Seclusion is the confinement of a student in a room or other space from which the student is physically prevented from leaving and which provides for continuous adult observation of the student. A room or area used for seclusion: <ul style="list-style-type: none"><li>- must not be locked</li><li>- must not prevent the student from exiting the area should staff become incapacitated or leave that area</li><li>- must provide for adequate space, lighting, ventilation, viewing, and the safety of the student</li></ul>
Self-Injurious Behavior	Self-directed behavior which results in physical damage to the individual who engages in it, e.g., head banging, picking, eye poking, slapping, scratching and pinching.
Self-monitoring	Refers to strategies used by an individual to increase awareness of personal reactions and responses.

Self-regulation	Refers to a strategy used by individuals to monitor and manage their own behavior.
Self-stimulation	Includes varieties of verbal and/or motor stereotyped behaviors such as arm-flapping, body rocking, head rolling, rocking, hand-flicking, finger movements, and verbal repetition of words, songs, numbers, etc.
Sensory-based toys	Toys that provide stimulation from sound, taste, smell, sight, movement, or touch.
Sensory Break	A carefully designed, personalized activity schedule that provides the sensory input a person's nervous system needs to stay focused and organized throughout the day.
Sensory Diet	Refers to an activity plan that includes specific activities designed to satisfy the individual's sensory requirements in order to develop and maintain optimal functioning levels.
Sensory Dysfunctions	Refer to impairment in the functions of or response to stimulation from sound, taste, smell, sight, movement, or touch.
Sensory Integration	A "process by which the brain organizes sensory information for appropriate use." (Ayres, 1979).
Sensory Integrative Dysfunction	Refers to impairment in the ability of the brain to organize information from sight, sound, taste, smell, movement, or touch and to respond appropriately to that information.
Sensory Integrative Therapy	A program of treatment used by occupational therapists to promote development of sensory integration in individuals who have sensory integrative dysfunction.
Sensory Overload	Refers to a state of being in which some individuals become so overwhelmed by information from sound, taste, smell, sight, movement, or touch that inappropriate responses occur.
Sensory Stimuli	Information received from sound, taste, smell, sight, movement, or touch.
Shaping	Using small steps combined with feedback to help learners reach goals.

**Stimulus** Any physical object or occurrence in the environment that sets the occasion for the response to occur. Stimuli frequently used in behavioral programs include reinforcing stimuli, aversive stimuli, and discriminative stimuli.

## **T**

**Tantrums** Sudden bursts of highly disruptive displays of aggressive or inappropriate behaviors.

**Target Behavior** The goal or objective of the desired behavioral intervention.

**Task Analysis** The process of breaking a skill down into smaller steps.

**Time Out** The loss of positive reinforcement for a specified period of time following a problem behavior. In order for timeout to be effective, the classroom should be a place where the student receives plenty of positive reinforcement. Timeout may include planned ignoring, withdrawal of materials, contingent observation, or exclusionary timeout.

**Token System** A system of reinforcement in which an object or visual symbol is provided following a desired behavior.

## **U**

**Unsafe Behavior** Student engages in behavior that could cause harm, e.g. climbing.

**Universal Design for Learning** UDL provides a blueprint for creating flexible goals, methods, materials, and assessments that accommodate learner differences.

## **V**

**Visual Schedule** A visual schedule system is an easy way to provide students with consistent cues about their daily activities. They provide a structure that allows a student to anticipate what will happen next, reduce anxiety by providing the student with a vision of his/her day and promote calmness between transitions.

***Appendix B***

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GENESEE INTERMEDIATE SCHOOL DISTRICT  
Special Education Services  
2413 West Maple Avenue  
Flint, Michigan 48507-3493

**Student Assistant Team Referral – Request for Assistance**

Student's name \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_  
School \_\_\_\_\_ Teacher \_\_\_\_\_  
Parent/Guardian \_\_\_\_\_ Home phone \_\_\_\_\_  
Address \_\_\_\_\_ Work phone \_\_\_\_\_  
Referral source \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

**PURPOSE OF MEETING**

Academic     Behavioral/Social/Emotional     Medical     Parent Request     Other

1. Describe concern: \_\_\_\_\_  
\_\_\_\_\_
2. Concerns were communicated with parent/guardian on date(s): \_\_\_\_\_
3. Recent changes or important factors: \_\_\_\_\_  
\_\_\_\_\_

**EDUCATIONAL HISTORY**

Previous placement and other information: \_\_\_\_\_  
\_\_\_\_\_

Current placement: \_\_\_\_\_

Current services:     Social work     Speech/Language  
                           Homebound/Hospitalized     Occupational therapy  
                           Physical therapy     Outside agencies  
                           Other: \_\_\_\_\_

Behavior Intervention History Inventory:  
 Incidents reported by staff (reviewed)

Additional information: \_\_\_\_\_

Behavior Intervention Plan (attached)

Attendance history: \_\_\_\_\_

Instructional progress: \_\_\_\_\_

Student's name \_\_\_\_\_ Program \_\_\_\_\_ Date \_\_\_\_\_

**HEALTH HISTORY**

Date of last vision test and results: \_\_\_\_\_

Date of last hearing test and results: \_\_\_\_\_

Medication: \_\_\_\_\_

History of serious illness, injury, surgery: \_\_\_\_\_

Comments: \_\_\_\_\_

**INTERVENTION HISTORY**

INTERVENTION AND/OR BEST PRACTICE DATES		DESCRIPTION (including data explanation and documentation)	EFFECTIVENESS & IMPLEMENTATION SCALE				
Start Date	End Date		1 = Ineffective 5 = Most Effective				
			1	2	3	4	5
			1	2	3	4	5
			1	2	3	4	5
			1	2	3	4	5
			1	2	3	4	5
			1	2	3	4	5

Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12-6-10



GENESEE INTERMEDIATE SCHOOL DISTRICT  
Special Education Services  
2413 West Maple Avenue  
Flint, Michigan 48507-3493

**Student Assistance Team Support Plan**

Student's name \_\_\_\_\_ Date \_\_\_\_\_ Plan # \_\_\_\_\_

**STUDENT/STAFF SUPPORT TEAM MEMBERS**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CONCERN(S)**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**STUDENT STRENGTHS/INTERESTS**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

**SUGGESTION(S) FOR BEHAVIOR OR ACADEMIC STRATEGIES**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

**PERSON(S) RESPONSIBLE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

Administrator signature \_\_\_\_\_ Date reviewed \_\_\_\_\_

Proposed date of review \_\_\_\_\_

**PROGRESS REVIEW**

Results of strategies with supporting documentation:

- Significant improvement
- Improvement
- No change
- Regression
- Significant regression

Description/Data Collection: \_\_\_\_\_



GENESEE INTERMEDIATE SCHOOL DISTRICT  
Special Education Services  
2413 West Maple Avenue  
Flint, Michigan 48507-3493

**Adaptive and Protective Equipment Rationale**

Student's name \_\_\_\_\_ Date \_\_\_\_\_

Persons attending and title:

_____	_____
_____	_____
_____	_____

Equipment involved:

Equipment use:

Equipment procedure:

Name and title:

Staff trained by \_\_\_\_\_ Date \_\_\_\_\_

Staff trained \_\_\_\_\_ Date \_\_\_\_\_

Administrative review by \_\_\_\_\_ Date \_\_\_\_\_



GENESEE INTERMEDIATE SCHOOL DISTRICT  
Special Education Services  
2413 West Maple Avenue  
Flint, Michigan 48507-3493

**Behavior Incident Report**

Student's name \_\_\_\_\_ Date of Incident \_\_\_\_\_

Time/location incident occurred \_\_\_\_\_

How long did the incident last (duration)? \_\_\_\_\_

What activity(ies) may have triggered the incident (antecedent)? \_\_\_\_\_

Staff members involved in the incident \_\_\_\_\_

Behavior – brief description \_\_\_\_\_

Intervention(s) attempted and/or implemented \_\_\_\_\_

Did this behavior incident involve any of the following?

- 1. Destruction of school or personal property    yes \_\_\_ no \_\_\_
- 2. Threat of injury to self or others            yes \_\_\_ no \_\_\_
- 3. Actual physical injury to self or others      yes \_\_\_ no \_\_\_
- 4. Use of CPI-NVCI                                    yes \_\_\_ no \_\_\_
- 5. Debrief Whom \_\_\_\_\_                    yes \_\_\_ no \_\_\_                    Date \_\_\_\_\_

Parent/guardian/caregiver notified by: \_\_\_ phone \_\_\_ written \_\_\_ in person

Documented by \_\_\_\_\_ Date \_\_\_\_\_

Administrator signature \_\_\_\_\_ Date \_\_\_\_\_



GENESEE INTERMEDIATE SCHOOL DISTRICT  
 Special Education Services  
 2413 West Maple Avenue  
 Flint, Michigan 48507-3493

**Functional Behavioral Assessment / Behavior Intervention Plan**

General Information				
Student: _____ Birthdate: _____ Eligibility Status: _____ Date: _____				
School: _____ Medication: _____				
Caseload Teacher: _____ Previous Funct Assess? Yes <input type="checkbox"/> No <input type="checkbox"/> When: _____				
I. Student Strengths, Skills, and Difficulties				
List Student Strengths and Skills:			List Student Difficulties:	
II. Behavior(s) of Concern				
Description - Observable/Measurable	How Often	Duration	Intensity	Problem has Existed (length of time)
Is this behavior addressed in the School Handbook? Y <input type="checkbox"/> N <input type="checkbox"/>				
III. Environmental Issues and Situational Variables				
What triggers or causes the behavior? What happens before the behavior?				
What happens immediately after the problem behavior occurs? (student reactions, staff reactions, environmental changes)				
In what settings/situations is the behavior of concern most and least likely to occur?				
Settings/Situations	Most Likely	Least Likely		
<b>Adults?</b> (personality characteristics, teaching style, gender, disciplinary style, etc., no names)				
<b>Peers?</b> (personality characteristics, gender, etc., no names)				
<b>Certain Activities?</b> (independent work, lecture, writing activities, small group)				
<b>Settings?</b> (playground, math, science, lunch, school bus, unstructured time)				
<b>Time of Day or Class</b> (morning, end of class, afternoon)				
<b>Other?</b> (home issues, bus, medication, health, sleep, etc.)				
IV. Child's Exposure to Rules Governing This Behavior <span style="float: right;">Check One or More and List How Often</span>				
Class Discussions <input type="checkbox"/>	1-1 Discussions <input type="checkbox"/>	Behavior Plan <input type="checkbox"/>		
Assemblies <input type="checkbox"/>	Handbooks <input type="checkbox"/>	Posted Classroom Rules <input type="checkbox"/>		
Check Sheet <input type="checkbox"/>	Other <input type="checkbox"/>			
V. Previous Interventions and Supports <span style="float: right;">Check One or More and Indicate Frequency</span>				
Social Work Support <input type="checkbox"/>	~ Conflict Resolution <input type="checkbox"/>	Peer Mediation <input type="checkbox"/>		
Behavioral Support Contracts <input type="checkbox"/>	Anger Management <input type="checkbox"/>	Staff/Student Awareness Regarding BIP <input type="checkbox"/>		
Other <input type="checkbox"/>				

VI. Previous Consequences and Disciplinary Measures <small>Check One or More and Indicate Frequency of Use</small>					
Time Out	<input type="checkbox"/>	Referred to Office	<input type="checkbox"/>	Detention	<input type="checkbox"/>
Loss of Privilege	<input type="checkbox"/>	In-School Suspension/Suspension	<input type="checkbox"/>	Work Detail/Restitution	<input type="checkbox"/>
Parental Notification	<input type="checkbox"/>	Behavior Ignored	<input type="checkbox"/>	Reprimand/Warning	<input type="checkbox"/>
Other	<input type="checkbox"/>			*Attached Documentation	<input type="checkbox"/>
VII. Needs Being Met Through This Behavior <small>Check One or More and Explain</small>					
Escape/Avoidance	<input type="checkbox"/>	Attention	<input type="checkbox"/>	Expression of Anger/Frustration	<input type="checkbox"/>
Sensory Stimulation	<input type="checkbox"/>	Power/Control	<input type="checkbox"/>	Tangible	<input type="checkbox"/>
Relief of Fear/Anxiety	<input type="checkbox"/>	Other	<input type="checkbox"/>		
VIII. Goal to Appropriately Address Need(s)					
Goal:					
IX. Preferred Activities and Reinforcers					
List preferred activities:		List preferred reinforcers:			
X. Skills Needed to be Taught to Replace Behavior of Concern					
<small>What Behaviors Do You Want the Student to Engage in to Replace the Behavior?</small>					
XI. Behavior Plan					
<b>Preventative Strategies</b> <small>Classroom Accommodations, Approach Strategies, Seating Arrangements, Instructional Strategies, etc.</small>	<b>Reinforcement Strategies</b> <small>Methods of Teaching and Reinforcing Appropriate/Replacement Skills</small>	<b>Procedures to Follow When Behavior Occurs</b> <small>Specific Steps to Take When Behavior Occurs</small>			
		Deviation of School Handbook? Yes <input type="checkbox"/> No <input type="checkbox"/>			
XII. Data Collection					
Describe how systematic/measurable data will be collected for Behavior Plan:					
<input type="checkbox"/> Attach Sample Data Sheet					

\_\_\_\_\_ will inform the following staff of BIP: \_\_\_\_\_

Signatures below indicate the plan has been reviewed and agreed upon for implementation:

Parent/Guardian	Teacher
ISD Personnel	Special Education Teacher
Student	Administrator
Other	Other

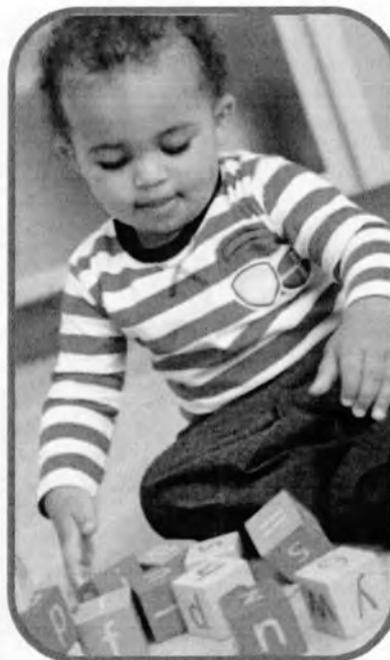
Date(s) plan reviewed:     Date plan terminated:

\*Attachments – may include point sheets, contracts, token cards, progress notes, referrals, parent contacts.

# LOVETTE REPORT

## Exhibit I

## Educational Interventions for Children Affected by Lead



This paper was developed by an expert panel that included CDC and non-CDC authors.

April 2015

*The information contained in this paper has been prepared and is presented for informational and educational purposes only. The information in this paper is not intended to be legal advice and should not be construed as legal advice or a legal determination about eligibility for any program or benefit.*

This document is dedicated to the memory of Dr. Vivian A. Cross of Simsbury, Connecticut, who passed away May 3, 2014. She was an extraordinary educator, community activist, and champion for children with special needs. Dr. Cross implemented major educational and legislative informational forums, media conferences, and professional development training initiatives including the 2012 Legislative Informational Forum titled “A Call To Action to Eliminate a Preventable Contributor to the Achievement Gap—Childhood Lead Poisoning.” She was a guiding light on the expert panel and her thoughtful contributions will be deeply missed as the work moves forward.

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**Educational Interventions for Children Affected by Lead**

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**Educational Interventions for Children Affected by Lead**

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**Preface**

Lead is a neurotoxicant with well documented and lasting adverse health effects. Primary prevention strategies that control or eliminate lead sources before children are exposed remain the pre-eminent public health approach to the problem of lead poisoning and are the only effective way to prevent the neurodevelopmental and behavioral abnormalities associated with lead exposure. Unfortunately, though, hundreds of thousands of children already have experienced blood lead levels known to impair academic performance and affect life success. Thus, tertiary prevention (that is, strategies that restore individuals to an optimal level of functioning after damage is done) is also needed. Recognizing the need to ensure that children affected by lead receive timely and appropriate educational interventions, the Centers for Disease Control and Prevention and the Advisory Committee on Childhood Lead Poisoning Prevention convened a work group of recognized experts to review the existing scientific evidence for adverse effects of blood lead levels on academic performance and describe actionable steps that clinical and public health practitioners, parents, and educators can take to ensure that the children receive such services.

*Educational Interventions for Children Affected by Lead* outlines available scientific data describing the effects of lead, summarizes in plain language the Individuals with Disability Education Act (IDEA) parts B and C, and provides information on how these provisions relate to children affected by lead. The document also describes major gaps in our scientific understanding of the efficacy of educational interventions for reversing academic problems in children affected by lead. The importance of addressing these gaps could be considered as institutions design their research portfolios.

I wish to thank the members of the Advisory Committee on Childhood Lead Poisoning Prevention, members of the Educational Services for Children Affected by Lead Expert Panel, and consultants who developed this document and acknowledge their contribution to the health of the Nation's children. This document significantly advances our efforts to improve the lives of children negatively affected by lead exposure by providing information on the services designed to improve academic performance to the stakeholders and partners that are most in need it.

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**Educational Interventions for Children Affected by Lead**

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## Executive Summary

Lead is a developmental neurotoxicant, and high blood lead levels (HBLLs) in young children can impair intellectual functioning and cause behavioral problems that last a lifetime. Primary prevention of HBLLs remains a national priority and is the only effective way to prevent the neurodevelopmental and behavioral abnormalities associated with lead exposure. Unfortunately, hundreds of thousands of children already have experienced blood lead levels known to impair academic performance. To ensure that such children are provided with the services that may help improve academic and other outcomes, in 2008 the CDC Advisory Committee on Childhood Lead Poisoning Prevention convened a work group charged with describing specific action steps parents, clinicians, educators, lead poisoning prevention programs, and others who work with children may be able to take to ensure that children affected by lead receive timely and appropriate educational interventions. This report was drafted by these experts, who were chosen for their diverse perspectives and technical expertise and reflects their insight, knowledge, and practical expertise.

The body of evidence cited in this document demonstrates the effects that low-level lead exposure has on the brain's learning systems: overall intellectual ability, speech and language, hearing, visual-spatial skills, attention, executive functions, social behavior, and fine and gross motor skills. It details the significant negative consequences of lead on learning and educational attainment found in study after study (see Table 1) and the costs associated with those consequences. It describes the challenges children face as they advance through the school system and how lead interferes with development and learning.

There are no studies that specifically examine the impact of early childhood educational interventions on cognitive or behavioral outcomes for children who have been exposed to lead. However, there are studies of educational interventions improving developmental outcomes for children who have conditions other than lead. This research demonstrates that children with developmental delays or at high risk for developmental delays benefit most from interventions that start at an early age.

This document reviews current knowledge and practice of the early care and educational systems and describes key ways that these systems can support improved outcomes for lead-exposed children, such as

- 1) Streamlined access to developmental assessment, intervention and special education services, and by conducting a neuropsychological assessment of executive function in addition to a developmental assessment to identify cognitive and functional deficits in lead-exposed children with HBLLs.
- 2) Consistent interpretation of provisions in the Individuals with Disabilities Education Act (IDEA) and Americans with Disabilities Act (ADA) that require provision of assessment and educational interventions, including mechanisms to ensure that children with a history of HBLLs receive the services to which they are entitled.
- 3) Technical advice on the implications of the connection between lead exposure and educational results for educators, state and local governments, parents, pediatric health care providers, lead poisoning prevention programs, and others who work with young children.

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**Educational Interventions for Children Affected by Lead**


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The document is designed to serve multiple audiences including public health and education professionals, decision makers, health care providers, and others who work with children. It delineates specific strategies for improved collaboration across disciplines and programs in terms of providing services to children affected by lead. In addition, it describes a research agenda to develop the evidence base regarding the effectiveness of educational interventions particularly for children with blood lead levels at or above the Centers for Disease Control and Prevention upper value of the reference range for blood lead in young children established in 2012 as 5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ).

Lead poisoning prevention has been correctly characterized as a U.S. public health success story due to the rapid and sustained decreases in the number of children affected by lead. But the rate of decrease in cases has slowed and research shows that no safe blood lead level has been identified. Although efforts continue to successfully shrink the incidence of lead poisoning, continued vigilance and collaboration are necessary to ensure that those children negatively affected by lead exposure receive services designed to compensate for lead's effect on the brain and behavior of children.

**Table 1. Studies on Lead and Educational Outcomes**

<b>Blood Lead Levels</b>	<b>Educational Impact</b>	<b>Size of Study</b>	<b>Location of Study</b>
$\leq 3 \mu\text{g}/\text{dL}$	Decreased end of grade test scores	More than 57,000 children	North Carolina (Miranda et al. 2009) <sup>1</sup>
4 $\mu\text{g}/\text{dL}$ at 3 years of age	Increased likelihood learning disabled classification in elementary school	More than 57,000 children	North Carolina (Miranda et al. 2009) <sup>1</sup>
	Poorer performance on tests	35,000 children	Connecticut (Miranda et al. 2011)
5 $\mu\text{g}/\text{dL}$	30% more likely to fail third grade reading and math tests	More than 48,000 children	Chicago (Evens et al. unpublished data)
	More likely to be non-proficient in math, science, and reading	21,000 children	Detroit (Zhang et al. 2013)
5-9 $\mu\text{g}/\text{dL}$	Scored 4.5 points lower on reading readiness tests	3,406 children	Rhode Island (McLaine et al. 2013)
$\geq 10 \mu\text{g}/\text{dL}$	Scored 10.1 points lower on reading readiness tests	3,406 children	Rhode Island (McLaine et al. 2013)
10 and 19 $\mu\text{g}/\text{dL}$	Significantly lower academic performance test scores in 4th grade	More than 3,000 children	Milwaukee (Amato et al. 2012)
$\geq 25 \mu\text{g}/\text{dL}$	\$0.5 million in excess annual special education and juvenile justice costs	279 children	Mahoning County, Ohio (Stefanak et al. 2005)

**References**

Amato M, Moore CF, Magzamen S, Imm P, Havlena JA, Anderson HA, et al. 2012. Lead exposure and educational proficiency: moderate lead exposure and educational proficiency on end-of-grade

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examinations. *Ann Epidemiol* 22:738–43.

Evens A, Hryhorczuk D, Lanphear B, Rankin K, Lewis D, Forst L, Rosenberg D. The effect of childhood lead exposure on school performance in Chicago public schools: A population-based retrospective cohort study. 2015. *Environ Health* 14:21. McLaine P, Navas-Acien A, Lee R, Simon P, Diener-West M, Agnew J. 2013. Elevated blood lead levels and reading readiness at the start of kindergarten. *Pediatrics* 131:1081–9.

Miranda ML, Dohyeong K, Osgood C, Hastings C. 2011. The impact of early childhood lead exposure on educational test performance among connecticut schoolchildren, phase 1 report. Durham, NC: Children's Environmental Health Initiative, Duke University.

Miranda ML, Kim D, Reiter J, Overstreet Galeano MA, Maxson P. 2009. Environmental contributors to the achievement gap. *Neurotoxicology* 30(6):1019–24.

Stefanak M, Diorio J, Frisch L. 2005. Costs of child lead poisoning to taxpayers in Mahoning County, Ohio. *Public Health Rep* 120:311-5.

Zhang N, Baker HW, Tufts M, Raymond RE, Salihu H, Elliott MR. 2013. Early childhood lead exposure and academic achievement: evidence from Detroit public schools, 2008–2010. *Am J Public Health* 113:e72–7.

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**Abbreviations**

AAP	American Academy of Pediatrics
ADA	Americans with Disabilities Act
ADAAA	Americans with Disabilities Act Amendments Act
ADHD	Attention-Deficit/Hyperactivity Disorder
AmCHP	Association of Maternal Child Health Programs
BLL	Blood lead level
CDC	Centers for Disease Control and Prevention
CEIS	Coordinated Early Intervention Services
CLPPP	Childhood Lead Poisoning Prevention Program
CPIR	Center for Parent Information and Resources
CPRC	Community Parent Resource Centers
DSM-IV	<i>Diagnostic and Statistical Manual of Mental Disorder, Fourth Edition</i>
EPSDT	Early and periodic screening diagnosis and treatment program
fMRI	Functional Magnetic Resonance Imaging
GED	General Educational Development Test
HBLL	High Blood Lead Level
IDEA	Individuals with Disabilities Education Act
IFSP	Individualized Family Service Plan
IQ	Intelligence Quotient
MRI	Magnetic Resonance Imaging
NCPIE	National Coalition for Parent Involvement in Education
NHANES	National Health and Nutritional Examination Survey
OSEP	Office of Special Education Programs
OSERS	Office of Special Education and Rehabilitative Services
PPT	Planning and Placement Team
PTI	Parent Training and Information Center

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**Educational Interventions for Children Affected by Lead**

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**Chapter 1: Introduction**

Childhood lead exposure, even at blood lead levels (BLLs) currently seen in the United States, remains a critical public health issue. It is estimated that tens of millions of U.S. children have been adversely affected by lead over the last 20 years, and these effects can be lifelong. Children are exposed to lead in their homes from deteriorating lead paint and the contaminated dust and soil it generates, to lead in water from lead water pipes or plumbing, and to lead from other sources. Once a child's health or cognition has been harmed by lead, the effects can be permanent and continue into adulthood (Barker 1995; Bellinger et al. 1992; Ris et al. 2004). As no safe blood lead level in children has been identified, the Centers for Disease Control and Prevention (CDC) adopted a reference range for blood lead based on the distribution of blood lead in children 1-5 years old. In 2010 the upper limit of this range was 5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ).

The effects of lead are also costly; recent estimates indicate that more than \$50 billion in a single year is lost as a result of reduced cognitive potential and associated lost productivity (Gould 2009; Landrigan et al. 2002).

The CDC Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) identified the need to review new evidence of the impact of BLLs on children's academic performance and in 2008 empanelled the Educational Interventions for Lead-Exposed Children Work Group. The group's charge was to

- Compile existing evidence of the neurodevelopmental and cognitive impact of lead.
- Summarize the Individuals with Disabilities Education Act (IDEA) Parts B and C and provide information on how these provisions relate to children affected by lead.
- Describe specific action steps parents, clinicians, educators, lead poisoning prevention programs, and others who work with children may be able to take to ensure that children affected by lead receive timely and appropriate educational interventions.

Children with lead exposures cannot avoid negative impacts on their neurodevelopmental abilities. The only way to prevent lead-induced morbidity is to prevent lead exposure. While sources of lead and ways to avoid lead exposures are known, many children continue to be exposed through unsafe housing, painting or other renovation work that disturbs painted surfaces, water, and other sources. Further, under-identification of unsafe environments and children with past exposures is common.

Exposure to lead hazards is common, and the Healthy People 2020 goal to eliminate blood lead levels of 10  $\mu\text{g}/\text{dL}$  or higher has not been met. Therefore, clinicians, public health workers, educators, and other professionals will continue to encounter lead poisoned patients and students in their practices and classrooms for some time to come.

Rigorous clinical trials and other studies have demonstrated that the effects of early exposure to lead on IQ and other measures of cognitive attainment and behavior are not reversible through pharmacologic or nutritional interventions (Dietrich et al. 2004; Kordas et al. 2006; Rico et al. 2006; Rogan et al. 2001). Furthermore, studies that have examined the association between the rate of natural reductions in

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**Educational Interventions for Children Affected by Lead**

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blood lead concentrations and neurodevelopment have found that deficits related to early exposure are not reversible in the absence of educational interventions or other deficit related services (Tong et al. 1996). Therefore, the only certain way to avoid lead-associated neurodevelopmental morbidity is to prevent exposure in the first place—primary prevention remains the best course of action (CDC 2012). However, physicians as well as public health and housing agencies often lack the resources needed to fully protect children from lead poisoning (Lanphear 2005). Thus children continue to be exposed to lead in concentrations known to affect academic performance. These children may benefit from available educational interventions.

There is compelling evidence that children benefit from childrearing in an environment that has varied and age-appropriate educational opportunities and early intervention services if provided early in life and at the correct level of intensity prior to elementary school enrollment. An Institute of Medicine (IOM) report (2000) promoted the benefits of early environmental stimulation, stating that “the course of development can be altered in early childhood by effective interventions that change the balance between risk and protection, thereby shifting the odds in favor of more adaptive outcomes.”

This report reviews new information on meeting the educational needs of children affected by lead (i.e., those with lead exposure who may manifest developmental delays now or in the future) and updates the Developmental Assessment and Interventions chapter in *Managing Elevated Blood Lead Levels Among Young Children* (CDC 2002). This report includes more-current research and a much expanded focus on the educational needs of children affected by lead. It is intended to inform the development and implementation of seamless processes to provide children whose developmental status or emotional regulation are affected by lead with a continuum of educational and other related services necessary for them to be successful.

This report provides

- Evidence of the impact of blood lead in early childhood on later academic performance and
- Evidence for the impact of delivering the optimal developmental environments, long-term monitoring through high school, care, and education for children who have been exposed to lead.

The early sections of the report provide the research and practice context, including the effects of lead on developmental and educational outcomes and types of interventions and educational resources that foster child learning and educational attainment. In addition, this report provides information on federal programs that can support the continuum of educational needs of children with a history of lead exposure. While this report is intended primarily for the educator, public health professional, and clinician, it is anticipated that this information will prompt the development and dissemination of resource materials for parents seeking services for their children. Finally, the report describes important research gaps on improving academic outcomes for children affected by lead.

## Chapter 2: Neurodevelopmental Consequences of Lead Exposure

### Blood Lead Levels and IQ

IQ is a measure of relative intelligence determined by an individually administered standardized test. Most IQ tests have a mean of 100 and standard deviation of 15. The range of “normal” on these tests is between 85 and 115. About seven out of ten individuals have IQs in this range. While these tests have been subject to criticism in the past (Montagu 1999), they consistently predict a variety of important social, educational, and vocational outcomes (Sternberg et al. 2001). These instruments have also proven to be highly sensitive and robust in the assessment of the effects lead and other developmental neurotoxicants on global intellectual ability (Dietrich 2010). For lead, IQ has been used as an overall index of neurodevelopmental morbidity by econometricians and policy makers to estimate the social and economic benefits of reducing exposures in the population (Grosse et al. 2002).

Over the past three decades, epidemiologic studies of lead and child development have demonstrated inverse associations between BLLs and other biomarkers and IQ at successively lower levels. In response to these observations, agencies such as CDC and others have repeatedly lowered the blood lead level considered elevated (CDC 1991; IPCS 1995; ACCLPP 2012; CDC 2012). In 2012, CDC adopted the use of an upper limit of the reference range for blood lead in children defined as 97.5% of the U.S. population 1–5 years old, based on the National Health and Nutritional Examination Survey (NHANES). For 2012–2015, the upper limit of the reference range was 5 µg/dL, and BLLs ≥ 5 µg/dL were defined as high (Wheeler and Brown 2013).

Recent epidemiologic studies and quantitative reviews suggest that there is no discernible threshold for lead effects on IQ, and deficits are measureable at least down to BLLs of 5 µg/dL. In a prospective study conducted in Rochester, New York, a decline of more than 7 IQ points was observed from lifetime average blood lead concentration of 1 to 10 µg/dL (Canfield et al. 2003). The Rochester findings of effects on IQ have been replicated in several other studies of children with BLLs below 10 µg/dL (Al-Saleh et al. 2001; Bellinger and Needleman 2003; Chiodo et al. 2004, 2007; Kordas et al. 2006; Téllez-Rojo et al. 2006).

Further evidence of low level lead effects on IQ comes from an international pooled analysis of seven prospective cohort studies (N = 1,333) by Lanphear et al. (2005). Although exposures in some cohorts were high by contemporary standards, by pooling data from these diverse studies a substantial number (N = 244) of children with BLLs that never exceeded 10 µg/dL were included in the analysis. The impact of lead effects on IQ was greater at lower BLLs, as indicated by curves relating BLL to IQ having steeper slopes downward at the lower BLLs. Lanphear et al. (2005) divided the data at two cutpoints *a priori*, a maximal BLL of 7.5 and 10 µg/dL. Additionally, children whose HBLL was < 7.5 µg/dL lost on average 2.94 IQ points (95% CI -5.16, -0.71) per 1 µg/dL increase in BLL compared to children with HBLLs 7.5–10 µg/dL, who on average lost 0.16 points (95% CI -0.24, -0.08) per 1 µg/dL.

The effects of lead on IQ of children have been reported with remarkable consistency across numerous studies of various designs, populations, and protocols. The negative impact of lead on IQ persists in most recent studies following adjustment for numerous confounding and covariate factors. In general, there

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### Educational Interventions for Children Affected by Lead

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appears to be a loss of about 4–8 points in full scale IQ as BLLs increase to 10 µg/dL and at least an additional 2–4 point decrement as BLLs reach 20–25 µg/dL (Lanphear et al. 2005). The magnitude of this loss is substantial, amounting to two-thirds of a standard deviation or more.

#### **Blood Lead Levels and Specific Abilities: Lead's "Neurobehavioral Signature"**

The focus of lead studies on global measures of intellectual aptitude such as tests of IQ has hampered attempts to identify deficits that may be specific to children with HBLLs. The aggregate or full-scale IQ is based on the sum of performance on multiple subtests that tap a vast array of cognitive and psychomotor functions. Thus, efforts to identify a neurobehavioral signature for children with HBLLs have been largely unsuccessful (Bellinger 1995a).

Nevertheless, findings from studies of specific abilities could help inform strategies for assessment and intervention. Such information would be potentially valuable to educational specialists who are involved in assessment and intervention. Due to the relative insensitivity of IQ tests to the precise effects of brain injury, the use of tests of specific neuropsychological abilities has received increasing attention for the description of the effects of lead exposure in children (Lidsky and Schneider 2006).

Recent studies have employed protocols that include finer grain assessments of cognitive, language, memory, learning, sensory, and neuromotor abilities, and a somewhat clearer picture of lead's impact on neurodevelopment has begun to emerge. Areas of neuropsychological performance that appear to be impacted in particular are within the domains of attention, executive functions, visual-spatial skills, social behavior, speech and language, and fine and gross motor skills. None of these domains are independent of each other, but it is helpful at first to consider them separately.

#### **Attention**

The distracted, inattentive, and impulsive child is an old clinical observation in the lead literature (Needleman 2004). Attention is a complex, multifaceted psychological construct, but its various behavioral manifestations have been measured and quantified in a number of childhood lead studies over the past three decades (Bellinger 1994, 1995b; Chiodo et al. 2004; Hansen et al. 1989; Needleman et al. 1979; Needleman et al. 1996; Ris et al. 2004; Silva et al. 1988; Walkowiak et al. 1998; Yule et al. 1984). When measured experimentally or with parent and teacher questionnaires, a significant dose-response relationship has been observed between BLLs and deficits in sustained attention. In some cases, these effects were observed at BLLs well below 10 µg/dL, with no evidence of a threshold (Chiodo et al. 2007).

Deficits in attention are one aspect of attention-deficit/hyperactivity disorder (ADHD), which affects approximately 3%–7% of U.S. children (Polanczyk et al. 2007). Among clinicians who treat lead-poisoned children, it has been suspected for some time that these patients have a higher risk for developing ADHD (NTP 2012). The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) defines ADHD as inattentive and/or hyperactive/impulsivity symptoms occurring before age 12 years (APA 2013). This disorder has a strong genetic component, but environmental factors such as lead may play a role in increasing the vulnerability of susceptible children.

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### Educational Interventions for Children Affected by Lead

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Lead in blood and/or shed deciduous teeth, even at low levels by current standards, has been associated with parent and/or teacher ratings of hyperactive behavior as well as attentional and behavioral problems in a number of earlier studies (Bellinger et al. 1994; Burns et al. 1999; Fergusson et al. 1988; Hatzakis et al. 1985; Needleman et al. 1979; Silva et al. 1988; Thomson et al. 1989; Wasserman et al. 1998; Yule et al. 1984).

Although attentional deficits and hyperactivity are frequently cited as common problems among children affected by lead, until recently there has been a lack of compelling evidence that directly links lead exposure with most or all of the features of ADHD, including distractibility, poor organization, lack of persistence in completing tasks, and daydreaming. In an investigation that used NHANES data (1999–2002), a significant relationship between concurrent BLLs and parent-reported ADHD diagnosis was observed in 4,704 children 4–15 years of age. Subjects in the fifth quintile for blood lead ( $>2.0$   $\mu\text{g}/\text{dL}$  versus  $<0.8$   $\mu\text{g}/\text{dL}$ ) were four times more likely to have a physician diagnosis of ADHD and be on stimulant medication (Braun et al. 2006). In the first series of studies to examine the association between BLLs and ADHD by verified DSM-IV criteria, a significant relationship was observed in two independent samples between low concurrent BLLs and ADHD combined type in children between 6 and 18 years of age (Nigg et al. 2008, 2010).

#### Executive Functions

Very closely related to the domain of attention is what neuropsychologists refer to as the *executive functions*. Executive functions refer to strategic planning, control of impulses, organized searching, flexibility of thought and action, and self-monitoring of one's own behavior. Deficits in this area are overrepresented among children with ADHD and can severely impact academic achievement and behavior (Biederman et al. 2004). As previously discussed, lead studies have linked increased exposure with a higher frequency of negative ratings by teachers and/or parents on behaviors such as inattentiveness, impulsivity, distractibility, and less persistence in assigned tasks (Hatzakis et al. 1985; Hunter et al. 1985; Needleman et al. 1979; Raab et al. 1990; Thomson et al. 1989; Winneke et al. 1990).

The part of the brain known as the prefrontal cortex is highly innervated by projections of neurons from the midbrain and has the highest concentration of the neurotransmitter dopamine when compared to all other cortical areas. Dopamine plays a key role in cognitive abilities subsumed under the category of *executive functions* mediated by the prefrontal cortex, and it has been known for some time that the dopamine neurotransmitter system is particularly sensitive to lead (Cory-Slechta 1995). Recent studies have largely confirmed the link between lead and deficits in this cognitive domain. Higher tooth lead concentrations and BLLs have been associated with poorer performance on tasks requiring focused attention and flexibility of thought (Bellinger et al. 1994; Canfield et al. 2003, 2004; Stiles and Bellinger 1993). In a group of preschoolers with BLLs below 13  $\mu\text{g}/\text{dL}$  (80% with BLLs  $<10$   $\mu\text{g}/\text{dL}$ ), Canfield and colleagues (2004) observed a direct association between BLLs and poorer performance on tasks requiring focused attention, cognitive flexibility, and inhibition of automatic response.

#### Visual-Spatial Skills

The *visual-spatial* domain is also complex and multifaceted. Performance on tests in this area often involves visual perception (not related to sensory acuity), memory, organization, and reasoning with

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visually presented nonverbal problems. Fine motor skills are also a component of performance in many of the tests designed to measure these abilities. Deficits in this area can affect a wide range of academic outcomes including reading and mathematics. Skills in this domain have been explored in some investigations.

When studies of lead-exposed children have used global measures of IQ and conducted subscale analyses, it has been observed that performance IQ or subtests contributing to performance IQ (e.g., block design) are frequently among the most strongly associated with biomarkers of lead exposure (Baghurst et al. 1992, 1995; Chiodo et al. 2004; Dietrich et al. 1991, 1992, 1993a, 1993b; McMichael et al. 1988; Wasserman et al. 1994). In addition, studies employing specific measures of visual-motor integration skills, such as the Developmental Test of Visual Motor Integration, the Bender Visual-Motor Gestalt Test, and others, have found visual-motor integration skills to be among the most consistently associated with early lead exposure (al-Saleh et al. 2001; Baghurst et al. 1995; Dietrich et al. 1993b; Ris et al. 2004; Wasserman et al. 2000; Winneke et al. 1990).

#### Behavioral Challenges

Deficits in IQ and other formal measures of cognitive attainment may not be among the most important and persistent effects of early exposure to lead. It has long been recognized that children presenting with severe symptomatic lead intoxication suffer from neurobehavioral problems such as impulsivity, aggression, and short attention span (Byers and Lord 1943). This is an old observation in the clinical literature. It has been repeatedly observed that disturbances in behavior and social conduct are prototypical sequelae among victims of lead poisoning. Parents have reported that following recovery from an episode of acute poisoning, their child's behavior changed dramatically as the child became more restless, impulsive, inattentive, and aggressive (Needleman 2004).

As previously discussed, lead exposure may be associated with a higher risk for developing ADHD or at least some of its behavioral features. Children with ADHD and related behavioral problems are known to be at increased risk for disorders of conduct and behavior. Prospective studies of lead and child development have linked HBLLs with destructive and aggressive behaviors during the preschool years and early adolescence (Burns et al. 1999; Wasserman et al. 1998). In a nationally representative sample of over 3,000 children (75% with BLL <1.5 µg/dL), a significant association was observed between low concurrent BLLs and an increasing prevalence of conduct disorder symptoms. After adjustment for covariates, compared to children in the first quartile (blood lead 0.2–0.7 µg/dL), those in the second, third, and fourth quartiles had 7- to 12-fold increased odds of meeting DSM-IV conduct disorder criteria (Braun et al. 2008).

Data linking lead exposure with aggressive and disruptive behaviors and poor self-regulation have raised the prospect that early exposure may result in an increased likelihood of engaging in antisocial behaviors in later life. This link has been observed in recent studies of older children and adolescents (Dietrich et al. 2001; Fergusson et al. 2008; Needleman et al. 1996, 2002) as well as young adults (Wright et al. 2008). Ecological studies correlating leaded gasoline sales and atmospheric lead levels with crime rates 20 years later also support an association between lead exposure and criminal behavior (Nevin 2000, 2007; Stretesky and Lynch 2001).

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The specific biological mechanisms that may underlie lead effects on aggression, impulsivity, and poor self-regulation are not clearly understood. Lead-related behavioral problems also appear to be relatively independent of IQ (Chen et al. 2007). Lead impacts a large number of sites and processes in the brain (e.g., frontal and prefrontal lobes, dopaminergic systems) involved in impulse control (Lidsky and Schneider 2003). It is noteworthy that a volumetric MRI study of young adults with a history of HBLLs as children linked cortical gray matter loss in the prefrontal cortex with higher exposures to lead (Cecil et al. 2008). Further studies on this cohort have linked earlier exposure to lead with altered myelination and axonal integrity (Brubaker et al. 2009). Needleman et al. (2002) proposed that in addition to direct impacts on brain development and neuronal function, impaired cognitive abilities and subsequent academic failure in children affected by lead children may increase risk for subsequent delinquent behaviors. Students who have difficulties in school and fail to achieve academic goals are more likely to become lawbreakers (Schorr 1989).

### Speech and Language

Speech and language deficits in children affected by lead is a relatively old clinical observation (Byers 1959), and some early leading investigators of asymptomatic children suggested that verbal behaviors may be among the more sensitive indices of lead-associated cerebral injury (e.g., de la Burd  and Choate 1975; Needleman et al. 1979). Language is a unique human neurocognitive function, and it is often the earliest marker of a developmental or acquired neurological disorder. The association between lead exposure and speech and language functions has been studied rather extensively (Mayfield 1983), but the majority of these early studies used knowledge-dependent measures of verbal ability that relied heavily on a child's existing vocabulary and comprehension (Campbell et al. 2000).

Some recent studies are of interest in that they focused on the relationship between lead exposure and language processing. For example, among subjects 11–14 years old in the Pittsburgh Youth Study, higher bone lead concentrations were associated with poorer performance on three processing-dependent language measures assessing phonological, lexical, and sentence processing (Campbell et al. 2000). Functional magnetic resonance imaging (fMRI) was used to assess the influence of childhood lead exposure on language processing among a subset of young adults in the Cincinnati Lead Study (Yuan et al. 2006). fMRI is a type of specialized MRI scan that measures the change in blood flow related to neural activity in the brain, often in response to stimuli or engaging in a specific cognitive task. In a verb generation task, higher childhood average BLLs were significantly associated with reduced activation in Broca's area, a recognized region of speech production in the left hemisphere. Higher BLLs were also associated with increased activation in the right temporal lobe, the homologue of Wernicke's area that is associated with speech perception. Results of this study suggest that elevated childhood BLLs influence neurosubstrates of semantic language function, resulting in an atypical reorganization of language function in young adults.

With respect to the relationship between lead exposure and the development of speech and language abilities in children, it is important to keep in mind that HBLLs have also been associated with small but significant deficits in hearing and central auditory processing (Dietrich et al. 1992; Osman et al. 1999; Schwartz and Otto 1987, 1991). However, a recent study did not identify significant relationships between lead level (mean 37.7  $\mu\text{g}/\text{dL}$ ) and tests of hearing (Buchanan et al. 2011). The control group in

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this study had BLLs below 10 µg/dL. In the Osman et al. study (1999), the audiometric results indicated that auditory function in children is impaired at blood lead concentrations even below 10 µg/dL.

#### Fine and Gross Motor Skills

In the past, clinical investigators have noted unsteadiness, clumsiness, and fine-motor dysfunctions in symptomatic lead-poisoned children (Pueschel et al. 1972). Lead-associated deficits in both gross and fine motor functioning were noted among children residing in the vicinity of a longstanding lead smelter in Greece (Benetou-Marantidou et al. 1988). More recently, two prospective studies have assessed motor development in a comprehensive manner. In Cincinnati, BLLs assessed during infancy and the preschool years were associated with poorer scores on measures of bilateral coordination, visual-motor control, upper limb speed and dexterity, and especially on the fine motor composite score from the Bruininks scales (Dietrich et al. 1993b). These results were largely replicated in another prospective study of children residing in two towns in Kosovo province, Yugoslavia (Wasserman et al. 2000). In the Cincinnati series of studies, postural instability and unsteadiness have also been consistently associated with HBLLs in early childhood (Bhattacharya et al. 1995). Lead affects children's long-term injury risk by harming their balance, coordination, and other neuromuscular skills, resulting in falls and discouraging their participation in sports as teens, which is important in the development of social interactions (Kincl et al. 2006).

#### Summary

Although the evidence for signature neuropsychological outcomes related to childhood lead poisoning may seem compelling, it is vital to keep these findings in perspective, especially when considering the specific individual needs of children with a history of exposure. The apparent pattern of lead-associated neurodevelopmental deficits described above suggests, if anything, a general dampening of intellectual functioning. This pattern is not uncommon in the general population and can be ascribed to a number of environmental causes other than lead. It is likely that lead, like other causes of brain injury, does not produce the same or similar impairments in every affected child. (Schneider et al. 2001)

## Chapter 3: Who Is At Risk? Vulnerable Populations and Risk Factors

### Factors Affecting a Child's Risk for Neurologic Sequelae

Lead is an equal opportunity neurotoxicant in the sense that adverse neurobehavioral outcomes have been associated with exposure in studies that vary widely with respect to sociodemographic and other background factors. However, the effect of lead exposure on neurodevelopment might differ as a function of the child's economic and social environment; thus, some children may be at greater risk for poor academic performance compared to other children with similar BLLs. Factors that may affect a child's risk for neurologic sequel include socioeconomic circumstances and gender.

#### Socioeconomic Circumstance

Socioeconomic status is a complex construct that is typically but only partly captured as a score or ranking calculated from the parents' education and occupation. This variable is routinely treated as a confounding factor in lead studies. However, some investigators have examined the interaction between exposure to lead and socioeconomic status; that is, the extent to which socioeconomic status modifies the impact of lead on children's neurodevelopment.

Several earlier and some more recent studies reported that higher tooth or BLLs were associated with neurodevelopmental deficits of greater magnitude and/or persistence among children from lower socioeconomic strata (Bellinger et al. 1989, 1990; Dietrich et al. 1987; Harvey et al. 1984; Tong et al. 2000; Winneke and Kraemer 1984). However, these studies fail to provide specific insight into why lower socioeconomic status increases a child's susceptibility. Lower socioeconomic standing is associated with a number of factors that could enhance lead's toxicity, including exposure to other neurotoxicants (e.g., pesticides, environmental tobacco smoke), poorer nutrition (e.g., inadequate calcium and iron intake), inequities in medical coverage, increased stress, and fewer opportunities for stimulation.

#### Gender

Gender differences in vulnerability to environmental influences on central nervous system development have been posited for some time. It is well known that the prevalence of disorders such as autism and ADHD is higher in males. Men and women have brains of different sizes and have different trajectories of gray matter maturation. Several studies have observed stronger association between lead levels in males than females in both the cognitive (Bellinger et al. 1990; Dietrich et al. 1987; Froehlich et al. 2007; Pocock et al. 1987; Ris et al. 2004) and behavioral (Wright et al. 2008) outcomes, although these findings are not universal (Tong et al. 1996). In the Cincinnati Lead Study, the association between childhood lead exposure and gray matter volume loss in young adults was much more widespread and significant in males than females, despite comparable average childhood BLLs (Brubaker et al. 2010; Cecil et al. 2008).

#### Inter-Child Variability

One implication of the findings of the impact of demographic factors on the relationship between BLLs and developmental effects is that lead's association with children's neurodevelopment cannot be expressed as a single number because the magnitude of the association may vary depending on the characteristics of a particular child and his or her environment. A more promising implication, however,

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is that the effects of lead on a child might be reduced by modifying critical aspects of the environment. This holds promise for the success of interventions to ameliorate effects. Two experimental animal studies have shown that rearing animals in a nurturing physical and social environment can attenuate lead's developmental neurotoxicity (Guilarte et al. 2003; Schneider et al. 2001). These studies suggest that the quality of the early rearing environment might play a role in the magnitude and persistence of neurobehavioral deficits displayed by lead exposed children.

The discussion above implies that the BLLs at which individual children show signs of clinical lead intoxication and/or neurobehavioral deficits will vary. Despite the consistent inverse association between children's BLL and IQ noted above, children will have varying sensitivity to the more subtle functional impairments associated with HBLLs (Lidsky and Schneider 2006). This suggests that not all children with a given BLL should be considered at equivalent neurodevelopmental risk (Bellinger 1995a). In other words, a HBLL should be viewed as a risk factor for neurodevelopmental problems, not a diagnosis.

### Importance of Age at the Time of Lead Exposure

Identifying the age at which children are most sensitive to the neurodevelopmental effects of lead is complicated by the relatively high degree of stability in children's BLLs and the frequent confounding of age and peak BLL (Dietrich et al. 1993; McMichael et al. 1985). Data from some prospective cohort studies indicate that children's IQs may be particularly sensitive to lead-associated effects when the children are about 2 years old (e.g., Bellinger et al. 1992). However, more recent analyses (Chen et al. 2005; Hornung et al. 2009; Lanphear et al. 2005) suggest that lead exposure beyond 2 years of age, when BLLs tend to peak, may be even more strongly associated with cognitive development. If concurrent BLLs remain important until early school-age for optimum cognitive development, and if 6- and 7-year-olds are as or even more sensitive than 2-year-olds, then the difficulties in preventing lead exposure are magnified. But the potential benefits of prevention are even greater.

### Time Lag in Expression of Neurobehavior Associated with High Blood Lead Levels

Age is also a consideration with respect to when neurotoxic effects are likely to be expressed. Overall, the literature strongly suggests that early exposure to lead affects central nervous system substrates and behaviors that are best measured in the older child, adolescent, and young adult. This lag may be the result of toxicological processes in which some period of time is required for past lead exposure to affect central nervous system function. Another explanation is that lead may primarily affect higher-order neurodevelopmental processes that are best tested or only measureable at later ages when children's response modalities are more highly differentiated (e.g., the *executive functions* discussed earlier).

One implication of this lag is that neurodevelopmental assessments conducted in young children when a child has an HBLL may fail to identify a child who is at risk for later neurodevelopmental dysfunction. Careful long-term surveillance of behavior and neurodevelopment of children with BLLs at or above the upper reference range value is thus needed to ensure that these impacts are identified should they appear in the future. The effects of high BLLs on the skills required for academic success and optimal

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adjustment may not manifest until a child reaches critical transition points in school and the larger social environment. Each of these transition points may present special physical, emotional, social, and academic challenges to the child affected by lead. The challenges that arise after each transition are described below.

#### Preschool

The child is required to sit quietly for short periods of time and listen and follow directions. The group nature of preschool typically requires the child to share supplies, activities, and attention. The child must relate to and adapt to a new set of peers and adult caregivers. The child begins to develop listening, attention, and memory skills in the context of learning (e.g., names of objects, animals, colors, and shapes). Children should be evaluated for speech and language delays at this stage because those affected by lead may have a shorter attention span, immature social skills, and decreased ability to listen and memorize new concepts (HHS National Institute on Deafness and Other Communication Disorders <https://www.nidcd.nih.gov/staticresources/health/voice/NIDCD-Speech-Language-Dev-Milestones.pdf>).

There is also strong evidence that social and emotional skills are as critical to school success as academic competency is. Left untreated, challenging behaviors such as aggression, tantrums, and noncompliance can develop into more serious conditions and lead to lower high school graduation rates, poor job outcomes, and limited incomes in affected children. Children should be evaluated for these problem behaviors which are often first manifested in preschool settings (Perry et al. 2011).

#### Early Elementary School (grades K-3)

The child is required to adjust to a longer and more structured school day. The child must develop the ability to understand and complete assignments and homework and face more objective rewards and consequences for their behavior. The child develops broader social networks and cooperative working skills. The child begins to acquire basic academic skills such as reading words and short stories for meaning, performing arithmetic operations, and answering questions. Compelling data indicate that children affected by lead are less likely to reach proficiency in reading, arithmetic, science, and social studies and develop social and working skills. Thus, their progress should be monitored and appropriate support provided if delays are identified (Wolf 2007).

#### Upper Elementary School (grades 4-5)

The child is challenged to become more independent in the face of increased physical, social, and academic demands. Social networks expand, and the child may experience isolation and bullying. Social and physical challenges include increased participation in competitive and team sports and accepting one's own skills and limitations as well as those of peers. Academic emphasis is no longer solely on acquisition of basic skills. The child must now use basic skills to acquire information and solve problems (e.g., "reading to learn" as opposed to "learning to read") (Wolf 2007).

Lead affects the development of the central nervous system and can affect a child's balance, coordination, and other neuromuscular skills, potentially discouraging his or her participation in sports. Children affected by lead may also experience difficulty making the transition from "learning to read" to "reading to learn" to learn new material because of poor language skills and attention deficits. This is

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another time period when monitoring of children with history of HBLL is critical to identify problems early and provide additional support if needed.

#### **Middle School (grades 6–8)**

Transition to middle school is further complicated by the normative changes of puberty and its implications for social and emotional development. The adolescent must adapt to a more formal and impersonal academic structure with a number of teachers with different teaching styles and expectations. Academically, more independence is required, and the adolescent is challenged to develop and use higher-order cognitive and organizational skills necessary to master several unrelated classes and assignments. Social pressures mount and peer acceptance becomes critical.

Exposure to lead as a young child can interfere with the proper development of executive functioning, making it difficult for the child to attain these higher-order cognitive and organizational skills (Canfield et al. 2003). Animal models demonstrate that lead interferes with normal development of the brain, resulting in a reduction of volume in the frontal lobe, which is the region of the brain that reasons, judges, solves problems, and controls impulses and emotional response (Marchetti 2003). Serious academic problems at this stage result in a much higher probability of dropping out of school (more U.S. students fail ninth grade than any other grade of school, and many subsequently drop out). Lead exposure has been shown to be a strong predictor of failing in school, resulting in dropping out of high school (Needleman et al. 1990).

#### **High School (Grades 9–12)**

The adolescent is further challenged to adapt to a greater number of students and teachers and a more rigorous academic and disciplinary environment. Establishing new peer networks; achieving greater independence from family; managing part-time employment; and pressures to experiment with alcohol, drug, and sexual activities are among the many social challenges now being faced. Academic challenges include developing a more assertive, focused, and efficient learning style and applying good study and organizational skills. The student takes more responsibility for decisions regarding academic tracks, course selections, and making decisions regarding vocation and further education beyond high school. However, a teenager who was exposed to lead as a young child is more likely to smoke, be truant or drop out of high school, commit criminal offenses, and even become pregnant as a teenager (Denno 1990; Lane et al. 2008; Needleman et al. 1996; Nevin 2000).

Some children affected by lead may lack the physical, social, and cognitive skills to cope with the challenges posed by these critical transition periods. Evidence of this comes from the lead literature in the form of a long-term follow-up study of Massachusetts children. In this study, after controlling for other sociodemographic factors, the persistent toxicity of lead—as measured in shed deciduous teeth collected from asymptomatic children—was directly associated with serious impairments in academic success, including a seven-fold increase in failure to graduate from high school, lower class standing, greater absenteeism, and impairment of reading skills, as compared to the group with lowest teeth lead (Needleman et al. 1990). Other studies of lead exposure and academic achievement are discussed in Chapter 4.

## Chapter 4: Consequences of Lead on Learning and Educational Attainment

### Recent Studies

Several recent studies have explored the specific effects of lead on educational outcomes. These studies show a strong relationship between slightly HBLLs in young children and decreased scores on end-of-grade tests in elementary school. The recent studies summarized below demonstrate that the connection between rising blood lead and poorer educational outcomes remains true for BLLs only 1–2  $\mu\text{g}/\text{dL}$  above the 2009–2010 geometric mean BLL of 1.3  $\mu\text{g}/\text{dL}$  for U.S. children aged 1–5 years old. (Wheeler and Brown, 2013).

Together, these studies show a consistent link between low-level lead exposure and the reduced ability of children to do well in school and suggest that lead exposure is responsible for a significant and modifiable effect on the achievement gap. They also document that there are substantial costs to local communities to provide services to children.

### North Carolina

A series of North Carolina studies of over 57,000 children (57% were white and 43% were black) found that children with a BLL as low as 4  $\mu\text{g}/\text{dL}$  at 3 years of age were significantly more likely to be classified as learning-disabled than children with a BLL of 1  $\mu\text{g}/\text{dL}$  (Miranda et al. 2009). Researchers also found a dose-response relationship between end-of-grade test scores and BLL—BLLs as low as 2  $\mu\text{g}/\text{dL}$  were associated with decreases in test scores (Miranda et al. 2009). Furthermore, children with a higher BLL were less likely to place into advanced and intellectually gifted programs. These results held true even when researchers accounted for factors such as race, family income, and other factors that might affect learning-disabled status. The authors concluded that when HBLL is experienced with these other social factors, the negative impact on academic performance is cumulative.

### Connecticut

Researchers in Connecticut observed the same associations between elevated BLL and decreased achievement on reading and math tests (Miranda et al. 2011). A study of approximately 35,000 Connecticut children examined associations of past lead levels with their fourth grade math and reading scores. Only data from non-Hispanic black and non-Hispanic white children with a lead test before age 7 years and who did not have limited English proficiency were analyzed. BLLs as low as 3–4  $\mu\text{g}/\text{dL}$  were associated with poorer performance on tests.

### Chicago, Illinois

In a study of over 48,000 school children in Chicago, BLLs as low as 5  $\mu\text{g}/\text{dL}$  were associated with lower scores on third grade reading and math tests (Evens et al. 2013). Researchers determined BLL had a strong relationship with test scores, similar to factors such as birth weight, maternal education, and race/ethnicity. Non-Hispanic black students in this study had an average BLL more than twice that of non-Hispanic white students.

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**Detroit, Michigan**

In a study of more than 21,000 Detroit children in grades 3, 5, and 8, Zhang et al. (2013) found a strong dose response relationship between BLLs as low as 5 µg/dL and poor performance on academic test scores through junior high school. Compared to children with non-detectable BLLs, children with detectable BLLs were 1.4 to 2.5 times more likely to be nonproficient in math, science, and reading.

**Milwaukee, Wisconsin**

In a study of more than 3,000 Milwaukee children in grades 4–9, Amato et al. (2012, 2013) found significantly lower academic performance test scores in fourth grade for those children with BLLs 10–19 µg/dL in early childhood compared to children with BLLs <5 µg/dL. The authors concluded that lead should not be considered as just a public health or environmental issue but also an educational issue with direct implications on policy. The same lead exposed children were found to have been suspended from school in the fourth grade at a rate of three to one compared with their peers with little or no exposure (Amato et al. 2013).

**Milwaukee and Racine, Wisconsin**

In another study of students in Milwaukee and Racine, researchers found that not only was poor school performance directly related to early lead exposure, but also parents were more likely to rate their child's health as "fair" compared to "excellent" (Magzemen et al. 2013). In 2010, the Department of Health Services estimated that if each Wisconsin child age 0–6 today were protected from any lead exposure, the improvement in the state high school graduation rate and the reduction in crime would save \$28 billion. These savings would multiply each year as new children are born in Wisconsin.

**Providence, Rhode Island**

In a study of 3,406 children in Providence, Rhode Island, linking historic BLLs and kindergarten reading readiness scores, McLaine et al. (2013) found that 20% of children had BLLs ≥ 10 µg/dL and 67% had BLLs ≥ 5 µg/dL. Compared to children whose average BLLs were < 5 µg/dL, reading readiness scores for children BLLs of 5–9 µg/dL or ≥ 10 µg/dL were 4.5 and 10 points lower, respectively. The authors recommend greater collaboration between educators and public health agencies and better use of existing data to identify children affected by lead.

**New York**

In an ecological study of third and eighth grade achievement scores for 57 counties in New York, excluding New York City, researchers found that the percent of children in a county with BLLs ≥ 10 µg/dL explained 8%–16% of the variance in reading and math test scores, even adjusting for country-level indicators of poverty. They also found that for eighth grade scores, the percent of children with a history of BLLs ≥ 10 µg/dL in a county was as predictive of country-level performance on these tests as using tests scores from four years earlier to forecast current scores (Strayhorn and Strayhorn 2012).

**Massachusetts**

In another ecological study comparing blood lead levels in the 1990s with school cohort test scores in the 2000s in Massachusetts, there was a strong relationship between BLL and elementary school test scores. The authors also found that over the time period under consideration, reductions in lead have yielded a drop of 1 to 2 percentage points in the share of children scoring unsatisfactory on the

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standardized test, a change equivalent to what would have resulted from a \$1,000–\$2,000 increase in income per capita. (Reyes, 2011)

#### Ohio

Korfmacher has argued that although the societal costs of not preventing HBLLs in children are well documented, these are long-term costs to society as a whole. Thus, they may not be as compelling to local policy makers as more short-term costs such as special education and juvenile justice resources expended on children (Korfmacher, unpublished data). Using methods developed by Korfmacher, researchers in Mahoning County, Ohio, quantified the juvenile justice and special education costs for the 279 children diagnosed with a BLL  $\geq 25$   $\mu\text{g}/\text{dL}$  in the county in 2002. They estimated that each yearly cohort of children of the same size and with similar BLLs costs the county \$0.5 million a year. These costs are cumulative across yearly cohorts and do not account for adverse effects of BLLs  $<25$   $\mu\text{g}/\text{dL}$  (Stefanak et al. 2005).

#### Research Gaps

Although some studies have found that a nurturing home environment can have a positive impact on children with HBLLs (see Chapter 5), no studies have been published on the effectiveness of interventions, such as early childhood education, in ameliorating the effects of HBLLs. There is a critical need for better understanding of whether children with BLLs at or near the upper limit of the reference range respond positively to early childhood education and which aspects of early childhood education are most likely to reduce or ameliorate the neurocognitive effects of these BLLs. In addition, since the effects of BLLs at or near the upper limit of the reference range (reference value) are subtle and can vary widely from child to child with the same blood lead concentration, there may be a need to test which assessment tools are most valid and reliable for children with a history of BLLs at or above the reference value. The impact of parenting style and involvement as a therapy to provide enhanced developmental opportunities for these children is also worthy of study.

Learning to read involves the reorganization of brain structures whose specialized regions need to be integrated in order for children to achieve the nearly automatic fluency of the expert reader (Wolf 2007). For this reason, studies of children with reading difficulties including ADHD, traumatic brain injury, and dyslexia, are not helped by a one-size-fits-all approach but are better served by identifying and basing educational interventions that work best for individual children. It seems likely that a generic treatment program for all lead poisoned children is likely to be ineffective (Lidsky and Schneider 2006).

Randomized controlled trials of teaching modalities and programs that improve parenting skills and their impact on children affected by lead would expand our understanding of the efficacy of these interventions for reversing academic problems in children affected by lead.

## Chapter 5: Effectiveness of Early Childhood Education Programs in Reducing Developmental Risks

### Effectiveness of Educational Interventions

The effects of lead on a child vary if critical aspects of the environment differ. This holds promise for the success of interventions to ameliorate effects. For every child, a nurturing, supportive home environment can positively influence developmental and behavioral outcomes. Studies that examine the impact of lead on child outcomes—including measures to control for the resources within the home—find that a supportive home environment has a strong positive influence on a child’s IQ (Lanphear et al. 2005; Tong et al. 1996). A recent study assessed the conjoint influence of lead exposure and home environment on neurocognitive function and behavior for first-grade children living in a Mexican lead smelter community. The home environment (measured in this study by a mother’s support of schoolwork, mother’s support of extracurricular activities, and mother’s education) had a significant indirect mediation effect between lead and measures of the child’s behavior and cognition. Thus, an attentive home environment can lessen the effects of lead and improve educational outcomes (Moodie et al. 2013).

No studies specifically examine the impact of early childhood educational interventions on cognitive or behavioral outcomes for children who have been exposed to lead. However, there are studies of educational interventions improving learning and developmental outcomes for children who have conditions other than lead. This research demonstrates that children with developmental delays or at high risk for developmental delays benefit most from interventions applied at an early age (Anderson et al. 2003; Campbell et al. 2001; Glascoe 2000; Olds et al. 2010).

Early childhood education programs, including high-quality preschool and Head Start, have been shown to benefit both typically developing children and children with disabilities. They also benefit the parents of enrolled children. In a review of early childhood education programs enrolling typically developing children, researchers found that “within the cognitive domain, consistent improvements were found in measures of intellectual ability (IQ), standardized tests of school readiness, promotion to the next grade level, and decreased placement in special education classes because of learning problems” (Anderson et al. 2003).

The High/Scope Perry Preschool Study, a major longitudinal study, demonstrated many of the benefits of early education for young children from preschool until the age of 40. Researchers found that young children in the study had higher rates of high school graduation or GED completion (71% versus 54% of control group participants) and less time spent in special education through age 19 (an average of 16% of the time versus 28% in the control group) (Ju 2009; Schweinhart et al. 1993). Research has also demonstrated behavioral benefits for participants in high quality early childhood education programs (Reynolds et al. 2007; Schweinhart et al. 1993, 2005).

### Early Childhood Education

There is a compelling base of evidence that suggests that large scale, short-term public preschool programs have positive impacts on children’s academic readiness and mixed impacts on children’s

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socioemotional readiness. Two recent evaluations of at-scale urban prekindergarten programs in Tulsa and Boston found between a half year and a full year of additional learning in language, literacy, and math (Gormley et al. 2005). Improvements in the long-term outcomes of the participants of these programs indicate that, in terms of reduced criminal justice costs and improve productivity, these programs also save \$3 to \$7 for every dollar spent on the prekindergarten education (Yoshikawa et al. 2013).

### **Head Start Program**

Among the range of early childhood education programs, the Head Start program has been shown to have modest measurable effects on enrolled children. Head Start is differentiated from the general early childhood education programs without a health focus, in that it focuses on children's health, nutrition, mental health, and social service needs. This focus on the whole child is designed to mitigate social and economic factors that may limit a young child's ability to learn in the classroom. For example, if a child is experiencing illness or a toothache, or perhaps domestic violence in the home, he may be less able to focus on the academic work at hand (Head Start Bureau 2002). To qualify for enrollment into the Head Start program, children must be low-income, recipients of public assistance, foster children, or homeless, or they must have a diagnosed disability. For these reasons, Head Start children may begin the preschool experience at a disadvantage as compared with their counterparts in other early childhood education programs (Lee et al. 1988).

Children who presented these risk factors were the focus of an assessment of Head Start reported in "The Impact of Head Start on Children, Families and Communities: Final Report of the Head Start Evaluation, Synthesis and Utilization Project" (McKey 1985). The study included both children enrolled in Head Start as well as children enrolled in other early childhood education programs. Head Start participants had below average skills in early literacy and math at the time of enrollment into the study, as compared with control children in other early childhood education programs (Ju 2009; McKey 1985). The study found that Head Start narrowed the gap in academic skills between program participants and all children over the program year in the areas of reading, writing, and vocabulary (Ju 2009; McKey 1985): "Clearly, Head Start has strong immediate effects on the cognitive and socio-emotional development of young children. These effects are both statistically and educationally meaningful." (McKey 1985).

In a review of multiple studies relating to outcomes for children enrolled in Head Start, Ju (2009) found that regardless of research design or outcome measure, Head Start children experienced significant gains in cognitive development. Children who participated in Head Start programs experienced elevated cognitive test scores of about a half standard deviation (Ju 2009).

A randomized controlled study of 4,700 preschool children compared school readiness outcomes such as language, literacy, prewriting, and math each year through the end of the first grade for children enrolled in Head Start with a control group of children who were not enrolled in a Head Start program (ACF 2010). The study found that the early gains in school readiness of the Head Start group "faded out" by the end of the first grade as control group children caught up to their Head Start peers. The long-term positive benefits found in earlier studies can be reconciled to the more recent study in two ways. First,

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the long term benefits may reflect noncognitive benefits of Head Start that were not measured in the recent study. Second, as control group children could and did enroll in other early childhood education programs, the lack of positive benefits in the recent evaluation may reflect improvements in contemporary non-Head Start early childhood education programs (Bartik 2011).

### **Outcomes of Participation in Early Childhood Education Programs for Children with Disabilities**

There is some research about the impact of participation in early childhood education services for children with disabilities (OSEP 2013). In a study of children with autism and pervasive developmental disorders who were enrolled in intensive early intervention programs, it was found that participating children had higher IQ scores, improved visual-spatial skills, and increased language development three to four years after the intervention as compared to children who received a parent training intervention alone. In addition, the same study demonstrated that "...many children who receive early intervention make substantial developmental gains and are able to be included in a general education classroom by the time they enter elementary school" (Smith et al. 2000).

The Head Start program has been shown to provide benefits for children with disabilities as well; specifically, for children with developmental, speech/language, and vision disorders. In addition, participation in a Head Start program has been shown to provide greater developmental and behavioral gains for children with physical disabilities, as well as significantly more motor ability for children with mental retardation, than children with similar disabilities who did not participate in a Head Start program (McKey 1985). Head Start programs, along with some other early childhood education programs, strive to create fully blended programs. Blending is defined as more than inclusion to the extent that children with disabilities are not only included in the activities of the classroom, but also "individual learning needs are honored and the curriculum is purposefully blended across ability levels and learning opportunities, which sets the stage for effective teaching and learning for all students" (Grisham-Brown et al. 2009). In a comparison of three very small interventions, children in blended classrooms made and maintained progress on a targeted early learning standard, indicating that using such techniques can assist children with disabilities in gaining important skills (Grisham-Brown et al. 2009).

Children with disabilities have been shown to make academic and developmental gains from their participation in inclusive early childhood education settings (Dickson 2000; Hanline and Daley 2002; Holahan and Costenbader 2000; Mogharreban and Bruns 2009). Mogharreban and Bruns (2009) report that "one of the most positive outcomes of the first 2 years was the successful transition of the majority of [Early Childhood Special Education] ECSE children into general kindergarten classrooms and most without the need of a designated ECSE aide." In short, children with disabilities have been shown to make profound progress with intensive and appropriate early childhood education services. Many of these gains are in the very areas that are the most challenging for children who have experienced lead poisoning and that children who have had lead exposure are most at risk for experiencing.

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**Costs and Benefits of Early Childhood Education Programs**

The economic effects of early childhood education programs have been estimated in the range of \$2–\$3 in economic development at the state level per dollar of intervention costs and compare favorably with business incentive programs (Bartik 2011). The President’s Council of Economic Advisors estimated that each \$1 invested in early childhood education would provide \$8.60 in benefits to society and that if enrollment increased by 13%, in the long runs these gains translate into an increase in gross domestic product of 0.16%-0.44% (Executive Office of the President 2014). The benefits of early childhood education occur over the long term (i.e., the working life of the children enrolled) and seem to depend largely on the amount of time children spend in the programs and their quality. However, the implied long-term effect on national annual earnings of a well-run universal pre-K education is estimated at about \$300 billion (Bartik 2006).

## Chapter 6: Applicable Federal Programs and Policies

### Overview

Several programs and authorities apply to assessments of disability and the services that can be provided as interventions for children affected by lead (see Appendix 1). For example, the following programs and policies serve children aged 0 to 21:

- Individuals with Disabilities Education Act (IDEA) (20 U.S.C. § 1400 et seq.) Federal Special Education Law, including
  - Child Find: Gateway to Services.
  - Part C: Early Intervention Services for Children Under Age 3.
  - Part B: Special Education for Children 3-21 Years Old, including Section 619 Preschool Programs and Coordinated Early Intervening Services.
- Rehabilitation Act of 1973, Section 504: Federal Civil Rights Protections.
- Americans with Disabilities Act Amendments Act of 2008.
- Medicaid: Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Program.
- Title V: Maternal and Child Health Block Grant.

### IDEA: Federal Special Education Law

IDEA is a federal law ensuring that children with disabilities, ages 3 to 21, receive a free appropriate public education (see Tables 2 and 3). Originally called the Education for All Handicapped Children Act of 1975 (Public Law 94-142), IDEA has been amended several times, most recently in 2004 (20 U.S.C. § 1400 et seq.). The U.S. Department of Education, Office of Special Education Programs (OSEP), is responsible for implementing IDEA at the federal level. Although all U.S. states currently participate in IDEA, state and local implementation may vary, resulting in some differences in policies, services, and processes by state. Therefore, it is essential to understand state implementation policies to have a full understanding of the requirements and children's rights. (See <http://idea.ed.gov> for detailed information about the program provisions and requirements.)

IDEA provides federal funds and oversight for early intervention and special education and related services to infants, toddlers, children, and youth with disabilities. In 2011, an estimated 6.9 million children were eligible for these programs. The law also governs the allocation of these funds to states and public agencies that deliver these services. Part C of IDEA is a \$442.7 million (FY 12) program administered by states that serves infants and toddlers through age 2 with developmental delays or who have diagnosed physical or mental conditions with high probabilities of resulting in developmental delays. Part B of IDEA is an \$11.58 billion (FY 12) program of grants to state education agencies to partially fund special education and related services for children ages 3–21 with disabilities, including the Section 619 Preschool Program. In addition to the grant programs, IDEA specifies detailed due-

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process provisions for parental rights. Both Part B and Part C of IDEA contain explicit requirements for states to actively identify children with disabilities, determine their eligibility, and make referrals to services via a comprehensive Child Find system. The Department of Education requires that states must describe the planning and implementation of their Child Find systems in their grant applications.

In recent years, the U.S. Department of Education issued new federal regulations incorporating the 2004 amendments to IDEA:

- Final Part B regulations took effect on October 13, 2006 (34 C.F.R. Part 300; 71 Fed. Reg. 46540 (Aug. 14, 2006)).
- Final Part B regulations were augmented with supplemental regulations in 2008 in response to the No Child Left Behind Act of 2001; (73 Fed. Reg. 231 (Dec. 1, 2008)).
- Final Part C regulations took effect on October 28, 2011 (34 C.F.R. Part 303; 76 Fed. Reg. 73006 (Sept. 28, 2011)).

#### Child Find: Gateway to Services

All children with disabilities must be identified before receiving early intervention or special education services. Child Find is a child identification program that identifies and evaluates children and young people from ages 0 to 21 who are suspected of having disabilities, including those with a history of exposure to lead or a BLL  $\geq 5$   $\mu\text{g}/\text{dL}$ .

Under IDEA, all states must have a comprehensive, continuous Child Find system with the purpose of identifying, locating, and evaluating all infants, toddlers, and children with disabilities in the state who are eligible for early intervention or special education services. Child Find systems vary by state, but they typically include public awareness activities, screening, referral, and evaluation activities.

The regulations in Part B of IDEA 34 C.F.R. § 300.111 state Child Find policies and procedures must identify all children with disabilities who are in need of special education and related services. This includes children—regardless of the severity of their disability—who are homeless, migrant, or “highly mobile”; wards of the state; attending private schools, as well as those who are advancing from grade to grade. States and local education agencies (i.e., school districts and charter schools) are responsible for compliance. School district offices or websites provide contact information for the personnel responsible for screening and referrals through Child Find (U.S. Department of Education 2010).

Part B Child Find has three primary purposes:

- 1) To ensure that no children with disabilities are denied a free appropriate public education because they have not been located.
- 2) To ensure cooperation between educational agencies and others such as health, mental health, and developmental disabilities agencies; social services; corrections departments; private schools; and private agencies.
- 3) To enable the states and local education agencies to appropriate funds, plan and deliver programs, and be held accountable to all children with disabilities.

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The lead agencies for the Part C Early Intervention Program must ensure that all infants and toddlers with disabilities who are eligible for early intervention services are identified, located, and evaluated. These agencies are also required to coordinate Child Find with Part B programs, via referrals and transition planning, as well as with other agencies responsible for relevant education, health, and social service programs. These other agency programs include the Maternal and Child Health program (including the Maternal, Infant, and Early Childhood Home Visiting Program); the Early and Periodic Screening, Diagnostic, and Treatment component of Medicaid; Head Start and Early Head Start; Supplemental Security Income programs; and other appropriate entities.

In most states, there is a designated point of contact for Child Find and early intervention at the state, county, and district levels, but it may not be the same agency responsible for Part B Child Find. Parents concerned about their child's development may request an evaluation at no cost through Child Find. Often, pediatricians or school personnel refer children for evaluation, which requires parental permission.

The following resources provide searchable links for state or local Child Find contacts:

- The Center for Parent Information and Resources (CPIR) provides a listing of all OSEP-funded parent training and information centers by region. Parent centers have information about Child Find procedures and contact information for the states in their regions. Also, CPIR has access to many of the materials produced by the National Dissemination Center for Children with Disabilities (NICHCY), which are available via the Center for Parent Information and Resources (<http://www.parentcenterhub.org>).
- The Early Childhood Technical Assistance Center provides state contact information for early intervention (Part C) coordinators and for preschool programs (Section 619 coordinators) (<http://ectacenter.org>).

In addition, there are many other resources for parents seeking information about education and services for children affected by lead. Parent centers provide training and assistance to families with children with disabilities. These centers—which include parent training and information centers (PTIs) and community parent resource centers (CPRCs)—are funded through OSEP under IDEA. Parent centers serve families of children of all ages (birth to 26 years) and with all disabilities (physical, cognitive, behavioral, and emotional). Every state has at least one PTI for underserved families, and those with larger populations may have more. CPRCs provide services to underserved families in smaller geographic areas. There are currently 94 parent centers in the United States (<http://www.parentcenterhub.org>). Additionally, pediatric health care providers, public schools, and local health departments are familiar with Child Find screening requirements and can refer children.

### **Part C: Early Intervention Services for Children Under Age 3**

Since 1986, the IDEA Part C program has provided for early intervention services to infants and toddlers with disabilities to improve outcomes and prepare them to successfully transition to preschool and kindergarten. Part C authorizes assistance to state and local programs to serve children from birth through age 2 (through the 35th month of age), also known as “zero to three” or “infants and toddlers.”

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Part C has five main purposes:

- 1) To enhance the development of infants and toddlers to minimize their potential for developmental delays, recognizing that significant brain development occurs during a child's first three years.
- 2) To reduce the educational costs to society, including the nation's schools, by minimizing the need for special education and related services after infants and toddlers reach school age.
- 3) To maximize the potential of individuals with disabilities to live independently.
- 4) To enhance families' capacities to meet the needs of their children with disabilities.
- 5) To enhance the capacities of state and local agencies and service providers to identify, evaluate, and meet the needs of all children, particularly minority, low-income, inner-city, and rural children and infants and toddlers in foster care (20 U.S.C. § 1431 (a)).

Part C provides funding for services to infants and toddlers. Infants and toddlers who qualify for the services must meet their state's eligibility definition of developmental delay or have a diagnosed physical or mental condition that carries a high probability of causing developmental delays (20 U.S.C. § 1432(5)). Part C regulations identify required services that may include speech-language services, occupational therapy, physical therapy, and special instruction. There are also services that must be provided at no cost to the family; they include child find, evaluation and assessment, service coordination, individual family service planning, and procedural safeguards. After a child is referred and evaluated to determine eligibility and service needs, a team of professionals and the child's parents meet to develop a written plan for providing early intervention services to the child and family. This document is called the individualized family service plan (IFSP).

Infants and toddlers with disabilities are defined as children who

- 1) Are experiencing developmental delays, as measured by appropriate diagnostic instruments and procedures, in one or more of the following five areas: cognitive development, physical development, communication development, social or emotional development, or adaptive development **OR**
- 2) Have a condition of established risk, which is defined as "a diagnosed physical or mental condition which has a high probability of resulting in developmental delay" whether or not a measurable delay has been identified (<http://aspe.hhs.gov/hsp/08/devneeds/apa.htm>). Children affected by lead may qualify under this definition.

States have the discretion to provide services to infants and toddlers who are at risk for substantial developmental delays if they do not receive appropriate early intervention services (20 U.S.C. § 1432(1); 20 U.S.C. § 1432(5)(B)).

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Established risk conditions include (<http://aspe.hhs.gov/hsp/08/devneeds/apa.htm>), but are not limited to,

- chromosomal abnormalities, genetic or congenital disorders, severe sensory impairments, including hearing and vision;
- inborn errors of metabolism, disorders reflecting disturbance of the development of the nervous system, congenital infections;
- disorders secondary to exposure to toxic substances, including fetal alcohol syndrome; and
- severe attachment disorders.

States have considerable discretion in establishing Part C eligibility because they define criteria for the developmental delay that an infant or toddler must be either experiencing or have a high probability of experiencing as a result of a diagnosed established risk condition. The federal regulation does not explicitly mention lead exposure for Part C eligibility. States may include a child who is at risk for experiencing developmental delays because of biological or environmental factors that can be identified (20 U.S.C. § 1432(3)(B); 34 C.F.R. § 303.10). In the discussion of public comments accompanying the final regulation related to optional coverage of at-risk children, mandatory referrals for children who have been exposed to “lead paint,” (76 Fed.Reg. 60140) was not included in the regulation, thus allowing states to have flexibility to designate subgroups at risk.

According to a 2012 survey of states’ early intervention program documents, eight states explicitly mention lead exposure as an eligible condition for services or tracking (i.e., either by itself or in combination with its adverse effect on educational performance). Another 12 states specify BLL thresholds ranging from >10 µg/dL to >45 µg/dL as a criteria for early intervention eligibility. Thirteen states mention nonspecific “toxic” exposures as eligibility criteria (see Appendix 2).

Although Part C is primarily for children under 3 years of age, states have the option of extending services until the child is eligible under state law to enter kindergarten or elementary school, as appropriate. This option reduces the need for an additional transition to separate preschool services before the transition to primary school.

The state-designated Part C lead agency is typically the agency responsible for health or rehabilitative services and facilitates linkages to Medicaid and early intervention service providers. Also, some state education agencies operate their states’ Part C program. Informational resources and research findings about IDEA Part C—including program contact information, state Part C regulations, and state eligibility definitions—can be found at <http://ectacenter.org/partc/partc.asp>.

**Part B: Special Education for Children, 3–21 Years Old**

IDEA Part B is the federal special education law for children ages 3–21 with disabilities, whose purpose is

- a) To ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living.
- b) To ensure that the rights of children with disabilities and their parents are protected.

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- c) To assist states, localities, educational service agencies, and federal agencies to provide for the education of all children with disabilities.
- d) To assist states in the implementation of a statewide, comprehensive, coordinated, multidisciplinary, interagency system of early intervention services for infants and toddlers with disabilities and their families.
- e) To ensure that educators and parents have the necessary tools to improve educational results for children with disabilities by supporting system improvement activities; coordinated research and personnel preparation; coordinated technical assistance, dissemination, and support; and technology development and media services.
- f) To assess and ensure the effectiveness of efforts to educate children with disabilities.

As noted above, public school districts and charter schools are the lead agencies for Part B, including the Section 619 Preschool Program. Part B requires that schools provide special education and related services to eligible children in the least restrictive environment and to comply with important specifications regarding processes, payment, quality assurance, parental rights, dispute resolution, and other administrative aspects. As with Part C, states issue their own regulations that must comply with federal requirements for Part B, at a minimum, and may contain additional services or requirements. (Links to state Part B regulations can be found at <http://idea.ed.gov/explore/home>).

Despite the variation by state, the core elements of the Part B process, described below, are consistent.

1. Child is identified as possibly needing special education services. As with Part C, children may be identified by Child Find or by an individual request from a parent/guardian, health care provider, or social service provider. Schools may also initiate an evaluation.
2. Child is evaluated. The purpose of this multidisciplinary evaluation is to determine if the child has a disability that requires special education and related services.
3. Eligibility for special education is decided. School professionals and the parents together review the evaluation findings and make a determination as described in 34 CFR § 300.301-306.
4. Child is determined to be eligible for services.
5. Individualized education program (IEP) meeting is scheduled and must be held within 30 days of eligibility determination.
6. Team meeting is held to write the IEP with parental participation.
7. Services are provided consistent with the developmental problems outlined in Chapter 4.
8. Progress is measured and reported to parents through the report card or as requested at any time by parents. Parents can initiate a process to evaluate progress toward IEP goals more frequently based on their child's needs.
9. IEP is reviewed [at least annually].
10. Child is reevaluated, at least every 3 years, to ensure that academic transitions have been successful as described in Chapter 4.

Students who meet both the following conditions are eligible for Part B special education services under IDEA (20 U.S.C. § 1401(3)(A); 34 C.F.R. § 300.8(a)):

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- The student must be determined to have one (or more) of the 13 disabilities listed in the IDEA.
- The student must, as a result of that disability, need special education to make progress in school and to receive benefit from the general educational program.

Children affected by lead maybe eligible because they have “other health impairment,” a specific learning disability or, if 3–9 years old, they are experiencing developmental delay as defined by the state. In states where lead poisoning is not specified as a disability, the child may qualify under the “other health impairments” option. If a child is determined to have a disability yet not be in need of special education, he or she may still be eligible under an optional designation known as “developmental delay.” Under this designation, states can provide special education services to young children (ages 3–9) who are experiencing developmental delays but do not satisfy the criteria for a disability category. This approach avoids the need to diagnose specific learning disabilities, which some have argued is inaccurate and inappropriate for young children, and avoids labeling them at such a young age and stage of development. [Table 4 summarizes potential eligibility categories.]

States may decide whether to use a developmental delay designation, how to define it, and what age ranges it should apply to. The second Part B condition also applies as well: Even if a developmental delay is identified, a child must be shown to need special education in order to be eligible for services. [For more information, see <http://www.ectacenter.org/~pdfs/pubs/nnotes27.pdf>].

Children affected by lead may be eligible for Part B special education in several ways. First, they may qualify as having an “other health impairment,” which is one of the 13 disability categories listed in IDEA. The federal statute explicitly includes lead poisoning as a covered impairment. Second, a child might have a “specific learning disability,” which is another of the 13 IDEA disability categories (see Appendix 3 for a list of the specific disabilities). In both cases, a child would also have to meet the second criterion of needing special education as a result of the health condition. Finally, in some states, children affected by lead might be found to have developmental delays consistent with the state’s definition.

#### **Part B: Section 619 Preschool**

Young children aged 3 to 5 or, at the state’s discretion, those who will turn 3 during the school year and who have been identified as having any of the conditions named in Part B, including developmental delays, are eligible to receive services under the Section 619 (20 U.S.C. § 1419(a)). Just like school-age children, preschoolers with disabilities are entitled to special education and related services in the least restrictive environment (20 U.S.C. § 1412(a)(5)). Each state has a designated individual who is responsible for coordinating the state’s Section 619 Preschool Grant. (For more information, see <http://ectacenter.org/sec619/sec619.asp#contact>).

The 2004 reauthorization of IDEA allows local educational agencies to use up to 15% of funds received under Part B to develop and apply coordinated early intervening service (CEIS) for students without disabilities. Unlike Part C early intervention, which provides services for children birth through age 2, Part B CEIS provides non-special education services to students in kindergarten through grade 12 (with primary focus on children in kindergarten through grade 3). In particular, CEIS provides for those who

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have not been identified as needing special education or related services, but who need additional academic and behavioral supports to succeed in a general education environment.

CEIS requires that schools use a scientifically based academic and behavioral intervention as emphasized by the No Child Left Behind Act (34 C.F.R. § 300.226(b)). This has resulted in two major intervention models (U.S. Department of Education 2004):

- Response to Intervention for children who are struggling academically.
- Positive Behavioral Support for children who have problem behaviors.

Thus, a local educational agency could possibly explore using CEIS funds to develop a monitoring plan within a scientific research-based intervention framework for addressing the needs of lead-affected students who have reading, math, or behavioral problems but are not identified as having disabilities under IDEA or Section 504.

There are public agencies and private sector organizations that have developed extensive informational, training, and reference materials on special education under IDEA targeted to specific audiences. These agencies may be able to help parents and caregivers assess which services their children would be able to access and which agencies to contact regarding assessments and interventions.

Detailed information on Part B is available from the U.S. Department of Education (<http://idea.ed.gov>). Guides written for parents are available from various sources, including the Center for Parent Information and Resources (<http://www.parentcenterhub.org/>). In all cases, parents will need to focus specifically on what their state and local school districts do to administer and implement these regulations.

### **Rehabilitation Act of 1973, Section 504: Federal Civil Rights Protections**

Section 504 of the Rehabilitation Act of 1973 is a federal civil rights law that protects individuals with disabilities in programs that receive federal financial assistance. The regulations provide two additional layers of protection:

- 1) Ensuring services for children with disabilities who are not eligible for IDEA.
- 2) Requiring that schools meet the specialized needs of all children with disabilities while providing access to the same resources provided to children who do not have disabilities.

Section 504 provides that, "No otherwise qualified individual with a disability in the United States ... shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance..." (29 U.S.C. § 794).

While not an education-specific law, Section 504 applies to public school districts, state and local education agencies, and institutions of higher learning, among others. Section 504 regulations require school districts to provide a "free appropriate public education" to each qualified person with a

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disability who is in the school district's jurisdiction, regardless of the nature or severity of the person's disability. Under the regulations a free appropriate public education consists of the provision of regular or special education and related aids and services designed to meet the student's individual educational needs as adequately as the needs of nondisabled students are met (34 C.F.R. § 104.33).

Section 504 regulations define a person with a disability<sup>1</sup> as "any person who: (i) has a physical or mental impairment which substantially limits one or more major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment" (34 C.F.R. § 104.3). The regulations also define learning as a major life activity. Under Section 504, lead-exposed students may have impairment (lead poisoning) that substantially affects their major life activities, such as learning and attention. Due to a broader definition of disability, Section 504 covers more children than IDEA does. Another important difference between IDEA and Section 504 is that 504 does not provide funding for services.

Under the law, recipients of federal funding are required to eliminate barriers that prevent students with covered disabilities from participating fully in the programs offered. Schools must make necessary accommodations and provide support to allow qualified students to participate. Federal regulations specify that an appropriate education includes the following:

- Education services designed to meet the individual education needs of students with disabilities as adequately as they meet the needs of nondisabled students.
- The education of each student with a disability with nondisabled students, to the maximum extent appropriate to the needs of the student with a disability.
- Evaluation and placement procedures established to guard against misclassification or inappropriate placement of students, and a periodic reevaluation of students who have been provided special education or related services.
- Establishment of due process procedures that enable parents and guardians to receive required notices; review their child's records; and challenge identification, evaluation, and placement decisions.

School districts typically have documented processes that they follow and designated personnel to coordinate and document implementation. The typical process for provision of Section 504 services in schools begins with a team meeting to review a student's circumstances; plan an evaluation (if necessary); and provide services, accommodations, or modifications based upon the student's needs. This plan could include modified schedules, alternative test settings, extra time to complete projects, reasonable modification of policy or procedures, and other reasonable accommodations to the

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<sup>1</sup>The regulations actually use the term "handicapped" rather than "disability." However, because the common usage is "disability," we use that term rather than "handicapped."

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student's disability. While Section 504 regulations specify various due-process requirements, the law does not contain set time limits for schools to act.

**Americans with Disabilities Act**

Since 1990, the Americans with Disabilities Act (ADA) has provided federal civil rights protection for people with disabilities. ADA applies to all state and local government programs, including public schools. The Americans with Disabilities Act Amendments Act of 2008 (ADAAA) restored the scope of protections intended in the original 1990 ADA that had been limited by court rulings in the interim. Similar to Section 504, the ADA defines a "disability," in part, as a physical or mental impairment that substantially limits a major life activity of an individual. ADAAA did not revise its definition of disability, but broadened its interpretation to include an expanded list of illustrative major life activities, along with other clarifications about determining impact of disabilities on these activities. Of particular relevance to lead-poisoned children, major life activities now include learning, reading, concentrating, and thinking, among others. These changes may enable more students to be considered eligible under Section 504. The law also made the ADA definition of "individual with a disability" applicable to the Rehabilitation Act.

ADAAA also adds a new category by stating that a major life activity includes "the operation of a major bodily function" including but not limited to neurological and brain functions. In addition, the law makes clear that an impairment that substantially limits a major life activity need not also limit other major life activities in order to be considered a disability. Moreover, it clarifies that impairments that are episodic or in remission are considered disabilities if the impairment would substantially limit a major life activity when the condition is considered in its active status (Pub. L. 110-325, § 4).

ADAAA makes clear that no child should have the door to Section 504 shut because of old, outdated ADA law. ADAAA contains an amendment that amends the Rehabilitation Act of 1973 to ensure that entities such as "public schools, institutions of higher education, childcare facilities, and other entities receiving federal funds" operate under "one consistent standard" because these entities are required to comply with both laws (Congressional Record, Vol. 154, No. 147, Sept. 16, 2008, p. S8843). The ADA aspects of ADAAA are also relevant as youth with disabilities transition from school into employment. These changes may enable more students, including those who are affected by lead, to be considered eligible under Section 504.

**Medicaid: Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)**

The EPSDT program is a comprehensive and preventive child health program that emphasizes the early assessment of children's health care needs. The EPSDT program requires state Medicaid agencies to cover necessary health care, diagnostic services, and treatment to correct and ameliorate defects and physical and mental illnesses and conditions discovered by screening of individuals aged 21 years and younger ([http://www.medicaid.gov/medicaid-chip-program-information/by-topics/financing-and-reimbursement/downloads/2003\\_sbs\\_admin\\_claiming\\_guide.pdf](http://www.medicaid.gov/medicaid-chip-program-information/by-topics/financing-and-reimbursement/downloads/2003_sbs_admin_claiming_guide.pdf)). The scope of covered services can be broader than what is otherwise included under a state's Medicaid state plan in general. Covered under EPSDT, children enrolled in Medicaid are required to have a blood lead test at about 12 months and again at about 24 months. If the child is 3 to 5 years of age and does not have a record of any previous

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### Educational Interventions for Children Affected by Lead

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blood lead test, the child should receive a blood lead test. In addition, a child must be tested if the parent, guardian, or provider requests blood lead testing due to suspected exposure.

In many states, schools play a large role in many EPSDT activities, particularly with respect to outreach, screening, diagnosis, and treatment.

School-based health services are important to ensuring that children and adolescents receive needed health care in a setting that is appropriate and with minimum disruption of education. Many school-based health programs deliver services that are covered by Medicaid. For Medicaid to cover these services, they must be primarily medical and not educational in nature, medically necessary for the child, and provided by a qualified Medicaid provider to families that meet income eligible requirements (i.e., not provided free of charge to non-Medicaid children). These can include

- Routine and preventive screenings and examination including blood lead testing and follow-up for BLLs,
- Diagnosis and treatment of acute uncomplicated problems,
- Monitoring and treatment of chronic medical conditions, and
- Provision of medical services to children with disabilities under the IDEA.

States and schools have flexibility in how they choose to implement these services. To gain access to the most appropriate services for their child, parents and caregivers will have to determine how the services are implemented in their jurisdiction.

### American Academy of Pediatrics Recommendations

- If a child has had a venous BLL  $\geq 5$   $\mu\text{g}/\text{dL}$  before age 6 years, that child should have annual developmental surveillance and screening at ages 3, 4 and 5 years.
- For children with a venous BLL  $\geq 5$   $\mu\text{g}/\text{dL}$  at any age, developmental surveillance during medical visits should continue annually (no age limit) to identify emerging or unaddressed behavioral/developmental/cognitive concerns.
- For children of any age, if problems/issues arise between annual visits, parents should be encouraged to bring them to attention of the appropriate school personnel or clinician.

(<http://www.health.state.mn.us/divs/fh/mch/ctc/factsheets/lead.pdf>)

Every child less than 3 years old should have developmental surveillance (also called “developmental monitoring”) and screening as proposed by the American Academy of Pediatrics (AAP)—surveillance at every well-child visit and screening at 9 months, 18 months, and either 24 or 30 months (AAP 2006). CDC’s *Learn the Signs. Act Early* program provides information and tools to help parents of all young children, healthcare providers, and early educators monitor young children’s development and act early

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**Educational Interventions for Children Affected by Lead**

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if there is a concern. ([www.cdc.gov/actearly](http://www.cdc.gov/actearly)). Developmental screening is now considered a covered preventive health service under the Patient Protection and Affordability Act (ACA 2010).

**Title V: Maternal and Child Health Services Block Grant Program**

For over 75 years, the federal Title V Maternal and Child Health program has provided a foundation for ensuring the health of the nation's mothers, women, children, and youth, including children and their families. At least 30% of the federal Title V funds are designated for services for children with special health care needs. States can use these funds to provide education and counseling to families with BLLs at or above 5 µg/dL (for example, Louisiana 2013). Specifically, the Title V Maternal and Child Health program seeks to

- Assure access to quality care, especially for those with low-incomes or limited availability of care,
- Reduce infant mortality,
- Provide and ensure access to comprehensive prenatal and postnatal care to women (especially low-income and at-risk pregnant women),
- Increase the number of children receiving health assessments and follow-up diagnostic and treatment services,
- Provide and ensure access to preventive and child care services as well as rehabilitative services for certain children,
- Implement family-centered, community-based systems of coordinated care for children with special healthcare needs, and
- Provide toll-free hotlines and assistance in applying for services to pregnant women with infants and children who are eligible for Title XIX (<http://mchb.hrsa.gov/programs/titlevgrants/>).

States and jurisdictions use their Title V funds to design and implement a wide range of activities that address national and state needs. Unique in its design and scope, the Maternal and Child Health Block Grant

- Focuses exclusively on the entire maternal and child health population;
- Encompasses infrastructure, population-based, enabling, and direct services for the maternal and child health population;
- Requires a unique partnership arrangement between federal, state, and local entities;
- Requires each state to work collaboratively with other organizations to conduct a statewide comprehensive needs assessment every 5 years;

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**Educational Interventions for Children Affected by Lead**

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- Requires each state—based on the findings of the needs assessment—to identify priorities to comprehensively address the needs of the maternal and child health population and guide the use of the Maternal and Child Health Block Grant funds; and
- May serve as the payer of last resort for direct services for the maternal and child health population that are not covered by any other program.

**IDEA/ADA Resources**

Resources on understanding and using IDEA and ADA can be found at the following websites:

- National Dissemination Center for Children with Disabilities (<http://www.parentcenterhub.org/>).
- IDEA Parent Guide (<https://www.understood.org/en/tools/through-your-childs-eyes>).
- Free Appropriate Public Education for Students with Disabilities: Requirements under Section 504 of the Rehabilitation Act of 1973 (<http://www2.ed.gov/about/offices/list/ocr/docs/edlite-FAPE504.html>)
- Coordinated Early Intervention Services (CEIS) ([http://www2.ed.gov/policy/speced/guid/idea/ceis\\_pg3.html](http://www2.ed.gov/policy/speced/guid/idea/ceis_pg3.html)).

## Educational Interventions for Children Affected by Lead

**Table 2: Summary of Educational Resources: The Individuals with Disabilities Education Act (IDEA)**

This table displays federal statute and grant funding that ensures free and appropriate education for children with a specific disability as defined by IDEA.

Provision	Population	Services	Key Element	Activities
<b>IDEA: Child Find</b>	Children from birth–21 years of age, including those enrolled in all public and private schools.	Policies and procedures to identify, locate, and evaluate children suspected of having a disability.	Coordination with referral sources such as physicians and agencies.	Public awareness, referral, screening, eligibility determination, tracking, and interagency coordination.
<b>IDEA: Part B</b>	Children 3–21 years of age.	Provides for special education and related services.	Individualized education program (IEP) specifying services and supports the child will receive.	Education in the least restrictive environment appropriate.  Early intervening services provide additional support to struggling students in general classroom.
<b>IDEA: Part B, Section 619</b>	Children 3–5 years of age (Section 619 preschool program).	Provides grants for preschool services.	Children with disabilities receiving services in inclusive settings.	Transition activities between IDEA Part C and Part B.
<b>IDEA: Part C</b>	Children birth through third birthday.  State option—extended Part C service from third birthday through kindergarten.	Provides early intervention services for infants and toddlers with developmental delays or diagnosed conditions with high probabilities of resulting in developmental delays.	Uses an individualized family service plan (IFSP) specifying services for a child and his/her family.	Provides services and education to children in their natural environment.
<b>IDEA: Part B, CEIS</b>	Students from kindergarten through grade 12 (with a focus on kindergarten through grade 3).	Provides scientifically based academic and behavioral interventions.		Professional development for teachers and other school staff in scientifically based academic and behavioral interventions, including literacy instruction and, where appropriate, instruction on the use of adaptive and instructional software.  Providing educational and behavioral evaluations, services, and supports, including scientifically based literacy instruction.

## Educational Interventions for Children Affected by Lead

**Table 3: Summary of Educational Resources: Provisions under Section 504, ADA, ADA, EPSDT**

This table displays federal statute and grant funding that ensures free and appropriate education for children with a specific disability as defined by Section 504, ADA, and EPSDT.

<b>Provision</b>	<b>Population</b>	<b>Services</b>	<b>Key Element</b>	<b>Activities</b>
<b>Section 504 of the Rehabilitation Act of 1973</b>	Individuals with disabilities in any institution, school, or agency receiving federal funding.  <i>Children with disabilities eligible under Section 504 are not necessarily eligible under IDEA because of the broader disability definitions under Section 504.</i>	Protects rights of those in the Population column.  Requires a school district to provide a “free appropriate public education” to each qualified person with a disability who is in the school district’s jurisdiction, regardless of the nature or severity of the person’s disability.	Generally regarded as the basis for disability protection in the schools.  Schools provide accommodations, supports, and aides necessary for child to receive education comparable to the one provided to general students.	No additional funds are provided to state or local school districts.  IDEA funds may not be used for children eligible under 504 only.
<b>Americans with Disabilities Act, as amended by the Americans With Disabilities Act Amendments Act of 2008 (ADA)</b>	People with disabilities.  <i>Title II makes ADA applicable to all state and local government programs, including public schools.</i>	Provides federal civil rights protection for those in the Population column.  Restored the scope of protections intended in the original 1990 ADA that were limited by court rulings in the interim.  Made the ADA definition of “individual with a disability” applicable to the Rehabilitation Act.	ADA left unchanged the definition of disability but broadened its interpretation to include an expanded list of illustrative major life activities to show limitation and removes consideration of mitigation measures.	These changes may enable more students to be considered eligible under Section 504.

## Educational Interventions for Children Affected by Lead

Provision	Population	Services	Key Element	Activities
Medicaid: EPSDT	Children eligible for Medicaid	<p>EPSDT screening may identify children with disabilities needing special education services or accommodations.</p> <p>Requires screening for blood lead level at specified ages.</p> <p>Agencies implementing IDEA must coordinate with Medicaid.</p> <p>Schools may be reimbursed for certain medical services under Medicaid; IDEA is funder of last resort for medical services.</p>		

Table 4: Potential Eligibility of Children with Lead Exposure/Poisoning

Provision	Requirement for Disability	Basis for Eligibility of Lead Poisoned Children	Comment
IDEA: Part B (including Section 619 Preschool)	<p>Child aged 3 to 21 must have one (or more) of 13 disabilities listed in IDEA and, as a result of that disability, need special education (20 U.S.C. §§ 1401(3)(A), 1412(a)).</p> <p>In some states, a child aged 3–9 who is experiencing developmental delays, as defined by the state (20 U.S.C. § 1401(3)(B)).</p>	<p>Other health impairment is one of the 13 disabilities in IDEA, with lead poisoning explicitly included in statute as a covered impairment (34 C.F.R. § 300.8(c)(9)(i)).</p> <p>Specific learning disability is also one of the 13 disabilities listed in IDEA (34 C.F.R. § 300.8(c)(10)).</p> <p>In some states, children affected by lead with lead poisoning might be eligible if they are determined to have developmental delays (20 U.S.C. § 1401(3)(B)).</p>	<p>Note that lead poisoning is not sufficient alone; the condition must also adversely affect the child's educational performance (20 U.S.C. § 1401(3)(A)(ii)). Also, neither the statute nor the regulation specifies a definition for lead poisoning.</p>

## Educational Interventions for Children Affected by Lead

Provision	Requirement for Disability	Basis for Eligibility of Lead Poisoned Children	Comment
<b>IDEA: Part C</b>	Infants and toddlers are eligible for early intervention if they meet the State's definition of developmental delay or have a condition with a high probability of developmental delays (20 U.S.C. §§ 1432(5)(A), 1435 (a)(2)).	Examples of these conditions include disorders reflecting disturbance of the development of the nervous system and disorders secondary to exposure to toxic substances. ( <a href="http://aspe.hhs.gov/hsp/08/devneeds/apa.htm">http://aspe.hhs.gov/hsp/08/devneeds/apa.htm</a> ).	Under the most recent regulations, states must develop rigorous definitions of developmental delay (34 C.F.R. § 303.111).
<b>ADA and Section 504 of the Rehabilitation Act</b>	Individuals who have or had a physical or mental impairment that substantially limits a major life activity such as walking, seeing, hearing, thinking, reading, learning, or concentrating (42 U.S.C. § 12102(1)-(3)).	Federal regulations have expanded the interpretation of the term "major life activities" to include learning and reading, among others (45 C.F.R. § 84.3; 28 C.F.R. § 104).	Does not require that a child needs special education to qualify (45 C.F.R. § 84.33(b)).

Educational Interventions for Children Affected by Lead

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**Figure 1: The Connecticut Model for Providing Education Services to Preschool Children Affected by Lead**

(Connecticut Department of Education 2012)

- FIGURE 1
- Develop monthly annual review /a accommodation
  - Make referral to readiness, other

Educational Interventions for Children Affected by Lead

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**Figure 2: The Connecticut Model for Providing Education Services to K–12 Students Affected by Lead**

(Connecticut Department of Education 2012)

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**Educational Interventions for Children Affected by Lead**

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**Chapter 7: Services Available for Lead-Exposed Children**

This chapter provides a summary of the services available for children with learning disabilities under IDEA. The expert panel identified some opportunities to increase access to these services for children affected by lead.

**The Education Community and the Child Affected by Lead**

The specific effects of lead on children's academic and behavioral outcomes are not well known within education and other fields responsible for achieving the nation's ambitious academic goals. Similar to children with traumatic brain injury (Wayne et al. 2013), children who have been exposed to lead may not be identified in school records or appropriately tracked. Therefore, problems triggered by lead may never receive the appropriate response. Professionals in the fields of early intervention, early childhood, and elementary and secondary education need information from lead poisoning prevention programs and providers to ensure that they understand and fulfill their unique roles.

Children with BLLs at or above the CDC reference value for lead (5 µg/dL in 2012) are at greater risk for developmental delay and behavioral issues that result in academic failure and diminished life success compared to children who do not have a history of HBLLs. Some children are more affected than others by a given blood lead concentration, will experience different levels of delay, and require different interventions (CDC 2002). Thus it is important that children are screened for adverse neurocognitive effects using the appropriate screening tools. Connecting at-risk children to early intervention services is likely key to reducing long term effects. Also, educators, parents, and health care providers can identify delays at critical transition points in educational expectations such as first, fourth, and sixth grades (see Chapter 3). Affected children may exhibit little to no development difficulties early in life but begin to exhibit learning delays at these transition points. Behavioral difficulties may also become apparent as the child ages and higher expectations for self-regulation and interpersonal skills are expected.

Identifying children with HBLLs is critical to determining their specific detriments and then identifying the most appropriate early or elementary school interventions necessary. Thus it is important that all children with HBLLs are screened for adverse neurocognitive effects using neuropsychological evaluation tools that provide a complete assessment to identify the complex subsystems in the brain that work differently when affected by lead. While no specific intervention programs have been demonstrated to improve outcomes for children affected by lead, there are interventions proven to help children with brain dysfunctions who have not had HBLLs and lack lead poisoning.

**U.S. Department of Education**

OSEP, within the Department of Education's Office of Special Education and Rehabilitative Services (OSERS), is responsible for administration, implementation, and monitoring of state and local service delivery under the laws described in Chapter 6.

Additionally, OSERS funds parent training and information centers to provide technical assistance and education to parents and other involved with children with developmental delays.

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**Educational Interventions for Children Affected by Lead**

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**States' IDEA Child Find Programs**

Federal regulations require that each state have a comprehensive Child Find system with the purpose of identifying, locating, and evaluating all infants and toddlers with disabilities birth to age 3 as early as possible (U.S. Department of Education OSER 2010). The Child Find system has the authority and obligation to refer children with disabilities or risk conditions—such as children who have ever had a BLL at or above the reference value—to needed early intervention services. This gateway to services could be expanded formally to better meet the needs of lead-exposed children:

- States can consider adding a member from the state's childhood lead poisoning prevention program to the required interagency coordinating council with designees who administer the Title V Maternal and Child Health, Early and Periodic Screening, Diagnosis and Treatment program (EPSDT), Medicaid, Head Start, and Developmental Disabilities programs.
- Child Find programs can consider requesting that the state's childhood lead poisoning prevention and Medicaid programs, managed care organizations, hospitals, primary care physicians, and other health care providers refer children who have ever had a BLL at or above reference value to Child Find and/or inform the parents that they can request a screening at no cost through Child Find.
- Child Find programs can consider collaborating with parent centers in outreach to parents of lead-exposed children.
- Child Find programs may consider using a neuropsychological assessment of executive function (in addition to a developmental evaluation) to identify cognitive and functional deficits in all lead-exposed children with BLLs at or above the reference value.

**States' IDEA Part C Programs (for Children under Age 3)**

Congress established the Part C program in recognition of "an urgent and substantial need" to enhance the development of infants and toddlers with disabilities and minimize the need for special education at older ages because of the early intervention. Although the state education agency is responsible for administering Part B of IDEA, some also manage the Part C program as well. However, most Part C programs are housed in state health departments and human/social services departments. A few are operated by other entities (<http://ectacenter.org/partc/ptclead.asp>).

States can consider classifying the neurocognitive and developmental deficits associated with BLLs above the current reference value as conditions that qualify for early intervention in Part C services in order to ensure that children affected by lead receive the services they need. Since some developmental problems do not manifest until later years, early intervention could be provided to fortify a child's early learning even if a developmental assessment does not yet indicate that services are needed.

**States' IDEA Part B Programs (for Children and Young People Ages 3–21 Years)**

Congress enacted Part B to ensure that all children and young people with disabilities, including those who have been identified as "other health-impaired" due to lead poisoning, have available to them a free appropriate public education that emphasizes special education and related services designed to

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### Educational Interventions for Children Affected by Lead

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meet their unique needs and prepare them for further education, employment, and independent living. State education departments are responsible for Part B implementation and compliance.

The Part B program could also work with the childhood lead poisoning prevention programs to ensure that local education agency staff members understand the scope of the childhood lead poisoning problem in their locale, geographic areas where risk is highest, and other important information to help target resources such as additional early childhood education programs.

The State Education Department could develop and ensure delivery of training and appropriate programming for educators, including special educators, in identifying lead-exposure related disabilities and behaviors that impede educational success.

### Local Education Agencies

Boards of education, school superintendents, principals, teachers, school nurses, and counselors can work with parents to ensure that children affected by lead are identified, assessed and receive educational support. School districts can develop policy and procedures regarding services for children who may be affected by lead, with the following possible components (See Figure 3 for a decision chart):

- Request that parents provide results of all blood lead tests and developmental assessments (or authorize the child's health care provider to provide this information), maintain these reports in the child's confidential school record, and consider this information in any future developmental assessment.
- Ensure that each teacher new to a child affected by lead is aware at the beginning of each school year that this lead exposure may affect health, learning, and behaviors and monitors progress of at-risk children lacking a documented BLL.
- Use Child Find processes to identify and refer as early as possible students and their families who are in need of special education under Part C or Part B of IDEA or refer to Section 504 team or planning and placement team (PPT) for determination of a disability and eligibility under Section 504.
- Develop a monitoring plan within a Scientific Research-Based Intervention (SRBI) framework to address the needs of all students ages 3–21 affected by lead, including follow-up developmental assessments annually or at least at the first and fourth grade levels, for any such children who were determined ineligible for any special education services at an earlier age. Use SRBI for students with cognitive and/or behavioral problems but not determined as having a disability under IDEA or Section 504 and monitor for progress.
- Refer students to a Section 504 team or PPT for determination of disability and eligibility under Section 504 or IDEA when indicated.
- Provide comprehensive interventions that match the needs of individual students and families for students who do not respond to the initial evidence-based interventions and follow up developmental assessment especially in executive function, language, and behavior.
- Educate school personnel about the adverse effects of HBLLs on academic performance and behavior.

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### Educational Interventions for Children Affected by Lead

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- Collaborate with parent centers, parents, and other community partners to educate families and students about the adverse effects of HBLLs on academic performance and behavior.
- Obtain census tract level blood lead data from the childhood lead poisoning prevention programs, use the data to identify populations where the risk for HBLLs is disproportionately high, and prioritize these areas for early childhood education referrals and resources.
- Communicate with the managed care organizations and other providers who serve their students regarding the needs of children affected by lead.

### Pediatric Health Care Providers

The medical home and other pediatric health care providers might consider ways to optimize the identification of children affected by lead by testing children at 12 and 24 months of age (or as recommended by their state health department) and by following AAP recommendations for developmental surveillance and referral.

The medical home model shares many of the same goals and purposes with state IDEA programs. Health care providers can proactively provide services and tools to support optimal development that is family centered and collaborates with early intervention services and services provided through the local school system (Adams et al. 2013). The medical home early intervention referral form is available at <http://www.medicalhomeinfo.org>.

Pediatric health care providers and practices might also

- Encourage parents or other caregivers to be involved in monitoring their child's development ([www.cdc.gov/actearly](http://www.cdc.gov/actearly)).
- Maintain developmental and behavioral surveillance throughout childhood and adolescence, as impacts of lead may manifest remotely from the exposure period.
- Initiate an early intervention referral (i.e., they need not wait for a specific diagnosis).
- Implement a system for referral tracking and obtain family permission at the time of the referral to facilitate communication between the early intervention program or school and the medical home.
- Become knowledgeable about state eligibility criteria and the definition of developmental delay.
- Proactively plan for children to transition from IDEA Part C programs to IDEA Part B programs.
- Submit requests to local school districts for developmental evaluations and services for children ages 3 years and older, as needed, and assist families with obtaining needed services.

### Childhood Lead Poisoning Prevention Programs

In many areas, state and local health departments provide services for children with BLLs meeting regulatory or programmatic thresholds. The BLLs that trigger services vary by jurisdiction, as does the location of the program that may be in a health department or an environmental quality department.

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**Educational Interventions for Children Affected by Lead**

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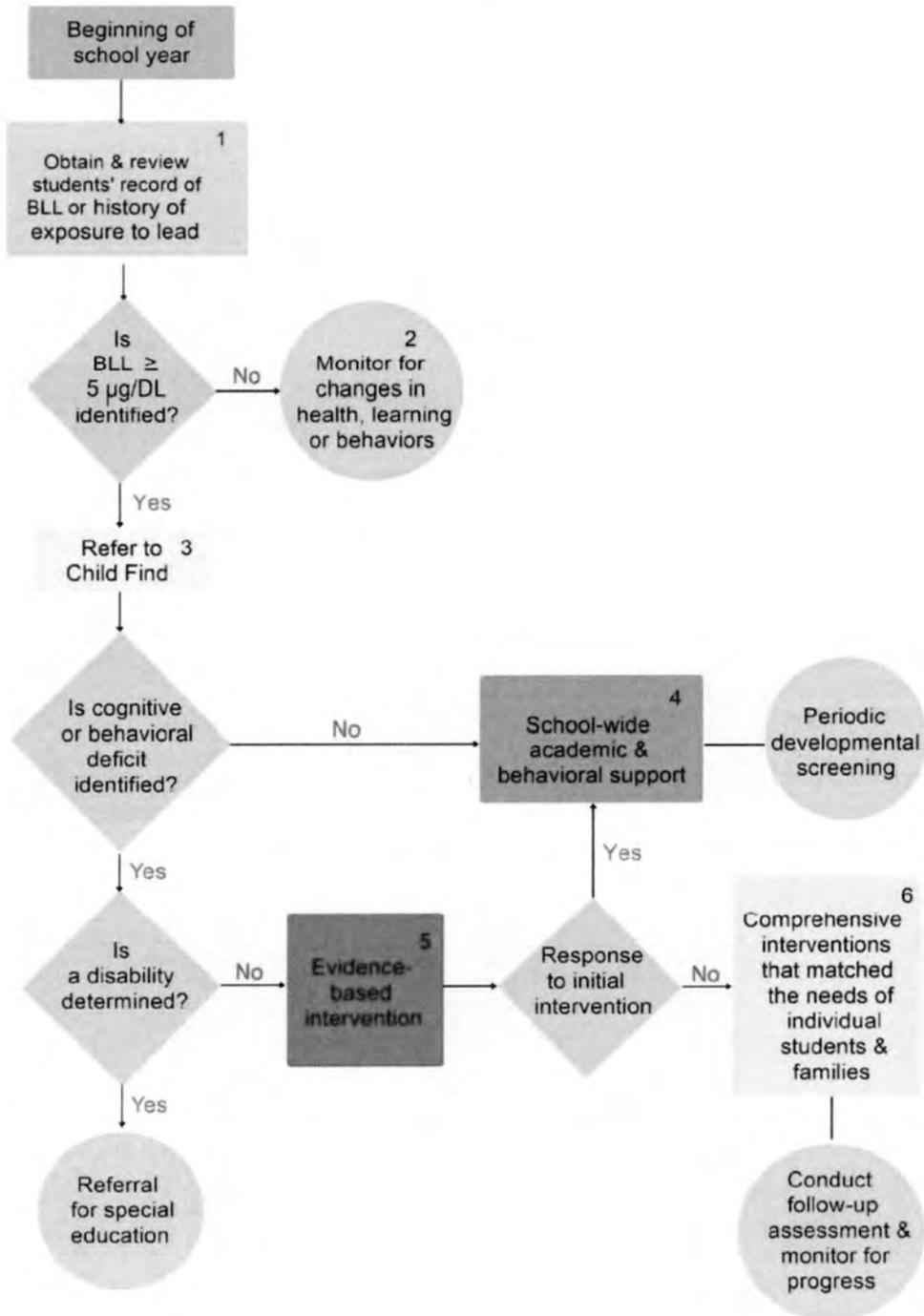
State and local childhood lead poisoning prevention programs (CLPPPs) can educate parents and health care providers. Parents and providers may need to be informed about the importance of age-appropriate blood lead testing and of primary prevention efforts. They may also need to be informed about the need for vigilance in the period after a test result and at critical transition points in educational expectations such as first, fourth, and sixth grades, and about early intervention programs and the merits of accepting a referral to them. Providers might consider performing developmental assessments known to identify the deficits associated with HBLLs and referring families of children with BLL above the reference value to Child Find and early childhood education.

CLPPPs might also

- Develop interagency agreements to provide the names of children with blood lead at or above the CDC reference value, currently 5 µg/dL, to the Child Find system for Part C (AAP 2006) and local education agency including Part B. [The National Early Childhood Assistance Center posts contact information for state coordinators at <http://www.nectac.org/search/mapfinder.asp>.]
- Consider adding referral to Child Find for Part C early intervention services to their case management protocol and track enrollment results.
- Develop a system for making contact with families to ensure that they are referred to early childhood education and in-school programs at the time the child becomes eligible (i.e., third birthday and the year the child reaches school age) even if the child has been discharged from lead case management. For example, CLPPPs can engage with the Title V Children with Special Health Care Needs state program to identify strategies for long-term follow up of lead-exposed children; parent centers and health information centers can play an advocate role with families, especially as the child and parents try to negotiate the school system.
- Enlist the Child Find agency and early intervention service providers in the screening and surveillance effort so that children identified through those systems and their siblings are screened.
- Help the Child Find agency and local education agencies to target outreach and services to children most likely to have BLLs at or above the reference value. Blood lead surveillance data can be used to determine which districts or individual schools or school feeder areas have large populations of children with BLLs  $\geq$  the reference value.

Educational Interventions for Children Affected by Lead

Figure 3: Decision Chart for Children Affected by Lead



## Appendix 1: Resources for Obtaining Services and Improving Systems

### The Early Childhood Technical Assistance Center

<http://ectacenter.org/partc/partc.asp>.

The Early Childhood Technical Assistance Center coordinates and delivers intensive technical assistance for implementing, sustaining, and scaling up evidence-based practices and serves as a national resource for states and school districts. It is a program of the Child Development Institute of the University of North Carolina at Chapel Hill. This center maintains up-to-date listings of the state agencies that coordinate Part C (e.g., the lead agencies can be found at <http://ectacenter.org/partc/ptclead.asp> and the coordinators' contact information can be found at <http://ectacenter.org/contact/ptccoord.asp>). It also provides materials that can help families and health care and social service providers learn more about the effectiveness of early intervention and early education for young children with disabilities (<http://www.ectacenter.org/topics/effective/effective.asp>).

### Parent Centers

<http://www.parentcenterhub.org/>

Parent training and information centers (PTIs) and community parent resource centers (CPRCs) provide training and assistance to the families of the nation's 7 million children with disabilities. There are currently 94 parent centers in the United States funded through the U.S. Department of Education's Office of Special Education Programs under IDEA. Every state has at least one PTI, and those with larger populations may have more. CPRCs provide services to underserved families in smaller geographic areas.

Parent centers serve families of children of all ages (birth to 26) and with all disabilities (physical, cognitive, behavioral, and emotional). The majority of parent center staff members and board members are parents of children with disabilities so they are able to bring personal experience, expertise, and empathy when working with families. Through the provision of one-to-one support and assistance, workshops, publications, and websites, the centers help families to better understand their children's disabilities and educational, developmental, and transitional needs; understand their rights and responsibilities under IDEA; and obtain appropriate services for their children through participation in the individualized education program and individualized family service plan decision making process. Parent centers work collaboratively with other local, state, and national resources that assist children with disabilities to improve outcomes for children with disabilities. They also collect and share data.

### National Coalition for Parent Involvement in Education (NCPIE)

<http://www.ncpie.org>

NCPIE's mission is to advocate the involvement of parents and families in their children's education and to foster relationships among home, school, and community to enhance the education of all of the nation's young people. NCPIE seeks to serve as a visible representative for strong parent and family

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### Educational Interventions for Children Affected by Lead

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involvement initiatives at the national level and conducts activities that involve the coalition's member organizations and their affiliates and constituencies in efforts to increase family involvement.

NCPIE was founded in 1980 at the initiative of what was then the National School Volunteer Program [now the National Association for Partners in Education] with funding from the Ford Foundation and Union Carbide. From the outset, the participating organizations included parent organizations and advocacy groups as well as national education organizations representing teachers and administrators. NCPIE is a member of the IDEA Partnership, which is dedicated to improving outcomes for students and youth with disabilities by joining state agencies and stakeholders through shared work and learning. The IDEA Partnership reflects the collaborative work of more than 50 national organizations, technical assistance providers, and organizations and agencies at the state and local level. Together with OSEP, the partner organizations form a community with the potential to transform and improve outcomes for students and youth with disabilities. For more information IDEA Partnership, go to <http://www.ideapartnership.org>.

### Association of Maternal and Child Health Programs (AMCHP)

<http://www.amchp.org>

AMCHP is a national resource, partner, and advocate for state public health leaders and others working to improve the health of women, children, youth, and families, including those with special health care needs. AMCHP also provides a forum for state leaders to improve policy, systems, services, and quality of care for maternal and child health populations.

AMCHP's members come from the highest levels of state government and include directors of maternal and child health programs, directors of programs for children with special health care needs, and other public health leaders who work with and support state maternal and child health programs. AMCHP's members administer critical public health education and screening services and coordinate preventive, primary, and specialty care. The central framework for these services is the Title V Maternal and Child Health Services Block Grant to states. Within a vast array of other services, state Title V programs ensure family-centered, community-based coordinated care for children with special health care needs, including chronic conditions and disabilities (<http://mchb.hrsa.gov/programs/titlevgrants/>).

### Family-to-Family Health Information Centers

<http://mchb.hrsa.gov/programs/familytofamily/>

These centers assure that families of children with special health care needs are able to participate in decision-making at all levels and be satisfied with the services they receive. These statewide centers are staffed by families who have children with special health care needs and, therefore, have firsthand experience navigating the maze of health care services and programs. With expertise in federal and state public and private health care systems, staff at each center assist families to make informed choices about health care in order to promote good treatment decisions, cost effectiveness, and improved health outcomes. They also provide information, training, and guidance regarding children's special health care needs; identify successful health delivery models; and model collaborations between

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families and health care providers, managed care organizations, health care purchasers, and appropriate state agencies.

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## Appendix 2: State Summary of Early Intervention Eligibility, 2013

General Mention of Lead	Mention of Specific Elevated Blood Lead Level	General Mention of Exposure to Toxic Substances	No Reference to Lead Exposure
Delaware: Lead poisoning with elevated blood levels requiring chelation.	Connecticut: $\geq 45 \mu\text{g/dL}$	Arizona	Alabama
Idaho: Illness of a chronic nature with prolonged convalescence (e.g., lead poisoning...).	Georgia: $\geq 20 \mu\text{g/dL}$	Arkansas	Alaska
Louisiana: Elevated blood lead level requiring chelation	Iowa: $\geq 20 \mu\text{g/dL}$	Hawaii	California
Nebraska: Lead poisoning	Kansas: $\geq 45 \mu\text{g/dL}$	Indiana	Colorado
New Hampshire: Lead poisoning	Michigan: $\geq 10 \mu\text{g/dL}$	Maryland	Florida
New Mexico: Central nervous system toxins, e.g., lead poisoning	Minnesota: $\geq 15 \mu\text{g/dL}$	Missouri	Illinois
Wisconsin: Central nervous system toxins, e.g., lead poisoning	Ohio: $\geq 10 \mu\text{g/dL}$	Montana	Kentucky
	Oregon: $\geq 10 \mu\text{g/dL}$	New Jersey	Maine
	Rhode Island: $\geq 15 \mu\text{g/dL}$	New York	Massachusetts
	Tennessee: $\geq 10 \mu\text{g/dL}$	North Dakota	Mississippi
	Vermont: $\geq 20 \mu\text{g/dL}$	Oklahoma	Nevada
	West Virginia: $\geq 15 \mu\text{g/dL}$	Virginia	North Carolina
		Wyoming	Pennsylvania
			South Carolina
			South Dakota
			Texas
			Utah
			Washington

Part C eligibility is determined by each state's definition of developmental delay and includes children with established physical or mental conditions with a high probability of resulting in developmental delay. States may choose to include children at risk for disabilities in the eligible group (<http://ectacenter.org/topics/earlyid/partcelig.asp>).

Federal Regulation:

**34 C.F.R. § 303.21 Infant or toddler with a disability.**

(a) *Infant or toddler with a disability* means an individual under three years of age who needs early intervention services because the individual—

(2) Has a diagnosed physical or mental condition that—

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- (i) Has a high probability of resulting in developmental delay; and
- (ii) Includes conditions such as chromosomal abnormalities; genetic or congenital disorders; sensory impairments; inborn errors of metabolism; disorders reflecting disturbance of the development of the nervous system; congenital infections; severe attachment disorders; and disorders secondary to exposure to toxic substances, including fetal alcohol syndrome.

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**Appendix 3: Federal Definitions of Child with a Disability****IDEA Part B - Assistance to States for the Education of Children with Disabilities**

34 C.F.R. §300.8 Child with a disability.

(a) *General.*

(1) *Child with a disability* means a child evaluated in accordance with §§300.304 through 300.311 as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as “emotional disturbance”), an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services.

(2)(i) Subject to paragraph (a)(2)(ii) of this section, if it is determined, through an appropriate evaluation under §§300.304 through 300.311, that a child has one of the disabilities identified in paragraph (a)(1) of this section, but only needs a related service and not special education, the child is not a child with a disability under this part.

(ii) If, consistent with §300.39(a)(2), the related service required by the child is considered special education rather than a related service under State standards, the child would be determined to be a child with a disability under paragraph (a)(1) of this section.

(b) *Children aged three through nine experiencing developmental delays.* *Child with a disability* for children aged three through nine (or any subset of that age range, including ages three through five), may, subject to the conditions described in §300.111(b), include a child—

(1) Who is experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas: Physical development, cognitive development, communication development, social or emotional development, or adaptive development; and

(2) Who, by reason thereof, needs special education and related services.

(c) *Definitions of disability terms.* The terms used in this definition of a child with a disability are defined as follows:

(1)

(i) *Autism* means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are

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engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.

(ii) Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c)(4) of this section.

(iii) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.

(2) *Deaf-blindness* means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

(3) *Deafness* means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance.

(4)

(i) *Emotional disturbance* means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:

(A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.

(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.

(C) Inappropriate types of behavior or feelings under normal circumstances.

(D) A general pervasive mood of unhappiness or depression.

(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) Emotional disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance under paragraph (c)(4)(i) of this section.

(5) *Hearing impairment* means an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this section.

(6) *Mental retardation* means significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance.

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(7) *Multiple disabilities* means concomitant impairments (such as mental retardation-blindness or mental retardation-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. Multiple disabilities does not include deaf-blindness.

(8) *Orthopedic impairment* means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by a congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

(9) *Other health impairment* means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—

- (i) Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and
- (ii) Adversely affects a child's educational performance.

(10) *Specific learning disability*—

(i) *General.* Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

(ii) *Disorders not included.* Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

(11) *Speech or language impairment* means a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance.

(12) *Traumatic brain injury* means an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. Traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

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(13) *Visual impairment including blindness* means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.

(Authority: 20 U.S.C. 1401(3); 1401(30)) [71 FR 46753, Aug. 14, 2006, as amended at 72 FR 61306, Oct. 30, 2007]

**IDEA Part C – Early Intervention Program for Infants And Toddlers with Disabilities**

34 C.F.R. §303.21 Infant or toddler with a disability.

(a) *Infant or toddler with a disability* means an individual under three years of age who needs early intervention services because the individual—

(1) Is experiencing a developmental delay, as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas:

- (i) Cognitive development.
- (ii) Physical development, including vision and hearing.
- (iii) Communication development.
- (iv) Social or emotional development.
- (v) Adaptive development; or

(2) Has a diagnosed physical or mental condition that—

- (i) Has a high probability of resulting in developmental delay; and
- (ii) Includes conditions such as chromosomal abnormalities; genetic or congenital disorders; sensory impairments; inborn errors of metabolism; disorders reflecting disturbance of the development of the nervous system; congenital infections; severe attachment disorders; and disorders secondary to exposure to toxic substances, including fetal alcohol syndrome.

(b) *Infant or toddler with a disability* may include, at a State's discretion, an *at-risk infant or toddler* (as defined in §303.5).

(c) *Infant or toddler with a disability* may include, at a State's discretion, a child with a disability who is eligible for services under section 619 of the Act and who previously received services under this part until the child enters, or is eligible under State law to enter, kindergarten or elementary school, as appropriate, provided that any programs under this part must include—

- (1) An educational component that promotes school readiness and incorporates pre-literacy, language, and numeracy skills for children ages three and older who receive part C services pursuant to §303.211; and

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(2) A written notification to parents of a child with a disability who is eligible for services under section 619 of the Act and who previously received services under this part of their rights and responsibilities in determining whether their child will continue to receive services under this part or participate in preschool programs under section 619 of the Act.

(Authority: 20 U.S.C. 1401(16), 1432(5))

## References

### Chapter 1: Introduction

- Barker DJP. 1995. Fetal origins of coronary heart disease. *BMJ* 311:171–4.
- Bellinger DC, Stiles KM, Needleman HL. 1992. Low-level lead exposure, intelligence and academic achievement: A long-term follow-up study. *Pediatrics* 90(6):855–61.
- [CDC] Centers for Disease Control and Prevention. 2002. Managing elevated blood lead levels among young children: Recommendations from the advisory committee on childhood lead poisoning prevention. Atlanta: U.S. Department of Health and Human Services.
- [CDC] Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning. 2012. Low level lead harms children. Atlanta: U.S. Department of Health and Human Services.
- Dietrich KN, Ware JH, Salganik M, Radcliffe J, Rogan WJ, Rhoads GG, et al. 2004. Treatment of lead-exposed children clinical trial group: Effect of chelation therapy on the neuropsychological and behavioral development of lead-exposed children after school entry. *Pediatrics* 114:19–26.
- [IOM] Institute of Medicine. 2000. From neurons to neighborhoods: The science of early childhood development. Washington, DC: National Academies Press.
- Gould E. 2009. Childhood lead poisoning: Conservative estimates of the social and economic benefits of lead hazard control. *Environ Health Perspect* 117:1162–7.
- Kordas K, Canfield RL, Lopez P, Rosado JL, Vargas GG, Cebrian ME, Rico JA, Ronquillo D, Stoltzfus RJ. 2006. Deficits in cognitive function and achievement in Mexican first-graders with low blood lead concentrations. *Environ Res* 100:371–386.
- Lanphear B. 2005. Childhood lead poisoning: Too little too late. *JAMA* 293:2274–6.
- Rico JA, Kordas K, López P, Rosado JL, Vargas GG, Ronquillo D, et al. 2006. Efficacy of iron and/or zinc supplementation on cognitive performance of lead-exposed Mexican schoolchildren: A randomized, placebo-controlled trial. *Pediatrics* 117:e518–27.
- Ris MD, Dietrich KN, Succop PA, Berger OG, Bornschein RL. 2004. Early exposure to lead and neuropsychological outcome in adolescence. *J Int Neuropsychol Soc* 10:261–70.
- Rogan WJ, Dietrich KN, Ware JH, Dockery DW, Salganik M, Radcliffe J, et al. 2001. The effect of chelation therapy with succimer on neuropsychological development in children exposed to lead. *N Engl J Med* 344:1421–6.
- Tong S, Baghurst P, McMichael A, Sawyer M, Mudge J. 1996. Lifetime exposure to environmental lead and children's intelligence at 11-13 years: The Port Pirie Cohort study. *BMJ* 312:1569–75.

## Chapter 2: Neurodevelopmental Consequences of Lead Exposure

[APA] American Psychiatric Association. 2013. Diagnostic and statistical manual of mental disorders, 5th edition revised. Washington, DC: American Psychiatric Association.

al-Saleh I, Nester M, DeVol E, Shinwari N, Munchari L, al-Sahria AS. 2001. Relationships between blood lead concentrations, intelligence, and academic achievement of Saudi Arabian schoolgirls. *Int J Hyg Environ Health* 204: 165–174.

Baghurst PA, McMichael AJ, Wigg NR, Vimpani GV, Robertson EF, Roberts RJ, et al. 1992. Environmental exposure to lead and children's intelligence at the age of seven years: The Port Pirie cohort study. *N Engl J Med* 327:1279–84.

Baghurst PA, McMichael AJ, Tong S, Wigg NR, Vimpani GV, Robertson EF. 1995. Exposure to environmental lead and visual-motor integration at age 7 years: The Port Pirie cohort study. *Epidemiology* 6:104–9.

Bellinger D. 1995a. Interpreting the literature on lead and child development: The neglected role of the "experimental system." *Neurotoxicol Teratol* 17:201–12.

Bellinger D. 1995b. Neuropsychological function in children exposed to environmental lead. *Epidemiology* 6:101–3.

Bellinger D, Hu H, Titlebaum L, Needleman HL. 1994. Attentional correlates of dentin and bone lead levels in adolescents. *Arch Environ Health* 49:98–105.

Bellinger DC, Needleman HL. 2003. Intellectual impairment and blood lead levels. *N Engl J Med* 349:500–2.

Benetou-Marantidou A, Nakou S, Micheloyannis J. 1988. Neurobehavioral estimation of children with life-long increased lead exposure. *Arch Environ Health* 43:392–5.

Bhattacharya A, Shukla R, Dietrich K, Bornschein R. 2006. Effect of early lead exposure on the maturation of children's postural balance: A longitudinal study. *Neurotoxicol Teratol* 28:375–85.

Biederman J, Monuteaux MC, Doyle AE, Seidman LJ, Wilens TE, Gorrero F, et al. 2004. Impact of executive function deficits and attention deficit/hyperactivity disorder (ADHD) on academic outcomes in children. *J Consult Clin Psychol* 72:757–66.

Braun JM, Kahn RS, Froehlich T, Auinger P, Lanphear BP. 2006. Exposure to environmental toxicants and attention deficit hyperactivity disorder in U.S. children. *Environ Health Perspect* 114:1904–9.

Braun JM, Froehlich TE, Daniels JL, Dietrich KN, Hornung R, Auinger P, Lanphear BP. 2008. Association of environmental toxicants and conduct disorder in U.S. children: NHANES 2001–2004. *Environ Health Perspect* 116:956–62.

---

**Educational Interventions for Children Affected by Lead**

---

Brubaker CJ, Schmithorst VJ, Haynes EN, Dietrich KN, Egelhoff JC, Lindquist DM, et al. 2009. Altered myelination and axonal integrity in adults with childhood lead exposure: A diffusion tensor imaging study. *Neurotoxicology* 30:867–75.

Buchanan LH, Counter SA, Ortega F. 2011. Environmental lead exposure and otoacoustic emissions in Andean children. *J Toxicol Environ Health A* 74(19):1280–93.

Burns JM, Baghurst PA, Sawyer MG, McMichael AJ, Tong SL. 1999. Lifetime low-level exposure to environmental lead and children's emotional and behavioral development at ages 11-13 years: The Port Pirie Cohort Study. *Am J Epidemiol* 149:740–9.

Byers RK. 1959. Lead poisoning: review of the literature and report on 45 cases. *Pediatrics* 23:585–603.

Byers RK, Lord EE. 1943. Late effects of lead poisoning on mental development. *Am J Dis Child* 66:471–94.

Campbell TF, Needleman HL, Riess JA, Tobin MJ. 2000. Bone lead levels and language processing performance. *Dev Neuropsychol* 18:171–86.

Canfield RL, Henderson CR Jr, Cory-Slechta DA, Cox C, Jusko TQ, Lanphear BP. 2003. Intellectual impairment in children with blood lead concentrations below 10 microg per deciliter. *N Engl J Med* 348:1517–26.

Canfield RL, Gendle MH, Cory-Slechta DA. 2004. Impaired neuropsychological functioning in lead-exposed children. *Dev Neuropsychol* 9:513–40.

[CDC] Centers for Disease Control and Prevention. 1991. Preventing lead poisoning in young children. Atlanta: U.S. Department of Health and Human Services.

[CDC] Centers for Disease Control and Prevention. 2005. Blood lead levels—United States, 1999–2002. *MMWR Morb Mortal Wkly Rep* 54:513–6.

[CDC] Centers for Disease Control and Prevention Advisory Committee on Childhood Lead Poisoning. 2012. Low level lead harms children. Atlanta: U.S. Department of Health and Human Services.

[CDC] Centers for Disease Control and Prevention. 2013. Blood lead levels in children aged 1-5 years—United States, 1999–2010. *MMWR Morb Mortal Wkly Rep* 62(13):245–48.

Cecil KM, Brubaker CJ, Adler CM, Dietrich KN, Altaye M, Egelhoff JC, et al. 2008. Decreased brain volume in adults with childhood lead exposure. *PLoS Med* 5(5):e112.

Chen A, Cai B, Dietrich KN, Radcliffe J, Rogan WJ. 2007. Lead exposure, IQ, and behavior in urban 5- to 7-year-olds: Does lead affect behavior only by lowering IQ? *Pediatrics* 119:e650–8.

Chiodo LM, Jacobson SW, Jacobson JL. 2004. Neurodevelopmental effects of postnatal lead exposure at very low levels. *Neurotoxicol Teratol* 26:359–71.

---

**Educational Interventions for Children Affected by Lead**

---

Chiodo LM, Covington C, Sokol RJ, Hannigan JH, Jannise J, Ager J, et al. 2007. Blood lead levels and specific attention effects in young children. *Neurotoxicol Teratol* 29:538–46.

Cory-Slechta DA. 1995. Bridging human and experimental animal studies of lead neurotoxicity: Moving beyond IQ. *Neurotoxicol Teratol* 17:219–21.

de la Burd  B, Choate JL. 1975. Early asymptomatic lead exposure and development at school age. *J Pediatr* 87:638–42.

Dietrich KN. 2010. Environmental toxicants. In: Yeates KO, Ris MD, Taylor HG, Pennington BF, editors. *Pediatric neuropsychology: research, theory and practice*, 2nd Edition. New York: The Guilford Press; 211–64.

Dietrich KN, Succop PA, Berger OG, Hammond PB, Bornschein RL. 1991. Lead exposure and the cognitive development of urban preschool children: The Cincinnati Lead Study cohort at age 4 years. *Neurotoxicol Teratol* 13:203–11.

Dietrich KN, Succop PA, Berger OG, Keith RW. 1992. Lead exposure and the central auditory processing abilities and cognitive development of urban children: The Cincinnati Lead Study cohort at age 5 years. *Neurotoxicol Teratol* 15:51–6.

Dietrich KN, Berger OG, Succop PA, Hammond PB, Bornschein RL. 1993a. The developmental consequences of low to moderate prenatal and postnatal lead exposure: Intellectual attainment in the Cincinnati Lead Study cohort following school entry. *Neurotoxicol Teratol* 15:37–44.

Dietrich KN, Berger OG, Succop PA. 1993b. Lead exposure and the motor developmental status of urban six-year-old children in the Cincinnati prospective study. *Pediatrics* 91:301–7.

Dietrich KN, Ris MD, Succop PA, Berger OG, Bornschein RL. 2001. Early exposure to lead and juvenile delinquency. *Neurotoxicol Teratol* 23:511–8.

Fergusson DM, Fergusson JE, Horwood LJ, Kinzett NG. 1988. A longitudinal study of dentine lead levels, intelligence, school performance and behavior. Part III, Dentine lead levels and attention/activity. *J Child Psychol Psychiatry* 29:811–24.

Fergusson DM, Boden JM, Horwood LJ. 2008. Dentine lead levels in childhood and criminal behaviour in late adolescence and early adulthood. *J Epidemiol Community Health* 62:1045–50.

Grosse SD, Matte TD, Schwartz J, Jackson RJ. 2002. Economic gains resulting from the reduction in children’s exposure to lead in the United States. *Environ Health Perspect* 110:563–9.

Hansen ON, Trillingsgaard A, Beese I, Lyngbye T, Grandjean P. 1989. A neuropsychological study of children with elevated dentine lead level: Assessment of the effect of lead in different socio-economic groups. *Neurotoxicol Teratol* 11(3):205–13.

---

**Educational Interventions for Children Affected by Lead**

---

Hatzakis A, Salaminios F, Kokevi A, Katsouyanni K, Maravelias K, Kalandidi A, et al. 1985. Blood lead and classroom behaviour of children in two communities with different degree of lead exposure: Evidence of a dose-related effect? In: Lekkas TD, editor. International conference: Heavy metals in the environment. Edinburgh: CEP Consultants Ltd. p. 47.

Hunter J, Urbanowicz MA, Yule W, Lansdown R. 1985. Automated testing of reaction time and its association with lead in children. *Int Arch Occup Environ Health* 57:27–34.

[IPCS] International Programme on Chemical Safety. 1995. Environmental health criteria 165: inorganic lead. Geneva: World Health Organization.

Kincl LD, Dietrich KN, Bhattacharya A. 2006. Injury trends for adolescents with early childhood lead exposure. *J Adolesc Health* 39:604–6.

Kordas K, Canfield RL, López P, Rosado JL, Vargas GG, Cebrián ME, et al. 2006. Deficits in cognitive function and achievement in Mexican first-graders with low blood lead concentrations. *Environ Res* 100:371–86.

Lanphear BP, Hornung R, Khoury J, Yolton K, Baghurst P, Bellinger DC, et al. 2005. Low-level environmental lead exposure and children's intellectual function: An international pooled analysis. *Environ Health Perspect* 113:894–9.

Lidsky TI, Schneider JS. 2003. Lead neurotoxicity in children: Basic mechanisms and clinical correlates. *Brain* 126(Pt 1):5–19.

Lidsky TI, Schneider JS. 2006. Adverse effects of childhood lead poisoning: The clinical neuropsychological perspective. *Environ Res* 100:284–93.

Mayfield SA. 1983. Language and speech behaviors of children with undue lead absorption: A review of the literature. *J Speech Hear Res* 26:362–8.

McMichael AJ, Baghurst PA, Wigg NR, Vimpani GV, Robertson EF, Roberts RJ. 1988. Port Pirie Cohort Study: Environmental exposure to lead and children's abilities at the age of four years. *N Engl J Med* 319:468–75.

Montagu A. 1999. Race and IQ. New York: Oxford University Press.

Needleman HL. 2004. Lead poisoning. *Annu Rev Med* 55:209–22.

Needleman HL, Gunnoe C, Leviton A, Reed R, Peresie H, Maher C, et al. 1979. Deficits in psychologic and classroom performance of children with elevated dentine lead levels. *N Engl J Med* 300:689–95.

Needleman HL, Riess JA, Tobin MJ, Biesecker GE, Greenhouse JB. 1996. Bone lead levels and delinquent behavior. *JAMA* 275:363–9.

Needleman HL, McFarland C, Ness RB, Fienberg SE, Tobin MJ. 2002. Bone lead levels in adjudicated delinquents. A case-control study. *Neurotoxicol Teratol* 24:711–7.

---

**Educational Interventions for Children Affected by Lead**

---

- Nevin R. 2000. How lead exposure relates to temporal changes in IQ, violent crime, and unwed pregnancy. *Environ Res* 83:1–22.
- Nevin R. 2007. Understanding international crime trends: The legacy of preschool lead exposure. *Environ Res* 104:315–36.
- Nigg JT, Knottnerus GM, Martel MM, Nikolas M, Cavanagh K, Karmaus W, et al. 2008. Low blood lead levels associated with clinically diagnosed attention-deficit/hyperactivity disorder and mediated by weak cognitive control. *Biol Psychiatry* 63:325–31.
- Nigg JT, Mikolas M, Knottnerus GM, Cavanagh K, Friderici K. 2010. Confirmation and extension of association of blood lead with attention-deficit/hyperactivity disorder (ADHD) and ADHD symptom domains at population-typical exposure levels. *J Child Psychol Psychiatry* 51:58–65.
- Osman K, Pawlas K, Schutz A, Gazdzik M, Sokal JA, Vahter M. 1999. Lead exposure and hearing effects in children in Katowice, Poland. *Environ Res* 80:1–8.
- Pueschel SM, Kopito L, Schwachman H. 1972. Children with increased lead burden: A screening and follow-up study. *JAMA* 222:462–6.
- Raab GM, Thomson GOB, Boyd L, Fulton M, Laxen DPH. 1990. Blood lead levels, reaction time, inspection time and ability in Edinburgh children. *Br J Dev Psychol* 8:101–18.
- Ris MD, Dietrich KN, Succop PA, Berger OG, Bornschein RL. 2004. Early exposure to lead and neuropsychological outcome in adolescence. *J Int Neuropsychol Soc* 10:261–70.
- Schwartz J, Otto D. 1987. Blood lead, hearing thresholds, and neurobehavioral development in children and youth. *Arch Environ Health* 42:153–60.
- Schwartz J, Otto D. 1991. Lead and minor hearing impairment. *Arch Environ Health* 46:300–5.
- Schneider JS, Lee MH, Anderson DW, Zuck L, Lidsky TI. 2001. Enriched environment during development is protective against lead-induced neurotoxicity. *Brain Res* 896:48–55.
- Schorr L. 1989. *Within our reach: Breaking the cycle of disadvantage*. New York: Anchor Books.
- Silva PA, Hughes P, Williams S, Faed JM. 1988. Blood lead, intelligence, reading attainment, and behaviour in eleven year old children in Dunedin, New Zealand. *J Child Psychol Psychiatry* 29:43–52.
- Sternberg RJ, Grigorenko EL, Bundy DA. 2001. The predictive value of IQ. *Merrill-Palmer Q* 47:1–41.
- Stiles KM, Bellinger DC. 1993. Neuropsychological correlates of low-level lead exposure in school-age children: A prospective study. *Neurotoxicol Teratol* 15:27–35.
- Stretesky PB, Lynch MJ. 2001. The relationship between lead exposure and homicide. *Arch Pediatr Adolesc Med* 155:579–82.

---

**Educational Interventions for Children Affected by Lead**

---

Télez-Rojo MM, Bellinger DC, Arroyo-Quiroz C, Lamadrid-Figueroa H, Mercado-Garcia A, Schnaas-Arrieta L, et al. 2006. Longitudinal associations between blood lead concentrations lower than 10 µg/dL and neurobehavioral development in environmentally exposed children in Mexico City. *Pediatrics* 118:e323–30.

Thomson GO, Raab GM, Hepburn WS, Fulton M, Laxen DPH. 1989. Blood-lead levels and children's behaviour—results from the Edinburgh Lead Study. *J Child Psychol Psychiatry* 30:515–28.

Walkowiak J, Altmann L, Krämer U, Sveinsson T, Turfeld M, Weishoff-Houben M, et al. 1998. Cognitive and sensorimotor functions in 6-year-old children in relation to lead and mercury levels: Adjustment for intelligence and contrast sensitivity in computerized testing. *Neurotoxicol Teratol* 20:511–21.

Wasserman GA, Graziano JH, Factor-Litvak P, Popovac D, Morina N, Musabegovic A, et al. 1994. Consequences of lead exposure and iron supplementation on childhood development at age 4 years. *Neurotoxicol Teratol* 16:233–40.

Wasserman GA, Staghezza-Jaramillo B, Shrout P, Popovac D, Graziano J. 1998. The effect of lead exposure on behavior problems in preschool children. *Am J Public Health* 88:481–6.

Wasserman GA, Musabegovic A, Liu X, Kline J, Factor-Litvak P, Graziano JH. 2000. Lead exposure and motor functioning in 4½-year-old children: The Yugoslavia prospective study. *J Pediatr* 137:555–61.

Winneke G, Kraemer U. 1984. Neuropsychological effects of lead in children: Interactions with social background variables. *Neuropsychobiology* 11:195–202.

Winneke G, Brockhaus A, Ewers U, Krämer U, Neuf M. 1990. Results from the European multicenter study on lead neurotoxicity in children: Implications for risk assessment. *Neurotoxicol Teratol* 12:553–9.

Wright JP, Dietrich KN, Ris MD, Hornung RW, Wessel SD, Lanphear BP, et al. 2008. Association of prenatal and childhood blood lead concentrations with criminal arrests in early adulthood. *PLoS Med* 5:e101.

Yuan W, Holland SK, Cecil KM, Dietrich KN, Wessel SD, Altaye M, Hornung RW, et al. 2006. The impact of early childhood lead exposure on brain organization: A functional magnetic resonance imaging study of language function. *Pediatrics* 118:971–7.

Yule W, Urbanowicz MA, Lansdown R, Millar IB. 1984. Teachers' ratings of children's behavior in relation to blood lead levels. *Br J Dev Psychol* 2:295–305.

---

**Educational Interventions for Children Affected by Lead**

---

**Chapter 3: Who Is At Risk: Vulnerable Populations and Risk Factors**

Bellinger D. 1995. Interpreting the literature on lead and child development: The neglected role of the "experimental system." *Neurotoxicol Teratol* 17:201–12.

Bellinger D, Leviton A, Waternaux C. 1989. Lead, IQ and social class. *Int J Epidemiol* 18:180–5.

Bellinger D, Leviton A, Sloman J. 1990. Antecedents and correlates of improved cognitive performance in children exposed in utero to low levels of lead. *Environ Health Perspect* 89:5–11.

Bellinger DC, Stiles KM, Needleman HL. 1992. Low-level lead exposure, intelligence and academic achievement: A long-term follow-up study. *Pediatrics* 90:855–61.

Brubaker CJ, Dietrich KN, Lanphear BP, Cecil KM. 2010. The influence of age of lead exposure on adult gray matter volume. *Neurotoxicology* 31:259–66.

Canfield RL, Kreher DA, Cornwell C, Henderson CR Jr. 2003. Low-level lead exposure, executive function, and learning in early childhood. *Child Neuropsychol* 9:35–53.

Cecil KM, Brubaker CJ, Adler CM, Dietrich KN, Altaye M, Egelhoff JC, et al. 2008. Decreased brain volume in adults with childhood lead exposure. *PLoS Med* 5(5):e112.

Chen A, Dietrich KN, Ware JH, Radcliffe J, Rogan WJ. 2005. IQ and blood lead from 2 to 7 years of age: Are the effects in older children the residual of high blood lead concentrations in 2-year-olds? *Environ Health Perspect* 113:597–601.

Denno DW. 1990. *Biology and violence: From birth to adulthood*. New York: Cambridge University Press.

Dietrich KN, Krafft KM, Bornschein RL, Hammond PB, Berger O, Succop PA, et al. 1987. Low-level fetal lead exposure effect on neurobehavioral development in early infancy. *Pediatrics* 80:721–30.

Dietrich KN, Berger OG, Succop PA, Hammond PB, Bornschein RL. 1993a. The developmental consequences of low to moderate prenatal and postnatal lead exposure: Intellectual attainment in the Cincinnati Lead Study cohort following school entry. *Neurotoxicol Teratol* 15:37–44.

Froehlich TE, Lanphear BP, Dietrich KN, Cory-Slechta DA, Wang N, Kahn RS. 2007. Interactive effects of DRD4 polymorphism, lead and sex on executive functions in children. *Biol Psychiatry* 62:243–9.

Guilarte TR, Toscano CD, McGlothlan JL, Weaver S. 2003. Environmental enrichment reverses cognitive and molecular deficits induced by developmental lead exposure. *Ann Neurol* 53:50–6.

Harvey PG, Hamlin MW, Kumar R, Delves HT. 1984. Blood lead, behaviour and intelligence test performance in preschool children. *Sci Total Environ* 40:45–60.

Hornung RW, Lanphear BP, Dietrich KN. 2009. Age of greatest susceptibility to childhood lead exposure: A new statistical approach. *Environ Health Perspect* 117:1309–12.

---

**Educational Interventions for Children Affected by Lead**

---

- Lane SD, Webster NJ, Levandowski BA, Rubinstein RA, Keefe RH, Wojtowycz MA, et al. 2008. Environmental injustice: Childhood lead poisoning, teen pregnancy, and tobacco. *J Adolesc Health* 42 (1):43–9.
- Lanphear BP, Hornung R, Khoury J, Yolton K, Baghurst P, Bellinger DC, et al. 2005. Low-level environmental lead exposure and children's intellectual function: An international pooled analysis. *Environ Health Perspect* 113:894–9.
- Lidsky TI, Schneider JS. 2006. Adverse effects of childhood lead poisoning: The clinical neuropsychological perspective. *Environ Res* 100:284–93.
- Marchetti C. 2003. Molecular targets of lead in brain neurotoxicity. *Neurotox Res* 5:221–36.
- McMichael AJ, Baghurst PA, Robertson EF, Vimpani GV, Wigg NR. 1985. The Port Pirie cohort study: Blood lead concentrations in early childhood. *Med J Aust* 143:499–503.
- Needleman HL, Schell A, Bellinger D, Leviton A, Allred EN. 1990. The long-term effects of low doses of lead in childhood: An 11-year follow-up report. *N Engl J Med* 322:83–8.
- Needleman HL, Riess JA, Tobin MJ, Biesecker GE, Greenhouse JB. 1996. Bone lead levels and delinquent behavior. *JAMA* 275:363–9.
- Perry DF, Holland C, Darling-Kuria N, Nativ S. 2011. Challenging behavior and expulsion from child care: The role of mental health consultation. *Zero to Three* 32(2):4–11. Available at URL: [http://main.zerotothree.org/site/DocServer/32-2\\_Perry.pdf](http://main.zerotothree.org/site/DocServer/32-2_Perry.pdf) [accessed 2015 Feb 18].
- Pocock SJ, Ashby D, Smith MA. 1987. Lead exposure and children's intellectual performance. *Int J Epidemiol* 16:57–67.
- Ris MD, Dietrich KN, Succop PA, Berger OG, Bornschein RL. 2004. Early exposure to lead and neuropsychological outcome in adolescence. *J Int Neuropsychol Soc* 10:261–70.
- Schneider JS, Lee MH, Anderson DW, Zuck L, Lidsky TI. 2001. Enriched environment during development is protective against lead-induced neurotoxicity. *Brain Res* 896:48–55.
- Tong S, Baghurst P, McMichael A, Sawyer M, Mudge J. 1996. Lifetime exposure to environmental lead and children's intelligence at 11-13 years: The Port Pirie Cohort study. *BMJ* 312:1569–75.
- Tong S, McMichael AJ, Baghurst PA. 2000. Interactions between environmental lead exposure and sociodemographic factors on cognitive development. *Arch Environ Health* 55:330–5.
- Winneke G, Kraemer U. 1984. Neuropsychological effects of lead in children: Interactions with social background variables. *Neuropsychobiology* 11:195–202.
- Wolf M. 2007. *Proust and the squid*. New York: Harper Collins.

---

**Educational Interventions for Children Affected by Lead**

---

**Chapter 4: Effectiveness of Early Childhood Education Programs**

- Amato M, Moore CF, Magzamen S, Imm P, Havlena JA, Anderson HA, et al. 2012. Lead exposure and educational proficiency: Moderate lead exposure and educational proficiency on end-of-grade examinations. *Ann Epidemiol* 22:738–43.
- Amato M, Magzamen S, Imm P, Havlena JA, Anderson HA, Kanarek M, et al. 2013. Early lead exposure (< 3 years old) prospectively predicts fourth grade school suspension in Milwaukee, Wisconsin (USA). *En Res* 22:60-65.
- [CDC] Centers for Disease Control and Prevention. 2013. Blood lead levels in children aged 1-5 years—United States, 1999-2010. *MMWR Morb Mortal Wkly Rep* 62(13):24–8.
- Evens A, Hryhorczuk D, Lanphear B, Rankin K, Lewis D, Forst L, Rosenberg D. The effect of childhood lead exposure on school performance in Chicago public schools: A population-based retrospective cohort study. 2015. *Environ Health* 14:21.
- Lidsky TI, Schneider JS. 2006. Adverse effects of childhood lead poisoning: The clinical neuropsychological perspective. *Environ Res* 100:284–93.
- Magzamen S, Imm P, Amato MS, Havlena JA, Anderson HA, Moore CF, et al. 2013. Moderate lead exposure and elementary school end-of-grade examination performance. *Ann Epidemiol* 23:700–7.
- McLaine P, Navas-Acien A, Lee R, Simon P, Diener-West M, Agnew J. 2013. Elevated blood lead levels and reading readiness at the start of kindergarten. *Pediatrics* 131:1081–9.
- Miranda ML, Kim D, Reiter J, Overstreet Galeano MA, Maxson P. 2009. Environmental contributors to the achievement gap. *Neurotoxicology* 30(6):1019–24.
- Miranda ML, Dohyeong K, Osgood C, Hastings C. 2011. The impact of early childhood lead exposure on educational test performance among Connecticut schoolchildren, Phase 1 Report. Durham, NC: Children's Environmental Health Initiative, Duke University.
- Reyes JW. 2011. Childhood lead and academic performance in Massachusetts. Boston: New England Public Policy Center, Federal Reserve Bank of Boston.
- Stefanak M, Diorio J, Frisch L. 2005. Cost of child lead poisoning to taxpayers in Mahoning County, Ohio. *Public Health Rep* 120:311–5.
- Strayhorn JC, Strayhorn JM Jr. 2012. Lead exposure and the 2010 achievement test scores of children in New York counties. *Child Adolesc Psychiatry Ment Health* 6:4.
- Wolf M. 2007. *Proust and the squid*. New York: Harper Collins.
- Zhang N, Baker HW, Tufts M, Raymond RE, Salihu H, Elliott MR. 2013. Early childhood lead exposure and academic achievement: Evidence from Detroit public schools, 2008–2010. *Am J Public Health* 113:e72–7.

---

**Educational Interventions for Children Affected by Lead**

---

**Chapter 5: Effectiveness of Early Childhood Education Programs in Reducing Developmental Risks**

[ACF] Administration for Children and Families. 2010. Head Start impact study. Final report. Washington, DC: U.S. Department of Health and Human Services.

Anderson LM, Shinn C, Fullilove MT, Scrimshaw SC, Fielding JE, Normand J, et al. 2003. The effectiveness of early childhood development programs: A systematic review. *Am J Prev Med* 24(3 Suppl):32–46.

Bartik TJ. 2006. Taking preschool education seriously as an economic development program: Effects on jobs and earnings of state residents compared to traditional economic development programs. Report prepared for the Committee for Economic Development. Available from URL: <http://research.upjohn.org/reports/40> [accessed 2015 Apr 2].

Bartik TJ. 2011. Investing in kids: Early childhood programs and local economic development. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Campbell FA, Pungello EP, Miller-Johnson S, Burchinal M, Ramey CT. 2001. The development of cognitive and academic abilities: Growth curves from an early childhood educational experiment. *Dev Psychol* 37(2):231–42.

Dickson J. 2000. Growing with inclusion: A personal reflection. *Early Child Educat J* 27(4):251–4.

Executive Office of the President. 2014. The economics of early childhood investments. Available at URL: [http://www.whitehouse.gov/sites/default/files/docs/early\\_childhood\\_report1.pdf](http://www.whitehouse.gov/sites/default/files/docs/early_childhood_report1.pdf) [accessed 2015 Feb 18].

Glascoe FP. 2000. Early detection of developmental and behavioral problems. *Pediatr Rev* 21(8):272–80.

Gormley WT Jr, Gayer T, Phillips D, Dawson B. 2005. The effects of universal Pre-K on cognitive development. *Dev Psychol* 41:872–84.

Grisham-Brown J, Pretti-Frontczak K, Hawkins SR, Winchell BN. 2009. Addressing early learning standards for all children within blended preschool classrooms. *Topics Early Child Spec Educat* 29(3):131–42.

Hanline MF, Daley S. 2002. Mom, will Kaelie always have possibilities? The realities of early childhood inclusion. *Phi Delta Kappan* 84(1):73–6.

Head Start Bureau, Administration for Children and Families, Department of Health and Human Services. 2002. Weaving connections: The Health Services Advisory Committee.

Holahan A, Costenbader V. 2000. A comparison of developmental gains in preschool children with disabilities in inclusive and self-contained classrooms. *Topics Early Child Spec Educat* 20(4):224–35.

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**Educational Interventions for Children Affected by Lead**

---

Lanphear BP, Hornung R, Khoury J, Yolton K, Baghurst P, Bellinger DC, et al. 2005. Low-level environmental lead exposure and children's intellectual function: An international pooled analysis. *Environ Health Perspect* 113(7):894–9.

Lee VE, Brooks-Gunn J, Schnur E. 1988. Does Health Start work? A 1-year follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Devel Psychol* 24:210–2.

McKey RH. 1985. The impact of Head Start on children, families and communities (final report of the Head Start Evaluation, Synthesis and Utilization Project). Washington, DC: CSR.

Mogharreban CC, Bruns DA. 2009. Moving to inclusive pre-kindergarten classrooms: Lessons from the field. *Early Childhood Educat J* 36:407–14.

Moodie S, Ialongo N, López P, Rosado J, García-Vargas G, Ronquillo D, et al. 2013. The conjoint influence of home enriched environment and lead exposure on children's cognition and behaviour in a Mexican lead smelter community. *Neurotoxicology* 34:33–41.

Olds DL, Kitzman HJ, Cole RE, Hanks CA, Anson EA, Luckey DW, et al. 2010. Enduring effects of prenatal and infancy home visiting by nurses on children: Follow-up of a randomized trial among children at age 12 years. *Arch Pediatr Adolesc Med* 164(5):412–8.

OSEP [Office of Special Education Programs]. 2013. 2013 Annual Reports to Congress on the Individuals with Disabilities Education Act (IDEA). Available at URL: <http://www2.ed.gov/about/reports/annual/osep/2013> [accessed 2015 Apr 2].

Reynolds AJ, Temple JA, Ou S, Robertson DL, Mersky JP, Topitzes JW, et al. 2007. Effects of a school-based early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. *Arch Pediatr Adolesc Med* 161(8):730–9.

Schweinhart LJ, Barnes HV, Weikart DP. 1993. Significant benefits: The High/Scope Perry Preschool Study through age 27. Monographs of the High/Scope Educational Research Foundation, no. 10. Ypsilanti, MI: High/Scope Press.

Schweinhart LJ, Montie J, Xiang Z, Barnett WS, Belfield CR, Nores M. 2005. Lifetime effects: The High/Scope Perry Preschool study through age 40. Monographs of the High/Scope Educational Research Foundation, no. 14. Ypsilanti: High/Scope Press.

Smith T, Groen AD, Wynn JW. 2000. Randomized trial of intensive early intervention for children with pervasive developmental disorder. *Am J Ment Retard* 105(4):269–85.

Tong S, Baghurst P, McMichael A, Sawyer M, Mudge J. 1996. Lifetime exposure to environmental lead and children's intelligence at 11-13 years: The Port Pirie cohort study. *BMJ* 312(7046):1569–75.

**Educational Interventions for Children Affected by Lead**

---

Yoshikawa H, Weiland C, Brooks-Gunn J, Burchinal MR, Espinosa LM, Gormley WT, et al. 2013 Investing in our future: The evidence base on preschool education. New York: Foundation for Child Development. Available at URL: <http://fcd-us.org/resources/evidence-base-preschool> [accessed 2015 Feb 17].

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Educational Interventions for Children Affected by Lead

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**Chapter 6: Applicable Federal Programs and Policies**

Connecticut State Department of Education. 2012. Education Guidelines for the prevention and management of lead poisoning in children. Available from URL:

<http://www.sde.ct.gov/sde/cwp/view.asp?a=2663&q=334170> [accessed 2015 Apr 2].

U.S. Department of Education Office of Special Education and Rehabilitative Services. 2010. A response to intervention (RTI) process cannot be used to delay-deny an evaluation for eligibility under the Individuals with Disabilities Education Act (IDEA). Memo OSEP 11-07, January 21, 2011. Available from URL: <https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/osep11-07rtimemo.pdf> [accessed 2015 Apr 2].

US Department of Health and Human Services. 2010. Affordable Care Act: Essential Health Benefits. Available from URL: <http://www.hhs.gov/opa/affordable-care-act/health-services-and-benefits/essential-health-benefits> [accessed 2015 April 22].

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Educational Interventions for Children Affected by Lead

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### Chapter 7: Appropriate Services for Lead-Exposed Children

AAP [American Academy of Pediatrics] Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs. 2006. Identifying infants and young children with developmental disorders in the medical home: An algorithm for developmental surveillance and screening. *Pediatrics* 118:405–20 [erratum *Pediatrics* 2006;118:1808–9].

Adams RC, Tapia C, Council on Children with Disabilities. 2013. Early Intervention, IDEA Part C Services, and the medical home: Collaboration for best practice and best outcomes. *Pediatrics* 132:e1073–83.

[CDC] Centers for Disease Control and Prevention. 2002. Managing elevated blood lead levels among young children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta: U.S. Department of Health and Human Services.

Gordon WA, Oswald JM, Vaughn SL, Connors SH, Brown M. 2013. State of the states: Meeting the educational needs of children with traumatic brain injury. New York: Mount Sinai Brain Injury Research Center and the Brain Injury Association of America. Available from URL:

<http://www.biausa.org/LiteratureRetrieve.aspx?ID=122481>.

U.S. Department of Education [OSER] Office of Special Education and Rehabilitative Services. 2010. A response to intervention (RTI) process cannot be used to delay-deny an evaluation for eligibility under the Individuals with Disabilities Education Act (IDEA). Memo OSEP 11–07, January 21, 2011. Available from URL: <https://www2.ed.gov/policy/speced/guid/idea/memosdcltrs/osep11-07rtimemo.pdf> [accessed 2015 Apr 2].

# LOVETTE REPORT

## Exhibit J

## Michigan's Integrated Behavior & Learning Support Initiative

# Report on Cohort 1-7 School Support Model

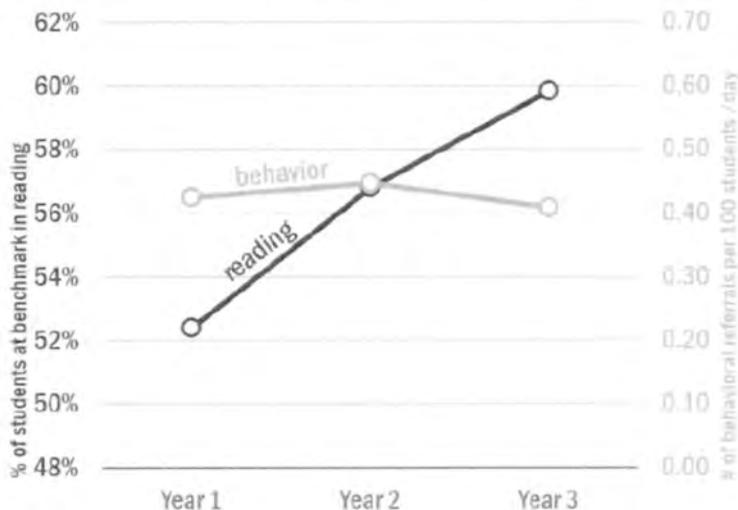
April 2014

From 2004 to 2013, 512 elementary and middle schools completed the three-year Multi-Tier System of Supports (MTSS) training series with MiBLSi. The schools applied and were then selected to participate as project partners. In addition to MTSS training, schools were asked to collect data on student behavioral and reading outcomes as well as program implementation fidelity. This report provides summative information about MiBLSi's School Support Model and is intended as a resource document of MiBLSi's early work with schools for current project partners and stakeholders. It will also show how results of the School Support Model informed our current partnerships with Intermediate School Districts and Local Education Agencies.

## Impact on Student Outcomes

MiBLSi supports the implementation of a Multi-Tier System of Supports for reading and behavior. The purpose of MTSS is to improve student achievement and reduce problem behavior by accurately identifying students' needs, preventing academic and behavioral problems, and providing research-based instruction within a positive school climate.

Student reading scores increased and behavioral issues generally decreased over the course of MiBLSi participation.



We saw significant improvements in our DIBELS data as a result of this adoption. For example, 1 building went from around 50% proficient in kindergarten to 75% proficient in just 1 benchmark period. Their winter data had already surpassed the end of year data from the previous year.

-MiBLSi Participant

### Contact

info@miblsimtss.org  
miblsi.cenmi.org

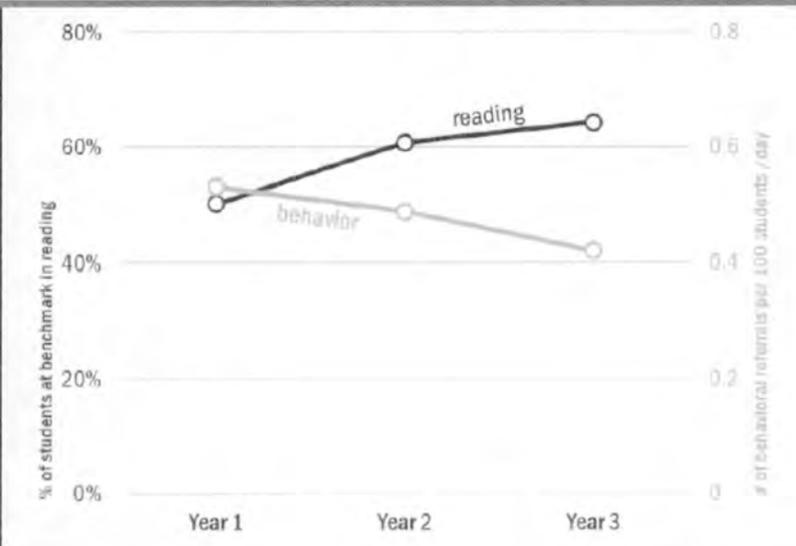


Combined student outcomes from schools that participated with MiBLSi show consistent improvements in reading scores and an overall downward trend in problem behaviors across 3 years. Individual school performance varied each year, with some achieving student outcomes showing 80% or more students on track in reading and rates of discipline referrals well below the national median. Academic gains were more consistent than reductions in discipline referrals. This may, in part, be due to the variability in the collection of discipline referrals. Schools frequently observed an increase in discipline referrals across time because they improved their data collection process and got better at using the data for instructional planning. To prevent spikes in discipline referrals between Year 1 and 2, MiBLSi has worked to ensure that schools are supported by a certified SWIS facilitator who helps them to ensure readiness for the use of SWIS and ongoing support with data collection, interpretation, and planning.

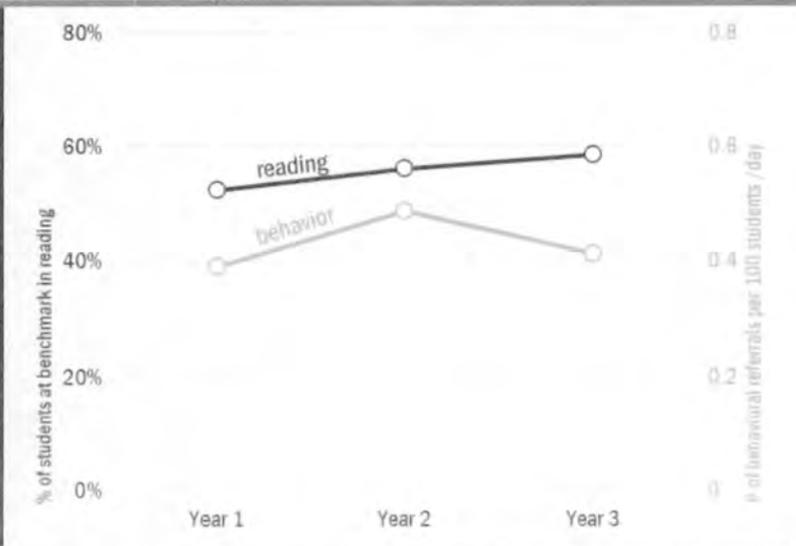
## Implementation Fidelity Matters

MiBLSi's goal in working with schools to implement an integrated MTSS is to improve student outcomes. Yet, we know that when implementing any practice or reform initiative in schools, impact on student outcomes is tempered by the fidelity or quality of implementation.

**Schools with High Fidelity**  
 Schools that implemented MTSS with high fidelity saw reading scores increase and behavior issues generally decline.

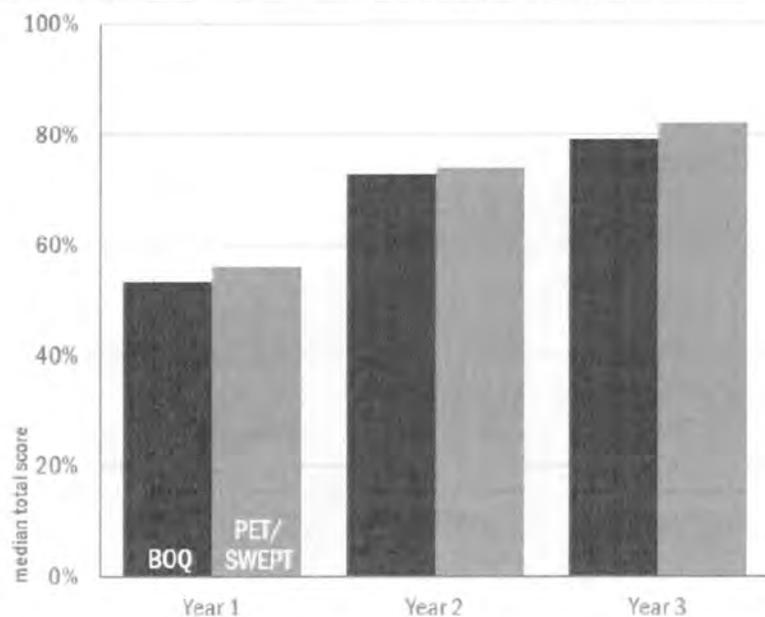


**Schools with Low Fidelity**  
 Schools that did not implement MTSS with fidelity saw less dramatic increases in reading scores and inconsistent reductions in discipline referrals.



This is why MiBLSi has always worked with participating schools to collect and use implementation fidelity data for planning and decision-making. Fidelity data tell us about staff behavior, specifically, whether an intended practice was implemented as intended. Training for Cohorts 6 and 7 focused more heavily on the importance of fidelity data. Schools made substantial gains with implementation fidelity for school-wide behavior and reading practices, most notably between Years 1 and 2. The graphs on the previous page show that when schools implemented with fidelity, more robust and consistent improvements in student outcomes were attained. Still, many schools reported challenges with understanding how to effectively use the fidelity data. For example, one challenge with the Planning and Evaluation Tool for Effective Schoolwide Reading Programs is that it does not always correlate strongly with student reading outcomes. This may be due to general limitations of using fidelity measures that are based on self-assessment and/or that participating schools with high SES student populations are also more likely to have high student achievement. Another possible explanation for limited differences in reading outcomes between schools that implemented with fidelity and those that did not is that conducting universal screening for reading alone led to changes in instructional practices without making other systemic changes to reading instruction.

**Schools made great progress with implementation fidelity, with the largest gains occurring between Year 1 and 2.**



## About the Measures

Participating schools were required to submit data during their three years of formal participation with MiBLSi. Data are median scores based on all schools that submitted data for each measure during a given year and do not necessarily represent the same group of schools from year to year.

### Student Outcomes

Schools collected reading curriculum-based measures (CBM) and discipline referral data to examine student outcomes in reading and behavior. Reading CBM data were either Dynamic Indicators of Basic Early Literacy Skills (Good & Kaminski, 2002) or AIMSweb (Shinn & Germann, 2006). Discipline referral data were entered and analyzed using the School-wide Information System (SWIS; May et al., 2002).

### Implementation Fidelity

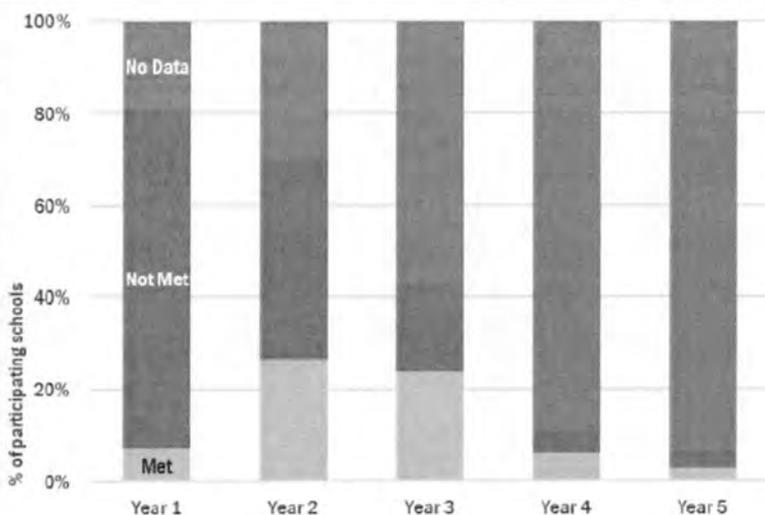
Schools completed the Benchmarks of Quality (Kincaid, Childs & George, 2005), an annual self-assessment of the implementation of School-wide Positive Behavioral Interventions and Supports. A total score of 70% on the BOQ is considered a minimum threshold for implementation fidelity. To examine the fidelity of a School-wide Reading Model, leadership teams annually self-assessed using the Planning and Evaluation Tool for Effective School-wide Reading Programs-R (Kame'enui & Simmons, 2002) at the elementary level, or the Secondary School-wide Evaluation and Planning Tool (MiBLSi, 2007) at the middle school level. A total score of 80% on the PET-R or SWEPT is considered a minimum threshold for implementation fidelity.

# Implementing with Fidelity is Hard Work

While implementing with fidelity may increase the likelihood that students will benefit from an integrated Multi-Tier System of Supports, attaining fidelity requires substantial focus and hard work on the part of school staff. Signing up with MiBLSi and attending trainings alone did not ensure that schools would be able to implement with fidelity. Implementing with fidelity at one point also did not ensure that schools would be able to sustain high levels of implementation.

## Reading Fidelity

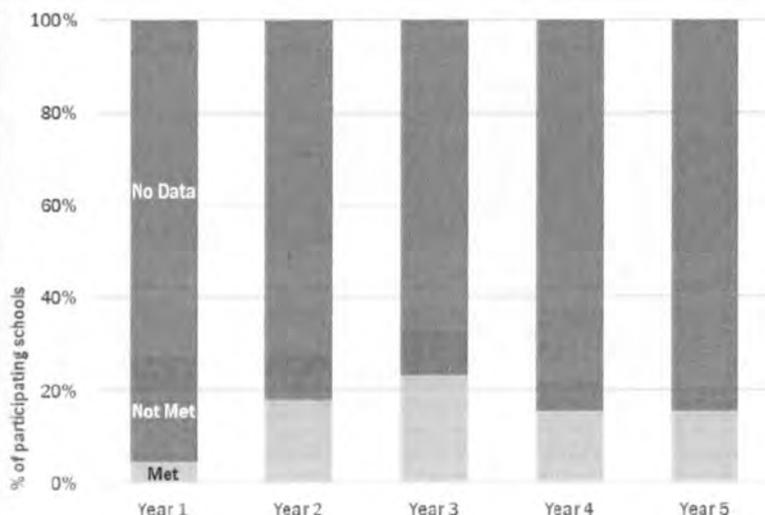
Even though more schools met fidelity requirements in the first several years, overall, schools stopped submitting data.



Schools were most likely to submit PET-R/SWEPT data during Year 1, which may have been because school leadership teams completed the measure during a training session. In subsequent years, teams were asked to complete the PET-R/SWEPT prior to attending Data Review Trainings and submit their scores during or after the training. The most gains in schools reaching the minimum threshold for implementation fidelity (80% total score) occurred between Years 1 and 2. By year three, data submission rates dropped substantially. It is difficult to know exactly whether schools continued to improve fidelity but lacked the scores to show it, or whether the absence of PET-R/SWEPT data reflected a decline in fidelity in and of itself.

## Behavior Fidelity

Those schools meeting behavior fidelity requirements increased through Year 3, but again we experienced significant issues with obtaining data from schools on this measure each year.

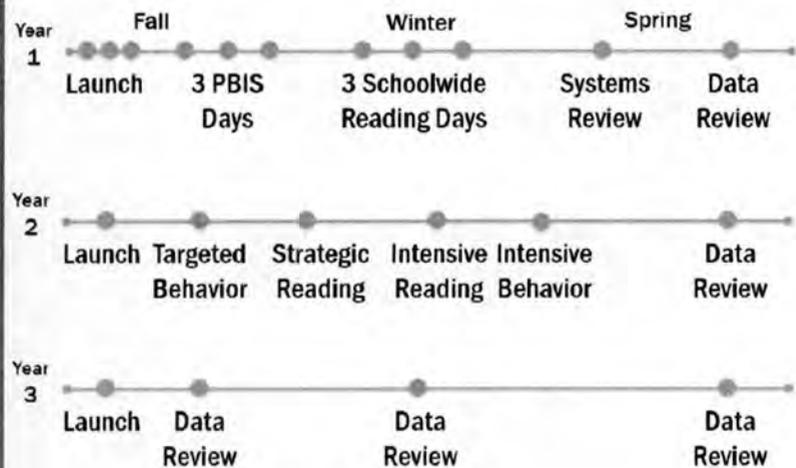


Lower overall rates of data submission for the Benchmarks of Quality (BOQ) are reflective of a different behavior fidelity measure that was used prior to 2010—the PBIS Team Implementation Checklist (TIC). The BOQ was used for this report because it is a more comprehensive fidelity measure, with more precise scoring standards than the TIC. It also allowed us to include behavior fidelity data from the most recent cohorts of schools that participated with MiBLSi. Between Years 1 and 3, increasing numbers of schools were able to reach the minimum threshold for implementation fidelity (70% total score). After Year 3, a trend similar to PET-R/SWEPT data was seen as fewer schools sustained use of the BOQ to measure fidelity. MiBLSi hoped that schools would be able to independently continue implementation after three years of support. However, data and follow up conversations reveal that initial implementation is fragile and sustained support must be provided to expect sustained implementation.

## Supports

### School Cohort Training Series Depicted for Cohort 7

We provided 21 days of training to school leadership teams across three years of support.



The professional development series included training and coaching supports on implementing an integrated model of MTSS. The primary audience for MiBLSi professional development was self-selected school leadership teams, consisting of six to ten school staff, including the principal, teachers, and at least one systems coach, whose role was to support the school leadership team with implementation efforts. Coaches held a variety of job titles within schools, but they were most often school psychologists, school social workers, and reading specialists.

Trainings were organized regionally across the state to allow schools to participate as a cohort of schools from the same geographic region and start year. At the time, MiBLSi staff served as the primary trainers for school leadership teams. The project also worked to develop a cadre of over 100 local trainers across the state. These trainers included consultants, principals, teachers, and retired educators. Developing a cadre of local trainers was one way that MiBLSi began increasing capacity across the state to sustain implementation of MTSS.

Year 1 of professional development focused on implementation of Tier 1, universal supports for both reading and behavior. Eleven full days of training were spread across the school year. Teams were introduced to the data, systems, and practices that comprise school-wide PBIS and a school-wide reading model. Teams were successively introduced to new content throughout the year and asked to implement specific components in between each training session. Coaching meetings were held approximately three times per year to help coaches prepare for next

steps and get support to address implementation barriers. Year 1 culminated with data review trainings that supported teams to systematically apply a problem solving process using the implementation fidelity and student outcome data they had been collecting throughout the year. Data review trainings were designed to align with Michigan's Continuous School Improvement Process and help teams develop fluency with analyzing data to identify successes and determine next steps that would be most likely to yield improved implementation and student outcomes.

In the second year of professional development, schools continued implementing and enhancing Tier 1 implementation while also layering on data, systems, and practices for reading and behavior at Tiers 2 and 3. This support included 8 days of training, as well as coaching meetings and focused trainings (i.e., REWARDS, CHAMPS, etc.). Year three provided additional support for schools to strengthen their systems at Tiers 1, 2, and 3. The number of formal training days was faded to just three data review sessions. More information about the 3-year training series for Cohorts 1-7 can be found on the MiBLSi website: [miblsi.cenmi.org/MiBLSiModel/ProfessionalDevelopment/BuildingTrainingScopeandSequence](http://miblsi.cenmi.org/MiBLSiModel/ProfessionalDevelopment/BuildingTrainingScopeandSequence)

## Context

521 schools from across the state partnered with MiBLSi between 2004 and 2013.



## About MiBLSi

MiBLSi has been providing professional development and technical assistance for the implementation of a Multi-Tier System of Supports (MTSS) since 2000.

### Mission

Scale-up a statewide structure to create local capacity to implement an integrated behavior and reading MTSS with fidelity, that endures over time and utilizes data-based decision making at all levels of implementation so that students become better readers with the social skills necessary for success.

### Project Goals

1. Participating intermediate school district and local school district implementation teams will develop their capacity to support implementation of MTSS.
2. Schools that have access to high quality district implementation supports will implement an integrated Multi-Tier System of Supports with fidelity or demonstrate improved implementation fidelity over time.
3. Schools that implement an integrated Multi-Tier System of Supports with fidelity or demonstrate improved implementation fidelity over time will demonstrate annual reductions in the incidences of student problem behavior (discipline referrals) and increases in academic achievement (school-wide DIBELS/ AIMSweb scores).

### Project Director

Dr. Steven Goodman  
13565 Port Sheldon Street  
Holland, MI 49417  
[sgoodman@miblsimtss.org](mailto:sgoodman@miblsimtss.org)

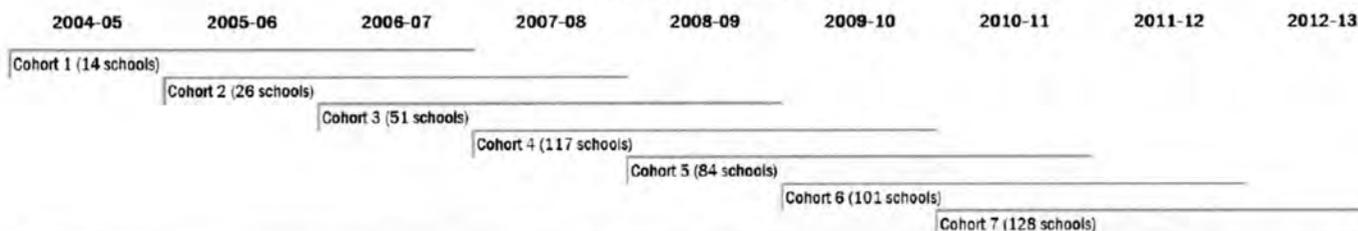
The 521 elementary (n = 535) and middle schools (n = 86) that partnered with MiBLSi submitted a formal application process, were selected as project partners, and completed a 3-year professional development series. Within this model, schools and districts across Michigan embedded MTSS data, systems, and practices within their school improvement plans. Schools modified discipline policies to align with PBIS and best practice aimed at keeping students in the classroom and engaged in effective instruction, and therefore learning. Schools and districts also began taking best practices for intervention and data collection and generalizing their systems-level work to writing and math.

For a listing of additional research & publications related to MiBLSi, please visit the project website at

[miblsi.cenmi.org/About/MiBLSiRelatedPublications](http://miblsi.cenmi.org/About/MiBLSiRelatedPublications)

## Seven cohorts of schools completed the three year training series with MiBLSi.

### MiBLSi Cohort 1-7 Schools



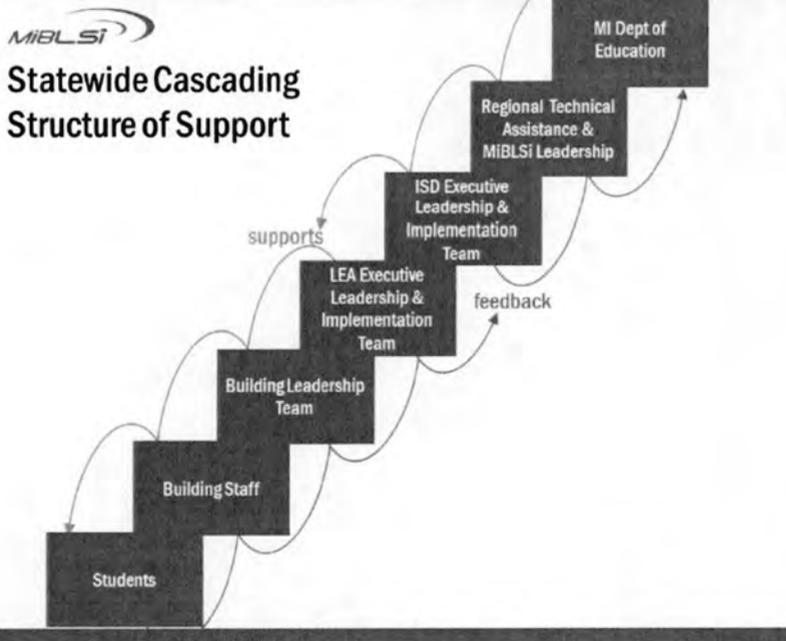
## Next Steps

A commitment to continuous improvement of MTSS implementation efforts has been essential as MiBLSi has moved from supporting the first 50 schools, to the next 500 schools, to the current scale-up demand across the state as MTSS becomes standard practice of how educational systems function in Michigan. With scale-up in mind, in 2009, MiBLSi, along with the Michigan Department of Education, entered into a partnership with the OSEP Center on State Implementation and Scaling Up of Evidence-Based Practices (SISEP) to take formal steps to apply implementation science to MTSS. This partnership, coupled with the demand to have a larger and more sustainable impact across the state, has greatly influenced the way MiBLSi is structured and how outcomes of MiBLSi are measured. Rather than solely focusing on increasing the number of educators across the state “doing MiBLSi,” the focus is on how to develop an MTSS framework within educational systems that will endure through time with a focus on fidelity across stages of implementation.

While many schools in Cohorts 1-7 had great MTSS implementation success and saw meaningful improvements for students, too many schools also reported that they were not able to sustain their efforts. Barriers to sustained implementation were often out of the control of individual schools, but could be addressed at a district or ISD level. For example, when there was turnover in school leadership, district hiring committees were not always knowledgeable of

MTSS and how to select new leadership with the background knowledge and strong skill set to support ongoing implementation efforts. Other times, there were too many other initiatives and new learning competed for resources necessary to focus on strong implementation of MTSS.

**Our work with school districts ensures layers of support from the classroom to the capital.**



## Partnerships

Michigan Alliance for Families

Michigan Association for Intermediate School Administrators

National Implementation Research Network

PBIS OSEP Technical Assistance Center

Higher Education Learning Partnership

Dr. Donald Peurach  
 University of Michigan

Dr. Elizabeth MacLeod  
 Central Michigan University

Dr. Sara Bolt  
 Michigan State University

Dr. Amy Campbell  
 Grand Valley State University

Dr. Daniel Morgan  
 Western Michigan University

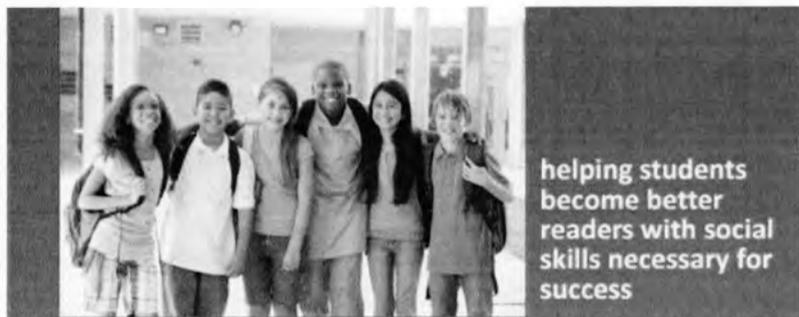
## Funding Agencies

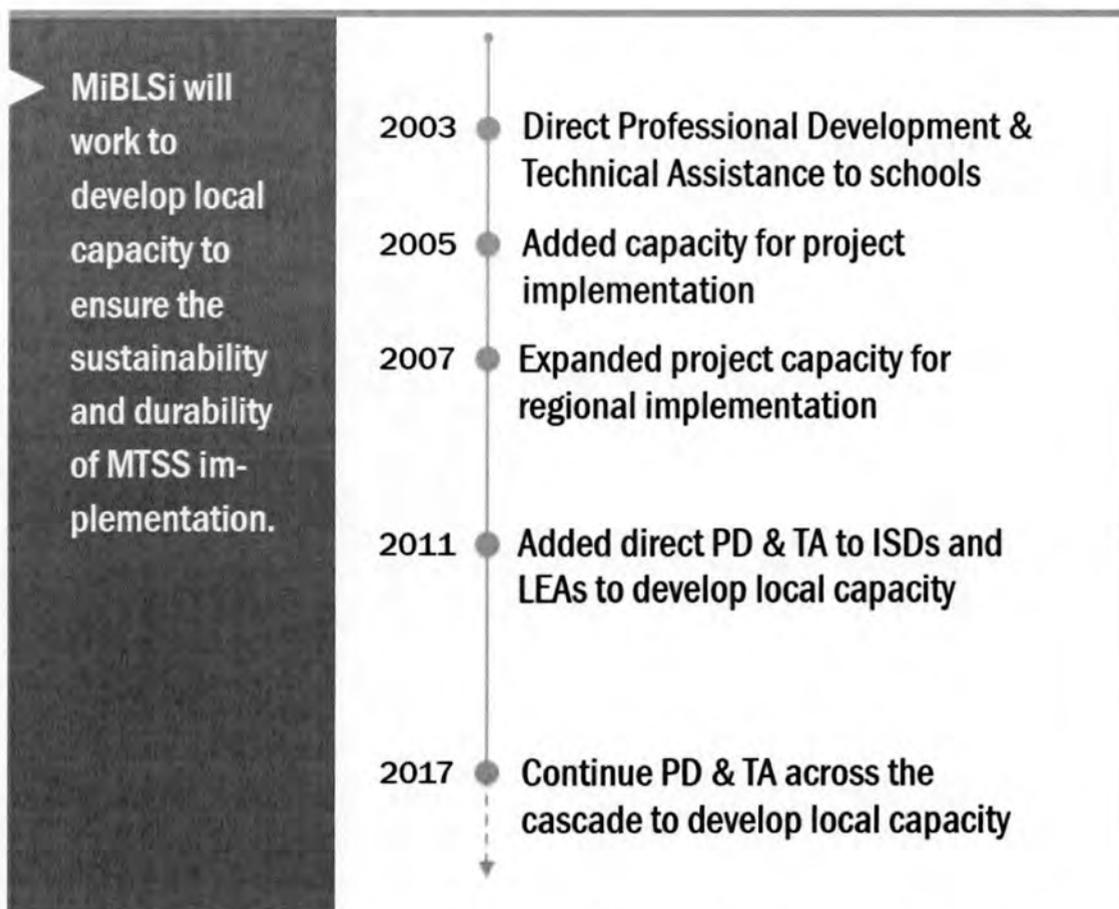
The contents of this report were developed under a grant from the US Department of Education, #H323A120001-12. However, the contents do not necessarily represent the policy of the US Department of Education, and you should not assume endorsement by the Federal Government Project Officer, Grace Zamora Duran.

This document was produced and distributed through an Individuals with Disabilities Education Act (IDEA) Mandated Activities Project (MAP) for Michigan's Integrated Behavior and Learning Support Initiative (MiBLSi) awarded by the Michigan Department of Education (MDE). The opinions expressed herein do not necessarily reflect the position or policy of the MDE, Michigan State Board of Education (SBE) or the U.S. Department of Education (USED), and no endorsement is inferred. This document is in the public domain and may be copied for further distribution when proper credit is given.

Common expectations were developed, taught & rewarded. Although the data show an increase in ODRs (due to lack of baseline data) the overall culture of the school changed and was much more positive.

-MiBLSi Participant





In 2011, MiBLSi shifted to a District Support Model with the intention of flowing support more systematically across the cascading model of educational support in Michigan and to increase the capacity of local districts and ISDs to support MTSS implementation. Our aim in shifting the focus of project supports to the ISD and district level is to learn from our experience with Cohort 1-7 so that even more students are able to benefit both academically and behaviorally from attending schools that are successfully implementing MTSS. Under the District Support Model, MiBLSi initially works with ISD and district implementation teams to set up the organizational structures necessary to support MTSS. Teams are guided through the stages of implementation based on assessments and criteria that indicate readiness for implementation. Rather than sending districts and schools through a pre-determined training sequence, MiBLSi and ISDs/Districts work to sequence research-based training content in a way that is best matched to local need, fit, and capacity.

## Our References

- Good, R. H., & Kaminski, R. A. (Eds.). (2002). *Dynamic Indicators of Basic Early Literacy Skills (6th ed.)*. Eugene, OR: Institute for the Development of Educational Achievement. Available: <http://dibels.uoregon.edu/>
- Kame'enui, E. J., & Simmons, D. C. (2002). *Planning and Evaluation Tool for Effective Schoolwide Reading Programs – Revised (PET-R)*. Eugene, OR: Institute for the Development of Educational Achievement.
- Kincaid, D., Childs, K., & George, H. (2005). *School-wide benchmarks of quality*. Unpublished instrument, University of South Florida.
- May, S., Ard, W., III, Todd, A., W., Homer, R. H., Glasgow, A., Sugai, G. Et al. (2002). *School-wide Information System*. Eugene: University of Oregon, Educational and Community Supports.
- Michigan's Integrated Behavior & Learning Support Initiative (2007). *Secondary School-wide Evaluation and Planning Tool (SWEPT)*. Unpublished instrument, Michigan Department of Education.
- Shinn, M. R., & Germann, G. (2006). *Academic Improvement Monitoring System: AIMSweb*. London: Pearson.

# LOVETTE REPORT

## Exhibit K



*An Equal Opportunity Employer*

**FLINT COMMUNITY SCHOOLS**  
*Expect More. Achieve More.*

***Employee Job Description***

**Job Title: Multi-Tiered Systems of Support (MTSS) Coordinator**

**Job Summary:**

The MTSS Coordinator supervises mental health staff and provides direct services/interventions to general education students that are At-Risk due to high referral and suspension/expulsion rates. The Coordinator also assists the staff with determining appropriate data collection methods, evaluates observation data and makes recommendations to the building team and building administrator that may include plan modifications or new strategy implementation.

**Essential Functions:**

- Assists staff with determining appropriate data collection methods, evaluates observation data and makes recommendations to the building team and building administrator that may include plan modifications or new strategy implementation.
- Supervises mental health staff.
- Data Management
- Provides staff with research based behavior intervention techniques.
- Meets with the Superintendent or Designee to provide reports and tracking of students' information.
- Meets with building principal and building professional learning communities to determine the training and consultation needed to support general education students with behavioral difficulties.
- Makes visits to homes and other agencies/organizations.
- Assists parents and families in participating fully with their children's educational process.
- Works with a wide age range of children and young adults.
- Utilizes behavior management techniques.
- Provides casework and/or group work to eligible children and families.
- Uses creative and effective in-service training techniques.
- Responsible for carrying out the policies and procedures in all assigned buildings.
- Maintains a written log of current caseload and other required documentation.
- Develops and implements plans to enhance students' school success.
- Identifies and reports child abuse and neglect situations.
- Obtains community resources to meet students' needs.
- Coordinates services for individual families.

To perform this job successfully, an individual must be able to perform each essential function satisfactorily. The essential functions listed are representative of the knowledge, skill and /or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Qualifications:**

**Education:** Master's Degree in Social Work (MSW) and the additional classes needed to obtain School Social Work Approval from an accredited university and the Michigan Department of Education. It is required that the school social worker obtains Certified Social Worker (CSW) status within two years of hire.

**Experience:** Previous social work experience in a public school setting or related agency preferred. Previous experience in Collaborative Evaluation Teams.

Experience necessary in:

- PBIS / MTSS
- Restorative Justice
- Diagnosing and treating the effects of trauma
- 504 plans
- Working with at-risk-students
- Supervising mental health staff

**Skills:** A school social worker shall possess applicable knowledge of individual, family, group and community dynamics as well as mental health concepts and behavior which result from mental, physical, sensory, emotional deficits.

Knowledge of Lead Toxicity and the effects of trauma.

Experience in evaluation of Adverse Childhood Experiences (ACEs) and trauma-sensitive schools.

Have a working Knowledge of Restorative Justice Practices.

Ability to facilitate formal mediations and conferences.

Ability to evaluate/monitor student agreements to repair harm caused.

Ability to provide appropriate direct or indirect treatment services to individuals, groups, families and the school community.

Ability to work with community resources and make appropriate referrals.

Ability to establish effective working relationships in a multi-discipline setting with parents, students, building principals and school staff.

Knowledge of data drive decisions as related to Multi-Tiered Systems of Support.

Knowledge of SWIS data collection system.

Knowledge of fidelity of implementation and data collection as related to MTSS/PBIS.

Knowledge of MIBLSI and DIBELS Next Screening Implementation.

Knowledge of how factors such as family, culture, socio-economic status and physical and mental health can

affect student's performance.

Demonstrated instructional consultation skills including outstanding organization and communication.

Model techniques, coach and provide professional development to other staff.

Other Requirements: Employee must provide his or her own transportation for job related travel.

Residence within a 60-mile radius of the borders of the District is required; residence within the City of Flint is preferred. Newly hired employees must satisfactorily pass: 1) physical examination by a medical doctor; 2) police clearance; 3) reference check, including digital fingerprinting; and 4) 5-panel drug test. Must comply with Student Safety Initiative Legislation, as amended.

**Evaluation:**

Performance of this position will be evaluated annually in accordance with provisions of the Master Teacher Contract between the Board of Education of the City of Flint, Michigan and the United Teachers of Flint, Inc.

*The information contained in this job description is not an exhaustive list of the duties performed for this position. Other duties within the classification and the physical demands of the job may be assigned.*

**Special Job Considerations**

Certification: Required  Not Required  Desirable

Type of Certification: Administrative  Teacher  Other

Bargaining Unit Position: Yes  No

Salary Schedule: Teacher Basic Salary Schedule (contingent on grant funding)

195 Days

Reports To: Building Principal

Supervision: N/A

Physical Demands: Sedentary Work (see U.S. Department of Labor Guidelines)

Date: 5-01-17

**Statement of Assurance of Compliance with Federal Laws**

It is the policy of the Flint Community Schools not to discriminate on the basis of race, color, national origin, age, gender, height, weight, disability, religion, or marital status in any of its programs, activities, or employment. Inquiries should be addressed to the:

Executive Director of Human Resources/Legal Affairs  
923 E. Kearsley Street • Flint, Michigan 48503-1974 • (810) 760-1218

Translation services are available upon request, please call 760-1259  
خدمات ترجمة متوفرة تحت الطلب، الرجاء أن تتصلوا على رقم الهاتف-760-1259  
Ponemos a sus órdenes el servicio de traducción. Las personas  
interesadas, favor de llamarnos al 760-1259

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# LOVETTE REPORT

## Exhibit L



An Equal Opportunity Employer

**FLINT COMMUNITY SCHOOLS**

*Expect More. Achieve More.*

***Employee Job Description***

**Job Title: School Social Worker (Title I)**

**Job Summary:**

The School Social Worker provides direct services/interventions to general education students that are At-Risk due to high referral and suspension/expulsion rates. The Social Worker also assists the staff with determining appropriate data collection methods, evaluates observation data and makes recommendations to the building team and building administrator that may include plan modifications or new strategy implementation.

Flint Community Schools, located in Flint, Michigan, is an urban public school system with about 6,900 students and 1,200 employees. With 15 campuses throughout the City of Flint, the district has a long and rich tradition of community education. Flint Community Schools provide a range of academic, extended services and extracurricular activities at the elementary and secondary levels to meet the needs of our students and their families. The district's mission is to develop a community of learners who are prepared to live, work and contribute to an ever-changing society.

**Essential Functions:**

- Assists staff with determining appropriate data collection methods, evaluates observation data and makes recommendations to the building team and building administrator that may include plan modifications or new strategy implementation.
- Data Management
- Provides staff with research based behavior intervention techniques.
- Meets with the Director of Special Education to provide reports and tracking of students' information.
- Meets with building principal and building professional learning communities to determine the training and consultation needed to support general education students with behavioral difficulties.
- Makes visits to homes and other agencies/organizations.
- Assists parents and families in participating fully with their children's educational process.
- Works with a wide age range of children and young adults.
- Utilizes behavior management techniques.
- Provides casework and/or group work to eligible children and families.
- Uses creative and effective in-service training techniques.
- Responsible for carrying out the policies and procedures in all assigned buildings.
- Maintains a written log of current caseload and other required documentation.
- Develops and implements plans to enhance students' school success.
- Identifies and reports child abuse and neglect situations.
- Obtains community resources to meet students' needs.
- Coordinates services for individual families.

To perform this job successfully, an individual must be able to perform each essential function satisfactorily. The essential functions listed are representative of the knowledge, skill and /or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**School Social Worker (Title I)**

Page 2 of 3

**Qualifications:**

**Education:** Master's Degree in Social Work (MSW) from an accredited college or university.  
Valid Master's Social Work License.  
Fulfills requirements for approval as a School Social Worker.

**Experience:** Previous social work experience in a public school setting or related agency preferred.  
Previous experience in Collaborative Evaluation Teams.

**Skills:** A school social worker shall possess applicable knowledge of individual, family, group and community dynamics as well as mental health concepts and behavior which result from mental, physical, sensory, emotional, speech, or any other handicapping condition or any other competencies as listed in Rule 340.170c of the Michigan Special Education Rules and Regulations.

Ability to provide appropriate direct or indirect treatment services to individuals, groups, families and the school community.

Ability to work with community resources and make appropriate referrals.

Ability to establish effective working relationships in a multi-discipline setting with parents, students, building principals and school staff.

Knowledge of how factors such as family, culture, socio-economic status and physical and mental health can affect student's performance.

Demonstrated instructional consultation skills including outstanding organization and communication.

**Other Requirements:** Employee must provide his or her own transportation for job related travel.

Residence within a 60-mile radius of the borders of the District is required; residence within the City of Flint is preferred. Newly hired employees must satisfactorily pass: 1) physical examination by a medical doctor; 2) police clearance; 3) reference check, including digital fingerprinting; and 4) 5-panel drug test. Must comply with Student Safety Initiative Legislation, as amended.

**Evaluation:**

Performance of this position will be evaluated annually in accordance with provisions of the Master Teacher Contract between the Board of Education of the City of Flint, Michigan and the United Teachers of Flint, Inc.

*The information contained in this job description is not an exhaustive list of the duties performed for this position. Other duties within the classification and the physical demands of the job may be assigned.*

**School Social Worker (Title I)**

Page 3 of 3

**Special Job Considerations**

**Certification/License:** Required  Not Required \_\_\_\_\_ Desirable \_\_\_\_\_

**Type of Certification:** Administrative \_\_\_\_\_ Teacher \_\_\_\_\_ Other Social Worker

**Bargaining Unit Position:** Yes  No \_\_\_\_\_

**Salary Schedule:** Teacher Basic Salary Schedule (contingent on Title I grant funding)

**Reports To:** Building Principal & Director of Student Services

**Supervision:** N/A

**Physical Demands:** Sedentary Work (see U.S. Department of Labor Guidelines)

**Date:** 5-12-15

**Approved by Human Resources/Legal Affairs** \_\_\_\_\_

**Approved by Superintendent** \_\_\_\_\_

**Statement of Assurance of Compliance with Federal Laws**

It is the policy of the Flint Community Schools not to discriminate on the basis of color, national origin, age, gender, height, weight, disability, religion, or marital status in any of its programs, activities, or employment. Inquiries should be addressed to the:

Executive Director of Human Resources/Legal Affairs  
923 E. Kearsley Street • Flint, Michigan 48503-1974 • (810) 760-1124

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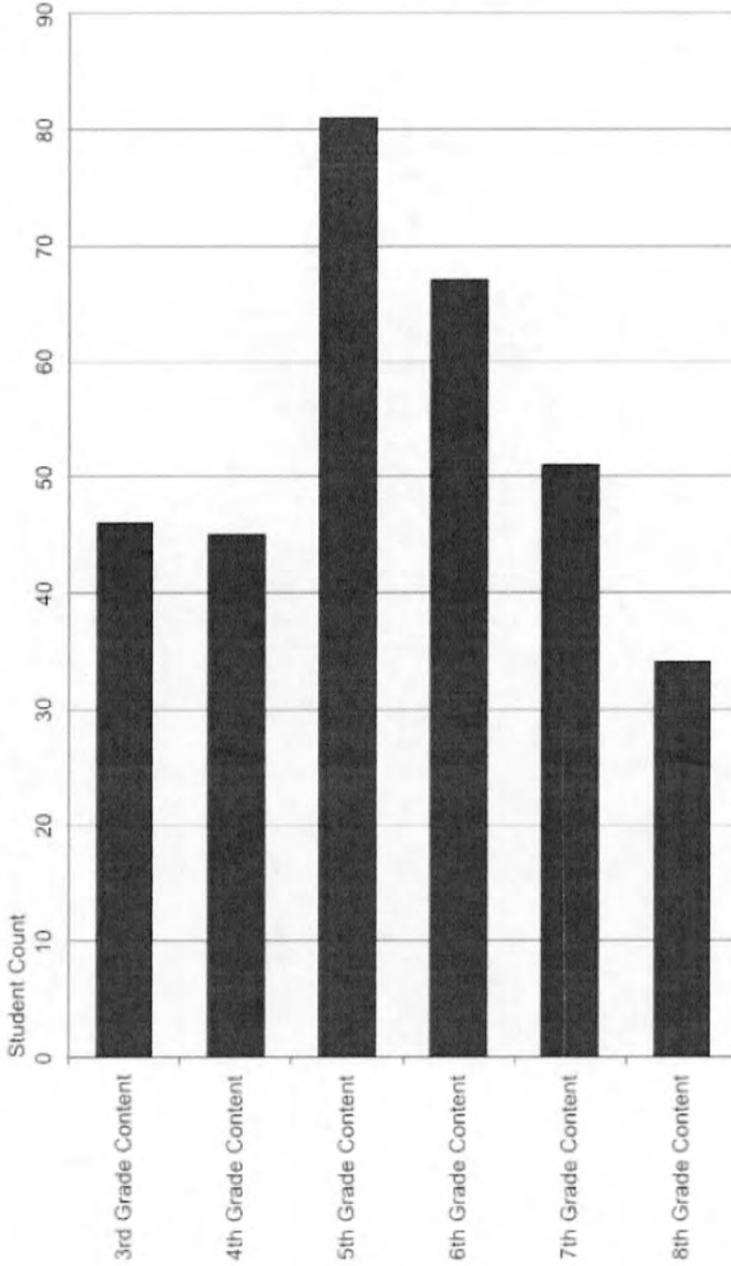
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# LOVETTE REPORT

## Exhibit M

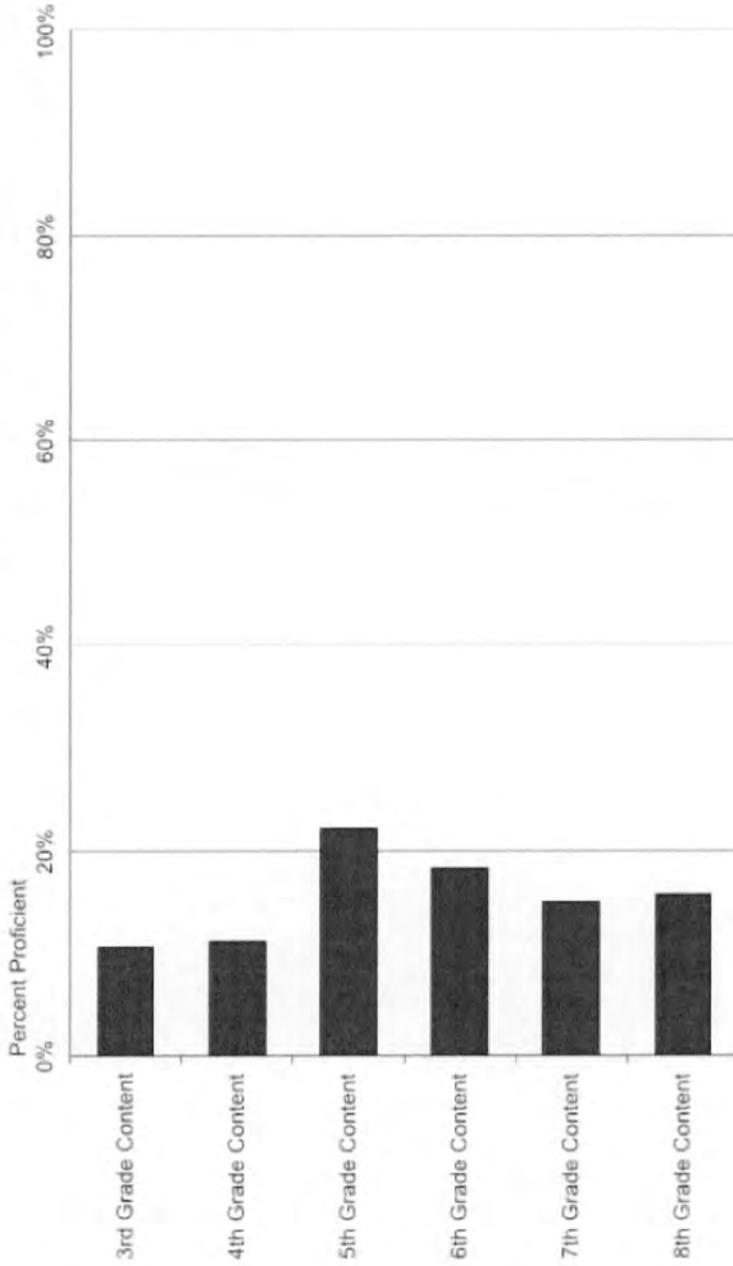


**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**





**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**





**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Name	Assessment Subject	Grade Level Content	Number Students Advanced or Proficient	Number Advanced	Number Proficient	Number Partially Proficient	Number Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
Flint, School District of the City of	M-STEP ELA	3rd Grade Content	46	18	28	117	266	429	1274.0	21.9
Flint, School District of the City of	M-STEP ELA	4th Grade Content	45	14	31	70	290	405	1372.9	20.0
Flint, School District of the City of	M-STEP ELA	5th Grade Content	81	35	46	75	211	367	1479.4	27.5
Flint, School District of the City of	M-STEP ELA	6th Grade Content	67	21	46	93	207	367	1578.1	24.5
Flint, School District of the City of	M-STEP ELA	7th Grade Content	51	<10	43	84	206	341	1672.5	24.0
Flint, School District of the City of	M-STEP ELA	8th Grade Content	34	<10	31	47	136	217	1774.0	22.5



**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Type	Location Name	Assessment Subject	Grade Level Content	Number Students Advanced or Proficient	Number Advanced	Number Proficient	Number Partially Proficient	Number Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
Statewide	Statewide	M-STEP ELA	6th Grade Content	46,672	15,762	30,910	28,816	31,522	107,010	1594.1	26.4
Statewide	Statewide	M-STEP ELA	4th Grade Content	47,606	23,911	23,695	22,615	37,551	107,772	1394.6	25.8
Statewide	Statewide	M-STEP ELA	8th Grade Content	52,241	14,227	38,014	31,090	25,496	108,827	1797.0	26.4
Statewide	Statewide	M-STEP ELA	5th Grade Content	55,086	21,515	33,571	24,870	27,861	107,817	1499.5	26.4
Statewide	Statewide	M-STEP ELA	3rd Grade Content	46,000	23,037	22,963	26,597	31,655	104,252	1294.7	25.7
Statewide	Statewide	M-STEP ELA	7th Grade Content	49,372	14,568	34,804	28,847	31,877	110,096	1694.6	26.8
ISD	Genesee ISD	M-STEP ELA	8th Grade Content	2,095	501	1,594	1,361	1,163	4,619	1795.4	25.7
ISD	Genesee ISD	M-STEP ELA	6th Grade Content	1,972	631	1,341	1,292	1,410	4,674	1593.4	25.8
ISD	Genesee ISD	M-STEP ELA	7th Grade Content	1,971	486	1,485	1,343	1,527	4,841	1692.0	25.9
ISD	Genesee ISD	M-STEP ELA	3rd Grade Content	1,816	832	984	1,254	1,600	4,670	1291.6	25.1
ISD	Genesee ISD	M-STEP ELA	5th Grade Content	2,318	877	1,441	1,105	1,366	4,789	1497.6	26.6
ISD	Genesee ISD	M-STEP ELA	4th Grade Content	1,953	856	1,097	1,106	1,879	4,938	1391.7	24.6
District	Flint, School District of the City of	M-STEP ELA	8th Grade Content	34	<10	31	47	136	217	1774.0	22.5



**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Type	Location Name	Assessment Subject	Grade Level Content	Number Students Advanced or Proficient	Number Advanced	Number Proficient	Number Partially Proficient	Number Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
District	Flint, School District of the City of	M-STEP ELA	7th Grade Content	51	<10	43	84	206	341	1672.5	24.0
District	Flint, School District of the City of	M-STEP ELA	5th Grade Content	81	35	46	75	211	367	1479.4	27.5
District	Flint, School District of the City of	M-STEP ELA	4th Grade Content	45	14	31	70	290	405	1372.9	20.0
District	Flint, School District of the City of	M-STEP ELA	3rd Grade Content	46	18	28	117	266	429	1274.0	21.9
District	Flint, School District of the City of	M-STEP ELA	6th Grade Content	67	21	46	93	207	367	1578.1	24.5



**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Name	Assessment Subject	Grade Level Content	Percent Students Advanced or Proficient	Percent Advanced	Percent Proficient	Percent Partially Proficient	Percent Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
Flint, School District of the City of	M-STEP ELA	3rd Grade Content	10.7%	<5%	6.5%	27.3%	62.0%	429	1274.0	21.9
Flint, School District of the City of	M-STEP ELA	4th Grade Content	11.1%	<5%	7.7%	17.3%	71.6%	405	1372.9	20.0
Flint, School District of the City of	M-STEP ELA	5th Grade Content	22.1%	9.5%	12.5%	20.4%	57.5%	367	1479.4	27.5
Flint, School District of the City of	M-STEP ELA	6th Grade Content	18.3%	5.7%	12.5%	25.3%	56.4%	367	1578.1	24.5
Flint, School District of the City of	M-STEP ELA	7th Grade Content	15.0%	<5%	12.6%	24.6%	60.4%	341	1672.5	24.0
Flint, School District of the City of	M-STEP ELA	8th Grade Content	15.7%	<5%	14.3%	21.7%	62.7%	217	1774.0	22.5



**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Type	Location Name	Assessment Subject	Grade Level Content	Percent Students Advanced or Proficient	Percent Advanced	Percent Proficient	Percent Partially Proficient	Percent Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
Statewide	Statewide	M-STEP ELA	6th Grade Content	43.6%	14.7%	28.9%	26.9%	29.5%	107,010	1594.1	26.4
Statewide	Statewide	M-STEP ELA	4th Grade Content	44.2%	22.2%	22.0%	21.0%	34.8%	107,772	1394.6	25.8
Statewide	Statewide	M-STEP ELA	8th Grade Content	48.0%	13.1%	34.9%	28.6%	23.4%	108,827	1797.0	26.4
Statewide	Statewide	M-STEP ELA	5th Grade Content	51.1%	20.0%	31.1%	23.1%	25.8%	107,817	1499.5	26.4
Statewide	Statewide	M-STEP ELA	3rd Grade Content	44.1%	22.1%	22.0%	25.5%	30.4%	104,252	1294.7	25.7
Statewide	Statewide	M-STEP ELA	7th Grade Content	44.8%	13.2%	31.6%	26.2%	29.0%	110,096	1694.6	26.8
ISD	Genesee ISD	M-STEP ELA	8th Grade Content	45.4%	10.8%	34.5%	29.5%	25.2%	4,619	1795.4	25.7
ISD	Genesee ISD	M-STEP ELA	6th Grade Content	42.2%	13.5%	28.7%	27.6%	30.2%	4,674	1593.4	25.8
ISD	Genesee ISD	M-STEP ELA	7th Grade Content	40.7%	10.0%	30.7%	27.7%	31.5%	4,841	1692.0	25.9
ISD	Genesee ISD	M-STEP ELA	3rd Grade Content	38.9%	17.8%	21.1%	26.9%	34.3%	4,670	1291.6	25.1
ISD	Genesee ISD	M-STEP ELA	5th Grade Content	48.4%	18.3%	30.1%	23.1%	28.5%	4,789	1497.6	26.6
ISD	Genesee ISD	M-STEP ELA	4th Grade Content	39.6%	17.3%	22.2%	22.4%	38.1%	4,938	1391.7	24.6
District	Flint, School District of the City of	M-STEP ELA	8th Grade Content	15.7%	<5%	14.3%	21.7%	62.7%	217	1774.0	22.5



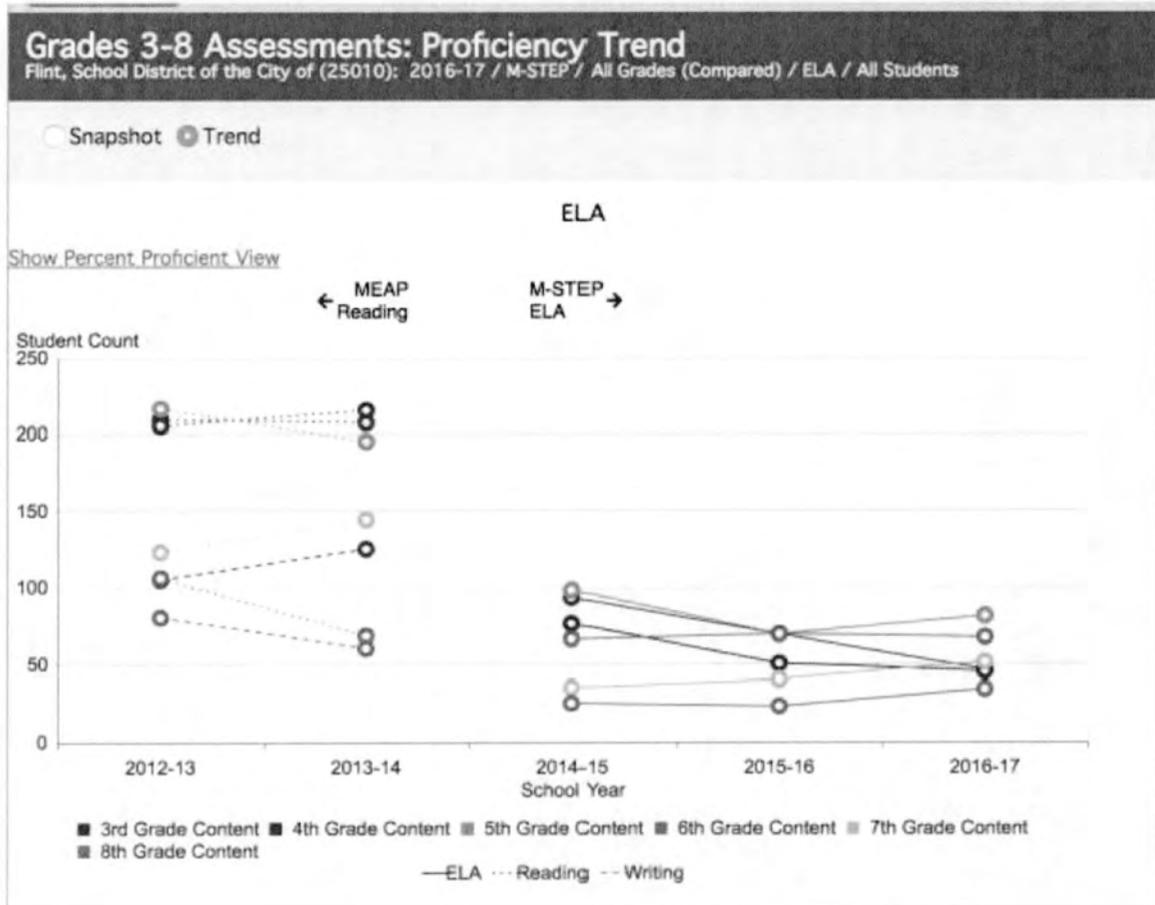
**Grades 3-8 Assessments: Proficiency Snapshot  
Flint, School District of the City of (25010): 2016-17 / M-STEP / All Grades (Compared) / ELA / All Students**

Location Type	Location Name	Assessment Subject	Grade Level Content	Percent Students Advanced or Proficient	Percent Advanced	Percent Proficient	Percent Partially Proficient	Percent Not Proficient	Number Assessed	Mean Scaled Score	Standard Deviation
District	Flint, School District of the City of	M-STEP ELA	7th Grade Content	15.0%	<5%	12.6%	24.6%	60.4%	341	1672.5	24.0
District	Flint, School District of the City of	M-STEP ELA	5th Grade Content	22.1%	9.5%	12.5%	20.4%	57.5%	367	1479.4	27.5
District	Flint, School District of the City of	M-STEP ELA	4th Grade Content	11.1%	<5%	7.7%	17.3%	71.6%	405	1372.9	20.0
District	Flint, School District of the City of	M-STEP ELA	3rd Grade Content	10.7%	<5%	6.5%	27.3%	62.0%	429	1274.0	21.9
District	Flint, School District of the City of	M-STEP ELA	6th Grade Content	18.3%	5.7%	12.5%	25.3%	56.4%	367	1578.1	24.5

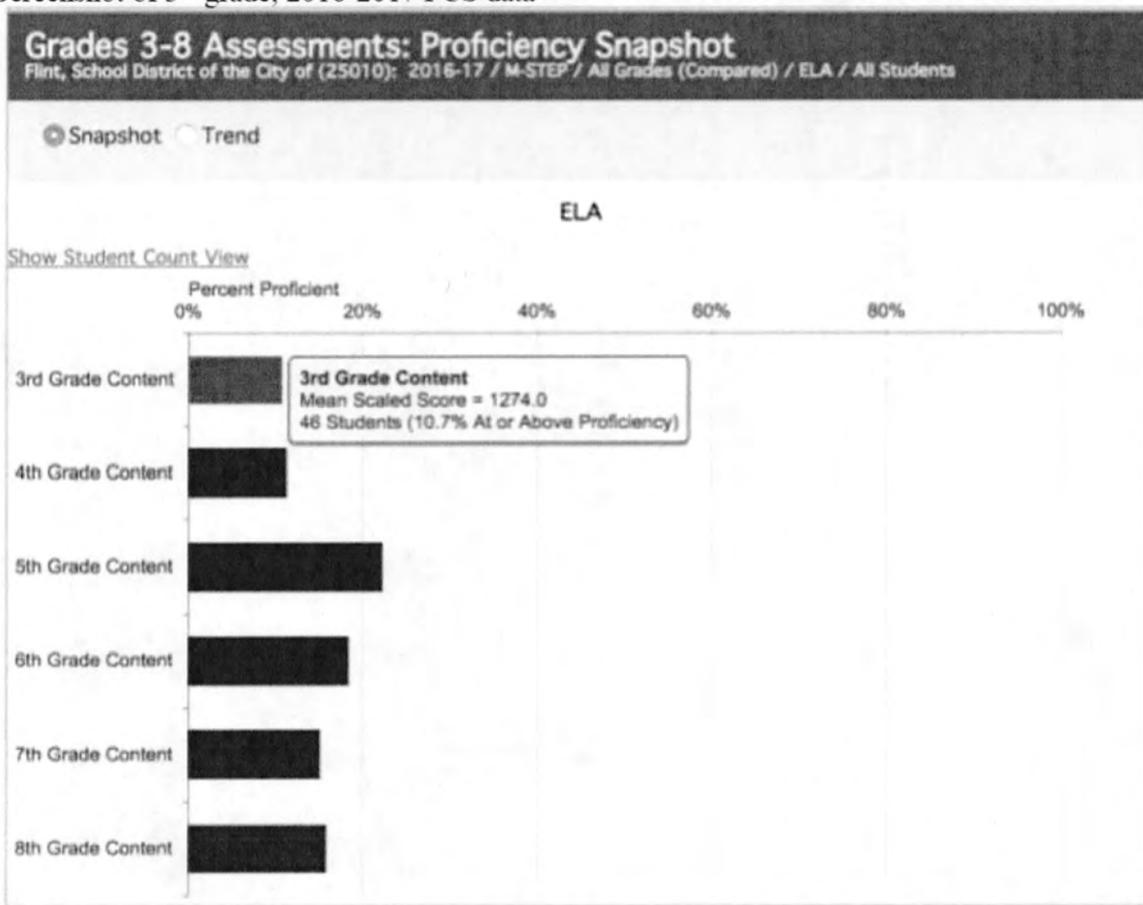
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## Exhibit N

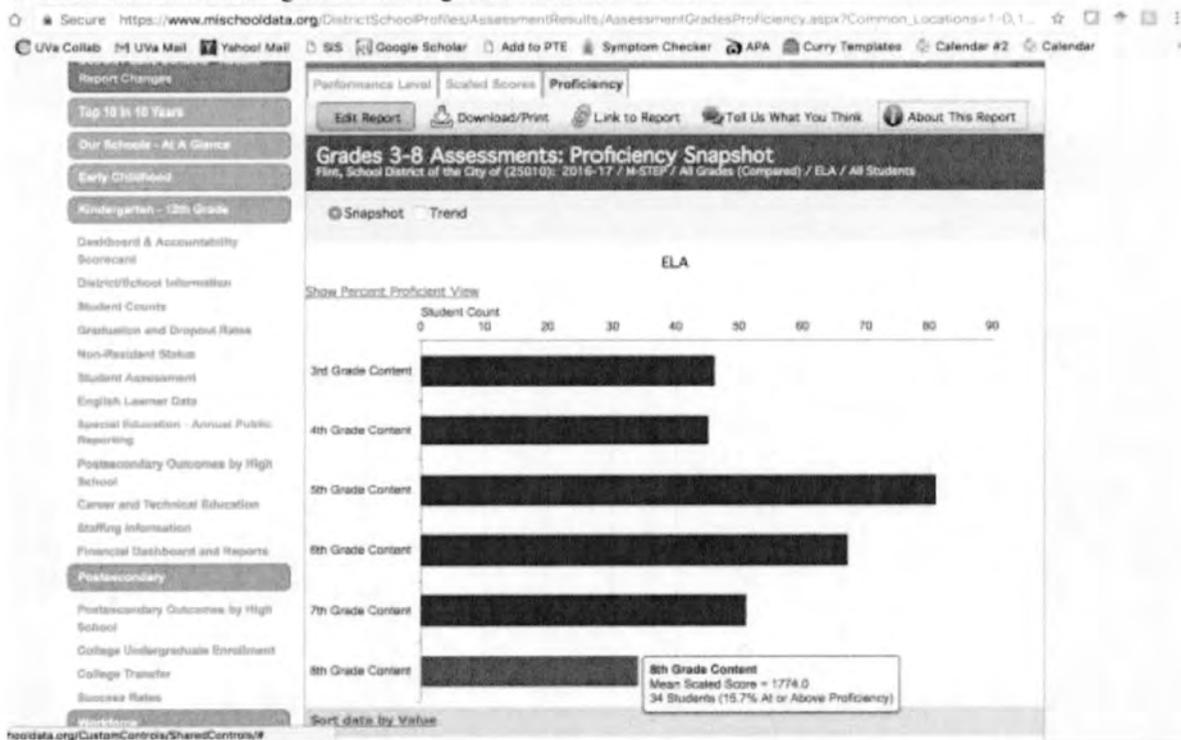
Screenshot of FCS data from MiSchooldata



Screenshot of 3<sup>rd</sup> grade, 2016-2017 FCS data



Screenshot of FCS 8<sup>th</sup> grade Reading data from 2016-2017



Screenshot of FCS Learning Support Services website (2 parts):



Secure https://www.apptrack.com/goaps/onlineapp/jobpostings/view.asp?district=724

Apps UVA Collab UVA Mail Yahoo! Mail SIS Google Scholar Add to PTE Symptom Checker APA Curry Templates Calendar #2 Calendar

All Jobs (See Public School Division) [View All Jobs](#)

Open Job as of 10/16/17  
724 Community Schools

Filter Community Schools - All Types (23 openings) Search Postings [View All Postings](#) 50

- All Schools (2)
- Elementary and Middle (2)
- Secondary (1)
- Special Services (3)
- All Schools

[Back](#)

Postings sorted as of 10/16/2017 1:21:03 PM EDT

Public regulations require of employers to post the [Equal Opportunity](#)

Powered by applicant tracking, a product of Frontline Solutions.

Secure https://www.applitrack.com/gcaps/onlineapp/jobpostings/view.asp?district=724&category=instructional

UVA Collab UVA Mail Yahoo Mail SIS Google Scholar Add to PTE Symptom Checker APA Curry Templates Calendar #2 Calendar

Instructional (19 openings) Search Postings

<b>Special Teacher (Secondary)</b> Position Type: Instructional Date Posted: 9/21/2017 Location: Southwestern Classical Academy Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15870</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>
<b>Math Teacher (Elementary)</b> Position Type: Instructional Date Posted: 9/22/17 Location: Northwestern High School Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15874</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>
<b>Elementary Teacher</b> Position Type: Instructional Date Posted: 9/22/17 Location: First Community Schools Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15837</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>

Attachments: [View Details](#)

Secure https://www.applitrack.com/gcaps/onlineapp/jobpostings/view.asp?district=724&category=instructional

UVA Collab UVA Mail Yahoo Mail SIS Google Scholar Add to PTE Symptom Checker APA Curry Templates Calendar #2 Calendar

<b>Elementary Teacher</b> Position Type: Instructional Date Posted: 9/22/17 Location: First Community Schools Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15827</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>
<b>Special Teacher</b> Position Type: Instructional Date Posted: 9/13/2017 Location: First Community Schools Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15847</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>
<b>French Teacher</b> Position Type: Instructional Date Posted: 9/13/2017 Location: Southwestern Classical Academy Closing Date: Unit Filled District: First Community Schools Additional Information: <a href="#">View Details</a>	<b>JOB# 15835</b> <a href="#">View Details</a> <a href="#">Send To A Friend</a> <a href="#">Print Listing</a>

Attachments: [View Details](#)

**Music Teacher K-12**  
**Position Type:** Instructional  
**Date Posted:** 9/14/2017  
**Location:** First Community Schools  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

**JobID: 1500**  
An update has been downloaded and is ready to install.

Attachments  
• Job Desc.

**Science Teacher Secondary**  
**Position Type:** Instructional  
**Date Posted:** 9/22/2017  
**Location:** Southeastern Classical Academy  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

**JobID: 1504**  
An update has been downloaded and is ready to install.

Attachments  
• Job Desc.

**EEI Intermediate Specialist (Elementary & Secondary)**  
**Position Type:** Instructional  
**Date Posted:** 9/29/2017  
**Location:** First Community Schools  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

**JobID: 1507**  
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Attachments  
• Job Desc.

**Location:** First Community Schools  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

PowerPoint  
An update has been downloaded and is ready to install.

Attachments  
• Job Desc.

**Art Teacher**  
**Position Type:** Instructional  
**Date Posted:** 10/3/2017  
**Location:** Northeastern High School  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

**JobID: 1570**  
An update has been downloaded and is ready to install.

Attachments  
• Job Desc.

**Technology Teacher**  
**Position Type:** Instructional  
**Date Posted:** 10/5/2017  
**Location:** Southeastern Classical Academy  
**Closing Date:** Unit Filled  
**District:** First Community Schools  
**Additional Information:** [View Details](#)

**JobID: 1572**  
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Attachments  
• Job Desc.

Print Notice

Perhaps viewed as of 10/15/2017 5:31:30 PM CST

Screenshot of Job Vacancies:

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Michigan State Public Health Resources  
[Openings as of 10/16/2017](#)  
[First Community Schools](#)

Administration (3 openings)

**Director of Federal, State, and Local Programs** **JANID: 1592**

Position Type: Administration  
 Date Posted: 9/21/2017  
 Location: First Community Schools  
 Closing Date: Last Filed  
 District: First Community Schools  
 Additional Information: [View Details](#)

**Assistant Principal, High School** **JANID: 15720**

Position Type: Administration  
 Date Posted: 9/27/2017  
 Location: First Community Schools  
 Closing Date: Last Filed  
 District: First Community Schools  
 Additional Information: [View Details](#)

**Recording & Ordering Specialist** **JANID: 15721**

Position Type: Administration  
 Date Posted: 9/29/2017  
 Location: First Community Schools  
 Closing Date: Last Filed

Secure https://www.applitrack.com/gcaps/onlineapp/jobpostings/view.asp?district=724&category=Education+and+Learning

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Michigan State Public Health Resources  
[Openings as of 10/16/2017](#)  
[First Community Schools](#)

Education and Learning (1 opening)

**MEXT Coordinator** **JANID: 15921**

Position Type: Education and Learning  
 Date Posted: 9/13/2017  
 Location: First Community Schools  
 Closing Date: Last Filed  
 District: First Community Schools

**Job Summary:**  
 First Community Schools, an urban public school system with campuses throughout the City of Flint, Michigan, has a long and rich tradition of community education. The Community Schools provide a range of academic, extended services and extracurricular activities at the elementary and secondary levels to meet the needs of our students and their families.

The MTSS (Multi-Tiered System of Supports) Coordinator supervises mental health staff and provides direct services to members to general education students that are At-Risk due to high referrals and suspension/expulsion rates. The Coordinator also assists the staff with determining appropriate data collection methods, evaluate observation data and make recommendations to the building team and building administration that may include risk modifications or tiered strategy interventions.

**Skills & Abilities:**  
 Bachelor's Degree, Salary Schedule: 185 Step

Health, dental, vision, life and disability insurance. Employees shall be subject to the employment of health care laws equal to the difference between the premium cost and the amount cost reduction imposed on public employees.

**Education:**  
 Master's Degree in Special Needs (SSEI) and the additional classes needed to obtain School Social Work Approval from an accredited university and the Michigan Department of Education. It is required that the school social worker obtain Certified School Worker (CSW) status within two years of hire.

**Experience:**  
 Previous social work experience in a public school setting or related agency preferred. Previous experience in Collaborative Evaluation Teams.

Qualifications necessary in:

- PBS / MTSS
- Restorative Justice
- Diagnosis and treating the effects of trauma
- Risk plans
- Working with at-risk students
- Supervising mental health staff

An online application is required for all positions. In addition, all applicants must submit the following:

- A signed cover letter
- Current resume
- Copy of transcripts
- Three signed professional letters of recommendation (cannot be older than 18 months)

These documents (pdf) be scanned and uploaded through the online application process.

Michigan State Public Health Services  
Department of Health Services  
Public Health Services

Y DELIVERABLES/STATUS Student Support Services (3 openings)

Search Settings

**Classroom Aide**

**Position Type:**  
Student Support Services

**Date Posted:**  
9/20/17

**Location:**  
Southwestern Classical Academy

**Closing Date:**  
Until Filled

**District:**  
First Community Schools [View District](#)

**Grant Work Specialist**

**Position Type:**  
Student Support Services

**Date Posted:**  
8/18/2017

**Location:**  
First Community Schools

**Closing Date:**  
10/17/2017

**District:**  
First Community Schools [View District](#)

**MS Data Clerk**

**Position Type:**  
Student Support Services

**Date Posted:**  
9/27/2017

**Location:**  
Southwestern Classical Academy

**Closing Date:**  
Until Filled

**District:**

**Closing Date:**  
Until Filled

**District:**  
First Community Schools [View District](#)

**Paraprofessional - Bilingual Aide**

**Position Type:**  
Student Support Services/Paraprofessional

**Date Posted:**  
10/10/2017

**Location:**  
First Community Schools

**Closing Date:**  
Until Filled

**District:**  
First Community Schools [View District](#)

**Social Workers (Special Education & Title I-Grant Funder)**

**Position Type:**  
Student Support Services/Social Worker

**Date Posted:**  
8/14/2017

**Location:**  
First Community Schools

**Closing Date:**  
Until Filled

**District:**  
First Community Schools [View District](#)

**JAN: 1807**

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[View To A Career](#)  
[View Version](#)

Attachments  
• [Cover Letter](#)

**JAN: 1819**

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• [JOB DESC.](#)

**JAN: 1878**

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Attachments  
• [JOB DESC.](#)

**JAN: 1870**

[View Job](#)  
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**JAN: 1801**

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# LOVETTE REPORT

## Exhibit O

# FLINT COMMUNITY SCHOOLS



**Code for  
Student Conduct  
2016-2017**

*Expect **More.** Achieve **More.***

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**DIRECTORY**

***DEPARTMENT OF STUDENT SERVICES***

**Ernest Steward, Director of Parent/Student Intervention, Safety,  
Athletics & Title IX Coordinator \_\_\_\_\_ 760-1230**

- **ATHLETICS**
- **ATTENDANCE POLICY ISSUES**
- **DRIVER EDUCATION CERTIFICATES**
- **SCHOOL SAFETY OFFICE**
- **STUDENT DISCIPLINE—APPEAL OF SUSPENSION, STUDENT INTERVENTION,  
TRANSFERS (change of building)**
- **STUDENT GRIEVANCE—DISCRIMINATION**
- **WORK PERMITS (check at local high school)**

**Melinda Carroll, Director \_\_\_\_\_ 760-1230**

- **LEARNING SUPPORT SERVICES AND SPECIAL PROGRAMS**

**Eileen Tomasi, \_\_\_\_\_ 424-4087**

- **HEALTH SERVICES**

***OFFICE OF CENTRALIZED ENROLLMENT***

**Keiona Murphy, Coordinator \_\_\_\_\_ 767-6158**

- **ENROLLMENT**
- **PUPIL ACCOUNTING**
- **DIPLOMAS**
- **STUDENT RECORDS**
- **TRANSCRIPTS**
- **TRANSFER PERMITS**

***OFFICE OF TRANSPORTATION-FIRST STUDENT***

**Chris Schoemann, Location Manager \_\_\_\_\_ 760-1317**



**FLINT COMMUNITY SCHOOLS**

*Expect **More.** Achieve **More.***

August 2016

Greetings!

Welcome to Flint Community Schools and thank you for joining us this school year.

At Flint Community Schools, we take great pride in our students, staff and schools. Our district's mission is to develop a community of learners who are prepared to live, work and contribute to an ever-changing society.

In order to hold true to our mission, our students must be educated in a safe and supportive environment that allows them to think and learn without interruption or distraction. All staff members will assist in enforcing the 2016-2017 Code for Student Conduct so we can maintain safe and orderly schools and school-sponsored events.

The 2016-2017 Code for Student Conduct acts as a guide to understanding the laws, policies and procedures that guide our district. The Code also provides a framework for the imposition of discipline at Flint Community Schools. This Code gives notice of conduct that will not be tolerated and the consequences if such conduct occurs.

The Code should be thoroughly reviewed by all students and, if applicable, with a parent or guardian to ensure clear understanding.

Thank you for choosing our district. I am eager to learn and grow with you this school year.

Educationally yours,

Bilal Tawwab, Superintendent

## **INTRODUCTION**

This handbook has been prepared as a service to students in Pre-Kindergarten through the 12th grade, parents, and faculty of the Flint Community Schools. The Flint Board of Education has authorized the policies and procedures to provide for the welfare of all students in the Flint Community Schools. All policies, regulations, definitions, and procedures have been prepared to comply with the laws of the State of Michigan and of the United States. All parents, students, and faculty are expected to become familiar with the contents of this handbook.

### **WHEN AND WHERE THE CODE FOR STUDENT CONDUCT APPLIES**

The Code for Student Conduct applies before school, during school hours, after school, and during school sponsored events.

- When a student is at school (“at school” means in a classroom, elsewhere on school premises, on a school bus or other school-related vehicle, off campus event, or at a school-sponsored activity or event whether or not it is held on school premises).
- When a student’s conduct at any other time or place has a direct and immediate effect on maintaining order and discipline, or on protecting the safety and welfare of students or school district staff.
- When a student is using school telecommunications networks, accounts, or other district services.

## **RIGHTS AND RESPONSIBILITIES**

Every student is entitled to those rights of citizenship granted by the Constitution of the United States and the State of Michigan. Specifically, pertinent to the school setting are those rights contained in the First and Fourteenth Amendments that relate to freedom of speech, press, assembly, petition, and with due process and equal protection.

It is recognized that the school is an academic community composed of students, teachers, administrators, parents, and the community at large. The rules and regulations of the schools are the laws of the community. All those who enjoy the right of citizenship in the school-community must accept the corresponding responsibilities. This entails respect for the laws of the community and for the rights of the other members of the community.

### **IT IS THE STUDENT'S RIGHT TO:**

- 1) Attend school in the district in which his/her parent/legal guardian(s) reside.
- 2) Form and hold his/her own ideas and beliefs.
- 3) Express his/her opinions verbally or in writing.
- 4) Dress within recognized standards of health, safety, and good taste.
- 5) Associate and assemble peacefully.
- 6) Petition school officials to address complaints.
- 7) Expect that the school shall be a safe place for all students to gain an education.
- 8) Privacy of his/her school records.
- 9) Have a student government with representatives selected through free school elections.
- 10) Be afforded a fair hearing in the event of disciplinary action with all of the safeguards of procedural process.
- 11) Expect that the school shall make every effort to safeguard individual rights.

### **RIGHTS OF EIGHTEEN (18)-YEAR-OLD STUDENTS**

Eighteen (18)-year-old students are legally recognized as adults. The policies and procedures set forth in the student handbook will apply to all students, regardless of their attainment of the age of majority, except as noted below:

- Students eighteen (18) years and older may have the same privilege as their parent/legal guardian(s) as it relates to access to their student records.
- Students eighteen (18) years and older may represent themselves during disciplinary conferences and be the addressee for their report cards.
- Students eighteen (18) years and older may sign themselves in and out of school and may verify their own absences. All school attendance standards continue to apply to students regardless of their age.

### **IT IS THE RESPONSIBILITIES OF THE STUDENTS TO:**

- 1) Respect the inherent human dignity, worth, and rights of every other individual.
- 2) Attend school daily, and be on time to all classes.
- 3) Express his/her opinions and ideas in a respectful manner so as not to offend or slander others.
- 4) Dress in a manner so as not to interrupt or interfere with the educational process.

- 5) Be aware of all rules and regulations regarding student behavior and conduct.
- 6) Study diligently and strive for the best possible level of academic achievement.
- 7) Assist in the maintenance and improvement of the school environment by preserving school property and exercising the utmost care while using school facilities.
- 8) Take an active part in the improvement of the school by becoming involved in or supporting student government.
- 9) Become actively involved in one's education, understanding of others, and preparation for adult life.
- 10) Report knowledge of violation of school policy (i.e., weapons, drugs, alcohol, etc.) on school property.
- 11) Wear and have school identification badges visible during school hours. Identification badges are to be worn between the neck and the waist. (If lost, replacement cost is \$10.00).
- 12) Become familiar with the Code for Student Conduct.

**IT IS THE RESPONSIBILITIES OF PARENT/LEGAL GUARIDAN(S) TO:**

- 1) Assist your child in attending school regularly and on time.
- 2) Provide for your child's health, personal cleanliness, acceptable grooming, and suitable dress.
- 3) Listen to, consult with, understand, and trust your child.
- 4) Work with school personnel and community groups to communicate concerns that may interfere with a child's education.
- 5) Teach your child to respect lawful procedures and the rights of others.
- 6) Encourage and be responsible for and insistent upon your child's understanding and development of self-reliance and independence.
- 7) Provide a time and place in the home for homework and study.
- 8) Become familiar with the Code for Student Conduct as it relates to your child.

**IT IS THE RESPONSIBILITIES OF TEACHERS TO:**

- 1) Know and enforce consistently and fairly the rules of the individual school and the policies of the school district.
- 2) Respect the individuality of students.
- 3) Assist students in becoming self-reliant and independent.
- 4) Work with parent/legal guardian(s), students, and school staff to provide for positive change, and prepare lessons that reflect district standards.
- 5) Notify parent/legal guardian(s) when a student may be failing the course (i.e., progress reports, parent conferences, report cards, and telephone calls).
- 6) Familiarize themselves with the Code for Student Conduct
- 7) Maintain confidentiality of student records/information as required by the Family Education Rights and Privacy Act ("FERPA").

**IT IS THE RESPONSIBILITIES OF THE BOARD OF EDUCATION TO:**

- 1) Hold the Superintendent of Schools and the school employees responsible for the fair and consistent application of policies of the Board of Education.
- 2) Work to adopt clear, understandable policies that enforce the goals of the school system.
- 3) Maintain open communication with all segments of the community to foster attainment of the best

possible educational environment.

- 4) Adopt policies that clearly promote and provide for a safe and orderly school environment.
- 5) Familiarize oneself with the Code for the Student Conduct.
- 6) Maintain confidentiality of student records/information as required by the Family Education Rights and Privacy Act ("FERPA").

## **DRESS AND APPEARANCE**

Parent/legal guardian(s), please ensure that your child(ren) follow the district dress and appearance dress code. Students should always present a decent appearance and wear appropriate clothing. In order to maintain a positive climate, students shall not wear suggestive or revealing attire that would divert attention from the learning process. Schools are expected to use the following guidelines as minimum standards but are encouraged to modify them to meet the uniqueness of their school. (Reference District's Policy 8240)

### **UNIFORM POLICY – K-8**

The District has designated that students in grades K-8 will be following a uniform dress code. Students will be expected to wear the following:

<b>Shirts/Blouse</b>	White, yellow, or light blue (Must have collar and sleeves)
<b>Pants/Skirts</b>	Black, Navy blue, or khaki

Shirts must be tucked in, tops may be button down, polo or blouses, no blue jeans, and pants must be secured at the waist. Students will also be allowed to wear school colors for building sporting events to show their school spirit.

### **POLICY K-12 DRESS AND APPEARANCE**

#### **The following items are prohibited:**

- a) Dresses, skirts, or shorts shorter than two (2) inches above the knee, clothing that is too tight or revealing. (Pants must be secured at the waist so undergarments are not visible. Shirts shall be long enough to cover the top of pants, shorts, or skirts).
- b) Items (including clothing, book bags, notebooks, other school supplies, etc.) with inappropriate messages, or pictures/photographs deemed obscene.
- c) Items displaying illegal substances or activities prohibited for minors.
- d) Items containing messages that are defamatory, socially offensive, or discriminatory toward another group or individual.
- e) Any clothing, colors, bandanas, or insignia deemed to be gang related and/or any outward display of gang-associated behavior as determined by local law enforcement officials. (Reference District's Policy 8245)
- f) Hats, caps, head coverings, coats, and jackets during the class day. Hats and head coverings may be worn if necessary due to religious or medical reasons. All baseball caps and other hats will be placed in lockers and not carried around throughout the school day. Any hat seen by administration, teachers, or staff will be confiscated and any student dressed inappropriately will not be allowed to remain in school.

- g) Flip flops, house shoes, shoes with heels over two (2) inches, or any foot covering deemed to be either a health or safety risk by administration.
- h) See-through shirts/blouses, sleeveless shirts/blouses, tank tops, tube tops, halter tops, and outfits (tops & bottoms) with sexually explicit, illegal or socially offensive messages.
- i) Sagging, ripped or low-rider pants. Pajamas and look-a-likes
- j) Any embellishment that could be used as a weapon (i.e., chains).
- k) Hooded tops of any type, which could conceal the identity of a student or cause an unsafe condition.
  - l) Shirt designs that include "Rest in Peace," "In Memory of ...," or "Free (person's name)."
- m) Any type of leggings worn as pants.

## **PHYSICAL FORCE**

Any teacher, administrator, or designee may use reasonable physical force when it becomes necessary to maintain the balance essential for effective learning to take place. All school employees may use reasonable physical force upon a student as necessary for the purpose of providing an environment conducive to safety and learning. The employee may use reasonable physical force as follows:

- To maintain order and control in a school or school-related setting
- For self-defense
- To prevent injury to all persons including students and staff
- To prevent damage to school property

The building principal/designee shall notify the student's parent/ legal guardian(s) when physical force has been used upon a student. A complete written description of the incident and why such action was necessary will be immediately filed with/or by the building principal/designee.

## **ELECTRONIC DEVICES/CELL PHONES**

The use of cell phones and other electronic devices, such as, but not limited to, MP3 players, cameras, tape/CD players, video game devices, iPads, notebooks, tablets, eBooks, personal laptops, laser pointers, radios, pagers, beepers, walkie-talkies (long/short range), portable CB radios, portable shortwave radios, portable police scanning devices, and their earphone attachments, such as, but not limited to, earbuds, Bluetooth, and headphones, (and so on), is not allowed on school property or school buses during the school day. If these devices are found in use, they will be confiscated and released to the parent/legal guardian(s) at the administrator's discretion. The recording of any event on school property, unless otherwise approved by administration, is subject to disciplinary action.

**NOTE:** At the discretion of building administrators, certain electronic devices may be allowed for special projects.

THE DISTRICT IS NOT RESPONSIBLE FOR ANY LOST, STOLEN, DAMAGED, OR CONFISCATED ITEMS. (REFERENCE DISTRICT'S POLICY 8305).

## **ENFORCEMENT OF RIGHTS, RESPONSIBILITIES, AND RULES**

### **DISCIPLINE**

A student entering the Flint Community Schools becomes a member of a group. For that group to function effectively, each member needs to think not only about him/her self, but about the other members of the group as well. Discipline, fairly investigated and administered, helps maintain the balance between the rights of the individual and the rights of the group. Good discipline controls the behavior of individuals and of groups, so

the rights of all students are protected. It ensures justice and equality and recognizes the dignity and worth of each individual. The goal of disciplinary action in the schools is to assist the student in learning self-discipline or control of his/her own behavior, so the student's actions are acceptable within the group, contributing to a safe, friendly, and business-like atmosphere where effective learning can take place.

Attainment of the goal of self-discipline depends on the good judgment and compassion of teachers, support staff understanding, leadership by administrators and the Board of Education, and the support of all parent/legal guardian(s) within the community.

A student who is not in class has less opportunity to learn. Disciplinary action, where possible, should keep the student in the school setting engaged in learning activities. However, in order to maintain effective learning conditions, it may be necessary to deny certain students educational participation. Denial of participation may be made, with the limitations of the Michigan General School Laws, for reasons of persistent disobedience or gross misdemeanor. "Gross misdemeanor" means a willful or malicious act of detriment to the school. The misconduct must be more than a petty or trivial offense against school rules. "Persistent disobedience" means recurring cases or instances of refusal to obey school officials and to comply with school rules and regulations.

## **DENIAL OF EDUCATIONAL PARTICIPATION**

### **DISCIPLINARY MEASURES**

#### **1. ADMINISTRATIVE INTERVENTION**

Examples of disciplinary action, which does not result in a student being suspended from school, are as follows: removal of a student from a class period, reprimand, detention and/or work assignment before or after school, additional classroom assignments, and revocation of the privilege of attending non-classroom school functions, activities, events, etc.

#### **2. DETENTION**

As an alternative disciplinary method, the principal may establish a detention hall. Such a detention hall shall meet daily, after regular school hours, with each session equal in time to a normal class hour, and shall serve as an alternative to a suspension for students involved in minor disciplinary infractions. The detention hall may be organized in such a fashion as to serve the needs of each individual school, but shall be obligated to follow these basic guidelines:

- a) Schools offering the detention hall shall itemize those violations of the Code for Student Conduct, which may be punishable by the student's optional use of the detention hall and shall make this information known to the student population.
- b) The school shall plainly show the student to be in violation of the Code for Student Conduct following an investigation.
- c) The school shall afford adequate staff supervision to ensure a serious academic atmosphere in the detention hall.
- d) The student and his/her parent/ legal guardian(s) shall be given the option of selecting either the suspension usually levied for a certain offense or attending the detention hall for a period of time stipulated by the principal/designee.
- e) The student shall be obligated to abide by his/her decision in this matter. Should he/she select the detention hall and fail on any occasion to meet that obligation, he/she shall serve the suspension originally designated for the offense in question. Similarly, should the student select suspension, he/she shall serve his/her penalty in that fashion.
- f) In all cases, the parent/legal guardian(s) shall be fully informed either verbally or in writing by the school of the student's offense, the options given, and the final option selected by the student.

Transportation to and/or from any detention hall shall be the responsibility of the parent /legal guardian(s).

### **3. SUSPENSION PENDING PARENT CONFERENCE**

The conference with the parent/legal guardian(s), student, teacher, and an administrator present, should be held as soon as can be mutually arranged.

Upon completion of the conference, the student will be reinstated to the class or classes from which the student had been suspended. Should the parent/legal guardian(s) fail to appear for a conference within three (3) school days, the student shall be returned to class. In every case, the parent/legal guardian(s) shall be notified.

### **4. BEHAVIORAL PROBATION**

Any student who has been involved in an infraction of school rules may be placed on behavioral probation in addition to, or in lieu of other disciplinary action by the Department of Student Services, the school principal/designee or duly authorized agent. Probation will be for a definite time period during which critical examination and evaluation of the student's progress should take place.

During the probation period, the student may be denied the privilege of participation in or attendance at all extracurricular activities. At the close of the probationary period, the individual case shall be reviewed and the student may regain all privileges.

If the student is further involved in an infraction of school rules during the probationary period, he/she shall be suspended or denied certain extracurricular privileges under the stipulations set forth in the probationary agreement.

The parent/legal guardian(s) will be notified by the principal/designee that the student is being placed on behavioral probation, including the length of the period, the terms of the probation, and the possibility of suspension if the student is found in further violation of school rules during probation.

The student may be placed on probation to an administrator, teacher, or counselor, with the selection of administrator, teacher, or counselor to be mutual consent of the student and the staff member involved. If consent cannot be reached, the student shall be placed on probation to a school administrator appointed by the principal.

The student will be removed from probation if, at the completion of the probationary period, satisfactory adjustment has been made as agreed upon by the student, the staff member overseeing the student during probation, and the school's administrative staff.

### **5. SUSPENSION**

The authority of the Board of Education to authorize suspension or expulsion and to make reasonable rules and regulations regarding discipline is granted in Section MCL 380.11a; MSA 15.401a of the Revised School Code. A student may be suspended from school for a definite period of time by the principal/designee for persistent disobedience or gross misdemeanor. In cases of suspension of three (3) school days or fewer, the suspending administrator's decision will be final.

#### **A. P.A. 103 "Snap" Suspensions**

A teacher may suspend a student from his/her class, subject, or activity for up to one (1) full school day, at the elementary level and one (1) class hour at the secondary level if the teacher has good reason to believe that the student engaged in any of the following types of conduct in class:

- 1) Throwing objects that can cause bodily injury or property damage
- 2) Fighting
- 3) Directing profanity, vulgar language, or obscene gestures toward the teacher or other students
- 4) Violating safety rules as outlined in the Code for Student Conduct or classroom rules

- 5) Willfully failing to respond or carry out a reasonable directive given by the teacher
- 6) Expressing racial or ethnic slurs toward the teacher or another student
- 7) Engaging in any misbehavior that gives the teacher reasonable belief that the conduct will incite violence
- 8) Harassing, threatening, or committing intimidating acts
- 9) Repeatedly violating classroom rules and/or Code violations
- 10) Destroying/defacing school property

### **B. In-School Suspension**

Where resources are available, a student may be required to complete his/her regular class assignment in a specially supervised room for a prescribed period of time or until he/she is able to resume regular classroom instruction. This in-school suspension is for single-hour classes only.

### **C. Out-of-School Suspension**

An out-of-school suspension is a denial to a student of the right to attend school and to take part in any school function for any period of time from one (1) school day up to the balance of the school year or expulsion.

## **6. DISCIPLINE FOR STUDENTS WITH DISABILITIES (REFERENCE TO APPENDIX B)**

Students who are receiving special education services are expected to follow the district's rules the same as is expected of any student. Being a special education student does not prevent the student from being suspended. All due process rights will be followed. Special education students who are recommended for suspension for more than ten (10) school days or cumulative suspension days greater than ten (10) school days within a calendar year must have a Manifestation Determination Review and an Individualized Education Plan Team meeting to determine if the behavior is a manifestation of disability.

## **7. SHORT-TERM SUSPENSIONS**

A short-term suspension is a denial to a student of the right to attend school and to take part in any school function for any period time up to and including ten (10) school days. The principal/designee may invoke a short-term suspension only after investigating the misconduct following these procedures:

- a) The student and the parents/legal guardians will be notified of the charges.
- b) Information from persons having knowledge of the incident will be accepted. The student involved shall have the opportunity to express his/her side of the problem and to have persons give information on his/her behalf.
- c) The student subject to disciplinary action shall be given the opportunity upon his/her request or that of the parent/legal guardian(s) to face his/her accuser.
- d) A short-term suspension shall be levied solely at the discretion of the building principal based on the findings of the investigation. Once a principal/designee has determined that a short-term suspension is in order, he/she shall follow the procedures for implementing a short-term suspension from school.

## **8. IMPLEMENTING A SHORT-TERM SUSPENSION FROM SCHOOL**

When a student is suspended for ten (10) school days or fewer, the principal/designee shall:

- a) Immediately notify the parent/legal guardian(s) of the school's action and inform them that their child is being sent from the building. If the principal/designee cannot reach the parent/legal guardian(s), the student must remain on school property for the remainder of the school day. Should the school fail to make personal contact with the family within twenty-four (24) hours, a letter must be sent informing them of the school's action.

The principal/designee may, however, order a student to leave the premises immediately when the presence of that student on school property poses a threat to staff, students, or the normal educational process.

- b) Notices will be sent to the student, his/her parent/legal guardian(s), the Department of Student Services, and Executive Director, stating the rule violated, the student's misconduct, the length of the suspension, and the principal's/designee's reason for action.
- c) Every effort will be made to hold a conference with the student's parent/legal guardian(s) before or at the time the student returns to school. A student who has reached the age of majority may waive this provision and represent himself/herself in the conference.
- d) All documentation concerning the misconduct will be kept on file.

## **9. LONG-TERM SUSPENSION**

A long-term suspension is a denial to a student of the right to attend school and to take part in any school function for any period of time in excess of ten (10) school days, and not to exceed the balance of the school year. The principal/designee may invoke a long-term suspension only after following these procedures:

- a) Notify the student and the parent/legal guardian(s) of the charges
- b) Accept information from persons having knowledge of the incident. The student involved shall also have the opportunity to express his/her side of the problem and to have persons give information on his/her behalf.
- c) The student subject to disciplinary action shall be given the opportunity upon his/her request or that of the parent/legal guardian(s) to face his/her accuser.
- d) Should the review by the Department of Student Services take longer than ten (10) school days, the student should be allowed to attend classes from the conclusion of the tenth day until the review is completed.
- e) If, after the review, the Department of Student Services concurs with the decision of the principal/designee, the principal/designee shall follow the procedures for implementing a long-term suspension from school.

## **10. IMPLEMENTING A LONG-TERM SUSPENSION FROM SCHOOL**

When a student is suspended for more than ten (10) days, the principal/designee shall:

- a) Immediately notify the parent/legal guardian(s) of the school's action and inform them that their child is being sent from the building. If the principal/designee cannot reach the parent/legal guardian(s), the student must remain on school property for the remainder of the school day. Should the school fail to make personal contact with the family within twenty-four (24) hours, a registered letter must be sent informing them of the school's action. The principal or his/her designee may, however, order a student to leave the premises immediately when the presence of that student on school property poses a threat to staff, students, or the normal educational process.
- b) A conference with the student and his/her parent/legal guardian(s) will be scheduled to review the reasons for the suspension and any make-up work. The student and/or parent/legal guardian(s) may have legal counsel, an advocate, or other representatives (limited to two persons) at this meeting. A student who has reached the age of majority may waive this provision and represent himself/herself in the conference.
- c) Notices will be sent to the student, his/her parent/legal guardian(s), and the Department of Student Services, giving the following details:

- 1) The student's misconduct
- 2) The rule violated
- 3) The length of the suspension
- 4) The right to appeal, to whom the appeal must be directed (see appeals process), and the fact that the appeal must be registered within five (5) school days of the receipt of the statement by mail.

#### **11. COUNTING SUSPENSION DAYS**

Suspension days shall be counted as follows:

- a) The day the student left school will be counted as a part of the suspension providing he/she was denied class participation before 12 noon of that day.
- b) The suspension shall terminate at 12 midnight on the day listed as the last day of the suspension.
- c) Times when school is not officially scheduled are not counted as part of the suspension time.

#### **12. MAKE-UP WORK FOR SUSPENSIONS**

Short-Term Suspensions:

The school **MUST** encourage the student who has been suspended to make up class work missed. Such work may be made up while the student is on suspension and must be submitted within five (5) school days from the date of returning to classes, unless otherwise mutually agreed upon by the building principal/designee, the student, and the teacher involved.

Long-Term Suspensions (More than ten (10) school days):

The school **MUST** encourage the student who has been suspended to make up class work missed. Such work may be made up while the student is on suspension and must be submitted within five (5) school days from the date of returning to classes, unless otherwise mutually agreed upon by the building principal/designee, the student, and the teacher involved.

#### **13. APPEALS AND REVIEWS OF SUSPENSIONS**

A suspension may be appealed by the student and/or parent/legal guardian(s). Appeals must be made within five (5) school days of the receipt of the notification of said suspension and must be directed to the building principal/designee.

##### **SHORT-TERM SUSPENSION OF 1-10 DAYS**

###### **STEP 1**

An appeal for a suspension of ten (10) days or fewer may be made to the building principal in writing within five (5) school days.

###### **STEP 2**

Further appeal may be made in writing to the Department of Student Services. A representative will review all information. Based upon this review, the Department of Student Services will adjust, revoke, or sustain the suspension.

##### **LONG-TERM SUSPENSION OF 11 DAYS OR MORE (NOT TO EXCEED THE BALANCE OF THE SCHOOL YEAR)**

The appeal process **MUST BEGIN** with step 1. If that appeal is denied, it can progress to step 2, then step 3 and finally step 4.

###### **STEP 1**

Appeals for suspensions of more than ten (10) school days and not exceeding the balance of the current

school year may be initiated with the building principal/designee in writing, as the appellant may prefer within five (5) school days.

**STEP 2**

Additional appeal may be made to the Department of Student Services in writing. Following review, the Department of Student Services will adjust, revoke, or sustain the suspension.

**STEP 3**

Further appeal may be made to the Superintendent of Schools/designee by scheduled conference. Based upon the review, the Superintendent of Schools/designee will adjust, revoke, or sustain the suspension.

**STEP 4**

Final appeal may be made to the Board of Education or a committee of Board members designated for this purpose.

**AT ALL STEPS OF APPEAL**

At all steps of appeal, the student and his/her parent/legal guardian(s) have the right to be represented by a spokesperson of their own choosing, providing the following stipulations are met:

- The parent/legal guardian(s) must be present and give his/her verbal consent for such representation. If not present, the parent/legal guardian(s) must give written consent for such representation. Students having reached the age of majority may waive the requirements.
- In addition to the parent/legal guardian(s), no more than two (2) such persons may represent a student in any given conference.

At appeal steps 2, 3, and 4, the person or persons hearing the appeal shall notify the parent/legal guardian(s) of their decision concerning the appeal within three (3) school days from the date of the hearing. The person representing the next appeal step, as well as those persons having heard the appeal previously, should also be notified.

**14. EXPULSIONS**

Expulsion from school is a denial to a student of the right to attend school and to take part in or attend any school function. Following expulsion, the student will not be readmitted to any unit of the Flint Community Schools other than a designated Expulsion Program, so long as the order of expulsion remains in effect.

The Board of Education may expel a student upon the recommendation of the Superintendent of Schools/designee and the principal/designee of the school attended by the student.

A written notice will be sent to the student and parent/legal guardian(s) stating the offense committed by the student, and a hearing will be set as required by law.

The principal may immediately remove the student from school if the student's presence poses a continuing danger to persons or property or an ongoing threat of disrupting the academic process.

The principal shall immediately notify the Director of the Department of Student Services of the recommended expulsion, including all required documentation within (5) five school days.

The Director of the Department of Student Services shall immediately notify the Superintendent of Schools/designee of the recommendation of the principal and of the alleged offense. If the Superintendent of Schools/designee concurs with the recommendation of the principal, the Superintendent of Schools shall notify the principal. This notification shall include a statement of the offense, and the date, time and location of the hearing. The student is entitled to representation at the hearing.

A Board of Education Hearing Panel shall convene at the date, time, and location set forth in the notice or at any adjourned date agreed upon between the student, his/her parent/legal guardian(s), and the Board of

Education. The hearing panel shall hear all pertinent testimony and evidence offered in support of and in opposition to the charges, and at the conclusion of the hearing or as soon thereafter as shall be practicable, the hearing panel shall advise the Board of Education of its recommendation. At the next regular Board of Education meeting the recommendation shall be acted upon. The decision will be issued in writing. The Superintendent shall promptly, after the decision of the Board is rendered, give a copy of the decision to the student and his/her parent/guardian(s).

All permitted or required notices shall be delivered to the person or persons entitled thereto or sent by registered mail, return receipt requested. Subsequent to the expulsion, a complaint shall be filed, as required by law, with the Michigan Department of Human Services. (Reference District's Policy 8350)

#### **15. READMISSION OF AN EXPELLED STUDENT**

An expelled student and/or parent/legal guardian(s) may petition for the student's readmission to the Superintendent of Schools. The request must be made in writing and will be acted upon by the Superintendent of Schools. Students, who are enrolled in grades five (5) or below at the time of expulsion will be expelled for a maximum of ninety (90) school days. Students, who are in grades six (6) or above at the time of the expulsion, will be expelled for a maximum of 180 school days.

If the anniversary date of the act which led to the expulsion occurs beyond ten (10) weeks of the start of a new semester, and if the Superintendent of Schools approves the student's petition for readmission, placement may take place at the beginning of the semester following the anniversary date of that act which led to expulsion.

An expulsion reinstatement committee appointed by the Board of Education, shall make a recommendation to the Superintendent based upon a thorough review of the case and an assessment of the student's compliance with the conditions stipulated for his/her readmission presented to him/her shortly after the expulsion. This recommendation will be reviewed by the superintendent for approval or modification and submitted to the Board of Education for informational purposes. (Reference District's Policy 8080)

#### **16. ATTENDANCE PROCEDURES**

It is the policy of the School District of the City of Flint to expect and encourage all students to attend school every day. Students who repeatedly miss school cannot earn credit toward promotion and/or graduation. Standards for each of the elementary and secondary school levels are contained in the district's attendance procedure.

If students are unable to attend school for any part of the school day, it is the responsibility of the parent to notify the school of this absence. Parent/legal guardian(s) are ultimately responsible for their children attending school on a regular basis. Every effort should be made to limit absenteeism and to discourage truancy. Where appropriate, the district will proceed with community and/or court intervention when there is a flagrant disregard for the district's attendance policy and procedures.

It is essential that the school district provide a safe and orderly environment, as well as a school climate that is nurturing and caring for all students. School personnel recognize that these qualities are essential to providing the educational experience that is so important to prepare students for the future.

#### **COMPULSORY EDUCATION UNDER MICHIGAN STATE LAW**

MCL 380.1561(1) The Michigan compulsory attendance law requires every parent/legal guardian(s) or other person who has charge of a child from the ages of six (6) to sixteen (16), to send the child to a public or a state approved non-public school. A child who turns six (6) years old before December 1 of that year must be enrolled in school.

The compulsory attendance law is designed to require school attendance and to ensure that no child is denied the opportunity to receive an education.

The responsibility for good attendance is a collaborative effort. Successful implementation of this policy

requires cooperation among all members of the educational community, including parent/legal guardian(s), students, teachers, administrators, and all staff members.

#### **PARENT/LEGALGUARDIAN(S) ATTENDANCE RESPONSIBILITIES**

Make daily school attendance a priority in the home.

It is the responsibility of parent/legal guardian(s) to ensure that their children attend school regularly and arrive on time.

Parent/legal guardian(s) are required to provide their current home address, telephone number, emergency number(s), and a list of adults to contact in the event of an emergency.

Parent/legal guardian(s) are to notify the school immediately when a change occurs in address, telephone number, emergency numbers, and emergency contact information. Student's contact information needs to be current in order for schools to deal with any emergency that may arise.

When a student is absent from school, parent/legal guardian(s) must contact the school to report the absence.

Be aware of the attendance/tardy policy and procedures as listed in the Code for Student Conduct.

Parent/legal guardian(s) are expected to make immediate contact with teachers for make-up assignments and class work that their children have missed during their absence.

A doctor's verification, court documentation, or obituary is required in order for an absence to be excused.

#### **STUDENT ATTENDANCE RESPONSIBILITIES**

Students must attend school daily and be on time.

Students must attend all classes and participate fully.

Students must be aware and follow the attendance/tardy policy and procedures as listed in the Code for Student Conduct.

Students are expected to make immediate contact upon return with their teachers to make up assignments and class work they have missed during their absence whether excused or unexcused. Upon returning to class, the student has five (5) school days from the date of the absence to make-up work. Any deviations from this policy are at the principal's discretion.

#### **ADMINISTRATOR ATTENDANCE RESPONSIBILITIES**

Principal/designee is responsible for implementing the attendance/tardy policies of the Flint Community Schools.

Principal/designee is responsible for the school's attendance services, assuring that school staff follows attendance/tardy procedures and protocol.

Principal/designee will review attendance of students' daily and run weekly attendance reports to ensure that attendance is accurate and being taken on a daily basis.

Principal/designee must ensure follow-through as needed, including phone and written communication to parent/legal guardian(s) regarding attendance issues.

Principal/designee is responsible for identifying students who require attendance services for absences or tardiness.

#### **TEACHER ATTENDANCE RESPONSIBILITY**

Follow the district's attendance/tardy policy procedures and protocol including contacting parent/legal guardian(s) as defined in the district's attendance policy.

Enter hourly attendance into computer attendance system on a daily basis to ensure accurate attendance and tardy records.

Notify designated school personnel of student absences and instances of truancy on a daily basis for investigation and follow-up.

Continually stress to students the importance of promptness and regular attendance in educational and business matters and set a positive example through their own contact with classes.

#### **ELEMENTARY SCHOOL ATTENDANCE POLICY (K- 6th GRADE)**

We realize that students occasionally will have a reason to be absent from school. However, these occurrences should be the exception rather than the rule. The following procedures will be used when dealing with absences:

- After four (4) unexcused absences from school, the teacher will notify the parent by phone or mail of the absences.
- At the sixth (6) unexcused absences from school, the teacher will send a letter by the U.S. mail informing the parent/legal guardian(s) of unexcused absences and requesting a parent conference. Students will be referred to the student assistance team for possible intervention.
- The teacher will notify the principal/designee in writing when a student has eight (8) unexcused absences. The principal/designee will send a written notice of the attendance concerns to the parent/legal guardian(s) and schedule a parent conference. A student intervention referral form will be completed at this time, and the student will be referred to the Student Facilitators or Behavioral Specialists.
- After twelve (12) unexcused absences, the parent/legal guardian(s) and the school personnel will have a conference concerning the student's attendance problems. The parent will be informed at that time of the possibility of an educational neglect petition being filed if the attendance problem is not corrected.
- If a student reaches fifteen (15) unexcused absences, the parent/legal guardian(s) name may be submitted to the Genesee County Prosecutor's Office for possible prosecution with two (2), - ninety (90) days of jail time based upon the Michigan Compulsory Attendance Law, or the school will initiate a truancy/educational neglect petition with the Genesee County Family Court.

#### **TARDY POLICY FOR ELEMENTARY SCHOOLS**

- Tardy: If a student arrives one (1) minute after the morning instructional bell rings up to an hour after the instructional bell rings, the student will be considered tardy. Five (5) tardies equals ½ school day absence.
- Absence: A student arriving one (1) hour after the morning instructional bell rings, but before lunch will be marked absent for a ½ day. A student arriving after the afternoon lunch bell will be marked absent a full day. A student who comes in the morning, but leaves any time before lunch break will be marked absent a full day. If the student leaves after lunch break, it will be considered a ½ school day absence.
- Any unauthorized removal of a student by a parent/legal guardian(s) after the lunch bell, but before the dismissal bell will be considered an early removal. Five (5) early removals will equal a ½ day absence.
- A pattern of consistent tardiness and early removal should be dealt with by school staff intervention and the possibility of filing an educational neglect petition with the Genesee County Family Court for a referral to Attendance Court.

Each school will develop an incentive program to recognize and promote good attendance.

#### **SECONDARY ATTENDANCE POLICY (7th-12th grade)**

- 1) The importance of excellent attendance is recognized by the Flint Community Schools District and therefore, each school is charged with developing an attendance incentive program which will recognize and promote a standard of excellent student attendance. (A letter from the Superintendent could be a starting point of this program)
- 2) Unexcused Absence: An unexcused absence is arrival to the class after the first thirty (30) minutes of the class period or failure to remain in the class for at least fifty (50) minutes unless a valid pass (principal, assistant principal, counselor, or teacher) is provided.
  - a) The parent/legal guardian(s) are to be contacted on the fourth (4) unexcused absences by the teacher. This contact will be made by telephone or U.S. mail by the teacher.
  - b) At the sixth (6) unexcused absences, the principal/designee will send a letter via U.S. mail further stressing the seriousness of the child's attendance problem. The student will be referred to the Student Assistant Team for possible intervention.
  - c) At the eighth (8) unexcused absences, a parent conference will be scheduled. The Department of Student Services will be contacted, and referrals will be completed at this time.
  - d) At the twelfth (12) unexcused absences, the parent/legal guardian(s) will be notified by mail that the student is in jeopardy of his/her grade being lowered after three (3) more absences.
  - e) Any student reaching fifteen (15) unexcused absences in any class will have his/her grade lowered one (1) letter grade.
  - f) Students under the age of sixteen (16), who have exceeded the fifteen (15) absences and are not making any effort to improve his or her attendance, will be referred to the Staff Assistant for the Department of Student Services, to initiate a petition for truancy with the Genesee County Family Court.
  - g) The following are excused absences from class and do not count towards the total number of absences:
    - 1) School-related activities (e.g., field trips)
    - 2) Suspensions (both in-school and out-of-school)
    - 3) Administrative or counselor initiated meetings
    - 4) Documented court appointments
    - 5) Illnesses verified by a physician's note
    - 6) Death of an immediate family member (mother, father, brother, sister, grandparent); a maximum of three (3) school days will be excused with an obituary to verify death.

Prolonged absences due to illness or other extenuating circumstances will be addressed on an individual basis. Any appeals concerning absences would be processed through the assistant principal.

- h) Failure to attend school on a regular basis may be used as a criterion for the student being retained in his/her present grade.

- 3) The district realizes the seriousness of a student being late to class.

#### **TARDY POLICY FOR SECONDARY SCHOOLS**

Students must be in the classroom and in their seats when the tardy bell rings. A pass from a valid school staff member (principal, assistant principal, teacher, or counselor) is the only way tardiness can be excused. The teacher will handle the first two (2) tardies per class per semester.

- 3rd Tardy = Referral to the counselor/assistant principal for parent notification.
- 4th Tardy = One absence parent conference with teacher.
- 5th –7th Tardy = Referral to the assistant principal for disciplinary action (detention).
- 8th Tardy = One absence parent conference with principal.

When a student is tardy four (4) times, it will equal one (1) absence. If the tardiness continues and the student is under the age of sixteen (16) years old, a truancy/educational neglect petition will be initiated with the Genesee County Family Court and be referred to Attendance Court.

This policy needs to be posted in the school office, and each semester it will be reviewed by school administrators with all students.

Each building may establish an in-school suspension and/or detention program to accommodate students who have been suspended for truancy, tardiness, and/or skipping.

Every student who has had attendance-related problems in the previous semester will be required to participate in an orientation session with their parents.

Late students will not be permitted to enter the building after third (3) hours begins without producing a doctor's appointment slip, a court appearance document, or a parent/legal guardian(s). The parent/ legal guardian must sign the student into the building.

#### **PROVISIONS FOR CODE FOR STUDENT CONDUCT REVIEW**

The Flint Board of Education hereby encourages all schools and community councils within the district to review this Code for Student Conduct on a regular basis and submit their recommendations for changes to the Department of Student Services by February 1 every two years.

It is recommended that the review take the following form:

- The Department of Student Services shall convene a committee to bi-annually review the Code for Student Conduct. The committee shall consist of a diverse group of students, parents, teachers, administrators, law enforcement officials, community members, and others.
- The Department of Student Services shall compile the recommendations for the revisions of the Code for Student Conduct and submit to the appropriate committee of the Flint Board of Education.
- The appropriate committee of the Flint Board of Education shall consider the recommendations and report its revision, if any, to the Board of Education.

## **STUDENT DISCIPLINARY PENALTIES**

The following guidelines will be used to determine the length of penalty time for various infractions. When unusual circumstances are present, it may be advisable to reduce or exceed these suggested guidelines. Any violation of state or local laws will be promptly reported to the appropriate law enforcement authorities.

Length of suspensions should be progressive unless otherwise warranted or required by law. The nature of the offense, the number of offenses, and the level of progressive discipline should be considered when determining the length of the suspension.

Suspension may be immediate and long term for such serious behaviors as physical attack, weapons, arson, and vandalism.

### **A) LEVEL 1 SUSPENSIONS (UP TO FIVE (5) SCHOOL DAYS) FOR THE FOLLOWING OFFENSES:**

#### **1) CLOSED CAMPUS.**

Leaving the school premises without authorization during the student's scheduled class hours and/or the lunch hours. (Reference District's Policy 8090)

#### **2) DISTRIBUTION OF UNAUTHORIZED PRINTED MATERIALS**

The act of distributing unauthorized printed materials on school property (all printed material must be approved by the building principal)

#### **3) FORGERY**

The act of falsely using, in writing, the name of another person, or falsifying times, dates, grades, addresses, or other data on school forms.

#### **4) GAMBLING**

Gambling the act of playing a game for money or property (this also includes the possession of paraphernalia for gambling, i.e., dice, cards etc).

#### **5) INDECENCY IN BEHAVIOR**

The act of offending against commonly recognized standards of propriety, health, or safety. Students will not engage in inappropriate displays of affection, such as kissing or long embraces of a personal nature.

#### **6) INSUBORDINATION**

The willful failure to respond or carry out a reasonable request by authorized school personnel.

#### **7) LITTERING**

The act of littering on school property or on private property passed when going to and from school.

#### **8) LOITERING**

The act of being in or about any school building, or in specifically restricted areas of a school building, at unauthorized times or without the specific authorization of the school's personnel.

#### **9) OBSCENITY**

The act of using obscene or profane language in verbal or written form, or in pictures, caricatures, or any obscene gestures on any school property

#### **10) PERSONAL APPEARANCE**

Every student shall maintain a reasonable standard of dress that is appropriate to the role of the student, reflective of the age level and conducive to a wholesome climate for learning. (Reference District's Policy 8240)

#### **11) SMOKING**

The act of using or possessing any tobacco product on school property (this includes but not limited

to cigarettes, lighters, matches, and all other smoking paraphernalia)

**12) UNAUTHORIZED PETITIONS**

The act of presenting or distributing petitions which contain obscenities, derogatory statements, or which are not within the bounds of reasonable conduct

**B) LEVEL 2 SUSPENSIONS (UP TO TEN (10) SCHOOL DAYS) FOR THE FOLLOWING OFFENSES:**

**1) CONTINUED EDUCATIONAL DISRUPTION**

Repeatedly involved in behavior which disrupts the educational process of the other students in all educational settings

**2) DISRESPECT**

To insult, call derogatory names, dishonor, or in other manner abuse verbally or in writing to any person

**3) DISRUPTION OF THE EDUCATION PROCESS**

Behavior which seriously disrupts any school activity or the orderly and safe operation of the school

**4) FIGHTING**

The act of involving hostile bodily contact in or on school property, or going to or from school, including any activity under school sponsorship (i.e., dance, athletic event, etc) (the issue of self-defense, if involved, must be proven by the student accused)

**5) LOOK-A-LIKE WEAPONS/DRUGS**

The act of possessing, handling, or transferring any object or instrument that is a "look-a-like" weapon or drug (e.g., rubber knife, toy gun, powder sugar, soap detergent)

**6) THREATENING OR INTIMIDATING ACTS**

The act of verbally or by gesture threatening the well-being, health, or safety of any person on school property or en route to or from school

**7) UNAUTHORIZED SALE OR DISTRIBUTION**

The act of selling, distributing, or attempting to sell or distribute any object or substance which has not been authorized for sale or distribution by the building principal to any person on school property.

**C) LEVEL 3 SUSPENSIONS (UP TO BALANCE OF SCHOOL YEAR OR EXPULSION):**

**1) \*\*ARSON**

The willful and malicious burning of or attempt to burn any part of any building, or any property of the Flint Community Schools (this includes the starting, attempting, or assisting another to start a fire in a wastebasket or in any other area in a school building or bus).

**2) \*CHEMICAL SUBSTANCE**

The act of possessing, transferring, or using any chemical ejecting device capable of rendering a person unconscious temporarily or causing temporary or permanent injury.

**3) \*\*DANGEROUS WEAPON**

The act of possessing, but not limited to, a firearm, BB gun, dagger, dirk, stiletto, knife with a blade over three (3) inches in length, pocket knife opened by a mechanical device, iron bar, or brass knuckles.

**4) \*EXTORTION, STRONG ARM, COERCION & ROBBERY**

The act of securing or attempting to secure money or other items of value by use of threats, implied threats of violence, or the act of threats of violence to force another person to do an unwilling act.

5) **FALSE ALARMS**

The act of initiating a fire alarm or initiating a report warning of a fire or an impending bombing or other catastrophe without just cause

A bomb threat is a statement by a person who directly or indirectly suggests that a device, somewhere on Flint Community Schools property/premises or at a school-related event, will cause physical harm and/or destruction to the property/premises or during the school-related event.

6) **FALSE REPORTS**

The act of falsely reporting incidents, making false accusations, or giving false testimony to school personnel which would affect the welfare of others

7) **\*FIREWORKS OR EXPLOSIVES**

The act of possession, using, or threatening to use any lighter, fireworks, ammunition, explosive, or other such instruments capable of inflicting bodily injury.

8) **INCITING OTHERS TO VIOLENCE OR DISOBEDIENCE**

Encouraging by words, acts, deeds, demonstrations, or protests which disrupt the normal educational process of the school or at school related activities (i.e., gang gestures, verbalizing, affiliations, and displaying gang related symbols).

9) **\*\*PHYSICAL ASSAULT**

The act of physical assault intentionally causing or attempting to cause physical harm to another through force or violence (Reference District's Policy 8315)

10) **REPEATED VIOLATION OF THE CODE FOR STUDENT CONDUCT**

The student has shown a documented pattern of violations and has not altered the negative behavior, despite opportunities being given and continues to violate provisions of the Code for Student Conduct.

11) **\*SEXUAL ACT**

Any student involved in any type of sexual act in a school building, on school property, or during any school-sponsored event is subject to disciplinary action.

12) **\*\*SEXUAL ASSAULT**

A student will not sexually assault another person. If a student commits criminal sexual conduct in a school building, on school grounds, or any other school property, the Flint Board of Education/designee shall expel the student from the school district permanently, subject to possible reinstatement, pursuant to MCL 380.1311(5). (MCL 380.1311[2]), also (Reference District's Policy 8315)

13) **\*SUBSTANCE ABUSE VIOLATION**

Possession, use, selling or transferring of drugs, medication (with/without a medical prescription), and/or alcohol will result in a minimum of a ten (10) school day suspension from school, police involvement, and/or infractions. A student may receive a long-term suspension or may be recommended for expulsion. Students found in violation will be referred for an evaluation and/or counseling.

The district will follow the same procedures on a first-time alcohol and/or other drug offense except that on a second or third offense, a long-term suspension will be invoked with a recommendation for assessment and/or follow-up treatment recommendations.

14) **\*THEFT**

The act of taking or acquiring the property of others without their consent

15) **\*VANDALISM**

The act of willful destruction of property belonging to others (This shall include but not limited to

tampering with, and/or causing the discharge of, any sprinkler system or other apparatus installed in a school building for prevention of fire or for the safety of the school population or school property)

**The Board of Education shall seek to recover damages from parents and students who have willfully destroyed or damaged school property.**

16) **VERBAL ASSAULT**

The use of words or acts on any Flint Community Schools property/premises (not just in school buildings), which when viewed objectively under the circumstances, are intended to threaten the individual to whom the words are directed, and place him/her in reasonable fear of physical injury/harm.

17) **\*WEAPONS**

The act of possessing, using, or threatening to use any weapon or instrument capable of inflicting bodily injury (included but not limited to, starter gun, paint-ball gun, mace, the frame or receiver of any such weapon, any firearm muffler or firearm silencer, or any destructive device)

18) **BULLYING, HARASSMENT, INTIMIDATION**

“Bullying, harassment, or intimidation” means any gesture or written, verbal, or physical act that a reasonable person, under the circumstances, should know will have the effect of harming a student or damaging the student’s property, placing a student in reasonable fear of harm to the student’s person or damage to the student’s property, or that has the effect of insulting or demeaning any student or group of students in such a way as to disrupt or interfere with the district’s educational mission or the education of any student. Bullying, harassment, or intimidation includes, but is not limited to, such a gesture or written, verbal or physical act, that is reasonably received as being motivated by a student’s religion, race, color, national origin, sex, sexual orientation, disability, height, weight, socioeconomic status, or by any other distinguishable characteristic. Students who engage in any act of bullying while at school, at any school function, in connection to or with any district sponsored activity or event, or while suspended or while en- route to or from school are subject to disciplinary action, up to and including suspension or expulsion. As may be required by law, law enforcement officials shall be notified of bullying incidents. (Reference District’s Policy 8016)

**LEVEL 1, 2, 3 SUSPENSIONS \*Exception (Depending upon the severity and/or investigation)**

19) **CHEATING/ACADEMIC MISCONDUCT**

A student will not plagiarize, cheat, gain unauthorized access to, or tamper with educational materials. (This includes the Internet, text, and other student work.) Discipline under this section may result in academic sanctions in addition to other discipline. Plagiarism is defined as any appropriation, literary theft, falsification, counterfeiting, piracy, fraud, or unsupervised possession of any federal, state, or district mandated test(s); cheating on proficiency test(s); unauthorized use of teacher’s manual, textbook edition, and other resource materials.

20) **INTERNET USE**

Students who violate the Acceptable Use Policy agreement as adopted by the Flint Board of Education will be subjected to the disciplinary action as listed in the agreement. Students who violate this agreement in such a way as to violate the district’s Code for Student Conduct will also be subjected to disciplinary measures as prescribed within. The Flint Community Schools are not legally responsible for transmissions sent via Internet or sent otherwise electronically.

21) **SEXUAL HARASSMENT**

The unwelcome actions (written, verbal, or physical) toward another person because of his or her gender or sexual orientation are not acceptable. Teasing, dirty jokes, touching, or unwarranted comments about another person are examples. (Reference District’s Policy 8015)

**APPENDIX A**

**STUDENT DISCIPLINARY PENALTIES  
MANDATED BY LAW TO REPORT**

- \* Armed Student or Hostage
- \* Suspected Armed Student
- \*\* Arson
- \*\* Bomb Threat
- \* Bus Incident and Bus Accident
- \*\* Dangerous Weapon
- \* Death or Homicide
- \* Drive-by-Shooting
- \* Drug Possession or Sale
- \* Drug Use or Overdose
- \* Explosion
- \* Intruder
- \* Larceny (theft)
- \* Minor in possession of alcohol or tobacco products
- \*\* Physical Assault
- \* Robbery or Extortion
- \*\* Sexual Assault (Criminal Sexual Conduct)
- \* Suicide Attempt
- \* Suicide threat
- \* Unauthorized Removal of Student
- \* Vandalism or Destruction of Property

**\* Michigan schools are mandated to report twenty-one (21) categories of student misconduct to appropriate law enforcement agencies.**

**\*\* Federal law requires school districts to permanently expel a student for arson, bomb threat, dangerous weapon physical assault and/or sexual assault.**

**APPENDIX B****DISCIPLINE FOR  
STUDENTS WITH DISABILITIES**

Section 612(a)(1) of the Individuals with Disabilities Education Act (IDEA), states that a Free and Appropriate Public Education (FAPE) is available to all students with disabilities residing in the state, including students with disabilities who have been suspended or expelled from school.

A student with a disability who is removed from his/her current placement under “special circumstances” (irrespective of whether the behavior is determined to be a manifestation of the student’s disability) or removed under “school personnel authority” shall continue to receive educational services, so as to enable the student to continue to participate in the general education curriculum, although in another setting, and to progress toward meeting the goals set out in the student’s IEP; and receive, as appropriate, a functional behavioral assessment, behavioral intervention services, and modifications, that are designed to address the behavior violation so that it does not recur.

Suspensions for over ten (10) school days at a time and depending upon the pattern of removals, for more than ten (10) school days cumulatively in a school year are considered to constitute a “change in placement” for a child with a disability. The IDEA requires that prior to changing the placement of a student with a disability through the use of disciplinary action, the following must occur: (1) a manifestation determination must be made by the child’s IEP Team; (2) the IEP Team must plan a functional behavior assessment of behavior and then use assessment results to develop a behavioral intervention plan; and (3) the IEP Team must determine what services are to be provided to the child, for any removal period beyond ten (10) school days in the school year, in order that the student may continue to participate in the general curriculum and advance toward achieving his/her goals.

**Manifestation Determination**

Except as provided under “school personnel authority,” within ten (10) school days of any decision to change the placement of a student with a disability because of a violation of a Code for Student Conduct, the local educational agency, the parent/legal guardian(s) and relevant members of the IEP Team (as determined by the parent/legal guardian(s) and the local educational agency) shall review all relevant information in the student’s file, including the student’s IEP, any teacher observations, and any relevant information provided by the parents to determine:

- If the conduct in question was caused by or had a direct and substantial relationship to the student’s disability; or
- If the conduct in question was the direct result of the local educational agency’s failure to implement the IEP.

If the local educational agency, the parent/legal guardian(s), and relevant members of the IEP Team determine that either the conduct in question was caused by, or had a direct and substantial relationship to the student’s, disability, or the conduct in question was the direct result of the local education agency’s failure to implement the IEP, then the conduct shall be determined to be a manifestation of the student’s disability.

If the local educational agency, the parent/legal guardian(s), and relevant members of the IEP Team make the determination that the conduct was a manifestation of the student’s disability, the IEP Team shall:

- Conduct a functional behavioral assessment and implement a behavioral intervention plan for such student, provided the local educational agency had not conducted such assessment prior to such determination before the behavior that resulted in a change in placement;
- Review the behavioral intervention plan if the student already has such a behavioral intervention plan and modify it, as necessary, to address the behavior; and

- Except as provided under “special circumstances,” return the student to the placement from which the student was removed, unless the parent/legal guardian(s) and the local educational agency agree to a change of placement as part of the modification of the behavioral intervention plan.

### **Special Circumstances**

School personnel may remove a student to an interim alternative educational setting for not more than forty-five (45) school days without regard to whether the behavior is determined to be a manifestation of the student’s disability, in cases where a student:

- Carries to or possesses a weapon at school, on school premises, or to or at a school function under the jurisdiction of a state or local educational agency.
- Knowingly possesses or uses illegal drugs, or sells or solicits the sale of a controlled substance, while at school, on school premises or to or at a school function under the jurisdiction of a state or local educational agency; or
- Has inflicted serious bodily injury upon another person while at school, on school premises, or at a school function under the jurisdiction of a state or local educational agency. Serious bodily injury means bodily injury which involves: a substantial risk of death, extreme physical pain, protracted and obvious disfigurement, or protracted loss or impairment of the function of a bodily member, organ, or mental faculty (18 USC 1365).

### **Notification**

The date on which the decision to take disciplinary action is made, the local educational agency shall notify the parent/legal guardian(s) of that decision and provide a copy of the procedural safeguards accorded under this section.

### **Determination of Setting**

The interim alternative educational setting shall be determined by the IEP Team.

### **Appeal**

The parent/legal guardian(s) of a child with a disability who disagrees with any decision regarding placement or the manifestation determination under this subsection, or a local educational agency that believes that maintaining the current placement of the student is substantially likely to result in injury to the student or to others, may request a hearing.

### **Authority of a Hearing Officer**

A hearing officer shall hear and make a determination regarding an appeal. In making the determination, the hearing officer may order a change in placement of a student with a disability. In such situations, the hearing officer may:

- Return a student with a disability to the placement from which the student was removed; or
- Order a change in placement of a student with a disability to an appropriate interim alternative educational setting for not more than 45 school days if the hearing officer determines that maintaining the current placement of such student is substantially likely to result in injury to the student or to others.

### **Placement during Appeals**

When an appeal has been requested by either the parent/legal guardian(s) or the local educational agency:

- The student shall remain in the interim alternative educational setting pending the decision of the hearing officer or until the expiration of the time period provided for under “additional authority,” whichever occurs first, unless the parent/legal guardian(s) and the state or local educational agency agree otherwise; and
- The state or local educational agency shall arrange for an expedited hearing which shall occur within twenty (20) school days of the date the hearing is requested and shall result in a determination within

ten (10) school days after the hearing.

### **Protection for Students Not Yet Eligible for Special Education and Related Services**

A student who has not been determined to be eligible for special education and related services and who has engaged in behavior that violates a Code for Student Conduct, may assert any of the protections provided in the IDEA if the local educational agency had “knowledge” (see below) that the student was a student with a disability before the behavior that precipitated the disciplinary action occurred.

### **Basis of Knowledge**

A local educational agency shall be deemed to have knowledge that a student is a student with a disability if, before the behavior that precipitated, the disciplinary action occurred:

- The parent/legal guardian(s) of the student has expressed concern in writing to supervisory or administrative personnel of the appropriate educational agency, or a teacher of the student, that the student is in need of special education and related services;
- The parent/legal guardian(s) of the student has requested an evaluation of the student; or
- The teacher of the student or other personnel of the local educational agency have expressed specific concerns about a pattern of behavior demonstrated by the student directly to the director of special education of such agency or to other supervisory personnel of the agency.

### **Exception**

A local educational agency shall not be deemed to have knowledge that the student is a student with a disability if the parent/legal guardian(s) of the student has not allowed an evaluation of the student or has refused services under protections for students, who is not yet eligible for special education and related services or until the student has been evaluated and it was determined that the student was not a student with a disability.

### **Conditions That Apply if No Basis of Knowledge**

If a local educational agency does not have knowledge that a student is a student with a disability prior to taking disciplinary measure against the student, the student may be subjected to disciplinary measures applied to students without disabilities who engaged in comparable behaviors.

### **Limitations**

If a request is made for an evaluation of a student during the time period in which the student is subjected to disciplinary measures, the evaluation shall be conducted in an expedited manner. If the student is determined to be a student with a disability, taking into consideration information from the evaluation conducted by the agency and information provided by the parent/legal guardian(s), the agency shall provide special education and related services except that, pending the results of the evaluation, the student shall remain in the educational placement determined by school authorities.

### **Referral to an Action by Law Enforcement and Judicial Authorities**

Nothing in the IDEA shall be construed to prohibit an agency from reporting a crime committed by a student with a disability to appropriate authorities or to prevent state law enforcement and judicial authorities from exercising their responsibilities with regard to the application of federal and state law to crimes committed by a student with a disability.

### **Transmittal of Records**

An agency reporting a crime committed by a student with a disability shall ensure that copies of the special education and disciplinary records of the student are transmitted for consideration by the appropriate authorities to whom the agency reports the crime.

**APPENDIX C**

**STUDENT PROPERTY**

A student's personal property is his/her own. Students are, however, discouraged from bringing to school valuable items such as jewelry and expensive coats which could be stolen, be damaged, or prove disruptive to others.

**The school district is not responsible for the replacement of stolen or lost student property.**

**NOTE:** At the discretion of building administrators, valuable personal property may be allowed for special projects.

The search of student property is outlined in the district's search and seizure policy.

**APPENDIX D**

**STUDENT'S MEDICATION AND HEALTH TREATMENT POLICY  
IMMUNIZATION GUIDELINES**

**STUDENT MEDICATIONS**

Pursuant to Flint Board of Education Policy Number 8670, a student's parent/legal guardian(s) must provide the school personnel with a signed written request for the administering of medication. The forms shall be provided by the student's school. The physician's written instructions or a pharmacy-prepared container shall accompany the request. Written requests shall be renewed every school year.

**SELF-ADMINISTRATION/SELF-POSSESSION OF MEDICATIONS**

A student, when the parent/legal guardian(s) has supplied a written permission slip and written authorization from the attending physician, may self-possess and self-administer his/her own medications. Such medications must be labeled with the student's name, be prepared by a local pharmacy, and have included labeling of the dosage and frequency of administration. The right of a student to self-possess and self-administer may be denied in the event of documented misuse by the student after consultation with the student's parent/legal guardian(s).

At no time shall a student provide, share, sell, or use another student's medication, whether prescription or non-prescription. (Reference District's Policy 8670).

**IMMUNIZATIONS**

The Revised School Code requires a child entering a public school for the first time (or reentering the district) to submit a statement as to his/her immunization status, specifically whether the child has been tested for and immunized against certain diseases; or a physician-signed waiver that the required immunizations are medically contraindicated; or a parent/legal guardian(s)-signed waiver that for religious or other reasons the immunizations have not been given.

A parent/legal guardian(s) of a child entering the sixth (6) grade for the first time shall present to school officials not later than the first day of school a certificate of immunization or statement of exemption. (Public Act 367, 1978, Section 9208, as amended and Reference District's Policy 8480).

**APPENDIX E****SEARCH AND SEIZURE**

To maintain order and discipline in the schools and to protect the safety and welfare of students and staff, school officials have the right to conduct reasonable searches of students and school property. (Reference District's Policy 8130)

**LOCKERS**

The lockers in the schools of the District shall be under supervision of the building principal or designated representative and assigned to the student for the storage of school materials and clothing necessary to school attendance.<sup>1</sup> (Whenever the principal is mentioned in this rule, it shall be construed so as to include "or designated representative.")

The building principal or designee shall have sole custody of the combination or key to all locker locks in a storage place designed to guard against unauthorized access or use. He/she may search any locker at any time, with or without reasonable belief that the locker contains firearms, explosives, liquor, flammable material, dangerous weapons, narcotics or other matter prohibited by law or school regulations (Cf. 8190-R) from being on school property. Such search may be made without notice to the student to whom such locker has been assigned. Students are prohibited from placing locks, other than the regularly issued school lock, on their lockers.

The search of the locker shall not include search of students' personal belongings, such as backpacks, bags, purses, or coats unless there is reasonable suspicion such person's belongings contain items or substances prohibited by law or school rules.

Any person other than the building principal or designee who wishes to search a student's locker shall report to the building principal or designee before proceeding to the locker, and in no event shall such person be permitted to search the student's locker without the principal's or designee's consent unless such person has a valid search warrant authorizing him/her to make such search.

If a law enforcement officer desiring to search a student's locker has a warrant for such search, the principal shall immediately take such person to the student's locker and permit him/her to search the locker. Whenever possible, such search shall be made in the presence of the principal.

If a law enforcement officer desires to search the student's locker without a warrant, the building principal shall ask what facts lead the officer to believe that evidence of a crime will be lost, destroyed or moved if the search and seizure did not take place immediately, before a warrant is obtained. If the building principal is not of the same opinion, he/she shall not participate in the search, but he/she shall allow the law enforcement officer to proceed on his/her own responsibility. The principal shall report the incident to the Pupil Personnel Services Office and they may notify the officer's superior of the incident.

Prohibited items recovered from a student's locker shall remain in the custody of the building Principal, unless such items are turned over to law enforcement officials; and if this is done, the principal shall receive a receipt for such items so delivered.

**STUDENTS – REASONABLE SUSPICION**

When it has been determined by the building principal that there is a reasonable suspicion to believe that a student is in possession of an object which can jeopardize the health, welfare or safety of other students, that

<sup>1</sup> *People v. Overton*, 20 N.Y. 2d 360, 283 N.Y.S.2d 22, 229 N.E.2d 596 (1967). ("Indeed, it is doubtful if a school would be properly discharging its duty of supervision over the students, if it failed to retain control over the lockers. Not only have the school authorities a right to inspect but this right becomes a duty when suspicion arises that something of an illegal nature may be secreted there.")

student shall be ordered to report to the building principal's office.

Once in the principal's office, the student shall be advised of the reason why he/she has been ordered to report to the principal's office. The student shall then be requested to empty items such as, but not limited to, pockets, purses, shoulder bags, and briefcases. This request is to be limited in scope, so that personal items to be emptied shall be identified according to the factors which created the reasonable suspicion to believe the student possesses a dangerous or illegal object. Items that the building principal believes may be connected with illegal activity may remain in the custody of the building principal, unless such items are turned over to law enforcement officials, and if this is done, the principal shall receive a receipt for such item so delivered.

If the student refuses to comply with this request, the building principal shall notify the student's parents/guardians and request that they come to the school at once. The building principal shall advise the parents/guardians of the immediate situation. If the parents/guardians of the student are unable to persuade the student to comply, the parents/guardians and the student shall be advised that law enforcement officials will be notified, and the matter turned over to them. If the parents/guardians refuse to come to the school or are unable to be notified and the student continues to refuse to cooperate, the building principal shall notify law enforcement officials and inform them of the facts which give him/her reasonable suspicion to believe that the student has illegal or dangerous objects on his/her person. Any further search of the student shall be at the discretion and under the control of the law enforcement officials with a valid warrant.

Once the building principal has relinquished control of the student to the law enforcement officials, the building principal or representative shall remain with the student and be present during any search of the student made by law enforcement officials on school property.

A written report of such search incident shall be made by the building principal and submitted to the Pupil Personnel Services Office. The written report shall contain the name of the student; the time, date and place of the search; the reason or reasons for the search; the fact of whether law enforcement officials were called; the name of the person who conducted the actual search; the names of the persons present while the student was being searched; and the result of the search. The Pupil Personnel Services Office shall keep a copy of the written report on file.

#### **STUDENTS – UPON ENTRY TO BUILDING**

The District shall not conduct random, general, or all-encompassing searches of students' bags, purses, and backpacks, without individualized suspicion that the search will reveal evidence that the student is in possession of an object or substance which may jeopardize the health, safety, or welfare of students or staff. Similarly, the District shall not subject students to a body frisk, or manually examine their personal belongings without reasonable suspicion, or as described below.

In order to maintain the health, safety, and welfare of students and staff, all students entering the District's high schools will be required to pass through a metal detector or have their bags, purses, and backpacks pass through an x-ray machine, or both. Students will be instructed to remove all metal from their pockets and their bags/purses. Students shall be allowed to leave the building upon receipt of this instruction, without penalty or suspicion.

Following these instructions, students will then be required to pass through a metal detector and have their bags examined through an x-ray machine. If no x-ray machine exists, then the students shall be required to carry their belongings through a metal detector. If the metal detector fails to sound, the students shall be permitted to go to class and no examination of their bag or person shall occur. If the metal detector does sound, then the student and his/her belongings will pass through a metal detector a second time. If the metal detector sounds again, that shall be construed as reasonable suspicion for an individualized pat down search or for the search of the individual's possessions (such as backpack, purse, bag, coat, etc.). If a pat down search is necessary, male district employees shall administer the searches for male students and female district employees shall

administer the searches for female students. After that search is completed, another metal detector screening should be made. If the alarm of the metal detector sounds again, the individual shall be taken to a private place for a more thorough screening search, provided that no strip search is conducted, and that the more thorough searches of male students shall only be done by male district employees and female students shall be searched only by female district employees.

An individual shall never be allowed to enter a school building until he/she can walk through a metal detector without sounding the alarm or until some form of secondary search identifies the item triggering the alarm. All screenings shall be done as expeditiously as possible.

Persons who refuse to cooperate with school officials during a search should be referred to the principal of that building. Students who refuse to be searched will have their parents or guardians contacted by school officials. No students should be allowed into the school unless they are willing to be scanned and searched, and have successfully passed through the metal detectors. Any student absences that occurs as a result of refusing a search in accordance with this policy shall be counted as an unexcused absence.

#### **AUTOMOBILES**

Students are permitted to park on school premises as a matter of privilege, not of right. The school retains authority to conduct routine patrols of the student parking lots, and inspections of the exteriors of student vehicles on school property. The interior of student vehicles may be inspected whenever a school employee has reasonable suspicion to believe that illegal or unauthorized materials are contained inside. Such patrols and inspections may be conducted without student consent and without a search warrant.

#### **USE OF CANINES**

The administration is authorized to utilize canines whose reliability and accuracy for sniffing out contraband has been established to aid in the search for contraband on school-owned property and in automobiles parked on school property. Canines shall not be used to search students unless school officials have established independently that there is reasonable suspicion to believe that the student possesses contraband on his or her person. A qualified and authorized trainer who will be responsible for the dog's actions must accompany the canine. An indication by the dog that contraband is present on school property or in an automobile shall be reasonable suspicion for a further search by school officials.

**APPENDIX F**

**STUDENT CONDUCT ON SCHOOL BUSES, RULES, AND REGULATIONS  
FLINT BOARD OF EDUCATION TRANSPORTATION CODE**

- 1) The safety and conduct of students while going to a bus stop are the responsibility of the parent/legal guardian(s). The school recognizes a secondary responsibility to assist and cooperate with the parent/legal guardian(s).
- 2) The driver is responsible for maintaining order on the bus. The bus is an extension of the classroom.
- 3) If an incident occurs and it becomes necessary for the driver to take action to maintain order, the driver must record the circumstances of the incident on a "Bus Discipline Referral Report Form" and send the report to the principal. One copy of the report will stay at the transportation office.
- 4) The school bus driver must know the disciplinary procedures provided by the Flint Board of Education, as set forth in the Code for Student Conduct and in school board policies pertaining to student rights and responsibilities and student discipline.
- 5) The bus driver has no authority to slap, spank, or abuse any child. In no event shall the driver of the bus use force to discipline a child other than to break up a fight between students, to stop an assault on the driver or others, or to stop behavior which could cause an accident.
- 6) If a student is causing problems on the bus, the driver will complete the run and upon his/her return report the incident on a "Bus Discipline Referral Form" in addition to giving a verbal report to the principal/designee.
- 7) Upon receipt of such a complaint, the principal/designee, after a thorough investigation shall take appropriate disciplinary action in accordance with the Code for Student Conduct. It should be noted that depending on the severity of the infraction of the rules, "appropriate disciplinary action" could possibly mean suspension from school and/or either temporary or permanent denial of bus transportation.
- 8) At any time during the investigation or interpretation of a student disciplinary case, the principal/designee may need to discuss details of the incident with the driver of the bus involved and/or the transportation supervisor. Such a request for a conference shall be honored.
- 9) If the disciplinary action taken by the principal/designee does not meet the expectations of the transportation manager, the Department of Student Services will review the information and make a final determination in the case.
- 10) Similarly, the student involved shall have the right to appeal as described in the Code for Student Conduct.
- 11) The City of Flint has an ordinance prohibiting smoking on the bus. This prohibition applies to the driver as well as to the passengers, even when the bus driver is alone on the bus.
- 12) At the end of each run, the bus driver will check the bus for items left by students and for any possible vandalism to the bus. Vandalism must be reported to the transportation office for repair. The bus driver will also report any possible suspects to the principal/designee's office in writing for corrective action.

## **SCHOOL BUS RULES AND REGULATIONS**

When a student steps aboard a Flint Community Schools bus, he/she is in school in an “extended classroom.” Because of this, the student is subject to all rules, rights, and responsibilities of the Code for Student Conduct.

- 1) Only students eligible for transportation will be permitted to ride the buses. Each eligible student will be assigned to use one specific bus stop and will not be permitted to use any other without written permission from the Transportation Department.
- 2) Riding the bus is a privilege and students riding buses must obey all rules and regulations.
- 3) The driver is in charge of the bus and students shall render him/her the same respect and courtesy given a teacher.
- 4) **While waiting for the bus:**
  - a) Dress appropriately.
  - b) Get to your bus stop ten (10) minutes early.
  - c) Stay back from the edge of the road.
  - d) Stand quietly--respect other people's property.
  - e) Do not push.
  - f) Do not throw objects.
  - g) Stragglers will be left behind as the driver has a schedule to maintain.
  - h) Wait until the bus comes to a complete stop before attempting to get on.
- 5) **When boarding or leaving the bus:**
  - a) Show your bus pass when boarding the bus.
  - b) Step on and off promptly and quietly.
  - c) No pushing or shoving.
  - d) Watch your step.
  - e) Cross properly only in front of the bus.
  - f) Stop before you cross an open road area and look at the driver.
  - g) Beware of passing cars.
- 6) **While on the bus:**
  - a) Fill the back seats first when getting on the bus, or sit in your own seat if one has been assigned.
  - b) Do not do anything that distracts the driver's attention; talk in low voices.
  - c) All students must be seated while the bus is in motion.
  - d) Keep feet and articles out of the aisle.
  - e) Never throw objects.
  - f) Keep your head and arms inside of the bus.
  - g) Help keep the bus clean by depositing trash in the trash receptacle upon exiting the bus.
  - h) Be silent when crossing railroad tracks.
  - i) Do not shout, whistle, or gesture from the bus window.
  - j) Eating and drinking on the bus are not permitted.
  - k) Use of tobacco is not permitted.
  - l) The rear door must never be opened except in an emergency.
  - m) Glass containers are not allowed.
  - n) Radios/headsets, tape/cd players, cell phones, whistle, or other electronic devices are not to be used/played or operated on the school bus.
  - o) Skateboards, inline skates, and hockey sticks are not allowed on the bus unless contained in an appropriate case or part of a field trip where needed.

p) No animals, reptiles, or any other living creatures are allowed on the bus.

7) **In case of an emergency or accident:**

- a) Remain calm, stay in your seat.
- b) Listen for the driver's instructions.
- c) Exit promptly, if and when instructed.
- d) Report any injuries to officials.

## **APPENDIX G**

### **ADMINISTRATIVE POLICIES & PROCEDURES**

#### **AUTHORITY OF THE SCHOOL BOARD**

In accordance with the laws of the State of Michigan MCL 380.11a; MSA 15.4011a, the Board of Education has the right to make reasonable rules and regulations in the interests of public elementary and secondary education in the school district. This includes regulations relative to students' conduct in order to provide for their safety and welfare at school, while en route to and from school, attending school-sponsored activities, or at school-sponsored events.

The Board of Education has approved the policies, rules, and regulations contained in this publication. The Board may adopt others.

#### **GENERAL LIMITATIONS ON FREEDOM**

Because educational institutions must be orderly institutions, the freedom in each school may be reasonably restricted to protect the rights of all.

- No idea or belief may be communicated in such a way as to cause a disruption of normal school activities.
- The advocacy of immediate action, as opposed to the advocacy of ideas or beliefs, is not permitted when such action would disrupt normal school activities, violate any laws, or interfere with the rights of others.
- No communication of a commercial of obscene or defamatory nature or any communication advocating racial, religious, or other intolerances is permitted.

#### **FREEDOM OF SPEECH**

Students are entitled to verbally express their personal opinions. Such expression shall not interfere with the freedom of others to express themselves or with the educational process. The uses of obscenities or personal attacks that are vulgar or profane, disruptive to the educational process, or compromise the rights of other students are prohibited.

#### **FREEDOM OF ASSEMBLY**

Students have the freedom to assemble peacefully. All student meetings or gatherings in school buildings or on school grounds may function only as part of the educational process as defined by the building principal. Building administrators must be informed in advance and may impose reasonable restrictions on the time and place of student gatherings or assemblies. Attendance at such meetings and assemblies is limited to students regularly enrolled in that building unless a building administrator gives prior approval. Gatherings or assemblies that interfere with or disrupt the operation of the school or classroom are prohibited.

#### **FREEDOM OF PETITION**

Any student has the right to petition. Individual students have the right to ask their teacher or an administrator for reconsiderations of actions they believe to be unfair. The collecting of signatures for the purpose of petitioning shall not disrupt classroom procedures or interfere with the educational process.

Students shall not be subject to disciplinary measures for initiating or signing a petition providing that the petition is free from vulgarities, obscenities, libelous statements, and personal attacks.

#### **PUBLICATIONS**

School-sponsored publications are part of the curriculum and are not a public forum for general student use.

Student publications that are not libelous, disruptive, or obscene (obscene as defined by local community standards and lacking sufficient, redeeming social value) may be distributed on school property during school hours in areas designated by the building principal. Distribution that interferes with the normal flow of traffic within the school corridors and entry ways, that is coercive of any other person's right to accept or reject any publication or that causes substantial and material interference with "normal school activities" is not permitted.

The reading of inappropriate literature in all Flint Community Schools is prohibited. This includes books with sexual themes, compact disc covers with explicit language, and written messages that display sexual themes or explicit language.

## **SCHOOL RECORDS**

Access to student records is governed by Michigan's Freedom of Information Act, the Family Education Rights and Privacy Act ("FERPA"), and Board of Education policy as contained in "Guidelines for Collection, Maintenance, and Dissemination of Student Records," a copy of which is available in the principal's office.

Access to student records is available, in consultation with the school officials, to authorized school personnel, to the student's parent(s) / legal guardian, and to the student. Arrangements for review may be made through the principal, or in the secondary schools, through the Guidance and Counseling Department.

Under the provisions of the Family Educational Rights and Privacy Act, 20 U.S.C. Section 1232 g ("FERPA") and the regulations adopted pursuant thereto, all parent/legal guardian(s) of students under eighteen (18) years of age and all students eighteen (18) years or older have the right to examine "educational records" directly related to those students, which are maintained by the school district in accordance with the terms of the law and regulations. The Board of Education's policy and procedures for inspection, review, and copying of "education records" with a description of the types of records maintained by the school district and the procedures seeking correction of "education records" is available from the office of the principal of each school in the school district or the office of the Superintendent of Schools.

Complaints with regard to violation of rights can be submitted in writing to the Family Educational Rights and Privacy Act ("FERPA") Office, Department of Health, Education, and Welfare, 330 Independence Avenue, SW., Washington, D.C. 20201.

Other than in certain exceptional circumstances described in the Board of Education's policy and procedures concerning "education records," no personally identifiable information from the education records of a student shall be released to third parties without the prior written consent of the parents/legal guardians, or student more than eighteen (18) years of age. Because it is unrealistic to require a release for routine information that may be used for such purposes as press articles or athletic rosters, Family Education Rights and Privacy Act ("FERPA") allows the release of certain student information without prior consent. "Directory information," such as a student's name, address, telephone number, date and place of birth, participation in officially recognized activities and sports, height and weight of members of athletic teams, dates of attendance, awards achieved. The most recent previous educational agency or institution attended by the student, date of graduation, and last grade completed shall not be disclosed without the prior written consent of the parent/legal guardian, or student more than eighteen (18) years of age unless and until written objection to the designation of any or all of this information as directory information is received by the principal of the school that the student attends or last attended. Directory information may be released by the school district for the reasons specified above but will not be disclosed to third parties engaged either directly or indirectly in marketing. Also, photographs of students in an educational or extracurricular setting may be taken as part of the school district's newsletter, newspaper and/or website(s). The purpose of the photographs is to recognize student achievement and activities and will be considered disclosable "directory information," unless written objection is received as required above. Further, as a means of providing additional security for its students, the Flint Community Schools utilizes video cameras on all its busses and in school hallways. Please be advised that the videotapes are not considered student records and any images of your child that may occur as a result of this videotaping may be reviewed by third parties

## APPENDIX H

### GRIEVANCE PROCEDURE

The grievance procedures listed in this section pertain to student and/or parent/legal guardian(s) grievances concerning all issues, with the exception of student discipline. Appeals and reviews of student discipline are covered in the section entitled "Suspension" (see pg. 13).

#### STEP I

It is the responsibility of the student or parent/legal guardian(s) to request an informal meeting to discuss, and try to resolve his/her complaints with the staff or building principal before filing a grievance. Should the student or parent/legal guardian(s) not resolve the issue at this level, the student or parent/legal guardian(s) can proceed to Step II.

#### STEP II

- a) A parent/legal guardian(s) or student may request a grievance form from the school office. It must be filled out and returned to the school office within five (5) school days after an incident occurs.
- b) The building principal or his/her designee will conduct a hearing within five (5) school days from the receipt of the grievance form.
- c) A decision, in writing, will be mailed to the student's home within five (5) school days after the hearing. The principal will additionally attempt to contact the parties by telephone.

#### STEP III

- a) Should the student or his/her parent/legal guardian(s) wish to appeal the decision, a contact in writing should be made to the Director of the Department of Student Services, 923 E. Kearsley Street, Flint, Michigan 48503-1974, within ten (10) school days after receiving the principal's decision.
- b) A hearing will be arranged as soon as possible before the Director of the Department of Student Services and/or the appropriate Executive Director.
- c) The Director of the Department of Student Services and/or the appropriate Executive Director will adjust, revoke, or sustain the original decision within thirty (30) school days of the request for a Step III hearing.
- d) The Director of the Department of Student Services and/or the appropriate Executive Director's decision is final.

Representation at all levels of appeals shall be at the discretion of the parent/legal guardian(s) or the student who has reached the age of majority. The grievant(s) shall be notified that a spokesperson may represent him/her, providing that the parent/legal guardian(s) shall approve the spokesperson for a minor student.

COPIES OF THIS PROCEDURE WILL BE DISTRIBUTED TO EACH STUDENT AND HIS/HER PARENT/LEGAL GUARDIAN(S) THROUGH THE CODE FOR STUDENT CONDUCT. OTHER COPIES OF THE PROCEDURE MAY BE OBTAINED FROM THE DEPARTMENT OF STUDENT SERVICES, 923 E. KEARSLEY STREET, FLINT, MICHIGAN 48503-1974, OR BY CALLING 760-1230.

**APPENDIX I**

**FLINT COMMUNITY SCHOOLS  
STUDENT GRIEVANCE FORM**

Date \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

School attending \_\_\_\_\_ Parent(s) \_\_\_\_\_

Phone \_\_\_\_\_ Grievant \_\_\_\_\_

Signature of student(s) parent/legal guardian(s) \_\_\_\_\_

Statement of Grievance \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Attach additional information as needed

Date & time of incident \_\_\_\_\_

**APPEAL LEVEL II**

Disposition: \_\_\_\_\_

\_\_\_\_\_

Principal \_\_\_\_\_

Notification of disposition:

1) Were you advised of the right of representation? \_\_\_\_\_

2) Are you satisfied with the disposition? \_\_\_\_\_

3) Do you wish to appeal to Level II? \_\_\_\_\_

Grievant signature \_\_\_\_\_

**APPEAL LEVEL III**

Disposition: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Pupil Personnel Services \_\_\_\_\_

Executive Director \_\_\_\_\_

2016-2017

**FLINT COMMUNITY SCHOOLS  
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Blake Strozier, Treasure

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Superintendent of Schools

Sharrece Farris

Deputy Superintendent

**STATEMENT OF ASSURANCE OF  
COMPLIANCE WITH FEDERAL LAW**

**Statement of Assurance of Compliance with Federal Laws**

It is the policy of the Flint Community Schools not to discriminate on the basis of color, national origin, age, gender, height, weight, disability, religion, or marital status in any of its programs, activities, or employment. Inquiries should be addressed to the:

Executive Director of Human Resources/Legal Affairs • 923 E. Kearsley St.,  
Flint, Michigan 48503-1974 • (810) 760-1124.

**Translation services are available upon request, please call 760-1259**

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**Inquiries should be addressed to:**

Executive Director of Human Resources/Legal Affair  
923 East Kearsley Street  
Flint, Michigan 48503-1974

810-760-1124

Interpreter services will be available  
State, Federal and Local Programs at



**FLINT COMMUNITY SCHOOLS**  
*Expect More. Achieve More.*

upon request to the Office of  
810-760-1259

923 E. Kearsley Street \* Flint, MI 48503  
Phone: (810) 760-1000 / Fax: (810) 760-7601  
www.flintschools.org

## SCHOOL INFORMATION 2016-2017

SCHOOL	PHONE	FAX	PRINCIPAL	ASSISTANT PRINCIPAL	HEAD SECRETARY
<b>SECONDARY SCHOOLS</b>					
<b>080</b> Northwestern High School (10-12)	760-1780	760-6809	Timothy Green	Maria Boyd-Springer	Lonise Coulter
<b>090</b> Southwestern Classical Academy (7-12)	760-1400	760-7772	TBD	Dana Simmons	Alma Starks-Barnett Saran Marks
<b>ELEMENTARY SCHOOLS</b>					
<b>190</b> Brownell STEM Academy (K-2)	760-1643	760-1538	TBD		Berta Pyland
<b>280</b> Doyle Ryder	760-5266	760-5118	Robert Bueche		Margaretta Fisher
<b>290</b> Durant-Tuuri-Mott (K-7)	760-1594	760-7729	Shelly Umphrey		Regina Madison
<b>295</b> Eisenhower	760-1607	760-7457	Rachel Turner		Lisa Palermo
<b>310</b> Freeman	760-1797	760-6882	Anita Miller		Gidget Arcand
<b>193</b> Holmes STEM Academy (3-8)	760-1968	760-1624	Eddie Thomas		Jeanette Golden
<b>425</b> Neithercut	760-1359	760-5133	Debra Williams		Janet Hamilton
<b>450</b> Pierce	760-1386	760-7147	Shalonda Byas		Melody Bondon-McGee
<b>470</b> Potter (K-8)	760-1813	760-7146	Gretchen Shafer		Johnice Carradine
<b>SPECIALTY</b>					
<b>075</b> Accelerated Learning Academy (7-12)	767-8500	760-6809	Timothy Green	TBD	Angela Pugh
<b>EARLY CHILDHOOD</b>					
<b>PROGRAM</b>	<b>PHONE</b>	<b>FAX</b>	<b>CONTACT</b>		<b>HEAD SECRETARY</b>
<b>193</b> Great Start Readiness-Holmes	767-8018	760-1624	LaTausha Wilson		TBD

Updated by D. Sippell 8-6-15v

# LOVETTE REPORT

## Exhibit P



**FLINT COMMUNITY SCHOOLS**  
*Expect **More.** Achieve **More.***

*An Equal Opportunity Employer*

## ***Employee Job Description***

Flint Community Schools, an urban public school system with campuses throughout the City of Flint, Michigan, has a long and rich tradition of community education. Flint Community Schools provide a range of academic, extended services and extracurricular activities at the elementary and secondary levels to meet the needs of our students and their families.

**Job Title: School Improvement Grant (SIG) Data Coach**

### **Job Summary:**

The Data Coach is responsible for creating a continuous process for analyzing data, by developing protocols to collect, analyze and disseminate data.

### **Essential Functions:**

Work in conjunction with the principal, staff, and SIG Coordinator to develop protocols to collect, analyze, disaggregate and disseminate the four types of data (demographic, perceptions, school processes, student learning).

Work collaboratively with the principal, SIG Coordinator, SIG Family Liaison, SIG AEO, representation from the MDE, External Partners, professional development chairperson, school improvement chairperson, instructional specialists and other identified partners to assure that data is analyzed for all services which should be coordinated and implemented with fidelity.

Facilitate the process of continuous student and school improvement.

Inform administrators, teachers, and instructional staff on how data can be used to drive instruction, and/or improve student success.

Provide insight and understanding of the importance, value, and application of data.

Ensure that processes and procedures for collecting, analyzing, and disseminating data are occurring consistently and accurately.

Develop a data-driven culture.

Attend SIG Leadership Roundtable regional networking meetings.

Participate in Professional Learning Communities with other data coaches within the region.

Successfully utilize systems such as those designed to record attendance data, student information and assessment.

Support teachers in the use of state and local data to inform instruction.

Support the development of data-driven tools and mechanisms to assess SIG implementation and impact.

Serve on any committees and councils concerned with the School Improvement Grant, as needed

Work collaboratively with SIG Coordinator and SIG AEO to maintain accurate data, records, etc. to document all activities conducted and services provided.

Performs other related duties and responsibilities as assigned or as appropriate or as deemed necessary by the Principal and/or SIG Team in support of the overall SIG Grant.

**SIG Data Coach**

Page 2 of 3

*The information contained in this job description is not an exhaustive list of the duties performed for this position. Other duties within the classification and the physical demands of the job may be assigned.*

To perform this job successfully an individual must be able to perform each essential function satisfactorily. The essential functions listed are representative of the knowledge, skill and /or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Qualifications:**

Education: Bachelor's Degree in Education, preferably in Data Management & Analysis. Michigan Teacher Certification preferred.

Experience: Experience with Data Acquisition, Analysis and Disaggregation required.

Skills: Knowledge and ability to manipulate data.

Ability and understanding of how to present data in an applicable and functional manner.

Knowledge and willingness to learn to use multiple data collection and analysis tools.

Instructional background to clearly connect data to instructional decision-making.

Skills in problem solving

Knowledge of the Family Education Rights and Privacy Act (parameters, release of information, confidentiality)

Success in improving student achievement in a schools and/or districts.

Highly effective organizational, written, and communication skills.

Other: Residence within a 60-mile radius of the borders of the District is required; residence within the City of Flint is preferred. Newly hired employees must satisfactorily pass: 1) physical examination by a medical doctor; 2) police clearance; 3) reference check, including digital fingerprinting; and 4) 5-panel drug test. Must comply with Student Safety Initiative Legislation, as amended.

**Evaluation:**

Performance of this position will be evaluated annually.

**Special Job Considerations**

**Certification:** Required\_\_\_ Not Required\_\_\_ Desirable X

**Type of Certification:** Administrative\_\_\_ Teacher X Other\_\_\_

**Bargaining Unit Position:** Yes\_\_\_ No X

**Contracted position (limited term). No benefits. 8 hours/day. 205 Days.**

**Reports To:** Principal

**Supervision:** N/A

**Physical Demands:** Sedentary Work (see U.S. Department of Labor Guidelines)

**Date:** 9-27-2017

**Statement of Assurance of Compliance with Federal Laws**

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923 E. Kearsley Street • Flint, Michigan 48503-1974 • (810) 760-1218

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760-1259

# LOVETTE REPORT

## Exhibit Q

Reliance List for Gail Lovette:

Mona Hanna-Attisha et al., *Elevated Blood Lead Levels in Children Associated with the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response*, 106 AM. J. PUB. HEALTH 283, 283 (2016).

[https://miblsi.org/sites/default/files/Documents/Research/MIBLSIPublications/CEN\\_2009\\_FlintCommunitySchools.pdf](https://miblsi.org/sites/default/files/Documents/Research/MIBLSIPublications/CEN_2009_FlintCommunitySchools.pdf)

Compliance and Special Education letter from GISD to Parents dated January 28, 2016

MDE Annual Report 2015-2016 [http://www.michigan.gov/documents/mde/MDE\\_Annual\\_Report\\_2015-2016\\_526801\\_7.pdf](http://www.michigan.gov/documents/mde/MDE_Annual_Report_2015-2016_526801_7.pdf)

GISD Promoting Positive School Climate <http://www.geneseccisd.org/DocumentCenter/View/5966>

GISD and FCS 2014-2015 agreement for services profile

GISD BOE Minutes summary

GISD Behavior Support Guidelines and Procedures Manual\_SAT information

The Revised School Code: Act 451 of 1976 380.1711 Duties of Intermediate School Board

MTSS document GISD Promoting Positive School Climate Vol. 1 Issue 1 August 2015

OHI Guidelines Criteria for Eligibility from GISD revised March 2016

MDE FCS MPAS Complaint investigation report for student ES December 2, 2016

MDE Criteria for Determining SLD

Index of Exhibits from FCS filed 12/8/2016 with relevant links to: FCS parent handbook, Procedural Safeguards Notice, GCHD Lead Testing information, GCHD Hearing and Vision Screening Information, FCS Child Find Procedures

MDE Michigan Special Education One Pager: Child Find

MDE Michigan Special Education One Pager: Timeline for Initials

Mi School DATA 2014-2015 Special Education Public Reporting

FCS Special Education Closeout of Findings of Noncompliance 11/12/15

GISD Special Education Mandatory Plan Modified July 2013

GISD Door Hanger

Redacted OHI Impairment Rubric Data Collection Worksheet

Autism Alliance of Michigan ASD data as of October 12, 2017

MIBLSI Information for August 2016- June 2021

CDC Educational Interventions of Children Affected by Lead April 2015

City of Flint Data prepared by William Therrien September 2017

Exceptional Children Policy Paper: Special Section on RTI 2017, Vol. 83(3) 269-280; 255-268

Complaint, D.R. et al. v. Michigan Dept. of Ed., et al. October 2016

Summary, Lara L. MacQuarrie, Ph.D. September 2016

MDE Final Decision for Benton Harbor Area Schools re: Child Find dated April 29, 2016

Connecticut Department of Education Guidelines for the Prevention and Management of Lead Poisoning in Children  
August 2013

FCS Referral Process for Students Suspected of having a Specific Learning Disability September 2010

FCS SAT Team Process

GISD website: <http://www.geneseecisd.org/802/Water-and-Lead-Information-and-Resources>

Expert Materials:

Dr. Vicki Sudhalter, Ph.D.: CV, Report, and final evaluation reports for DR, CW, DK, and JB

Dr. Theodore I. Lidsky, Ph.D.: CV, Report, and final evaluation reports for CDM, OÑ, DT, and JT

Individual Files of 4 FCS Students:

ES: Behavior referrals, MPAS file, Corrective Action Plan 3/16, Winning Water Essay

JB: OT Report 9/16; IEP 10/16; MET ASD 10/16; MET SLD 10/16; MET SL 10/16; GHS letter

DD: FCS IEP; Carmen Ainsworth IEP

DK: IEP 9/15; FBA 2/16; IEP 8/17; Allergic Reaction documentation

Teachers Interviewed: 6

Parents Interviewed: 3