



## Addressing Health Barriers to Learning In Support of Children in Need of Services

Developed by



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### PURPOSE

This document was developed to inform and support efforts that address health barriers to learning (HBLs) through a population health approach<sup>1</sup>. **The term *health barriers to learning (HBLs)* refers to health conditions—that when unaddressed, can interfere with a child’s ability to learn<sup>2</sup>.**

Understanding and addressing HBLs can: (a) provide a basis for population-focused partnerships with organizations that already focus on one or more HBLs and (b) inform strategic responses to large-scale, persistent factors that negatively affect school outcomes.

	HEALTH CONDITION	WHY IT MATTERS FOR LEARNING
	<b>Uncontrolled Asthma</b>	On average, 1 in 10 children are estimated to have asthma. <sup>3</sup> Consequences of poorly controlled asthma are Emergency Department visits, hospitalizations, and missed school. <sup>4</sup> Nationally, children with asthma miss 13.8 million days of school. <sup>5</sup>
	<b>Uncorrected Vision Problems</b>	Common vision impairments affect up to 25% of students and can lead to physical, developmental, behavioral, and academic problems if they go uncorrected. <sup>6,7,8</sup> About 80% of learning occurs through visual tasks such as reading and writing. <sup>9</sup>

<sup>1</sup> A population health approach utilizes non-traditional partnerships among different sectors of the community to achieve positive health outcomes. Source: Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/pophealthtraining/whatis.html>

<sup>2</sup> <https://www.childrenshealthfund.org/wp-content/uploads/2017/01/Health-Barriers-to-Learning.pdf>

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.





<sup>5</sup> Ibid.

<sup>6</sup> Centers for Disease Control and Prevention. (2006). Improving the Nation’s Vision Health: A Coordinated Public Health Approach: Atlanta, GA.

<sup>7</sup> Walker, D.K. (2009). Building a Comprehensive Child Vision Care System. *A Report of the National Commission on Vision and Health*.

<sup>8</sup> National Academies of Sciences, Engineering, and Medicine. (2016). Making Eye Health a Population Health Imperative: Vision for Tomorrow. Washington, DC: The National Academies Press.

<sup>9</sup> Ibid.

	<p><b>Unaddressed Hearing Loss</b></p>	<p>Nationally, about 10 out of every 1,000 children will have permanent hearing loss by school age.<sup>10</sup></p> <p>Significantly increases the likelihood a child will repeat a grade.<sup>11</sup></p> <p>Higher risk of problems with social, emotional, and mental health development compared to their peers.<sup>12</sup></p>
	<p><b>Dental Pain</b></p>	<p>Nearly half of children in preschool and elementary school in Georgia have untreated tooth decay and are almost 3 times more likely to miss school than their peers.<sup>13</sup></p> <p>More likely to report feeling unhappy, worthless, and shy and appear antisocial.<sup>14</sup></p> <p>Leads to trouble sleeping and eating, increased school absences, difficulty paying attention in school, and lower academic outcomes.<sup>15</sup></p>
	<p><b>Persistent Hunger</b></p>	<p>Families experience food insecurity when they are unable to acquire enough food for one or more family members due to lack of resources.<sup>16</sup></p> <p>Linked to lower levels of school engagement and greater risk of placement in special education.<sup>17</sup></p> <p>"When kids are hungry, they have an increased possibility for behavioral issues like hyperactivity, aggression or anxiety. Their moods can change. When they are feeling that physical hunger, it impacts their emotional and their mental well-being, causing them to act out in different ways."<sup>18</sup></p>
	<p><b>Lead Exposure</b></p>	<p>Linked with lower academic outcomes, behavioral problems—including destructive and aggressive behavior, and mental health problems.<sup>19</sup></p> <p>The main source is deteriorating lead-based paint in older, poorly maintained homes.<sup>20</sup></p>

<sup>10</sup> Ibid.

<sup>11</sup> Martin, W.H., Sobel, J., Griest, S.E., Howarth, L., Yongbing, S. (2006). Noise Induced Hearing Loss in Children: Preventing the Silent Epidemic. *Journal of Otology*.

<sup>12</sup> Ibid.

<sup>13</sup> Kabore, H.J., Smith C., Bernal J., Parker D., Csukas S., Chapple-McGruder T. (2014) *The Burden of Oral Health in Georgia*. Georgia Department of Public Health, Maternal and Child Health, Office of MCH Epidemiology, Georgia Oral Health Program.

<sup>14</sup> <https://www.childrenshealthfund.org/wp-content/uploads/2017/01/Health-Barriers-to-Learning.pdf>.

<sup>15</sup> Ibid.



<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Gunther-Haas, M. (2017, September 20). Going hungry: Student hunger affects behavior, learning. *The Pioneer*. Retrieved from <https://www.bigrapidsnews.com/local-news/article/Going-hungry-Student-hunger-affects-behavior-14181940.php>

<sup>19</sup> <https://www.childrenshealthfund.org/wp-content/uploads/2017/01/Health-Barriers-to-Learning.pdf>.

<sup>20</sup> Ibid.

	<p style="text-align: center;"><b>Unidentified Language Skill Deficits</b></p>	<p>Lower language skills are linked with higher rates of aggression and higher language skills are linked with higher rates of academic engagement.<sup>21</sup></p> <p>Language is the vehicle by which children and youth communicate their needs and ideas, develop and maintain relationships, and solidify their understanding of essential concepts.<sup>22</sup></p> <p>Studies show the most important factor in reaching expected levels in reading and math at age seven is a child's language skill at age five—the language factor is greater than the link to poverty or level of parental education.<sup>23</sup></p> <p>The prevalence of previously unidentified language deficits in children age 5 to 13 determined to have emotional and behavioral disorders is 81%.<sup>24</sup></p> <p>Compared to their peers, children with poor language skills at age five are 4 times more likely to have reading difficulties in adulthood, 3 times more likely to have mental health problems, and 2 times as likely to be unemployed.<sup>25</sup></p>
	<p style="text-align: center;"><b>Behavior and Emotional Problems</b></p>	<p>Behavior and emotional problems in children and youth are serious deviations in the ways they typically learn, behave, or manage their emotions, which can lead to distress and difficulties getting through the day.<sup>26</sup></p> <p>Linked with absenteeism, low reading and math scores, grade retention, suspensions, placement in special education, and failure to complete high school.<sup>27</sup></p>

<sup>21</sup> Chow, J.C. & Wehby, J.H. (2019). Profiles of Problem Behavior in Children With Varying Language Ability. *Journal of Emotional and Behavioral Disorders*.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Hollo, A., Wehby, J.H., Oliver, R.M. (2014). Unidentified Language Deficits in Children with Emotional and Behavioral Disorders: A Meta-Analysis. *Journal of the Council for Exceptional Children*.

<sup>25</sup> Law, J., Charlton, J., & Asmussen, K. (2017). Language as a Child Wellbeing Indicator. *Early Intervention Foundation*, Newcastle University.

<sup>26</sup> Centers for Disease Control and Prevention. (2019, March 12). What Are Childhood Mental Disorders? Retrieved from <https://www.cdc.gov/childrensmentalhealth/basics.html>

<sup>27</sup> Ibid.

## Addressing Health Barriers to Learning in Georgia In Support of Children in Need of Services

### Screening Resources

1. Uncontrolled Asthma
  - [Asthma risk questionnaire](#)
  - [Univ. of Alabama Birmingham asthma study](#)
2. Uncorrected Vision Problems<sup>28</sup>
  - [SPOT Vision Screener](#)
  - [SPOT Infographic](#)
3. Unaddressed Hearing Loss
  - [MAICO ERO Scan](#)
  - [SoundWaves Pediatric Hearing Aid Program](#)
4. Dental Pain
  - [AAP Oral Health Risk Assessment Tool](#)
  - [Dental hygiene general supervision legislation](#)
5. Persistent Hunger
  - [American Academy of Pediatrics \(AAP\) food insecurity questionnaire](#)
  - [Food Finders](#)
6. Lead Exposure Risk Assessment (risk assessment only—not screen)
  - [Georgia Healthy Homes and Lead Poisoning Prevention Program Risk Factors Assessment Questionnaire](#) (ages 6 months through 6 years)
7. Unidentified Language Skill Deficits
  - Preschool Language Scales-5 Screening Test ([PLS-5](#))
  - CELF-5 Screening Test ([CELF-5](#))
  - Children's Communication Checklist-2 ([CCC-2](#))
8. Behavior and Emotional Problems
  - BASC-3 Behavioral and Emotional Screening System ([BASC-3 BESS](#))

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<sup>28</sup> Georgia Department of Public Health Form 3300 is required to be completed at the entry to school. Screening for vision, hearing, dental health, and nutrition are included on the form. For more information: <https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/Form-3300-School-Health-Leaders.pdf>

Health Barrier to Learning	Screening Method/Tool	Time to Complete	Purpose	Partners/Volunteers to Consider	Estimated Cost
Uncontrolled Asthma	Method: 12-item questionnaire  Completed by: Parents	5 minutes	To identify previously undetected and/or uncontrolled asthma in youth.	<ul style="list-style-type: none"> <li>• <a href="#">Georgia Department of Public Health – School Nursing Program</a></li> <li>• <a href="#">Children’s Healthcare of Atlanta (CHOA)</a></li> <li>• Georgia Asthma Coalition</li> </ul>	\$0.00
Dental Pain	Method: (1) Brief questionnaire (2) Visual examination for obvious risk factors  Completed by: Parent	5 minutes	To identify oral abnormalities such as dental caries that require follow-up care to further prevent pain, infection, and disease, etc.	<ul style="list-style-type: none"> <li>• <a href="#">Georgia Department of Public Health – Oral Health Program</a></li> <li>• <a href="#">Federally qualified health centers</a></li> <li>• Local dentists and hygienists</li> <li>• Volunteer health providers</li> </ul>	\$0.00 <sup>1</sup>
Uncorrected Vision Problems	Method/Tool: SPOT Vision Screener	1 minute	To identify <i>visual acuity</i> and risk for eye disease.  <i>Visual acuity is defined as the sharpness of vision, measured by the ability to identify numbers and letters at any given distance.</i>	<ul style="list-style-type: none"> <li>• <a href="#">Georgia Lion’s Lighthouse Foundation</a></li> <li>• <a href="#">Lions Clubs</a></li> <li>• <a href="#">Georgia Department of Public Health Districts</a></li> <li>• School nurses</li> <li>• Community volunteers</li> </ul>	Variable <sup>2</sup>

<sup>1</sup> Screening **may be** provided in-kind by local dental professionals and/or health department.

<sup>2</sup> Cost of the SPOT vision screener is \$7,500. Strongly consider connecting with local partners, civic groups (e.g. Lions Club), and other community organizations to provide these services. You may additionally consider purchasing 1 screening device to be shared among a cluster of schools, district, or Regional Education Service Agency (RESA).

Health Barrier	Screening Method/Tool	Time to Complete	Purpose	Partners/Volunteers to Consider	Estimated Cost
Unaddressed Hearing Loss	Method/Tool: Maico ERO Scan	2 minutes	To identify any level of hearing loss in youth who are screened.	<ul style="list-style-type: none"> <li>• <a href="#">Georgia Lion's Lighthouse Foundation</a></li> <li>• <a href="#">Lions Clubs</a></li> <li>• <a href="#">Georgia Department of Public Health Districts</a></li> <li>• School nurses</li> <li>• Community volunteers</li> </ul>	Variable <sup>3</sup>
Persistent Hunger	Method: 2-item food insecurity questionnaire  Completed by: Student	1 minute	To identify youth who are living in food insecure households.	<ul style="list-style-type: none"> <li>• <a href="#">Share Our Strength – No Kid Hungry</a></li> <li>• <a href="#">Georgia Food Bank Association</a></li> <li>• <a href="#">Action Ministries</a></li> <li>• <a href="#">Georgia Food Bank Association</a></li> </ul>	\$0.00
Lead Exposure	Risk assessment only—not a screen.  Method: 7-item questionnaire (age range: 6 months through 72 months)  Completed by: Parent	5 minutes	Lead exposure risk only. Blood lead tests should be done right away if the child is at high risk (one or more "yes" or "I don't know" answers on the questionnaire).	<ul style="list-style-type: none"> <li>• <a href="#">Georgia Department of Public Health – Healthy Homes and Lead Poisoning Prevention Program</a></li> </ul>	\$0.00

<sup>3</sup> Cost of the Maico ERO Scan device is \$4,000. Strongly consider connecting with local partners, civic groups (e.g. Lions Club), and other community organizations to provide screening services. You may additionally consider purchasing 1 screening device to be shared among a cluster of schools, district, or Regional Education Service Agency (RESA).

Health Barrier	Screening Method/Tool	Time to Complete	Purpose	Partners/Volunteers to Consider	Estimated Cost
Unidentified Language Skill Deficits	<p>Method/Tool:</p> <ul style="list-style-type: none"> <li>Preschool Language Scales-5 (PLS-5) (Age range: Birth through 7:11)</li> <li>CELF-5 Screening Test (Age range: 5:0 through 21:11)</li> <li>Children’s Communication Checklist (CCC)-2 (Age range: 4:0 through 16:11 Years)</li> </ul> <p>Completed by: Trained student support staff (e.g. nurses, counselors, etc.) and/or trained community volunteers.</p>	<p>PLS-5: 5-10 minutes</p> <p>CELF-5: 10-15 minutes</p> <p>CCC-2: 5-10 minutes</p>	<p>To observe a child’s language and communication skills as it relates to the presence of a language disorder.</p> <p>The tools listed also evaluate a child’s pragmatic language skills, such as their verbal and non-verbal social communication.</p>	<ul style="list-style-type: none"> <li>School nurses</li> <li>School social workers</li> <li>School counselors</li> <li><a href="#">Regional Education Service Agencies</a></li> <li><a href="#">Georgia Department of Public Health Districts</a></li> <li><a href="#">University of West Georgia Department of Communication Sciences and Disorders</a></li> </ul> <p>Community volunteers (can be trained)</p>	<p>PLS-5: \$96.00 per 25 student kit<sup>4</sup></p> <p>CELF-5: \$400.00 per 50 student kit<sup>5</sup></p> <p>CCC-2: \$219.50 per 25 student kit<sup>6</sup></p>
Behavior and Emotional Problems	<p>Method: BASC-3 Behavioral and Emotional Screening System (BASC-3 BESS)</p> <p>Age range 3:0 – 18:11 Years (Teacher and Parent); 8:0 – 18:11 Years (Self-Report)</p> <p>Completed by: Parents, teachers, and students</p>	10 minutes	<p>To provide a snapshot of behavioral and emotional functioning;</p> <p>To predict behavioral, emotional, and academic problems;</p> <p>To assess internalizing, externalizing, and behaviors related to focus/concentration</p>	<ul style="list-style-type: none"> <li><a href="#">Local community service boards</a></li> <li><a href="#">Federally qualified health centers</a></li> <li><a href="#">Medical College of Georgia – Department of Psychiatry and Health Behavior</a></li> <li><a href="#">Georgia Department of Behavioral Health and Developmental Disabilities</a></li> </ul>	\$300.00 per 25 student kit <sup>7</sup>

<sup>4</sup> Cost for one PLS-5 screening kit to screen 25 students. Record forms (packs of 25) are \$42.00.

<sup>5</sup> Cost for one CELF-5 screening kit to screen 50 students age 5-21. Screening Report Forms (packs of 25): \$86.00.

<sup>6</sup> Cost for one CCC-2 screening kit to screen 25 students. Caregiver response forms and scoring worksheets (packs of 25) are \$51.50 and \$29.75, respectively.

<sup>7</sup> Cost for one kit to screen 25 students. Additional reporting forms and scoring sheets may be purchased for \$45.