Social Determinants of Health for School-Age Youth

Olga Acosta Price, Ph.D.
Associate Professor and Director
The Center for Health and Health Care in Schools (CHHCS)
Milken Institute School of Public Health, Department of Prevention and Community Health, at the George Washington University
CHHCS’ envisions a society where school and community environments jointly foster health and opportunities for all students to thrive.

**Public Health Approach** – maintain an emphasis on the social and environmental factors that impact outcomes and on interventions aimed at multiple levels of the social ecology.

**Collaboration at the Core** - CHHCS partners with local, state, and national stakeholders to advance effective school-connected initiatives to improve students’ health, educational attainment, and overall well-being.

[www.healthinschools.org](http://www.healthinschools.org)
Systems Change
HEALTH

“a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” – World Health Organization (1946)
Health and Preventable Mortality

- Social, Behavioral, Environmental Conditions: 80%
- Medical Care: 20%

Source: Braveman, P., & Gottlieb, L. (2014)
Social Determinants of Health

The conditions in which people are born, grow, live, work and age and the fundamental drivers of these conditions.
Health disparities are preventable differences in the incidence, prevalence, mortality, and burden of disease, adverse health condition, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.

Sources: [www.cdc.gov/healthyyouth/disparities](http://www.cdc.gov/healthyyouth/disparities) & NIH, 2011
Childhood Asthma

Mental, Emotional, Behavioral Disorders
ASTHMA

prevention

symptoms
copd
wheezing
inflammation
bronchial
trigger
serious

inhaler
diagnosis
rx

breather

respiratory help

Source: https://www.cdc.gov/vitalsigns/childhood-asthma/index.html
National Asthma Prevalence (2016)

- Total
- 250-450% poverty level
- 100-250% poverty level
- <100% poverty level
- White Non-Hispanic
- Black Non-Hispanic
- Other Non-Hispanic
- Total Hispanic
- Mexican
- Puerto Rican

Source: https://www.cdc.gov/asthma/most_recent_data.htm
1 in 5 children have, or will have, a serious mental illness
PERCENTAGE OF HIGH SCHOOL STUDENTS WHO
HAD EVER USED SELECT ILLICIT DRUGS,
BY SEXUAL IDENTITY AND BY SEX OF SEXUAL CONTACTS, UNITED STATES, YRBS, 2017

PERCENTAGE OF HIGH SCHOOL STUDENTS WHO WERE BULLIED AT SCHOOL IN THE PAST YEAR, BY SEXUAL IDENTITY AND BY SEX OF SEXUAL CONTACTS, UNITED STATES, YRBS, 2017

PERCENTAGE OF HIGH SCHOOL STUDENTS WHO ATTEMPTED SUICIDE IN THE PAST YEAR, BY SEXUAL IDENTITY AND BY SEX OF SEXUAL CONTACTS, UNITED STATES, YRBS, 2017

Determinants of Disparities in Childhood Asthma

Source: Forno & Celedon (2012)
Determinants of Disparities in Child Mental, Emotional, Behavioral Disorders

- Limited access to health care
- Under-resourced schools
- Increased exposure to community violence
- Poor Physical Health Status
- Limited access to safe, healthy places to play
- Food insecurity & Housing Instability
- Racism and Discrimination

Child Well-Being

Source: Allen, et al. (2014)
HEALTH OUTCOMES

Source: Braveman, P., & Gottlieb, L. (2014)
More than half of US public school students live in poverty

Source: Southern Education Foundation (2015)
HOW POVERTY FEELS TO CHILDREN

- Worried about parents
- Unhappy
- Frustrated
- Anxious

- Excluded
- Constrained
- Conflicted
- Embarrassed

- Insecure, overcrowded homes
- No place for homework or play

- Few opportunities
- Worthless
- Hopeless
- Social insecurity

- Aspirations
- Hopes
- Dreams
- Resilience

- Important
- Bullied & judged
- Teachers don’t understand
- No school trips
The Family Stress Model of Economic Hardship

Economic Hardship
1. Low income
2. High debt, low assets
3. Negative financial events

Economic Pressure
1. Unmet material needs
2. Unpaid debts
3. Painful cutbacks

Parent Distress
1. Emotional problems
2. Behavioral problems

Disrupted Family Relations
1. Interparental conflict/withdrawal
2. Harsh, inconsistent parenting

Child and Adolescent Adjustment
1. Emotional, behavioral problems
2. Impaired competence

Source: Conger & Conger (2008)
Impact of Addressing Social Determinants

- Community Outreach
- Housing
- Nutritional Support
- Income Support
- Care Coordination

So, how do SDOH apply to schools?
### ACEs and Adolescents

50% had at least 1 ACE & 10% had 4+ ACEs

<table>
<thead>
<tr>
<th>Measure of well-being</th>
<th>0 ACEs</th>
<th>1 ACE</th>
<th>2 ACEs</th>
<th>3+ ACEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High externalizing behavior</td>
<td>18%</td>
<td>26%</td>
<td>33%</td>
<td>41%</td>
</tr>
<tr>
<td>Low engagement in school</td>
<td>25%</td>
<td>33%</td>
<td>44%</td>
<td>48%</td>
</tr>
<tr>
<td>Household contacted due to problems at school</td>
<td>13%</td>
<td>23%</td>
<td>31%</td>
<td>38%</td>
</tr>
<tr>
<td>Grade repetition</td>
<td>6%</td>
<td>12%</td>
<td>14%</td>
<td>21%</td>
</tr>
<tr>
<td>Does not stay calm and controlled</td>
<td>24%</td>
<td>34%</td>
<td>40%</td>
<td>44%</td>
</tr>
<tr>
<td>Does not finish tasks started</td>
<td>27%</td>
<td>36%</td>
<td>44%</td>
<td>49%</td>
</tr>
<tr>
<td>Diagnosed with a learning disability</td>
<td>9%</td>
<td>13%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>Fair or poor physical health</td>
<td>2%</td>
<td>4%</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Child Trends, 2014
1. Education can create opportunities for better health
   - Income/resources
   - Social/psychological benefits
   - Healthy behaviors
   - Healthier neighborhoods

2. Poor health can put education at risk (reverse causality)
   - Attendance
   - Concentration
   - Learning disabilities

3. Conditions throughout people’s lives can affect both education and health
   - Social policies
   - Individual/family characteristics

Socio-Ecological Model

Public Policy
national, state, local laws and regulations

Community
relationships between organizations

Organizational
organizations, social institutions

Interpersonal
families, friends, social networks

Individual
knowledge, attitudes, skills

Making History
The Campaign for GM
The George Washington University
Washington, DC
The Center for Health and Health Care in Schools
TIER III
Treatment SERVICES for few

TIER II
Targeted INTERVENTIONS for some

TIER I
School wide PROGRAMS for all

School Resources

Community Resources

People

Policies

Practices
WHOLE SCHOOL, WHOLE COMMUNITY, WHOLE CHILD

Source: https://www.cdc.gov/healthyyouth/wscch/
Implement Universal Preventive Approaches
Communicate Transparently and Reliably
Regularly Convene Multi-disciplinary Teams
Use Validated Screening and Assessment Tools
Actively Engage and Support Families
Collaborate with and Integrate Local Partners
Track Progress and Outcomes

Fundamental Principles in Support of Student Success
Schools Tackling SDOH at Varying Levels of the Social Ecology

- Public Policy: Mobilization
- Community: Collaboration
- Organizational: Integration
- Interpersonal: Communication
- Individual: Education
Strategies: Assessing Needs and Risks

Selected RAAPS-PH Findings (High School Data Only)

- Did Not Get a C or Better in All Classes
- Difficulty Managing Anger
- No Running Water in Home
- Has Carried Weapon for Protection
- Feels Sad or Hopeless
- Missed School Due to Providing Care, Work or Transportation
- Sexually Active

Source: http://www.possibilitiesforchange.com/raaps/
**Strategies: Assessing Needs and Risks**

### Air Quality and Outdoor Activity Guidance for Schools

<table>
<thead>
<tr>
<th>Air Quality Index</th>
<th>Outdoor Activity Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Great day to be active outside!</td>
</tr>
<tr>
<td>Good</td>
<td>Good day to be active outside!</td>
</tr>
<tr>
<td>Yellow</td>
<td>Students who are unusually sensitive to air pollution could have symptoms.¹</td>
</tr>
<tr>
<td>Unhealthy</td>
<td>It's OK to be active outside, especially for short activities such as recess and physical education (PE).</td>
</tr>
<tr>
<td>Very Unhealthy</td>
<td>Avoid all outdoor activities. Consider moving longer or more intense activities indoors or rescheduling them to another day or time.</td>
</tr>
</tbody>
</table>

¹Students with asthma should follow their asthma action plans and keep their quick relief inhalers handy.

### Controlling Things That Make Asthma Worse

- **Smoke**: Stop smoking and avoid secondhand smoke.
- **Dirt**: Vacuum regularly to remove dust and dirt.
- **Dust**: Use air filters or a HEPA filter in your home.
- **Mold**: Keep your home dry and clean. Fix any water leaks.
- **Chemicals**: Use non-toxic cleaning products.
- **Pollution**: Reduce your exposure to pollution by avoiding outdoor activities during peak pollution times.

Source: Regional Asthma Management and Prevention (RAMP) Initiative, a program of the Public Health Institute
### Strategies: School Policy Development and Implementation

<table>
<thead>
<tr>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Management</td>
</tr>
<tr>
<td>Improving Indoor Air Quality in Schools</td>
</tr>
<tr>
<td>Improving the Students’ Home Environments</td>
</tr>
<tr>
<td>Improving Outdoor Air Quality around the School and Community</td>
</tr>
</tbody>
</table>

Strategies: Interventions

Non-Clinical

Clinical
Strategies: Referrals

Inside School

Outside School
An online Action Guide to help stakeholders develop and strengthen community and school-connected programs that will prepare children for academic success while supporting their social, emotional, and physical wellbeing.

Four-pronged strategy → Key Steps, guidelines & tools

- The Action Guide
  - About the Action Guide, definitions, and how to get started

- Building an Action Team
  - Creating a strong network of partners and allies

- Mapping Assets
  - Assessing and mapping your programmatic and human resources/assets

- Policy Environment
  - Sustaining your efforts long-term through finance and system innovations

- Communications
  - Communicating and messaging the importance of a multidisciplinary solution

Source: http://actionguide.healthinschools.org
Example: Collaboration to Improve Attendance

Chronic Absenteeism Reduction Effort (CARE) Collaborative
Enhancing Health and Academic Outcomes for Children in
Washington, DC and Baltimore City, MD

Source: http://atschool.alcoda.org
Example: Meeting Basic Needs
Measuring whether our actions are making a difference

- **Community**
  - City/County Health Rankings
  - Crime, Utilization, or other statistics
  - New Policies or Laws

- **Organizational**
  - Schoolwide Surveillance Tools
  - Academic/Behavioral Indicators
  - New School Policies or Procedures

- **Individual**
  - Assessment Tools
  - Academic/Behavioral Indicators
  - Student/Family Interviews
Key Take-Aways

- Never underestimate the power of the presence of a consistent, caring adult
- SDOH can be addressed through programs, but also with interventions focused on people, practices, and policies
- Improving the social, environmental, and economic conditions for students and families requires strengthening school-community partnerships

Source: http://www.cdc.gov/healthyyouth/protective
CHHCS develops partnerships that support optimal health and education outcomes for all children

Olga Acosta Price, PhD
Associate Professor, Milken Institute School of Public Health, The George Washington University
Director, The Center for Health and Health Care in Schools
Phone: 202-994-4848
Email: oaprice@gwu.edu

Thank you!