Integrating Health Literacy Standards into Elementary School Curriculum

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Health Literacy is Key to Health Outcomes

From: 2. An Overview of Measures of Health Literacy
Worcester County, MD

WHO ARE THE PLAYERS?
Collaboration

- Atlantic General Hospital and Health System
- Worcester County Board of Education
- Herschel S. Horowitz Center for Health Literacy at the University of Maryland
- Worcester County Public School’s faculty and staff
- University of Maryland graduate students
- Worcester County community leaders

Initial Funding:
- Perdue Farms
- Humphreys Foundation
- Irrevocable Trust
- Atlantic General Hospital
Worcester County, MD

“SNAPSHOT” OF HEALTH STATUS
Key Health Issues in Our Community

One of the most pressing PREVENTABLE health issues in Maryland is Obesity.
Key Health Issues in Our Community

Of particular concern is the rate of Childhood Obesity in Maryland.

For reference, the highest rate of obesity is ranked as 1.
Key Health Issues in Our Community

Why is a focus on obesity important from a health policy perspective?
77% Adults who got ANY physical activity in the past month

18% Adults who eat the recommended servings of fruits and vegetables
Only 20% of high schoolers get the recommended amount of physical activity.
Health Literacy

WHAT IS IT?
Health information

Access...

Understand...

Use...
Health literacy skills

- Reading
- Numeracy
- Speaking
- Listening
- Technological
- Critical reasoning
- Self-efficacy
Health literacy in U.S.

Only 12% of adults have proficient health literacy. This means that nearly 9 out of 10 lack the skills needed to manage their health.

36% Americans have only basic or below basic health literacy.

69% who reported poor health have basic or below basic health literacy.
Impact of Low Health Literacy

- Increased hospitalizations and emergency care
- Decreased screenings and immunizations
- Poorer demonstrations of properly taking medications
- Later stage diagnoses with cancer and diabetes
- Poorer ability to interpret health labels
- Less likely to take preventative actions
- Poorer overall health status
- $106 to 238 billion in annual health care costs
- Higher mortality rates among older adults
Integrated Curriculum

PURPOSE OF THE PROJECT
Recommendation 5-2: “Educators should take advantage of the opportunity provided by existing reading, writing, reading, oral language skills, and mathematics curricula to incorporate health-related tasks, materials, and examples into existing lesson plans.”
“Catching the impact of low health literacy early through education of children can help lower health risks and improve health outcomes in the next generation of adults.”
Process Goals

• Take health literacy concepts and put them in the hands of general curriculum teachers.
• Currently, about 10% of an elementary student’s average day might focus on health.
• This project feasibly increases a student’s attention to health to 40% of an average day
• Integrated into current curriculum so program does not increase teacher effort by 40%.
The Health Literacy Generation...

- Can seek accurate and useful health information
- Will assess legitimacy of health messages from media
- Can articulate concerns with friends and family
- Should calculate correct timing and dosage of medicines
- Will ask questions of health providers
- Successfully navigate the health care system for self and others
The First Step

HEALTH LITERACY STANDARDS
<table>
<thead>
<tr>
<th>Standard 1</th>
<th>Students will comprehend concepts related to health promotion and disease prevention to enhance health.</th>
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<tbody>
<tr>
<td>Standard 2</td>
<td>Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.</td>
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<tr>
<td>Standard 3</td>
<td>Students will demonstrate the ability to access valid information, products, and services to enhance health.</td>
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<td>Standard 4</td>
<td>Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.</td>
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<tr>
<td>Standard 5</td>
<td>Students will demonstrate the ability to use decision-making skills to enhance health.</td>
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<tr>
<td>Standard 6</td>
<td>Students will demonstrate the ability to use goal-setting skills to enhance health.</td>
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<tr>
<td>Standard 7</td>
<td>Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.</td>
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<tr>
<td>Standard 8</td>
<td>Students will demonstrate the ability to advocate for personal, family, and community health.</td>
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Maryland Health Education Standards

- Students will demonstrate the ability to use knowledge, skills and strategies to address:
  1. Mental and Emotional Health
  2. Alcohol, Tobacco and Other Drugs
  3. Personal and Consumer Health
  4. Family Life and Human Sexuality
  5. Safety and Injury Prevention
  6. Nutrition and Fitness
  7. Disease Prevention and Control
New Health Literacy Standards

Students will:

1. Use appropriate information and tools strategically to enhance health and wellness—ANALYTICAL REASONING/SELF-EFFICACY

2. Analyze the influence of culture, media and commercialism on health—MEDIA LITERACY/CRITICAL REASONING

3. Demonstrate the ability to use decision-making skills to enhance health and wellness—DECISION MAKING

4. Demonstrate the ability to use interpersonal communication skills to enhance health and wellness—COMMUNICATION

5. Demonstrate the ability to advocate for personal, family and community health and wellness—COMMUNICATION
Measurable Objectives

1. Define health literacy and understand its relevance
2. Understand the connections between knowledge, communication and health
3. Understand the consequences of actions on health
4. Access accurate health information
5. Evaluate health information that is “bad” and “good”
6. Demonstrate how to ask informed questions
7. Demonstrate how to make healthy decisions
The Program

CURRICULUM DEVELOPMENT AND EVALUATION
Curriculum Creation

- Teachers created 4 lesson plans that align with already existing curriculum
- Lesson plans align with required core area standards, STEM standards, health literacy standards and other required standards
- Topics focus on skill building and real-life application
- Content of lessons pertinent for students at developmental stage and for that grade
Lesson Plan Implementation

- Lesson plans around a week long
- Implemented between pre-test and post-test (December-early June)
- Once out of testing phase, implementation can be done anytime in the school year
- Atlantic General Hospital provides resources and staff to help teachers implement lessons (i.e. guest speakers, materials, etc.)
Sample Projects from Snow Hill Elementary School
Evaluation

- Parent notification and voluntary opt-out
- Evaluation: pre and post questionnaires
- First year: piloted lessons in one school, 2nd grade
- Second year: All 2nd grade
- In person one-on-one interviewing
- Second year: pilot with 3rd, 4th, 5th grades
- Online testing
Findings
Dawn Rogers
Principal
Ocean City Elementary
Ocean City, MD
Success and More to Learn

- Average health literacy score across grades increased pre to post test
- Increase in percentage of children who moved into the highest health literacy score range
- Increase in 2nd graders who were sure they could communicate with providers

Self-efficacy: mixed results
- No increase 2nd grade
- Increase 3rd grade
- Limited impact 4th and 5th grades

Perceived health status not affected or lowered
Next Steps

- This year implementing curriculum 3rd, 4th, 5th grades
- Pilot with 6th grade (middle school age)
- Grant submitted for 7th and 8th grade for following year
- Proposed: time series, with “control” group for next stage evaluation
- Teacher feedback
- Parent engagement and home connections
Thank you!

QUESTIONS?