Integrating Health Literacy into Primary and Secondary Prevention Strategies

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Disclaimer: The ideas presented here are the author’s only and do not represent the positions of Johnson & Johnson
Health Literacy

Health Literacy is “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

Sources: Ratzan and Parker, NLM Complete Bibliographies of Medicine, 2000; USDHHS, Healthy People 2010; Institute of Medicine, 2006
The Opportunity to Advance Health:
Health Literacy for the Public Good

World Health Organization Preamble to the Constitution:
“Informed opinion and active cooperation on the part of the public are of the utmost importance in the improvement of health of the people.”

United Nations Ministerial Declaration:
“We stress that health literacy is an important factor in ensuring significant health outcomes and in this regard call for the development of appropriate action plans to promote health literacy.” (July 9, 2009)
Conceptual Constructs

1920: Winslow’s definition of public health

“Public health is the science and art of preventing disease, prolonging life and promoting physical health and efficacy ...which will ensure every individual in the community a standard of living adequate for the maintenance of health”

1988: IOM

The mission of public health “fulfilling society’s interest in assuring conditions in which people can be healthy.”
The 21st Century Field Model

Determinants of Health: The 21st-Century Field Model

Global Factors:
- Community and Social Environment
- Physical Environment
- Family and Individual Environment

Primary Prevention
- Education
- Income

Secondary Prevention
- Disease and Injury

Tertiary Prevention
- Health Care System
- Recovery
- Disability
- Death

*Potential pathway for individual and community action to influence global factors.

*Risk factors include age, nutritional status, and genetic makeup, among other factors.


The Evidence for Health Interventions

Sifting the evidence for sound studies with a take-home message is laborious and the yield disappointing.
The Evidence for the Value of Information

Over 14 years of research in the peer reviewed *Journal of Health Communication* had measurable outcomes with communication affecting:

- Knowledge
- Attitudes
- Awareness
- Practices
- Perceptions
- Intentions
- Behavior change, and
- Social Change
The Issue: High Cost of Preventable Chronic Disease

Forecast Avoidable Costs of Chronic Disease

In the US, the avoidable indirect impacts (i.e., productivity losses) of chronic disease are four times as high as the direct costs.

Available costs ($US, billions)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Direct costs</th>
<th>Indirect impacts</th>
<th>Total costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>0</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>100</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>Hypertension</td>
<td>50</td>
<td>70</td>
<td>120</td>
</tr>
<tr>
<td>Mental Disorders</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Diabetes</td>
<td>20</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Pulmonary Conditions</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Stroke</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: Avoidable costs are those that could be eliminated by reasonable improvements in behavior and treatment. Direct costs are treatment costs. Indirect impacts are losses in output due to absenteeism, "presenteeism" and other productivity reductions.

What Can be Done?

“...more research is needed, but there is already enough good information that we can use to make practical improvements in health literacy.” (Moritsugu, 2006)

• 80% of heart disease, stroke, type 2 diabetes, and;
• 40% of cancers can be prevented through inexpensive and cost effective interventions
Health Literacy Framework


Consumer Perspectives on Health Care Needs

- Primary Prevention: “Staying healthy” refers to getting help to avoid illness and remain well.

- Secondary Prevention: “Getting better” or “Living with Illness” refers to getting help to recover from an illness or injury and/or getting help with managing an ongoing, chronic condition or dealing with a disability that affects function.

- “Preventive care...is one of the best ways to keep our people healthy and our costs under control.” - President Barack Obama

Source: Institute of Medicine. Envisioning the National Health Care Quality Report. 2001
The potential of health literacy?
A Simple Idea – Galvanizing and Measurable

A **Health Literacy Scorecard** with key health indicators:

- Fasting Blood Sugar (diabetes),
- Body Mass Index (obesity)
- Cholesterol (cardiovascular disease),
- Blood pressure (hypertension),
- Smoking/tobacco use (cancer and CVD),
- Immunizations (vaccine preventable disease)
- Cancer screenings (age and gender specific).

- Obtain a “personal” health score and rating against a standard.
  - Potential for clustering, electronic measures and communication
- Developed and updated on a national level.
- Incentives to attain better health (lower costs and premiums)
# Health Literacy Scorecard

## Key Health Indicators

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Body Mass Index</td>
<td>19-24.9</td>
<td>Red</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>120/80??</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>Total or LDL</td>
<td>Red</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Fasting Blood Sugar/</td>
<td>TBD</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Smoking/Tobacco Use</td>
<td>Yes</td>
<td>Red</td>
<td>Red</td>
<td>Green</td>
</tr>
<tr>
<td>Cancer Screenings (tailored to gender/age)</td>
<td>Yes</td>
<td>Red</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Other, e.g., exercise, immunizations</td>
<td>Yes</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Overall Health Literacy Score (Green/Yellow/Red)</td>
<td>7/0/0</td>
<td>1/2/4</td>
<td>2/4/1</td>
<td>5/2/0</td>
</tr>
</tbody>
</table>

**Excellent:** Successful attainment of majority of indicators; continue to monitor

**Borderline:** A number of key indicators need to be attained

**Needs Improvement:** Immediate attention required to reach attainment for better health
Pediatric Health Literacy – Could this be the Basis of a Scorecard?

Health Literacy skills directed toward:
  • Children and their caregivers

To meet common preventative needs:
  • Nutrition
  • Development
  • Home safety
  • Vision
  • Lead screening
  • Immunizations

To meet common acute health needs:
  • Fever
  • Dehydration
  • Upper respiratory tract infections
  • Sexually transmitted infections
  • Vision

Source: Sanders LM et al., Literacy and child health: a systematic review. Archive of Pediatric and Adolescent Medicine, Feb. 2009 and Bernard Dreyer, American Academy of Pediatrics, 2009

**DIABETES SCORECARD**

**FIVE GOALS FOR LIVING WELL WITH DIABETES**

1. **CONTROL BLOOD PRESSURE**
   - High blood pressure makes your heart work too hard. It can cause heart attack, stroke, and kidney disease.

2. **LOWER BAD ChOLESTEROL**
   - LDL or “bad” cholesterol can build up and clog your blood vessels. It can cause heart attack or stroke. HDL or “good” cholesterol helps remove cholesterol from your blood vessels.

3. **MAINTAIN BLOOD SUGAR**
   - High blood glucose levels (too much sugar in your blood) can harm your heart, blood vessels, kidneys, feet, and eyes.

4. **BE TOBACCO-FREE**
   - Smoking doubles your risk of heart disease. Both smoking and diabetes narrow blood vessels. Smoking can damage the blood vessels in your legs, increasing the risk of amputation.

5. **TAKE ASPIRIN DAILY** (ages 40 and older)
   - Taking aspirin every day can help reduce the risk of heart disease and stroke. Ask your doctor whether taking aspirin is right for you.

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The D5 are recommended goals for patients with diabetes. Your goals may be different based on your individual needs. Talk to your doctor about the D5 goals that are right for you.

For more information about the D5, visit www.thed5.org
How do we Develop a Health Literate Public?

“The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.”

-World Health Organization, Preamble to the Constitution
Efforts to impact health literacy requires engagement at multiple levels
Three Domains to Address:

- Policy and the Public Arena
- Health Care System
- Educational System, Home, Community & Workplace
- Media & New Technology
- Policy and the Public Arena
Efforts to impact health literacy requires engagement at multiple levels

Three Domains to Address:

**Health Care System**
- Understanding health information
- Ease of Use/Navigation of the health system
- Training providers in communication

**Educational system, home community and workplace**
- Increase patient skills through all levels of the education system
- Train in communication/working with people with limited literacy
- Equip families and communities with self care strategies
- Health literate workforce

**Media and new technology**
- Reach people through communication technology
- Effective communication strategies frame issues
- Credible, understandable, actionable information

The Foundation: Policy and the Political Arena. For all three domains there must be shared and integrated responsibility and involvement, with the person at the center.

Example of Health Literacy Training – Head Start Educational System, Home, Community and Workplace

55 PROGRAMS IN 38 STATES TRAINED 14,000 FAMILIES (7 LANGUAGES, 10 ETHNICITIES) “What To Do When Your Child Gets Sick”
2001–2008 Impact of UCLA Health Literacy project
“What To Do When Your Child Gets Sick”

**Doctor/Clinic**
- Cost per visit: $80
- Decrease in # doctor/clinic visits (child/year): 1.4657
- Cost/savings (child/year): $117.26
- Cost/savings (family/year)*: $246.25
- Total cost savings: $2,275,350
  (For 9,240 families)

**Emergency Room**
- Cost per visit: $320
- Decrease in # ER visits (child/year): 0.4591
- Cost/savings (child/year): $146.09
- Cost/savings (family/year)*: $308.49
- Total cost savings: $2,850,448
  (For 9,240 families)

Total annual savings (9,240 families) = $5,125,798
Savings per family trained = $554.74

20,000 families = $11.1 million

## Recommendations for Action

| University of California, San Francisco (UCSF) Public Health Service | **Recommendation:**
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<tbody>
<tr>
<td><strong>Fund and create a Health Literacy Scorecard</strong></td>
<td>to meet basic prevention and wellness awareness and behaviors and a system that supports attainment of the prevention activities.</td>
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| Centers for Medicare & Medicaid Services (CMS) | **Recommendation:**
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<td><strong>Health care systems must simplify demands and complexity</strong></td>
<td>of participants practicing prevention.</td>
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| Department of Health & Human Services (HHS) | **Recommendation:**
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<tbody>
<tr>
<td><strong>Define what individuals must “do”</strong></td>
<td>to access necessary health services. Federal agencies responsible for addressing disparities should support the development of new quality standards that reduce the demands and complexities of the health system.</td>
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## Recommendations for Action

<table>
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<tr>
<td>Develop, test and implement health communication approaches. Advance wellness and prevention so that skills and abilities of the population can be aligned with the demands and complexity of the tasks required for health.</td>
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<tr>
<td>Adopt <strong>health literacy measures</strong> on the state (and other) level. Mayors, civic organizations and others address and adopt health literacy measures that integrate primary and secondary prevention into sustainability and other social sector goals.</td>
</tr>
<tr>
<td>Develop, test, implement <strong>culturally appropriate measures</strong> of health literacy.</td>
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## Recommendations for Action

<table>
<thead>
<tr>
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<tr>
<td><strong>Develop</strong> health literacy competencies for elementary and secondary education.</td>
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<td><strong>Adopt</strong> Healthy Workplace policies that include health literacy goals.</td>
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<td><strong>Incorporate</strong> health literacy into Health Professional curricula, accreditations.</td>
</tr>
<tr>
<td><strong>6 interventions under consideration for New Activities in Comparative Effectiveness:</strong> <strong>Integrate health literacy</strong> into these.</td>
</tr>
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</table>
Health Literacy can make a difference

Current and future challenges – H1N1, routine vaccinations, chronic disease, new pandemics...

It’s all about prevention.

THANK YOU!