Health Literacy and Health Disparities: Individual, Community and National-Level Perspectives

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Health Literacy

• The degree to which individuals have the capacity to obtain, process, understand, and use health information and services needed to make health decisions.

• Two sides
  – Individual skills, knowledge
  – Literacy burden of materials or information
The Mismatch

• Wealth of studies demonstrating that most health materials are beyond the comprehension skills of the average person

RAND
Complexity is Easy to Find
But Information Doesn’t Have to be Complex (although it may take some work)
Application for TARP Capital Purchase Program—Bank Bailout

Average payout: $271,448,777.91
Texas SNAP and Medicaid Form
26 pages of forms and instructions
Biggest Burden, Smallest Payback

Average per page benefit:

TARP - Over $200 million per page

Texas - $57 per page, per person (BEST CASE)

Family of 4 - $228 per page

Average monthly food stamp payout per person in TX: $124 = $1488
(http://kff.org/other/state-indicator/avg-monthly-food-stamp-benefits/)
Readability ≠ Usability

• Do not eat solid foods for two hours before your test.
  – Flesch-Kincaid grade level= 2.8

• Hours not eat foods do solid for two test before your.
  – Flesh-Kincaid grade level= ??
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Health Literacy of U.S. Adults

- Proficient tasks:
  - Calculate employee’s share of health insurance costs using a table based on income and family size
  - Find information to define a medical term in complex document
  - Decide which legal document applies to a specific health care situation
Who is Affected?

• All individuals may be affected by mismatch between literacy skills and materials

• However, some are disproportionately affected
  – Elderly
  – Racial and ethnic minorities
  – Immigrants
  – Limited education

• Potentially critical pathway through which education, income and others affect health care quality and disparities
Self-Assessed Health Status by Health Literacy

<table>
<thead>
<tr>
<th>Status</th>
<th>Below Basic</th>
<th>Basic</th>
<th>Intermediate</th>
<th>Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>8</td>
<td>17</td>
<td>57</td>
<td>19</td>
</tr>
<tr>
<td>Very good</td>
<td>9</td>
<td>19</td>
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<tr>
<td>Good</td>
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<tr>
<td>Fair</td>
<td>33</td>
<td>30</td>
<td>34</td>
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<tr>
<td>Poor</td>
<td>42</td>
<td>27</td>
<td>29</td>
<td>3</td>
</tr>
</tbody>
</table>

Percent of total
Health Literacy and Chronic Conditions

• Diabetes
  – Poorer glycemic control
  – Higher rates of retinopathy

• Asthma
  – Emergency department visits
  – Metered-dose inhaler technique

• Heart Disease
  – Heart failure
  – Mortality
But why? Potential pathways

- Limited understanding of diseases, risks, and treatment protocols (health knowledge)
- Less likely to engage in screening and preventive services
- Less likely to follow-up after abnormal test results
- Difficulties understanding medication and proper use
- Lower adherence to medical regimens for some diseases (self-management)
- Increased health care costs: $106 to $236 billion annually
Identifying People With Low Health Literacy Is Challenging

- A ‘hidden’ epidemic
- Screening is expensive and time consuming
- Interventions are difficult to target at the individual level
Health Does Not Occur in Isolation

- Individuals are affected by their own health literacy and their community’s level of health literacy
  - An individual living in an area with relatively high health literacy may benefit from the knowledge and abilities of his friends and neighbors
  - An individual living in an area where low health literacy is prevalent may actually receive counter productive information from friends and neighbors
Focusing On Communities, Rather Than Individuals, Provides Opportunities For Action

- Helps communities ‘own’ the problem
- Can become a shared responsibility
- Can lead to efficient resource use and a positive return on investment
- Mapping can identify communities with low health literacy
RAND Built Capacity To Map Health Literacy in Small Geographic Areas

• Develop ‘predictive model’
  – Incorporates common census variables (e.g., age, gender, race/ethnicity, education, income, marital status, others)

• Apply the model to census data

• Map ‘hot spots’
Percent of Population with ‘Basic’ or ‘Below Basic’ Health Literacy
Diagnosing a ‘hot spot’

What factors might explain the pattern of performance in Hispanic diabetic members living in this area?

Figure 2A. Rates of LDL Testing among Hispanic Diabetic Members by Census Tract. (Darker shading indicates worse performance; green shading indicates no plan)

Figure 2B. Poverty Areas

Figure 2C. Linguistically Isolated
Missing information can lead you in the wrong direction
What Will This Enable You To Do?

- Identify areas and topics that are priority for intervention
- Bring partners to the table
  - Collaboration
  - Increase return on investment
- Select appropriate interventions and approaches that are targeted effectively
Nationally: Milestones in policy

• **U.S. Healthy People 2010**: Objectives 11-2 and 7-11 (2000)

• **NAAL** Health literacy component (2003)

• **IOM book on health literacy**: *Prescription to End Confusion* (2004)

• **Joint Commission**: “Health Literacy and Patient Safety” (2007)

• **Surgeon General’s workshop and report** on health literacy (2006 and 2008)

• **WHO commission** on Social Determinants of Health Report (2008)

• **U.S. Supreme Court decision**: Wyeth v. Levine (2009)
“2010: Tipping Point Year for Health Literacy”

- Assistant Secretary for Health, Howard Koh
- Four major events
  - Passage of Plain Writing Act of 2010
  - Healthy People 2020
  - Passage of Patient Protection and Affordable Care Act (ACA), which included several provisions that directly or indirectly acknowledged the need for greater attention to health literacy.
  - DHHS National Action Plan to Improve Health Literacy
Plain Writing Act of 2010

- To improve the effectiveness and accountability of Federal agencies to the public by promoting clear Government communication that the public can understand and use.

- ‘Plain writing’ means writing that the intended audience can readily understand and use because that writing is clear, concise, well-organized, and follows other best practices of plain writing.

- It covers any document that
  - is necessary for obtaining any Federal Government benefit or service;
  - provides information about any Federal Government benefit or service; or
  - explains to the public how to comply with a requirement the Federal Government administers or enforces.
Healthy People 2020

• Health Communication and Health Information Technology (IT)

• Goal: Use health communication strategies and health IT to improve population health outcomes and health care quality, and to achieve health equity

• 24 Objectives HC/HIT 1.1—13.3
Affordable Care Act

• Four direct mentions of term “health literacy”, several indirect mentions:
  – Coverage expansion
  – Equity
  – Workforce
  – Patient information
  – Public health and wellness
  – Quality improvement

National Action Plan

• Outlines seven goals that contribute to a society that:
  – Provides everyone with access to accurate and actionable health information
  – Delivers person-centered health information and services
  – Supports lifelong learning and skills to promote good health
Seven goals of the National Action Plan

1. Develop and disseminate health and safety information that is accurate, accessible, and actionable.

2. Promote changes in the health care system that improve health information, communication, informed decision making, and access to health services.

3. Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in child care and education through the university level.
Seven goals of the National Action Plan

4. Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community.

5. Build partnerships, develop guidance, and change policies.

6. Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy.

7. Increase the dissemination and use of evidence-based health literacy practices and interventions.
Percent of Population with ‘Basic’ or ‘Below Basic’ Health Literacy
Questions?

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