What is Health?

"Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."
- World Health Organization

Health is a resource for everyday life, not the objective of living.
- Ottawa Charter for Health Promotion

What is Literacy?
What is literacy?

- Learning to read?
- Acquiring numeracy skills?
- Reading to learn?
- The ability to change the world?

What, then, is Health Literacy?

At the most basic level … Everyday problems and skills

- Take 1 pill 3 times daily
- 245 mg sodium
- Trans fat 3g
- Radiography

Complexity is easy to find
Sometimes it is easy to fix

Sometimes, it will take a lot of work

TARP - Troubled Asset Relief Program - 2008-2010

2012 Arizona Medicaid and Food Stamp application
**Biggest burden, smallest payback**

Average per page benefit:
- TARP - $200,652,567 per page
- Arizona - $121 per page
- Ohio - $156 per page
- Texas - $50 per page
- Utah - $109 per page

Based on U.S. Average food stamp payout per person - $1,092 annually
(http://www.foodstampchallenge.com/)

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**Multiple conflicting definitions exist**

- Institute of Medicine / U.S. government
  - "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."

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**Calgary Charter on Health Literacy**

- Health literacy allows the public and personnel working in all health-related contexts to …
- find, understand, evaluate, communicate, and use information …
- to make informed decisions, reduce health risks, increase prevention and wellness, better navigate the health system, improve patient safety and patient care, reduce inequities in health, and improve quality of life.

= a theory of health behavior change

You can join the charter at:
http://www.centreforliteracy.qc.ca/health_literacy/calgary_charter

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**“Yesterday” 2005 - Power and literacy**

Movie clip and discussion segment

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Health literacy is not health education

Always build this logic model on a foundational awareness of:

- Fundamental literacy - if your language fails, you fail.
- Scientific literacy - if you remove the science, you fail.
- Cultural literacy - if you ignore culture, you fail.
- Civic literacy - if you don’t engage and empower people, you fail.

(Zarcadoolas, Pleasant, Greer 2004)

Increasing interest - research

Increasing interest - newspaper articles

Source: Lexis/Nexis Major U.S. Newspapers
### Why all this interest?
- Increasing amount of health knowledge
- New areas of research and practice (genomics)
- More global movement of people and ideas
- New infectious diseases
- Increasing numbers of immigrants, elderly
- A changing global burden of disease from acute to chronic diseases
- Increasingly complex health care system

### Increasingly complex health systems
- **Health reform** = 2,700 pages long - have you read it?
- **Health information** = multiplication of sources
- **Health insurance** = complex bureaucracy
  - Part D - over 40 plans in some states
  - ACA Health insurance exchanges
- **Chronic disease prevention** = lifestyle changes
- **Chronic disease treatment** = self-management often involving technology
- **Acute issues** = doc/patient communication
- **Medical mistakes** = checklists; navigation

> The U.S. pays more per person and gets less in health than any other high-income industrialized nation

### Increasing inequities
- From 1960-2002 - IF everyone in the U.S. experienced the same health gains as white Americans in the highest income group,
- 14% of the premature deaths among white Americans and
- 30% of the premature deaths among other racial and ethnic groups **would have been prevented.**

(Krieger et al., 2008)

### Almost 5,000,000 people.
Increased savings possible

• Low health literacy estimated to cost between $106 Billion - $236 Billion annually in U.S.

Health literacy is perhaps the best investment that health systems can make!

Health literacy of U.S. Adults
(NAAL, 2005)

88% of U.S. Adults below Proficient level
That is nearly 9 out of every 10 adults!

Health status by health literacy
(NAAL)

Increasing evidence of link to poorer health
Multiple studies reporting …

• Poorer overall health
• Less likely to make use of screening and preventive services
• Present for health care in later stages of disease
• More likely to be hospitalized
• Poorer understanding of treatment and their own health
• Lower adherence to medical regimens
• Increased health care costs
• Lower referrals to kidney transplants
• Die earlier
Health literacy provides a road map for how to transform our current ‘sick care’ system into a true health care system.

How Canyon Ranch Institute addresses health literacy and prevention

Short answer: In all partnerships, programs, and activities

One programmatic example:
- Canyon Ranch Institute Life Enhancement Program (CRI LEP)
- See more at www.canyonranchinstitute.org

What is the CRI Life Enhancement Program (CRI LEP)?

- A public health program that is:
  - evidence-based,
  - multi-disciplinary, and
  - integrative
- The program takes an integrative and ecological approach to using health literacy to prevent and address chronic disease.
### CRI LEP Core Principles

<table>
<thead>
<tr>
<th>Health Literacy</th>
<th>Start with people early and often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden rule</td>
<td>Include their whole lives</td>
</tr>
<tr>
<td>Integrative Health</td>
<td>To achieve prevention</td>
</tr>
<tr>
<td>Prevention of Chronic Disease</td>
<td></td>
</tr>
</tbody>
</table>

### Why Prevention? Numbers we can't ignore

Total U.S. Health Care Spending in 2010 = $2.6 trillion
Percentage of GDP = 17.9%

Total = $1.8 trillion

### CRI LEP Partners

- Established health care organizations
  - Serve low-income population, who are underserved and at high risk for chronic disease
  - Connected to their community
  - Facilities: classroom, food preparation and fitness area, and relaxation space

### CRI LEP Core Team

- Champion
- Core Team Lead
- Cultural and linguistic capacity
- Integrative: medicine, nutrition, exercise, behavioral health, spirituality & pharmacology
- Credentialed

- Training:
  - At Canyon Ranch and at partner’s site by CRI
CRI LEP Participants
• High risk for chronic disease, such as diabetes, heart disease, stroke, and cancer
• From low-income and traditionally underserved communities
  ○ Race & ethnicity
  ○ Lower education & literacy
  ○ Social determinants of health
  ○ Urban & rural
• Access and availability

CRI LEP Components
• Program tailored to community
• 12 sessions - food demos, grocery store visit, exercise
• Participant assessments
• At least Four One-On-One consultations:
  1. Integrative Health
  2. Behavioral Health
  3. Nutrition
  4. Exercise
  Optional:
  • Medication & Supplements Review
  • Spirituality

CRI LEP: Seven Core Elements
1. Behavior Change
2. Integrative Health
3. Nutrition
4. Physical Activity
5. Sense of Purpose
6. Spirituality
7. Social Support and Follow-up

Assessment at Pre, Post, 3 months and + 1 year
• Knowledge Attitude Behavior Beliefs (KABB) Survey
  ○ Depression, self efficacy, knowledge
• Fitness assessment
  ○ push up, sit up, treadmill test
• Physical assessment
  ○ BMI; Waist & Hips Circumference; Height & Weight; Pulse, Blood Pressure; Flexibility; Strength
• Blood work
  ○ Cholesterol; HbA1c; C-Reactive Protein
Key Element

- Assessment results are provided, explained, evaluated, communicated, and used by participants to make informed decisions about their health in direct engagement with core team.
- Goal = informed behavior change
- Larger outcomes - effects extend into entire community.

Two Different Communities — Comparable Results

- South Bronx, NY: urban, poorest U.S. Congressional district, mainly Spanish-speaking Puerto Rican & Dominican patients
- Milan, MO: rural, low-income, mainly English-speaking Caucasian patients

CRI LEP: South Bronx, New York

<table>
<thead>
<tr>
<th>Measure</th>
<th>Chng</th>
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<th>Chng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>-56%</td>
<td>Days ment/phys healthy</td>
<td>+87%</td>
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<tr>
<td>Stress</td>
<td>-44%</td>
<td>Physical activity last mo.</td>
<td>+29%</td>
</tr>
<tr>
<td>C- Reactive Protein</td>
<td>-60%</td>
<td>Exercise efficiency</td>
<td>+33%</td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>-33%</td>
<td>Health knowledge</td>
<td>+27%</td>
</tr>
<tr>
<td>LDL Cholesterol</td>
<td>-29%</td>
<td>Exercise self-efficacy</td>
<td>+23%</td>
</tr>
<tr>
<td>Systolic blood pressure</td>
<td>-12 pts</td>
<td>Nutrition self-efficacy</td>
<td>+23%</td>
</tr>
<tr>
<td># Push-ups</td>
<td>+58%</td>
<td>Days Can’t Do Usual Tasks</td>
<td>-71%</td>
</tr>
<tr>
<td>Reach</td>
<td>+20%</td>
<td>Balance</td>
<td>+31%</td>
</tr>
</tbody>
</table>

Note: Results statistically significant (Matched pair Pre/Post)

CRI LEP: Rural Missouri

<table>
<thead>
<tr>
<th>Measure</th>
<th>Chng</th>
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<th>Chng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>-52%</td>
<td>Days ment/phys healthy</td>
<td>+23%</td>
</tr>
<tr>
<td>Stress</td>
<td>-15%</td>
<td>Physical activity per week</td>
<td>+79%</td>
</tr>
<tr>
<td>C- Reactive Protein</td>
<td>-10%</td>
<td>Exercise efficiency</td>
<td>+20%</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>-12%</td>
<td>Health knowledge</td>
<td>+23%</td>
</tr>
<tr>
<td>Systolic blood pressure</td>
<td>-15 pts</td>
<td>Exercise self-efficacy</td>
<td>+9%</td>
</tr>
<tr>
<td># Push-ups</td>
<td>+18%</td>
<td>Nutrition self-efficacy</td>
<td>+10%</td>
</tr>
<tr>
<td># Sit-ups</td>
<td>+31%</td>
<td>Glasses of soda</td>
<td>-37%</td>
</tr>
<tr>
<td>Eating fried food</td>
<td></td>
<td></td>
<td>-15%</td>
</tr>
</tbody>
</table>

Note: Preliminary Results (Matched pair Pre/Post)
Personal story – shared with permission

“There are three things I learned to do from this program: exercise for 30 minutes every day, eat healthy and take my medication.”

“I wish someone had told me how to live this way I would have done the years ago, … I’m controlling the diabetes, it doesn’t control me.”

Monserrat Perez

Monserrat has lost 53 pounds, and upon physician advice stopped taking insulin and blood pressure medication. He has returned to school to become a teacher – his life’s dream.

Why does the CRI LEP work?

- Health Literacy
- Integrative Health
- Capacity Building
- Tailored to Community
- One-On-One Consults
- Use of Personal Assessment Information
- Group Support for Participants
- Evaluation

How can health literacy change the health care system?

- Equally address health professionals and patients / public
- Basis for creative, multi-sectoral, effective partnerships
- Engage people early and often
  - Do NOT ‘dumb down’ complex truths - but explain them carefully
  - Check in (teach-back) for understanding and action
- Prioritize prevention and wellness
- These approaches can save money AND improve health

What does that require?

- Leadership - you are here!
- An integrative, multi-disciplinary team/ partnership - you are here!
- Hard work and creative thinking - you are here!
Let’s change how we talk about health literacy …

• Health literacy is an investment, not a cost.
  ○ Improve public perceptions of your organization
  ○ Create ROI through prevention
  ○ Create ROI through improved service delivery
  ○ Create innovation and competitive advantage
• A health literate organization is a socially responsible organization.
• Health literacy should be central to corporate social responsibility efforts AND non-profit hospital community benefit efforts.

That is how …

• Health literacy can guide us as we transform our current ‘sick care’ system into a true health care system.

Thank you!

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