

**Health Literacy: Applications for Enhanced
Health System Performance**

OR . . .

How to Change the World with Health Literacy

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2013 Priscilla M. Mayden Lecture
George and Dolores Eccles Institute of Human Genetics Auditorium
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What is Health?

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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

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What is Literacy?

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What is literacy?

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



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What, then, is Health Literacy?

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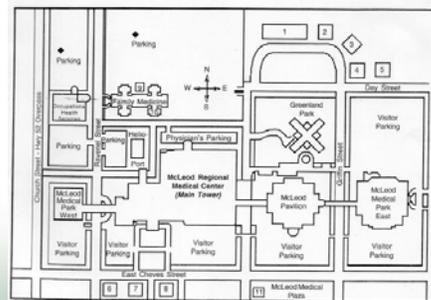
At the most basic level ... Everyday problems and skills

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



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Complexity is easy to find



1. Historic ACL Railway Station
2. McLeod Hospice of the Pee Dee (Stokes)
3. McLeod Hospice of the Pee Dee (Fogarty)
4. McLeod Medical Center Foundation (Lenny House)
5. McLeod Materiel Service
6. Guest House at McLeod
7. Pee Dee Medical Park
8. Stokes Regional Eye Center
9. McLeod Family Medicine
10. Classrooms and entrance
11. McLeod Medical Plaza

• Parking (Please park in Occupational Health Services parking lot)

Current Utah application

This image displays a collection of Utah application forms. The forms are arranged in a grid-like pattern, showing various sections such as personal information, income, and assets. The forms are white with black text and some colored headers.

2012 Ohio Medicaid and Food Stamp application

This image displays a collection of 2012 Ohio Medicaid and Food Stamp application forms. The forms are arranged in a grid-like pattern, showing various sections such as household information, income, and assets. The forms are white with black text and some colored headers.

2011 Texas Medicaid Form 23 pages of forms and instructions

This image displays a collection of 2011 Texas Medicaid forms and instructions. The forms are arranged in a grid-like pattern, showing various sections such as household information, income, and assets. The forms are white with black text and some colored headers. The text "Your Texas Benefits" is visible at the top left of the forms.

2011 Texas Food Stamp Form 22 pages of forms and instructions

This image displays a collection of 2011 Texas Food Stamp forms and instructions. The forms are arranged in a grid-like pattern, showing various sections such as household information, income, and assets. The forms are white with black text and some colored headers. The text "CANYON RANCH Institute" is visible at the bottom right of the forms.

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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"Yesterday" 2005 - Power and literacy

Movie clip and discussion segment



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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.

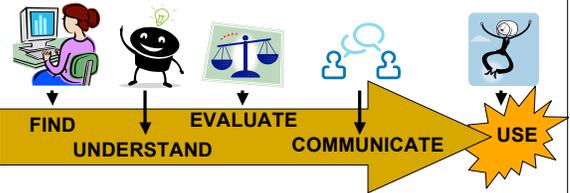
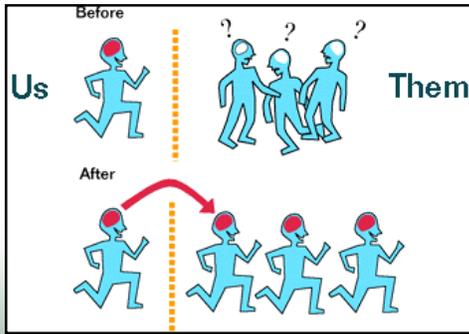
= a theory of health behavior change

You can join the charter at:

http://www.centreforliteracy.qc.ca/health_literacy/calgary_charter

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Health literacy is not health education



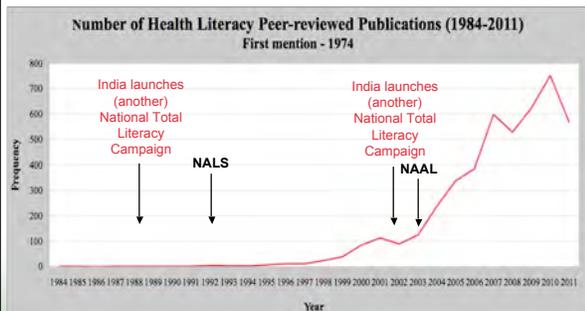
Always build this logic model on a foundational awareness of:

- 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)

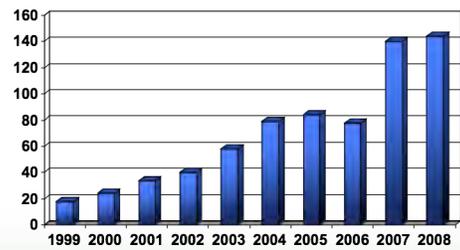
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Increasing interest - research



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Increasing interest - newspaper articles



Source: Lexis/Nexis Major U.S. Newspapers

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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**

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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)

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**Almost
5,000,000
people.**

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Increased savings possible



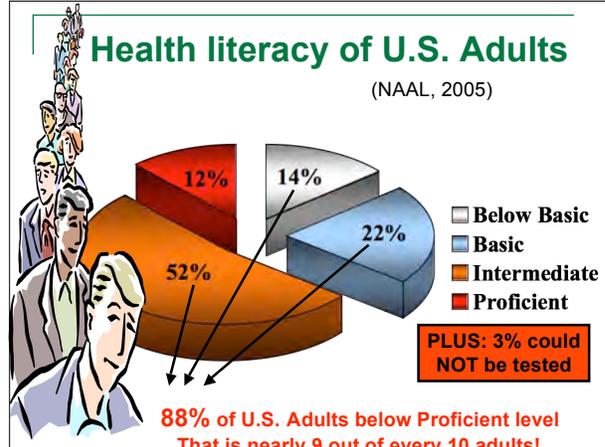
- Low health literacy estimated to cost between \$106 Billion - \$236 Billion annually in U.S.

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

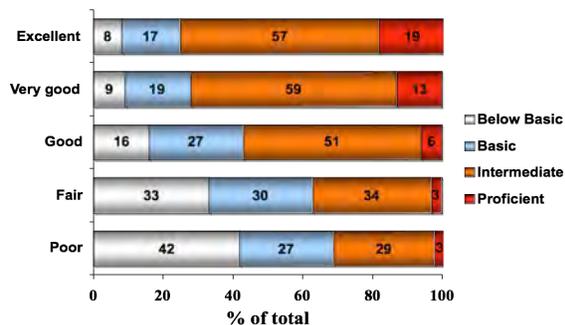
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Health literacy of U.S. Adults

(NAAL, 2005)



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

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At Canyon Ranch Institute ...

Health literacy provides a road map for how to transform our current 'sick care' system into a true health care system.

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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

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Canyon Ranch Institute Partnerships



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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.

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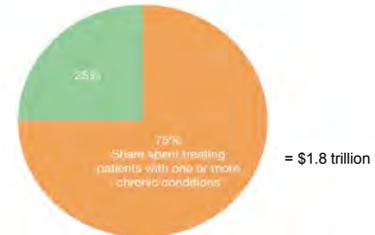
CRI LEP Core Principles

Health Literacy Golden rule	Start with people early and often ↓
Integrative Health	Include their whole lives ↓
Prevention of Chronic Disease	To achieve prevention

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Why Prevention? Numbers we can't ignore

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



Source: CMS

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



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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



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CRI LEP Participants

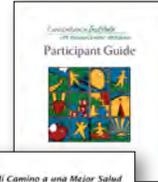
- High risk for chronic disease, such as diabetes, heart disease, stroke, and cancer
- From low-income and traditionally underserved communities
 - Race & ethnicity
 - Lower education & literacy
 - Social determinants of health
 - Urban & rural
- Access and availability



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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



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CRI LEP: Seven Core Elements

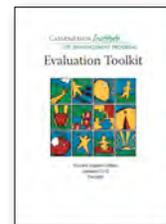
1. Behavior Change
2. Integrative Health
3. Nutrition
4. Physical Activity
5. Sense of Purpose
6. Spirituality
7. Social Support and Follow-up



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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



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Key Element

- Assessment results are provided to, 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.

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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

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CRI LEP: South Bronx, New York

Measure	Chng	Measure	Chng
Depression	-56%	Days ment/phys healthy	+87%
Stress	-44%	Physical activity last mo.	+25%
C-Reactive Protein	-60%	Exercise efficiency	+33%
Total Cholesterol	-33%	Health knowledge	+27%
LDL Cholesterol	-29%	Exercise self-efficacy	+23%
Systolic blood pressure	-12 pts	Nutrition self-efficacy	+23%
# Push-ups	+58%	Days Can't Do Usual Tasks	-71%
Reach	+20%	Balance	+31%

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CRI LEP: Rural Missouri

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

Note: Preliminary Results (Matched pair: Pre/Post)

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Personal story – shared with permission



Monserrate Perez and UHP trainer Luis Vasquez work out at the Canyon Ranch Institute Health & Wellness Center at Urban Health Plan community health center in the South Bronx, NY.

"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 this years ago. ... I'm controlling the diabetes, it doesn't control me."

Monserrate Perez

Monserrate 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.

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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



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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

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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!

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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.

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That is how ...

- Health literacy can guide us as we transform our current 'sick care' system into a true health care system.



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Thank you!

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