

Health Literacy and Integrative Health: Powerful Tools to Prevent Chronic Disease

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Health literacy is the tool
that can help people live a
life of health and wellness
regardless of
socioeconomic status.

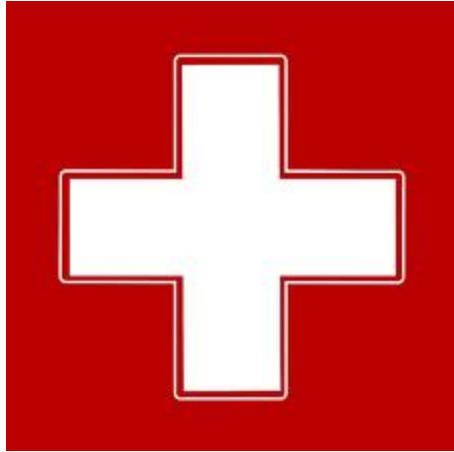
What is Health?

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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

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?

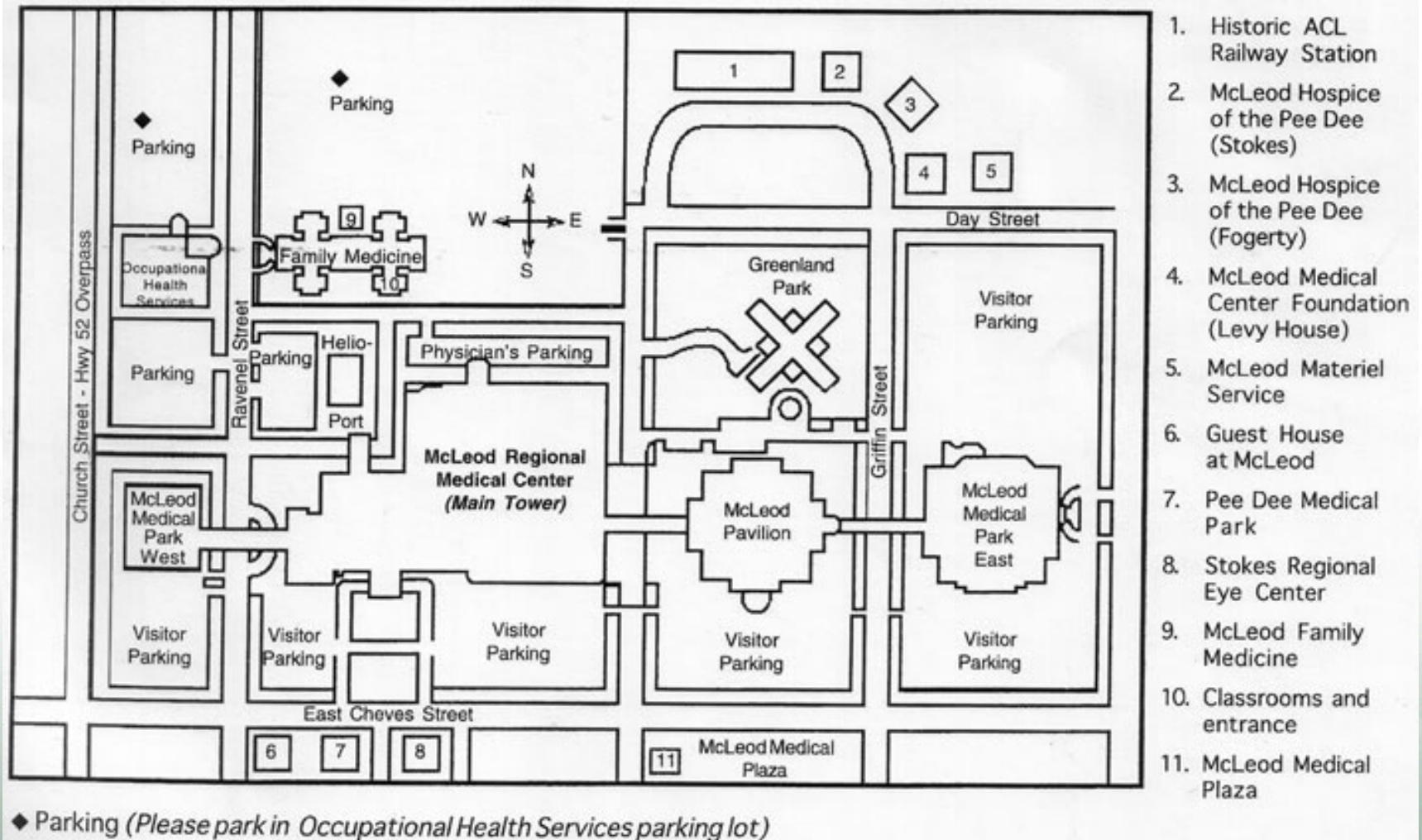
At the most basic level ...

Everyday problems and skills

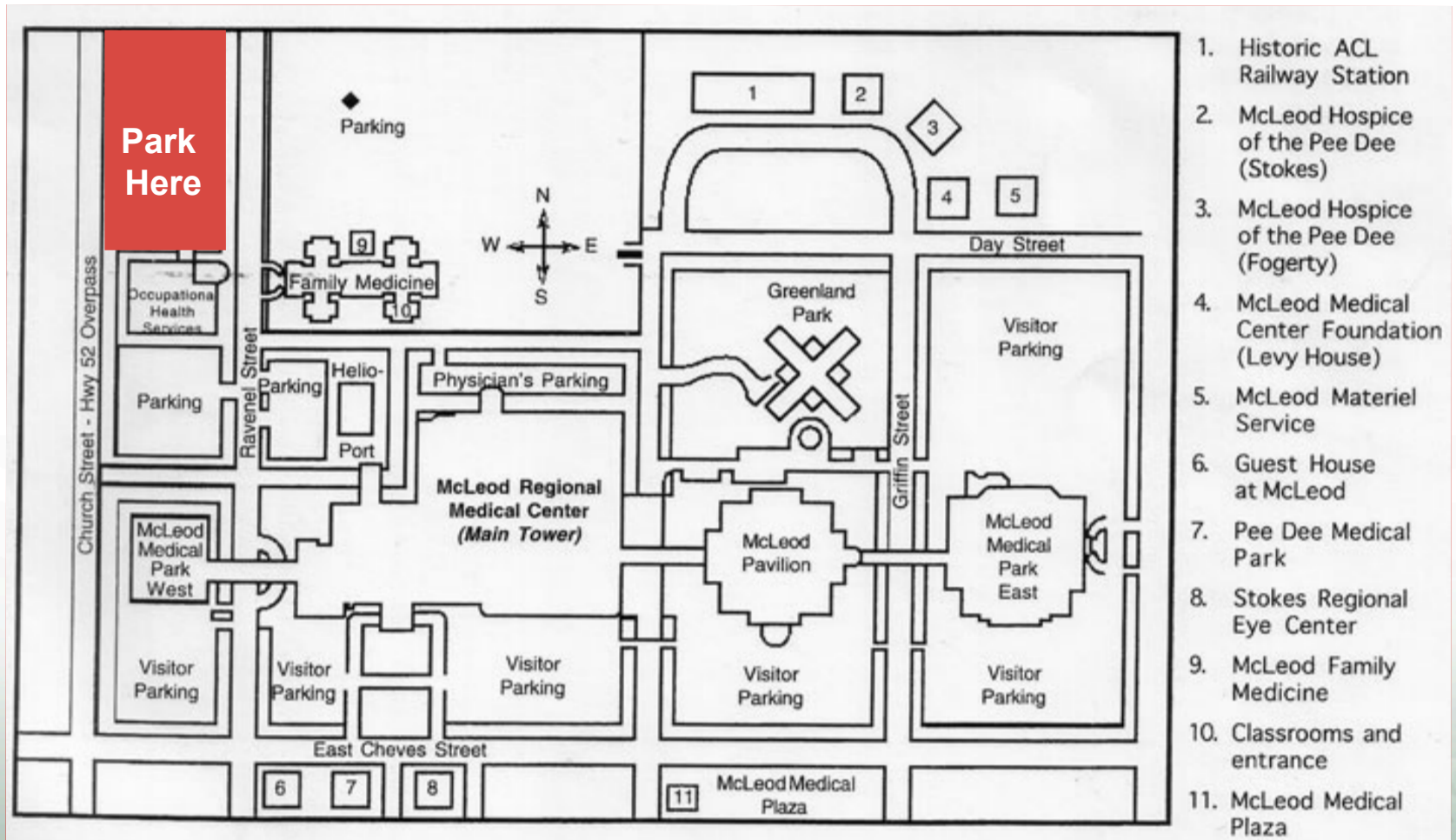
- Take 1 pill 3 times daily
- 245 mg sodium
- Trans fat 3g
- Radiography



Health literacy: Complexity is easy to find



Sometimes it is easy to fix



Please park in the Occupational Health Services Parking lots. Enter the lots on Ravenel Street.

Sometimes it is
difficult and
complex

TARP - Troubled Asset Relief Program - 2008-2010



Application for TARP Capital Purchase Program (CPP)

Please complete the following information and follow the submission instructions as described on your Federal banking agency's website. In addition to completing the information on this form, please provide a description of any mergers, acquisitions, or other capital raisings that are currently pending or are under negotiation and the expected consummation date (no longer than 1 page).

In the event the applicant files an application with the appropriate Federal banking agency prior to the availability of the investment agreement, the applicant must file an amended application which includes updated responses to any items in the application that required prior review of the investment agreement.

Institution Name: _____

Address of Institution: _____

Primary Contact Name: _____

Primary Contact Phone Number: _____

Primary Contact Fax Number: _____

Primary Contact Email Address: _____

Secondary Contact Name: _____

Secondary Contact Phone Number: _____

Secondary Contact Fax Number: _____

Secondary Contact Email Address: _____

RSSD, Holding Company Docket
Number and / or FDIC Certificate
Number, As Relevant: _____

Amount of Preferred Shares
Requested: _____

Amount Of Institution's Authorized
But Unissued Preferred Stock
Available For Purchase: _____

Amount Of Institution's Authorized
But Unissued Common Stock: _____

Amount Of Total Risk-Weighted
Assets As Reported On The
Holding Company's Or Applicable
Institution's Most Recent FR-Y9,
Call Report, Or TFR, As Relevant: _____

Institution Has Reviewed The
Investment Agreements And
Related Documentation On
Treasury's Website (Yes/No): _____

Describe Any Condition, Including
A Representation Or Warranty,
Contained In The Investment
Agreements And Related
Documentation, The Institution
Believes it Cannot Comply With By
November 14, 2008 And Provide A
Timeline For Reaching
Compliance¹: _____

Type of Company²: _____

Signature of Chief Executive
Officer (or Authorized Designee): _____

Date of Signature: _____

¹ May be provided as an attachment, no longer than 1 page

² Publicly Traded Stock Company, Stock Company Without Publicly Traded Shares, Other (please specify)

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in any way than to provide

SECTION 501(c)(3)

through. But we present your application. You do not need to be a 501(c)(3) or even a charitable organization.

Proof of Health Insurance

For an organization that currently has no health plan

For the last 12 months, have you provided health insurance to your employees?

☐ Yes ☐ No

For an organization that currently has a health plan

For the last 12 months, have you provided health insurance to your employees?

☐ Yes ☐ No

Did you remember to:

- ☐ Fill everything out?
- ☐ Get a signed statement from your bank?
- ☐ Get a signed statement from your health insurance?
- ☐ Pay the application fee on time?

Can/would you answer these?

Does anyone in your household have income from somewhere other than work?

Examples: Social Security, VA Pension, unemployment, tribal income from gaming, college work study, or payments from a trust

☐ No ☐ Yes If yes, please answer the questions below.

	Income 1	Income 2	Income 3	Income 4
Who is the income for:				
What type of income?				
Who pays this income?				
How much?	\$	\$	\$	\$
How often?				

Does your household have any other income? ☐ No ☐ Yes If yes, please answer the questions below.

Note: You are not required to tell us about some kinds of income (such as SSI, Veteran's Payments, Child Support and tribal income obtained from natural resources, designated Indian trust land, or sales of items with cultural significance). Do you have any of these types? ☐ No ☐ Yes *You do not need to complete the section below for these types of income.*

	Income 1	Income 2	Income 3	Income 4
Who gives the money?				
Who is it given to?				
How much is given?	\$	\$	\$	\$
How often is it given?				

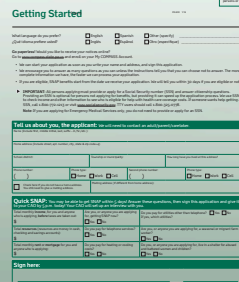
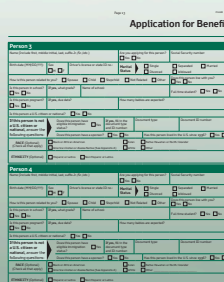
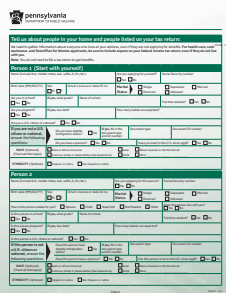
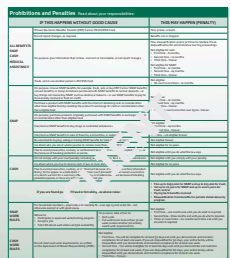
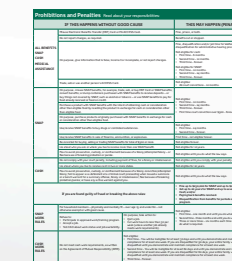
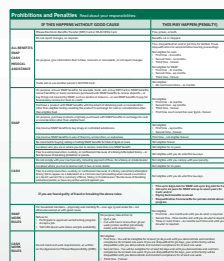
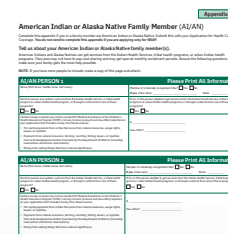
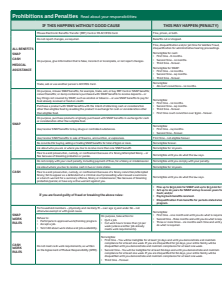
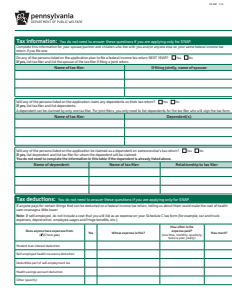
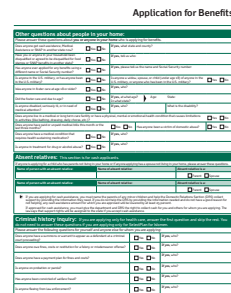
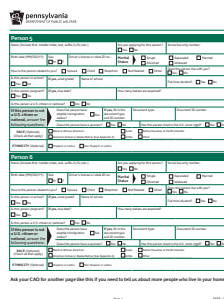
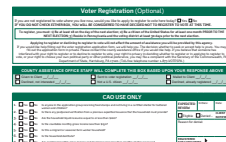
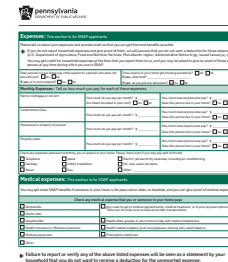
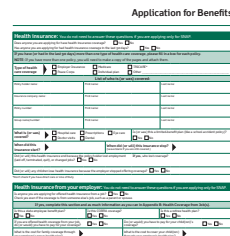
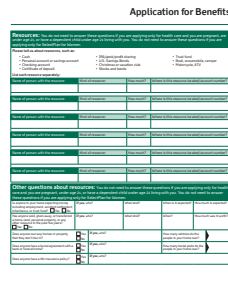
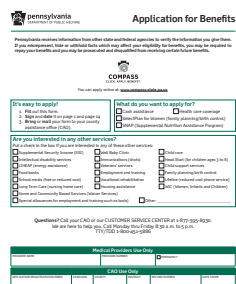
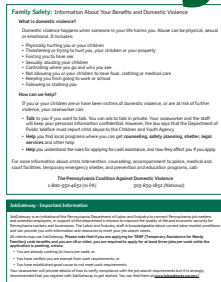
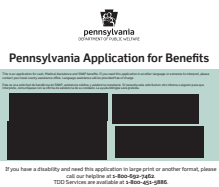
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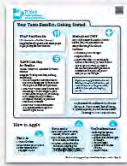
Kansas SNAP Application – 23 pages

[illegible][illegible]

Pennsylvania Med/SNAP - 26 pgs.



Texas – two forms in one file – 31 pages (SNAP – 19 pages)



i



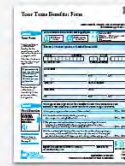
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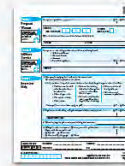
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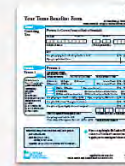
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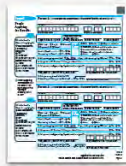
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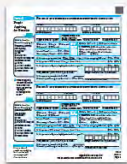
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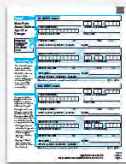
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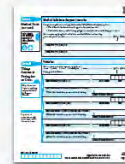
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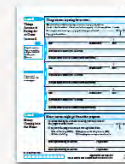
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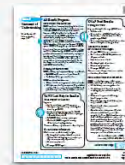
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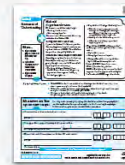
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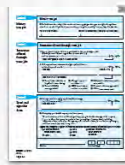
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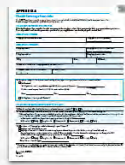
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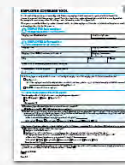
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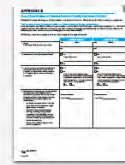
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xxxi

Biggest burden, smallest payback

TARP - Over \$200 million per page

SNAP per page benefit:

Kansas - \$47.48 per page

Pennsylvania - \$42 per page

Texas - \$37.65 per page

Based on U.S.
average food stamp
payout per person -
\$1,092 annually

([http://
www.foodstampchallenge.com/](http://www.foodstampchallenge.com/))

Why health literacy? Why now?

- Increasingly complex health care system
- Effective chronic disease prevention and self-management require health literacy skills to successfully:
 - Follow self-care plans
 - Make informed decisions and healthy behavior change
 - Follow increasingly complex medication regimens,
 - Communicate with health professionals
 - Escalate issues requiring further medical attention

Increasing evidence of link to poorer health

Multiple studies reporting ...

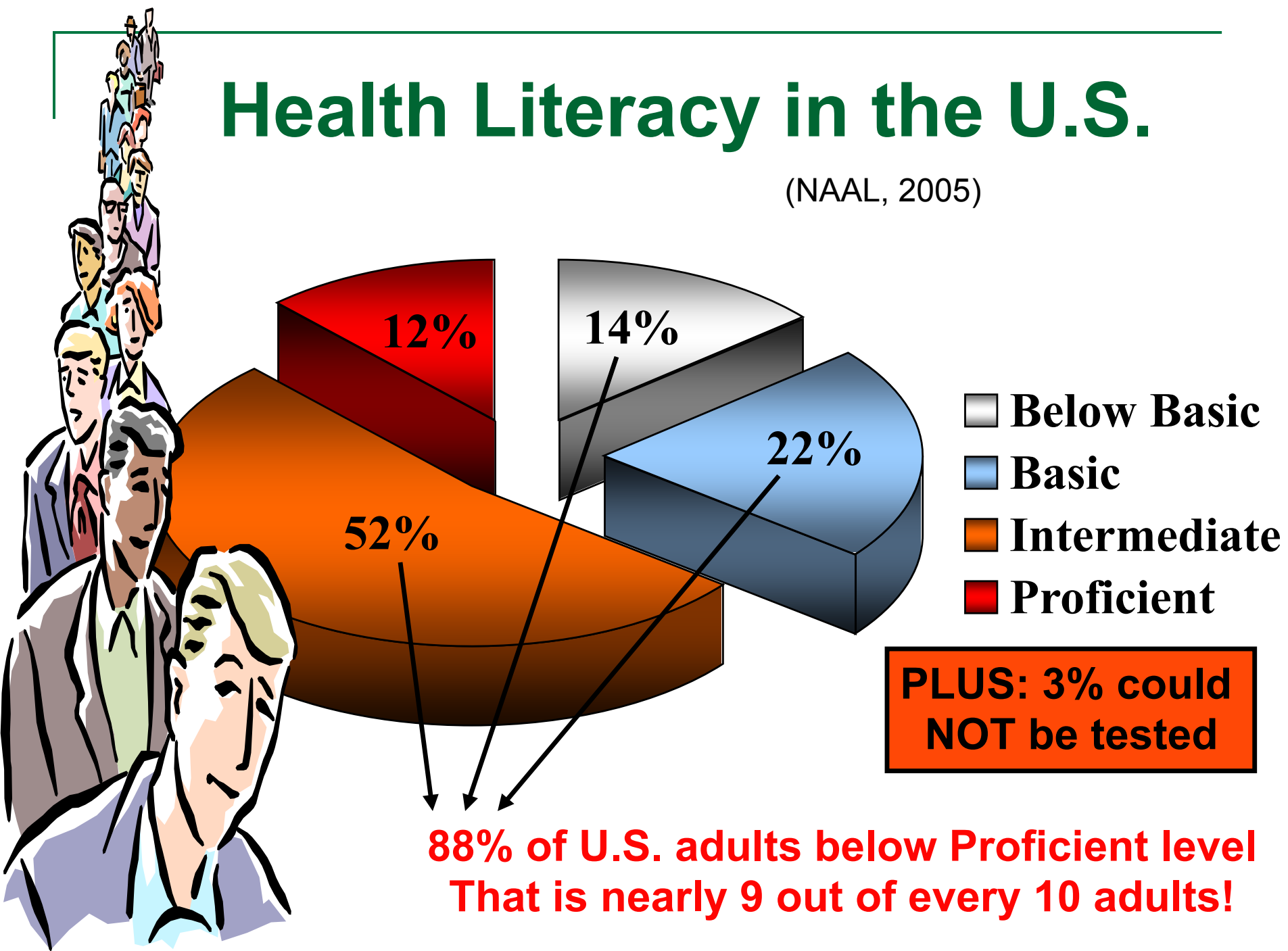
- Poorer overall health
- Less likely to make use of screening and preventive services
- Present for health care in later stages of disease
- More likely to be hospitalized
- Poorer understanding of treatment and their own health
- Lower adherence to medical regimens
- Increased health care costs
- Lower referrals to kidney transplants
- Die earlier

Health literacy is ..

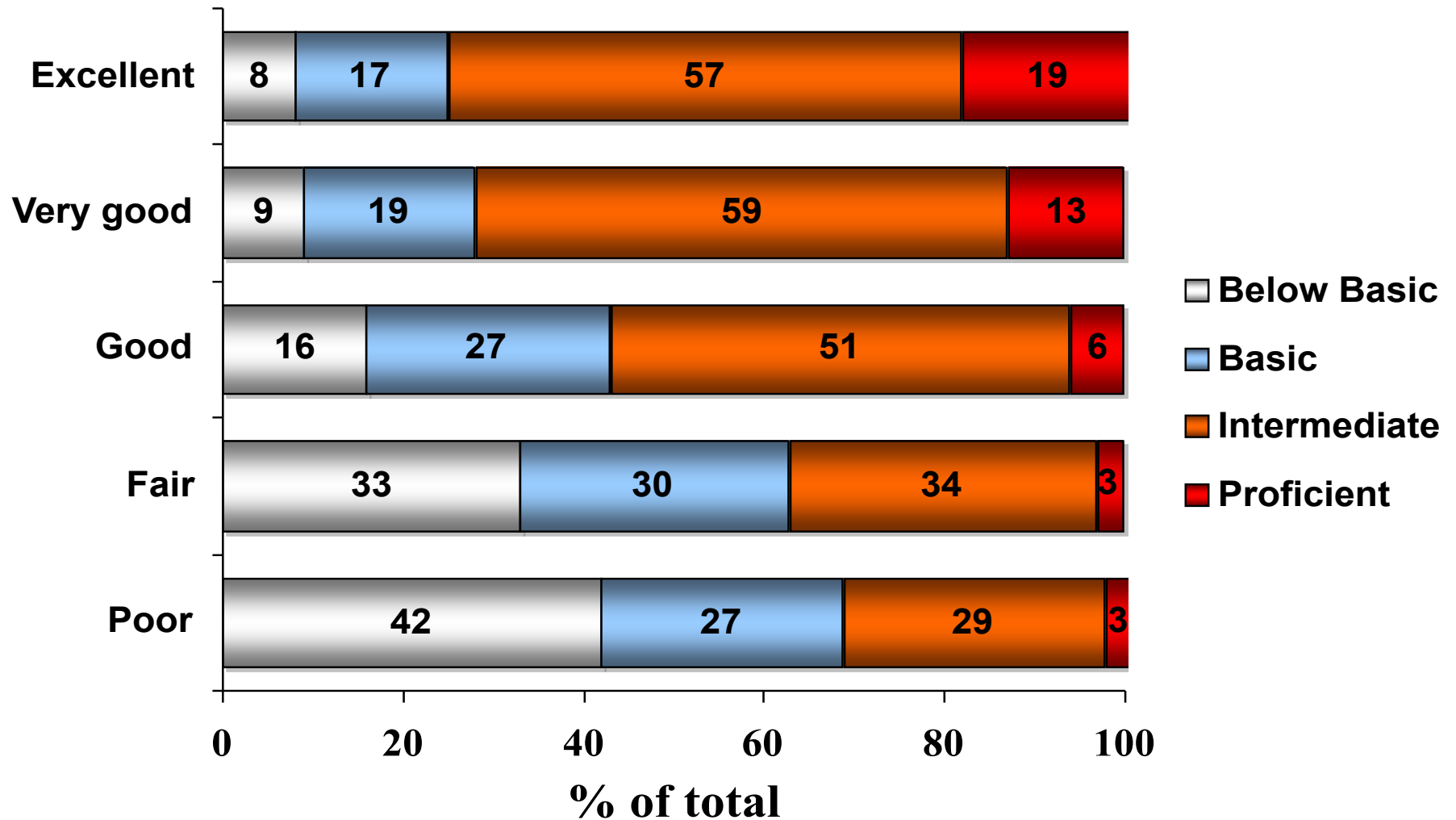
- Health literacy is a powerful behavior change tool that can help us to:
 - Improve health
 - Improve public perceptions of your organization
 - Create ROI through prevention
 - Create ROI through improved service delivery
 - Foster innovation
 - Give your organization a competitive advantage

Health Literacy in the U.S.

(NAAL, 2005)



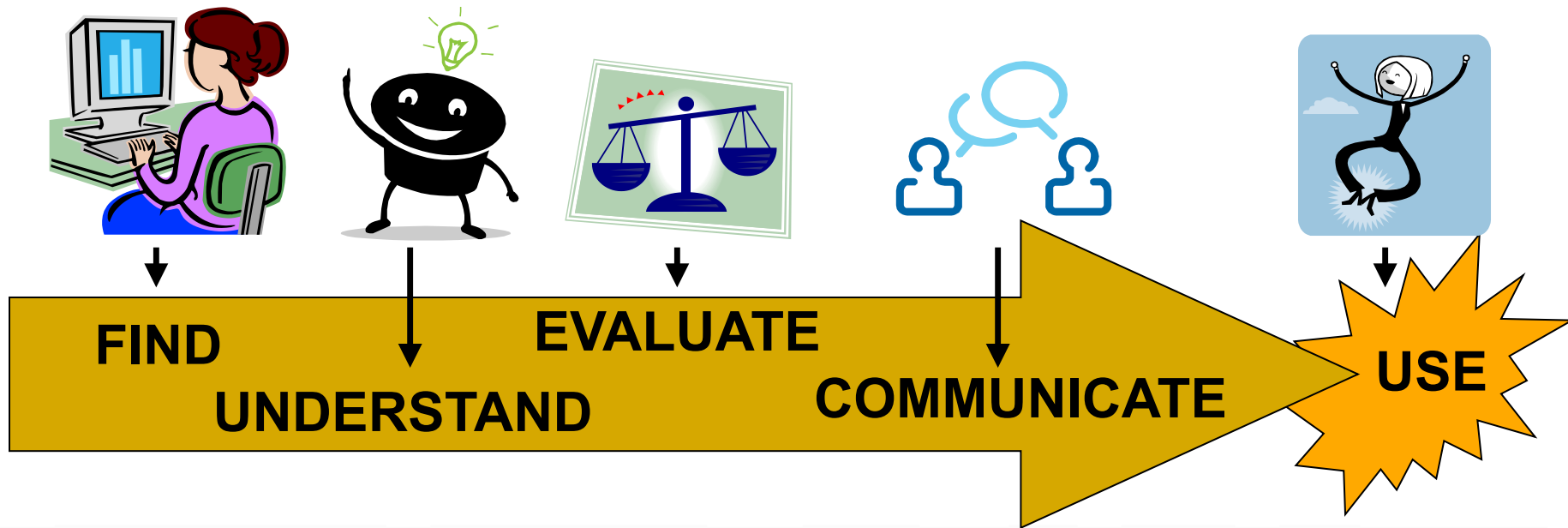
Correlates to health status ...



... And it looks like this



Calgary Charter on Health Literacy



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.

Health literacy in action: The Canyon Ranch Institute Approach

**Health Literacy:
Golden rule**

Engage people
early and often



**Integrative
Health**

Include their
whole lives



**Prevention of
Chronic Disease**

To achieve
prevention

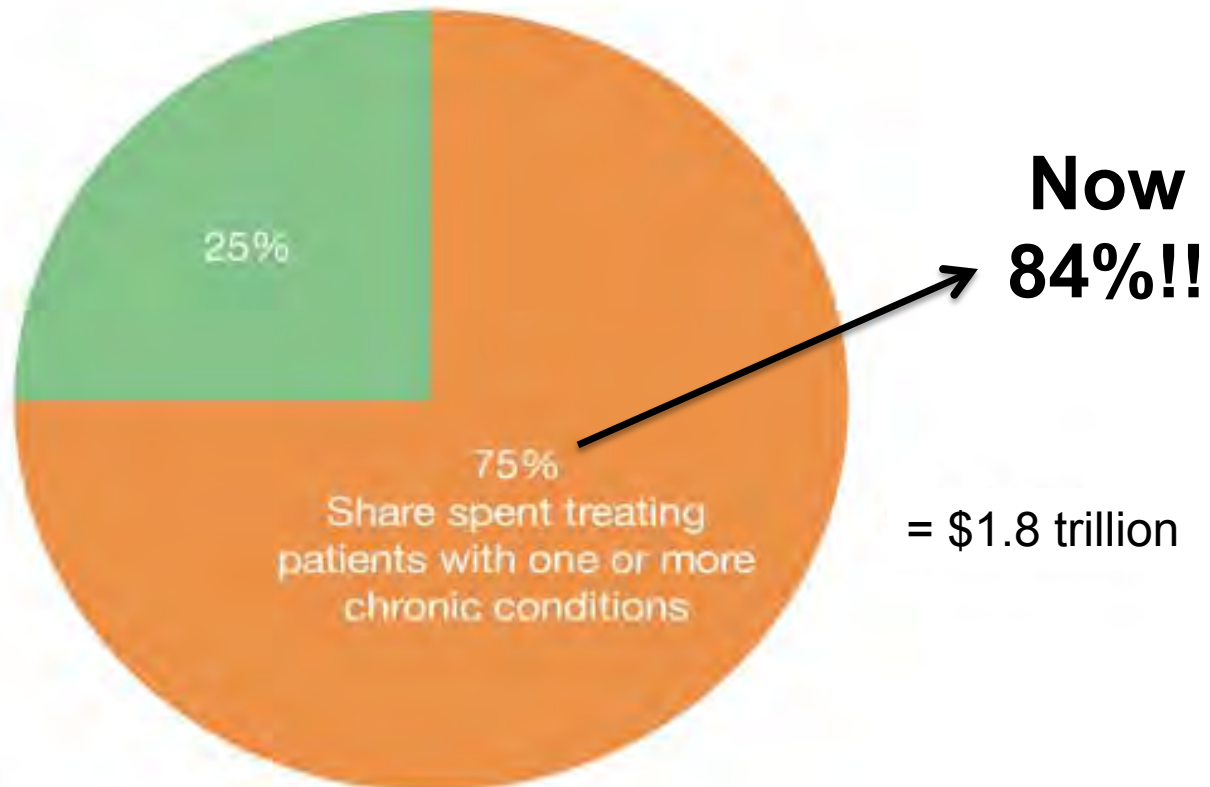
CRI Mission

Canyon Ranch Institute catalyzes the possibility of optimal health *for all people* by helping educate, inspire, and empower every person to prevent disease and embrace a life of wellness.

Why Prevention? Numbers we can't ignore

Total U.S. Health Care Spending in 2010 = \$2.6 trillion

Percentage of GDP = 17.9%



Current CRI Activity Sites

United States



International Sites



Lima, Peru

Partnerships

Through partnerships, Canyon Ranch Institute is achieving unprecedented outcomes with health care organizations, universities, companies, individuals, and non-profit organizations.



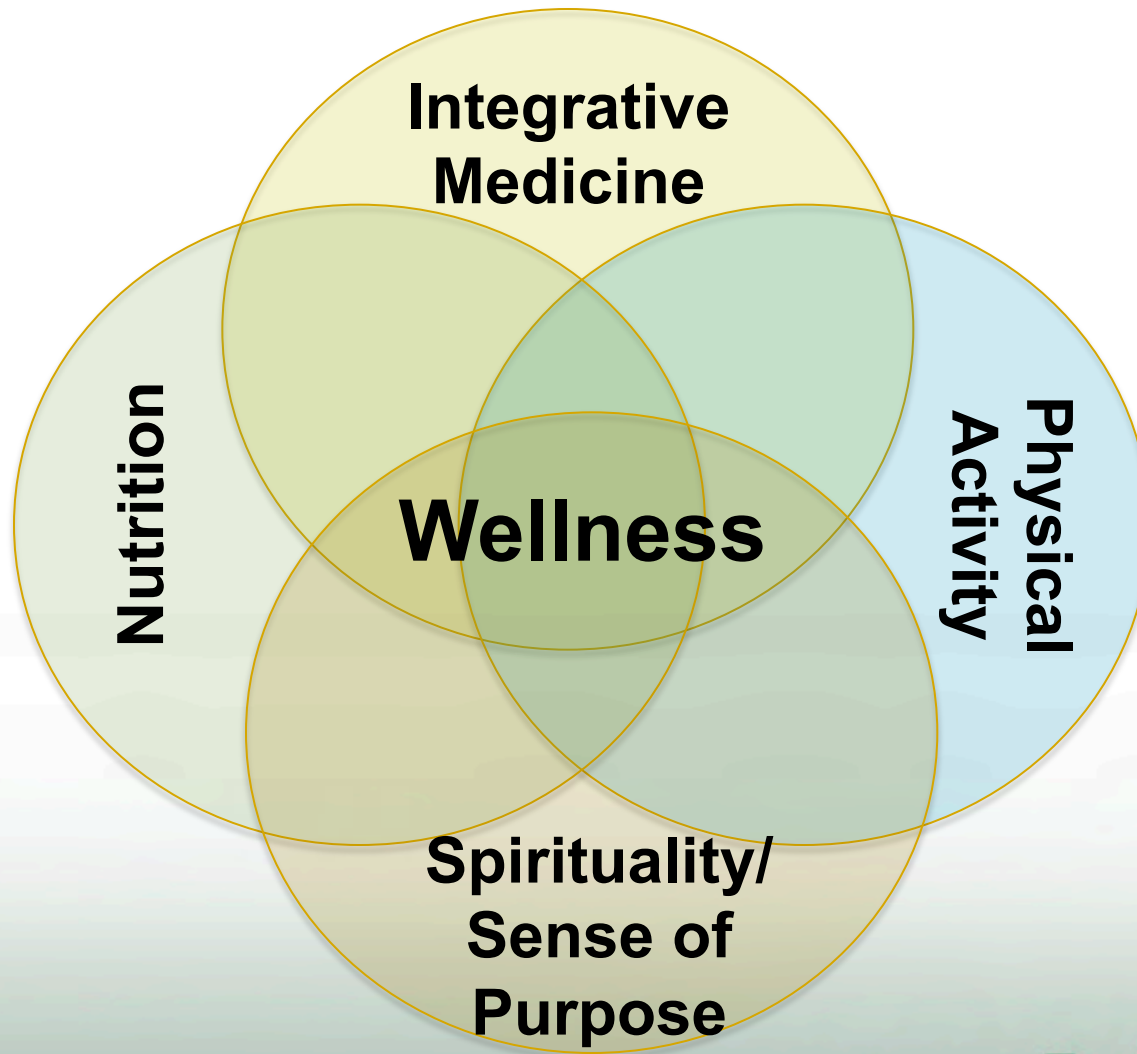
Mel and Enid Zuckerman
College of Public Health



Canyon Ranch Institute partnerships – Total reach - 2014

CRI Program participants	CRI Program & Policy Reach	Audience of Mass Media coverage of CRI
5,526 people - more than 1,000 organizations	319,025,975	11,706,930

Integrative Health



The integrative process is:

- How a team of specialists can be trained and structured to create a generalist/ ecological approach – health literacy at work.
- The logical outcome of focusing on preventing chronic disease versus waiting to treat chronic disease.
- **Thus, a guide to converting our ‘sick care’ system into a true health care system.**

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

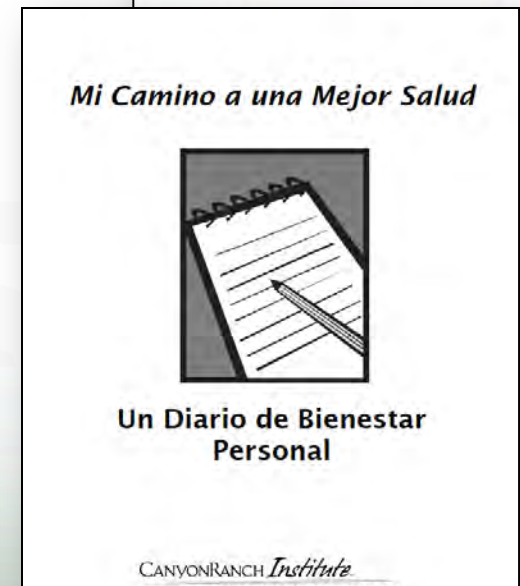
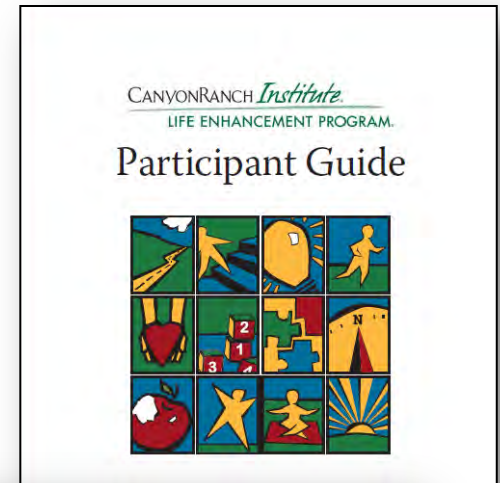
CRI LEP Participants

- 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
- At least 40 hours in group: food demos, grocery store visit, exercise, finding joy, & learning
- Participant assessments
- Four *One-On-One* consultations:
 1. Integrative Health
 2. Behavioral Health
 3. Nutrition
 4. Exercise
 - *Optional:*
 - Medication & Supplements
 - Spirituality



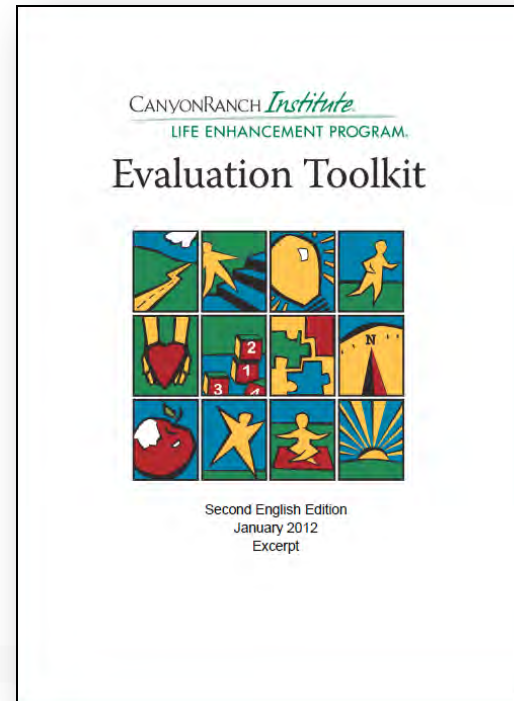
CRI LEP: Seven Core Elements

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 (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 Strategy

Based on proven best practices of health literacy:

- Assessment results are provided to, explained, evaluated, communicated, and used by participants to make informed decisions about their health through direct engagement with core team.
- Goal = informed behavior change
- Effects extend across partner's culture and into entire community.

CRI LEP Outcomes – all sites to date

Measure	Change	Measure	Change
Depression (PHQ-9)	-45.6%	Days ment/phys healthy	+39.9%
Depression (If 10+ at Pre)	-54.9%	Blood pressure – Systolic (120+ at Pre)	-6.3%
C-Reactive Protein (1.0+ at Pre)	-21.5%	Blood pressure – Diastolic (80+ at Pre)	-7.2%
Total Cholesterol/HDL	-10.5%	Stress	-22.8%
Hba1c (5.7+ at Pre)	-1.5%	Health knowledge	+26.7%
Satisfaction with life	+14.6%	Health literacy	+11.9%

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

CRI LEP Outcomes – all sites to date

Measure	Change	Measure	Change
# Push-ups	+36.7%	Exercise self-efficacy	+19.1%
# Sit-ups	+22.5%	Nutrition self-efficacy	+13.3%
Strenuous exercise	86.9%	Water per day	-22.3%
Moderate exercise	74.1%	Soda per day	-53.5%
Mild exercise	28.2%	Diet Soda per day	-41.8%
BMI	-4.0%	Flavored Bev. per day	-21.1%
Serving at least 2 vegetables in main meal	+13.0%	Resting Heart Rate (if 67+ at Pre)	-4.6%

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

Cost efficient

- Using change in QALY (Pre/ Post) as basis:
 - Over 100 participants, improved health status is occurring at an average cost of \$234,445 lower than average cost of other interventions to produce similar outcomes.
 - Based on accepted range of the average cost of producing a QALY in the United States
 - Calculation based on using CDC's healthy days index to predict EQ-5D scores (Haomiao, et al. 2011)

Participant 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.

Calgary Charter on health literacy: A valid, tested, reliable model

- **Find** – On average, attend over 60% of all sessions
- **Understand** – over 20% increase in health knowledge
- **Evaluate** – between 9% to 20% increase in domain specific self-efficacy
- **Communicate** – On average, participants report sharing information with over 10 other people
- **Use** – Multiple statistically / clinically significant behavior changes (e.g. -37% soda consumption)
- **Improve health/ change the world** – Statistically significant healthy improvements in blood indicators, depression, stress, and civic engagement

BHS CRI LEP – A quick look (3:08)



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A closing note

Health literacy is one of the strongest determinants of health and wellness – regardless of socioeconomic status.

Thank you!!!

Help someone help
themselves to better health
and wellness –
everyone benefits.

For more information

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Canyon Ranch Institute

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Twitter: @andrewpleasant

www.canyonranchinstitute.org



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