# HEALTH LITERACY IN HEALTH PROMOTION: CONTEXTS & LEARNING

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**Isabel Loureiro** 



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#### **Concepts:**

- Literacy
- Health
- Health Literacy (HL)
- Health Education
- Implementation
- Responsiveness
- Implementation

How people learn and what makes them to decide? Which are the attributes for a HL promotor organization? What can do librarians?

**Equity in access and Human Rights** 

# Literacy

# "The capacities of processing written information in daily life."

(Montigny *et al*, 1991, *In*: Benavente (coord.), 1996, p.4)

The concept of literacy appears under 2 perspectives:

- 1. The **ability** to read and write
- 2. Having **knowledge or competence**, thus displaying advanced education

#### **Numeracy**

"The ability to use mathematics in everyday life."

 Being numerate is as much about thinking and reasoning logically as about "doing sums".

Numeracy complements literacy.

Literacy and Numeracy are both skills needed in order to function in daily life.

**Source:** https://www.nationalnumeracy.org.uk/what-numeracy

"Sometimes the problem is not health literacy, but the ability to read or write at all"

(Cheryl Rowan, 2013) http://nnlm.gov/training/healthl

<u>iteracy</u>

#### Does reading to toddlers help them read?



Joy Leschiutta Rothwell, a teacher at the University of Gueiph's Child Care and Learning Centre, reads to some of the centre's children yesterday.

#### Study questions path to literacy

BY CAROLINE ALPHONSO EDUCATION REPORTER

arents take note: Reading to your preschoolers before edtime doesn't mean they are likely to learn much about letters, or even how to read words. A new study shows that while storybook time has developmental benefits, preschool children pay very little attention to the printed

"There are all kinds of parents who are reading to their children believing that it's going to help their children to learn how to read," said Mary Ann Evans, a psychology professor at the University of Guelph and co-author of the study.

"That's true to an extent in that reading to your children will help them develop an understanding of storyline. But it's not necessarily

helping them to learn how to decode the words on the page.

Reading to your children is considered a valued home literacy activity. But Prof. Evans said that few studies have looked at its link to children's literacy skills.

To learn how to read, children five-year-olds. must pay attention to the letters and recognize words. But her research, published in this month's issue of Psychological Science, the Roy MacGregor. A2

journal of the American Psycholo gical Society, found that preschoolers were focused elsewhere.

Prof. Evans, along with Jean Saint-Aubin of the University of Moncton in New Brunswick, conducted two studies of four- and

See READING on page A8

# Literacy levels...

"...literacy levels, which are usually, but not always, related to levels of education, are

important predictors of **employement**, active **participation** in the community and health status.

They are also important predictors of the **success** of a nation."

(Health Canada, 1999)

# Why literacy matters?

- Limited literacy is ... a more powerful **predictor of health status** than race or education (Volandes, Paasche-Orlow, 2007).
- Limited literacy is associated with limited **participation** in health promotion and management of long term chronic diseases (Rudd, Groene, Navarro-Rubio, 2013).
- **Health is at risk** when people cannot read or understand medical information.
- Numerous studies document **mismatch** between patient **reading skills** and the **readability level of health materials**.
- People deserve clear communication.

#### Health

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

(WHO, 1948)

"the ability to adapt and self manage in the face of social, physical, and emotional challenges."

(Hubber, et al, 2011).

# What is Health Literacy?

"The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health care decisions"

(Ratzan, S., Parker, R, 2000; *In*: Healthy People 2010 and Healthy People 2020; *In*: IOM - <u>Health Literacy: A Prescription to End Confusion</u>, 2003)

"...the skills and competencies that all people develop to seek out, comprehend, evaluate, communicate and use health information and concepts to make informed choices."

(Calgary Charter on Health Literacy, 2009)

#### Poor health literacy and health costs

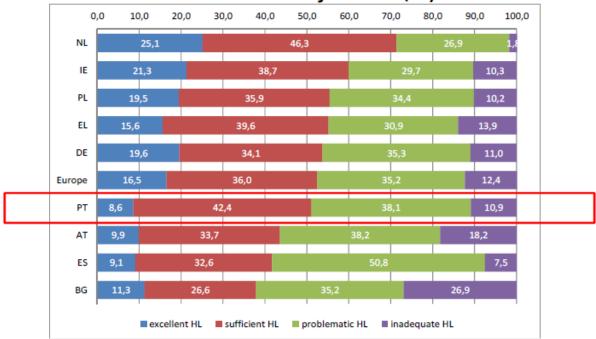
#### Adults with limited health literacy have...

- Less knowledge of disease management
- Less knowledge of health promoting behaviors
- Report poorer health status
- Less likely to use preventive services
- Higher use of emergency services
- Higher rate of hospitalizations
- Inpatient spending is \$993 higher than that of persons with adequate health literacy.

#### General health literacy levels

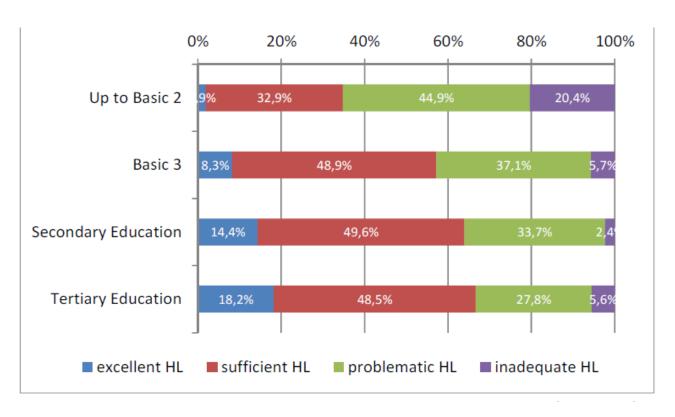
6th place in 9, 1st country < mean HLS-EU





**Source:** HLS-PT, 2014, CIES-IUL / Calouste Gulbenkian Foundation and HLS-EU Consortium (2012)

#### General health literacy by education



**Source:** HLS-PT, 2014, CIES-IUL / Calouste Gulbenkian Foundation and HLS-EU Consortium (2012)

#### Very vulnerable groups

- Aged 66 years or over
- With monthly incomes of 500€ or less
- With a 'bad' self-assessment of their health
- Widow(er)s
- Factory workers
- With lengthy illnesses
- Who feel themselves to be limited because they have one or more chronic illnesses
- Who are retired
- Who resorted to primary healthcare facilities 6 or more times in the last year

**Source:** HLS-PT, 2014, CIES-IUL / Calouste Gulbenkian Foundation and HLS-EU Consortium (2012)

# How does health literacy differ from literacy?

Literacy refers to basic skills needed to succeed in society, while health literacy requires some additional skills, including those necessary for finding, evaluating and integrating health information from a variety of contexts.

It also requires some knowledge of health-related vocabulary as well as the culture of the health system.

**Source:** Rootman, I., 2009. Presentation at the University of Victoria, BC.

## What is Health Literacy?

"Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions. Thus, health literacy means more than being able to read pamphlets and make appointments."

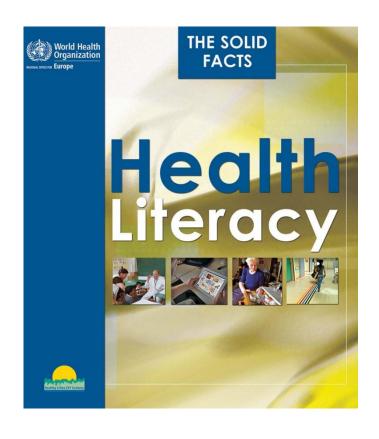
(Nutbeam, 1998, p. 264 - WHO, Health promotion Glossary)

http://whqlibdoc.who.int/hq/1998/WHO\_HPR\_HEP\_98.1.pdf http://www.healthliteracypromotion.com/Health-Literacy-Definitions.html

"The degree to which people are able to access, understand, evaluate and communicate information to engage with the demands of different health contexts in order to promote and maintain good health across the life-course."

(Kwan, B., Frankish, J., & Rootman, I, 2006)

# What is Health Literacy?



"Health literacy is **both** a mean and outcome of actions aimed at promoting the empowerment and participation of people in their communities and of people in their health care."

(Zsuzsanna Jakab - Forward. Health Literacy: the solid facts, Sabel Loureiro WHO, 2013)

## Literacy & empowerment

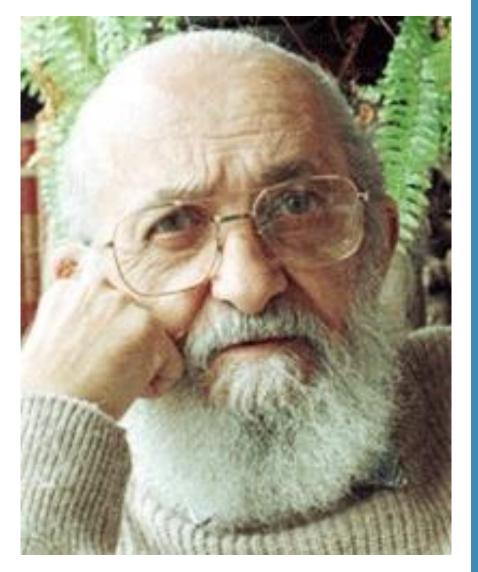
Literacy offers the potential to be a useful composite health promotion outcome measure and it fills the term health empowerment with some concrete meaning and strategic direction.

Source: Rappaport, J. et al "Studies in empowerment: Steps toward understanding and action" New York: Haworth Press, 1984.

#### Health education is...

A planned process designed to achieve health – and illness – related learning. (Green, et al, 2015)

"Educar alguém para a saúde implica que tenhamos, por um lado, investido comunitariamente, em estruturas e modos de vida com significados ricos e múltiplos e que, por outro lado, tenhamos efetivamente conseguido contribuir para a construção de mundos de significação, num processo de aprendizagem ininterrupto entre todos, simultaneamente, educandos e educadores." (Freire, 1975)



#### Some confusion?

Translating Health Literacy:

- alfabetizacion en salud (Spain)
- •alphabetisme en matière de santé (French)
- alfabetizzazione sanitaria (Italy)

#### New wine in old bottles? (Tones, 2002)

"Health education has more extensive concerns than the achievement of health literacy".

"Critical literacy, together with social skills, can be applied to critically analyse information, and to use this information to exert greater control over life events and situations."

HL typology (Nutbeam, 2000) — functional literacy, interactive literacy and critical literacy.

•"Over the past decade, the field of health literacy has advanced from providing limited tools for simplifying language into the basis for a **visible theory** of the

complex relationship between knowledge, attitudes, behavior, and health outcomes, ranging from the individual to the societal level." (Andrew Pleasant, 2011)

#### The Evolution of the concept of HL

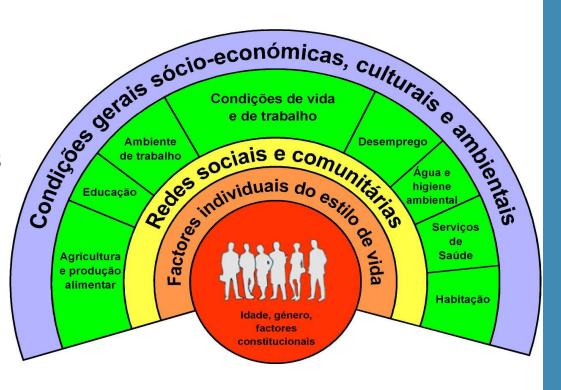
The concept of HL has expanded in meaning to include (Sorenson, et al, 2012):

- ✓ information-seeking,
- √ decision-making,
- ✓ problem-solving,
- ✓ critical thinking,
- ✓ communication,
- ✓ a multitude of social, personal, and cognitive skills that are imperative to function in the health-system

But also the understanding of social determinants of health and how to tackle them (concept of health & community).

#### **Determinants of Health**

- Social status
- Early life conditions
- Income
- Literacy skills and policies
- Nutrition
- Employment Status
- Education Level
- Social support
- Race or ethnic group
- Social exclusion
- Transportation
- Stress and self-management



Source: Dahlgren and Whitehead, 1991

# Some challenges related to Health Literacy improvement

"The single biggest problem in communication is the illusion that it has taken place"

**George Bernard Shaw** 

## Plain Language

- Crucial for promoting Health Literacy (Rudd, 2010)
- Language centered in the target population with a readability level of 6 school years

#### An example from the USA:

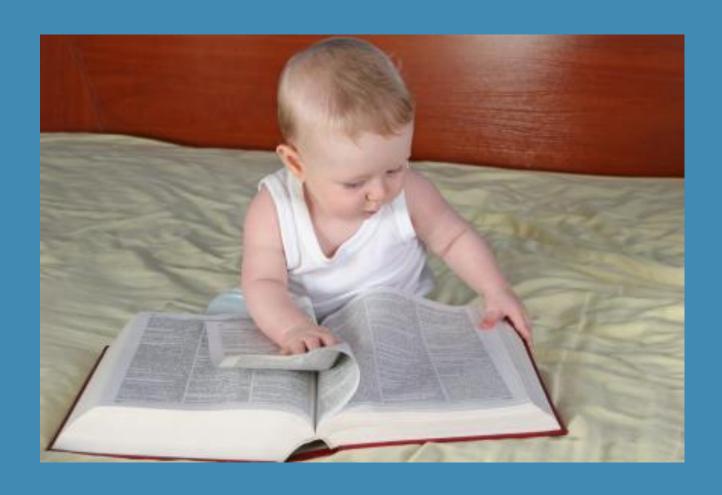
- Promote the use of plain language for all government communications
- Examples, word suggestions, thesaurus
- Separate section for health literacy

http://www.plainlanguage.gov



#### Person-centered approach

- •Addressing the needs of the patient from their lens (cultural beliefs/practices, language, health literacy) are crucial in delivery culturally appropriate care: person-centered care/equitable care. (Guadalupe Pacheco, MSW in IOM Roundtable on Health Literacy. October 19, 2015)
- Person-centered approach ensures people are treated with fairness, dignity and respect by taking into account their communication needs and preferences. (Making it Easier | A Health Literacy Action Plan for Scotland | 2017-2021)



#### How do emerge Health Literacy needs?

"Although the literacy and verbal skills of individuals are of critical importance, so too are the demands made by the health materials themselves, the communication skills of those in the health field, and the complicated nature of the healthcare and public health systems." (Rima Rudd, 2003)



Health Literacy emerges from an interaction between health systems demands and people's skills.(IOM, 2004)

**Source:** The Harvard T.H. Chan School of Public Health: Health Literacy Studies Web Site. Available at: http://www.hsph.harvard.edu/healthliteracy.

# Health literacy responsiveness

"The provision of services, programs and information in ways that promote equitable access and engagement, that meet the diverse health literacy needs and preferences of individuals, families and communities, and that support people to participate in decisions regarding their health and social wellbeing."

Source: Trezona, A.; Dodson, S.; Osborne, R. H. 2018 – Development of the Organizational Health Literacy Responsiveness (Org-HLR) framework in collaboration with health and social services professionals. BMC Health Services Research (under review)

#### **Implementation**

•Implementation is the process of putting a decision or plan into effect (Oxford Dictionaries)

•Implementation science in health services is the study of methods to promote the adoption and integration of evidence-based practices, interventions and policies into routine health care and public health settings

# Consolidated Framework for Implementation Research

- Intervention (relative advantage)
- Outer (external incentives)
- Inner (culture)
- Individuals (beliefs)
- Process (plan, execute, evaluate)

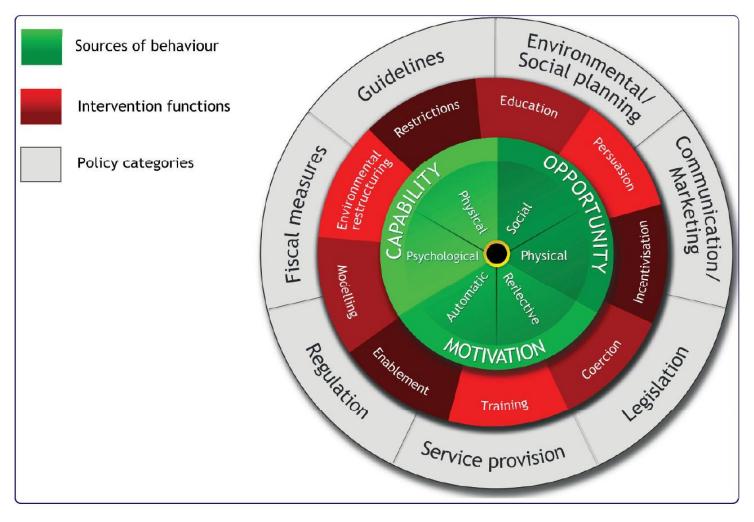
Source: Damschroder et al. Implement Sci 2009; 4:50.

#### Motivation of professionals

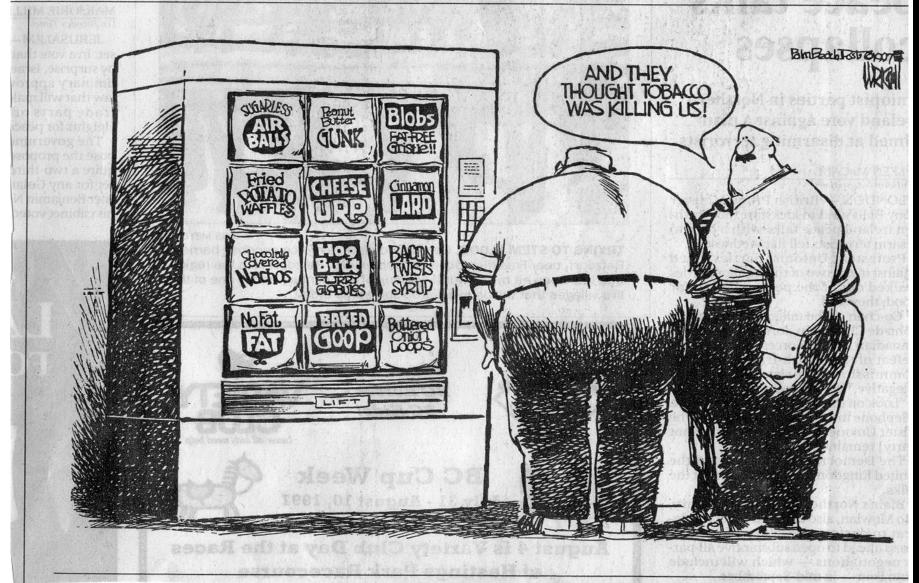
- Intrinsic
  - ✓ Professionalism
  - ✓ Do the right thing
- Extrinsic
  - √ Financial
  - ✓ Other rewards

**Source:** Marshall H. Chin, et al., How Cultural Competency, Language Access, and Health Literacy Are Integrated Into Programs and Interventions Aimed At Reducing Disparities. University of Chicago

#### The Behaviour Change Wheel



**Source:** Michie, S.; van Stralen, M.M.; West, R. - The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Science, 2011



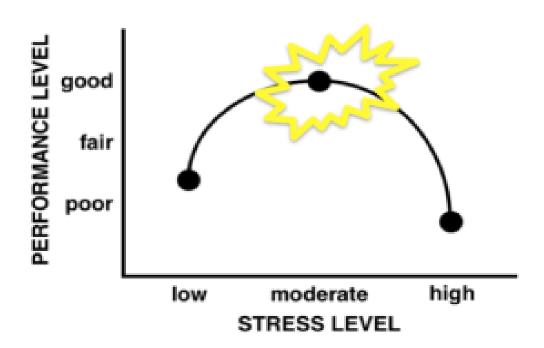
# Conditions for optimal learning

- •Context (physical, social, psychological responsive to the needs, opportunities for all)
- Active learning (motivation, capability, reflexiveness, participation, responsiveness)
- Adequate materials (content, lay-out, culturally adapted) and methods culturally competent
- Moderate stress
- Adequate sleep, good nutrition, regular exercise (for neuroplasticity and neurogenesis and keep dopamine and cortisol in appropriate levels)

#### Neuroplasticity and neurogenesis

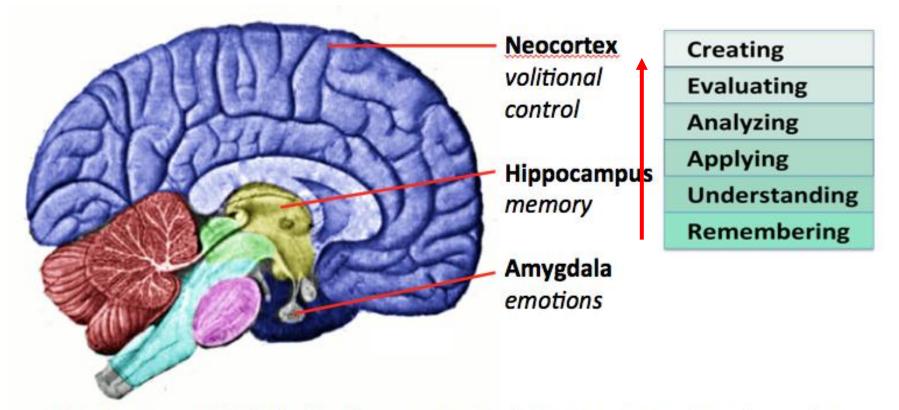
- Stress and performance
- inverted U curve

Classic inverted-U curve



**Source:** Berkeley Graduate Division: http://gsi.berkeley.edu/gsi-guide-contents/learning-theory-research/neuroscience/

#### How active learning is important

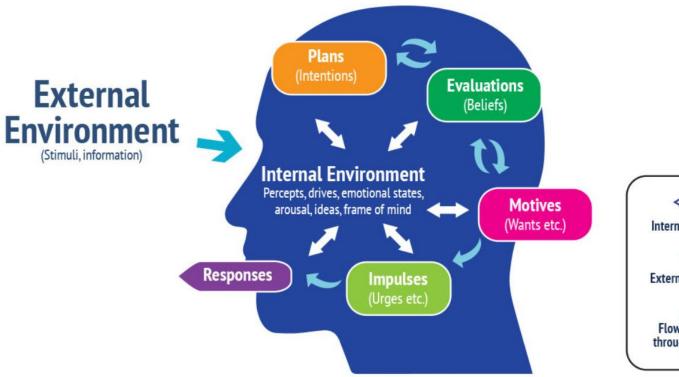


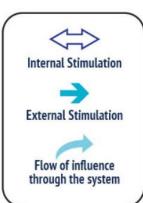
Bloom's taxonomy, which describes cognitive tasks in ascending orders of complexity, appears to be supported by neuroscience research. Recruiting volitional control, memory, and emotions through active learning techniques increases performance.

Brain image by Looie496 [Public domain], via Wikimedia Commons.

Verbs from Bloom's Revised Taxonomy of Learning Objectives in the Cognitive Domain, in Anderson, L. W. and David R. Krathwohl, D. R., et al. eds. A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. Boston: Allyn & Bacon, 2001.

# The structure of human motivation: PRIME Theory (Plans-Responses-Impulses-Motives-Evaluations)

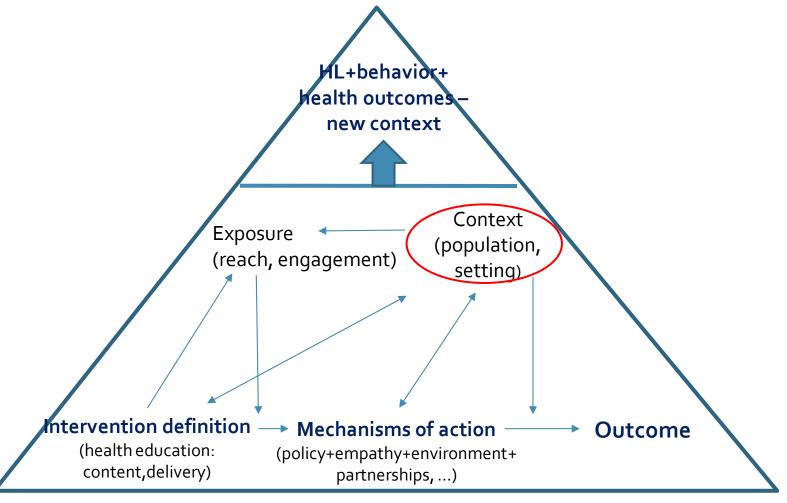




**Source:** Robert West, 2017

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### Behaviour change intervention ontology: scenario entities and causal connections



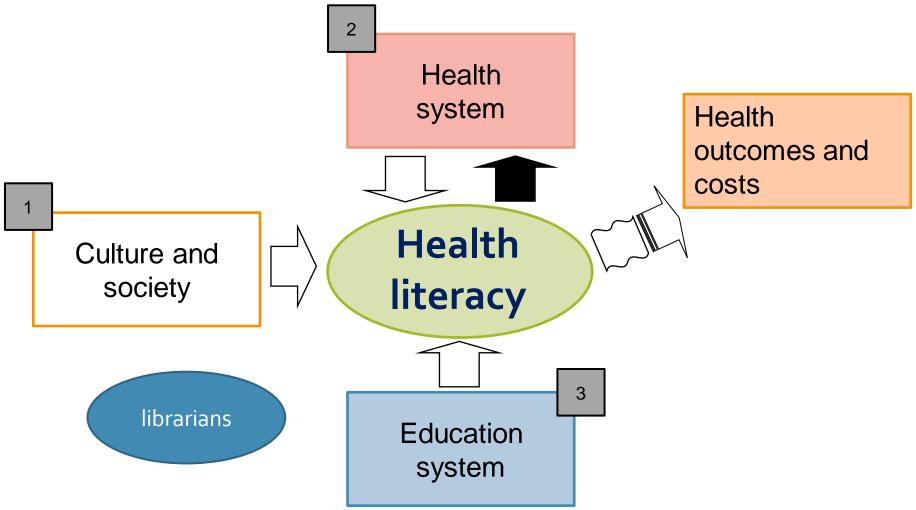
**Source:** Adapted from Susan Michie, 2018. Behaviour Change Intervention: Ontology

#### All society engaged in health literacy

- Professionals must tailor their communication to meet their patients' needs
- Politicians must incorporate the notion and paradigm of health literacy into their design of policy.
- Citizens must be able to make decisions about their health for themselves
- Patients must be genuinely engaged and empowered to participate in care decisions

**Source:** Adapted from: Kickbusch, Wait, & Maag. (2005). *Navigating health:* the role of health literacy. Retrieved from http://www.emhf.org/resource\_images/NavigatingHealth\_FINAL.pdf

## Potential intervention points in the health literacy framework



Source: IOM, Health literacy: a prescription to end confusion. Washington: 2004

#### Examples

- Rede de bibliotecas escolares com o Programa Nacional de Saúde Oral
- Is this about you guys or me? (**Making it Easier** | A Health Literacy Action Plan for Scotland | 2017-2021)
- The Macmillan @ Glasgow Libraries service offers cancer information and emotional support in Scotland's public libraries; Volunteers also signpost to a wide range of local services from physical activity and leisure classes to carers support and befriending services.

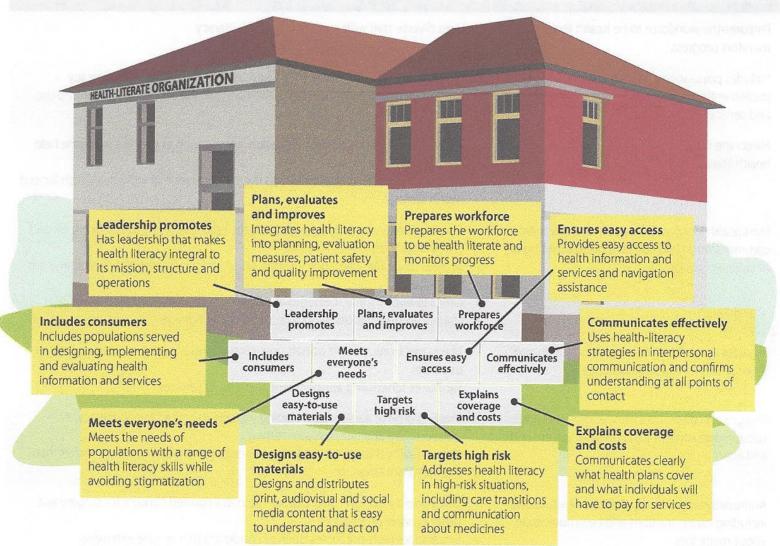
#### Key partners for health literacy

- Governments National and Municipal governments
- *Health Sector* Health care providers including medical personnel, health care institutions and clinics
- *Education Sector* Public and private schools, adult literacy programs, centers for continuing education
- Workplaces and Businesses Small, medium and large businesses and places of employment
- Community Organizations Libraries, community recreation centers, religious institutions, and the media. Immigrant settlement services, family resource centers, women's resource centers, unions and senior support programs are other important examples.

Source: Mitic & Rootman, 2012

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#### 10 attributes of a health literate organization



**Source:** Brach, C. et al, 2012. In: Kickbusch, I., Pelikan, J.M., Apfel & Tsouros, A. D. - *Health literacy*The solid facts. 2013

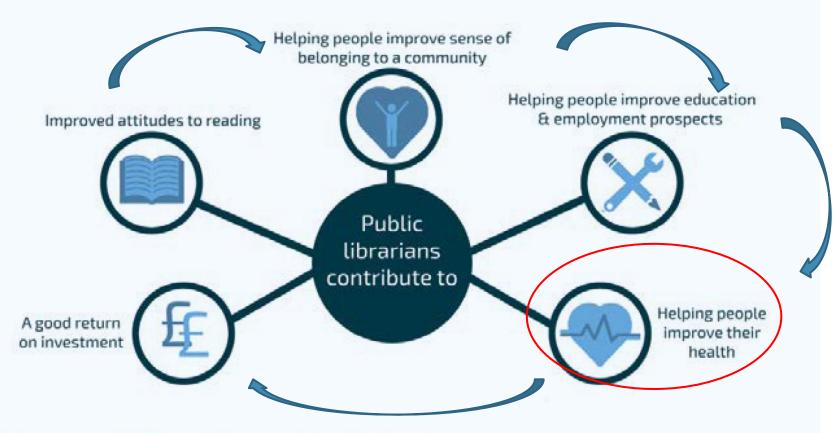
How to apply the Health Literacy concept and theory

to librarian professsional life



**Source:** https://futureready.org/program-overview/librarians/

#### The role of public librarians



Reference: CILIP and University of Salford

Source: Scotland's Library and Information professionals

#### Health literacy is everyone's business

#### ... civic literacy skills involves

advocating for policies and services for maintaining and promoting one's own health, the health of family members and the health of the community

Source: Mitic & Rootman, 2012

#### Health literacy contribution for

#### The Sustainble Development Goals









