



# Health literacy in the digital era

Mariliis Beger, *PhD*

24 January 2017, Tallinn

---

# Background

- Development in technology
- Prioritizing prevention
- Shift from doctor-centered paternalistic relationships to patient-centered healthcare
  
- New expectations & responsibilities for patients:
  - More control (health management, decision making)
  - Active consumers of health information
  - Most people need help to understand health information
  
- **HEALTH LITERACY – their toolbox**

# Defining health literacy (HL)

- The personal, cognitive and social skills which determine the ability of individuals to gain access to, understand and use information to promote and maintain good health<sup>1</sup>

# Characteristics of HL

- Changes over life span
- Variety of settings (home, work, school, streets)
- Essential to empowerment (asthma example)
- Every 2<sup>nd</sup> individual affected

# Low health literacy

## More likely

- poor ability to interpret labels and health messages
- to have work-related accidents
- medication errors
- hospitalizations
- use of emergency care
- poor overall health status, higher mortality rates

## Less likely

- to have preventive behaviors (mam, cc screening, flu vaccine)
- to successfully manage chronic disease<sup>2</sup>

# Social determinants

- People with limited health literacy most often have:<sup>3</sup>
  - lower levels of education
  - lower income
  - are older adults
  - are migrants or their children
  - depend on social support
  - disability or chronic disease
- Limited health literacy further reinforces existing inequalities
- **Avoid stereotypes!**

# What can we do?

- **HL Universal Precautions Approach**<sup>4</sup>
  - assume that most patients will have difficulty understanding health information
  - high literacy ≠ high health literacy
  - HL level can depend on situation
  - Use plain language agenda

# Overall recommendations

- Use plain language (6<sup>th</sup> grade)
- Use terms that are used in common language. Avoid tech/medical jargon
- Avoid terms with multiple meanings
- Explain difficult terms in simple words
- Use terms consistently, explain abbreviations and acronyms
- Use active voice
- Use positive wording

# Overall recommendations

- Use singular (You) instead of group level (All people)
- Provide information in target group's native language
- Take into account target group's age, culture, religion, race, nationality
- Use universal symbols (environment)
- Consider alternative communication means
- Always involve target group when developing materials

# Oral communication

- Assess baseline understanding before providing extensive information – allows customization / tailoring
- Speak slowly, respectfully, don't patronize
- Emphasize 1 to 3 key points, repeat these points
- Encourage them to ask questions
- Use an open-ended questions
- Use models, illustrations when explaining difficult things
- Use a *teach-back* technique
- Use a *show-back* approach
- Always provide the core information also in a written form (more time at home, family members, clear understanding what is expected)

# Written communication

## Design

- Divide text into chunks, use subheadings, bullet points
- Organize your writing to meet patients' needs (font 12, sans serif, white space, line length, justified left, max two fonts, avoid all caps)
- Dark text, light background, avoid glossy paper, be modest with colors
- Use photos and simple illustrations instead of long texts

## Numbers

- Present specific numbers not just description ("low risk")
- Talk about absolute risk (decline from 4% to 2%, not relative risk (declined by 50%))
- When talking about risk, use full numbers (1 out of 100, not 1%), use it throughout
- Use scales, bar graphs, line charts, flow diagrams, pictographs, tables
- Mention both positive and negative

# E-health literacy

# Background: Benefits

- 48% of Europeans searched for online health information<sup>10</sup>
- Wide range of information
- Multimodality - text, audio, video
- Various technologies: computer, tablet, smartphone
- Tools for personalized health information (risk calculation, self-monitoring, feedback)
- Web-based counseling
- Anonymity – sensitive issues
- No geographical or time barriers
- 2-way communication (Web 2.0)
- Low cost

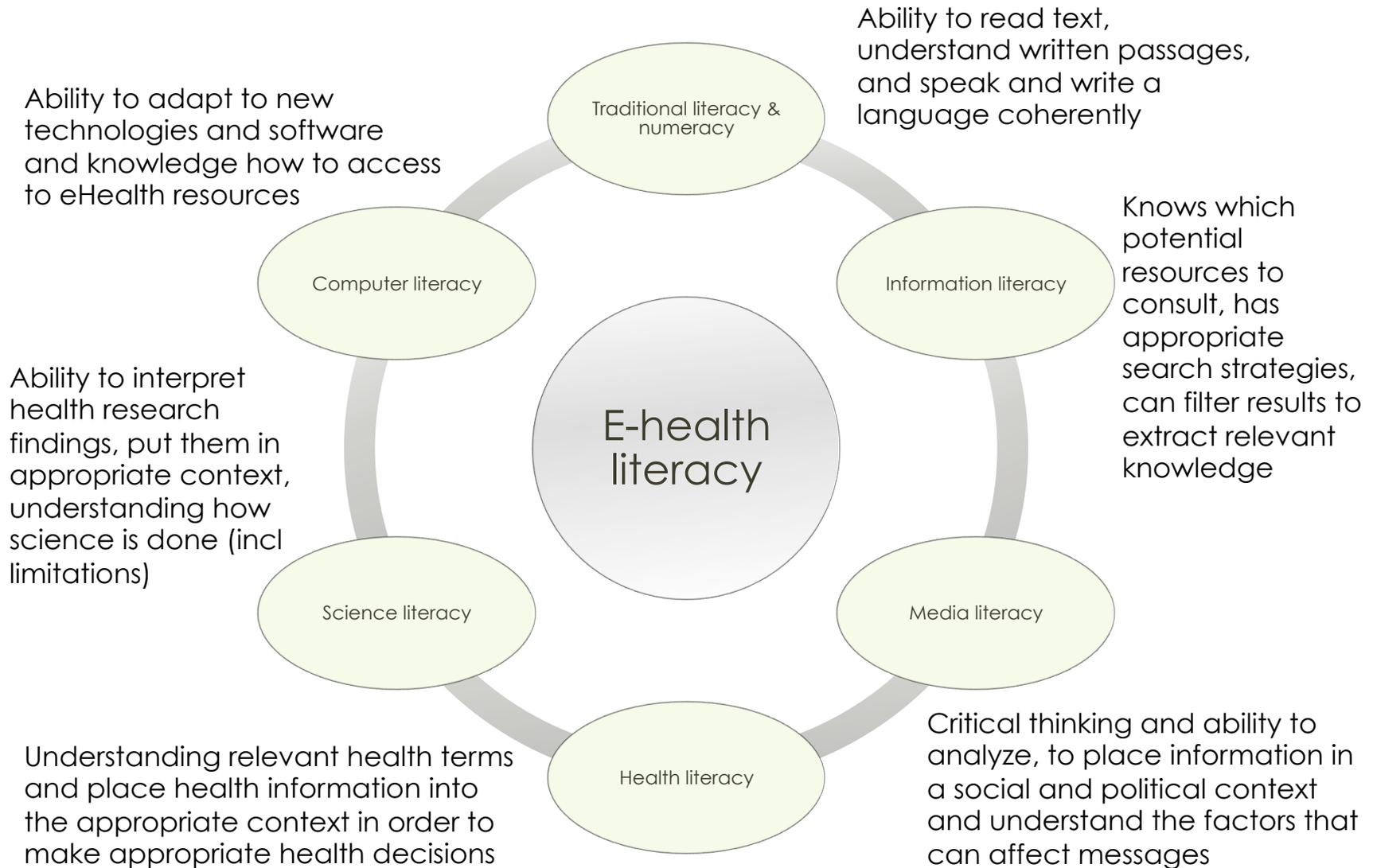
# Background: Threats

- Everyone can be an author!
  - inaccurate, uncontrolled, one-sided, or false information
- Requires knowledge on
  - how to find, choose, evaluate and use information
- Digital divide
- Ordinary health literacy is not sufficient anymore!

# E-health literacy

- The individual's ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem.<sup>11</sup>

# The Lily model<sup>11</sup>



# Evaluating online HI

<b>WHO?</b>	Who runs the website?
	Can you contact them?
	Who is funding the website?
	Does the site have ads, are they labeled?
<b>WHY?</b>	Why are they providing the site?
	Does the site ask for your personal information? Do they tell you how it will be used?

# Evaluating online HI

<b>WHERE?</b>	Where does the information on the site come from? Are the authors experts? If not, is it reviewed by experts?
	Is the information someone's opinion or based on facts?
	Does it have proper citations to scientific research?
	If it uses texts from other sources, have they been cited?

# Evaluating online HI

<b>WHAT?</b>	Does the site make unbelievable claims?
<b>HOW?</b>	Is the site using simple language or technical and medical jargon?
	Is the site using a sensational writing style?
<b>WHEN?</b>	How current is this information?
	Was it updated within one year?
	Are the links working?

- Get a second opinion! Check more than one site.
- Be careful with social media. Make sure the account is authentic.

# Credits

- <sup>1</sup>Nutbeam D. (2000). Health literacy as a public goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International*, 15(3), 259-267.
- <sup>2</sup> Berkman, N. D, et al. (2011). Low health literacy and health outcomes: An updated systematic review. *Annals of Internal Medicine*, 155, 97–107.
- <sup>3</sup> Kickbusch, I., Pelikan, J. M., Apfel, F., & Tsouros, A. D. (2013). [Health literacy: The solid facts](#). World Health Organization.
- <sup>4</sup> Davis, T. (2015). [Health literacy: Hidden barriers and practical strategies](#). U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality.

## Slides 8-11

- U.S. Health Resources and Services Administration. (2016). [Health literacy](#).
- Kripalani, S., & Weiss, B. D. (2006). Teaching about health literacy and clear communication. *Journal of General Internal Medicine*, 21(8), 888-890.
- Safeer, R. S., & Keenan, J. (2005). Health literacy: The gap between physicians and patients. *American Family Physician*, 72(3), 463-468.
- Williams, M. V., Davis, T., Parker, R. M, & Weiss, B. D. (2002). *The role of health literacy in patient-physician communication*. *Family Medicine*, 34, 387.
- U.S. Department of Health & Human Services Agency for Healthcare Research and Quality. (2015). [Health literacy universal precautions toolkit, 2ed.](#)
- <sup>10</sup> Eurostat. (2016). [Individuals - internet activities](#) [isoc\_ci\_ac\_].
- <sup>11</sup> Norman, C. D., & Skinner, H. A. (2006). eHealth literacy: Essential skills for consumer health in a networked world. *Journal of Medical Internet Research*, 8(2), e9.

## Slides 17-19

- Medline Plus. [Evaluating Internet health information: A tutorial from the National Library of Medicine](#).
- National Center for Complimentary and Integrative Health. (2014). [Finding and evaluating online resources](#).
- American Academy of Family Physicians. (2014). [Health Information on the Web: Finding Reliable Information](#).
- Medline Plus. [Guide to healthy web surfing](#).