

# Health Literacy and Patient and Family Engagement

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# 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 decisions.”

Healthy People 2010

# Thesis

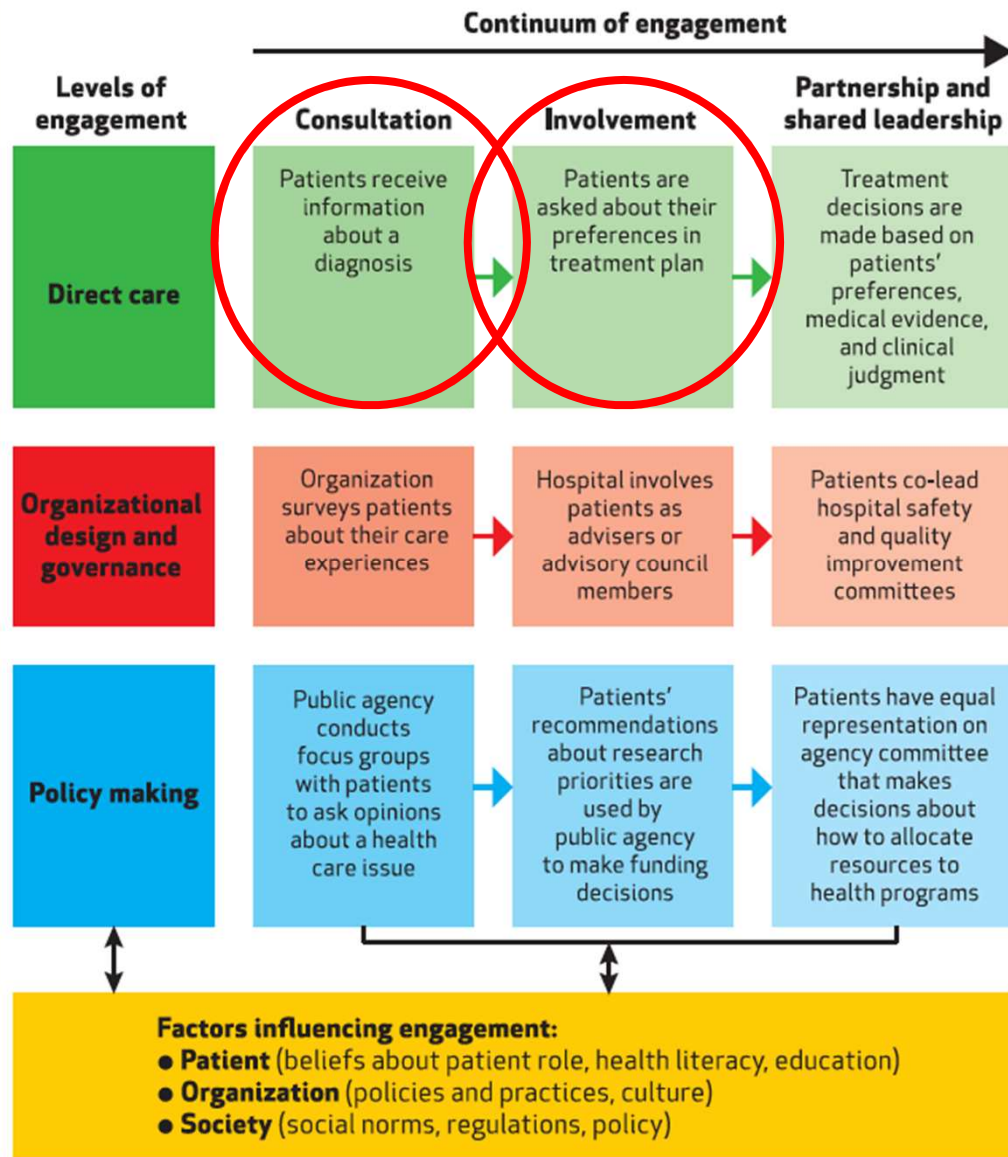
- Health literacy (on the patient side) and/or sensitivity to health literacy (on the provider/system side) are central (required) for patient engagement

# Key Points To Remember

- Health literacy is not the same as patient engagement
- People have trouble understanding health related information
- Part of engagement will include communication that people can understand

**EXHIBIT 1**

**A Multidimensional Framework For Patient And Family Engagement In Health And Health Care**



**SOURCE** Authors' analysis. **NOTE** Movement to the right on the continuum of engagement denotes increasing patient participation and collaboration.

“For patients to engage effectively in shared decision making, they must have a certain degree of health literacy.”

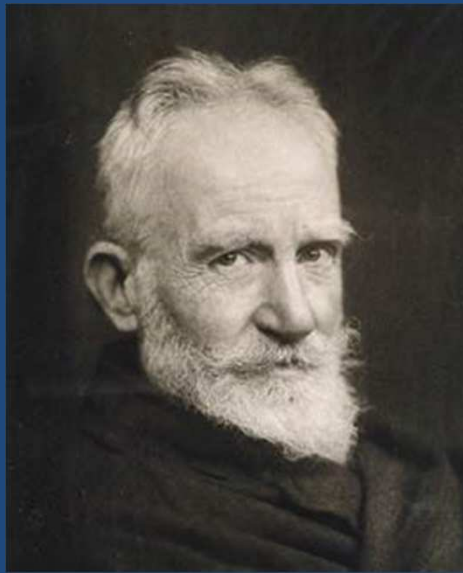
*James J. RWJF Health Policy Brief. 2013. Health Affairs.*

Carman et al. Health Affairs. 2013

# Health Literacy and Patient Activation

- They aren't the same
- Correlation between usual measures of health literacy and patient activation = 0.11
- Both independently predict outcomes
- Health literacy a 'skill set', activation a 'mind set'

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



- *George Bernard Shaw*

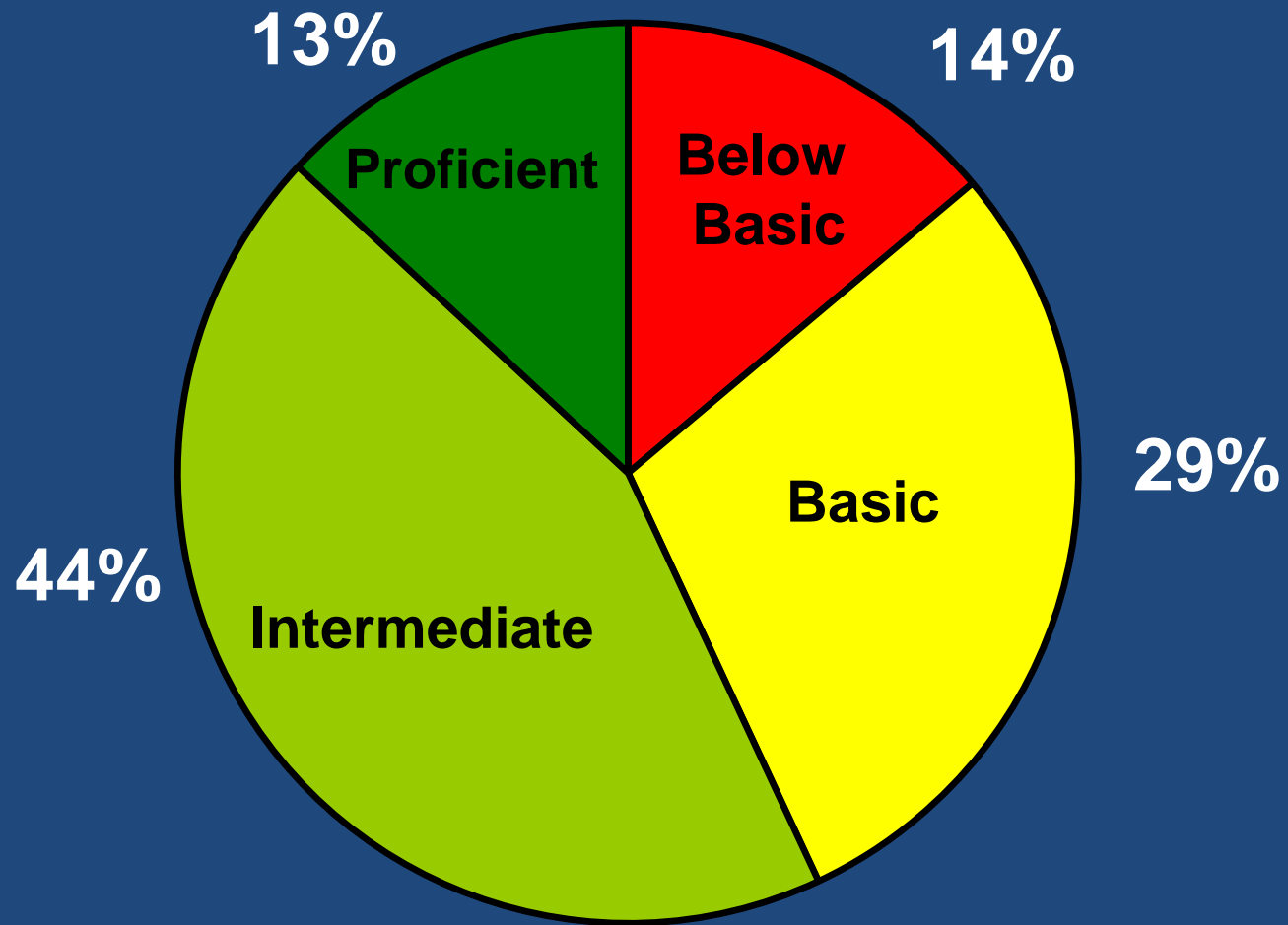
# National Assessment of Adult Literacy (NAAL)

n = 19,714

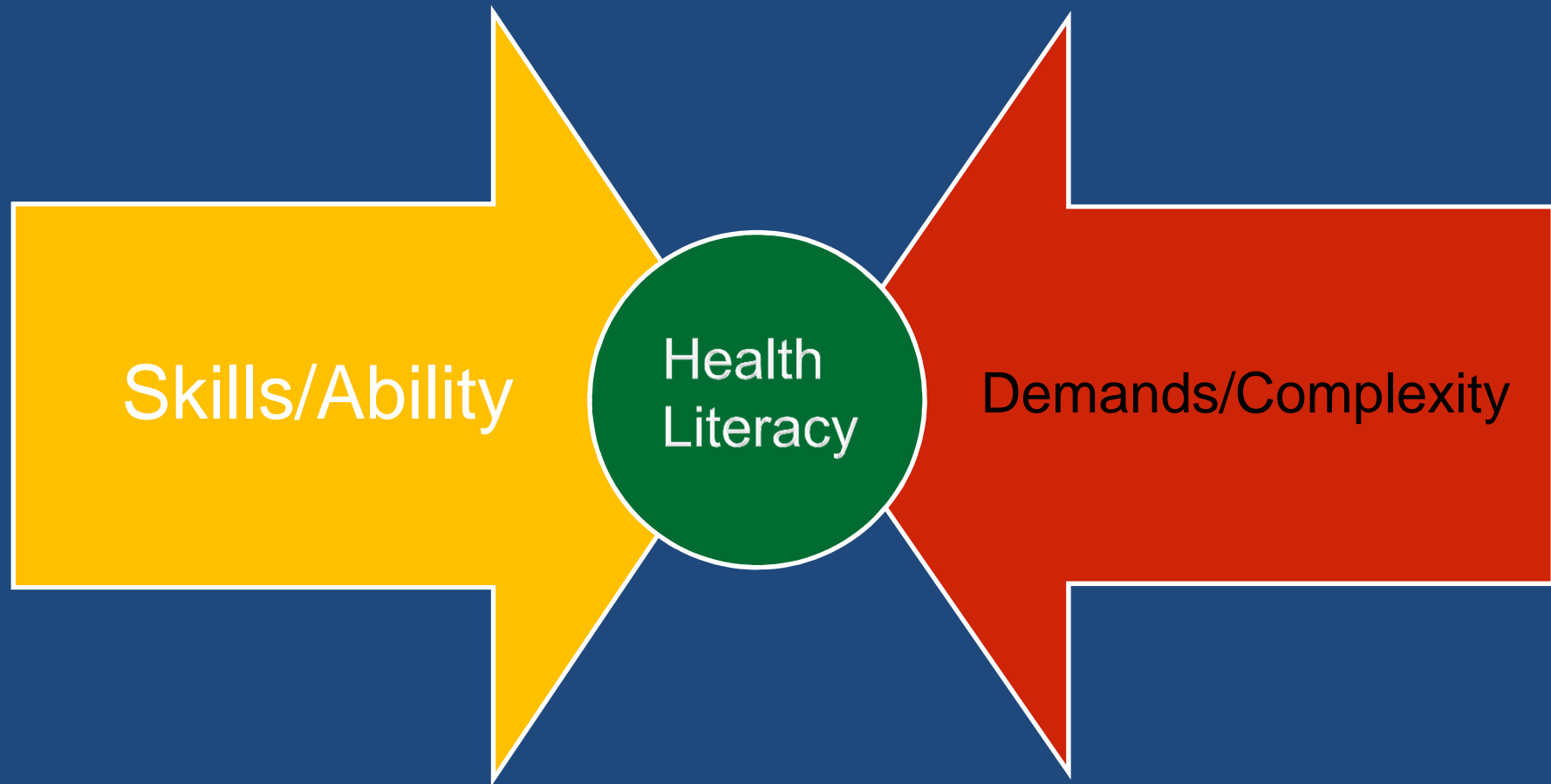
- Most up to date portrait of literacy in U.S.
- Scored on 4 levels
- Lowest 2 levels cannot:
  - Use a bus schedule or bar graph
  - Explain the difference in two types of employee benefits
  - Write a simple letter explaining an error on a bill



# 2003 National Assessment of Adult Literacy



# Improve Skills and Reduce Complexity



What works?

Less is More

# Complexity Matters, Design Matters

- Ask people to make decisions about hospital quality given different presentations of the same data
- [very common way to try to engage people in the health care marketplace]
- Measure comprehension and choice
- Stratify by high and low numeracy

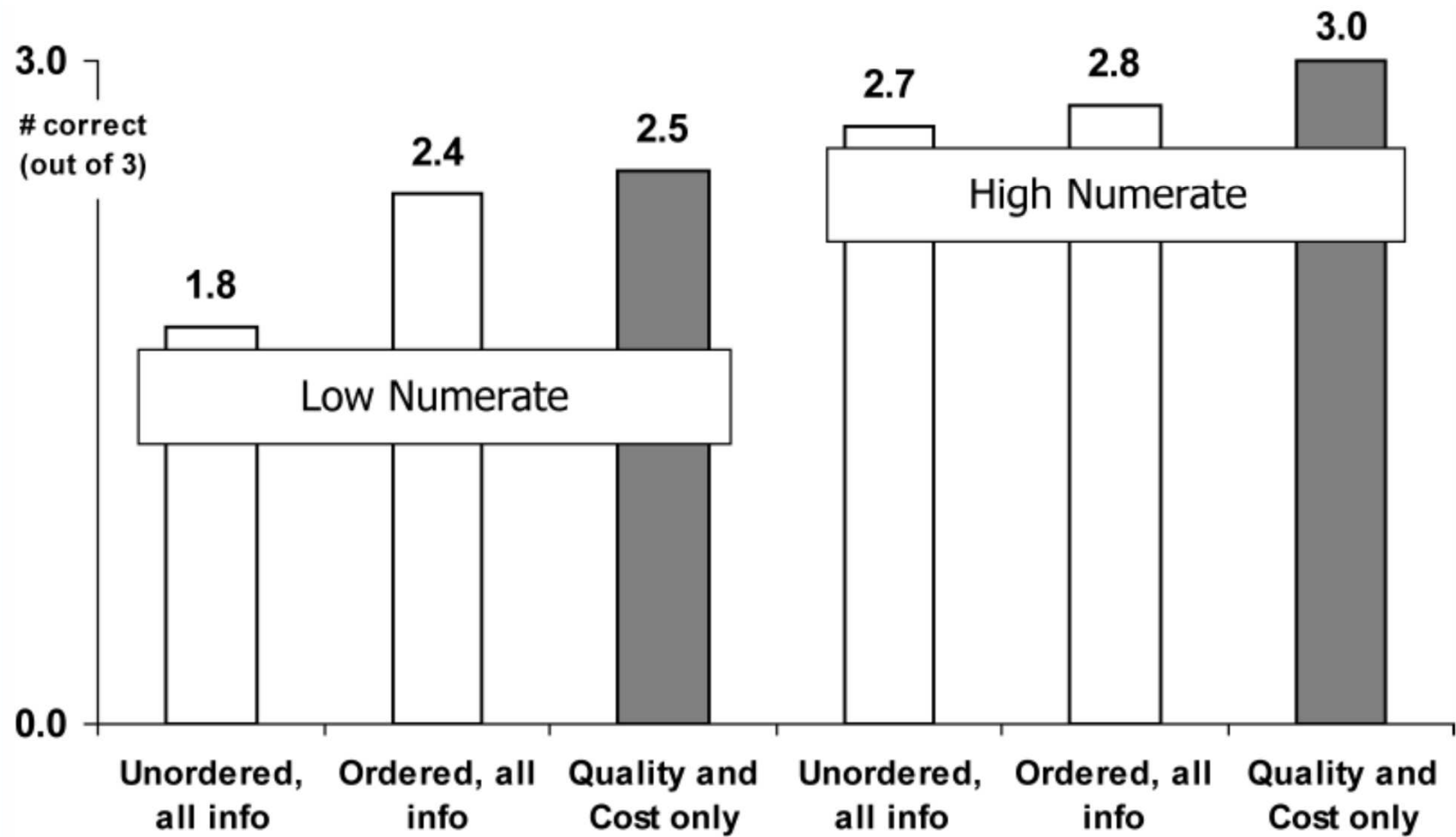
**Table 2**  
**Study 1: Unordered—Both Quality and Nonquality**  
**Hospital Information Is Presented Unordered**

Indicators	Hospital X	Hospital Y	Hospital Z
Your out-of-pocket costs	\$	\$\$\$	\$\$
No. of general care beds	550	231	180
Rated quality of hospital food (higher is better)	4.1	1.1	2.0
% of time guidelines for heart attack care are followed	82%	92%	87%
% of time guidelines for pneumonia care are followed	60%	89%	78%
No. of visiting hours per day	11	6	8
No. of registered nurses per 100 patients	18	38	29
Patient references available	Limited	Limited	Limited
Has computer system to prevent medication errors	No	Yes	Limited

**Table 3**  
**Study 1: Quality and Cost Only—Hospital Information Includes**  
**Quality Information Only and Is Highlighted**

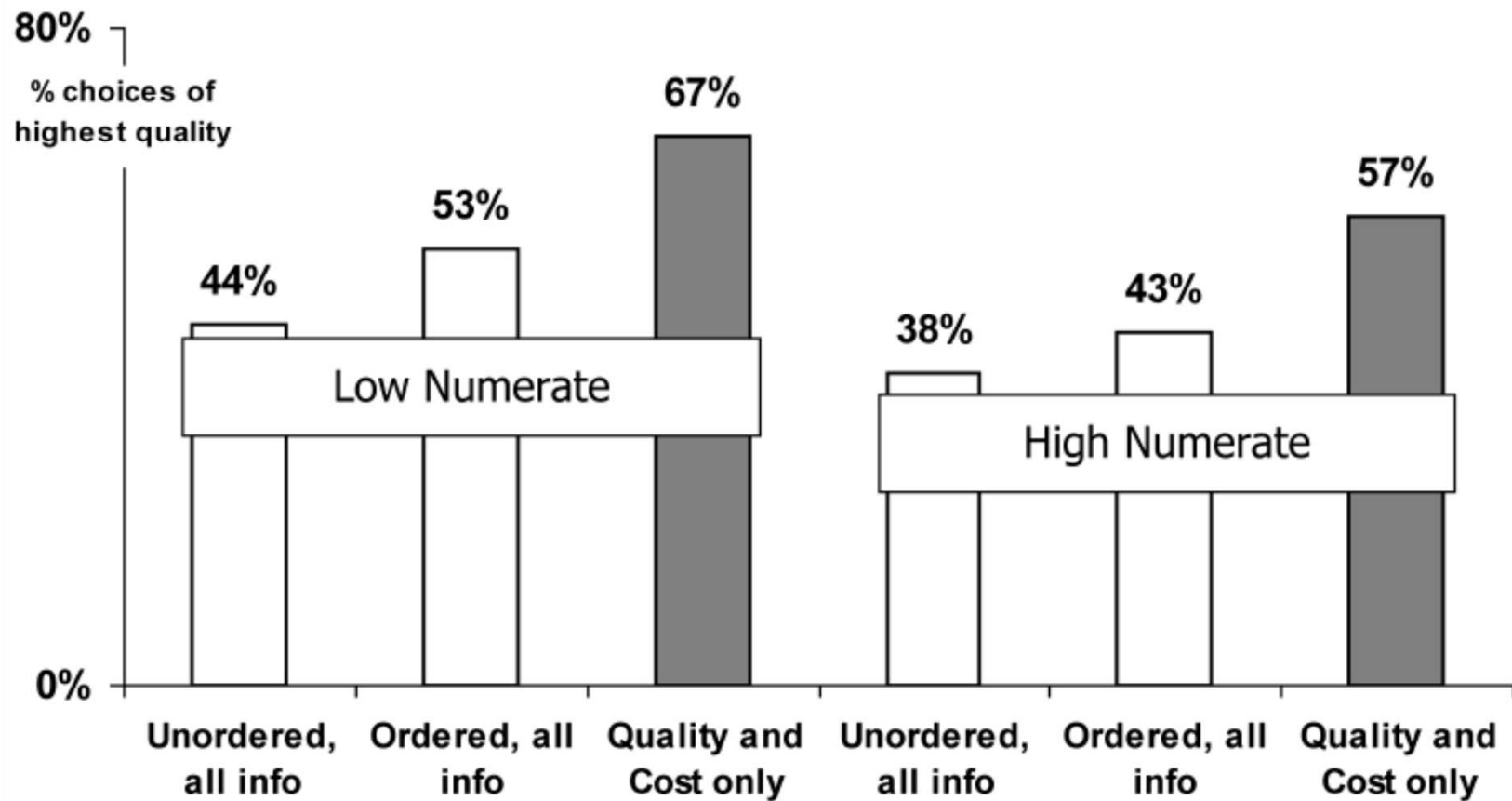
Measures	Hospital X	Hospital Y	Hospital Z
Your out-of-pocket costs	\$	\$\$\$	\$\$
No. of registered nurses per 100 patients	18	38	29
Has computer system to prevent medication errors	No	Yes	Limited
% of time guidelines for heart attack care are followed	82%	92%	87%
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**Figure 1**  
**Study 1. Mean Comprehension by Presentation Format and Numeracy**





**Figure 2**  
**Study 1. Choice of the Highest-Quality Hospital**  
**by Presentation Format and Numeracy**



# Summary

- Extraneous information muddies the water
- Organizing the information to support the decision is important

# Choose the Best Hospital

**Table 5**  
**Study 3: Patient-to-Nurse Ratio Is Presented as “Higher Is Better”**  
**with Easier-to-Evaluate Symbols**

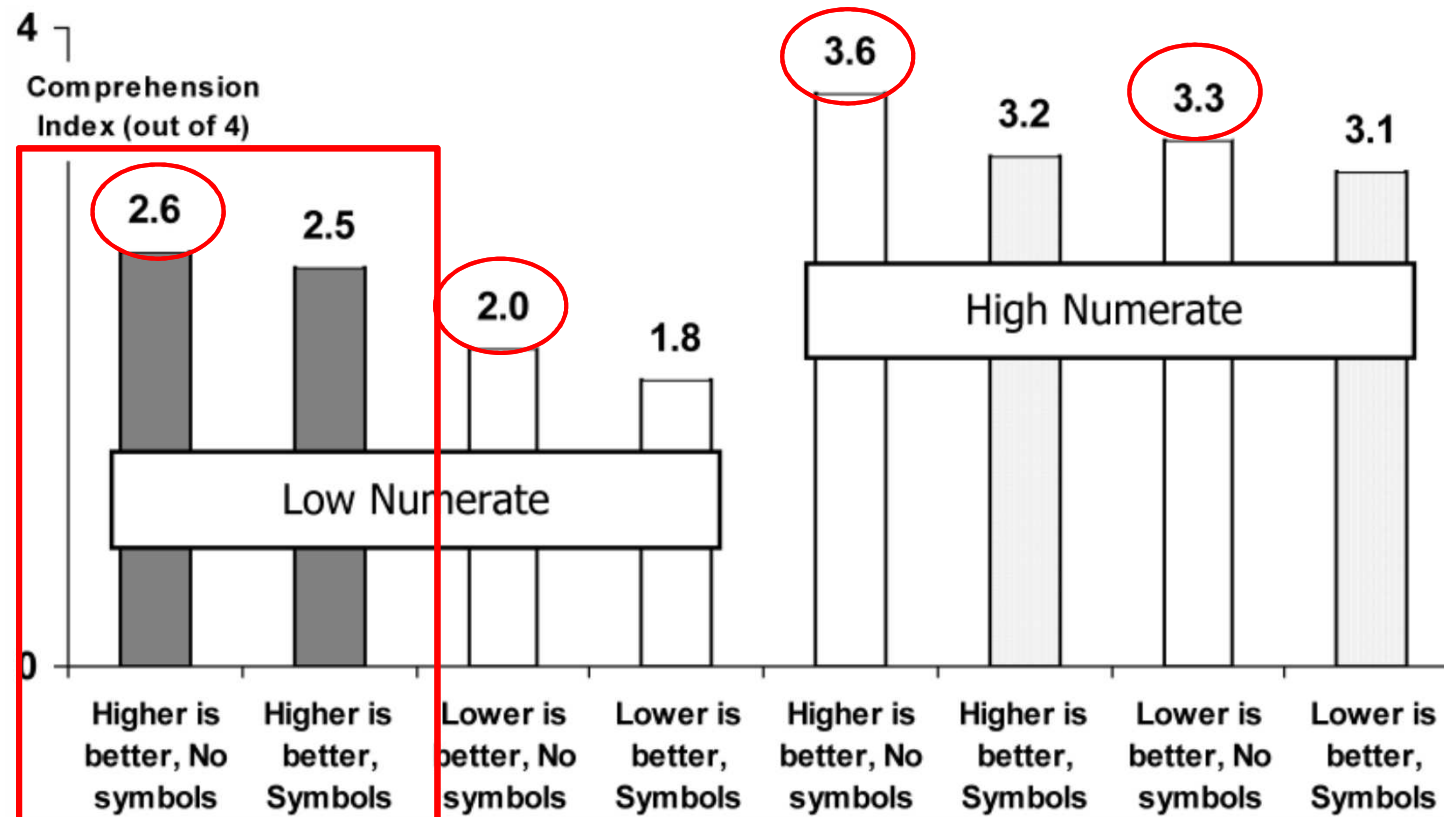
	No. of Registered Nurses per 100 Patients		Your Out-of-Pocket Cost
Hospital A	38	+	\$\$\$
Hospital B	36	+	\$\$\$\$
Hospital C	32	+	\$\$\$\$
Hospital D	38	+	\$\$\$\$
Hospital E	24	○	\$\$
Hospital F	37	+	\$\$\$\$
Hospital G	19	-	\$\$\$\$
Hospital H	20	-	\$
Hospital I	18	-	\$
Hospital J	21	○	\$\$
Hospital K	24	○	\$
Hospital L	23	○	\$\$\$\$
Hospital M	26	○	\$
Hospital N	24	○	\$\$\$
Hospital O	17	-	\$\$

Note: + = more registered nurses per 100 patients; ○ = average number of registered nurses per 100 patients; - = fewer registered nurses per 100 patients.

Also presented as ‘lower is better’ or number of patients per nurse.

Presented with and without symbols

**Figure 4**  
**Study 3. Mean Comprehension by Presentation Format and Numeracy**



Higher is better beats  
 lower is better

No symbols better  
 than symbols

# Summary

- Higher is better is more consistent with how people think and process numbers
- Symbols need to be chosen carefully and may distract. (also note prescription label example)

# Readability Formulas

- Your arteries are blocked by atherosclerosis.
  - Flesch-Kincaid 12.0
- Your arteries are blocked by plaques.
  - Flesch-Kincaid 2.4

# Teach-back Method



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

**Explain**

**Assess**

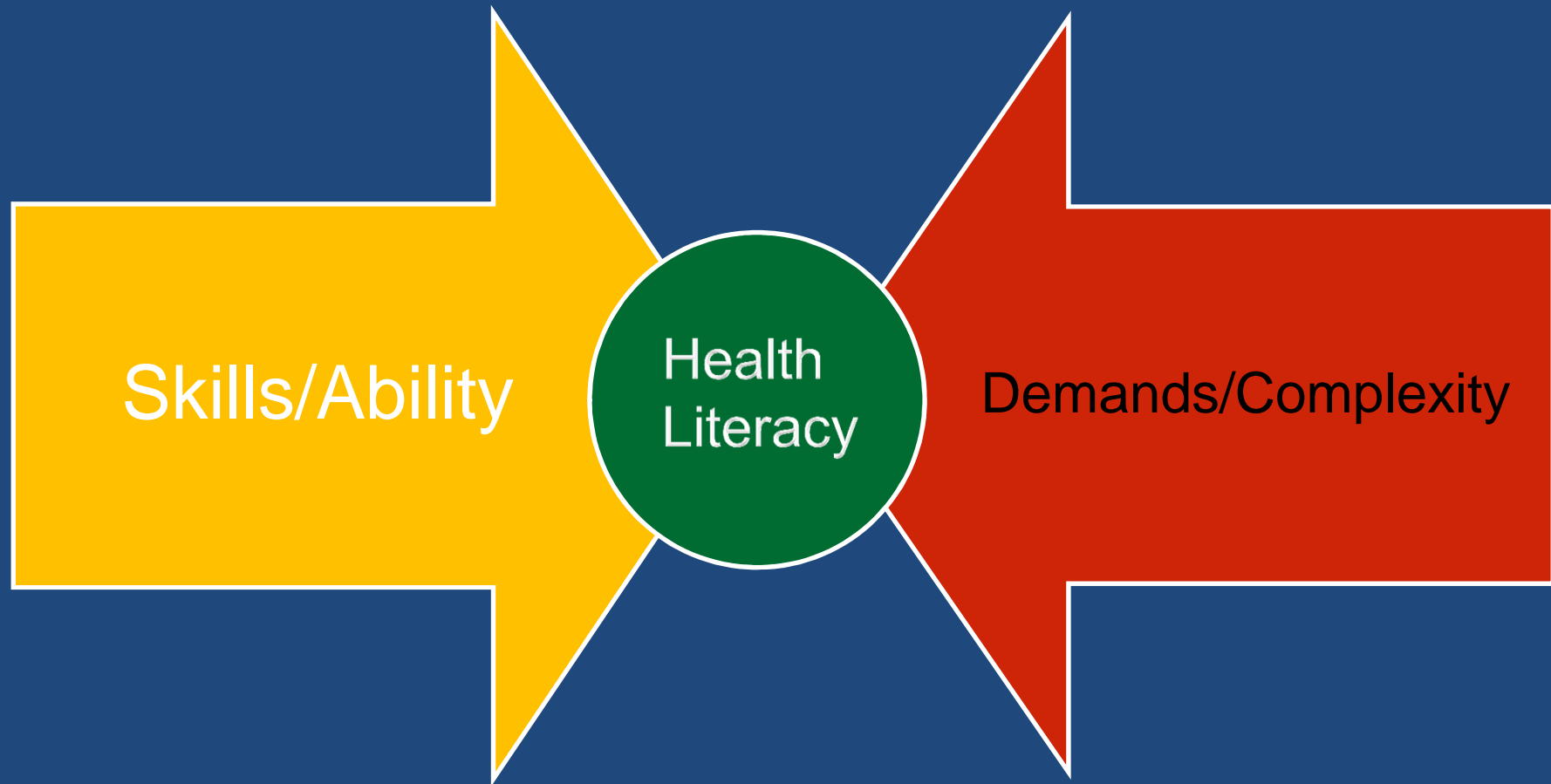
**Clarify**

**Understanding**





# Improve Skills and Reduce Complexity



# Summary

- Health literacy is not the same as patient activation
- Health literacy affects our ability to engage patients
- Careful design and communication can mitigate effects of low health literacy
- Patient engagement strategies need to reduce demands and complexity to succeed

End