



Health Literacy 101: Equipping PAs with Tools to Improve Patient Education

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Disclosures

- The speakers have no disclosures.
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Objectives

1

Define and discuss personal and organizational health literacy.

2


Identify the role of health literacy on patient outcomes.

3

Identify the role of health literacy in patient education and patient-provider communication.

4

Identify resources to enhance health literacy in clinical practice.



Foundations of Health Literacy

Social Ecological Model (SEM)



“The Social Ecological Model (SEM) is a theory-based framework for understanding the multifaceted and interactive effects of personal and environmental factors that determine behaviors, and for identifying behavioral and organizational leverage points and intermediaries for health promotion within organizations.”



Divided into five levels

Individual
interpersonal
community
organizational
policy/enabling environment

SOCIAL ECOLOGICAL MODEL



Health Literacy: What is it?



Personal health literacy is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.



Organizational health literacy is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.

Types of Health Literacy



Functional Health Literacy

Basic health literacy skills that are sufficient for individuals to obtain relevant health information (for example on health risks, and on how to use the health system), and to be able to apply that knowledge to a limited range of prescribed activities



Interactive Health Literacy

Advanced literacy skills that enable individuals to extract information and derive meaning from different forms of communication and to apply new information to changing circumstances



Critical Health Literacy

Advanced cognitive skills which, together with social skills, can be applied to critically analyze information, and to use this information to exert greater control over life events and situations.

Health Literacy Facts



Approximately 36% of adults in the United States have limited health literacy

22% of adults have basic health literacy
14% of adults have below basic health literacy



Racial and ethnic minorities have lower average health literacy scores than white adults



Approximately 76% of adults with no high school diploma/GED have below basic or basic health literacy levels

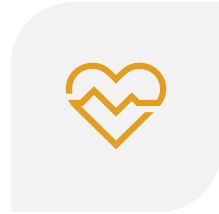


42% of the people who reported their health status as poor had below basic health literacy levels

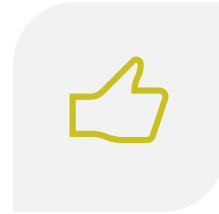
Factors Influencing Health Literacy



LEVEL OF EDUCATION



HEALTH STATUS



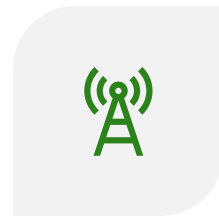
ENGLISH PROFICIENCY



USE OF PLAIN LANGUAGE
BY CLINICIANS AND
INTERPRETERS



ACCESS TO RESOURCES



SOCIAL NETWORKS



GEOGRAPHICAL
LOCATION

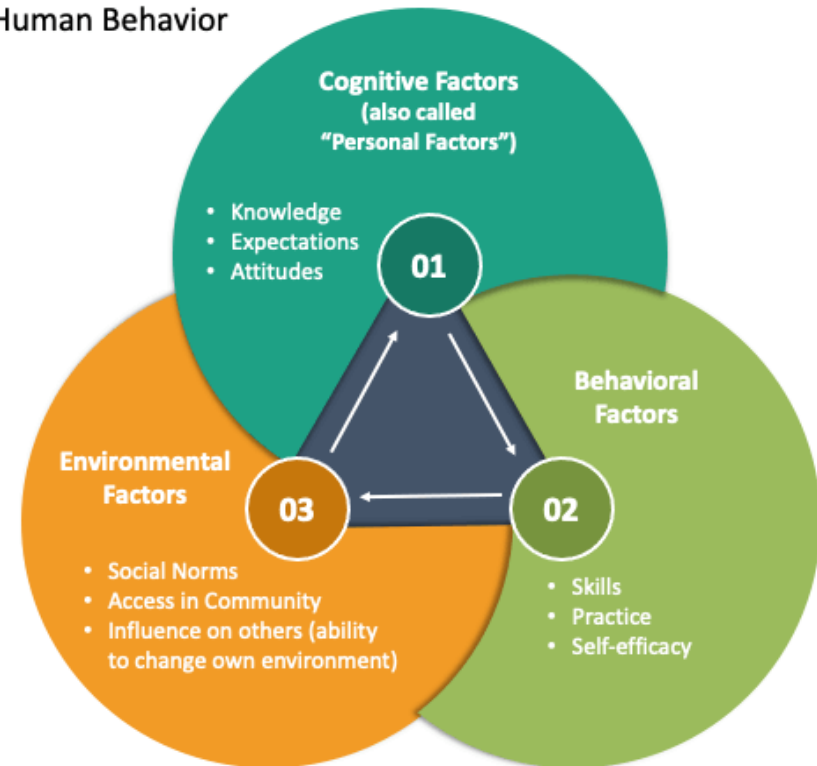
Theoretical Approach to Learning

Health Literacy is an ongoing process and not a "one and done" action

Enacting positive behavior change and improving self-management skills requires clinicians to address cognitive and behavioral factors and create an environment that is

SOCIAL COGNITIVE THEORY

Determines Human Behavior



Reciprocal Determinism

Patients and Health Literacy



Approaching patient's as if they are students:

Common knowledge as not actually "common".

Learners have different needs and varying levels of baseline knowledge.

Repetition and exposure is necessary for developing self-efficacy and self-management.



Acknowledging that medicine has developed it's own language (aka "medicalese") and therefore can feel "foreign" and intimidating to patient's

Patients and Health Literacy



Patients like students require a supportive and encouraging learning environment.



Selected education material should be appropriate for their level of education.



When possible patients should be offered multiple resources with different modalities (e.g. classes, video, pamphlets, interactive websites, and etc.)



Evaluation of their learning needs should be evaluated at each visit or when there is a change in treatment.

Why is Health Literacy Important?

Patients with low health literacy have:

lower self-efficacy (the confidence to complete a task)

chronic disease self-management skills

Health Literacy is important for:

Medication and treatment adherence

Measuring doses appropriately

Following appropriate schedules

Quality patient-provider communication

Understanding insurance benefits

Navigating the healthcare system

Completing forms

Scheduling follow up appointments

Locating clinic spaces

Health Outcomes and Health Literacy

patients with low
HEALTH LITERACY...



Are more likely to visit an
EMERGENCY ROOM



Have more
HOSPITAL STAYS



Are less likely to follow
TREATMENT PLANS



Have higher
MORTALITY RATES

www.cdc.gov/phpr



- Agency for Healthcare Research and Quality (AHRQ), only about 1 in 10 adults in the United States have the health literacy skills needed to easily navigate the U.S. healthcare system.
- Patients with low health literacy have:
 - Higher hospital admissions and ED visits
 - Lengthier hospital stays
 - Higher healthcare expenditures
 - Increased mortality

What does the research show?

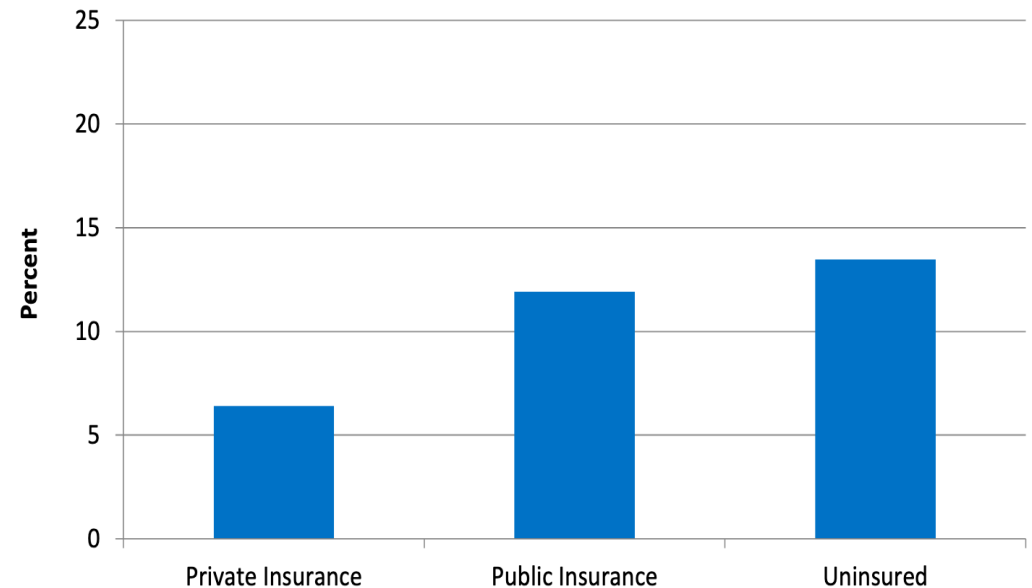
A 2016 study by Richard et al. and 2018 study by Laws et al. found that less than 50% of patients recalled information from their visits correctly.

In the study by Laws et al. those with less than a high school education recalled only 38% accurately versus 65% for the college educated.

In the study by Laws et al. open ended questions and teach back method were rarely used by providers which can influence recall.

Poor Communication Between Doctors and Patients, by Insurance Status

Adults who had a doctor's office or clinic visit in the last 12 months whose health providers sometimes or never explained things in a way they could understand, by insurance status, 2017



Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2017.

Note: For this measure, lower percentages are better.

Tools for Assessing and Developing Patient Education



The SMOG Index



Counting ten sentences near the beginning of the text, 10 in the middle and ten near the end, totaling 30 sentences



Counting every word with three or more syllables



Square-rooting the number and rounding it to the nearest 10



Adding three to this figure

Levels	
SCORE/ Grade	Education Level
1-4	Elementary School
5-8	Middle School
9-12	High School
13-16	Undergraduate
17+	Graduate

Simple Steps to Improve Health Literacy

Verbal Communication

- Avoid medical jargon

- Avoid dominating the conversation

- Use simple and plain language

- Allow patient time for questions

- Use an interpreter for non-native English speakers

Written Education

- 7th grade reading level or lower on all materials

- Use infographics and large fonts to increase comprehension and readability

- Provide in native language when possible

Plain Language and Health Literacy

- Use Federal Policy as Guide
 - Plain Writing Act of 2010 REQUIRES executive agencies to use plain language in all communication for public consumption.
- Plain language is clear language. It is simple and direct but not simplistic or patronizing.
- It is clear and concise, uses short sentences and simple words.
- It keeps to the facts and is easy to read and to understand.
- It is so clear, the reader can take in the writer's exact message in one reading.
 - **Nick Wright (Environmental Protection Agency)**
 - <https://www.plainlanguage.gov/about/definitions/clear-writing-and-plain-language/>

Plain Language Guide



Less is more! Be concise.



Break documents into separate topics.



Use even shorter paragraphs than on paper.



Use short lists and bullets to organize information.



Use even more lists than on paper.



Use even more headings with less under each heading.



Questions often make great headings.

Plain Language Guide



Present each topic or point separately, and use descriptive section headings.



Keep the information on each page to no more than two levels.



Make liberal use of white space so pages are easy to scan.



Write (especially page titles) using the same words your readers would use when doing a web search for the info.



Don't assume your readers have knowledge of the subject or have read related pages on your site. Clearly explain things so each page can stand on its own.



Eliminate unnecessary words.

Measuring Personal Health Literacy

- The Newest Vital Sign
 - A valid and reliable screening tool available in English and Spanish that identifies patients at risk for low health literacy.
 - Adults ages 18-64 years
 - Assessment takes 2 to 3 minutes.
 - Scoring
 - 0 to 1 correct answers = a high likelihood of limited health literacy
 - 2 to 3 correct answers = a possibility of limited health literacy
 - 4 to 6 correct answers = almost always indicates adequate health literacy

The Newest Vital Sign

Nutrition Facts	
Serving Size $\frac{1}{4}$ cup	
Servings Per Container 4	
Amount Per Serving	
Calories 250	Calories from Fat 120
<hr/>	
	<small>% Daily Value*</small>
Total Fat 13g	20%
Saturated Fat 9g	40%
Trans Fat 0g	
Cholesterol 28mg	12%
Sodium 55mg	2%
Total Carbohydrate 30g	12%
Dietary Fiber 2g	
Sugars 23g	
Protein 4g	8%
<hr/>	
Vitamin A 10%	• Vitamin C 0%
Calcium 20%	• Iron 0%
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.</small>	
Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract	

Participants were shown the nutrition facts label and asked the following questions.

1. If you eat the entire container, how many calories will you eat?
2. If you are told to eat 60 grams of carbohydrates as a snack, how much ice cream could you have?
3. Your doctor advises you to reduce the amount of saturated fat in your diet. You usually have 30g of saturated fat each day, which includes one serving of ice cream. If you stop eating ice cream, how many grams of saturated fat would you be consuming each day?
4. If you usually eat 2000 calories a day, what percentage of your daily value of calories will you be eating if you eat one serving?
5. Pretend that you are allergic to the following: Peanuts, latex gloves, and bee stings. Is it safe for you to eat this ice cream?
6. Why or why not? (Asked only if respondent answers no to question 5.)



Other Tools for Assessing Health Literacy

- **Personal Health Literacy**

- The Short Assessment of Health Literacy–Spanish and English (SAHL–S&E)

- Good reliability and validity
 - Present people being assessed with 18 test terms, one at a time.
 - You ask people to read the test term aloud and choose the word closer in meaning to the test term from two options – a key word with a related meaning and a distractor word unrelated in meaning to the test term.
 - This tests the subject's comprehension as well as pronunciation of health-related terms.
 - Administration of the test takes only 2-3 minutes and requires minimal training

Stem	Key or Distracter		Don't know
1. kidney	__urine	__fever	__don't know
2. occupation	__work	__education	__don't know
3. medication	__instrument	__treatment	__don't know
4. nutrition	__healthy	__soda	__don't know
5. miscarriage	__loss	__marriage	__don't know
6. infection	__plant	__virus	__don't know
7. alcoholism	__addiction	__recreation	__don't know
8. pregnancy	__birth	__childhood	__don't know
9. seizure	__dizzy	__calm	__don't know
10. dose	__sleep	__amount	__don't know
11. hormones	__growth	__harmony	__don't know
12. abnormal	__different	__similar	__don't know
13. directed	__instruction	__decision	__don't know
14. nerves	__bored	__anxiety	__don't know
15. constipation	__blocked	__loose	__don't know
16. diagnosis	__evaluation	__recovery	__don't know
17. hemorrhoids	__veins	__heart	__don't know
18. syphilis	__contraception	__condom	__don't know

Other Tools for Assessing Health Literacy

- **Personal Health Literacy**

- Rapid Estimate of Adult Literacy in Medicine—Short Form (REALM-SF)

- 7-item word recognition test to provide clinicians with a valid quick assessment of patient health literacy.
 - The REALM-SF has been validated and field tested in diverse research settings, and has excellent agreement with the 66-item REALM instrument in terms of grade-level assignments.

Score	Grade range
0	Third grade and below; will not be able to read most low-literacy materials; will need repeated oral instructions, materials composed primarily of illustrations, or audio or video tapes.
1-3	Fourth to sixth grade; will need low-literacy materials, may not be able to read prescription labels.
4-6	Seventh to eighth grade; will struggle with most patient education materials; will not be offended by low-literacy materials.
7	High school; will be able to read most patient education materials.

Rapid Estimate of Adult Literacy in Medicine— Short Form (REALM-SF)

- **REALM-SF Score Sheet**

- Patient ID #: _____ Date: _____ Examiner Initials:

- Behavior _____
Exercise _____
Menopause _____
Rectal _____
Antibiotics _____
Anemia _____
Jaundice _____
TOTAL SCORE _____

- **Administering the REALM-SF:**

- Suggested Introduction:
- "Providers often use words that patients don't understand. We are looking at words providers often use with their patients in order to improve communication between health care providers and patients. Here is a list of medical words.
- Starting at the top of the list, please read each word aloud to me. If you don't recognize a word, you can say 'pass' and move on to the next word."
- Interviewer: Give the participant the word list. If the participant takes more than 5 seconds on a words, say "pass" and point to the next word. Hold this scoring sheet so that it is not visible to the participant.

Resources for Creating a Health Literate Organization





National Action Plan to Improve Health Literacy

-
- All people have the right to health information that helps them make informed decisions.
 - Health services should be delivered in ways that are easy to understand and that improve health, longevity, and quality of life.

National Action Plan to Improve Health Literacy

- **7 goals that will improve health literacy and strategies for achieving them:**
 - **Develop and disseminate health and safety information that is accurate, accessible, and actionable**
 - **Promote changes in the health care system that improve health information, communication, informed decision-making, and access to health services**
 - Incorporate accurate, standards-based, and developmentally appropriate health and science information and curricula in child care and education through the university level
 - Support and expand local efforts to provide adult education, English language instruction, and culturally and linguistically appropriate health information services in the community
 - **Build partnerships, develop guidance, and change policies**
 - Increase basic research and the development, implementation, and evaluation of practices and interventions to improve health literacy
 - Increase the dissemination and use of evidence-based health literacy practices and interventions

Using the National Action Plan



Review:

Examine your organization's priorities and programs and ask how attention to health literacy could improve the organization's services and outcomes.



Choose:

Identify the goals and strategies in the plans that are most relevant to your programs.



Try:

Plan and implement strategies.



Evaluate:

Assess the effectiveness of chosen strategies.

10 Attributes of a Health Literate Healthcare Organization

Has leadership that makes health literacy integral to its mission, structure, and operations.

Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement.

Prepares the workforce to be health literate and monitors progress.

Includes populations served in the design, implementation, and evaluation of health information and services.

Meets the needs of populations with a range of health literacy skills while avoiding stigmatization.

10 Attributes of a Health Literate Healthcare Organization

Uses health literacy strategies in interpersonal communications and confirms understanding at all points of contact.

Provides easy access to health information and services and navigation assistance.

Designs and distributes print, audiovisual, and social media content that is easy to understand and act on.

Addresses health literacy in high-risk situations, including care transitions and communications about medicines.

Communicates clearly what health plans cover and what individuals will have to pay for services.

Health Literate Care Model

1

Approach all patients as if they are at risk of not understanding health information

2

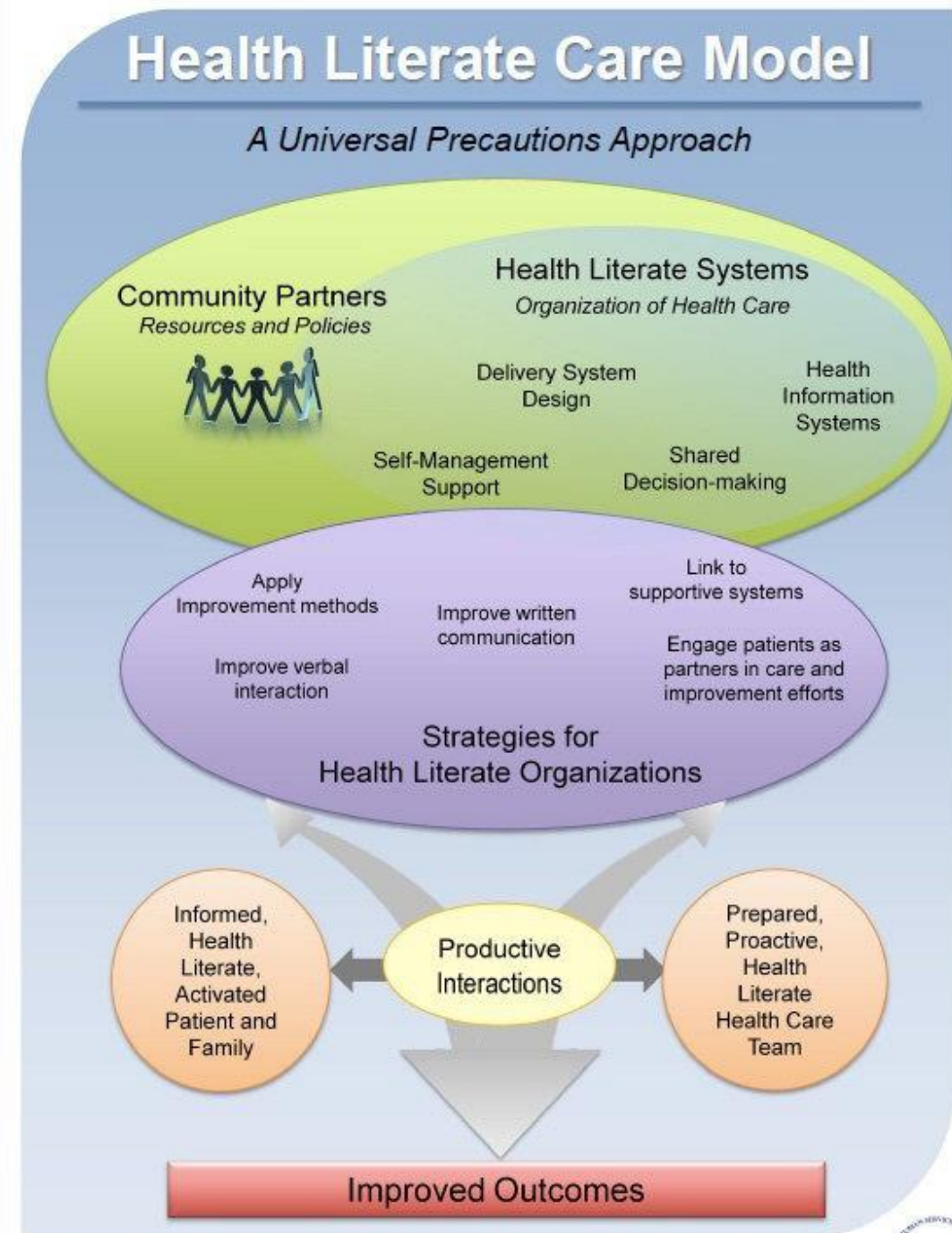
Employ a range of strategies for clear communication

3

Confirm that patients understand what providers are saying

Health Literate Care Model

- Emphasizes health literacy to be a cultural value.
- Removes the sole responsibility of health literacy away from patient.
- Increases patient engagement
- Identifies health literacy as a quality improvement measure.
- Incentives the delivery of quality care.
- Recommends incorporating health literate concepts into clinical information systems (e.g. scheduling reminders, chart data, etc.)
- Emphasizes community involvement and enhances the ability of patients to access and navigate community resources.



The SMOG Index



MOG stands for 'Simple Measure of Gobbledygook'.



The SMOG Index was created by clinical psychologist G. Harry McLaughlin. He wanted to create a simple readability formula. One which included polysyllabic words - words with multiple syllables.

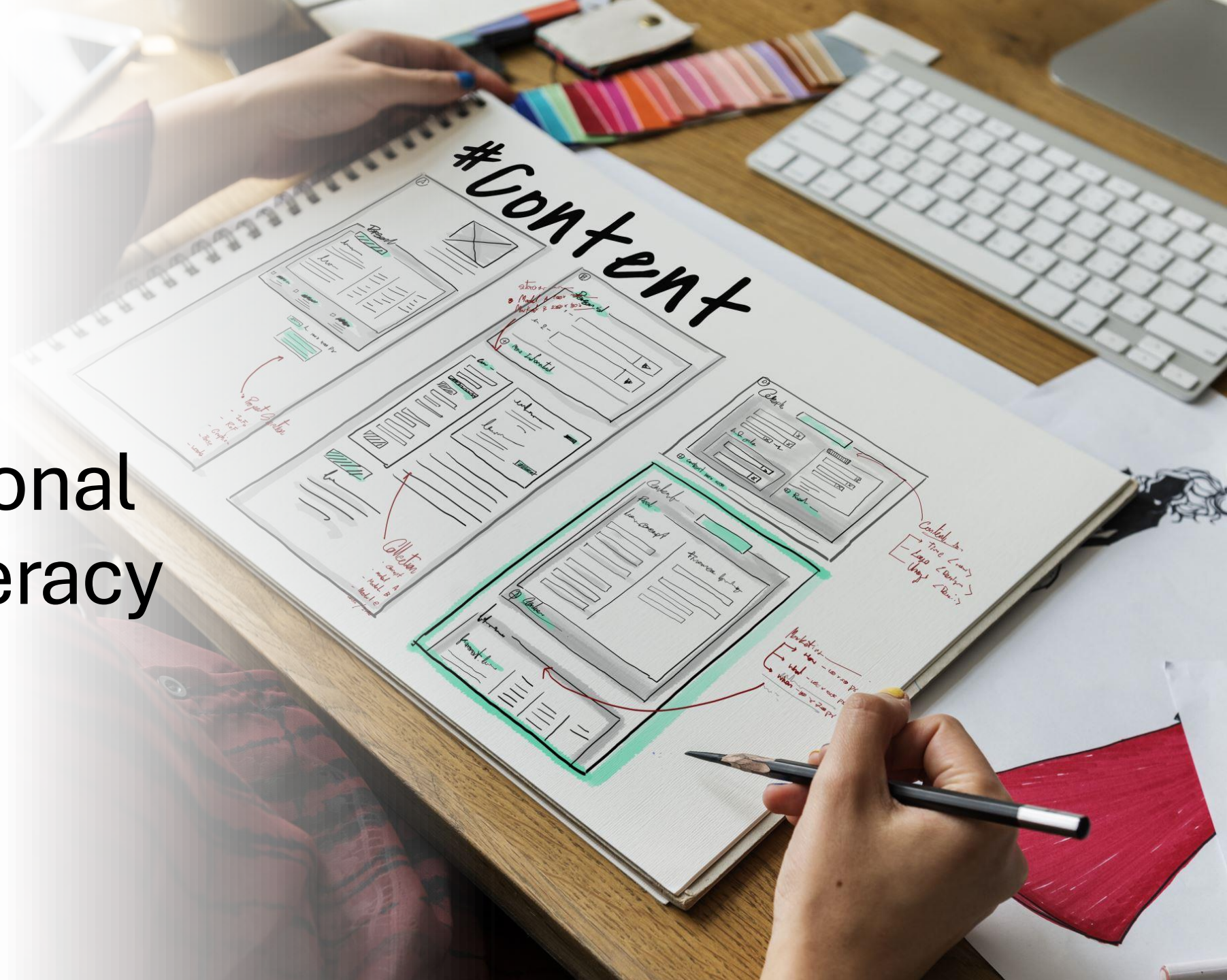


It is a readability framework. It measures how many years of education the average person needs to have to understand a text. It is best for texts of 30 sentences or more.



This was the length of text sampled in the creation of the formula.

Assessing Organizational Health Literacy



Assessing Organizational Health Literacy

- **Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Literacy Item Sets**
 - Ask about providers' efforts to foster and improve the health literacy of patients.
 - The primary goal of these supplemental items is to capture the patients' perspective on how well health information is communicated to them by health care professionals.
 - They are intended to serve as both a measure of whether health care professionals have succeeded in reducing the health literacy demands they place on patients, and as a tool for quality improvement.

(CAHPS) Health Literacy Item Sets



The items address the following five topic areas:

- Communication with providers
- Communication about self-management of diseases and conditions
- Communication about medicines
- Communication about tests and test results
- Communication about forms



Has 3 content areas:

- Items for Clinician and Group Survey
- Items for Health Plan Survey
- Items for Hospital Survey

(CAHPS) Health Literacy Item Sets

- Health Literacy Items for Clinicians & Groups
 - How Well Providers Communicate About Medicines
 - C-HL15. Provider gave easy to understand instructions about medicines
 - C-HL16. Provider gave easy to understand explanations about possible side effects of medicines
 - C-HL17. Provider suggested ways to help patient remember to take medicines
- Health Literacy Items for Hospitals
 - How Well Hospital Staff Explain Tests and Test Results
 - H-HL20. Hospital staff explained what a blood test, x-ray, or other test was for
 - H-HL21. Explanation of blood test, x-ray, or other test was easy to understand
 - H-HL22. Hospital staff explained blood test, x-ray, or other test results to patient
 - H-HL23. Blood test, x-ray, or other test results were easy to understand
 - Ease of Filling Out Forms
 - H-HL25. Staff explained the purpose of a form before patient signed it
 - H-HL27. Staff offered patient help in filling out a form
 - H-HL28. Forms were easy for patient to fill out
 - H-HL29. Patient was given enough time to fill out forms

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QUESTIONS?