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MEDICINE

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OHSU CURRICULUM TRANSFORMATION

Health Literacy and Clear Communication for Coordinated Care Organizations

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Disclosures/Conflict of Interest

I have no relevant financial relationships with commercial interests.

Session objectives

- ☐ Define “health literacy.”
- ☐ Discuss the prevalence of low health literacy, and how all patients are at risk for communication errors.
- ☐ Describe reasons why a “universal precautions” approach to health communication is needed when working with all patients/clients.
- ☐ List at least 5 clear communication best practices, and ways that CCOs can promote clear communication for members.

Overview

- Health literacy in the U.S.
- Organizational health literacy
- Break
- Best practices for clear communication
- Additional resources
- Q and A



“The greatest problem with communication
is the illusion it has occurred”

- Attributed to George Bernard Shaw

Institute of Medicine report, 2004

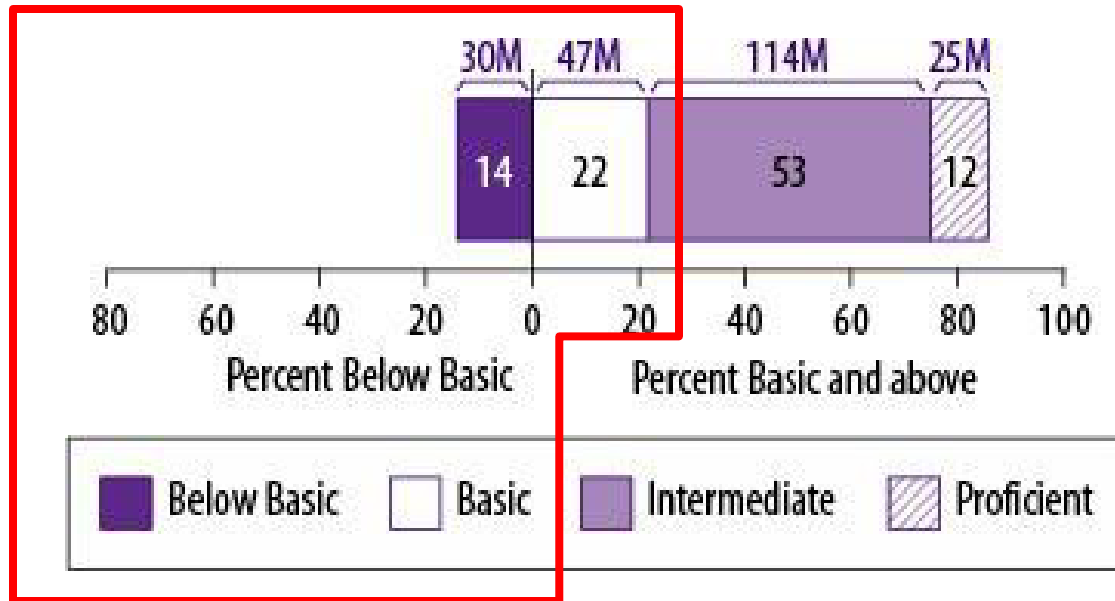


Health literacy

Personal health literacy – the ability to find, understand, and use information and services to inform health-related decisions and actions.

(HHS, 2020)

36% of U.S. adults have low health literacy at baseline

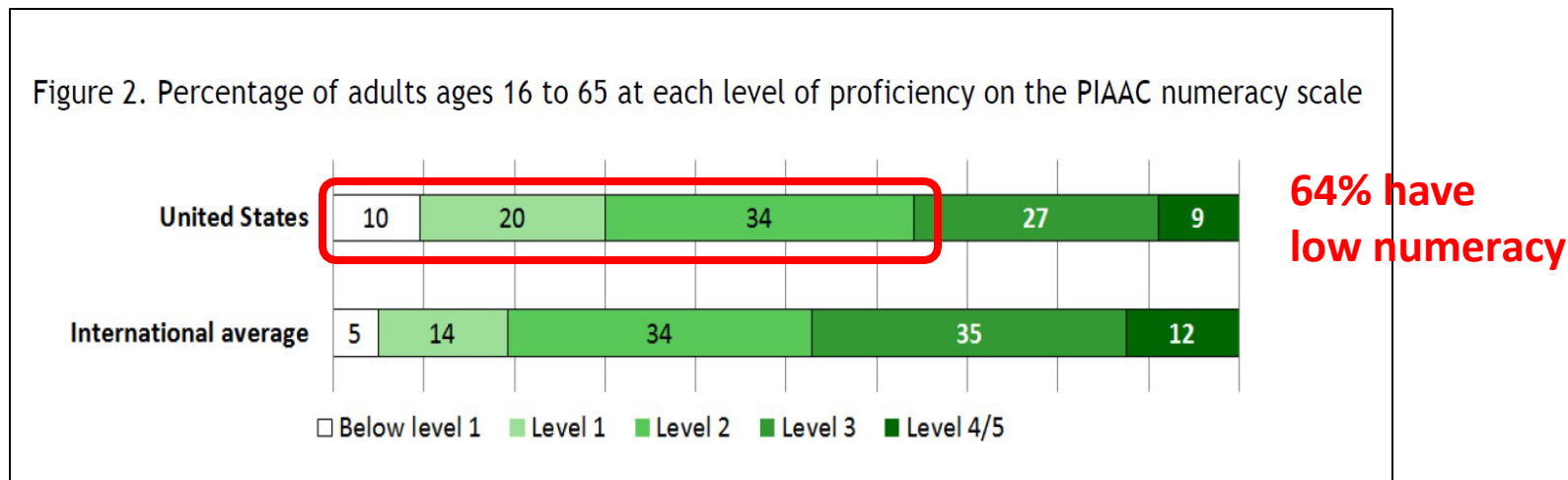


(Kutner et al, 2006)

Numeracy skills of U.S. adults

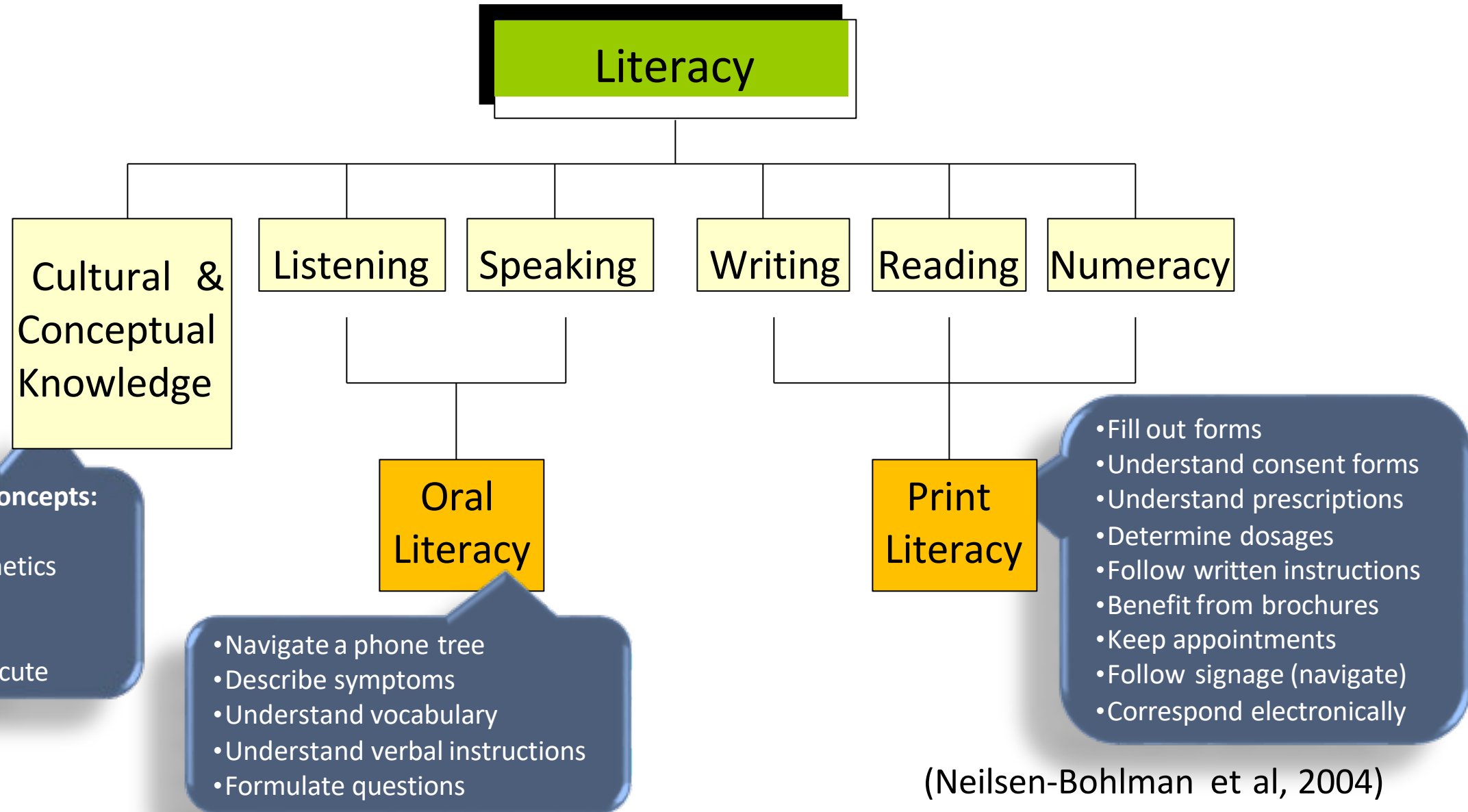
The knowledge and skills needed to understand and act on numerical information and concepts encountered in routine oral and written communications

(Coleman et al, 2013)



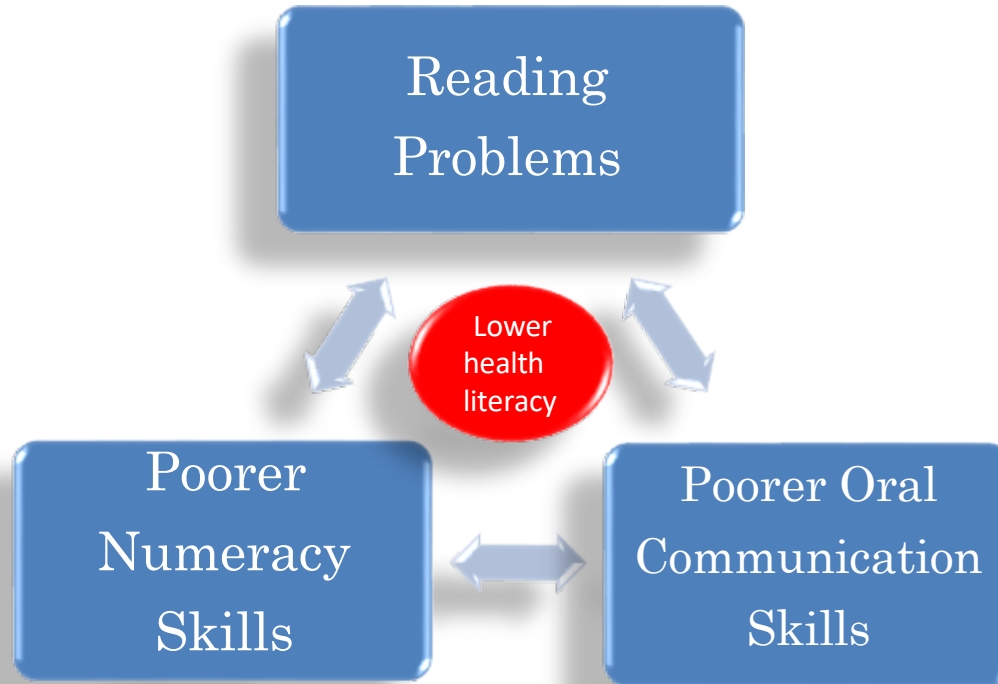
(US Dept. of Education, 2012)

We put a lot of literacy demands on patients and caregivers.



(Neilsen-Bohlman et al, 2004)

Reading skills predict other skills



Reading ability vs. comprehension

In a study of adults with literacy below the 6th grade level:

- Most U.S. adults can read (and write, speak, listen, and use numbers)
- The problem is language comprehension and utilization

Reading ability vs. comprehension (cont.)

- 71% correctly read the instruction to “take two tablets by mouth twice daily”
- Only 35% could demonstrate the number of pills to actually take



(Davis et al, 2006)

Please read this out loud...

(Hint: some words are backwards!)

“Do not tlit the nemiceps dnoyeb the stimil. Eseht sgnittes
lliw erusne the reporp tnemngila of the refsnart rod nihtiw
the elpmas redloh. Siht lliw osla tneverp a ylwen-decudortni
elpmas morf gnikaerb the derettacskcab nortcele rotceted”

What does it mean?

Why is it hard to understand?

The answer...

“Do not tilt the specimen beyond the limits. These settings will ensure the proper alignment of the transfer rod within the sample holder. This will also prevent a newly-introduced sample from breaking the backscattered electron detector.”

Literacy is “context specific”

Health literacy skills of US adults

- 42% of patients misinterpreted directions to “take medication on an empty stomach.”
(Williams et al, 1995)
- 63% of orthopedics patients did not know that a “fracture” means a broken bone.
(Cosic, Kimmel, Edwards, 2019)
- 72% of pre-operative patients misinterpreted the term, “fasting.”
(Hume et al, 1994)
- In 2018, 50% of U.S. adults believed that “antibiotics kill viruses as well as bacteria.”
(National Science Board, 2020)
- In June 2021, 25% thought that COVID-19 vaccines can cause SARS-CoV-2 infection.
(Annenberg Public Policy Center, 2021)

What do New Yorkers know?

39-second excerpt from “Health and the City” (Svet, 2011). Full video at:

<https://www.youtube.com/watch?v=iFCblxW4db0>

Rapid Estimate of Adult Literacy in Medicine (REALM)

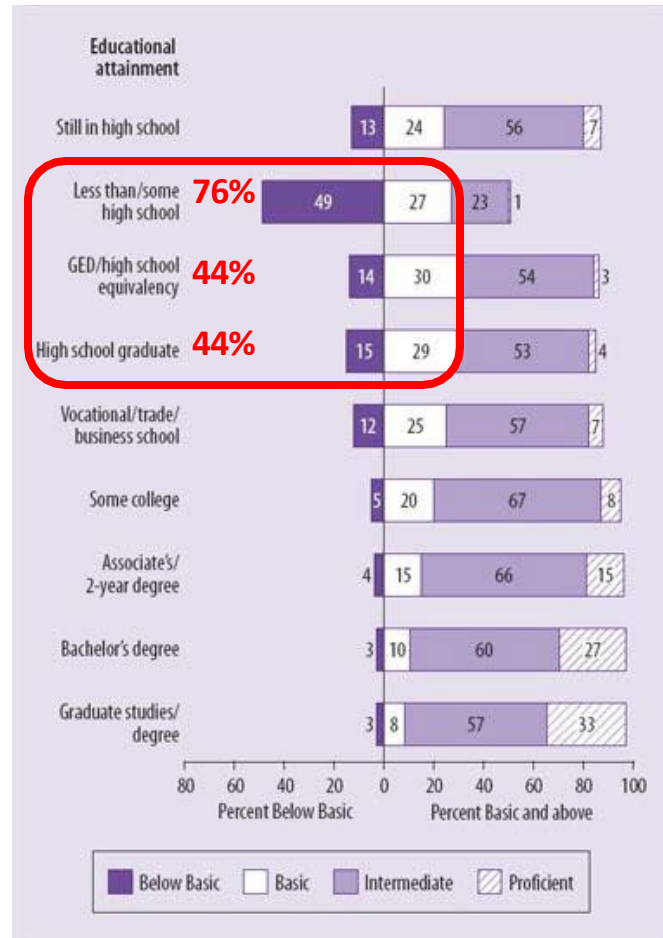
Fat	Fatigue	Allergic
Flu	Pelvic	Menstrual
Pill	Jaundice	Testicle
Dose	Infection	Colitis
Eye	Exercise	Emergency
Stress	Behavior	Medication
Smear	Prescription	Occupation
Nerves	Notify	Sexually
Germ	Gallbladder	Alcoholism
Meals	Calories	Irritation
Disease	Depression	Constipation
Cancer	Miscarriage	Gonorrhea
Caffeine	Pregnancy	Inflammatory
Attack	Arthritis	Diabetes
Kidney	Nutrition	Hepatitis
Hormones	Menopause	Antibiotics
Herpes	Appendix	Diagnosis
Seizure	Abnormal	Potassium
Bowel	Syphilis	Anemia
Asthma	Hemorrhoids	Obesity
Rectal	Nausea	Osteoporosis

# correctly pronounced	Grade reading level
0-18	≤3rd
19-44	4 th -6 th
45-60	7 th -8 th
61-66	≥9 th

The average English-speaking U.S. adult reads at the 8th grade level (Kutner et al, 2005)

(Davis et al, 1993)

Inadequate baseline health literacy by education



(Kutner et al, 2006)



3:41 excerpt from “Health Literacy and Patient Safety” (AMA Foundation, 2008). Full video at:

<http://www.amafoundation.org/go/healthliteracy>



ED—Emergency department
F/U—Follow up
HCP—Health care professional
PP—Prior to seeing physician

(AMA Foundation, 2007)



"School Lost and Confused Signpost" by Wonder woman0731, licensed under CC BY 2.0

Lower health literacy is linked with...

- ↓ Use of preventive services (e.g., vaccinations, screenings, wellness visits).
- ↓ Understanding about medications and how to take them.
- ↑ Burden of chronic disease (e.g., diabetes, hypertension).
- ↑ Difficulty navigating the health care system.
- ↑ Use of emergency services instead of primary care.
- ↑ Risk of hospitalization.
- ↑ Risk of readmission within 30 days after hospital discharge.
- ↑ Risk of dying.
- ↑ Risk of racial and ethnic health disparities.
- ↑ Cost – \$238 billion annually.

(Vernon, 2007; Berkman et al, 2011; Mantwill et al, 2015; Mitchell et al, 2012; Muvuka et al, 2020)

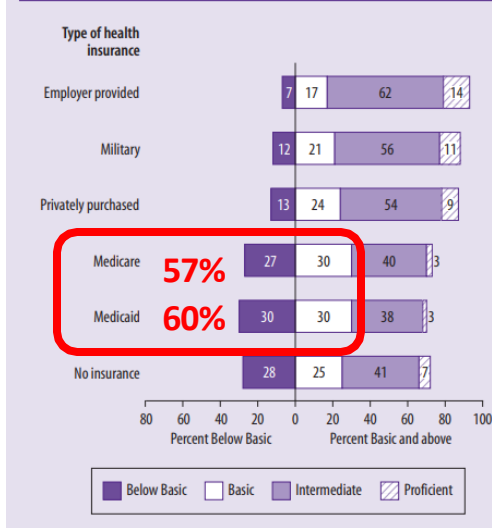
Health insurance literacy

- The “... knowledge, ability, and confidence to find and evaluate information about health plans...and use the plan once enrolled.”
(Quincy, 2011)
- Lower health insurance literacy associated with lower use of primary care and preventive services, and greater avoidance or delay in care.
(Yagi et al, 2021)
- Differences in health insurance literacy may be a source of racial and ethnic health disparities.
(Villagra et al, 2019)

Communities disproportionately affected by low health literacy

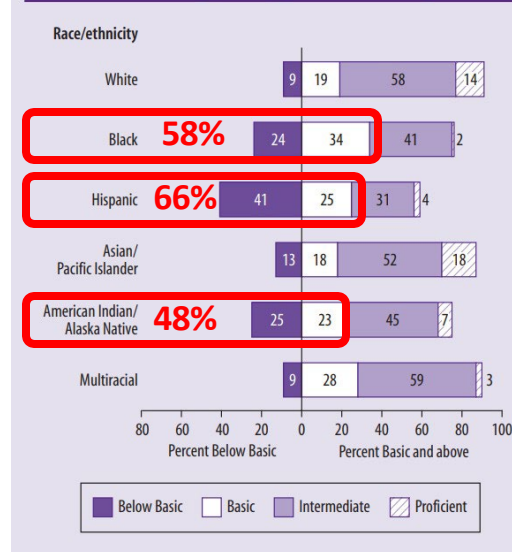
Publicly insured

Figure 3-4. Percentage of adults in each health literacy level, by type of health insurance coverage: 2003



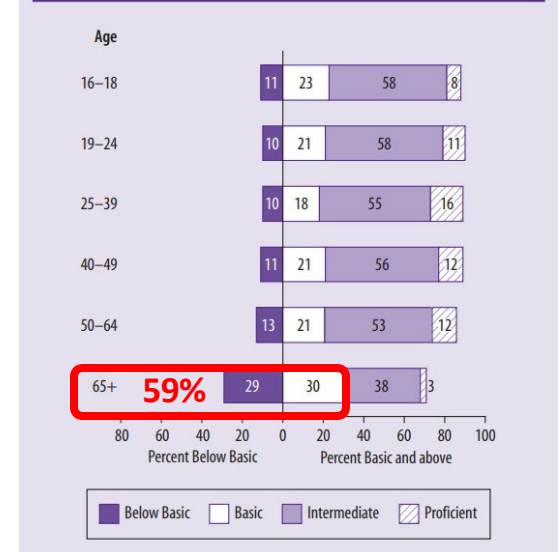
Educationally disadvantaged racial/ethnic groups

Figure 2-5. Percentage of adults in each health literacy level, by race/ethnicity: 2003



Older adults

Figure 2-7. Percentage of adults in each health literacy level, by age: 2003



Health literacy (organizational)

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

(HHS, 2020)

Studies show – health care workers lack adequate...

- Awareness
- Knowledge
- Skills
- Attitudes
- Practices

(Coleman, 2011; Coleman et al, 2017a; Schwartzberg et al, 2007; Toronto et al, 2015)

OHSU inpatient whiteboard communication

Date: Saturday 11/14/15
MD: West
Reason for Visit: Low blood sugar
Hypoglycemia

Passed out s:
Syncope
Weakness

My plan
Plan Today: DTV 6-8p
Activity: 2 PA & WALKER
Pain medications
oxycodone

Plan Today: lan
• Keep walking
• Water pill by mouth
★ Incontinence Care at ALF
Activity: Balance activity with rest
Stand by assist - generalized weakness w/ walker
Daily wt / Monitor urine output
Discharge: - Bladder scan Q6
SUNDAY

Plan Today:
RN: Aaron
CNA: Landon
Broken arm
fx humerus @ side
Team:

My Plan
Plan Today:
- Go to the bathroom
- Try to walk
Discharge: DC when you can eat, drink & have less pain
Activity: Call before you get up because you are dizzy

Diagnosis: ground level fall
new-onset A-fib
IPA w/ cane

My Plan
Diagnosis: Graft revision
Plan Today: Elevate @ arm & monitor
bruit & thrill
- Titrate
- Walk

Plan Today: lan
• PT EVAL CONTINUE WALKING
• I & O, WEIGHT CHECK
• CONTINUE DISCUSSION w/ Urology + HEART DOCTORS
Activity: Balance activity with rest
Stand by assist - generalized weakness w/ walker
Daily wt / Monitor urine output
Discharge: Bladder scan Q6
6 A Follow up (3-4 days)

Example OHSU inpatient Discharge Summary

You were admitted with altered mental status that we think is due to hepatic encephalopathy (build up of ammonia in your body). You are susceptible to accumulating ammonia in your body because of your liver disease. The only way for you to get rid of it is through your bowel movements. To prevent this from happening in the future, it is very important that you take lactulose at least 3 times a day (more often if needed) to have at least 2 or 3 bowel movements per day. We also found that you had a urinary tract infection so we are sending you home on an antibiotic called ciprofloxacin to complete a 7 day course; you need to take it twice a day for 4 more days. It is very important that you take all of the antik treated.

Flesch reading ease score:
66
Automated readability index:
9.3
Flesch-Kincaid grade level:
9.3
Coleman-Liau index:
7.9
Gunning fog index:
13.3
SMOG index:
11.8

Jargon	Plain language
Admitted	Put in the hospital
Altered mental status	Trouble thinking
Hepatic encephalopathy	Build up of ammonia
Accumulating	Building up
Lactulose	The liquid medicine called Lactulose

(Coleman & Hadden, unpublished)

OHSU patient prescriptions

"STROKE"

Requested Medications



ELIQUIS 5 MG TABLET

Will file in chart as: ELIQUIS 5 mg tab
take 1 tablet by mouth twice a day TO PREVENT
THROMBOEMBOLISM

Disp: 60 Tab (Pharmacy requested 60)

Refills: 0

Class: e-Prescribing

Start: 2/15/2018

Documented: 4 months ago

Last refill: 12/9/2017



DULOXETINE HCL DR 60 MG CAP

Will file in chart as: DULoxetine (CYMBALTA) 60 mg DR capsule

take 1 capsule by mouth once daily VIA FEEDING TUBE
FOR CHRONIC MUSCLESKELETAL PAIN

Disp: 30 Cap (Pharmacy requested 30)

Refills: 0

Class: e-Prescribing

Start: 2/15/2018

Documented: 2 months ago

Last refill: 12/9/2017

To be filled at: RITE AID-7440 N DENVER AVE. -
PORTLAND, OR
Phone: 503-286-5680

Source: Coleman, C



"BACK PAIN"

(Coleman & Hadden, unpublished)

MyChart

OHSU

Trouble Logging In?

This form is to be used to obtain technical assistance for login related issues. Please complete the following form if your account has been disabled, if you need a password or recovering your OHSU MyChart username, or if you are experiencing difficulty logging in for urgent medical matters. Please allow until the end of the next business day for a response. If you have a need that requires a quicker response, please call your healthcare provider.

Re-activating your account - when we re-activate your account, your username will be the same as the one you have forgotten your username or password you can use the online tools for assistance.

Additional Help Recovering your Username - we will send you your username via email to your patient record. If you have forgotten your password, you can use the online tools for assistance.

Additional Help Resetting your Password - we will send you a temporary password via email to your patient record. Once you log in with your temporary password, MyChart will allow you to reset your password.

Account Activation Issues - if your activation code has expired, we will send you a new activation code via email to your patient record, if you do not have an email address on file, we will send you a new activation code via mail.

* = required field

First Name*:

Last Name*:

DOB (MM/DD/YYYY)*:

Telephone*:

Zip Code*:

Email Address:

MyChart Username:

OHSU Medical Record Number:

READABILITY INDICES

Flesch Kincaid Reading Ease	53.5	
Flesch Kincaid Grade Level	10.8	
Gunning Fog Score	13.4	
SMOG Index	10.1	
Coleman Liau Index	12.8	
Automated Readability Index	11.4	

Webfx. Readability Test Tool. <https://www.webfx.com/tools/read-able/>

Cut?



33-page glucometer manual written at 9th grade reading level

http://diabetestype2.ca/diary/research/meters/ultra_ob.pdf

Readability

- Flesch-Kincaid: 12th grade reading level
- Gunning-Fog Index: 19th grade to understand it

Jargon

- Vaccine recipients
- COMIRNATY (COVID-19 Vaccine, mRNA)
- Pfizer-BioNTech COVID-19
- Emergency Use Authorization (EUA)
- Coronavirus Disease 2019 (COVID-19)
- SARS-CoV-2
- FDA-approved
- Primary series
- Immunocompromise

**VACCINE INFORMATION FACT SHEET FOR RECIPIENTS AND CAREGIVERS
ABOUT COMIRNATY (COVID-19 VACCINE, mRNA)
AND THE PFIZER-BIONTECH COVID-19 VACCINE TO PREVENT CORONAVIRUS
DISEASE 2019 (COVID-19) FOR USE IN INDIVIDUALS 12 YEARS OF AGE AND
OLDER**

FOR 12 YEARS OF AGE AND OLDER

You are being offered either COMIRNATY (COVID-19 Vaccine, mRNA) or the Pfizer-BioNTech COVID-19 Vaccine to prevent Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2.

This Vaccine Information Fact Sheet for Recipients and Caregivers comprises the Fact Sheet for the authorized Pfizer-BioNTech COVID-19 Vaccine and also includes information about the FDA-licensed vaccine, COMIRNATY (COVID-19 Vaccine, mRNA) for use in individuals 12 years of age and older.

The FDA-approved COMIRNATY (COVID-19 Vaccine, mRNA) and the Pfizer-BioNTech COVID-19 Vaccine authorized for Emergency Use Authorization (EUA) for individuals 12 years of age and older, when prepared according to their respective instructions for use, can be used interchangeably.¹

COMIRNATY (COVID-19 Vaccine, mRNA) is an FDA-approved COVID-19 vaccine made by Pfizer for BioNTech. It is approved as a 2-dose series for prevention of COVID-19 in individuals 16 years of age and older. It is also authorized under EUA to provide:

- a 2-dose primary series to individuals 12 through 15 years of age;
- a third primary series dose to individuals 12 years of age and older with certain kinds of immunocompromise;
- a first booster dose to individuals 12 years of age and older who have completed a primary series with Pfizer-BioNTech COVID-19 Vaccine or COMIRNATY (COVID-19 Vaccine, mRNA);
- a first booster dose to individuals 18 years of age and older who have completed primary vaccination with another authorized or approved COVID-19 vaccine. The booster schedule is based on the labeling information of the vaccine used for the primary series;
- a second booster dose to individuals 50 years of age and older who have received a first booster dose of any authorized or approved COVID-19 vaccine; and

¹ When prepared according to their respective instructions for use, the FDA-approved COMIRNATY (COVID-19 Vaccine, mRNA) and the EUA-authorized Pfizer-BioNTech COVID-19 Vaccine for individuals 12 years of age and older can be used interchangeably without presenting any safety or effectiveness concerns.



- a second booster dose to individuals 12 years of age and older with certain kinds of immunocompromise and who have received a first booster dose of any authorized or approved COVID-19 vaccine.

Jargon



Triglycerides
Cholesterols
Compounds
Risks
Cardiovascular disease

Medical resident interviewing standardized patient actor,
during Observed Structured Clinical Examination, OHSU, 2010



Component Results

Component

Your Value

Standard Range

Flag

TSH

Your Value
4.82 uIU/mL

Standard Range
0.47 - 7.11 uIU/mL

“Lay” jargon has different meanings inside and outside of healthcare contexts

Component results

Component Results			
Test name	Your test result	Normal range for this test	What it means
Component	Your Value	Standard Range	Flag
TSH (Thyroid Stimulating Hormone)	4.82 uIU/mL	0.47 - 7.11 uIU/mL	Normal

SURGICAL PATHOLOGY - Details

Component Results

Component Your Value

Clinical
History

Your Value
SUSPICIOUS THYROID NODULE

Final

Pathologic
Diagnosis

Your Value

A. Neck, Pre-Laryngeal Tissue, Excision:

- Adipose tissue and skeletal muscle.
- Negative for malignancy.

B. Neck, Right Lobe and Isthmus, Hemithyroidectomy:

- Nodular hyperplasia with areas of cystic degeneration, please see comment.
- Biopsy site changes identified.

Comment: Groups of cells with nuclear irregularities including nuclear inclusions and grooves are identified that may represent what was sampled. Additional levels of the inferior nodule were examined. No malignancy is identified in this specimen.

Case seen by:



"Gerard Eddom looking confused" by yhaartmeester, licensed under CC BY-SA 2.0

Results letter

Dear ___,

I am sending you this letter to make you aware that the recent biopsies of the **nodular mucosa** in your rectum did not contain any abnormalities. Certainly, this is good news. My suspicion is that these changes were caused by your previous hemorrhoid surgery.

As you are aware, you have internal hemorrhoids present in the rectal area. Most likely, these hemorrhoids are the cause of your **heme-positive stool**. Given the fact that you had no **polyps** on your colonoscopy, follow-up colonoscopy would be advised in 10 years for screening purposes. Our office will attempt to contact you at that time to arrange that examination.

If you have any questions about the above information, please do not hesitate to contact me. Thank you for allowing me to participate in your care.

Sincerely,

___, MD



The Health Literacy Gap

Health literacy

Individual
Skills &
Abilities

Complexity &
Demands of
Health and the
Healthcare
System

Clear Communication

(Carlisle et al, 2011)

Clear communication

Written or spoken communication which helps patients to understand and act on health care information

(Pfizer Inc., 2004)

Health Literacy Practices and Educational Competencies for Health Professionals: A Consensus Study

CLIFFORD A. COLEMAN

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STAN HUDSON

Center for Health Policy, University of Oregon

LUCINDA L. MAINE

American Association of Colleges of Podiatric Medicine

Original Research

Prioritized Health Literacy and Clear Communication Practices For Health Care Professionals

Cliff Coleman, MD, MPH; Stan Hudson, MA; and Ben Pederson, MD

ABSTRACT

Background: Health care professionals need more and better training about health literacy and clear communication to provide optimal care to populations with low health literacy. A large number of health literacy and clear communication practices have been identified in the literature, but health professions educators, administrators, and policymakers have lacked guidance regarding which practices should be prioritized among members of the health care workforce. **Objective:** This study sought to prioritize recommended health literacy and clear communication practices for health care professionals. **Methods:** A Q-sort consensus

(Coleman et al, 2017b; Coleman et al, 2013)

5 Best Practices

1. Follow “universal precautions” for health communication
2. Use plain non-jargon language
3. Avoid information overload
4. Use “teach-back”
5. Provide/create easy-to-read materials and messages

(Coleman, Hudson, & Pederson, 2017b)

5 Best Practices (#1)

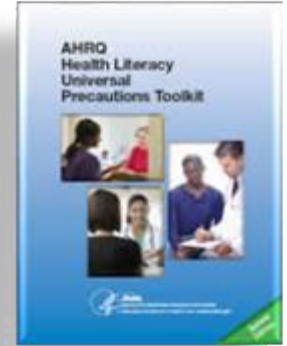
1. Follow “universal precautions” for health communication

Why “universal precautions”?

- Low health literacy is common (Kutner et al, 2006)
- People hide their lack of understanding due to shame (Parikh et al, 1996)
- You can't tell by looking who is understanding (Coleman, Hudson, Maine, 2013)
- Health literacy screening is not appropriate (Paasche-Orlow & Wolf, 2008)
- All patients prefer simple messages (Sudore et al, 2007; Davis et al, 1998)

How to apply “universal precautions”?

- Treat all patients with the same dignity and respect.
- Assume *all* are at risk for low health literacy in any given moment.
- Do not attempt to modulate the complexity of information based on perceived patient characteristics.
- Use clear communication best practices as default with *all* patients:
 - Avoid unnecessary undefined jargon
 - Limit information overload (1-3 key messages)
 - Use teach-back to confirm understanding



(DeWalt et al, 2010)

Won't some patients be offended?

- All patients, regardless of education or literacy skills, prefer clear communication.

(Sudore et al, 2007; Davis et al, 1998)

- Clear plain-language communication is not “dumbing down.”

(HHS, 2012)

5 Best Practices (#2)

2. Use plain non-jargon language

(Coleman, Hudson, & Pederson, 2017b)

COVID-19 jargon

- Antibodies
- Asymptomatic
- Booster
- Breakthrough case
- Close contact
- Contagious
- COVID-19/ SARS-CoV-2/ coronavirus
- Droplet
- Endemic
- Exposure
- Fever (100.4 F)
- Flatten the curve
- Hand hygiene
- Herd immunity
- ICU
- Immunization/ Immune system
- Incubation period
- Infection
- Intubation
- Isolation
- Ivermectin
- Life support
- Monoclonal antibodies
- N95
- Outbreak
- Pandemic
- Pneumonia
- Quarantine
- Reaction
- Respiratory/Respirator
- Risk
- mRNA
- Severe
- Shedding
- Social distancing
- Transmission/Transmissibility
- Vaccine/vaccination
- Variant
- Virus/viral

Three types of medical jargon

Table 2: Medical Jargon

Jargon Type	Description	Examples		
		Words	Phrases	Concepts
Technical	Words, phrases or concepts with <u>meaning only in a clinical context</u>	• Glucometer • Cardiologist • Insomnia • Abdomen • Cath lab • Ortho • Hypertension • Hemoglobin A1c • Speculum	Acronyms: • GERD • COPD • UTI • IV fluid • Advance directive • After Visit Summary (AVS)	• Follow-up • Referral • Chronic • PRN • PCP • Contagious
Quantitative	Words, phrases or concepts <u>requiring clinical judgment or knowledge</u>	• Unlikely • Increased • Tablespoon • High fever	• Excessive wheezing • Twice daily	• Risk
Lay	Words, phrases or concepts with <u>two or more meanings</u> or interpretations, one of which is medical	• Stable • Abnormal • Stool • Frequency • Course • Positive • Negative • Tissue • Tongue blade • Admitted • Diet	Idioms: • Come down with • Break out • Run a fever • Stomach bug	• Take on an empty stomach

Plain language alternatives

- **Hypertension**
 - High blood pressure
- **Abdomen**
 - Belly, tummy
- **Vaccine (immunization)**
 - Shot
- **PRN**
 - If you need it
- **Immune compromised**
 - Weaker ability to fight off infections
- **After visit summary (AVS)**
 - Notes about today's appointment
- **Consent form**
 - A form you sign that says you agree to
- **Deductible**
 - The amount you have to pay before your insurance starts paying

5 Best Practices (#3)

3. Avoid information overload

Avoid information overload

- Patients typically retain only 50% of what clinicians say
 - And half of what they do recall is incorrect!

(Kessels 2003; McCarthy et al, 2012)
- Working memory is quickly overloaded.
- Illness, stress, and anxiety lower one's attention, retention, understanding, and recall.

(Kripalani & Weiss, 2006 ; Schwartzberg et al, 2007)

How to avoid information overload

Figure 2. Avoid Information Overload – Limit to 1-3 “need-to-do” recommendations

- ❑ Elicit patients’ prior knowledge on a topic, in order to reduce unneeded redundancy. For example, ask, *“What have you already learned about high blood pressure?”*
- ❑ Limit unnecessary background information, such as pathophysiologic details, which is not likely to affect patients’ decision-making or behavioral responses (action). Written handouts can provide background information for those patients who want it.
- ❑ Identify 1-3 priority “need-to-know” or “need-to-do” action items. For example:
 1. *“Your main problem is __.”*
 2. *“To take care of this, I recommend __.”*
 3. *“Doing this is important because __.”*
- ❑ Repeat the 1-3 priority “need-to-do” items frequently, and summarize them at the end of the encounter.
- ❑ Ask, *“What additional information would you like today?”*
- ❑ Reinforce the 1-3 priority “need-to-do” items in writing, to help facilitate recall later.
- ❑ Arrange follow-up for giving additional information or recommendations as needed. (Coleman, unpublished)

5 Best Practices (#4)

4. Use “teach-back”

Teach-back to confirm communication

Don't ask: *"Do you understand?" "Does that make sense?" or "Do we have a good plan?"*

- Implies that patients *should* understand. If they don't, something must be wrong with them...
- Patients do not answer this honestly.



Closed-ended

Use: a "teach-back" or "show-me" technique. Say:

- *"I want to make sure I have explained things clearly. In your own words how are you going to use this medicine?"*
- *"How would you explain this plan to your partner?"*
- *"Show me how you use this inhaler."*



Open-ended

(Schillinger et al, 2003)

Research on “teach-back”

- A “top safety practice.”

(National Quality Forum, 2003)

- Associated with better glycemic control in people with diabetes.

(Schillinger et al, 2003)

- Does not take longer than standard care (about 1 minute).

(Schillinger et al, 2003; Kripalani & Weiss, 2006)

Teach-back



1-minute excerpt from “OHSU’s 4 Habits for Patient-Centered Care.” Full video at:
<https://echo360.org/media/fd62fe6e-80f9-4a44-b1d2-745529417dba/public>

5 Best Practices (#5)

5. Provide/create easy-to-read materials and messages

Clear writing

Content & style

- Identify the reason for the writing
- Put essential info first
- Avoid information overload; Limit non-essential info
- Answer the patient's 3 questions: "1) What is my main problem? 2) What do I need to do about it? 3) Why is doing this important?"
- Avoid jargon
- Avoid polysyllabic words
- Limit numeracy demands; do any necessary calculations for the patient
- Use the active voice
- Use conversational tone
- Write at 5th-6th grade reading level
- Include time parameters and indication for all medication orders

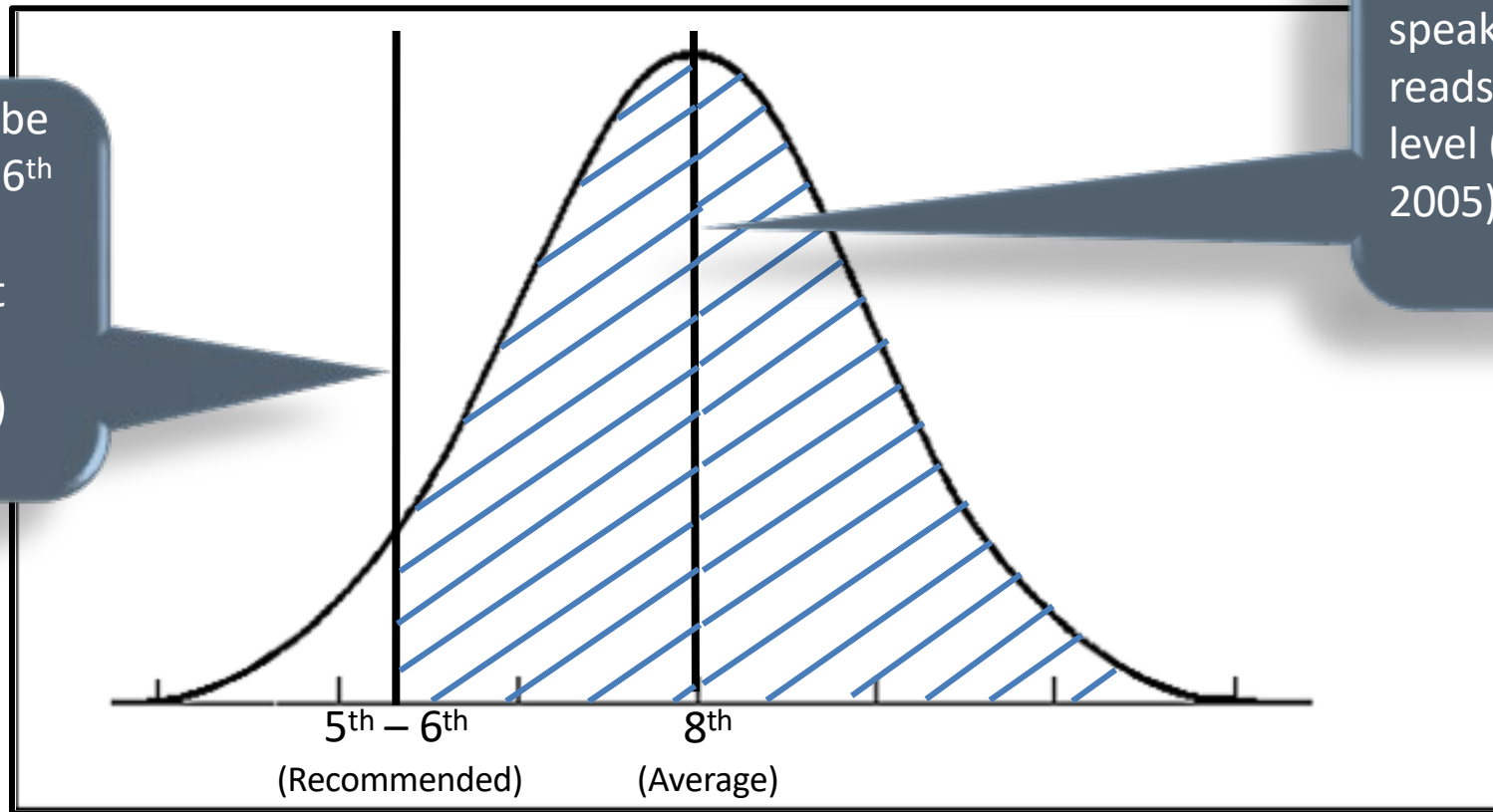
Layout

- Use large (14+) serif-style font
- Avoid *italics* and ALL CAPS
- Leave lots of white space
- Use informative headings & subheadings
- Short sentences and single-topic paragraphs
- Use bullet points
- Use pictures that enhance understanding

Writing should be at 5th-6th grade level

Messages should be written at the 5th-6th grade level to be accessible to most patients (AMA Foundation, 2007)

The average English-speaking U.S. adult reads at the 8th grade level (Kutner et al, 2005)



Grade Reading Level, U.S. Adults (not to scale)

Did you test positive for COVID-19?

Take our survey

Please respond as soon as possible after your positive test result.

Your honest responses help us understand how the virus is affecting you and your community. When we know who is experiencing the impacts of COVID-19, we can focus on where to reduce the spread of the virus and close health equity gaps for disproportionately affected groups. The information you share will be used to track the spread and impact of the disease. We share anonymous aggregate data on our dashboards and in reports with you and the public.

Take the survey in your preferred language.

This online survey can be completed on a computer or a mobile device.

COVID-19 Case Investigation
Survey (available in 12 languages)

Need help?

Call 866-917-8881

If the survey is not in your preferred language a live interpreter can help.

What's in the survey

The COVID-19 Case Survey consists of 9 sections. You can fill out for yourself or on behalf of someone else who has tested positive and asks you for assistance (like a minor in your care, or an elderly relative). The information collected is kept confidential and only used for public health response purposes.

Is readability a barrier? Check with Microsoft Word readability tool

Readability Statistics	
Counts	
Words	177
Characters	872
Paragraphs	6
Sentences	13
Averages	
Sentences per Paragraph	2.1
Words per Sentence	13.6
Characters per Word	4.8
Readability	
Passive Sentences	7%
Flesch Reading Ease	58.2
Flesch-Kincaid Grade Level	8.5

See this how-to video:

“Microsoft Word - Enhance Your Proofreading with Editor”

https://www.youtube.com/watch?v=aj_I5Qlw5FU

(Learnit Training, 2017)

Did you test positive for COVID-19?

📋 Take our survey

Please respond as soon as possible after your positive test result.

Your honest responses help us understand how the virus is affecting you and your community. When we know who is experiencing the impacts of COVID-19, we can focus on where to reduce the spread of the virus and close **health equity gaps** for **disproportionately** affected groups. The information you share will be used to track the spread and impact of the disease. We share **anonymous aggregate data** on our **dashboards** and in reports with you and the public.

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COVID-19 **Case Investigation**
Survey (available in 12 languages)

Need help?

Call 866-917-8881

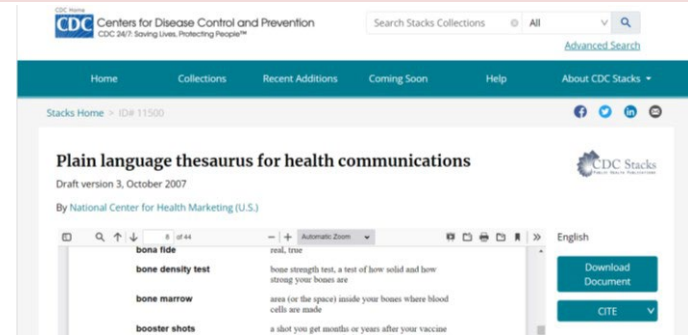
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The **COVID-19 Case Survey** consists of 9 sections. You can fill out for yourself or on behalf of someone else who has tested positive and asks you for assistance (like a minor in your care, or an elderly relative). The information collected is kept confidential and only used for public health response purposes.

Readability calculators don't address jargon!

- Replace unnecessary jargon.
- CDC's Plain Language Thesaurus is one tool for this.



(<https://stacks.cdc.gov/view/cdc/11500>)

Did you test positive for COVID-19?

Take our survey

Please respond as soon as possible after your positive test result.

Your honest responses help us understand how the virus is affecting you and your community. When we know who is experiencing the impacts of COVID-19, we can focus on where to reduce the spread of the virus and close **health equity gaps** for **disproportionately** affected groups. The information you share will be used to track the spread and impact of the disease. We share **anonymous aggregate data** on our **dashboards** and in reports with you and the public.

Take the survey in your preferred language.

This online survey can be completed on a computer or a mobile device.

COVID-19 **Case Investigation**
Survey (available in 12 languages)

Need help?

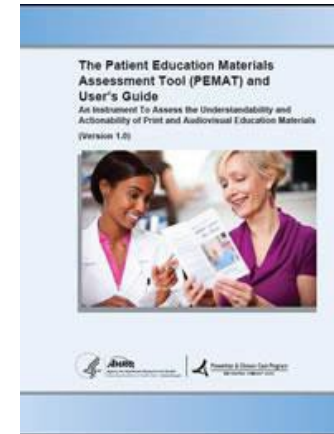
Call 866-917-8881

If the survey is not in your preferred language a live interpreter can help.

What's in the survey

The **COVID-19 Case Survey** consists of 9 sections. You can fill out for yourself or on behalf of someone else who has tested positive and asks you for assistance (like a minor in your care, or an elderly relative). The information collected is kept confidential and only used for public health response purposes.

Readability calculators don't address understandability! Check with the Patient Educational Materials Assessment Tool (PEMAT).



(PEMAT, 2020; Shoemaker et al, 2013)

Patient Education Materials Assessment Tool for Printable Materials (PEMAT-P)

Title of Material: _____

Name of Reviewer: _____

Date of Review: _____

Each question has specific response options. Select your response option from the dropdown in the "Rating" column.

Read the PEMAT User's Guide (available at: <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/self-mgmt/pemat/>) before rating materials.



Item	Response Options		Rating
UNDERSTANDABILITY			Select your responses here
TOPIC: CONTENT			
1. The material makes its purpose completely evident.	Disagree = 0	Agree = 1	1
2. The material does not include information or content that distracts from its purpose.	Disagree = 0	Agree = 1	1
TOPIC: WORD CHOICE & STYLE			
3. The material uses common, everyday language.	Disagree = 0	Agree = 1	0
4. Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree = 0	Agree = 1	0
5. The material uses the active voice.	Disagree = 0	Agree = 1	0
TOPIC: USE OF NUMBERS			
6. Numbers appearing in the material are clear and easy to understand.	Disagree = 0 No numbers = NA	Agree = 1	1
7. The material does not expect the user to perform calculations.	Disagree = 0	Agree = 1	1
TOPIC: ORGANIZATION			
8. The material breaks or “chunks” information into short sections.	Disagree = 0 Very short material* = NA	Agree = 1	1
9. The material’s sections have informative headers.	Disagree = 0 Very short material* = NA	Agree = 1	1
10. The material presents information in a logical sequence.	Disagree = 0	Agree = 1	1
11. The material provides a summary.	Disagree = 0 Very short material* = NA	Agree = 1	N/A
TOPIC: LAYOUT & DESIGN			
12. The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree = 0	Agree = 1	1

Less familiar terms

Undefined jargon

Passive voice

TOPIC: USE OF VISUAL AIDS			
15. The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree = 0	Agree = 1	1
16. The material's visual aids reinforce rather than distract from the content.	Disagree = 0 No visual aids = NA	Agree = 1	N/A
17. The material's visual aids have clear titles or captions.	Disagree = 0 No visual aids = NA	Agree = 1	N/A
18. The material uses illustrations and photographs that are clear and uncluttered.	Disagree = 0 No visual aids = NA	Agree = 1	N/A
19. The material uses simple tables with short and clear row and column headings.	Disagree = 0 No tables = NA	Agree = 1	N/A
ACTIONABILITY			Select your responses here
20. The material clearly identifies at least one action the user can take.	Disagree = 0	Agree = 1	1
21. The material addresses the user directly when describing actions.	Disagree = 0	Agree = 1	1
22. The material breaks down any action into manageable, explicit steps.	Disagree = 0	Agree = 1	0
23. The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree = 0	Agree = 1	1
24. The material provides simple instructions or examples of how to perform calculations.	Disagree = 0 No calculations = NA	Agree = 1	N/A
25. The material explains how to use the charts, graphs, tables or diagrams to take actions.	Disagree = 0 No charts, graphs, tables, diagrams = NA	Agree = 1	N/A
26. The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree = 0	Agree = 1	1

*A very short print material is defined as a material with two or fewer paragraphs, and no more than 1 page in length.

Does not
say how to
"respond"

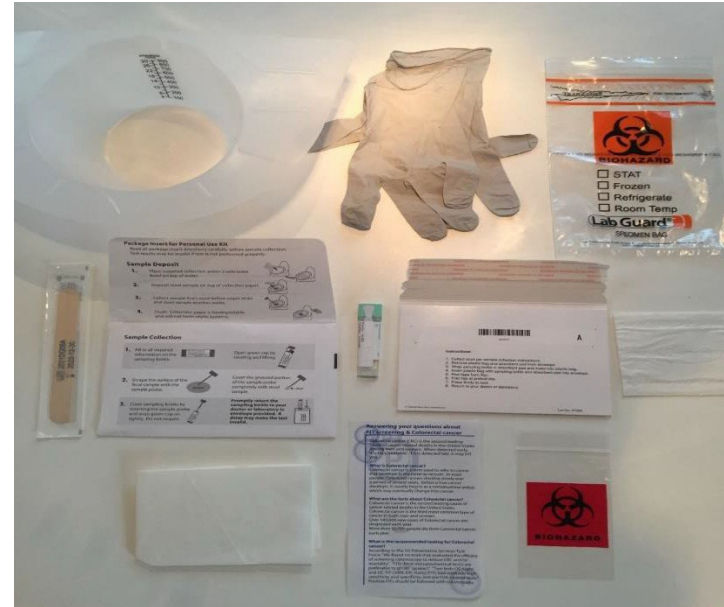
Scores will
appear **RED** if
any items are
left blank.

UNDERSTANDABILITY SCORE	#DIV/0!
ACTIONABILITY SCORE	#DIV/0!

Editing for clarity: example

Problem: Clinic had low rate of colorectal cancer screening.

Chosen solution: Send screening kits via mail.



Letter: Colorectal cancer screening with the fecal immunocemical test (FIT)

Before

Dear _____,
Enclosed please find your FIT kit, which is a colon cancer screening test.
There are instructions on how to do the test in the package. If you have any questions about the test, please call the Richmond Clinic at 503-418-3900 and ask for one of the Team Coordinators.
Please place the test card in the mail as soon as possible. Don't forget to put the date you collected the sample on the label.
When you have completed the test, put the FIT kit card in the return envelope (the postage is already paid) and mail as soon as possible.
Thank you,

Too formal.

Lowers engagement, understandability and actionability

Defined but unnecessary jargon.

Distracting. Lowers understandability

Passive voice.

Lowers engagement and understandability

Vague instructions.

Lowers actionability

Long redundant sentence (26 words).

Reduces readability, understandability, and actionability

Before

Dear _____,
Enclosed please find your FIT kit, which is a colon cancer screening test.

After

Dear _____,
This is your yearly colon cancer screening test.

Conversational tone.
More information in fewer words

Before and after

Before

Please place the test card in the mail as soon as possible. Don't forget to put the date you collected the sample on the label.

When you have completed the test, put the FIT kit card in the return envelope (the postage is already paid) and mail as soon as possible.

Short words (≤ 3 syllables), and short sentences (≤ 15 words).
Improves readability

After

When you are done:

1. Write today's date on the tube.
2. Put the tube in the return envelope.
3. Mail the test back as soon as possible. It's free to mail, you don't need a stamp.

Action-oriented.
Improves "actionability"

Bullet points.

"White space" improves engagement

Improve actionability

Before

Dear @FIRSTNAME@,

Enclosed please find your FIT kit, which is a colon cancer screening test.

There are instructions on how to do the test in the package. If you have any questions about the test, please call the Richmond Clinic at 503-418-3900 and ask for one of the Team Coordinators.

After

Dear @FIRSTNAME@,

This is your yearly colon cancer screening test.

Please look at the instruction sheet. If you have questions, call us and talk to a Team Coordinator at 503-418-3900.



Action oriented

Grade level readability results

Before

Dear @FIRSTNAME@,

Enclosed please find your FIT kit, which is a colon cancer screening test.

There are instructions on how to do the test in the package. If you have any questions about the test, please call the Richmond Clinic at 503-418-3900 and ask for one of the Team Coordinators.

Please place the test card in the mail as soon as possible. Don't forget to put the date you collected the sample on the label.

When you have completed the test, put the FIT kit card in the return envelope (the postage is already paid) and mail as soon as possible.

Thank you,

- 103 words
- Grade level readability:
8.6 by Gunning-Fog Index

After

Dear @FIRSTNAME@,

This is your yearly colon cancer screening test.

Please look at the instruction sheet. If you have questions, call us and talk to a Team Coordinator at 503-418-3900.

When you are done:

1. Write today's date on the tube.
2. Put the tube in the return envelope.
3. Mail the test back as soon as possible. It's free to mail, you don't need a stamp.

Thank you,

OHSU Richmond Clinic

503-418-3900

- 71 words
- Grade level readability:
4.3 by Gunning-Fog Index

Improved prescription-writing

TIME: Add explicit time parameters (e.g., “every morning and every evening”) to improve correct dosing.

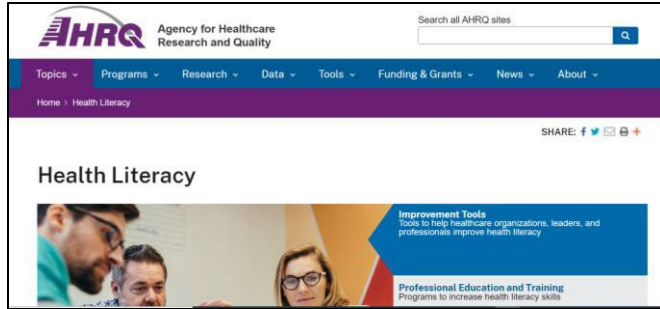


REASON: Add the reason for the medicine (e.g., “for high blood pressure”) to improve understanding.

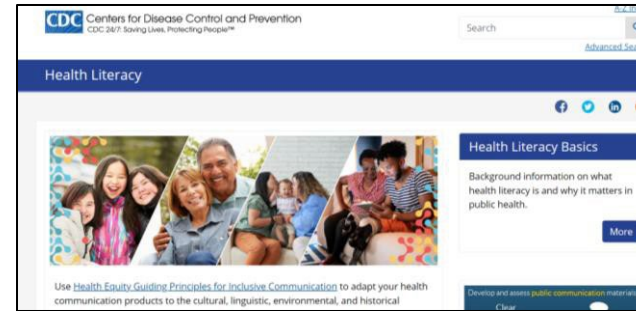
LAY LANGUAGE: Use plain language not jargon (e.g., “for high blood pressure,” not “hypertension”) to improve understanding.

(USP, 2012; Wolf et al, 2011)

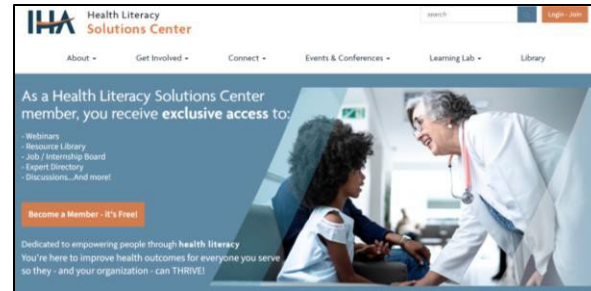
General health literacy resources



[Agency for Healthcare Research and Quality](https://www.ahrq.gov/health-literacy)



[CDC Health Literacy](https://www.cdc.gov/health-literacy)



[IHA Health Literacy Solutions Center](https://www.ihahq.org/health-literacy-solutions-center)

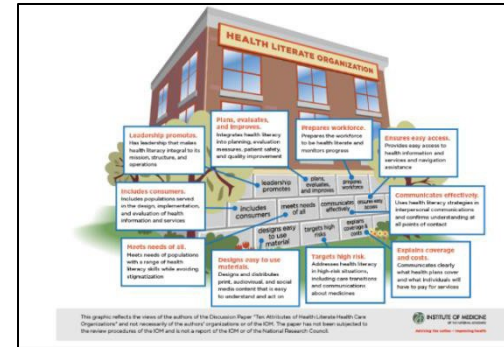
Organizational health literacy resources



National Action Plan to Improve Health Literacy



Health Literacy in Healthy People 2030

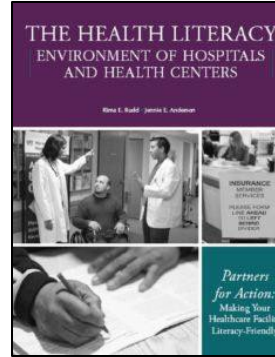


Ten Attributes of Health Literate Health Care Organizations

Organizational health literacy resources (cont.)



[Health Literacy Universal Precautions Toolkit](#)



[The Health Literacy Environment of Hospitals and Health Centers](#)



[Health literacy tools for pharmacies](#)



[Building Health Literate Organizations Guidebook](#)

Staff training resources



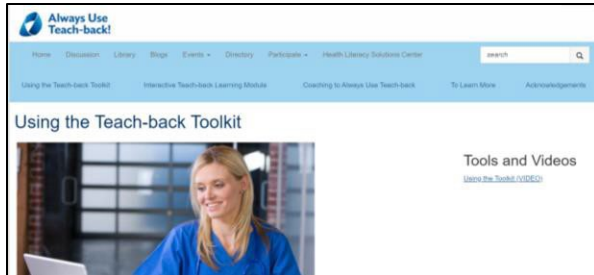
[Oregon Primary Care Association](#)



[Clear communication best practices](#)



[Health Literacy Specialist Certificate Program \(Fee\)](#)

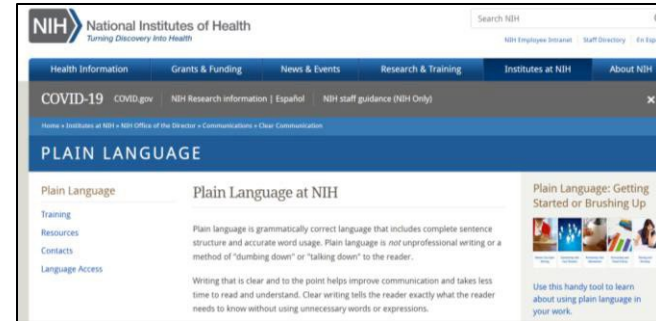


[Teach-back training toolkit](#)

Clear writing resources



[Plain language resources](#)

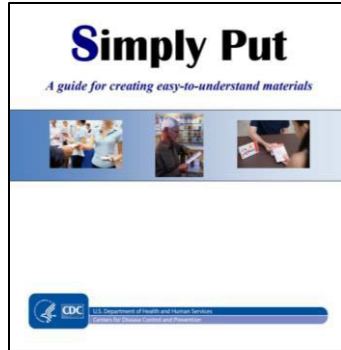


[Plain language at NIH](#)

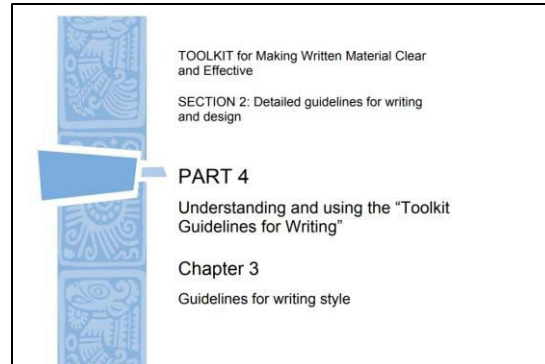


[Five Steps to Plain Language. Center for Plain Language](#)

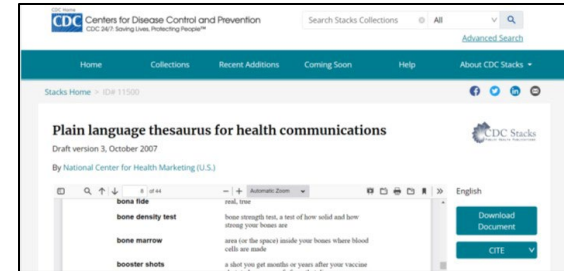
Clear writing resources (cont.)



[CDC guide for clear writing](#)



[CMS writing guide](#)



[CDC Searchable Plain Language Thesaurus](#)

Session recap

-  Define “health literacy.”
-  Discuss the prevalence of low health literacy, and how all patients are at risk for communication errors.
-  Describe reasons why a “universal precautions” approach to health communication is needed when working with all patients/clients.
-  List at least 5 clear communication best practices, and ways that CCOs can promote clear communication for members.

References (1 of 6)

- AMA (American Medical Association) Foundation. (2008). Help Patients Understand: Instructional Video. Available at <http://www.amafoundation.org/go/healthliteracy>
- AMA (American Medical Association) Foundation (2007). Removing barriers to better, safer care – Health literacy and patient safety: Help patients understand – reducing the risk by designing a safer, shame-free health care environment. AMA Foundation
- Annenberg Public Policy Center. (2021). Public Trust in CDC, FDA, and Fauci Holds Steady, Survey Shows. Annenberg Science Knowledge Survey, July 20, 2021. <https://www.annenbergpublicpolicycenter.org/public-trust-in-cdc-fda-and-fauci-holds-steady-survey-shows/>
- Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Crotty K. (2011). Low health literacy and health outcomes: an updated systematic review. *Ann Int Med*, 155:97-107
- Carlisle, A., Jacobson, K. L., Di Francesco, L., & Parker, R. M. (2011). Practical strategies to improve communication with patients. *P & T : a peer-reviewed journal for formulary management*, 36(9), 576–589
- Coleman, C. (2011). Teaching Healthcare Professionals about Health Literacy: A Review of the Literature. *Nursing Outlook*, 59:70-78
- Coleman, C., Garvin, R., Sachdeva, B., Kobus, A., Peterson-Perry, S. (2017a). Long-term Effects of a Health Literacy Curriculum for Family Medicine Residents. *Peer-reviewed Reports in Medical Education Research (PRiMER)*, 1:22 DOI: 10.22454/PRiMER.2017.703541. Available at <https://journals.stfm.org/media/1241/coleman-primer2017703541.pdf>
- Coleman C, Hadden K. Letters, Clinical Summaries, Electronic Messages, and Prescriptions: A Practical Guide to Writing Personalized Patient-centered Health Communications. Unpublished
- Coleman C, Hudson S, Maine L. (2013). Health Literacy Practices and Educational Competencies for Health Professionals: A Consensus Study. *Journal of Health Communication*, 18:82-102

References (2 of 6)

- Coleman C, Hudson S, Pederson B. (2017b). Prioritized Health Literacy and Clear Communication Practices for Health Care Professionals. *Health Literacy Research and Practice*, 1(3):e90-e99. Retrieved from <https://www.healio.com/public-health/journals/hlrp>
- Cosic F, Kimmel L, Edwards E. (2019). Patient comprehension of common orthopedic terminology. *Health Literacy Research and Practice*, 3(3):e187-e193
- Davis TC, Fredrickson DD, Arnold C, Murphy PW, Herbst M, Bocchini JA. (1998). A polio immunization pamphlet with increased appeal and simplified language does not improve comprehension to an acceptable level. *Patient Educ Couns*, 33(1):25-37
- Davis TC, Long SW, Jackson RH, Mayeaux EJ, George RB, Murphy PW, Crouch MA. Rapid estimate of adult literacy in medicine: a shortened screening instrument. *Family Medicine* 1993;25:6:391-5
- Davis TC, Wolf MS, Bass PF 3rd, Thompson JA, Tilson HH, Neuberger M, Parker RM. Literacy and misunderstanding prescription drug labels. *Ann Intern Med* 2006;145(12):887-94
- DeWalt DA, Callahan LF, Hawk VH, Brouckson KA, Hink A, Rudd R, et al. Health Literacy Universal Precautions Toolkit. (Prepared by North Carolina Network Consortium, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, under Contract No. HHSA290200710014.) AHRQ Publication No. 10-0046-EF) Rockville, MD. Agency for Healthcare Research and Quality; April 2010

References (3 of 6)

- HHS (U.S. Department of Health and Human Services). (2012). *Plain language: A promising strategy for clearly communicating health information and improving health literacy*. Washington, DC: Author. Retrieved from <http://www.health.gov/communication/literacy/plainlanguage/PlainLanguage.htm>
- HHS (U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion). (2020). Health literacy in Healthy People 2030. Available at <https://health.gov/our-work/healthy-people/healthy-people-2030/health-literacy-healthy-people-2030>
- Hume MA, Kennedy B, Asbury AJ. (1994). Patient knowledge of anesthesia and peri-operative care. *Anesthesia*, 49:715-18
- Kessels RPC. (2003). Patients' memory for medical information. *Journal of the Royal Society of Medicine*, 96(5):219-22
- Kripalani S, Weiss BD. Teaching about health literacy and clear communication. *J Gen Intern Med* 2006;21:888-90
- Kutner M, Greenberg E, Baer J. A first look at the literacy of America's adults in the 21st century. Washington, D.C.: National Center for Education Statistics, Department of Education; December 2005. Available at <http://nces.ed.gov/NAAL/PDF/2006470.pdf>. Accessed 8/6/2012
- Kutner, M., Greenberg, E., Jin, Y., Paulsen, C. (2006). The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy (NCES 2006–483). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Learnit Training. (2017). Microsoft Word: Enhance Your Proofreading with Editor. Available at https://www.youtube.com/watch?v=aj_I5Qlw5FU

References (4 of 6)

- Mantwill, S., Monestel-Umaña, S., Schulz, P.J. (2015). The Relationship between Health Literacy and Health Disparities: A Systematic Review. PLoS One, 10(12):e0145455. doi: 10.1371/journal.pone.0145455. PMID: 26698310; PMCID: PMC4689381
- McCarthy DM, Waite KR, Curtis LM, Engel KG, Baker DW, Wolf MS. (2012). What did the doctor say? Health literacy and recall of medical instructions. Medical Care, 50(4):277-82
- Mitchell, S.E., Sadikova, E., Jack, B.W., Paasche-Orlow, M.K. (2012). Health Literacy and 30-Day Postdischarge Hospital Utilization, Journal of Health Communication, 17:sup3, 325-338, DOI: [10.1080/10810730.2012.715233](https://doi.org/10.1080/10810730.2012.715233)
- Muvuka, B., Combs, R. M., Ayangeakaa, S. D., Ali, N. M., Wendel, M. L., & Jackson, T. (2020). Health Literacy in African-American Communities: Barriers and Strategies. *Health literacy research and practice*, 4(3), e138–e143
- National Science Board. (2020). Science and technology: Public attitudes, knowledge, and interest. Science & Engineering Indicators 2020, 5/15/20.
- National Quality Forum. Safe practices for better healthcare. Washington, DC: National Quality Forum, 2003. Available at <http://www.ahrq.gov/qual/nqfpract.pdf>. Accessed 27 November, 2008
- Nielsen-Bohlman L, Panzer AM, Kindig DA, eds. Health literacy: a prescription to end confusion. Institute of Medicine of the National Academies, Board on Neuroscience and Behavioral Health, Committee on Health Literacy. Washington, D.C.: The National Academies Press, 2004
- Paasche-Orlow MK, Wolf MS. (2008). Evidence does not support clinical screening of literacy. J Gen Intern Med, 23(1):100-2
- Parikh NS, Parker RM, Nurss JR, Baker DW, Williams MV. Shame and Health Literacy: The Unspoken Connection. (1996). Patient Educ Couns, 27(1):33-9

References (5 of 6)

- PEMAT (Patient Education Materials Assessment Tool) and User's Guide. Content last reviewed November 2020. Agency for Healthcare Research and Quality, Rockville, MD. Available at <https://www.ahrq.gov/health-literacy/patient-education/pemat.html>
- Pfizer, Inc. (2004). *Clear health communication*. Retrieved from <http://www.pfizerhealthliteracy.com/patients-and-families/ClearCommunication.aspx> (2013)
- Quincy, L. (2011). Making health insurance cost-sharing clear to consumers: challenges in implementing health reform's insurance disclosure requirements. *Issue Brief (Common Fund)*, 2:1-17
- Rogers, M. (2016). How to use PEMAT. Available at <https://www.youtube.com/watch?v=1IWFJtVF5tw>
- Schillinger D, Piette J, Grumbach K et al. (2003). Closing the loop. Physician communication with diabetic patients who have low health literacy. *Arch Intern Med*, 163:83-90
- Schwartzberg JG, Cowett A, VanGeest J, Wolf MS. (2007). Communication techniques for patients with low health literacy: a survey of physicians, nurses, and pharmacists. *Am J Health Behav*, 31(Suppl 1):S96-S104
- Shoemaker SJ, Wolf MS, Brach C. (2014). Development of the Patient Education Materials Assessment Tool (PEMAT): a new measure of understandability and actionability for print and audiovisual patient information. *Patient Educ Couns*, 96(3):395-403
- Sudore RL, Landefeld CS, Barnes DE, Lindquist K, Williams BA, Brody R, et al. (2007). An advance directive redesigned to meet the literacy level of most adults: a randomized trial. *Patient Educ Couns*, 69(1-3):165-95
- Svet, R. (2011). Health and the city. <https://www.youtube.com/watch?v=iFCblxW4db0>
- Toronto, C.E., Weatherford, B. (2015). Health literacy education in health professions schools: an integrative review. *J Nurs Educ*, 54(12):669-76

References (6 of 6)

- U.S. Department of Education, National Center for Education Statistics, Organization for Economic Cooperation and Development (OECD), Program for the International Assessment of Adult Competencies (PIAAC), 2012
- USP (United States Pharmacopeial Convention). (2012). Chapter 17 – Prescription container labeling. Accessed 3/8/2018 from <http://www.usp.org/sites/default/files/usp/webform/c17.pdf>
- Vernon, J., Trujillo, A., Rosenbaum, S., DeBuono, B. (2007). Low Health Literacy: Implications for National Health Policy. Washington, DC: Department of Health Policy, School of Public Health and Health Services, The George Washington University. Available at https://hsrsrc.himmelfarb.gwu.edu/sphhs_policy_facpubs/172
- Villagra, V.G., Bhuva, B., Coman, E., Smith, D.O., Fifield, J. (2019). Health insurance literacy: disparities by race, ethnicity, and language preference. Am J Manag Care, 25(3):e71-e75
- Williams MV, Parker RM, Baker DW, Parikh NS, Pitkin K, Coates WC, Nurss JR. Inadequate functional health literacy among patients at two public hospitals. JAMA. 1995;274(21):1677-82
- Wolf, MS, Davis TC, Curtis LM, Webb JA, Bailey SC, Shrank WH, et al. Effect of standardized, patient-centered label instructions to improve comprehension of prescription drug use. Medical Care, 2011;49(1):96-100
- Yagi, B.F., Luster, J.E., Scherer, A.M., Farron, M.R., Smith, J.E., Tipirneni, R. (2022). Association of Health Insurance Literacy with Health Care Utilization: a Systematic Review. J Gen Intern Med, 37(2):375-389