



Office of Clinical and Preventive Services
Division of Clinical and Community Services



2019

**NATIONAL
&
COMMUNITY-BASED
SERVICES**

CONFERENCE

Health Literacy

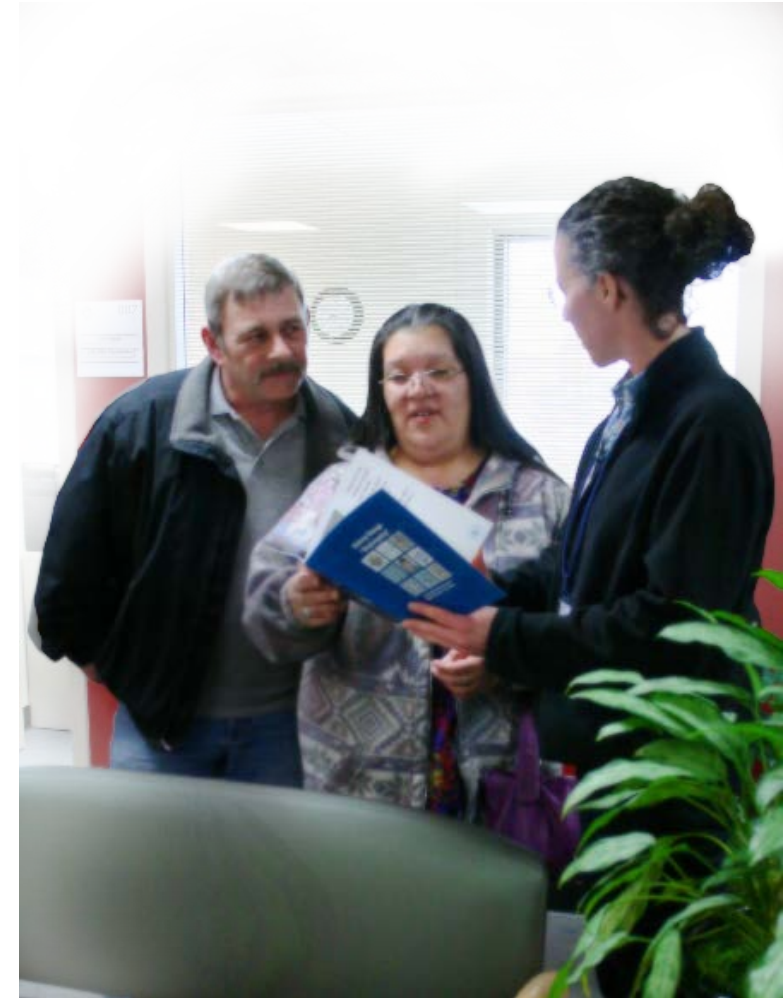
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Definition of Health Literacy

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



Examples of Health Literacy:

- Reading instructions
- Understanding medication bottles
- Knowing how to get to the lab
- Understand lab results
- Able to read and understand food labels
- Making appointments
- Filling out forms or questionnaires



Numeracy skills needed for Diabetes

- Glucose monitoring
- Carbohydrate counting
- Adjusting insulin
- Measures such as:
 - Units (insulin)
 - Metrics (grams in food labels or kg in BMI)
 - Percentages (A1C)

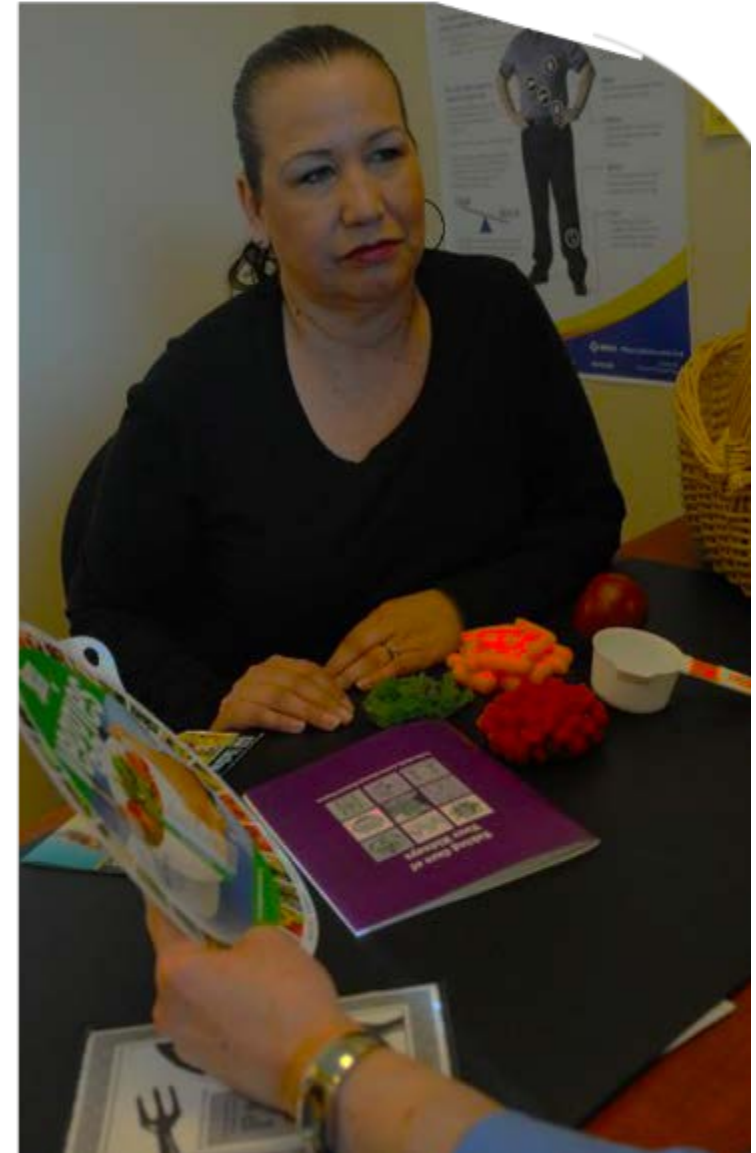
Risks of Low Health Literacy

People with low health literacy:

- Are less able to care for their chronic conditions
- Use more healthcare services
- Have higher mortality rates and hospitalizations
- Are more likely to engage in unsafe or inappropriate use of prescription or over-the-counter medications
- Are less likely to use preventive health services

Goals for Improving 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.



Some Tests for Assessing Health Literacy

- **REALM:** Requires patients to read and pronounce common medical terms. It has been used to assess health literacy among many different patient populations.
- **Brief Questionnaire:** 16 questions asking the patient's opinion on their ability to complete common health care tasks such as filling out forms and reading prescription labels.
- **Newest Vital Sign:** Asks the patient to read and answer questions about an ice cream food labels (calculations).
- **Test of Functional Health Literacy in Adults (TOFHLA):** uses healthcare materials to screen numeracy and reading comprehension.

Speak the word

• **Nerves**

Speak the word

• **Hormones**

Speak the word

• **Prescription**

Speak the word

• **Calories**

Speak the word

• **Antibiotics**

Speak the word

• **Incest**

Speak the word

• **Testicle**

REALM

Raw Score	Reading Level
0-18	Third grade and below
19-44	Fourth to sixth grade
45-60	Seventh to eighth grade
61-66	High school

List 1	List 1 (cont'd)	List 2	List 2 (cont'd)	List 3	List 3 (cont'd)
Fat	Cancer	Fatigue	Miscarriage	Allergic	Gonorrhea
Flue	Caffeine	Pelvic	Pregnancy	Menstrual	Inflammatory
Pill	Attack	Jaundice	Arthritis	Testicle	Diabetes
Dose	Kidney	Infection	Nutrition	Colitis	Hepatitis
Eye	Hormones	Exercise	Menopause	Emergency	Antibiotics
Stress	Herpes	Behavior	Appendix	Medication	Diagnosis
Smear	Seizure	Prescription	Abnormal	Occupation	Potassium
Nerves	Bowel	Notify	Syphilis	Sexually	Anemia
Germs	Asthma	Gallbladder	Hemorrhoids	Alcoholism	Obesity
Meals	Rectal	Calories	Nausea	Irritation	Osteoporosis
Disease	Incest	Depression	Directed	Constipation	Impetigo

Newest Vital Sign

Nutrition Facts

Serving Size $\frac{1}{2}$ cup
Servings per container 4

Amount per serving
Calories 250 Fat Cal 120

	%DV
Total Fat 13g	20%
Sat Fat 9g	40%
Cholesterol 28mg	12%
Sodium 55mg	2%
Total Carbohydrate 30g	12%
Dietary Fiber 2g	
Sugars 23g	
Protein 4g	8%

*Percentage Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

Newest Vital Sign

1. If you eat the entire container, how many calories will you eat?
 2. If you are allowed 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 42 g 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 2,500 calories in a day, what percentage of your daily value of calories will you be eating if you eat one serving?
- **Pretend that you are allergic to the following substances: penicillin, peanuts, latex gloves, and bee stings.**
5. Is it safe for you to eat this ice cream?
 6. Why or why not?

Nutrition Facts

Serving Size ½ cup
Servings per container 4

Amount per serving

Calories	250	Fat Cal	120
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%DV

Total Fat 13g 20%

Sat Fat 9g 40%

Cholesterol 28mg 12%

Sodium 55mg 2%

Total Carbohydrate 30g 12%

Dietary Fiber 2g

Sugars 23g

Protein 4g 8%

*Percentage Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

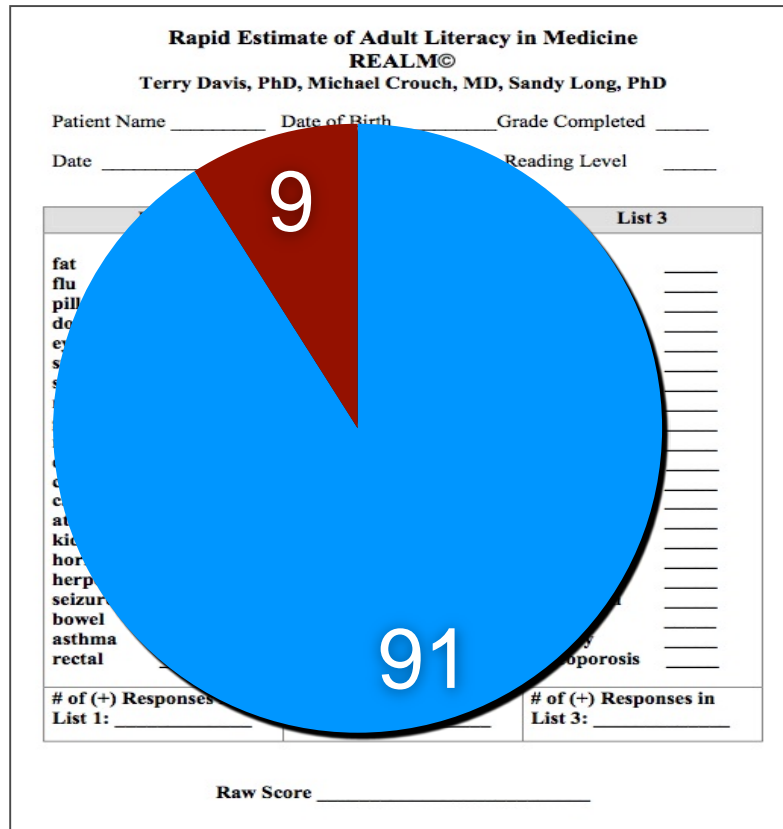
Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.

Newest Vital Sign

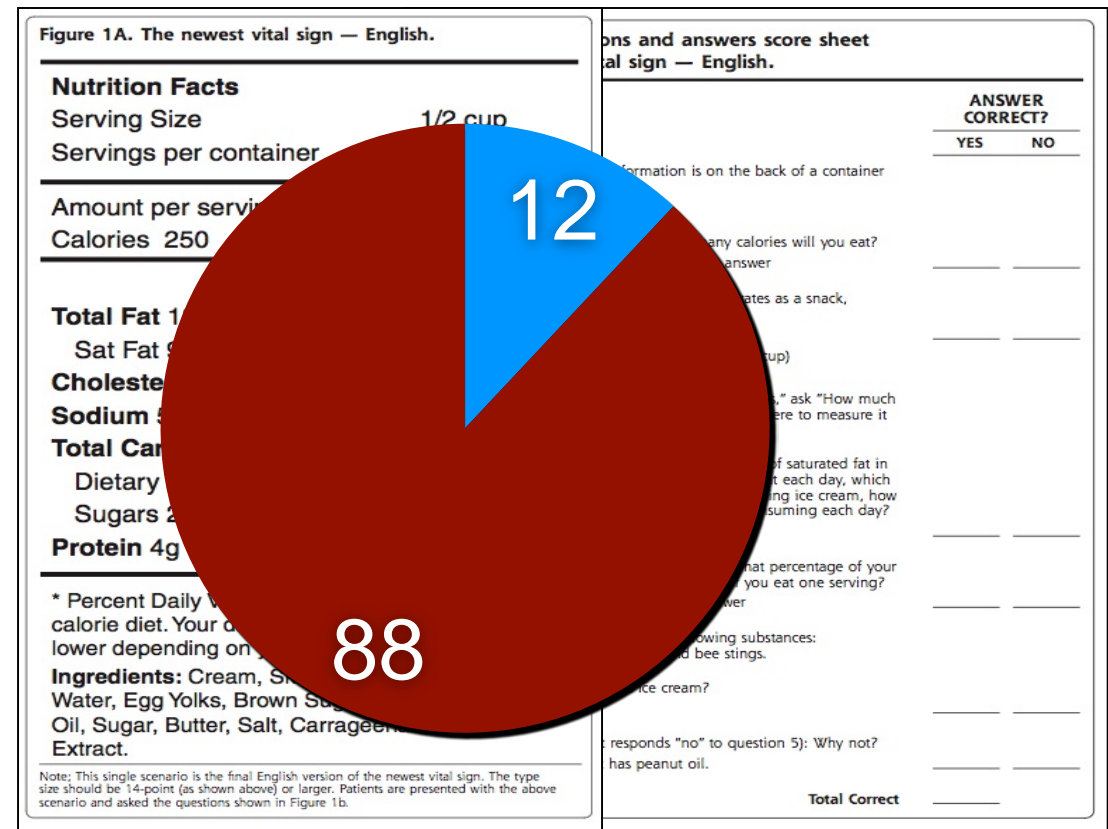
Question	Answer
1. If you eat the entire container, how many calories will you eat?	1,000
2. If you are allowed to eat 60 grams of carbohydrates as a snack, how much ice cream could you have?	1 cup or half the container 2 Servings
3. Your doctor advises you to reduce the amount of saturated fat in your diet. You usually have 42 g 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?	33
4. If you usually eat 2,500 calories in a day, what percentage of your daily value of calories will you be eating if you eat one serving?	10%
5. Is it safe for you to eat this ice cream?	No
6. Why or why not?	It has peanut oil

Score	Interpretation
0-1	High likelihood of limited health literacy
2-3	Possibility of limited health literacy
4-6	Adequate health literacy

IHS Early Testing for Health Literacy



- Adequate Health Literacy
- Low Health Literacy



- Adequate Health Literacy
- Low Health Literacy

Health Literacy Universal Precautions

- Assume that all patients may have difficulty comprehending health information and accessing health services.
 - Minimize the risk of miscommunication:
 - Simplify communication
 - Confirm comprehension
 - Make the office environment easier to navigate
 - Supporting patients' efforts to improve their health through patient engagement

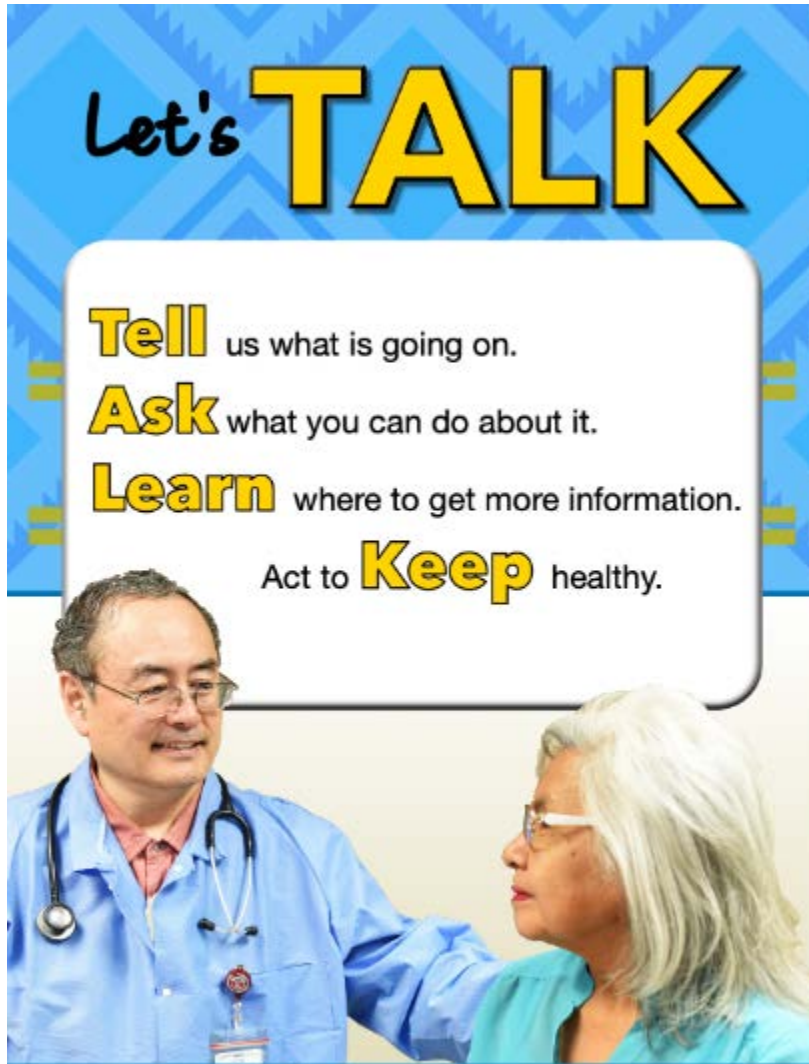
Universal Precautions

- Assume that all patients may have difficulty comprehending health information and accessing health services.
- Key points:
 - Simplify communication
 - Confirm comprehension
 - Support your patient's efforts to improve health through patient engagement

Patient Engagement

“A concept that combines a patient's knowledge, skills, ability and willingness to manage their own health and care with interventions designed to increase activation and promote positive patient behavior.”





- **T**ell us what is going on.
- **A**sk what you can do about it.
- **L**earn where to get more information.
- Act to **K**eep healthy

Teach-back Method

- Teach-back is a method to confirm that you have explained what the patient needs to know in a manner that they understand so they are able to self-manage.
- Keep in mind:
 - It is **not** a test of patient's knowledge
 - It is a test of how well you explained the information
 - It is a method to check for understanding

Steps to the Teach Back Method

1. Ask patients to repeat or tell you, **their own words**, what they need to do.
 - Use open-ended questions
2. If patients cannot restate your instructions correctly, then explain again.
 - Use pictures or simpler words
3. Again use the teach-back method until you confirm understanding.
4. Assist patient with a written plan.

Plain Language

Plain language is:

- Using commonly known and understood words and terms
- Eliminating non-essential info.

Plain language is not:

- “Dumbing-down”
- Talking down to a person

-
- The goal is to write at a 6-8th grade reading level.

Choosing Words

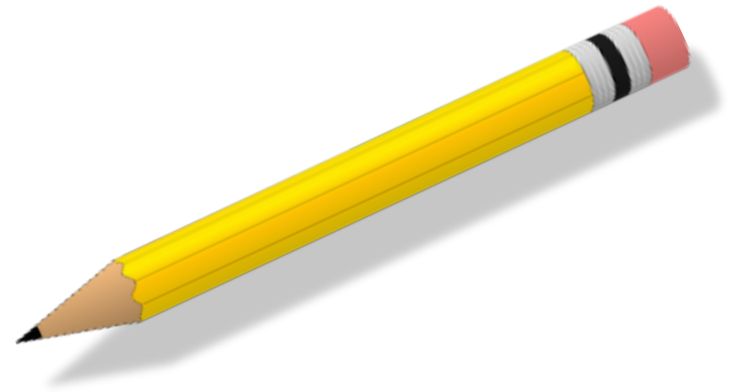
- Use positive words.
- Use common and culturally appropriate words.
- Use familiar words (avoid jargon and legalese).
- Use consistent words (ex: test, exam, procedure).
- Using the second person (you, your, we).



Choosing Words

- Spell out all words; avoid acronyms and contractions
- Use simple words (1-2 syllables)

Complex Word	Simple Word
cardiovascular	heart or blood vessel
detect	find
etiology	cause
frequent	often
modify	change
remainder	the rest
inability	not able
optimal	best
saturate	soak



Sentence Structure

- Use short sentences (15 words or less).
- Use active voice (ex: making vs made)
- Avoid meaningless phrases (e.g., value added, for all intents and purposes, touching base).
- Keep paragraphs short (60 words or less)
- Focus on the most important information

Sentence Structure

- Consider lists and tables only when sharing complex information.
 - Example: The medicine can make you feel sleepy, tired, hungry, and thirsty.

The medicine can make you feel:

- Sleepy
- Tired
- Hungry
- Thirsty

Medicine Name	How it makes you feel
Medicine A	Sleepy
Medicine B	Hungry
Medicine C	Thirsty

Design

- Keep document as short as possible - less than 2 pages preferred.
- Use a font size 12 or larger for the elderly (san serif or Times New Roman)
- Keep headings close to body text.
- Use one topic (idea or concept) per paragraph.
- Use plenty of white space.
- Use pictures; Avoid graphs or busy charts.
- Underline or **bold**; Do not use ALL CAPS or *All Italics*

Be Mindful...

- When developing or asking people to fill out:
 - Questionnaire
 - Forms
 - Survey
 - Contracts

Assessing Reading Level of Materials


- Flesch Reading Ease - sentence length and number of syllables
- Fry Graph Readability - sentence length and number of syllables
- SMOG Readability - sampling of sentences, number of syllables

- Tools to calculate readability:
 - Microsoft Word
 - <https://readability-score.com/text/>
 - http://www.online-utility.org/english/readability_test_and_improve.jsp

Writing for Understandability

- One of your doctor's primary roles is to prescribe and monitor the use of your diabetes medications. Medications, when taken correctly and combined with appropriate lifestyles changes, can effectively manage your diabetes.

Writing for Understandability



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Tests Document Readability

Readability Calculator

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This free online software tool calculates readability : Coleman Liau index, Flesch Kincaid Grade Level, ARI (Automated Readability Index), SMOG. The measure of readability used here is the indication of number of years of education that a person needs to be able to understand the text easily on the first reading. Comprehension tests and skills training. This tool is made primarily for English texts but might work also for some other languages. In general, these tests penalize writers for polysyllabic words and long, complex sentences. Your writing will score better when you: use simpler diction, write short sentences. It also displays complicated sentences (with many words and syllables) with suggestions for what you might do to improve its readability.

Number of characters (without spaces) :	186.00
Number of words :	33.00
Number of sentences :	2.00
Average number of characters per word :	5.64
Average number of syllables per word :	2.09
Average number of words per sentence:	16.50

Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading

Gunning Fog Index :	16.30
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Approximate representation of the U.S. grade level needed to comprehend the text :

Coleman Liau index :	15.58
Flesch Kincaid Grade level :	15.52
ARI (Automated Readability Index) :	13.37
SMOG :	15.85

Flesch Reading Ease :	13.20
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List of sentences that we suggest you consider rewriting to improve readability:

- Medications, when taken correctly and combined with appropriate lifestyles changes, can effectively manage your diabetes

Reading Level = 15th grade

Going too simple

- One of your doctor's primary roles is to prescribe and monitor the use of your diabetes medications. Medications, when taken correctly and combined with appropriate lifestyles changes, can effectively manage your diabetes.
- Your doctor gives you drugs. Take them the right way. Drugs make you healthy.
- You need to eat healthy. You need to exercise.

Going too simple



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It also displays complicated sentences (with many words and syllables) with suggestions for what you might do to improve its readability.

Number of characters (without spaces) :	97.00
Number of words :	23.00
Number of sentences :	5.00
Average number of characters per word :	4.22
Average number of syllables per word :	1.52
Average number of words per sentence:	4.60

Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading

Gunning Fog index :	3.58
---------------------	------

Approximate representation of the U.S. grade level needed to comprehend the text :

Coleman Liau index :	2.52
Flesch Kincaid Grade level :	4.16
ARI (Automated Readability Index) :	0.73
SMOG :	5.45

Flesch Reading Ease :	73.43
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List of sentences that we suggest you consider rewriting to improve readability:

- Your doctor gives you drugs.
- You need to exercise.

Reading Level = 4th grade

Finding the balance

- One of your doctor's primary roles is to prescribe and monitor the use of your diabetes medications. Medications, when taken correctly and combined with appropriate lifestyles changes, can effectively manage your diabetes.
- Your doctor will tell you how to take your medicine.
- It is important to take it the right way.
- Take your medicine, eat healthy food, and be active to control diabetes.

Finding the balance



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Tests Document Readability

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This tool is made primarily for English texts but might work also for some other languages. In general, these tests penalize writers for polysyllabic words and long, complex sentences. Your writing will score better when you: use simpler diction, write short sentences.

It also displays complicated sentences (with many words and syllables) with suggestions for what you might do to improve its readability.

Number of characters (without spaces) :	132.00
Number of words :	31.00
Number of sentences :	3.00
Average number of characters per word :	4.26
Average number of syllables per word :	1.55
Average number of words per sentence:	10.33

Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading

Gunning Fog index :	8.00
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Approximate representation of the U.S. grade level needed to comprehend the text :

Coleman Liau index :	6.38
Flesch Kincaid Grade level :	6.71
ARI (Automated Readability Index) :	3.79
SMOG :	9.32

Flesch Reading Ease :	65.35
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List of sentences that we suggest you consider rewriting to improve readability:

- Take your medicine, eat healthy food, and be active to control diabetes.

Reading Level = 6th grade

Think about your Audience

- Identify and prepare for your audience
- Focus on your patient's needs and concerns
- What do they want to know?



Cultural Awareness

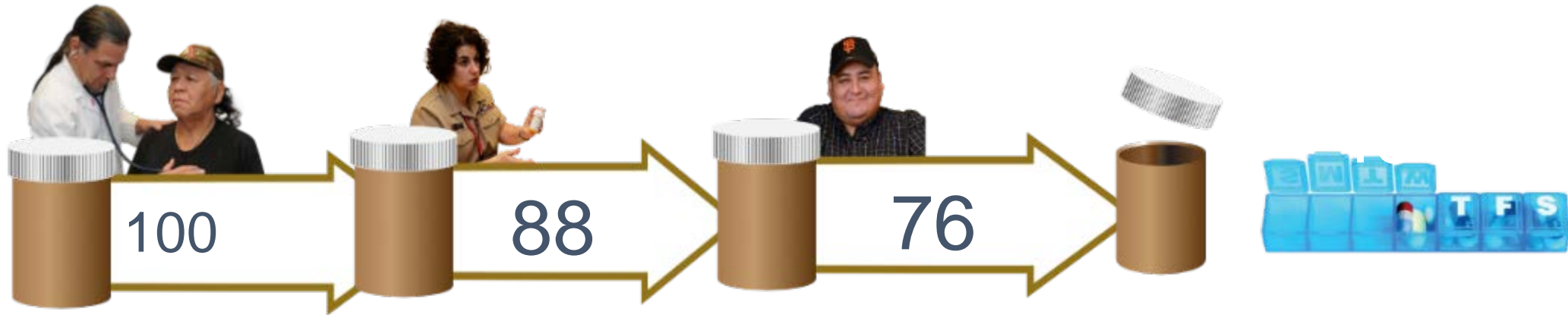
- Health information that is culturally relevant is more likely to be considered by the patient.
 - Be respectful of Native remedies
 - Be aware of cultural body language
 - Consider cultural activities (e.g. sweat lodge)
 - Don't be afraid to ask or talk about culture and beliefs

Organize your Thoughts

- Organize your thoughts and what you want to say.
- Consider the purpose and what is it designed to accomplish.
- Get to the point quickly.
- Make sure the information doesn't conflict with other information the patient may have received.
- Keep it simple and limited to a few key thoughts.



Medication Adherence



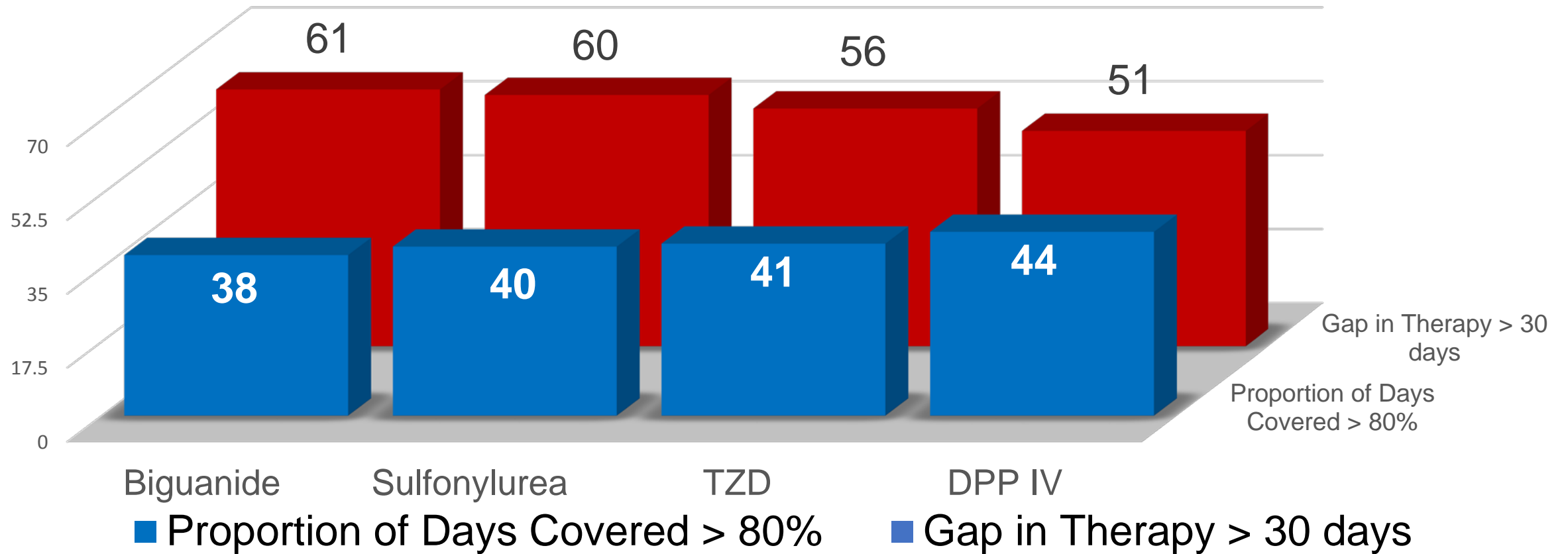
100 Prescriptions written

88 are filled at the pharmacy

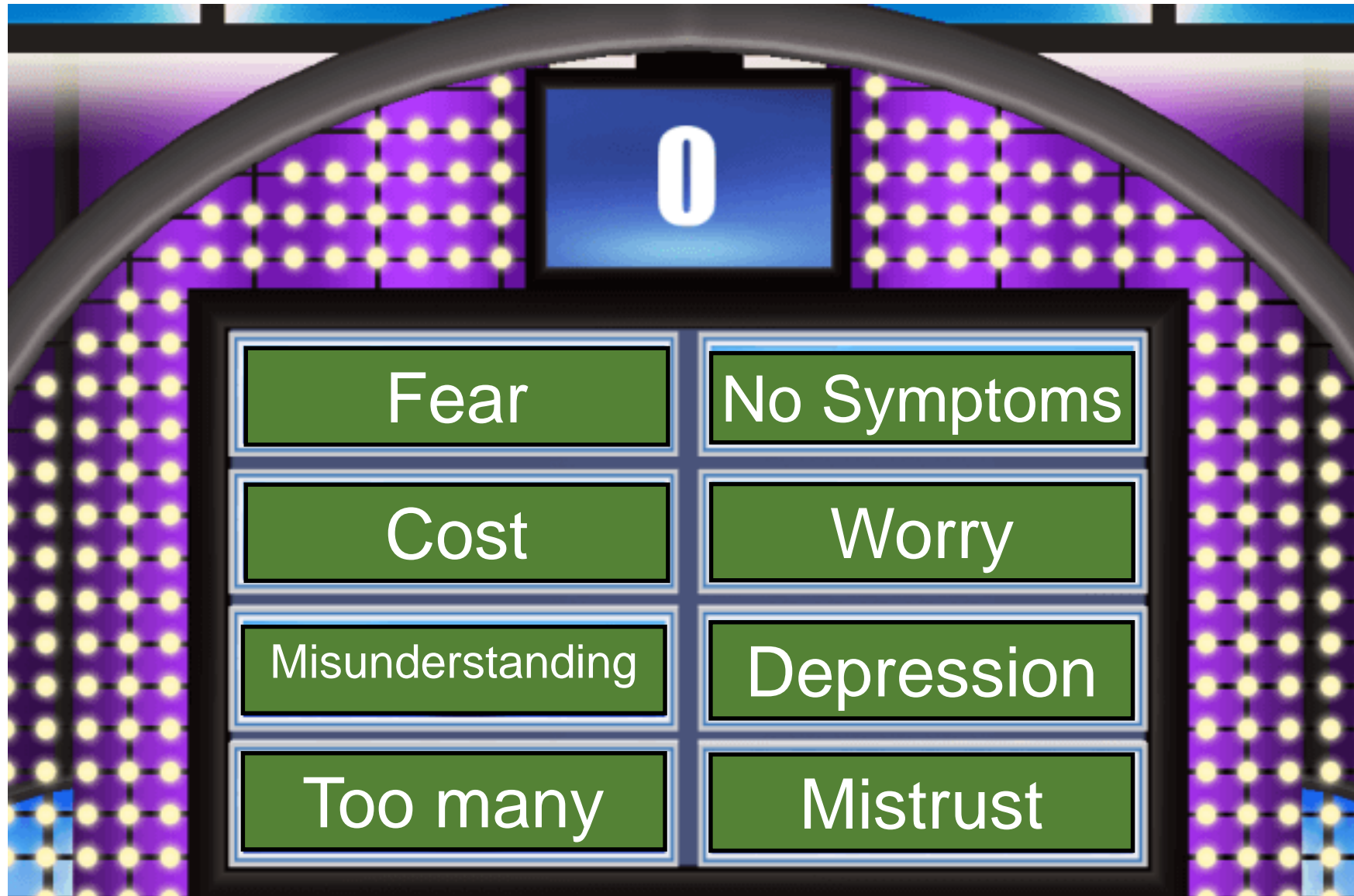
76 are taken by the patient

49 are refilled after the prescription runs out

Medication Adherence



Medication Adherence



Medication Adherence

•SIMPLE

- Simplify the regimen
- Impart knowledge
- Modify patient beliefs and human behavior
- Provide communication and trust
- Leave the bias
- Evaluate adherence



Healthy Native Ways

Living healthy and strong is the traditional way.

Tips to Help You Remember to Take Medicine



Ask family members and friends to help remind you.



Use a calendar to mark when you take medicine.



Use a pill box.



Take medicine at the same time you do daily activities like brushing teeth.



Put a note on the refrigerator or mirror.



Take medicine at the same time every day. Set an alarm as a reminder.

Safety Tips

Keep medicine where you can see it (but out of children's reach).

Talk to your health care team before you change or stop taking your medicine.

Do not share your medicine with others.

Make sure you have enough medicine before going on a trip.



Produced by the IHS Division of Diabetes Treatment and Prevention
For more diabetes information and materials, visit www.ihs.gov/diabetes
04/2019

Take a picture with your cell phone
Look at the picture later as a reminder!



Healthy Native Ways

Living healthy and strong is the traditional way.

Taking Diabetes Medicine

Most people with diabetes may need to take medicine, such as a pill or a shot, to help lower their blood sugar. Having to take a medicine does not mean diabetes is worse. It means the body needs more help to keep blood sugars at a healthy level.

Here is some helpful information for people who take diabetes medicine pills.

1 Take medicine, even when feeling good.
Medicine works best when taken as it says on the label. Talk to a health care provider about any concerns, such as:

- When to take medicine
- How much medicine to take
- What to do if a meal is missed
- What to do when sick
- Any side effects

2 Make a list of all medicines prescribed.
A list helps to stay on track. Include these things about your medicine:

- ✓ Name
- ✓ Amount to take
- ✓ Time to take

Make sure to add all over-the-counter medicines, vitamins, or other supplements.

3 Refill medicine before it runs out.
Medicine can usually be refilled one week before it runs out.

- Look at the label on the medicine to make sure there are refills.
- If there are no refills, contact the health care team.



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For more diabetes information and materials, visit www.ihs.gov/diabetes
04/2019

Take a picture with your cell phone
Look at the picture later as a reminder!



Additional Resources

- Indian Health Service <https://www.ihs.gov/healthcommunications/>
- Office of Disease Prevention and Health Promotion <https://health.gov/communication/>
- Centers for Disease Control and Prevention <https://www.cdc.gov/healthliteracy/index.html>
- National Network of Libraries of Medicine <https://nnlm.gov/professional-development/topics/health-literacy>
- Agency for Healthcare Research and Quality <https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/index.html>
- Division of Diabetes Treatment and Prevention on-line catalog <https://www.ihs.gov/diabetes/patient-education/online-catalog1/>