



# Addressing Low Health Literacy

Improve Patient Outcomes  
Without Adding Time

# Learning Objectives

1

Describe communication best practices designed to improve patients' understanding

2

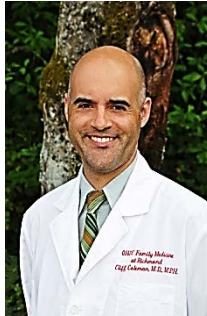
Adopt time-saving health literacy methods

3

Use plain language as part of good health literacy practices



# Introducing Dr. Coleman



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Associate Professor of Family Medicine

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# ADDRESSING LOW HEALTH LITERACY

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# Overview



- Literacy in America
- Health literacy
- Best practices for spoken communication:
  1. “Universal precautions”
  2. Plain non-jargon language
  3. Limit information to “need-to-know” items
  4. Elicit questions in an open-ended manner
  5. Use “teach back” to confirm adequate communication

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

- Attributed to George Bernard Shaw

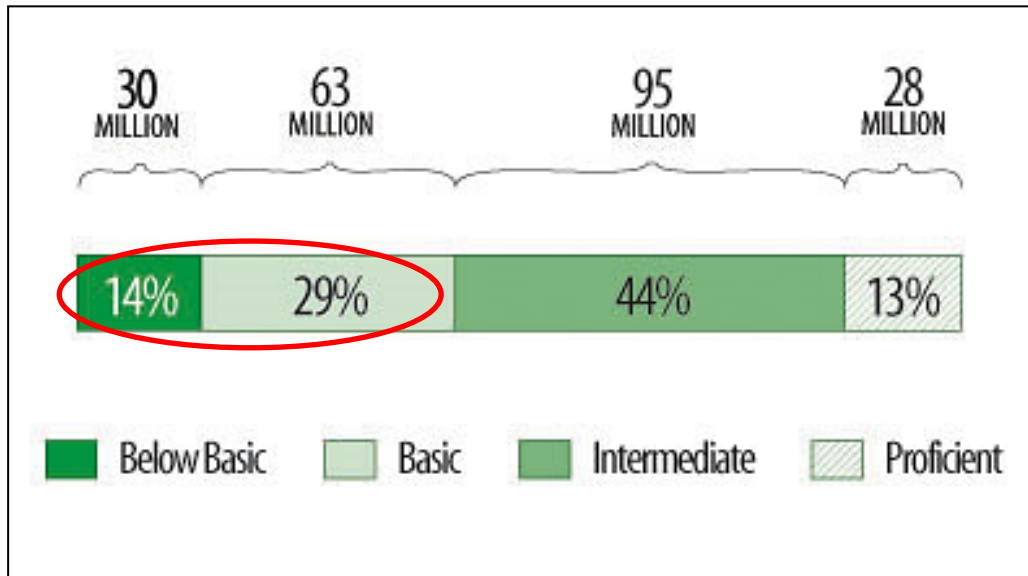
# Literacy in America

43%

of English- and Spanish-speaking U.S. adults  
have limited literacy skills at baseline

(Kutner et al, 2005)

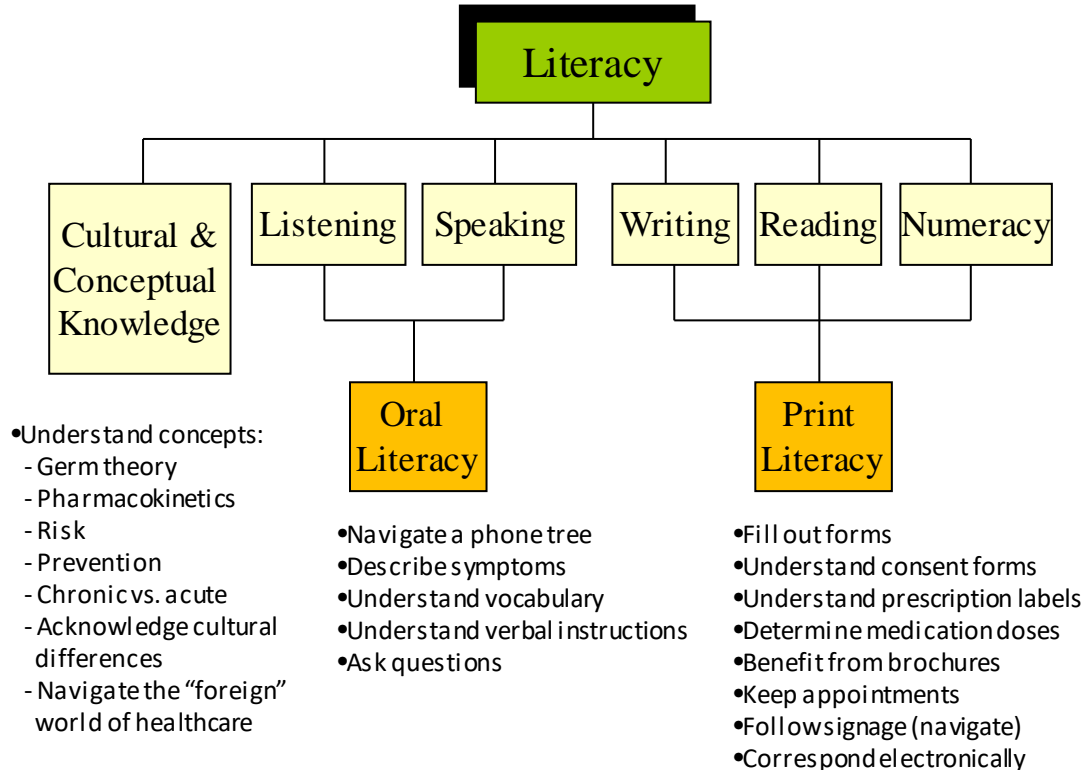
# Percentage of U.S. adults (English-and Spanish-speaking) by literacy level



(Kutner et al, 2005)



# Literacy domains and examples of associated healthcare-related tasks



(Adapted from Neilsen-Bohlman et al, 2004)

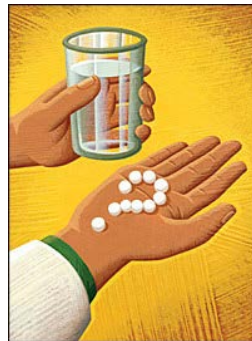
# Reading ability vs. comprehension

- Most Americans can read (and write, speak, listen, and use numbers)
- The problem is language comprehension and utilization

# Reading ability vs. comprehension

In a study of adults with literacy below the 6<sup>th</sup> grade level:

- 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)

# Health literacy skills of US adults

- 72% of pre-operative patients misinterpreted the term, “fasting.”

(Hume et al, 1994)

- 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)



# Health Literacy

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

(Somers & Mahadevan, 2010)

# Low health literacy is associated with...

- ↓ Use of preventive services
- ↓ Understanding of medication use and prescription label instructions
- ↓ Overall health status
- ↑ Use of emergency care
- ↑ Rates of hospitalization
- ↑ Mortality rates among seniors
- ↑ Racial health disparities

(Berkman et al, 2011)

# 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     |
| Germes   | 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 |
| Incest   | Directed     | Impetigo     |

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

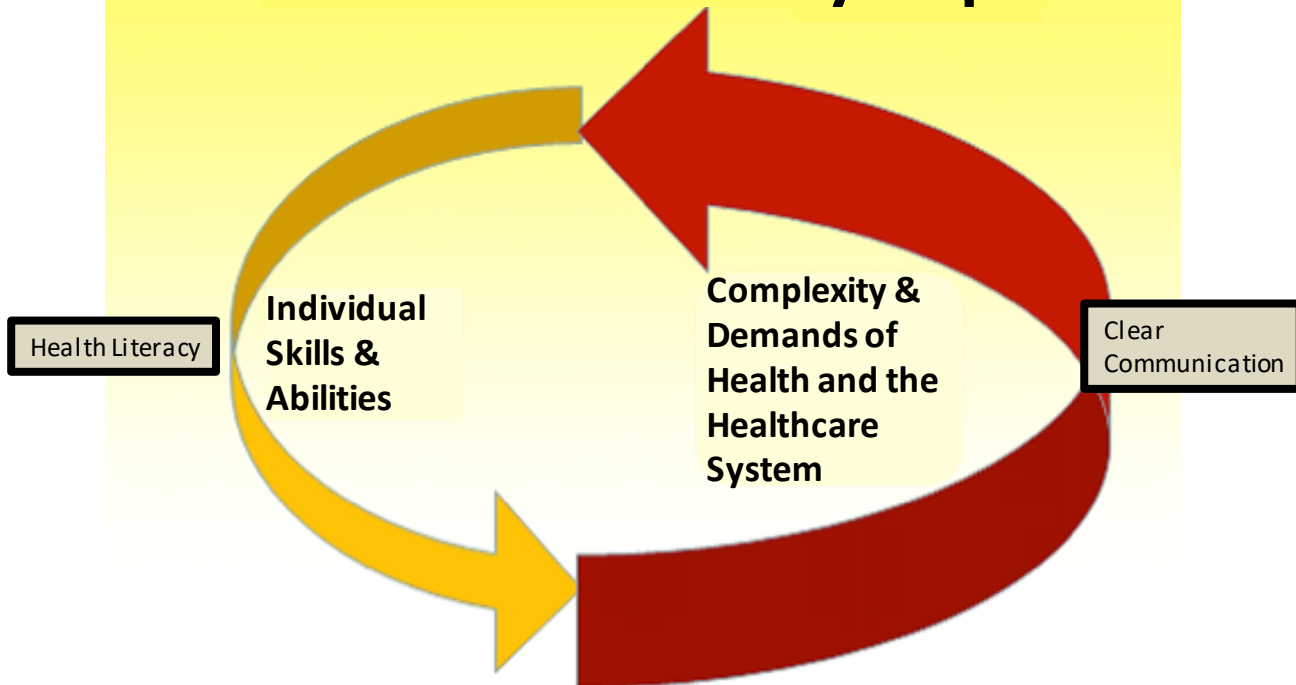
The average English-speaking U.S. adult reads at the 8<sup>th</sup> grade level (Kutner et al, 2005)

**Source:**

Davis, T., Crouch, M. & Long, S. (1993). Rapid Estimate of Adult Literacy in Medicine. Shreveport, LA: Louisiana State University Medical Center



# The Health Literacy Gap



Adapted from Ruth Parker: <http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/HealthLiteracy/Parker.pdf>

**Spoken** communication best practices:  
5 things you can do right now...



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,

(Coleman, Hudson & Pederson, 2017)

# Top 5 Best Practices



1. Practice “universal precautions” for health communication
2. Use plain non-jargon language to facilitate understanding
3. Limit information to 1-3 “need-to-know” items
4. Elicit questions in an open-ended manner
5. Use “teach back” to confirm adequate communication

(Coleman, Hudson, & Pederson, 2017)

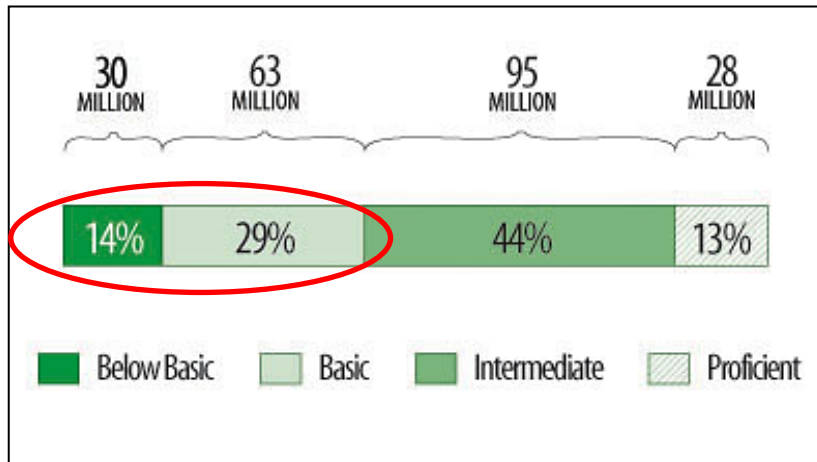
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(Coleman, Hudson, & Pederson, 2017)

# Low health literacy is ubiquitous



(Kutner et al, 2005)

# Shame



- Patients hide their literacy problems
  - “I forgot my glasses”
  - “I’m not going to fill out another one of these stupid forms.”
  - “I’ll read it with my husband when I get home.”
- Over 60% have not told their spouse

(Parikh et al, 1996)

# You can't tell by looking

- Physicians are poor at estimating patients' health literacy skills.

(Coleman, Hudson, Maine, 2013)



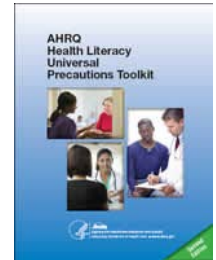
# Screening is inappropriate

- Condition is too common.
- Screening is not acceptable to patients.
- Specific interventions are lacking.
- Risks outweigh benefits.

(Paasche-Orlow & Wolf, 2008)

# “Universal precautions”

- Treat all patients with the same dignity and respect.
- Assume all are at risk for low health literacy in any given moment.
- Use clear communication best practices, including plain language, as your default style with all patients.



(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)

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(Coleman, Hudson, & Pederson, 2017)

# Jargon

Specialized words, phrases, or concepts, which might not be fully understood, or may be misinterpreted by the recipient



(Nielsen-Bohlman et al, 2004)

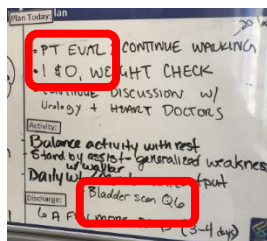
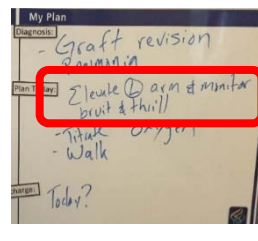
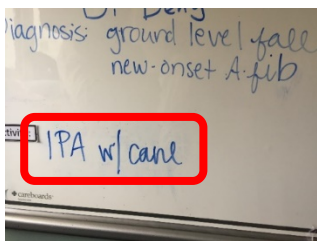
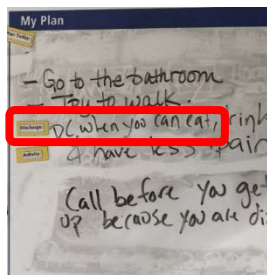
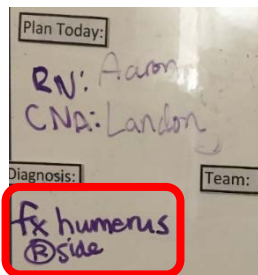
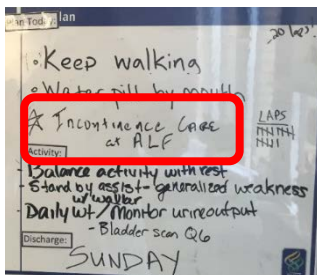
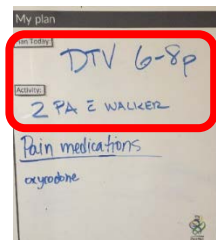
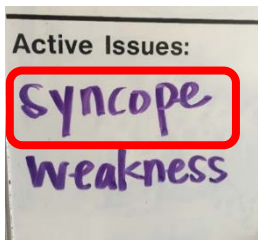
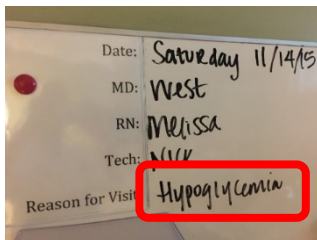
# Three types of medical jargon

**Table 2: Medical Jargon**

| Jargon Type         | Description   | Examples   |   |  |
|---------------------|---|--|---|--|
|                     |   | Words  | Phrases   | Concepts   |
| <b>Technical</b>    | Words, phrases or concepts with <u>meaning only in a clinical context</u>                               | <ul style="list-style-type: none"> <li>• Glucometer</li> <li>• Cardiologist</li> <li>• Insomnia</li> <li>• Abdomen</li> <li>• Cath lab</li> <li>• Ortho</li> <li>• Hypertension</li> <li>• Hemoglobin A1c</li> <li>• Speculum</li> </ul>                     | Acronyms: <ul style="list-style-type: none"> <li>• GERD</li> <li>• COPD</li> <li>• UTI</li> <li>• IV fluid</li> <li>• Advance directive</li> <li>• After Visit Summary (AVS)</li> </ul> | <ul style="list-style-type: none"> <li>• Follow-up</li> <li>• Referral</li> <li>• Chronic</li> <li>• PRN</li> <li>• PCP</li> <li>• Contagious</li> </ul> |
| <b>Quantitative</b> | Words, phrases or concepts <u>requiring clinical judgment or knowledge</u>                              | <ul style="list-style-type: none"> <li>• Unlikely</li> <li>• Increased</li> <li>• Tablespoon</li> <li>• High fever</li> </ul>  | <ul style="list-style-type: none"> <li>• Excessive wheezing</li> <li>• Twice daily</li> </ul>   | <ul style="list-style-type: none"> <li>• Risk</li> </ul>   |
| <b>Lay</b>          | Words, phrases or concepts with <u>two or more meanings</u> or interpretations, one of which is medical | <ul style="list-style-type: none"> <li>• Stable</li> <li>• Abnormal</li> <li>• Stool</li> <li>• Frequency</li> <li>• Course</li> <li>• Positive</li> <li>• Negative</li> <li>• Tissue</li> <li>• Tongue blade</li> <li>• Admitted</li> <li>• Diet</li> </ul> | Idioms: <ul style="list-style-type: none"> <li>• Come down with</li> <li>• Break out</li> <li>• Run a fever</li> <li>• Stomach bug</li> </ul>   | <ul style="list-style-type: none"> <li>• Take on an empty stomach</li> </ul>   |

(Schillinger, 2004; Coleman & Hadden, unpublished)

# OHSU Family Medicine inpatient whiteboard patient communication



# Use “plain language”

- Doctors think they use lay language, but patients say they use medical language about 50% of the time.

(Bourhis, Roth, MacQueen, 1989)

- Doctors did not explain 79% of the medical words they introduced.

(Koch-Weser et al, 2009)



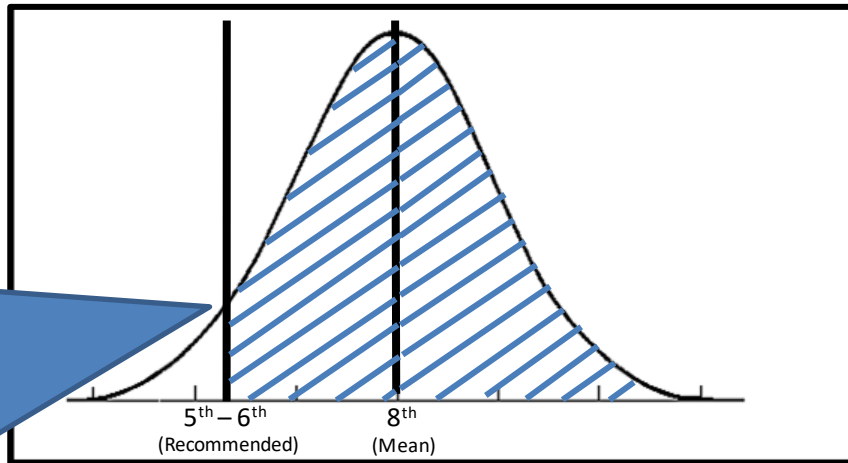
# Use “plain language”

Sometimes called *everyday language* or *living room language*.

| Jargon         | Plain language                        |
|----------------|---------------------------------------|
| Hypertension   | High blood pressure                   |
| PRN            | If needed                             |
| Glucometer     | Machine to measure sugar in the blood |
| Hemoglobin A1c | Hemoglobin A1c                        |

# Write at 5<sup>th</sup>-6<sup>th</sup> grade level

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



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

# Write explicit instructions

Prescriptions often include technical, quantitative, and lay jargon, and require a high degree of numeracy.

- Use time parameters
- Include the reason



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(Coleman, Hudson, & Pederson, 2017)

# Emphasize 1-3 “need-to-know” items

- Reduce information overload.
- Patients typically retain only 50% of what doctors say; half of what they do recall is incorrect!

(Kessels 2003; McCarthy et al, 2012)

- Illness and stress lower attention, retention, understanding, and recall

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

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# Invite real questions

Don't ask: *"Do you have any questions?"*



Closed-ended

- Implies that you expect them to “get it.” If they don’t, something must be wrong with them...
- Patients do not answer this honestly.

(DeWalt et al, 2010)

# Invite real questions

Don't ask: "Do you have any questions?"

Closed-ended

- Implies that you expect them to "get it." If they don't, something must be wrong with them...
- Patients do not answer this honestly.

Ask: "What questions do you have?"

Open-ended

- Implies an expectation that patients should have questions!

(DeWalt et al, 2010)



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(Coleman, Hudson, & Pederson, 2017)

# Teach-back to confirm understanding

Don't ask: "*Do you understand?*"  Closed-ended

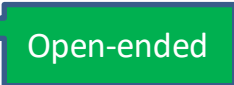
- Implies that patients *should* understand. If they don't, something must be wrong with them...
- Patients say "Yes"

(Schillinger et al, 2003)

# Teach-back to confirm understanding

Don't ask: *"Do you understand?"*  Closed-ended

- Implies that patients *should* understand. If they don't, something must be wrong with them...
- Patients say "Yes"

Use: Teach-back  Open-ended

- *"I want to make sure I have explained things well. 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."*

(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.

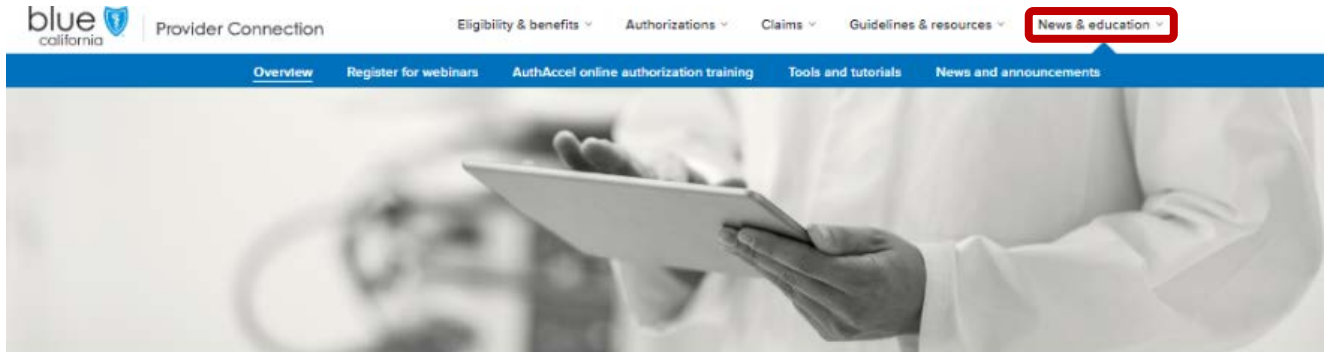
(Schillinger et al, 2003; Kripalani & Weiss, 2006)

# Video resources

- “Health Literacy and Patient Safety: Help patients Understand” – 23-minute overview of health literacy with patient testimonies (AMA Foundation, 2008)  
[https://www.youtube.com/watch?v=cGtTZ\\_vxjyA](https://www.youtube.com/watch?v=cGtTZ_vxjyA)
- “OHSU’s Modified 4 Habits for Patient-Centered Care” – 18-minute idealized clinic encounter demonstrating 15 clear communication techniques  
<https://www.youtube.com/watch?v=7KnxVbUlrY4>

# Provider education on Provider Connection

[blueshieldca.com/provider.com](https://blueshieldca.com/provider.com)



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