



# Health Literacy: The 800 Pound Gorilla in Health Care

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Stan Hudson

Health Literacy Director

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

-- George Bernard Shaw

- Over three quarters of physicians (77%) believed patients knew their diagnosis; however, when asked, only slightly over half (57%) of patients actually did ( $P.001$ ).
- Nearly all physicians (98%) stated that they at least sometimes discussed their patients' fears and anxieties, compared with 54% of patients who said their physicians never did this ( $P=.001$ ).

# Common Definition

Health literacy is the degree to which people have the capacity to:

- Obtain, process, and understand basic health information and services
- Make appropriate healthcare decisions (act on information)
- Access/ navigate healthcare system

Derived from the definition of health literacy in the Institute of Medicine, A Prescription to End Confusion.

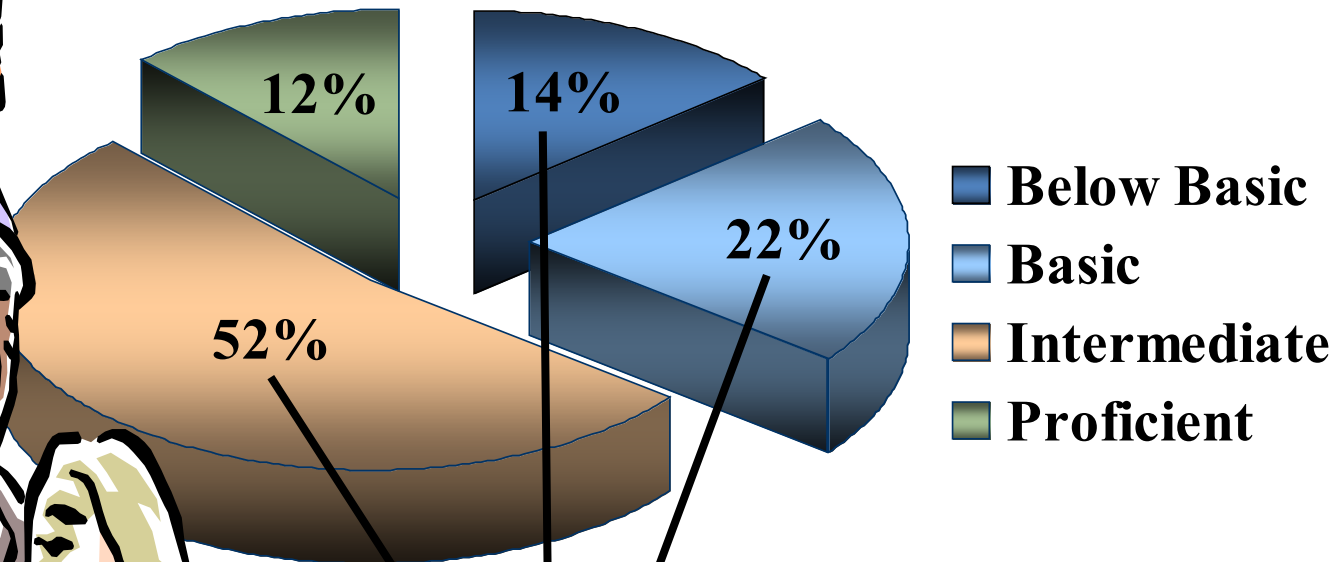


**WI high school graduation rate is 89.6%.**

**U.S. rate is 83%.**

# Health literacy of U.S. Adults

(NCES, 2005)

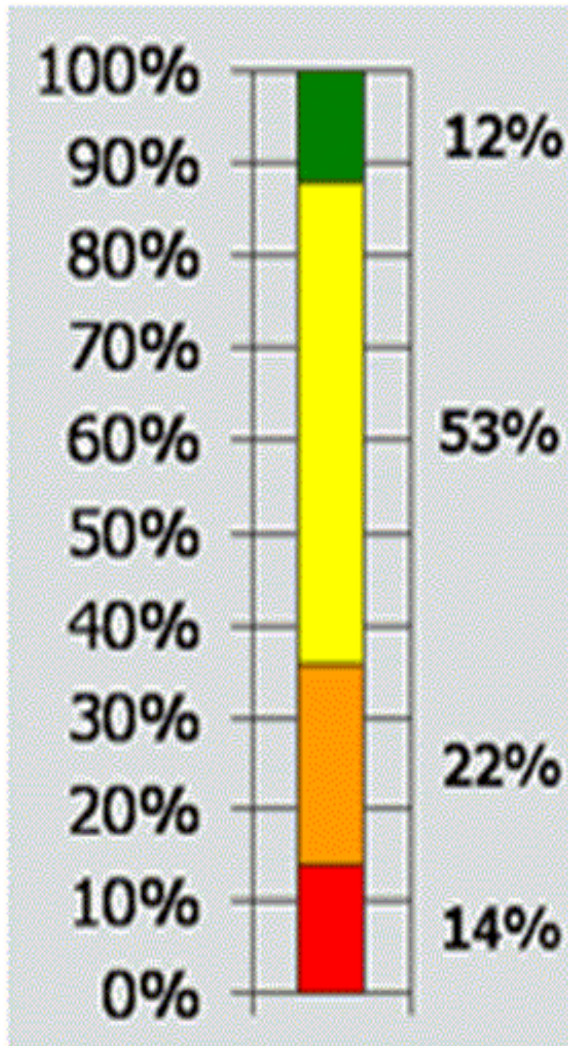


**88%** of U.S. Adults below Proficient level  
That is nearly 9 out of every 10 adults!

**PLUS: 3% could NOT be tested**



# Health literacy of U.S. Adults



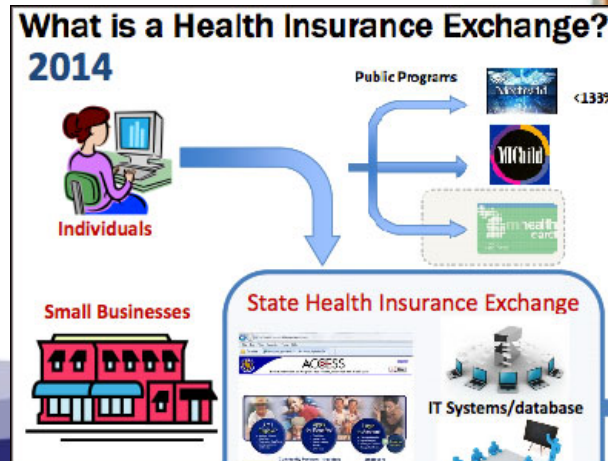
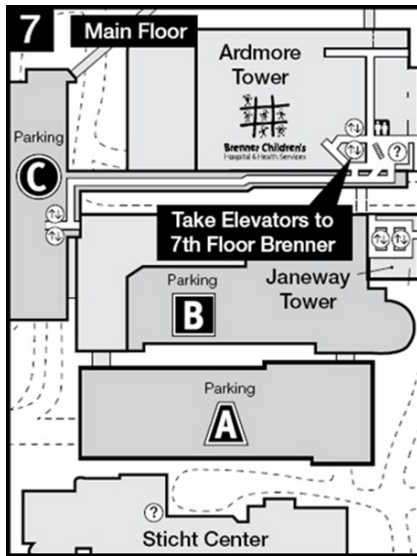
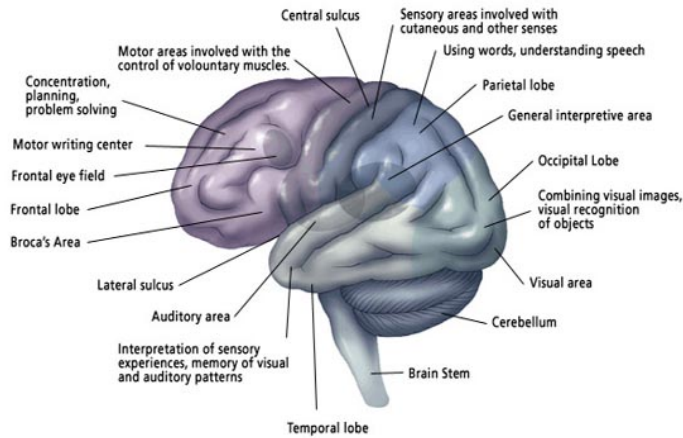
Proficient: Define medical term from complex document, Calculate share of employee's health insurance costs

Intermediate: Determine healthy weight from BMI chart, Interpret prescription and over-the-counter drug labels

Basic: Understand simple patient education handout

Below Basic: Circle date on appointment slip, Understand simple pamphlet about pre-test instructions

# Health Literacy Challenges



# Many Overestimate their Knowledge of Health Insurance

Three  out of four people

Felt confident they know how to use health insurance

*However, only*

One  out of five people

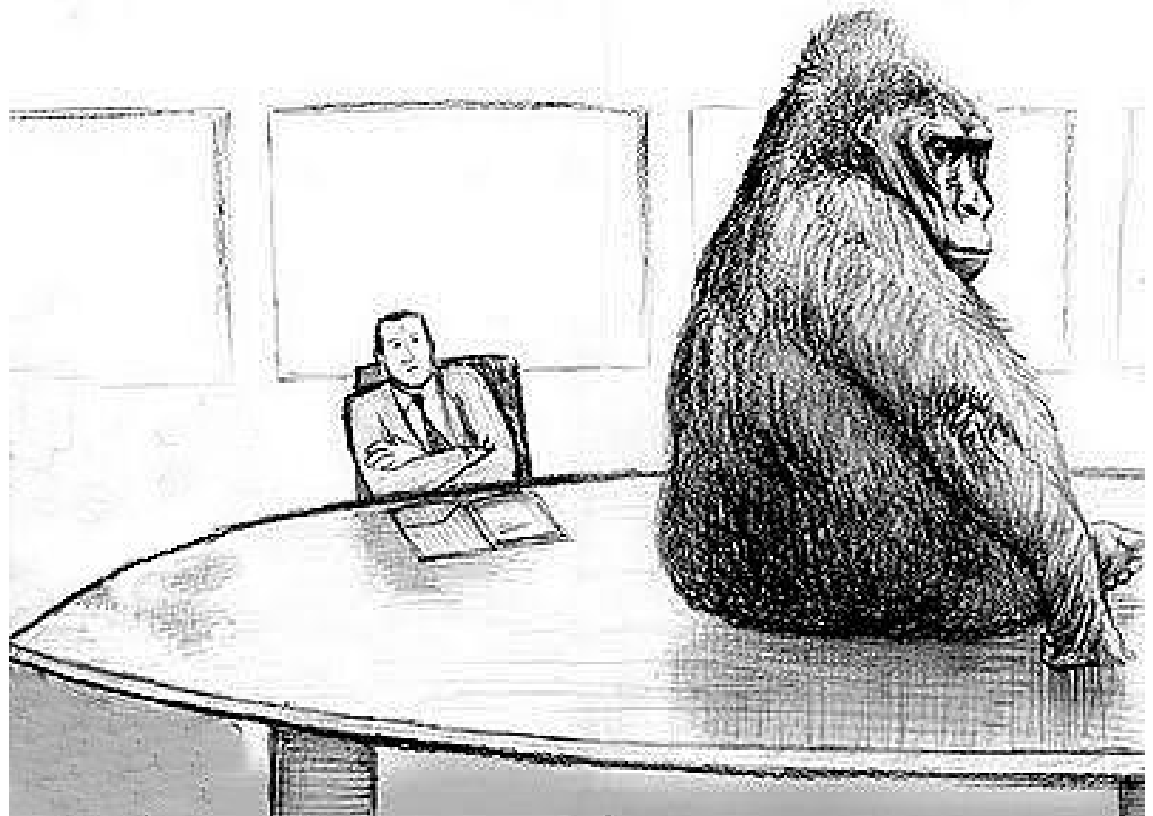
Could accurately calculate their out-of-pocket costs

Source: AIR Health Insurance Literacy Survey, 2013

American Institutes for Research | [www.air.org](http://www.air.org)



Most  
patients  
don't know  
how to  
engage in  
their health





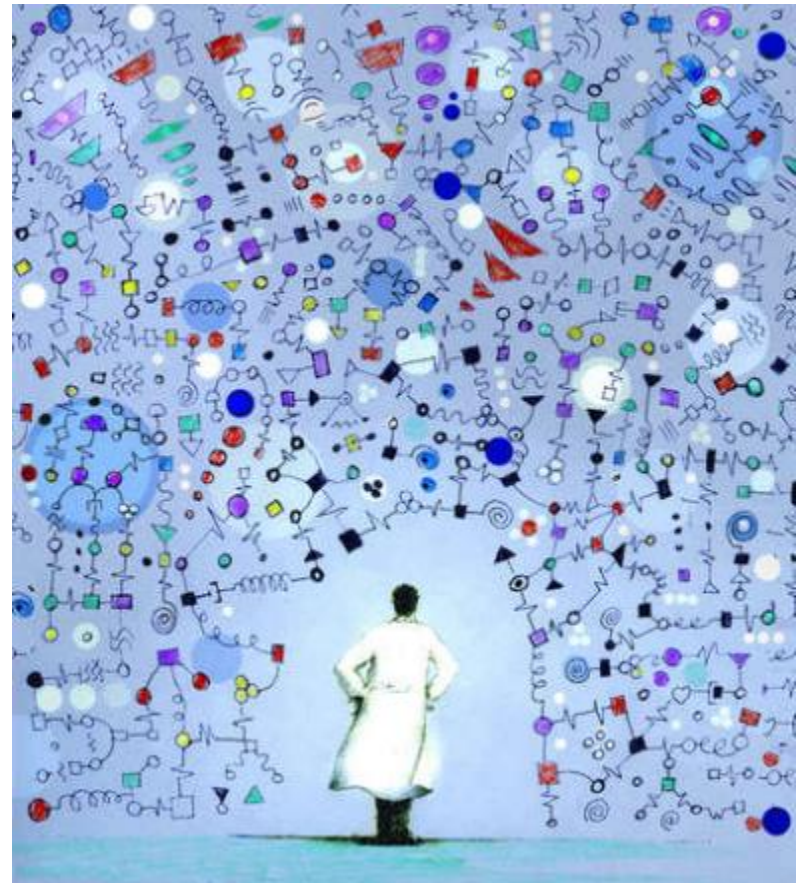
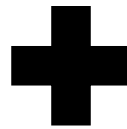
A Quarterly Journal

# Health Elevations

## **“Health Care is Too Hard to Use and It’s Not Your Fault”**

<http://www.coloradohealth.org/yellow.aspx?id=6604>

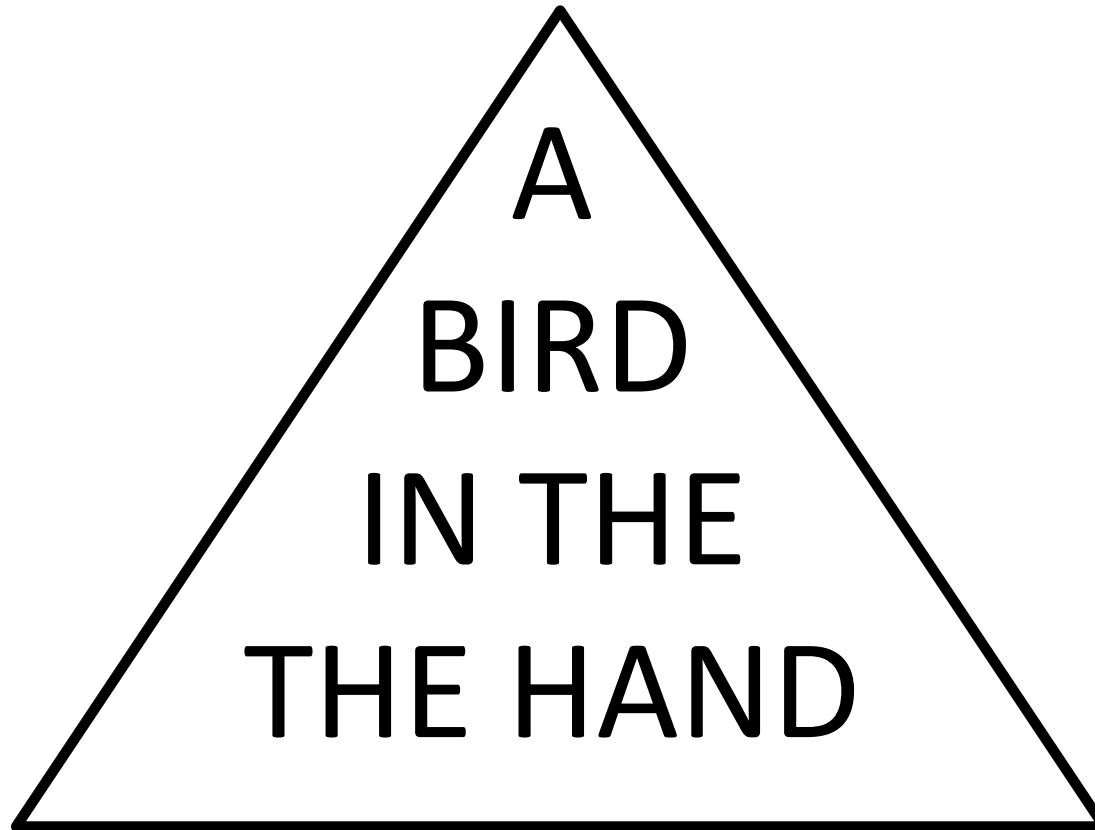
# Health Literacy



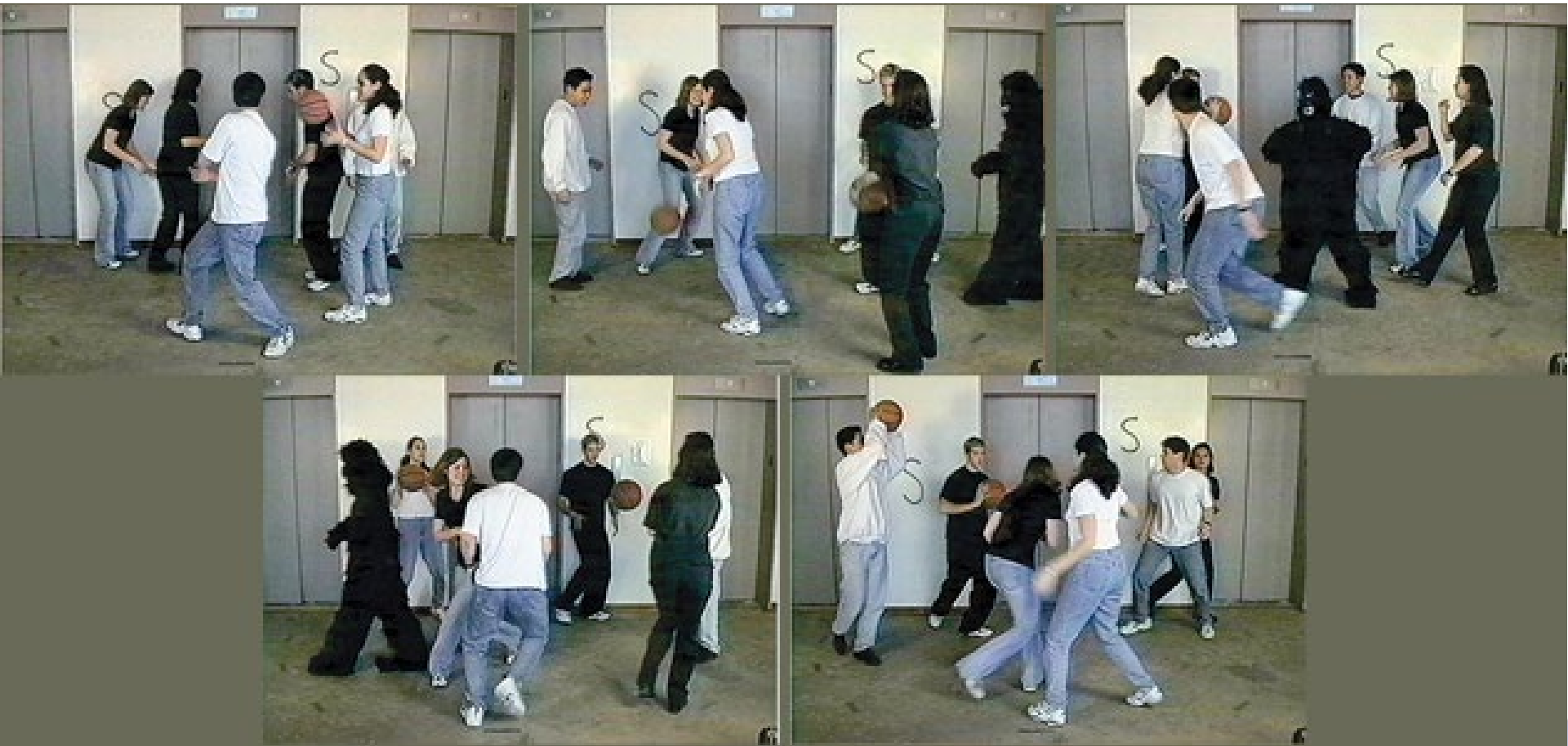
**Patient/Caregiver Skills**

**Complex System Demands**

# The Curse of Knowledge



# Intentional Blindness





# Poor Communication

- 90% complaints
- 75% malpractice cases (Beckman HB, et al. 1994)
- 65% doctors underestimate the information needs of patients (Waitzkin H, 1984)
- 30-35% noncompliance due to poor communication

# Paper Cup



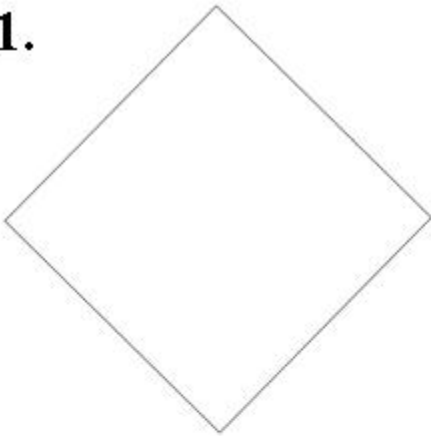


# Paper Cup Instructions

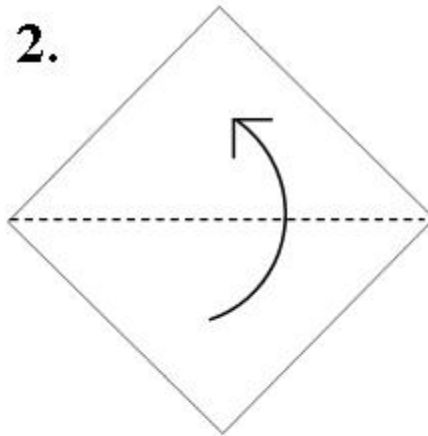
1. Fold the square in half along a diagonal to form a triangle. Hold the paper with the tip of the triangle facing up.
2. Fold the left point of the triangle to the middle of the opposite side.
3. Fold the right point of the triangle to the middle of the opposite side.
4. Fold down a single layer from the top.
5. Fold back the other single layer from the top.

# Paper Cup Instructions

1.



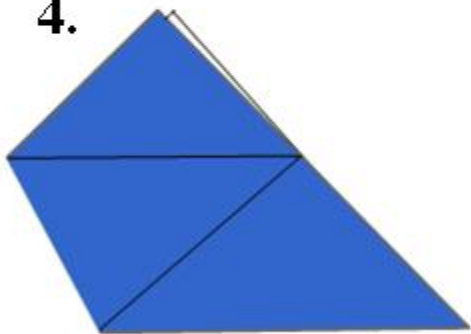
2.



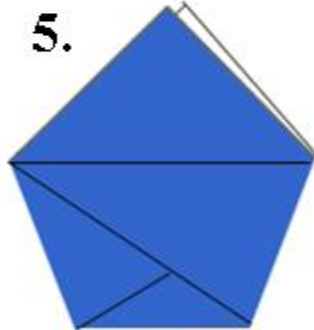
3.



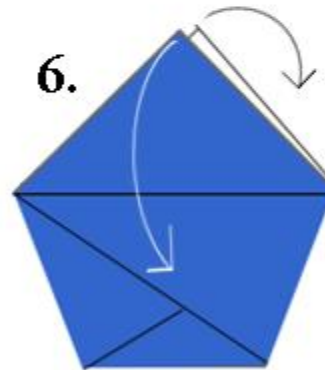
4.



5.



6.



7.



# Small Group Debrief

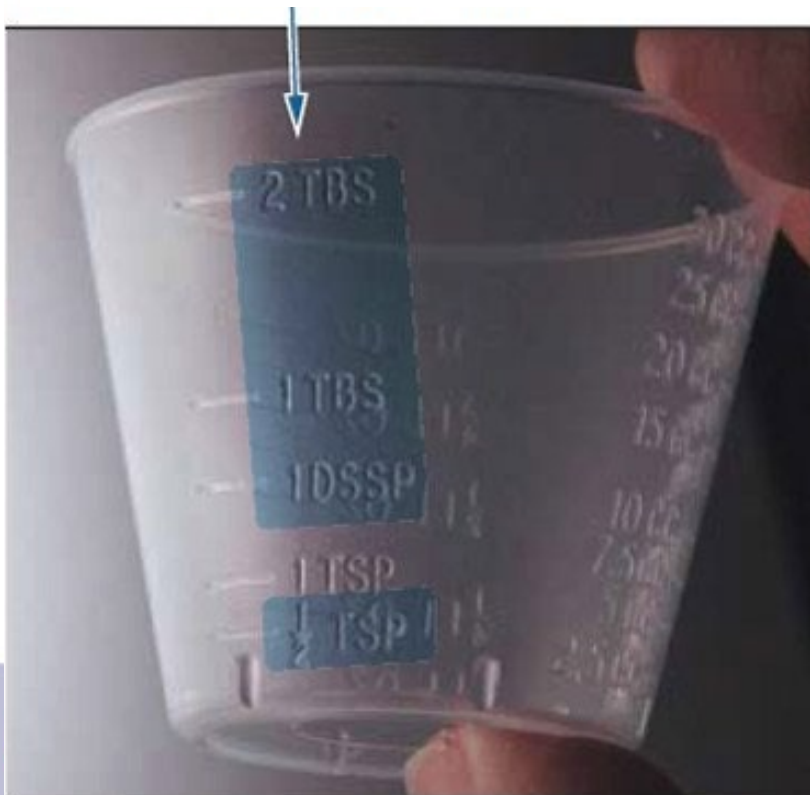
- What did you notice about yourself?
- How did you feel as you made the cup?
- How does this relate to how we provide instructions to patients?

# The Patient Experience



**A** Dosing directions from packaging

Age	Weight	Dose
Under 2 yrs.	Under 24 lbs.	Consult doctor
2 to 6 yrs.	24 - 47 lbs.	1 Teaspoon
6 to 12 yrs.	48 - 95 lbs.	2 Teaspoons



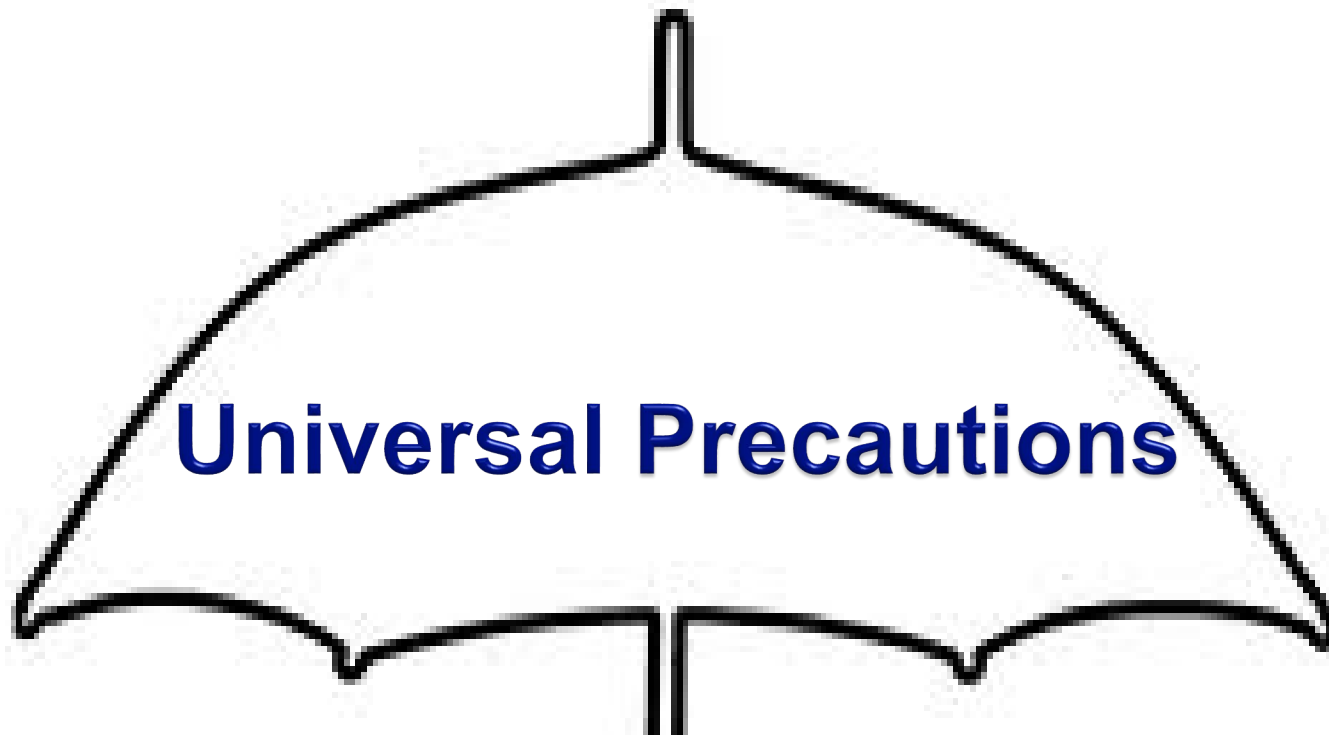
# Dosing Instructions?

- Numerous ways to get it wrong
- Abbreviation not in dosage instructions
- Use of uncommon measures (drams, cc)
- Dssp?

# Health Literacy Is Dynamic

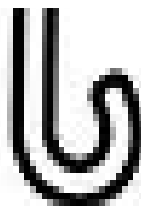
- Health literacy demands can change over time and differ by setting and circumstance
  - Age (teen vs senior citizens)
  - Life event (birth of a child, stress at home)
  - Medical condition (new diagnosis, chronic illness)
- Health literacy is highly contextual and reflects both sides of the interaction.





## Universal Precautions

A communication strategy which assumes that all health care encounters are at risk for communication errors, and aims to minimize risk for everyone



# Avoid Miscommunications

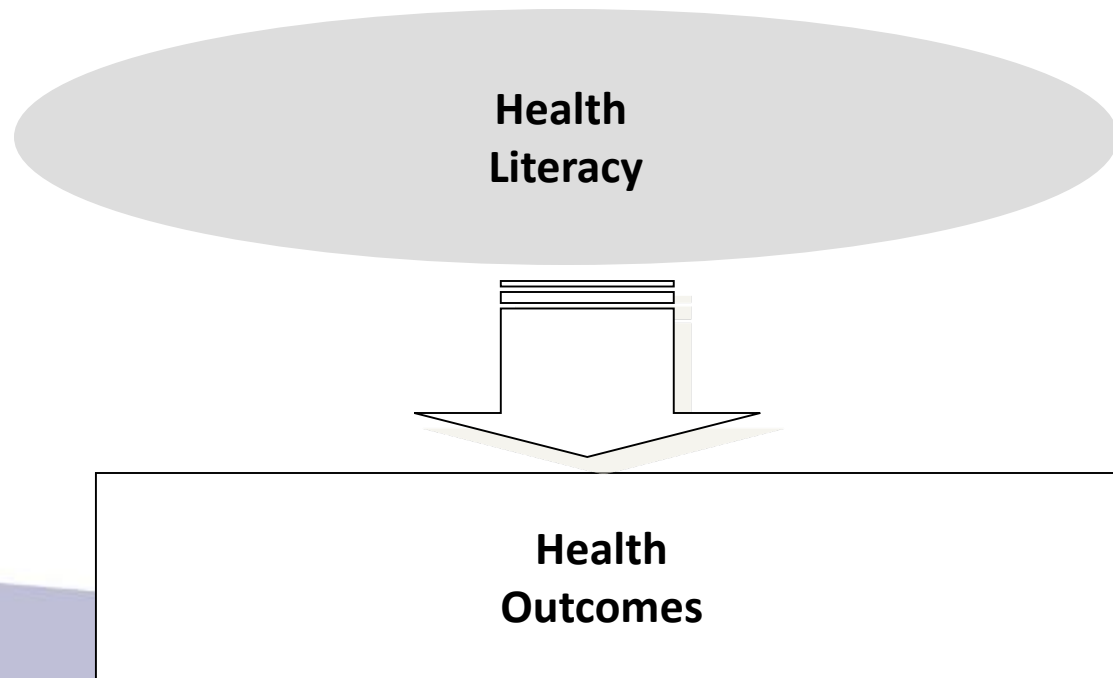




# **Health literacy is a stronger predictor of health status than age, income, employment status, education level, or racial and ethnic group**

(Report on the Council of Scientific Affairs, Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, American Medical Association, JAMA, Feb 10, 1999)

Berkman ND, et. al *Health Literacy Interventions and Outcomes: An Updated Systematic Review*. Evidence Report/Technology Assessment No. 199. AHRQ Publication No. 11-E006. Rockville, MD. Agency for Healthcare Research and Quality. March 2011. Available at: <http://www.ahrq.gov/clinic/tp/lituptp.htm>.



# Health Literacy Costs

- Those with low health literacy have over four times higher average annual health care costs – \$13,000 compared to only \$3,000 for those with higher literacy levels (AMA Foundation “Health Literacy A Manual for Clinicians” )
- Nationally is estimated to cost \$238 billion annually - just over 10% of total US health care expenditures.  
\$3.4 billion to \$7.6 billion annually for Wisconsin  
(Vernon, et al. Low health literacy: implications for national health policy, 2007)

# An Example: Medication Errors

*“How would you take this medicine?”*

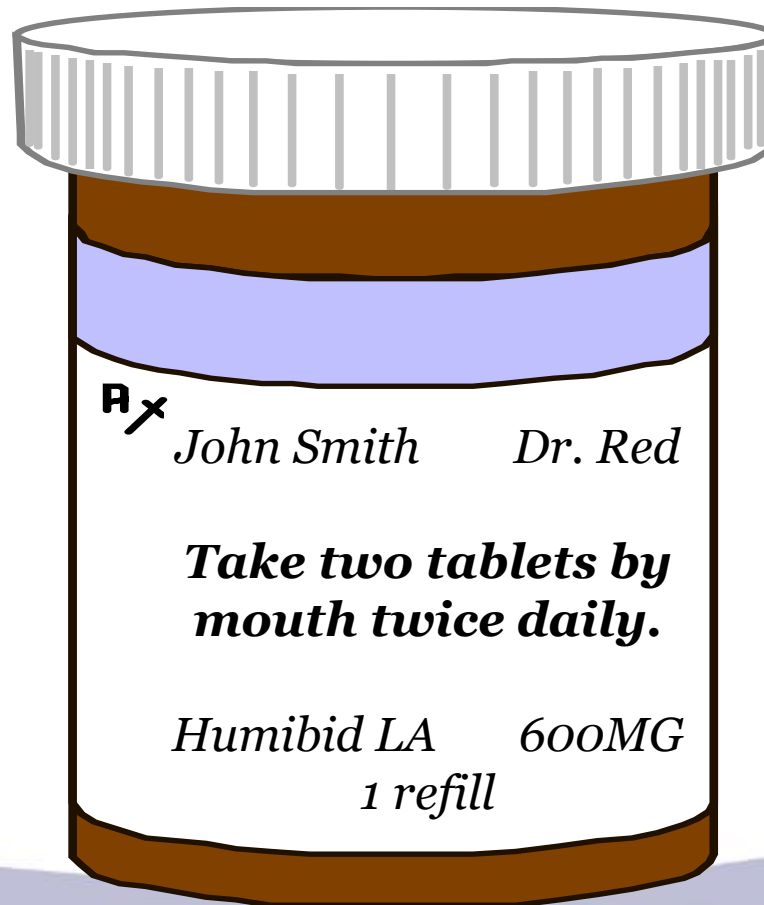
*395 primary care patients in 3 states*



- *46% did not understand instructions  $\geq 1$  labels*
- *38% with adequate literacy missed at least 1 label*

*Davis TC, et al. Annals  
Int Med 2006*

# “Show Me How Many Pills You Would Take in 1 Day”



# Reading 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”

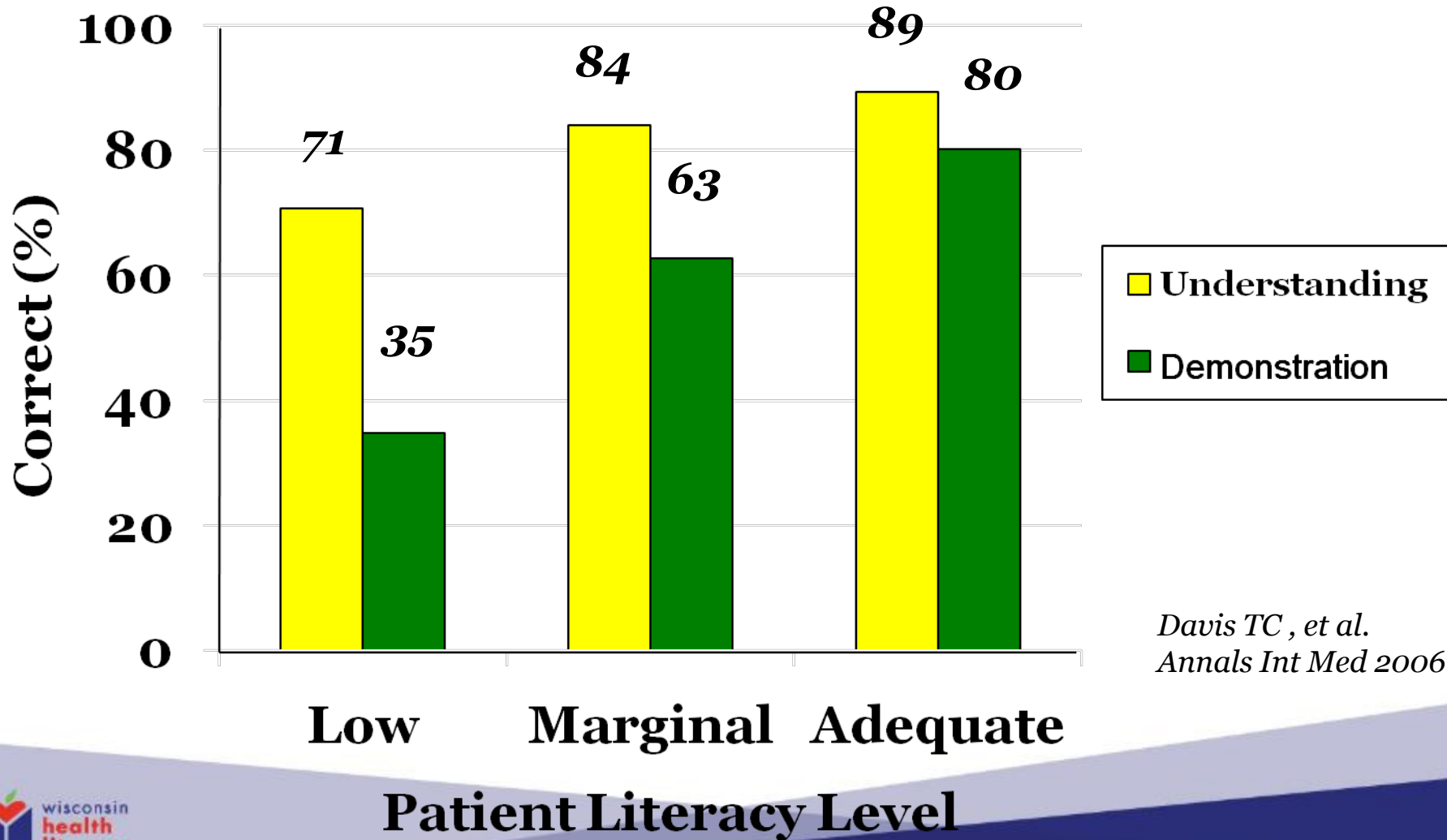
Only 35% could demonstrate the number of pills to actually take



(Davis et al, 2006)

# Rates of Correct Understanding vs. Demonstration

## “Take Two Tablets by Mouth Twice Daily”



*Davis TC, et al.  
Annals Int Med 2006*

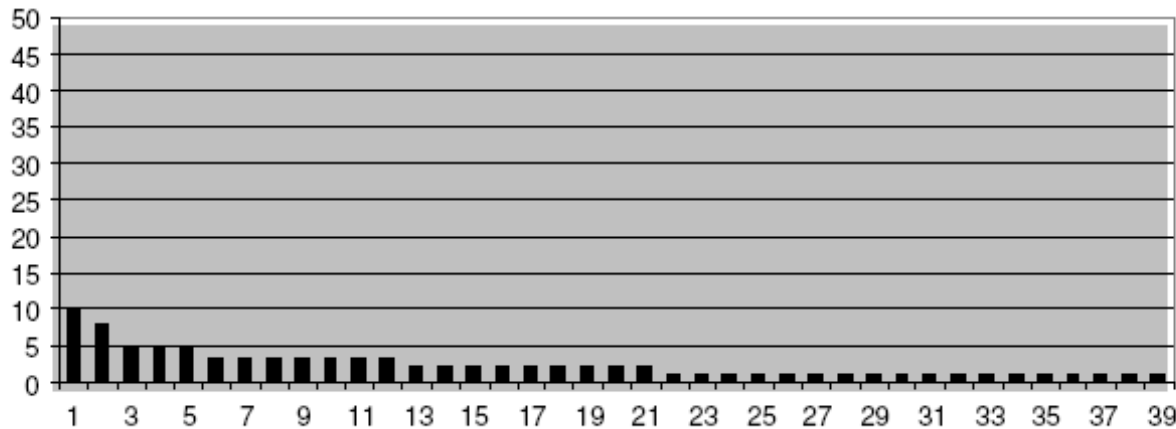
# Brown Bag Medication Review





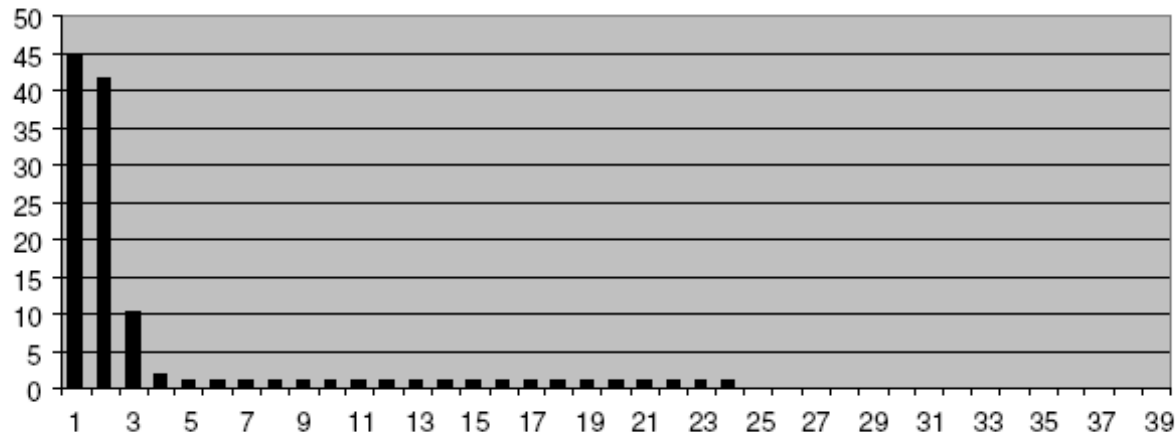
# Move toward standardization: How many ways can you say it?

Percent Distribution of Hand-Written Sig Messages in a Public Hospital



39 ways to say "1 tablet a day"

Percent Distribution of Electronically-Generated Sig Messages in an Academic Practice



Bailey et al., under review, Arch Intern Med, 2008

# Proven Clear Communication Techniques

1. Use plain language and analogies
2. Focus on the 2 or 3 most important “need to know” and start with these
3. Check for understanding using a “teach back” method

# A Quick Note on Jargon

# Provide Explanations in Common Language

- Most patients do not take anatomy in school
- We use words differently in health
- Use familiar, common, & everyday language. If possible, use the patient's own words
- Use analogies that are relatable to the patient



"The labs are back."

# Visuals improve Understanding and Recall

- ✓ Pictures/demonstrations most helpful to patient with low literacy & visual learners
- ✓ Most health drawings too complicated
- ✓ Physician drawings often very good (not too complex)
- ✓ Patients say “show me” & “I can do it”

# Patient Recall of Health Information Is Poor

- Patients/Parents forget 40%–80% of what their doctor tells them as soon as they leave the office and nearly 50% of what they do remember is recalled incorrectly
- The more information provided, the less a patient/parent is able to recall

# Chunk Information AND Check for Understanding

- Break down information into 2 or 3 concepts at a time
  - Could supplement with videos
- Review with patient or family member.
- Conduct a teach back to check understanding.

**BEGIN**

**EXPLAIN NEW CONCEPT**



**ASK PATIENT  
TO REPEAT OR  
DEMONSTRATE**

**ASK PATIENT  
TO REPEAT OR  
DEMONSTRATE**

**CLARIFY ANY MISUNDERSTANDING**

Schillinger D, Piette J, Grumbach K, Wang F, Wilson C, Daher C, Leong-Grotz K, Castro C, Bindman A. Closing the Loop Physician Communication With Diabetic Patients Who Have Low Health Literacy. Arch Intern Med/Vol 163, Jan 13, 2003



# Teach-back Is Supported by Research

- “Asking that patients recall and restate what they have been told” is one of 11 top patient safety practices based on the strength of scientific evidence.”

AHRQ, 2011 Report, *Making Health Care Safer*

- “Physicians’ application of interactive communication to assess recall or comprehension was associated with better glycemic control for diabetic patients.”

Schillinger, Arch Intern Med/Vol 163, Jan 13, 2003, “Closing the Loop”

# Teach-back – Additional Points

● Do not ask yes/no questions like:

- “Do you have any questions?”
- “Do you understand?”

INSTEAD...

“What questions do you have?”

“Tell me one or two questions you've been thinking about.”



## HEALTH LITERACY CHECKLIST

- ✓ **Use Everyday Language**
- ✓ **Actively Encourage Patient Questions**
- ✓ **Provide Complex Information in Chunks**
- ✓ **Ensure Understanding through Teach Back**



# Questions?

For more information please contact:

**Stan Hudson**

**Wisconsin Health Literacy**

**[stan@wisconsinliteracy.org](mailto:stan@wisconsinliteracy.org)**

**(608) 257-1655 Ext. 2**