

# **Improving Health Literacy: Communicating Health Information in Plain Language**

Naomi Holtz, Health Education Specialist  
St. Luke's Regional Medical Center,  
Sioux City, IA

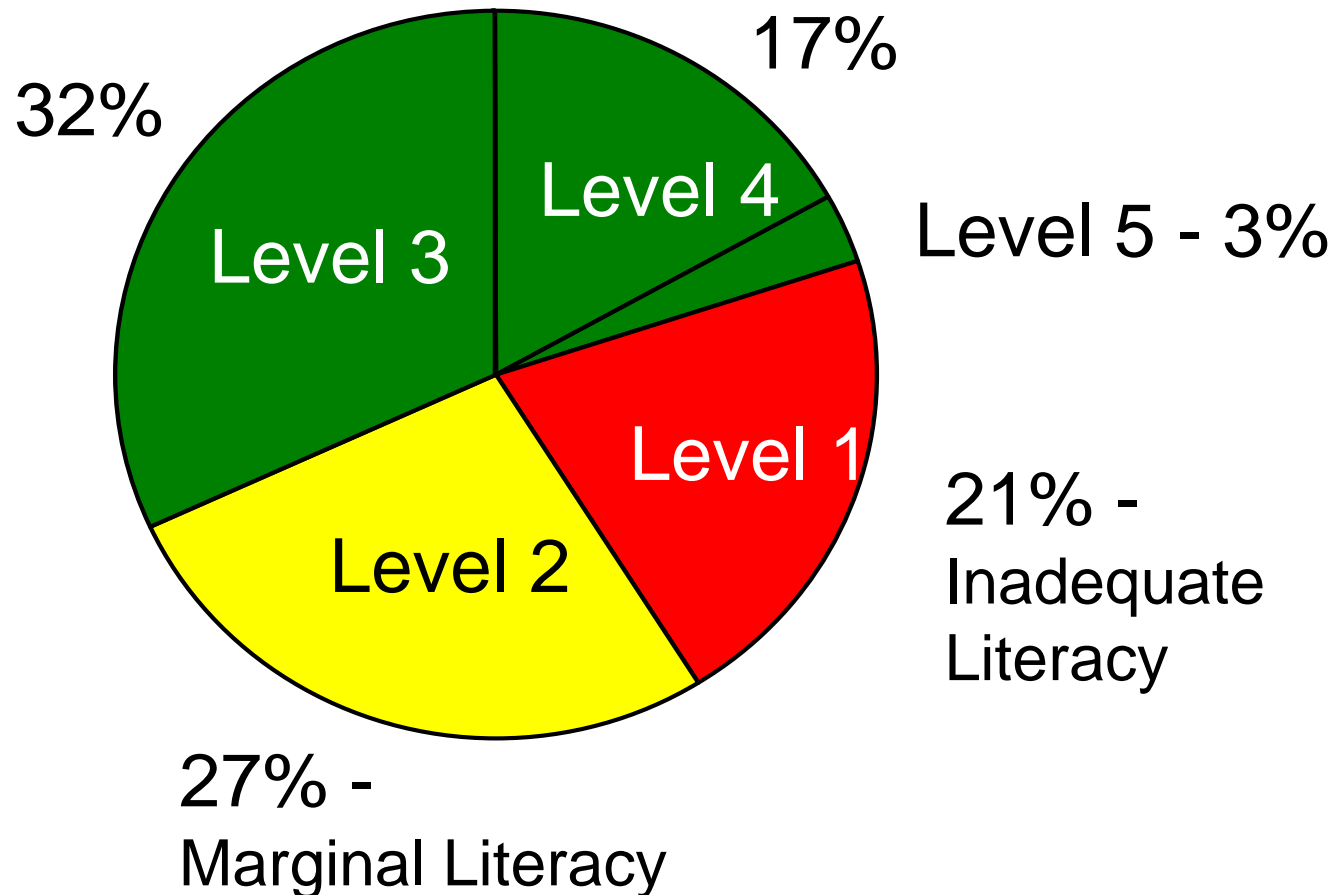
**Governor's Conference on Public Health  
August 3, 2007**

# Definitions:

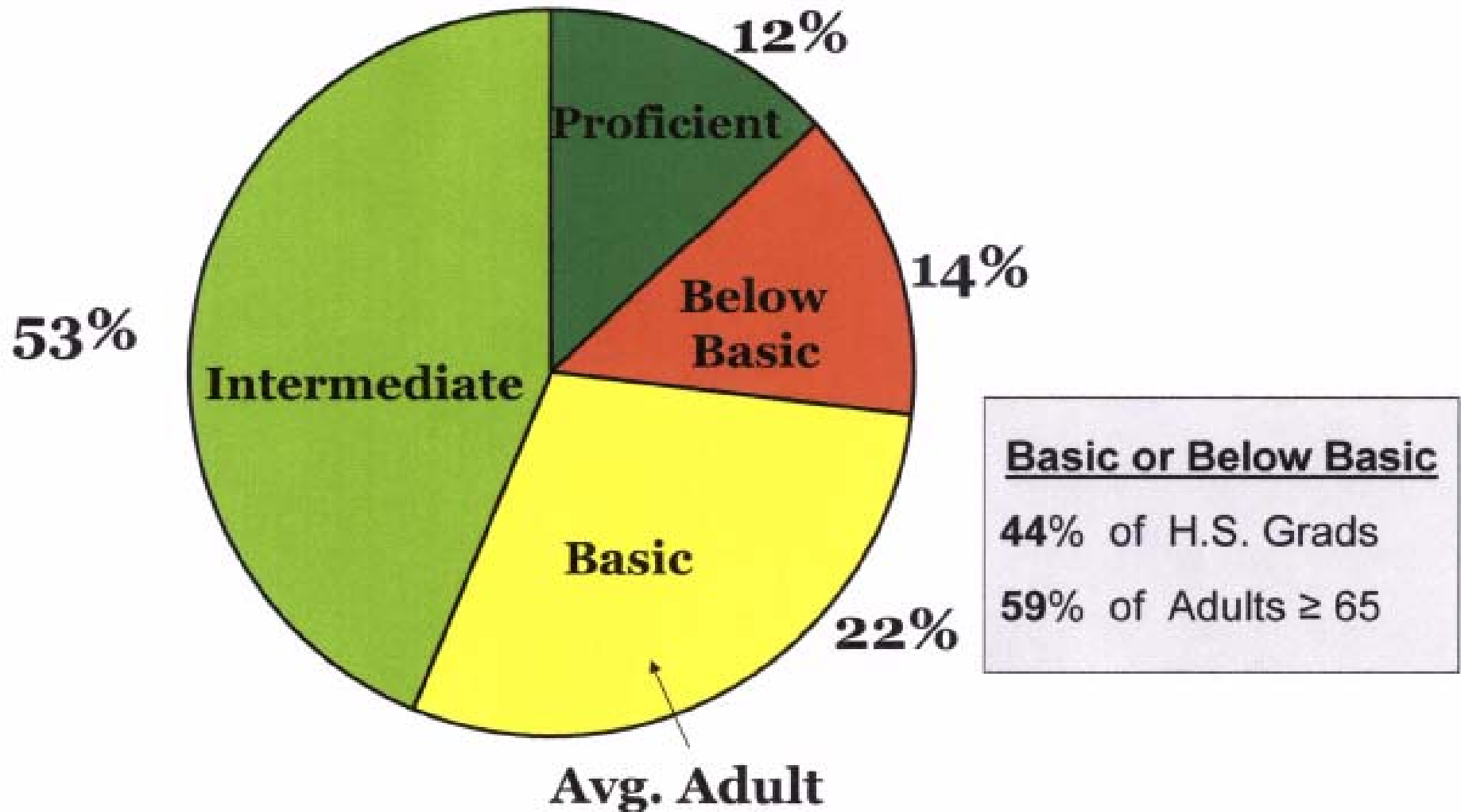
- **General Literacy:** An individual's ability to read, write and speak in English, compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals and develop one's knowledge and potential. (National Literacy Act of 1991)
- **Health Literacy:** The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. (Healthy People 2000)

# 1993 National Adult Literacy Survey

---



# Health Literacy of America's Adults



National Assessment of Adult Literacy (NAAL): National Center for Educational Statistics, U.S. Department of Education, 2003.

# NALS Results in Iowa Adult Population

- To get statistics by county, city, town or Congressional District, go to <http://www.casas.org/lit/litcode/Search.cfm>

# **NALS Results for Des Moines**

In Des Moines, 38% of the adult population 16 years of age and older function at level 1 or level 2.

# Inadequate Health Literacy

---

- **1/2 of the US population may be at risk**
  - Misunderstanding
  - Mistakes
  - Excess hospitalizations
  - Poor health outcomes

# What Is It Like?

---

- The following passage simulates what a reader with low general literacy sees on the printed page.
- Read the entire passage out loud.

**GNINAEELC – Ot erussa hgih ecnamrofrep,  
yllacidoirep naelc eht epat sdaeh dna  
natspac revenehw uoy eciton na  
noitalumucca fo tsud dna nworb-red edixo  
selcitrapp. Esu a nottoc baws denetsiom  
htiw lyporposi lohocla. Eb erus on lohocla  
sehcuot eht rebbur strap, sa ti sdnert ot yrd  
dna yllautneve kcarc eht rebbur. Esu a  
pmad tholc ro egnops ot naelc eht tenibac.  
A dlim paos, ekil gnihsawhsid tnegreted,  
Iliw pleh evomer esaerg ro lio.**

# Why Are They At Risk?

---

- Reliance on the written word for patient instruction
- Increasingly complex health system
  - More medications
  - More tests and procedures
  - Growing self-care requirements
- Pain, medications, worry/illness, other concerns

# Changes in the Health Care System

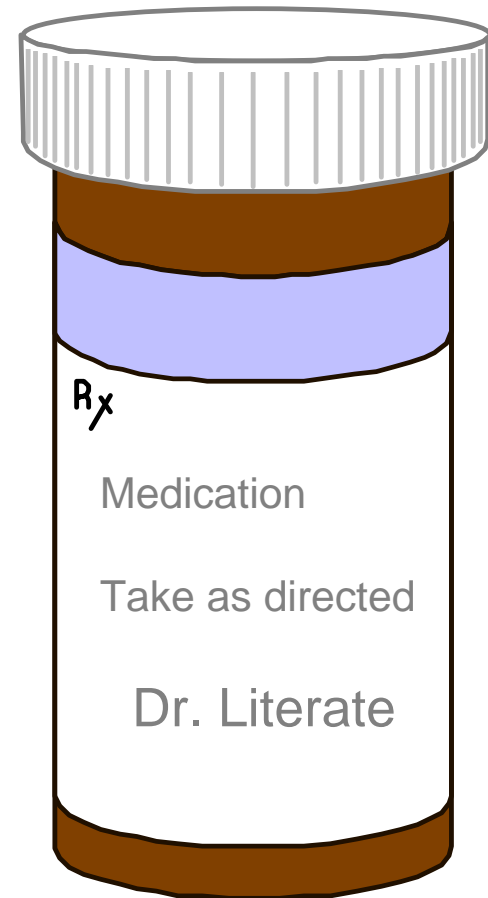
---

	<b>~35 Years Ago</b>	<b>Today</b>
<b>Treatment of Acute Myocardial Infarction</b>	<ul style="list-style-type: none"><li>• 4 - 6 wks bed rest in hospital</li></ul>	<ul style="list-style-type: none"><li>• 2-4 days in hospital (M&amp;R Guidelines)</li></ul>
<b>Available Rx Drugs</b>	<ul style="list-style-type: none"><li>• 650</li></ul>	<ul style="list-style-type: none"><li>• &gt;10,000</li></ul>
<b>Treatment of new onset diabetes</b>	<ul style="list-style-type: none"><li>• 3 weeks in hospital; 2 hrs/day of diabetic education classes</li></ul>	<ul style="list-style-type: none"><li>• outpatient; 0-3 hrs diabetic education classes; written materials; internet; telemedicine</li></ul>
<b>Treatment of Asthma</b>	<ul style="list-style-type: none"><li>• theophylline</li></ul>	<ul style="list-style-type: none"><li>• inhalers w/ spacers; controller vs. rescue meds; peak flow monitoring; tapering steroids; trigger avoidance</li></ul>

# Low Health Literacy = Problems with...

---

- Medications
- Appointment slips
- Informed consents
- Discharge instructions
- Health education materials
- Insurance applications



# Less Healthy Behaviors for Patients with Low Literacy

---

- More exposure to violence
- Pregnant women more likely to smoke
- Less breastfeeding
- Less likely to get flu vaccine or pneumovax

# Estimated \$50+ Billion Annual Costs of Poor Health Literacy\*



## We all pay:

- 39% paid by Medicare through FICA taxes on workers
- 17% paid by employers
- 16% paid by patients out-of-pocket
- 14% paid by Medicaid
- The remaining 14% comes from other public and private sources.

\*Estimated by the National Academy on an Aging Society using 1998 figures

# Research Also Shows That:

---

- Literacy is the single best predictor of health status
- It is a stronger predictor than age, income, employment status, education level, or racial and ethnic group

Baker DW, et al. *Am J Public Health*, 2002.

Schillinger, et al. *JAMA*, 2002.

# What Patients May Feel

## *About their limited reading ability*

- Ashamed, embarrassed
- Less of a person
- Stupid
- Anxious
- Angry
- “Something is wrong with me”
- % who have never told\*:
  - supervisor 91%
  - spouse 68%
  - children 53%
  - **anyone** **19%**

# Patients may Protect Themselves in Health Care Settings

---

- Coping techniques\*:
  - bring someone who can read (98%)
  - watch other people/do what they do (86%)
  - ask for help from staff (86%)
  - pretend they can read (80%)
  - ask other patients (80%)
  - never ask for help (63%)
- Seek help only when illness is advanced
- Walk out of the waiting room
- Make excuses
- Become angry, demanding
- Clown around, use humor
- Detour, let provider miss the concern
- Be quiet, passive

# Enhancing Health Literacy...




---

1. Enhance assessment techniques
2. Create a shame-free environment
3. Improve interpersonal communication with patients
4. Create and use patient-friendly written materials

# Where to Start?

## *Using assessment to address literacy issues....*

---

- Be alert for “red flags” 
  - Excuses
  - Paperwork difficulties 
  - Non-adherence
  - “Difficult” patients
- Use the “social history” to assess literacy
- Use “medication reviews” to identify and address problems
- Include patients and families in this work 
- Be aware of cultural issues

# Formal Reading Assessments

- Health literacy experts and health care providers dispute the value of routine, standardized reading testing (TOFLA, REALM) in the health care setting.
- The new readers/adult learners on our teams expressed strongly that standardized reading testing does **not** promote a “shame-free” culture of care.
- During the admission history *Iowa Health System* computer documentation prompts the nurse to ask the patient or caregiver about their comfort with reading and preferred learning style.














Gen Adm Data	Advance Dir	HM,SurgHx.Vasc	Med Hx-Resp,CV	Med H
Social Fact/DC plan	SocFact/DC cont	Latex Screenings	Screening Categ	OB History
Med Hx-Neuro,MS,EENT	Med Hx-Psy,Misc	Immunizations	Substance Usage	Learning Needs

Learning Barriers

## Learning Needs Assessment

Display Education FS

### Y Pt/Caregiver Learning Needs

- Patient preferred learning style 
- Caregiver preferred learning style 
- Patient-How happy are you w/your reading 
- Caregvr-How happy are you w/your reading 
- Reading ability not assessed due to 
- Cognitive barriers - other 
- Language other than English 
- Need language interpreter 
- Uses sign language 
- Uses language board 
- Receptive to learning 
- Not receptive to learning 
- Learning needs other 

- Wears glasses
- Uses contacts
- Is blind
- Has blurred vision
- Has cataracts
- Has diplopia (double vision)
- Has glaucoma
- Has macular degeneration
- Has nystagmus
- Has ptosis
- Visual barrier-other
- Is deaf
- Uses hearing aid
- Hearing barrier-other
- Cultural/Ethnic learning ba
- Developmental learning barr
- Emotional learning barrier
- Financial learning barrier
- Religious/Spiritual learnin

Service Date/Time: 17OCT06 1634

Change date/time
















Gen Adm Data	Advance Dir	HM,SurgHx,Vasc	Med Hx-Resp,CV	Med
Social Fact/DC plan	SocFact/DC cont	Latex Screenings	Screening Categ	OB History
Med Hx-Neuro,MS,EENT	Med Hx-Psy,Misc	Immunizations	Substance Usage	Learning Needs Learning Barriers

## Learning Needs Assessment

Display Education FS

### Y Pt/Caregiver Learning Needs

- Patient preferred learning style 
- Learning style 
- Learning style 
- How/your reading 
- How/your reading 
- Impaired due to 
- 
- 
- 
- 
- 
- 
- Learning needs other 

- Need language interpreter
- Uses sign language
- Uses language board
- Receptive to learning
- Not receptive to learning
- Learning needs other

- Wears glasses
- Uses contacts
- Is blind
- Has blurred vision
- Has cataracts
- Has diplopia (double vision)
- Has glaucoma
- Has macular degeneration
- Has nystagmus
- Has ptosis
- Visual barrier-other
- Is deaf
- Uses hearing aid
- Hearing barrier-other
- Cultural/Ethnic learning barrier
- Developmental learning barrier
- Emotional learning barrier
- Financial learning barrier
- Religious/Spiritual learning barrier

PT ED (SECS) - 4196

Service Date/Time: 17OCT06 1634

Change date/time














Gen Adm Data	Advance Dir	HM,SurgHx.Vasc	Med Hx-Resp,CV	Med
Social Fact/DC plan	SocFact/DC cont	Latex Screenings	Screening Categ	OB History
Med Hx-Neuro,MS,EENT	Med Hx-Psy,Misc	Immunizations	Substance Usage	Learning Needs Learning Barriers

## Learning Needs Assessment

Display Education FS

### Y Pt/Caregiver Learning Needs

- Patient preferred learning style 
- Caregiver preferred learning style 
- Patient-How happy are you w/your reading 
- Read well - Happy with reading 
- Read fair - Could be better 
- Read poor - Not happy with how I read 
- Can't read - Does not know how to read 
- Uses language board 
- Receptive to learning 
- Not receptive to learning 
- Learning needs other 

- Wears glasses
- Uses contacts
- Is blind
- Has blurred vision
- Has cataracts
- Has diplopia (double vision)
- Has glaucoma
- Has macular degeneration
- Has nystagmus
- Has ptosis
- Visual barrier-other
- Is deaf
- Uses hearing aid
- Hearing barrier-other
- Cultural/Ethnic learning barrier
- Developmental learning barrier
- Emotional learning barrier
- Financial learning barrier
- Religious/Spiritual learning barrier

PT ED (SECS) - 4196

Service Date/Time: 17OCT06 1634

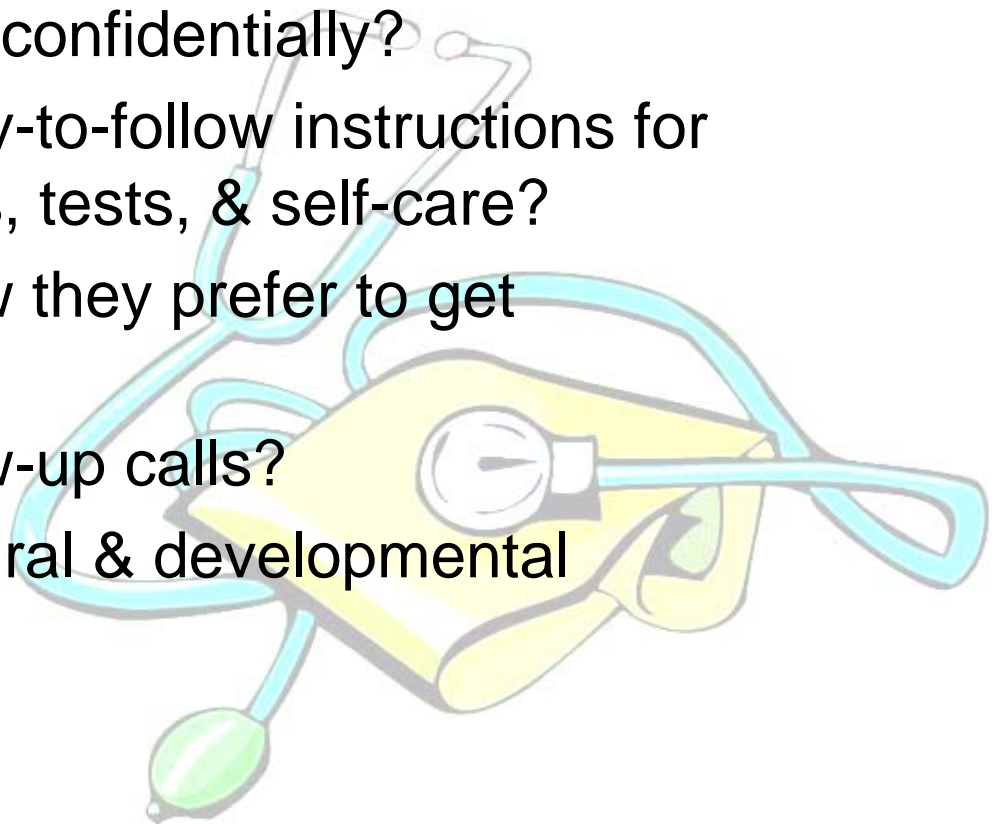
Change date/time



# Taking a Pulse in your Setting

---

- What is the attitude of staff?
- Are check-in procedures patient-friendly?
- Is assistance provided confidentially?
- Are patients given easy-to-follow instructions for appointments, referrals, tests, & self-care?
- Are patients asked how they prefer to get information?
- Is there a role for follow-up calls?
- Are staff aware of cultural & developmental issues?



# Failure to Communicate

---

Doctor:

“Your foot infection is so severe that we will not be able to treat it locally.”

Patient:

“I hope I don’t have to travel far, doctor. I’m afraid of flying.”

# Failure to Communicate

---

“A baby was brought to the clinic with diarrhea. I treated the baby and told the mother to ‘push fluids’ with the baby. That was about 8 a.m. The mother took the baby home, and at noon the baby was dead. The mother had **literally pushed fluids** by tipping the baby’s bottle upside-down and forcing the fluid when the baby’s responses began to slow down. The baby suffocated.”

# Conduct Patient-Centered Visits

---

- Engage in a dialogue with the patient
- Listen more and speak less
- Encourage questions
- Understand and address the patient's concerns

# Explain Things Clearly Using Plain Language

---

- Slow down the pace of your speech.
- Use analogies.
  - *“Arthritis is like a creaky hinge on a door.”*
- Use plain, non-medical language.
  - *“Pain killer” instead of “analgesic”*

# Focus on Key Messages and Repeat

---

- Limit information by focusing on 1-3 key messages per visit
- Review each point and repeat several times
- Have other staff reinforce key messages

# Use “Teach Back” or “Show Me” Techniques.

---

- Ask patient to demonstrate understanding
  - “What will you tell your spouse about your condition?”
  - “I want to be sure I explained everything clearly, so can you please explain it back to me so I can be sure I did?”
- Do not ask,
  - “Do you understand?” .

# Efforts to “Hard-Wire” Teach-Back at St. Luke’s, Sioux City

- Teach-back method included in Nursing Practice Council Nursing Standards policy revisions
- Congestive Heart Failure (CHF) Discharge Instructions Teach-back performance improvement pilot
- Teach-back CHF Home Health Disease Management Program
- HL “Consent for Surgery or Procedure” uses teach-back to assess for informed consent
- Communication skills covered in mandatory Customer Service Class utilized HL principles

# “Teach Back” Works

---

- “Asking that patients recall and restate what they have been told” is one of 11 top patient safety practices based on strength of scientific evidence.  
(AHRQ, 2001 Report on *Making Health Care Safer*)
- Physicians’ application of interactive communication to assess recall or comprehension was associated with better glycemic control for diabetic patients.  
(Arch Intern Med/Vol 163, Jan 13, 2003, “Closing the Loop”)



# Enhancing the Patient - Provider Interaction:

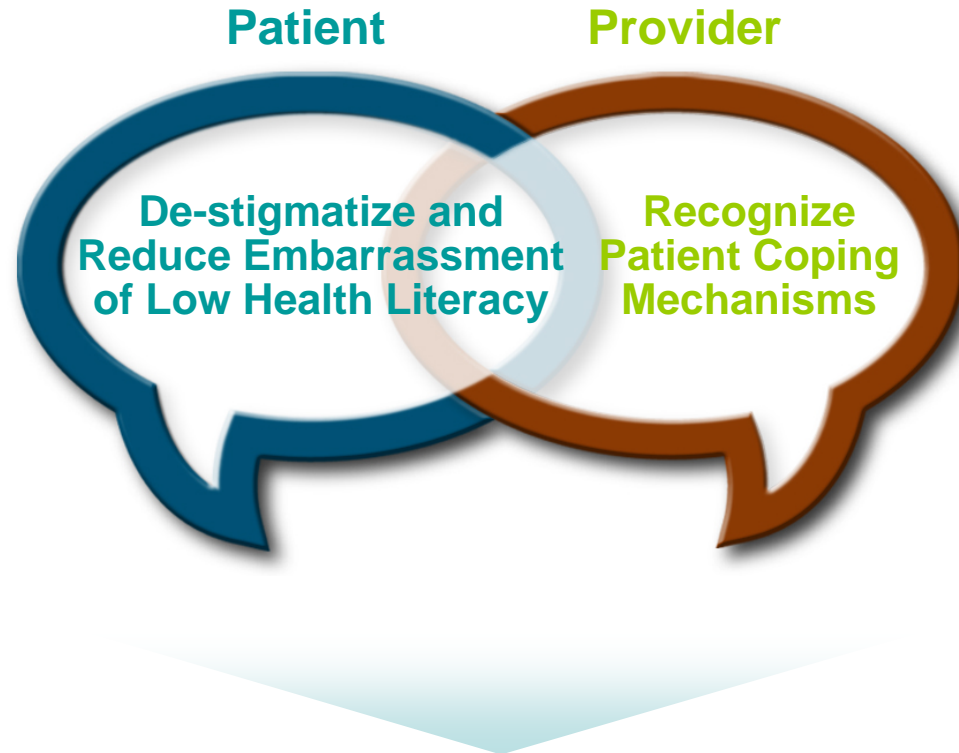
Ask  
Me<sup>3</sup>

# What Is *Ask Me 3*?

- Promotes three simple, but essential, questions and answers for every healthcare interaction:



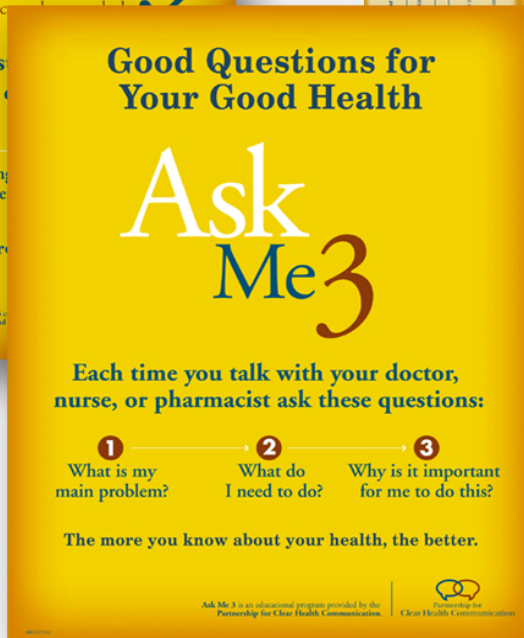
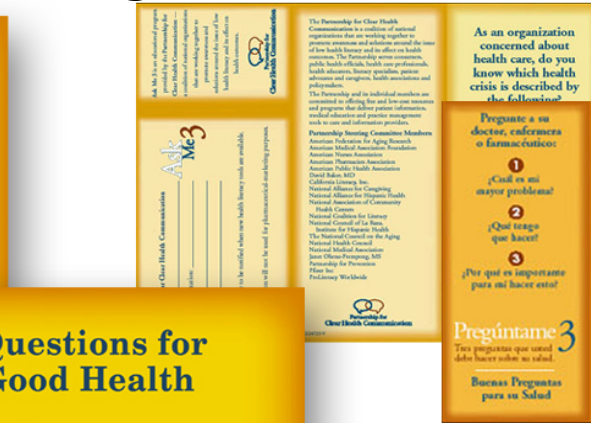
# Ask Me 3 – Creates Shared Responsibility for Clear Health Communication



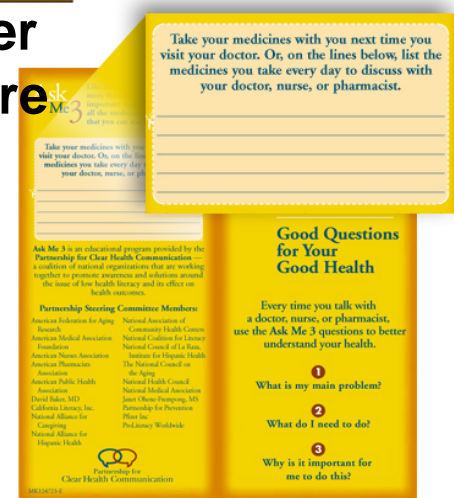
- Provides a consistent approach to patient-provider dialogue
- Allows patients to get information they need to manage their health
- Time-efficient for providers to reinforce healthcare instructions

# Ask Me 3 – Program Materials Available in English & Spanish

## Organizational Brochure Website



## Provider Brochure



## Posters

## Patient Brochure

# ***Ask Me 3 – Program Materials Available in English and Spanish***

- Brochures and posters can be downloaded/ordered from the website:  
[www.askme3.org](http://www.askme3.org)

# Use Patient-Friendly Educational Materials to Enhance Interaction

---

- Show or draw simple pictures
- Focus only on key points
- Emphasize what the patient should do
- Minimize information about anatomy and physiology
- Be sensitive to cultural preferences.

# Guidelines for Creating Patient-Friendly Written Materials:

---

- Simple words (1-2 syllables)
- Short sentences (10-15 words)
- Short paragraphs (2-3 sentences)
- No medical jargon
- Headings and bullets
- Lots of white space.

# What Have Other Health Care Providers Tried?

---

- Medication reviews helped to identify and address health literacy problems.
- Maps on the back of appointment letters cut down on “no shows.”
- Maps on the back of requisition slips increased completed lab work.
- Organized, simplified pre-op instructions, both written and verbal, cut surgical same-day cancellations from 5% to .8%.

# Iowa Health System Health Literate Consent Work

## Goals:

- Use consent forms written in the primary language of the patient and in words they can understand.
- Provide a reader or interpreter to assist low-literacy, non-English speaking and visually or hearing impaired patients.

# **American Medical Association – Code of Ethics:**

“Informed consent is more than simply getting a patient to sign a written consent form. It is a process of communication between a patient and physician that results in the patient’s authorization or agreement to undergo a specific medical intervention.”

# St. Luke's Tested & Implemented Health Literate Consent Form

- Collaborated with: Health Literacy Leaders, Adult Learners (New Readers), Risk Managers and Law Department.
- Original consent form written at 17<sup>th</sup> grade level and revised to 7<sup>th</sup> grade level.
- Emphasized during staff training the informed consent process (not the form) by using teach-back.

# The Best Reading Levels for Printed Health Materials

- Microsoft Word's readability function is not accurate. The scores are 2-3 levels lower than the real reading level of the text.
- The best reading levels for printed health information is 4<sup>th</sup>-9<sup>th</sup> grade, but very difficult to get to the 4<sup>th</sup>-5<sup>th</sup> grade level.
- To analyze reading formulas by hand, use the Fry formula.

# Using Software Programs for Analyzing Reading Levels

- *Readability Calculations* (phone: 214-553-0105; web: [www.micropowerandlight.com](http://www.micropowerandlight.com))
- Cost is \$70 for individual user; \$490 for multiple site license
- Use these formulas: Fry, Flesch Reading Ease, and SMOG
- Trinity Ft. Dodge Hospital will be piloting *Health Literacy Advisor* ([www.healthliteracyinnovations.com](http://www.healthliteracyinnovations.com)). This tool scans a document for its readability, it finds words that reduce HL and offers alternatives terms.

## **Cleaning the Collection Bottle**

If you use the suction machine regularly, it is a good idea to rinse out the collection bottle with soap and water daily.

## **Humidification**

Your physician may order for humidification when you go home. Often this is used at night while sleeping. Normally your nose and mouth humidify the air you breathe. Now that you are breathing through a tracheostomy tube, directly into your airway, the air that enters your lungs is very dry. Mucous can become thick and hard to cough out.

The following recommendations can also help to increase the moisture in the air you breathe:

- Drink plenty of fluids, about 10 glasses of water or juice a day.
- Place a humidifier in your main living area during the day.
- Use a small bedside humidifier at night. Be sure to clean weekly to prevent growth of bacteria.
- You can place a pan of water on the stove on low heat to add extra humidity.

## **Passy-Muir Valve (PMV)**

A tracheostomy tube can make it more difficult to speak, swallow, smell and taste. These difficulties occur mainly because the tracheostomy tube redirects the flow of air from the mouth and nose directly to the tracheostomy tube. The PMV can help to improve speech and voice production, improve swallow, improve secretion management, and help improve sense of smell and taste.

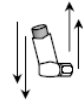
Suction, if needed, prior to applying the PMV. The PMV attaches to the inner cannula by applying and giving a slight twist. Only wear the valve during hours you are awake, never at night. Remove the PMV if you experience difficulty breathing at any time you have it on.

### Care and Cleaning of the PMV

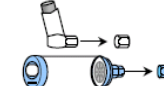
The PMV should be cleaned each day after use. Swish the PMV in fragrance-free soap and warm water. Rinse with warm water and allow to air dry before placing in storage container. Never use hot water, peroxide, bleach, vinegar, alcohol, brushes or Q-tips to clean the PMV. The PMV should last several months with proper care. Replace the PMV when increased noise or vibration is heard during use, or increased difficulty is noted during inspiration (breathing in) while the valve is on.

## Using Your Metered Dose Inhaler (MDI) with a Valved Holding Chamber

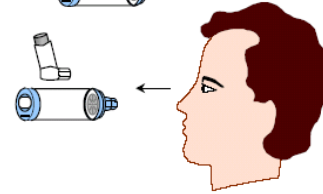
1. Shake the MDI Canister Vigorously for 5 Seconds.



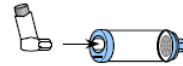
2. Remove the Caps from the MDI and the Chamber.



3. Look to Make Sure There Are Not Any Foreign Objects In the MDI or Chamber.



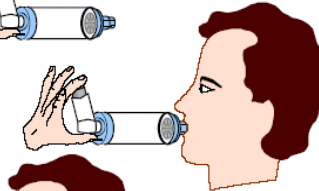
4. Insert the MDI Mouthpiece Into the MDI Adapter of the Chamber.



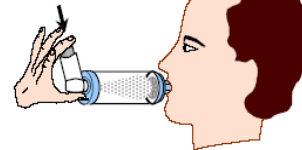
5. Grasp the MDI in Good Position to Firmly Spray It.



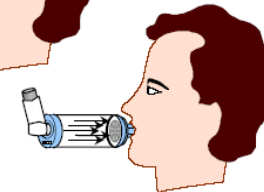
6. Place the Chamber Mouthpiece in Your Mouth Between Your Teeth and Close Your Lips, Then Gently Exhale as Fully as Comfortable.



7. Firmly Depress the MDI Canister Once.



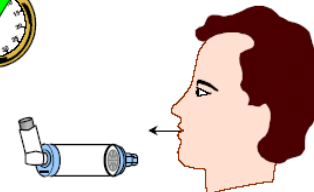
8. Inhale a Full Breath Slowly Through your Mouth. A Whistle Sound Means You Are Breathing In Too Fast.



9. Hold Your Breath for 10 Seconds if Possible.



10. Remove the Chamber from Mouth and Exhale Normally.



11. Wait 30 Seconds to 1 Minute, Shake MDI Again and Repeat Steps 5 through 10 for the Number of Puffs Ordered by Your Doctor.

# For More Information:



## Websites:

- [www.amafoundation.org](http://www.amafoundation.org)
- [www.nifl.gov](http://www.nifl.gov) (NALS data)
- [www.une.edu/hlit](http://www.une.edu/hlit)
- [www.clearlanguagegroup.com](http://www.clearlanguagegroup.com)
- [www.AskMe3.org](http://www.AskMe3.org)