



# Health Literacy & Socio-cultural Tailoring of Health Promotion Education In Public Housing Neighborhoods

Gayle W. Bentley, DNP, APRN, BC  
Jeannette Andrews, PhD, APRN  
Betty Daniels, MN, RN

School of Nursing, Medical College of Georgia  
Augusta, GA

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# Smoking Cessation Intervention

## “Sister to Sister”

- Originated from a partnership
  - Academicians
  - Community health workers
  - Community residents
  - Local housing authority
- African American Women
  - Ages 18-85, Low income, public housing



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# A Smoking Cessation Intervention in Public Housing Neighborhoods

- Funding received by:
  - American Legacy Foundation
  - Georgia Cancer Coalition
- Other team members
  - Stacey Crawford, CHW
  - Tonya Freeman, CHW
  - Women of Underwood Homes
  - Amber Brown, PhD student

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# Literacy

Fn 27 urdlzxi  
giuxk, hmil ookn  
zl rbai qvto  
bieh rhnurod.

Up bo jmmjufsbu, mfuufst bsf  
pomz mfuufst. Cpplt, qbqfst, boe  
mbcfmt nblf op npsf tfotf uibo epft  
uif hbscmf fzf dibsu.

To 27 million  
people, both sides  
of this page  
look identical.

To an illiterate, letters are only  
letters. Books, papers, and labels  
make no more sense than does the  
garble of an eye chart.

Image: online presentation by Victoria Weill, MSN, CRNP (9/06)  
National Organization Nurse Practitioner Faculties, University of Pa.

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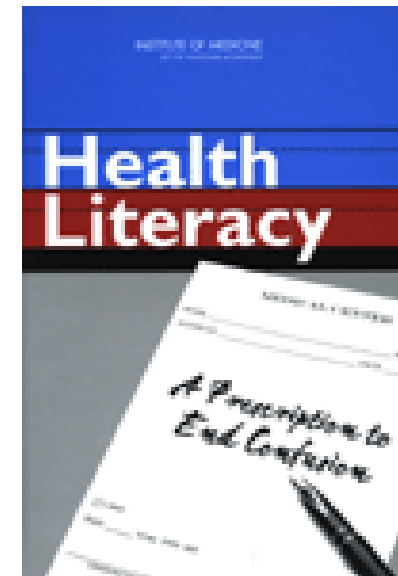
# Health Literacy

A person's capacity to obtain, process understand & make decisions about health information (USDHHS, 2000).

## At Risk Population

- Lower educational achievement
- Living in poverty
- Elderly
- Disproportionate to minorities

(IOM, 2004)



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# Background

- Low literacy & health literacy
  - contributes to health disparities
  - negatively impacts response to health information & health management.
- Cultural preferences
  - impact comprehension & engagement in health education designed to improve health behaviors & outcomes.

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# Purpose of Project

Tailor intervention materials used in smoking cessation study

- Literacy, health literacy
- Socio-cultural preferences

**Goal-** To improve readability, satisfaction, comprehension, and ultimately impact health behavior



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# Process

## 1. Assess

- Readability of current materials
- Health literacy level of participants

## 2. Consult

- Graphic Designer
- Health Literacy Institute

## 3. Revise & Field Test

## 4. Revise & Field Test



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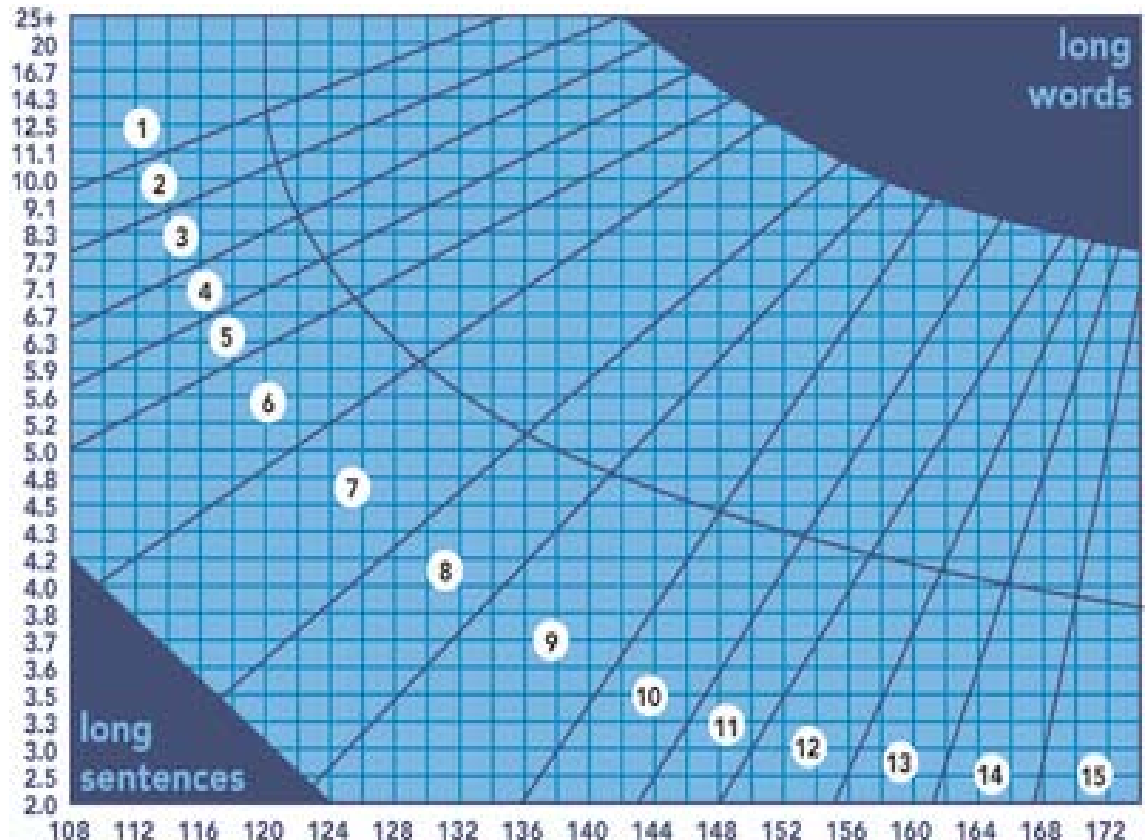
# Readability of Materials

## FRY Formula

- Syllables
- Sentences

- Results:

10-12<sup>th</sup> grade  
reading level



–Fry, E. (1977). *Elementary Reading Instruction*. NY: McGraw Hill

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# Health Literacy Level

## Reading & Pronunciation Tests

- Rapid Estimate of Adult Literacy in Medicine (REALM)
- Wide Range Achievement Test (WRAT)

## Comprehension Test

- Test of Functional Health Literacy in Adults (TOFHLA)
- Newest Vital Sign (NVS)

Weiss, BD, Mays, MZ, Martz, W, Castro, KM, Dewalt, DA, Pignone, MP, Mockhee, J & Hale, F. (2005). Quick Assessment of Literacy in Primary Care: The Newest Vital Sign

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# Results: 7<sup>th</sup> grade reading level

## Rapid Estimate of Adult Literacy in Medicine

### List 1

Fat  
Flu  
Pill  
Dose  
Eye  
Stress  
Smear  
Nerves  
Germs  
Meals  
Disease  
Cancer  
Caffeine

### List 2

Fatigue  
Pelvic  
Jaundice  
Infection  
Exercise  
Behavior  
Prescription  
Notify  
Gallbladder  
Calories  
Depression  
Miscarriage  
Pregnancy

### List 3

Allergic  
Menstrual  
Testicle  
Colitis  
Emergency  
Medication  
Occupation  
Sexually  
Alcoholism  
Irritation  
Constipation  
Gonorrhea  
Inflammatory

Davis et al. (1993). Rapid estimate of adult literacy in medicine: a shortened screening instrument. *Fam Med*.25(6):391-5.

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# Revision of Materials

- Consultation with experts in literacy and visual design
- Multiple field testing with neighborhood residents
- Match literacy & socio-cultural preferences



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# Effective Written Materials

- Monosyllabic words
- Short sentences
- Active voice
- Single concept
- Color
- Readability < 5th grade
- Simple layout
- Large font
- Bullets
- Q&A format

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# Vocabulary

<i>Abnormal</i>	Not Normal
<i>Advantages</i>	Things that work
<i>Beneficial</i>	Helpful
<i>Circulation</i>	Blood flow
<i>Consider</i>	Think about
<i>Difficulty</i>	Trouble with
<i>Fatigue</i>	Worn out
<i>Risk Factors</i>	Things that increase your chance of

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# Cultural Sensitivity

## Surface Structure

- Graphic
- Linguistics
- Music
- Food

## Deep Structure

- Religion/  
Spirituality
- Family/Kinships
- Storytelling
- Collectivism

Resnicow, K, Baranowski, T, Ahluwalia, JS, Braithwaite, RL.  
Cultural sensitivity in public health: defined and demystified.

*Ethn Dis.* 1999;9:10-21.

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# Field Testing Effective



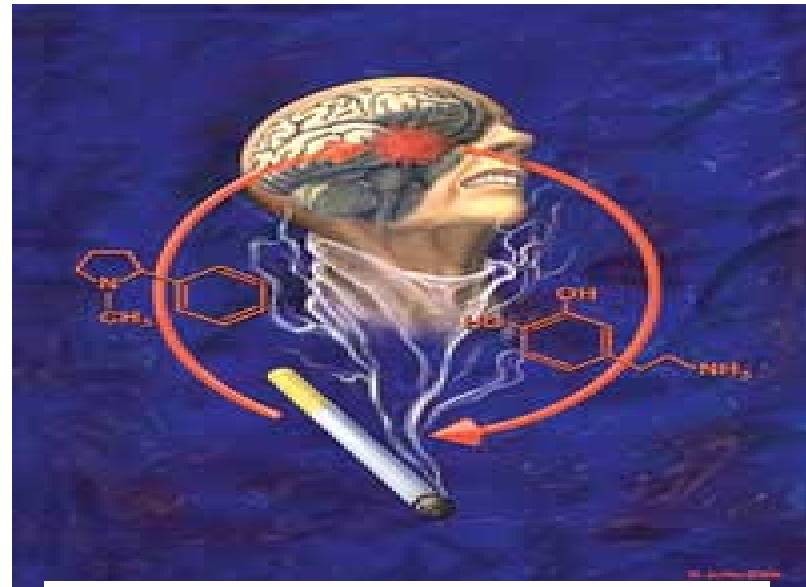
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# Field Testing

## Not Effective



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# Trigger Situations and Plans to Control Them

Look at the following list of typical triggers. Do any of them sound familiar to you? What are your own triggers? What causes you to reach for a cigarette?

\_\_\_ Working under pressure

\_\_\_ Feeling blue

\_\_\_ Having a drink

\_\_\_ Watching television

\_\_\_ Watching someone else smoke

\_\_\_ Driving a car

\_\_\_ Talking on the telephone

\_\_\_ Drinking coffee

\_\_\_ Finishing a meal



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# Findings

## Pictures

- All races, ages, gender
- Photos, illustrations, clip art
- Match content message
- Caption for pictures
- Abstract -confusing

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# Findings

## Content

- Health and Risks
- Family and Kinship
- Positive, Not alone
- Focused - Action

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# Smoking Cessation Materials



- Readability- 4-5th grade level
- Simple page layouts with white space
- Visual illustrations to explain concepts
- Colorful ethnic graphics & photos of “ordinary women”
- Integrated socio-cultural themes of spirituality, collectivism, and kinship

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# Outcomes

- Readability
- Satisfaction
- Preferences
- Comprehension
- Health Behaviors



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# Implications

- Serve individuals and the target population more effectively
- Insights for strategies that reduce health disparities in this community
- Participation by target population
- Next- RCT impact long-term behavioral outcome



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# Videos: Health Literacy

- **In Plain Language**  
**“You Can't Tell By Looking”**  
<http://classes.kumc.edu/general/amaliteracy/>
- **Help your Patients Understand**  
<http://www.ama-assn.org/ama/pub/category/8035.html>

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# Thank you!



Gayle Bentley, DNP, RN  
**[gbentley@mcg.edu](mailto:gbentley@mcg.edu)**  
Medical College of Georgia

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