Applying Health Literacy Principles to Public Health Efforts in Nutrition and Emergency Preparedness

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A very brief career...
Health Research for Action

Over 20 years of experience:

- Translating research to programs and policies
- Assessing relevance of health communications for people’s literacy levels, languages, disabilities
- Using participatory methods to develop and test plain language materials
- Implementing and evaluating public health communication initiatives

Recipients of national print, Web, health literacy, and public health awards
7 Steps to Create Public Health “Clear Communication”

1. Define **audiences** and **goals**
2. Set up **advisory group**: end users & stakeholders
3. Identify issues from **formative research**
4. Draft content: **HL design principles**
5. **Usability test** – until it works
6. **Co-design implementation** plan
7. **Evaluate**, revise, and scale-up
Health Literacy and Public Health Nutrition Programs
Evidence and Issues

- Limited peer-reviewed research
- Systematic review by Carbone & Zoelner, 2012: 33 studies:
  - Measurement development (4)
  - Readability (16)
  - Assessment of patients’ individual HL skills (13)
- Research gaps:
  - Broader health literacy factors
  - Experimental studies of effectiveness
  - Individual, health system and community levels

Assessment of MyPyramid.gov

- Neuhauser et al, 2007
- Readability: grade 7-college (average: 9-11)
- Lack of cultural relevance
- Lack of statements about family and community
- Met only 50% of DHHS Web usability criteria
- Participants who tested site: not selected for HL skills

First 5 California Kit for New Parents
First 5 CA Kit for New Parents

• User designed with diverse audiences & stakeholders
• Multi-media, multi-lingual
• Readability ~ 6th-8th grade
• Distributed to 400,000 parents per year
• Evaluation: improved knowledge and practices
• Adapted to 4 other states and overseas

Kit Distribution in Arizona
Other Public Health Nutrition & HL Examples

• CA Network for a Healthy California
  www.cdph.ca.gov/programs/CPNS

• US Food and Drug Administration (FDA)
  - food safety alerts
  - information about nutrition and health

• Pharmaceutical company nutrition information
  - information about healthy eating and activity
  - targeted to people with diabetes, hypertension, etc.
MyPyramid

Steps to a healthier you

Using hand for portion sizes

Fist = 1 cup
Palm = 3 oz.
Thumb tip = 1 teaspoon
Handful = 1 or 2 oz. snackfood
Thumb = 1 oz.
Eat healthy servings of each kind of food.
Here are 2 ways to help you know how much to eat:

1. Balance your plate.
   - Divide your plate into 4 parts.
   - Put vegetables and fruit on 2 parts (half the plate).
   - Put a serving of grains on 1 part.
   - Put a serving of meat or beans on 1 part.
   - Add dairy.

2. Use your hand for serving sizes.
   - Your palm is about 1 serving of meat or beans.
   - Your fist is about 1 serving of fruit, vegetables, and grains.
   - Your thumb is about 1 serving of salad dressing, mayonnaise, or jam.
   - The tip of your thumb is about 1 serving of butter, oil, and margarine.
Health Literacy and Emergency Preparedness Communication for Vulnerable Populations
Evidence and Issues

- Neuhauser et al, 2013: health literacy and emergency preparedness communication study
- Limited peer-reviewed research about literacy, language, culture and functional access of information
- Friedman et al, 2008: Readability and SAM test of 50 Websites of emergency preparedness communication:
  - Readability ~ 11th-12th grade or higher
  - SAM score = 48% “below average suitability”
- No studies of availability of communications in a geographic area

Evidence and Issues (2)

- Vulnerable populations at higher risk for injury and death in emergencies:
  - Lack of state plans for these populations
  - Lack of effective communication for these groups

- Highly vulnerable groups include:
  - 40 million older adults
    Recommended readability of materials: 6th grade
  - 48 million Deaf and hard-of-hearing (Deaf/HH)
    Recommended readability of materials: 3rd-4th grade
    (Gallaudet Research Institute)
Health Literacy and Deaf/HH Populations
Communication Issues for Deaf/HH

- Many subgroups of Deaf/HH
- Many members of Deaf community identify as part of a linguistic minority group, not as “disabled”
- Use American Sign Language (ASL) and other forms of communication
- ASL does not “translate” directly into English
- Members of Deaf community have low health literacy
  - Need materials at low reading levels
  - Need information in ASL video formats
- No “health literacy” standards yet for video formats
Cal PREPARE Study

- Examined US state Emergency Operations Plans
- Availability of emergency preparedness materials for older adults and Deaf/HH in local county
- Assessed readability of local and national materials
- Interviews with local providers serving older adult and Deaf/HH populations
- Focus groups with older adults and Deaf/HH groups
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<tr>
<th>Name</th>
<th>Position</th>
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[http://www.healthresearchforaction.org](http://www.healthresearchforaction.org)
Members of the National Advisory Board (1)

Marcia Brooks
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Norman Williams  
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Gallaudet University

LaRonda Zupp  
Deaf Counseling, Advocacy and Referral Agency
First National Advisory Board Meeting
Emergency Preparedness in Deaf and Hard of Hearing Populations
May 24, 2010
Study Results

- Only 1/3 state plans mentioned Deaf/HH populations
- Less than half of community organizations serving Deaf/HH provided emergency preparedness materials
- No materials met readability standards for Deaf/HH: lowest was 7th grade (most at or above 10th grade)
- Service providers want plain language materials
- First responders need communication training
Recommendations

- Provide national guidance to improve US state Emergency Operations Plans
- Legislate standards for emergency alerts in US
- Develop emergency preparedness materials with members of Deaf/HH populations
- Adhere to health literacy principles
- Define health literacy criteria for video formats
- Use new technology: texts, mobile video, social media
- Develop training for responders and service providers (Engelman et al, 2013)
References


References (2)


References (3)

References (5)

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Thanks, Gracias, Xie Xie!

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