

HEALTH LITERACY & NUTRITION: *EVIDENCE TO INFORM DIETETICS PRACTICE*

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Exercise

OVERVIEW OF OBJECTIVES

1. Summarize the current state of literature related to health and nutrition literacy
2. Discuss health literacy strategies to incorporate into your practice through application of the Agency for Healthcare Research and Quality (AHRQ) Health Literacy Universal Precautions Toolkit.
3. Understand and apply key principles of the Clear Communication Index (CCI) to improve written communication

CLINICAL CROSSROADS

- **A 76-Year-Old Man With Multiple Medical Problems and Limited Health Literacy**

- JAMA, August 10, 2011. Vol 306, No. 6



**SUMMARIZE THE CURRENT STATE OF
LITERATURE RELATED TO HEALTH
AND NUTRITION LITERACY**

Objective #1

BACKGROUND

WHY DOES HEALTH LITERACY MATTER?

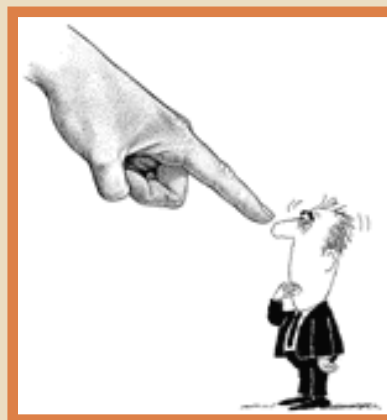
- Nearly 9 out of 10 adults have difficulty using the everyday health information



- Without clear information and an understanding of the information's importance, people are more likely to:
 - skip necessary medical tests
 - end up in the emergency room more often
 - have a harder time managing chronic diseases

SHAME

- Almost 40% of patients with low functional literacy admitted feelings of shame
- 67% had never told their spouses
- 53% had never told their children



BACKGROUND 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”

BACKGROUND NUTRITION LITERACY


- “The degree to which individuals have the capacity to...

- obtain,
- process, and
- understand





....basic **nutrition** information and services needed to make appropriate **dietary** decisions”


HEALTH LITERACY IS ON OUR NATIONAL HEALTHCARE AGENDA!!




HEALTHY PEOPLE








Health Literacy
A Prescription to End Confusion



Understanding Health Literacy
Implications for Medicine and Public Health



Academy of Nutrition and Dietetics

Health Literacy and Nutrition Advancement

Objective: Increase access to and awareness of safe and healthful foods in nutrition assistance initiatives; increase nutrition education for all and support continuous efforts such as the Dietary Guidelines for Americans to advance better nutrition among all populations.

[More](#)

HEALTHY PEOPLE 2010 VS. 2020



- **Objective 11-2. Improve the health literacy of persons with inadequate or marginal literacy skills**
- **HC/HIT-1: Improve the health literacy of the population.**
 - Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition
 - Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions
 - Increase the proportion of persons who report their health care providers' office always offered help in filling out a form

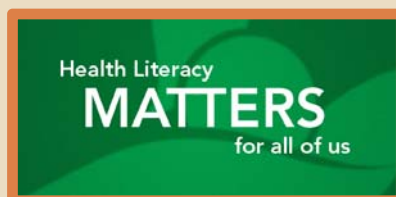
JADA COMMENTARY: 2005 DIETARY GUIDELINES



“Promoting health literacy is perhaps the most important role of any health professional.”

BACKGROUND


- Health literacy is emerging as one of the most important cross-cutting issues to affect health in the United States



- Research indicates it is a stronger predictor of a person's health than age, income, employment status, education level, and race

eat right. American Dietetic Association
Original Research

RESEARCH

 Meets Learning Need Codes 2000, 2020, 4000, and 4120. To take the Continuing Professional Education quiz for this article, log in to ADA's Online Business Center at www.eatright.org/obe, click the "Journal Article Quiz" button, click "Additional Journal CPE Articles," and select this article's title from a list of available quizzes.

Health Literacy Is Associated with Healthy Eating Index Scores and Beverage Intake: Findings from the Mississippi Delta

JAMIE ZISLINER, PH.D., RD.; WEN YOU, PH.D.; CAROL CORNELL, PH.D.; TUCKER, PH.D.; BRENDA M. DAVY, PH.D.; PAUL ESTABROOKS, PH.D.

Table 3: Using health literacy and demographic variables to predict Healthy Eating Index (HEI) scores and sugar-sweetened beverage intake (n = 376)

Variables	Units	HEI Total Score		Sugar-sweetened beverages (kcal/day)	
		b	p-value	b	p-value
Health literacy scores	Score	1.21	0.00	-33.69	0.01
Education levels	Category	0.35	0.43	-23.62	0.09
Age	Year	0.27	<0.01	-6.70	<0.01
White	Dummy	-0.03	0.98	-67.66	0.07
Male	Dummy	-4.02	0.00	94.49	0.06
Household income levels	Category	0.06	0.71	8.95	0.20
SNAP participation	Dummy	2.49	0.03	-31.57	0.46
R-squared (p-value)		0.24 (p<0.01)		0.15 (p<0.01)	

VOICES FROM EXPERIENCE

- 20 minute video
 - Focuses on physician communication
 - Focuses on medication use
- How can the scenarios be interpreted for career in dietetics?



SUMMARIZE THE CURRENT STATE OF LITERATURE RELATED TO HEALTH AND NUTRITION LITERACY

Objective #1

OVERVIEW OF 3 STUDIES

- Carbone E, Zoellner J. Nutrition and health literacy: A systematic review to inform nutrition research and practice. *Journal of the American Dietetic Association*. 2012;112(2):254-265.
- Berkman N, Sheridan S, Donahue K, Halpern D, Viera A, Crotty K, et al. Health literacy interventions and outcomes: An update of the literacy and health outcomes systematic review of the literature. Chapel Hill, NC: RTI International-University of North Carolina Evidence-based Practice Center March 2011 Contract No.: 290-2007-10056-1.
- Brach C, Keller D, Hernandez LM, et al. Ten Attributes of Health Literate Health Care Organizations. Institutes of Medicine. June 2012



Meets Learning Need Codes 4000, 6000, 9000, and 9020. To take the Continuing Professional Education quiz for this article, log in to the Academy's Online Business Center at www.eatright.org/obc; click the "Journal Article Quiz" button, click "Additional Journal CPE Articles," and select this article's title from a list of available quizzes.

Nutrition and Health Literacy: A Systematic Review to Inform Nutrition Research and Practice

ELENA T. CARBONE, DPH, RD, LDN, JAMIE M. ZOELLNER, PhD, RD

ABSTRACT

Health literacy is defined as the degree to which individuals obtain, process, and understand basic health information and services to make informed health decisions. Health literacy is a stronger predictor of health than age, income, employment, education, and race. Although the field has grown during the past decade, most health literacy research does not explicitly focus on food or nutrition, and dietetics practitioners often remain unaware of patients' health literacy level. The purpose of this systematic review was to summarize the literature on nutrition and health literacy to enhance dietetics practitioners' awareness of the importance of health literacy in practice and research. Of the 33 studies reviewed, four focused on measurement development, 16 on readability assessments, and 13 on individual literacy skills assessments. Collective evaluation revealed four noteworthy gaps, including the need to use more comprehensive assessment approaches that move beyond readability and numeracy to address the full spectrum of health literacy factors; the need to apply more robust experimental studies to examine the effectiveness of health literacy interventions among individuals, communities, health care providers, and health care systems; the need to explore the moderating

and mediating roles of an individual's health literacy status on nutrition outcomes; and the need to examine long-term effects of health literacy interventions on nutrition outcomes. This article defines health literacy gaps and opportunities in nutrition research and practice, and calls for continued action to elevate the role of dietetics practitioners in addressing health literacy.
J Acad Nutr Diet. 2012;112:254-265.

Health literacy is "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (1). Health literacy is emerging as one of the most important cross-cutting issues to affect health in the United States (2). Research indicates it is a stronger predictor of a person's health than age, income, employment status, education level, and race (3). Poor health literacy affects all levels of the health care experience. It also impedes provider-patient communications, and affects the ability to access and navigate the health service system (2). From a health care community perspective, poor health literacy can perpetuate preventable disease and effective disease management because adults with limited literacy skills have

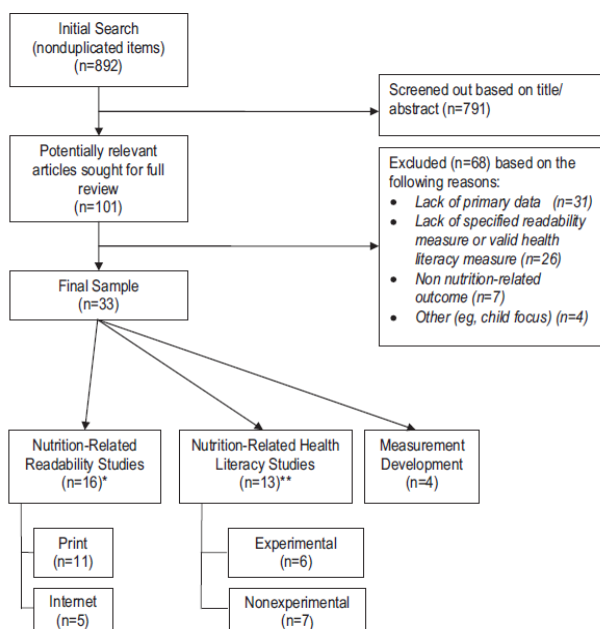


Figure. The literature search and review process to examine the intersection of nutrition and health literacy. *Two readability studies included an assessment of health literacy. **One health literacy study included information about readability of materials.

RESULTS & DISCUSSION MEASUREMENT DEVELOPMENT

1. Newest Vital Sign
 2. Nutritional Literacy Scale
 3. The Nutrition Label Survey (NLS)
 4. CARdiovascular Dietary Education System (CARDES)
- No comprehensive measure currently exists
 - Can provide useful insight to educators and researchers

RESULTS & DISCUSSION TABLE 1: READABILITY STUDIES

- 16 readability studies
- The reading level of most print- and Internet-based nutrition information is too difficult for many people to understand
- More work is needed to educate dietitians on the use of readability assessments to enhance the understandability of educational materials and ultimately to enhance the quality of care provided

RESULTS & DISCUSSION

TABLE 2: NUTRITION-RELATED HEALTH LITERACY STUDIES

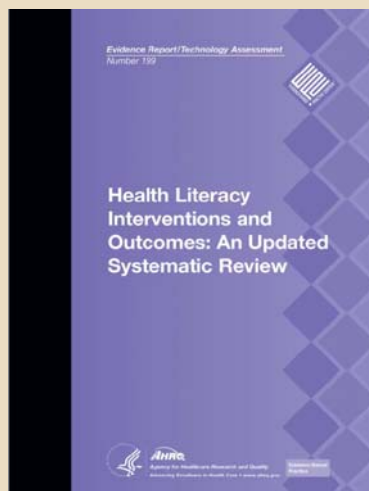
- 13 nutrition-related health literacy studies
- Due to overall concerns of quantity, consistency, quality, clinical impact, and generalizability of the studies evaluated in this review, it is difficult to make strong statements about the role of health literacy in the context of nutrition.
- It is essential that dietetic practitioners and researchers recognize the need for more high-quality health literacy studies

TAKE HOME POINTS

- The importance of addressing the literacy needs of a target audience when communicating nutrition information has long been recognized by nutrition and dietetics professionals
- Several critical gaps in the nutrition literature have been identified:
 1. Individual health literacy measures
 2. Experimental research studies
 3. Training
 4. Advocacy

A SEMINAL REVIEW

- Berkman N, Sheridan S, Donahue K, Halpern D, Viera A, Crotty K, et al. Health literacy interventions and outcomes: An update of the literacy and health outcomes systematic review of the literature. Chapel Hill, NC: RTI International-University of North Carolina Evidence-based Practice Center March 2011 Contract No.: 290-2007-10056-1.



CONCLUSIONS

- “The field of health literacy has advanced since the 2004 report.
- Future research priorities include:
 - justifying appropriate cutoffs for health literacy levels
 - developing tools that measure additional related skills
 - examining mediators and moderators of the effect of health literacy
- Priorities in:
 - advancing the design features of interventions
 - techniques for delivering information orally or numerically
 - “work around” interventions such as patient advocates
 - determining the effective components of already-tested interventions
 - determining the cost-effectiveness of programs
 - determining the effect of policy and practice interventions”

HEALTH LITERATE HEALTH CARE ORGANIZATIONS

- Ten Attributes of Health Literate Health Care Organizations. Institutes of Medicine. June 2012
- Brach C, Keller D, Hernandez LM, et al.



HEALTH LITERATE HEALTH CARE ORGANIZATIONS

1. Has leadership that makes health literacy integral to its mission, structure, and operations.
2. Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement.
3. Prepares the workforce to be health literate and monitors progress.
4. Includes populations served in the design, implementation, and evaluation of health information and services.
5. **Meets the needs of populations with a range of health literacy skills while avoiding stigmatization.**

HEALTH LITERATE HEALTH CARE ORGANIZATIONS

6. Uses health literacy strategies in interpersonal communications and confirms understanding at all points of contact.
7. Provides easy access to health information and services and navigation assistance.
8. Designs and distributes print, audiovisual, and social media content that is easy to understand and act on.
9. Addresses health literacy in high-risk situations, including care transitions and communications about medicines.
10. Communicates clearly what health plans cover and what individuals will have to pay for services.

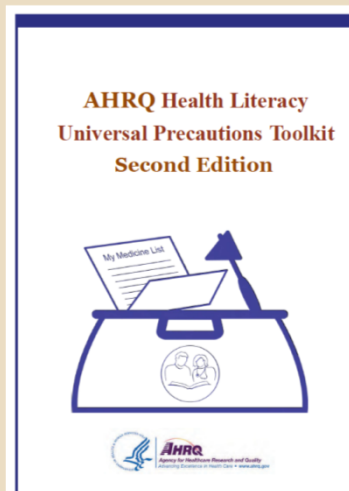
DISCUSS HEALTH LITERACY
STRATEGIES TO INCORPORATE INTO
YOUR PRACTICE THROUGH
APPLICATION OF THE AGENCY FOR
HEALTHCARE RESEARCH AND
QUALITY (AHRQ) HEALTH LITERACY
UNIVERSAL PRECAUTIONS TOOLKIT

Objective #2

AHRQ HEALTH LITERACY UNIVERSAL PRECAUTIONS TOOLKIT

- There are a total of 21 tools, including tools to improve:

1. spoken communication
2. written communication
3. self-management and empowerment
4. supportive systems



GETTING STARTED

- Form a team
- Create a Health Literacy Improvement Plan
- Raise Awareness



TOOLS TO IMPROVE SPOKEN COMMUNICATION

- Communicate clearly
- Use the teach-back method
- Follow up with patients
- Improve telephone access
- Conduct brown bag medicine reviews
- Address language differences
- Consider culture, customs, and beliefs



TOOLS TO IMPROVE WRITTEN COMMUNICATION

- Assess, select, and create easy-to-understand materials
- Use health education material effectively
- Welcome patients: Helpful attitude, signs, and more



TOOLS TO IMPROVE SELF-MANAGEMENT AND EMPOWERMENT

- Encourage questions
- Make action plans
- Help patients remember how and when to take their medicines
- Get patient feedback



TOOLS TO IMPROVE SUPPORTIVE SYSTEMS

- Link patients to non-medical support
- Direct patients to medicine resources
- Connect patients with literacy and math resources
- Make referrals easy



**UNDERSTAND AND APPLY KEY
PRINCIPLES OF THE CLEAR
COMMUNICATION INDEX (CCI) TO
IMPROVE WRITTEN COMMUNICATION**

Objective #3

WHY WAS THE CCI DEVELOPED?

- Identify the most important communication characteristics that enhance clarity and aid understanding of public messages and materials
- Provide a research-based tool for staff to develop and assess communication products for CDC's audiences, no matter the format or distribution channel



HOW DOES THE INDEX WORK?

- The Index contains 20 items, each with a numerical score of zero or one.
- The individual scores are converted to an overall score on a scale of 100.
- Although 100 is an ideal score, 90 or higher is passing.
- The Index assesses materials in these 7 areas:
 1. Main Message and Call to Action
 2. Language
 3. Information Design
 4. State of the Science
 5. Behavioral Recommendations
 6. Numbers
 7. Risk

LET'S PRACTICE!!



DEVELOPMENT OF EDUCATION MATERIAL & CURRICULUM

■ Grade-Level Measures of Materials

1. SMOG
2. Fry Readability Scale
3. Flesch-Kincaid Reading Grade Level

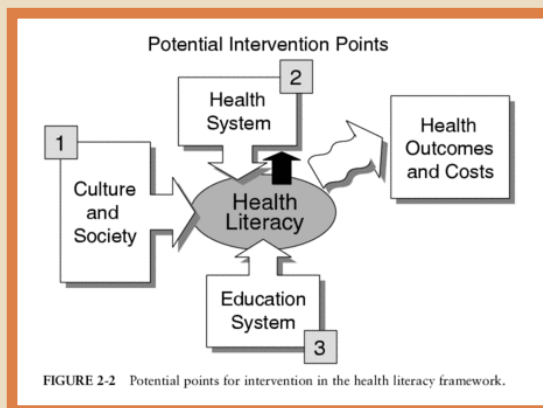
Counts	
Words	2017
Characters	10805
Paragraphs	93
Sentences	102
Averages	
Sentences per Paragraph	3.0
Words per Sentence	17.4
Characters per Word	5.1
Readability	
Passive Sentences	27%
Flesch Reading Ease	39.6
Flesch-Kincaid Grade Level	11.9

RESOURCES

1. The Centers for Disease Control and Prevention online health literacy trainings for public health professionals:
 - http://www2a.cdc.gov/tceonline/registration/detailpage.asp?res_id=2074
2. The Public Health Foundation and the Health Resources Services Administration online Unified Health Communication Course
 - <http://www.hrsa.gov/publichealth/healthliteracy/index.html>
3. Register for a listserve, such as the Health Literacy Discussion List:
 - <http://lincs.ed.gov/lincs/discussions/discussions.html>

SUMMARY NEED & OPPORTUNITIES

- Build relationships between education, health & public policy



SUMMARY NEED & OPPORTUNITIES

- **Individual opportunities:**
 - Interaction/education with clients
 - Incorporated HL into professional training
- **Community opportunities:**
 - Develop, test & apply culturally appropriate measures of HL
 - Interventions designed to meet HL needs of communities
- **Policy opportunities:**
 - Research & funding
 - HL assessment should be incorporated in data collection and accreditation standards

QUESTIONS??

