

Food and Nutrition Information Center

National Agricultural Library/USDA 10301 Baltimore Avenue, Room 105 Beltsville, MD 20705-2351

Nutrition Education for Low-literate Teens & Adults

September 2002

This is a quick guide to articles, books, kits, videos and Web sites that discuss nutrition education for teens and adults with limited reading skills. It also lists resources that will help you create and find easy-to-read print materials. Some English as a Second Language materials are included. However, this is not a major focus of the list.

To find materials, we searched AGRICOLA, ERIC and MEDLINE databases and the Word Wide Web. The resources listed contain accurate nutrition information and are available nationwide. Opinions expressed in the publications do not necessarily reflect the views of the U.S. Department of Agriculture.

Your local library or bookstore can help you find these resources. An "ISBN number" is listed for some of the materials below. This number will help you order it from a bookstore or publisher. Contact information is provided for Web sites and organizations. Resources that are part of the National Agricultural Library (NAL) collection have a "NAL Call Number" listed. For information about NAL lending and copy services, call (301) 504-6041 or visit our Web site at http://www.nal.usda.gov/fnic/general/lending.html. You cannot purchase these materials from NAL. Please contact the publisher or bookstore if you wish to buy any materials on this list.

This resource list is available from the Food and Nutrition Information Center's (FNIC) Web site at http://www.nal.usda.gov/fnic/pubs_and_db.html.

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I. General Health Literacy (in alphabetical order)

This section includes references for materials that look at the bigger picture of health and literacy.

A. Bibliographies

An Updated Overview of Medical and Public Health Literature Addressing Literacy Issues: An Annotated Bibliography of Articles Published in 2001.

Emily Zobel

Cambridge, MA: Harvard Graduate School of Education, The National Center for the Study of Adult Learning and Literacy, 2002.

Electronic Version:

http://www.hsph.harvard.edu/healthliteracy/literature4.html

Description: Lists 29 citations of health literacy articles published between January 1, 2001 and December 31, 2001. References are arranged in the following categories: Literacy Levels of Patients, Clients or Program Participants; Editorials/Letters to the Editor; Materials Assessments; and Health Promotion.

An Updated Overview of Medical and Public Health Literature Addressing Literacy Issues: An Annotated Bibliography of Articles Published in 2000.

Jennifer Greenberg

Cambridge, MA: Harvard Graduate School of Education, The National Center for the Study of Adult Learning and Literacy, 2001.

Electronic Version:

http://www.hsph.harvard.edu/healthliteracy/annotations.html

Description: Lists 24 citations of health literacy articles published between January 2000 and January 2001. References are arranged in the following categories: Literacy Levels of Patients, Clients or Program Participants; Materials Assessments; and Health Promotion.

An Overview of Medical and Public Health Literature Addressing Literacy Issues: An Annotated Bibliography

Rima E. Rudd, Tayla Colton & Robin Schach

Cambridge, MA: Harvard Graduate School of Education, The National Center for the Study of Adult Learning and Literacy, 2000. 61 p.

Electronic Version (PDF):

http://www.hsph.harvard.edu/healthliteracy/litreview.pdf

Description: Contains 241 citations of works published from 1990-1999. References are arranged into the following categories: Links Between Literacy and Health; Literacy Levels of Patients, Clients, or Program Participants; Match Between Reading Ability and Written Materials; Functional Literacy and Institutional Settings; Materials Assessments; Research Tools for Assessing Health Literacy; Program Descriptions; and Guidelines for Practice.

Current Bibliographies in Medicine: Health Literacy

Catherine R. Selden, et al.

Bethesda, MD: United States Department of Health and Human Services, National Institutes of Health, National Library of Medicine, 2000. 33 p. **Electronic Version(s):** http://www.nlm.nih.gov/pubs/cbm/hliteracy.html **Description:** Includes 479 health literacy citations of works published between January 1990 through October 1999. The references are arranged in four

categories: Background, Strategies in Health Literacy, Tactics and Ideas.

Readability analysis of consumer health materials

Dixie Jones.

In: Consumer Health: An Online Manual

Houston, TX: National Network of Libraries of Medicine, South Central

Region, July 17, 2001.

Electronic Version: http://nnlm.gov/scr/conhlth/read.htm

Description: Contains books, journals and Web resources that address readability of print materials, literacy assessment and general health literacy.

B. Books, Book Chapters and Reports

Health communications

Chapter 11 in: Healthy People 2010, 2nd edition.

Washington, DC: United States Department of Health and Human Services,

Office of Public Health and Science, 2000. Volume 1.

NAL Call Number: RA395 A3 H43 2000 (conference edition).

Electronic Version:

http://web.health.gov/healthypeople/Document/HTML/Volume 1/

11HealthCom.htm

Description: Covers the United State's national health objectives related to health communications. The section entitled "Disparities" and Objective 11.2 focus on health literacy.

C. Journal Articles

Developing strategies to communicate about health. *Pfizer Journal*, 2(1): 27-32, 1998.

Electronic Version (PDF): http://www.thepfizerjournal.com/TPJ04.pdf **Abstract:** Not available.

Health information on the Internet: Accessibility, quality, and readability in English and Spanish. Gretchen K. Berland et al. *Journal of the American Medical Association*, 285(20): 2612-2621. 2001.

Electronic Version:

http://jama.ama-assn.org/issues/v285n20/ffull/joc02274.html

Abstract: Context: Despite the substantial amount of health-related information available on the Internet, little is known about the accessibility, quality, and reading grade level of that health information. Objective: To evaluate health information on breast cancer, depression, obesity, and

childhood asthma available through English- and Spanish-language search engines and Web sites. Design And Setting: Three unique studies were performed from July 2000 through December 2000. Accessibility of 14 search engines was assessed using a structured search experiment. The quality of 25 health Web sites and content provided by 1 search engine was evaluated by 34 physicians using structured implicit review (interrater reliability >0.90). The reading grade level of text selected for structured implicit review was established using the Fry Readability Graph method. Main Outcome Measures: For the accessibility study, proportion of links leading to relevant content; for quality, coverage and accuracy of key clinical elements; and grade level reading formulas. Results: Less than one quarter of the search engine's first pages of links led to relevant content (20% of English and 12% of Spanish). On average, 45% of the clinical elements on English- and 22% on Spanishlanguage Web sites were more than minimally covered and completely accurate and 24% of the clinical elements on English- and 53% on Spanishlanguage Web sites were not covered at all. All English and 86% of Spanish Web sites required high school level or greater reading ability. Conclusion: Accessing health information using search engines and simple search terms is not efficient. Coverage of key information on English- and Spanish-language Web sites is poor and inconsistent, although the accuracy of the information provided is generally good. High reading levels are required to comprehend Web-based health information.

D. Videos

In Plain Language

Rima Rudd & William DeJong, Harvard School of Public & the Health Literacy Studies Group

Boston, MA: World Education, National Center for the Study of Adult Learning and Literacy, not dated.

1 videocassette (15 min.) (VHS)

NAL Call Number: Videocassette no. 3110

Electronic Version: http://www.hsph.harvard.edu/healthliteracy/video.html **Description:** Provides information for medical and public health professionals on health literacy and its impact on public health and medicine. Includes testimonials from low-literate adults.

You Can't Tell by Looking

Chicago, IL: American Medical Association, not dated.

1 videocassette (18 min.) (VHS) **NAL Call Number**: Pending

Description: Features a series of interviews conducted with individuals who

are unable to read, understand, and act on health care information.

E. Web Sites

Health Literacy Studies

Harvard School of Public Health, Department of Health and Social Behavior, National Center for the Study of Adult Learning and Literacy, not dated. **Web Site:** http://www.hsph.harvard.edu/healthliteracy/index.html **Description:** Includes an online health literacy slide show, a review of literature (1970-1998), research reports, and more.

Health Literacy Toolbox

Health Literacy Month, Health Literacy Consulting, August 29, 2000. **Web Site:** http://www.prenataled.com/healthlit/hlt2k/script/index.asp **Description:** Features articles on health literacy statistics, laws and regulations and the costs of low health literacy.

II. Nutrition Education and Literacy (in alphabetical order)

A. Journal Articles

i. General Nutrition

Extent to which dietitians evaluate nutrition education materials. Angela Tagtow and Rosalie J. Amos. *Journal of Nutrition Education*, 32:161-168. 2000. **NAL Call Number:** TX341 J6

Abstract: The purpose of this study was to determine the degree to which dietitians evaluated the nutrition education materials they used when providing dietary guidance to clients. This study examined the extent to which dietitians evaluated various readability, content, and format characteristics of materials; the barriers they encountered when selecting, evaluating, or developing them; and their perceptions of how adequate the materials were in meeting clients' needs. A 115-item instrument was mailed to a random sample of 350 dietitians. Of these, 223 instruments (64%) were returned, of which 142 (64%) contained usable data from dietitians who used nutrition education materials with clients. The dietitians in this study thoroughly previewed nutrition education materials before providing them to clients; however, a majority reported never using a formal evaluation tool to assist with this task. Although 78% of the dietitians indicated that they always considered the readability level of client materials, 92% reported not using a readability formula. Content characteristics were more frequently evaluated than readability and format characteristics. Barriers included limited budgets to purchase materials and few professional development opportunities to gain skills in evaluating or developing them. Many dietitians believed that the materials they used did meet clients' needs and encouraged healthy dietary behaviors. The results of this study can enhance the delivery of nutrition services, guide professional development, and lead to further nutrition communication research.

Factors influencing nutrition education for patients with low literacy skills. Everly Macario, et al. *Journal of the American Dietetic Association*, 98:559-564. 1998.

NAL Call Number: 389.8 Am34

Abstract: Although there has been increasing attention to cancer prevention among low-income and minority populations, only a few nutrition interventions have addressed the special needs of people with low literacy skills. To determine the best provider and the most effective format for a nutrition intervention targeting patients with low literacy skills, we conducted interviews with literacy experts and health care providers and focus groups with members of adult basic education classes. Thirty-five literacy experts and health-center-based physicians, nurses and nutritionists in Boston, Massachusetts, were interviewed. In addition 50 volunteer clients from 4 Boston-based adult basic education programs participated in 6 focus groups. Results suggested that health care providers consider nutrition to be a fundamental health education topic, but that its successful inculcation in patients with limited literacy skills is hindered mostly by insufficient provider time. Almost all providers agreed that patients need referrals to nutritionists for nutrition education. Although most providers and patients acknowledged that patients perceive physicians to be the authorities on health, patients with low literacy skills turned first to family members and friends for health information. These results suggest that effective nutrition interventions must build on patients' social networks; appear in a visually based, interactive format; and be culturally appropriate.

Helping consumers with low literacy interpret the new food label. Ardith R Brunt. *Journal of Nutrition Education*, 29:224A. 1997.

NAL Call Number: TX341 J6

Abstract: Not available.

Literacy and body fatness are associated with underreporting of energy intake in US low-income woman using the multiple-pass 24-hour recall: A doubly labeled water study.

Rachel K. Johnson, Rebecca P. Soultanakis and Dweight E. Mathews. *Journal of the American Dietetic Association*, 98:1136-1140, 1998.

NAL Call Number: 389.8 Am34

Abstract: Objective: The accuracy of the multiple-pass 24-hour recall method for estimating energy intake in low-income women in the United States was ascertained by comparing the method with measurements of total energy expenditure. The multiple-pass 24-hour recall is designed to provide respondents with multiple cues and opportunities to report their food intake. It consists of 3 distinct passes: the quick list, detailed description, and review. Predictors of energy intake misreporting (energy intake--total energy expenditure) in the sample were determined. Design: Four multiple-pass 24-hour recalls (2 in person, 2 by telephone) were obtained over a 14-day period to estimate energy intake. Total energy expenditure was measured over the same 14-day period using the doubly labeled water method. Body composition was measured using dual energy x-ray absorptiometry, and the Wide Range Achievement Test (WRAT) for reading and spelling measured literacy. Subjects/settings: Thirty-five low-income

women between the ages of 19 and 46 years were tested at the General Clinical Research Center at the University of Vermont, Burlington. Low income was defined as a household income at or below 130% of the federal poverty level. Statistical analysis: Pearson product moment correlation coefficients, t tests, paired t tests, and stepwise multiple regression analysis were used to test the relationships among study variables. Results: Mean energy intake was significantly lower than mean total energy expenditure (2,197+/-607 vs. 2,644+/-503 kcal, P=.001) and the correlation between the 2 measures was poor (r=.22, P=.20). Percentage body fat and the combined age-adjusted reading and spelling WRAT scores were the best predictors of misreporting of energy intake (R=.52, P=.006). Conclusions: The multiple-pass 24-hour recall did not generate a group measure of energy intake that was accurate or unbiased in this sample. Underreporting was strongly associated with increased body fatness. The ability to read and spell as measured by the WRAT improved the accuracy of the women's recall of their food intake. Applications: Dietetics professionals should take into consideration the problem of underreporting whenever conclusions are made about associations between diet and health and/or when evaluating the impact of food assistance programs on dietary intake.

Overview of reading and literacy research and applications in nutrition education. Susan Nitzke and Jane Voichick. *Journal of Nutrition Education*, 24:261-266. 1992.

NAL Call Number: TX341 J6

Abstract: Literacy requires information-processing skills in addition to the ability to read and write. Estimates of the prevalence of illiteracy in the United States vary according to the criteria used. Economic, social and cultural factors contribute to higher rates of illiteracy in some population subgroups. Tools for quantitative and qualitative measures of literacy skills have been developed. Nutrition education materials are often written at levels that are too difficult for low-literate readers. Educational materials are more effective when they are tailored to the cognitive abilities and learning styles of the intended audience. The readability of a given text can be crudely estimated by several formulas that use sentence length and multi-syllable words to indicate complex syntax and difficult vocabulary. Techniques such as Cloze and signaled stopping provide more direct measures of readability. The Language Experience Approach has been adapted to aid in developing materials for specific low-literate target groups. Examples of existing low-literacy materials and guides for educators interested in developing materials for low-literate audiences are cited. Practical techniques are needed for measuring literacy skills of target clientele aid readability of nutrition education materials.

Readability of printed sources of diet and health information. Jamie Dollahite, Cecelia Thompson and Ronald McNew. *Patient Education and Counseling*, 27:123-134. 1996.

Abstract: This study surveyed nutrition education materials, which are low in cost, brief, and the type most used in patient education, to determine which might be useful with low literacy clients. Readability of 209 pamphlets from professional health organizations, commercial organizations, government

agencies, and educational institutions was assessed using three different tests. Using the Flesch and Raygor tests, materials from educational institutions had significantly lower reading levels than materials from professional organizations and government agencies. No significant differences were seen among the sources using the Fry test. Sixty-eight percent (142) of the publications were written at ninth grade level or higher. Eleven percent (24) scored at sixth grade or below on either the Fry or Raygor scale. Only two publications were written at the third grade level. Many of the publications reviewed can be read and understood by many Americans, but there were few for the millions that have limited literacy skills.

Readability of recommended nutrition sources. Ruthann B. Swanson and Cathy A. Birklid. *Home Economics Research Journal*. 20(3):187-197. 1992. **NAL Call Number:** TX1 H63

Abstract: In this study, the readability of books recommended to consumers by professional nutrition and dietetics organizations was determined. Representative text samples from 32 publications were evaluated. Writing style and Flesch reading ease scores were assessed with microcomputer analysis. Two evaluators calculated Flesch human-interest scores. The grade level required to read the recommended books was 10.3 (+/- 2.7). More than 40% of the recommendations required a reading level that exceeds that of popular magazines. Only one recommended book was written at a level that was understandable by adults with low literacy skills. Mid-range human-interest scores reflect the use of how-to information and examples preferred in nutrition print materials by consumers. Publications containing more passive sentences tended to be more difficult to understand and were slightly less personalized. For many consumers, the comprehension and application of the concepts presented in these recommended books will probably require interaction with professionals.

ii. Cancer Prevention

Readability of American Cancer Society patient education literature. Cathy D. Meade, Judy Diekmann, and Darlene G. Thornhill. *Oncology Nursing Forum*, 19(1): 51-55. 1992.

Abstract: American Cancer Society (ACS) literature commonly used to inform patients about cancer-detection methods, life-style risks, and treatment modalities was examined for readability. Fifty-one booklets obtained from a regional ACS office were evaluated. According to the SMOG formula, the reading level estimates of the booklets ranged from grade 5.8-15.6 (SD = 2.2), with a mean reading level of grade 11.9. The sampled cancer materials may be too difficult for many Americans to read and understand since most of the booklets (55%) were written for individuals with grade 12 or higher reading skills. Only one booklet was written at less than a grade six reading level. Booklets produced since 1985 were written at significantly lower reading levels (p less than 0.05) than those published in earlier years. The nurse's role in cancer education encompasses awareness of patients' diverse reading skills and formulation of a systematic method to develop materials that meet the needs of low-literacy groups.

iii. Cardiovascular Nutrition

Development of a curriculum to lower dietary fat intake in a multiethnic population with low literacy skills. Cheryl L. Albright, et al. *Journal of Nutrition Education*, 29:215-223. 1997.

NAL Call Number: TX341 J6

Abstract: Low-literate, low-income populations face unique issues as they attempt to modify their diet to lower risk of chronic disease. The goal of the Stanford Nutrition Action Program (SNAP) was to design a curriculum that would address such issues and stimulate reduction of dietary fat. Initial focus groups and pilot tests were conducted to assess nutrition knowledge, interests, and dietary habits of a multiethnic, low-literate population. These investigations revealed that a nutrition education curriculum tailored to a population with low literacy skills would need to address the taste, cost, and convenience of low-fat foods, and teach participants how to incorporate low-fat foods and cooking methods into their family's diet with minimal disruption. These findings, combined with published data on food intake and preferences, were used to design the SNAP curriculum. The SNAP classroom curriculum operationalized principles of adult education, constructs from social learning theory, and followed established national guidelines on how to develop appropriate print materials for low-literate adults. Each of its six lessons included role modeling, goal setting, problem solving, group activities, and skills building tasks; many included SNAP videotapes, food demonstrations, and posters that enhanced group discussions. Print materials were written at or below the 5th grade reading level. The SNAP curriculum combined interactive teaching techniques and behavior change methods to successfully teach and stimulate the interest of low-literate, lowincome population to overcome barriers to reducing fat.

Literacy assessment in a cardiovascular nutrition setting. Thomas R. TenHave, et al. Patient Education and Counseling, 31:139-150. 1997. **Abstract:** We assessed functional literacy of hypercholesterolemic or hypertensive African Americans (n = 339) prior to their participation in a nutrition education program. A word pronunciation and recognition test using 20 common cardiovascular or nutrition terms was first developed based on correlations with standardized reading achievement test scores, then administered to program participants. Nearly half (48%) had word recognition scores equivalent to a < or = 8th grade reading level. Lower scores were associated with less education, lower income, unemployment, heavier work activity if employed, less healthy diets, history of heart disease or diabetes, and higher depression scores (all P < 0.01); several of these associations were independent of education. The educational materials were geared to a 5th to 8th grade reading level. However, when both audio taped and printed instruction were provided, individuals with reading scores < or = 8th grade preferentially used the tapes. This brief and relatively unobtrusive literacy assessment may help to identify persons who can benefit most from audiovisual approaches to cardiovascular nutrition education.

Low-literacy audio intervention for lowering fat intake. Kim M. Gans, et al. *Journal of Nutrition Education*, 30:410B. 1998.

NAL Call Number: TX341 J6

Abstract: Not available.

Nutrition education for cardiovascular disease prevention among low-income populations- description and pilot evaluation of a physician-based model.

Alice S. Ammerman, et al. *Patient Education and Counseling*, 19:5-18. 1992. **Abstract:** Low income Americans are at greatest risk for coronary heart disease but have least access to health promotion programs for life style modification. Primary care physicians may represent one of the few sources of preventive care available to the poor. However, the majority of physicians feel unprepared to help patients achieve dietary change, and few existing nutrition intervention programs address the special needs of low literacy populations. The Food for Heart Program was developed to facilitate dietary counseling experienced by primary care physicians who care for low literacy patients and to overcome barriers to behavior change faced by patients. The program consists of three components: (1) a validated dietary risk assessment that rapidly identifies atherogenic eating habits and requires no nutritional expertise to administer or interpret, (2) a structured diet treatment program that is culturally specific for a southern patient population and links practical behavior change recommendations with results of the diet assessment, and (3) a system for monitoring and reinforcement that prompts physicians to review progress, reinforce prior messages, and reward positive change. Behavior change theory is used to guide the intervention and readability of the material has been assessed at the 5-6th grade level. An evaluation study of the Food for Heart Program suggests that it has a positive impact on physician counseling and that patients are responding favorably to these efforts.

Pilot study of a cafeteria program relying primarily on symbols to promote healthy choices. Sarah Levin. *Journal of Nutrition Education*, 82(5):282-285.

NAL Call Number: TX341 J6

Abstract: Not available.

Readability and content analysis of print cholesterol education materials.

Karen Glanz and Joel Rudd. *Patient Education and Counseling*, 16:109-118. 1990.

Abstract: This article reports the results of an analysis of the readability levels and content of 38 print cholesterol education materials available from government, health agency, professional association, university and industry sources. Each item was characterized according to the primary intended audience (general public, public and screening participants, or those identified with elevated cholesterol and patients in treatment), size, length and appearance. Readability analysis was done using the SMOG and Fog Grading formulas and content analysis examined the presence of messages in each of nine key areas. The readability assessment revealed that the average reading grade level was close to Grade 11, which is too difficult for many adults. Content analysis suggested a need to better address other heart disease risk factors, portion size and the use of brand name food recommendations. Further practice and research needs are identified.

Readability levels of selected hypercholesterolemia patient education literature. Sharon L. Merritt, Mary Anne Gates and Karen Skiba. *Heart & Lung*, 22:415-20. 1993.

Abstract: Objectives: To assess the readability of selected hypercholesterolemia print materials, summarize the limitations of readability formulas, describe how expert judgment can be used to enhance readability determinations of printed materials, and discuss indirect and direct methods for assessing patient literacy levels. Design: Descriptive, retrospective, convenience sample Outcome Measures: Readability of four AHA/NLHBI hypercholesterolemia patient education pamphlets by use of three readability formulas and the Reading Materials Checklist. Results: The FOG, Fry, and SMOG formulas were used to calculate reading levels by two raters who independently applied the formulas to the same word passages chosen from the beginning, middle, and end of the pamphlets. The mean reading grade levels were 14.4, 15.8, 14, and 14.4, demonstrating that all four pamphlets were written for people with college level reading skills. The limitations of readability formulas such as variations in reading estimates were demonstrated. When expert judgment was applied with the Reading Materials Checklist, all pamphlets were found lacking in the areas of legibility, usability, and motivational appeal. Conclusions: The results indicate that the pamphlets may not be appropriate for use with most of the adults in the United States who may be candidates for hypercholesterolemia patient education. Because reading formulas are limited in the information they provide, expert judgment regarding readability of print materials should also be applied. Additionally, indirect and direct techniques need to be used to assess the literacy level of the patient population who will be using the printed materials.

The Stanford Nutrition Action Program: A dietary intervention for low-literacy adults. Beth Howard-Pitney, et al. *American Journal of Public Health*, 87(12):1971-1976. 1997.

Abstract: Few comprehensive nutrition programs for cardiovascular disease risk factor reduction have been developed specifically for adults with low literacy skills despite a growing awareness of the need for such programs. The Stanford Nutrition Action Program curriculum, tailored to the cultural, economic, and learning needs of low-literacy, low-income adults, was found to be significantly more effective than the general nutrition curriculum in achieving fat-related nutritional changes.

What works best for worksite cholesterol education? Answers from targeted focus groups. Pamela R. McCarthy, et al. *Journal of the American Dietetic Association*, 92(8):978-981. 1992.

NAL Call Number: 389.8 Am34

Abstract: Focus group discussions are an effective way to determine the needs and interests of a target population. In August 1989, eight focus group discussions were conducted with municipal employees in Phoenix, Arizona, to determine the needs and interests of potential participants in a worksite cholesterol education program. Employees were selected for the focus groups on the basis of an initial screening that determined their motivation to change customary eating habits. Individuals categorized as "somewhat motivated" were invited to participate in

the focus groups because researcher thought they would best represent the motivation level of the majority of potential participants in the cholesterol education program. The focus group participants indicated that they preferred educational formats and approaches that appealed to diverse learning styles and recognized individual differences. Several of the program features identified by the focus groups are consistent with principles of adult education, especially active participation in the learning activity. The focus group participants wanted information presented in a simple, easy-to-understand manner, and they asked for behavioral directives rather than background information or medical jargon. Release time from work and employer commitment to the program were viewed as important to the success of the program. We conclude that employees respond best to worksite wellness programs that are simple, practical, and relevant and that allow them to participate actively in the learning activity during work time.

iv. Child Care

Enhancing compliance in the child and adult care food program using digitized photographs. Susan Martin Gould and Jennifer Anderson. *Journal of Nutrition Education*, 28:47A, 1996.

NAL Call Number: TX341 J6

Abstract: Not available.

v. Diabetes Education

Comprehension assessment of diabetes education program participants.

Belinda McNeal. *Diabetes Care*, 7(3):232-235. 1984.

NAL Call Number: RC660 A1D53 F&N

Abstract: A study of reading and comprehension skills of 39 diabetics participating in a diabetes education program revealed a significant mismatch between these skills and the level of oral and printed instruction used in the program. It was determined that over 50% of the participants could not fully comprehend 5th grade material while the program's oral instructions and written materials were at 9th grade level or higher. Problems caused by this observation are discussed.

Factors influencing diabetic clients' ability to read and comprehend printed diabetic diet material. Jana R. Kicklighter and Melissa A. Stein. *The Diabetes Educator*, 19(1):40-46.

NAL Call Number: RC660 A1D522

Abstract: Factors related to diabetic clients' abilities to read and comprehend printed diabetic diet material were explored by collecting data on social and demographic variables, prior knowledge, reading ability (using the Nelson-Denny Test), and comprehension of the diet (using the cloze technique) from 58 outpatient diabetic clients. A mean estimated reading grade level of 8.9 was obtained for the printed material, based on the use of three readability formulas. Analysis of cloze scores revealed that 62% of the clients scored less than 40%, indicating that the material was too difficult for them to comprehend; 21% scored between 40% and 59%, suggesting the need for supplemental instruction; and

17% scored 60% or above, indicating ability to fully comprehend. Clients scoring less than 40% tended to be older and obtained lower scores on the Nelson-Denny, as compared with those in the highest cloze category. Results of a stepwise regression analysis indicated that the Nelson-Denny vocabulary score, client age, and duration of diabetes were the strongest predictor variables for comprehension of the diet material.

vi. Expanded Food and Nutrition Education Program (EFNEP)

Evaluation of the literacy level of participants in an urban Expanded Food and Nutrition Education Program. Terryl J. Hartman, et al. *Journal of Nutrition Education*, 26(1):37-41. 1994.

NAL Call Number: TX341 J6

Abstract: The Minnesota Extension Service's Expanded Food and Nutrition Education Program (EFNEP), and the College of Education and School of Public Health at the University of Minnesota are cooperating to develop and evaluate the effectiveness of a cardiovascular disease prevention nutrition education program targeted at a population with low literacy skills. This collaborative effort, entitled the "Innovative Dietary Education Approaches" (IDEA) Project, began in September 1991.

Focus group responses of potential participants in a nutrition education program for individuals with limited literacy skills. Terryl J. Hartman, et al. *Journal of the American Dietetic Association*, 94:744-748. 1994.

NAL Call Number: 389.8 Am34

Abstract. Objective: To obtain information to direct the design and development of a nutrition intervention program targeted at a low-literacy audience Subjects: Thirty-nine female and two male clients of the Expanded Food and Nutrition Education Program (EFNEP) participated in five focus-group discussions. The focus groups included 23 African American, 9 white, 4 Southeast Asian, 1 American Indian, 2 Hispanic American, and 2 Middle Eastern EFNEP participants. Design: All focus groups were moderated and co-moderated by University of Minnesota staff members. The focus groups were tape- recorded and transcribed. A written report was generated based on the independent evaluation of two staff members. Results: We learned that EFNEP participants thought they would be motivated to change their eating habits for health concerns, including weight loss, and to help their families develop healthful eating habits. They mentioned several barriers to making changes, including extra time and money needed to purchase and prepare healthful foods, food preferences of family members, lack of interest and skills in cooking, and insufficient knowledge about which foods are healthful. Participants shared ideas for program content and delivery. Conclusions: Clients with limited literacy skills have valuable opinions and insights that program developers targeting this hard-to-reach group should hear. The EFNEP participants wanted simple, practical, and relevant information about what foods to eat and how to prepare them. They considered lectures an ineffective way to receive nutrition information, and they expressed a preference for hands-on activities that were enjoyable and allowed participants to share ideas and experiences.

Interactive evaluation using the "Learning Tool". Gayle Coleman and Bruce

Haas. Journal of Nutrition Education, 32:353A. 2000.

NAL Call Number: TX341 J6

Abstract: Not available.

vii. Pregnancy/Breastfeeding

An evaluation of breastfeeding promotion literature: Does it really promote breastfeeding? Ruta K. Valaitis and Eileen Shea. *Canadian Journal of Public Health*, 84(1):24-27.1993.

Abstract: Not available.

Effect of literacy on breast-feeding outcomes. Holly Kaufman, et al. *Southern Medical Journal*, 94(3):293-293. 2001.

Electronic Version: http://www.sma.org/smj2001/marsmj01/kaufman.pdf Abstract: We studied the effect of functional health literacy on the initiation and continuance of breast-feeding in women at a public health clinic. Subjects were 61 first-time mothers aged 18 years or older who spoke English as their first language. They were divided into two groups, one who exclusively breast-fed for at least the first 2 months and one who never initiated breast-feeding or did not exclusively breast-feed for at least 2 months. The Rapid Estimate of Adult Literacy in Medicine (REALM) was administered, providing reading grade-level estimates for each subject. An association between functional health literacy and breast-feeding was seen, with only 23% of the women in the lower literacy group exclusively breast-feeding during the first 2 months compared with 54% of women in the higher literacy group. Many patients need simpler health education materials encouraging breastfeeding. These materials are needed both before and during pregnancy.

Evaluation of the readability of ACOG patient education pamphlets.

Margaret Comerford Freda, Karla Damus and Irwin R. Merkatz. *Obstetrics & Gynecology*, 93(5):771-774. 1999.

Abstract: Objective: To evaluate whether ACOG's patient education pamphlets comply with the recommended readability level for health education materials intended for the general public. Methods: All 100 English-language pamphlets available during 1997 (created or revised between 1988 and 1997) were evaluated using four standard readability formulas. Results: Mean readability levels of ACOG's pamphlets were between grade 7.0 to grade 9.3, depending on the formula used. Analysis of readability over the 10 years showed a trend toward lower readability levels. Analysis by category of pamphlet found that the lowest readability levels were in "Especially for teens" pamphlets. Conclusion: Our data suggested that most of ACOG's patient education pamphlets currently available are written at a higher readability level than recommended for the general public. The readability of those pamphlets improved in the 10 years since the organization published its first pamphlet, but the goal of sixth-grade readability level has not been reached.

Reading skill and comprehension of the Dietary Guidelines by WIC participants. Karen M Busselman and Carol Ann Holcomb. *Journal of the American Dietetic Association*, 94:622-625. 1994.

NAL Call Number: 389.8 Am34

Abstract: Objective: The purpose of this study was to examine the match between reading skills and comprehension of the 1990 Dietary Guidelines in a Special Supplemental Food Program for Women, Infants, and Children (WIC) group (n=32) compared with a non-WIC group and to determine which selected factors affected cloze scores. Subjects/Samples: The WIC group consisted of volunteers from WIC voucher pick-up sites, and the non-WIC group comprised women who met the qualification criteria for WIC, except income. Methods: Reading skills were assessed using the Wide-Range Achievement Test-Revised Level II (WRAT-R). Comprehension skills were measured using the cloze technique. Materials: The introductory section of the Dietary Guidelines, originally written at the 10th-grade level, was simplified to the 7th-grade level for comprehension comparison. Results: The WIC group had a significantly (P<.001) lower reading skill (WRAT-R score=60.1; 11th-grade level) than the non-WIC group (WRAT-R score=70.8; college level). Cloze scores from all subjects tested at the 10th-grade level indicated that 75% (n=24) would be frustrated or need instructional assistance to understand the Dietary Guidelines. Simplification contributed to higher cloze scores. The WRAT-R score was one factor that significantly affected the cloze score (P<.001). Both education level and WRAT-R scores varied significantly between groups; however, analysis of covariance revealed that the effects were identical within both groups. Implications: WRAT-R can be used as a quick screening method for reading-skill level of individuals in WIC programs and other counseling situations. The cloze techniques may be useful for assessing comprehension of specific printed materials. Assessment of reading skill and comprehension by nutrition educators is recommended to increase the likelihood of selecting and/or developing effective materials.

B. Books and Book Chapters

Communicating effectively with pregnant adolescents who have limited literacy or comprehension skills.

Chapter 19 (p181–190) in: Nutrition and the Pregnant Adolescent: A Practical Reference Guide

Mary Story and Jamie Stang, editors.

Minneapolis, MN: Center for Leadership, Education, and Training in Maternal and Child Nutrition, University of Minnesota, c2000. 247 p.

NAL Call Number: RG556.5 N88 2000

Electronic Version: http://www.epi.umn.edu/let/nmpabook.html **Abstract**: A resource for health professionals on nutrition and adolescent pregnancy. The overall goal of this book is to promote the health and nutritional status of pregnant adolescents and to achieve optimal pregnancy and infant outcomes. Focuses on clinical application of current knowledge on adolescent pregnancy emphasizing assessment, management, counseling approaches and strategies to promote dietary change and adequate weight gain.

Nutrition Education Opportunities: Strategies to Help Patients with Limited Reading Skills. Report of the Second Ross Roundtable on Current Issues in Public Health.

Columbus, OH: Ross Laboratories, c1989. 77 p.

NAL Call Number: TX364 R67 1988

Description: Addresses how to create nutrition education materials for low-literate persons. Includes discussions on illiteracy, reading levels of existing nutrition education materials and efforts to reach low-literate audiences.

C. Web Sites

Hot Topics A-Z: Health Literacy

National Agricultural Library, Food and Nutrition Information Center, Food Stamp Nutrition Connection

Web Site: http://www.nal.usda.gov/foodstamp/Topics/health_literacy.html **Description:** Provides links to online references that address issues related to nutrition education and literacy. Includes sections on statistics, general information, reports and online tools.

III. Developing and Evaluating Print Materials (in alphabetical order)

A. Journal Articles

A strategy for designing effective patient education materials. Beverly J. McCabe, et al. *Journal of the American Dietetic Association*, 89(9):1290-1292.1295. 1989.

NAL Call Number: 389.8 Am34

Abstract: Health care professionals have long voiced a concern about the mismatch between patients' reading skills and the readability of printed educational materials. The gap between patients' reading levels and the readability of diet education materials has not been closed in the past 20 years. This article details a strategy for developing effective printed educational materials that was used to develop and revise dietetic materials for patients at a university medical center. The process includes the use of a computerized readability software program to assess reading levels. Three major steps are to (a) analyze patient education needs, (b) develop the instructional plan and materials, and (c) evaluate the materials. Examples are given of the application of the readability program in the development of one diet booklet and in the simplification of four other booklets. Without the readability formulas, the reading level of the materials would have remained above the stated educational levels of the target population, and the objectives of the booklets would not have been achieved. Cautions against overreliance on the readability formulas without other assessment steps are given. A systematic approach including readability assessment is needed to ensure the effectiveness of dietetic educational materials.

Development and evaluation of a pictorial version of a WIC allowable foods list.

Susan Martin Gould and Jennifer Anderson. *Journal of the American Dietetic Association*, 99(8):978-980. 1999.

NAL Call Number: 389.8 Am34

Abstract: Not available.

Development of a color-coded bilingual food label for low-literacy Latino caretakers. Lauren Haldeman, et al. *Journal of Nutrition Education*. 32(3):152-160, 2000.

NAL Call Number: TX341 J6

Abstract: The purpose of this study was to develop a bilingual, user-friendly food label (UFFL) for low-literary audiences. The UFFL developed was based on (a) a quantitative and qualitative needs assessment of Food and Drug Administration (FDA) food label understanding and use, (b) the development of a UFFL, and (c) a qualitative evaluation of the UFFL. Subjects consisted of a convenience sample (N = 150) of low-income Latino caretakers living in Hartford with children under 6 years of age, who were recruited from local community agencies. The primary outcomes measured in this study were food label use, knowledge, and understanding. Chi-square analyses were conducted to determine relationships between subjects' socioeconomic status and demographic characteristics with food label use, knowledge, and understanding. Although 96% of respondents were familiar with the FDA food label, only 30% used it routinely when grocery shopping. FDA food label knowledge was positively associated (p less than or equal to .05) with younger age, level of education, and being an English speaker. A UFFL was developed that included color-coding, bilingual text, and a shaded Food Guide Pyramid. Results indicated that participants found the UFFL easy to understand. The UFFL can be used as a nutrition education tool and the methodology developed may help food policy makers to improve the nutrition education value of the FDA food label.

Developing written nutrition information for adults with low literacy skills. Jaime Ruud, Nancy M. Betts and John Dirkx. *Journal of Nutrition Education*, 25(1):11-16. 1993.

NAL Call Number: TX341 J6

Abstract. The purpose of this project was to develop nutrition materials based on bulletins HG 232(1-11), "The Dietary Guidelines and Your Diet", for use by adults with low literacy skills. A booklet testing at the fifth grade level was designed and tested using qualitative research methods. Participants included 131 women and 21 men, 16 to 60 years of age (mean age 30 years). Sixteen percent were African American, 3% were Native American, 1% were Hispanic, and the remaining 80% were Caucasians. All possessed reading skills from the third to eighth grade levels, and years of education completed ranged from sixth grade to high school graduate (mean of tenth grade). Two sets of interviews were conducted. The booklet was revised based upon results from the first set of interviews. Participants were especially interested in "how to" and "did you know" information, and calorie and nutrient contents of food. Topics of interest included, "Tips on Feeding Young Children", "Eat Less Fat", and "Watch Your

Weight". Findings from the interviews provide evidence of the need for nutrition information among these low literate adults. Further research with low literate adults is needed to define typical dietary practices, beliefs and perceptions, and barriers to change.

Improving the effectiveness of nutrition education materials for low literacy clients. Susan Nitzke. *Nutrition Today*, 24(5):17-23. 1989.

NAL Call Number: RA784 N8

Abstract. Communicating nutrition information in a meaningful way is an ever present challenge for educators. Reaching low literacy adults, more than 13% of the population, requires special skills and techniques. Some of these are addressed in this article.

Instrument development for low literacy audiences: Assessing extension program personnel teaching effectiveness. Laryssa Lackman, Robert D. Nieto and Rosemary Gliem. *Journal of Extension*, 35(1). 1997.

NAL Call Number: LC45.4 J682

Electronic Version: http://www.joe.org/joe/1997february/rb1.html

Abstract: Not available.

National Cancer Institute's Ethnic and Low Literacy Nutrition Education **Project.** Chariklia Tziraki, et al. *Journal of Nutrition Education*, 26(2):101-106. 1994.

NAL Call Number: TX341 J6

Abstract: Not available.

Nutrition education materials from the National Institutes of Health: Development, review and availability. Jean A.T. Pennington and Van S. Hubbard. *Journal of Nutrition Education and Behavior*, 34(1):53-58. 2002. **NAL Call Number:** TX341 J6

Abstract: Many of the institutes, centers, and offices (ICOs) within the National Institutes of Health (NIH) develop and disseminate nutrition education materials for the general public. These materials provide information about the relationship of diet to health and about associations between diet and specific diseases. The materials, which are drafted by the NIH or contract science writers, go through pretesting (for literacy level and appropriateness for target audiences) and ICO clearance (for scientific accuracy). To further ensure scientific and technical accuracy and consistency with the Dietary Guidelines for Americans, the materials then go through a two-tiered governmental review system. The first review is through the Nutrition Education Subcommittee (NES) of the NIH Nutrition Coordinating Committee. The second review, which is required for federal nutrition education materials, is conducted jointly by the Department of Health and Human Services (DHHS) Nutrition Policy Board Committee on Dietary Guidance and by the US Department of Agriculture (USDA) Dietary Guidance Working Group. The review process helps ensure consistency in nutrition messages within the NIH ICOs and among government agencies. The pretesting, ICO clearance, NES review, and joint DHHS/USDA review result in materials for nutrition educators that are high in quality, low in cost or free, easily accessible, appropriate for the intended target audience, and consistent with the Dietary Guidelines for Americans.

Reader's Responses to Language Experience Approach Materials. Betty Aderman, et al. *Adult Literacy and Basic Education*, 11(1):13-22. 1987. **Abstract:** Not available.

Research into practice example: Reaching low-literate adults with printed nutrition materials. Susan Nitzke. *Journal of the American Dietetic Association*, 87 (Suppl. 9):S73-77. 1987.

NAL Call Number: 389.8 AM34

Abstract: (Extract from article) A receiver-assisted pamphlet featuring snack information written in the language of the target audience was developed using the language experience approach and compared to a standard sender-produced version written by nutrition professionals. Information garnered through free recall, main idea, content continuation, and signaled stopping statements suggests that the receiver-assisted pamphlet was more easily understood and the perception of personal relevance was improved, although content recognition and oral miscue analyses indicated that some of the wording in the receiver-assisted version tended to be more difficult. Subjects who read semantic differential passages gave the receiver-assisted pamphlet more favorable ratings on the neighborly, helpful, sensible, and informative scales. Semantic differential scores of white and nonwhite respondents favored the receiver-assisted version, indicating that the materials are appropriate for use with a racially mixed target audience.

Strategies to improve cancer education materials. Leonard G. Doak, Cecilia C. Doak and Cathy D. Mead. *Oncology Nursing Forum*, 27(10):1305-12. 1996. **Electronic Version:**

http://www.ons.org/xp6/ONS/Library.xml/ONS_Publications.xml/ONF.xml/ONF1996.xml/September.xml/Article_8.xml

Abstract: Purpose/objectives: To highlight the benefits of creating effective materials for cancer education; to describe strategies to enhance the suitability of materials for all readers, including those with limited literacy skills. Data Sources: Published research and education articles, health education models and theories, the National Cancer Institute Office of Cancer Communications, and personal experiences. Data Synthesis: Written materials, including visuals, commonly are used to convey cancer life-style risks, detection methods, treatments and procedures, and informed consent information. Such materials are relevant and suitable only when they can be read and understood and are matched to patients' reading abilities. A systematic process to achieve effective written materials includes assessing the target audience, limiting the educational objectives, focusing the content on the desired behaviors, presenting the context of the message first, and planning for reader interaction. The final step is verification of comprehension and suitability with the target audience. Conclusions: The creation of effective cancer education materials can be achieved by employing strategies that aim to enhance patient understandability, usability, relevancy, and motivation. Learner verification is a quality control process and a technique that

helps ensure that materials are suitable for the intended audience and better matched to patients' learning needs. Nursing Implications: Nurses can improve the understandability of cancer education by using a variety of learning enhancement techniques and a set of organized planning steps. Such strategies can serve to improve the communication of cancer information to target groups with diverse literacy skills.

Tools for evaluating written and audiovisual nutrition education materials.

Connie Betterley and Brenda Dobson. Journal of Extension, 38(4). 2000.

NAL Call Number: LC45.4 J682

Electronic Version: http://joe.org/joe/2000august/tt3.html

Abstract: Not available.

Using a critical incident technique to develop nutrition information materials for adults with low literacy skills. Nancy M. Betts, John Dirkx and Jamie Ruud.

Journal of Nutrition Education, 25(4):208-212. 1993.

NAL Call Number: TX341 J6

Abstract: Not available.

Using low-literacy newsletters to provide nutrition education for limited resource individuals. Barbara J. Struempler and Autumn C. Marshall. *Journal of*

Nutrition Education, 31:60C. 1999. NAL Call Number: TX341 J6

Abstract: Not available.

Writing health education material for low-literacy populations. Jane Meyer

and Jacquie Rainey. Journal of Health Education, 25(6): 372-374. 1994.

NAL Call Number: LB3401 A57

Abstract: Not available.

B. Books and Book Chapters

Beyond the Brochure: Alternative Approaches to Effective Health Communication

Denver, CO: AMC Cancer Research Center, 1994. 74 p.

Electronic Version (PDF):

http://www.cdc.gov/cancer/nbccedp/bccpdfs/amcbeyon.pdf

Description: This booklet is designed to help educators identify means of providing education to low-literacy audiences that does not rely upon printed words. Includes information on adapting, developing, and testing materials.

Clear & Simple: Developing Effective Print Materials for Low-Literate Readers

Bethesda, MD: National Cancer Institute, National Institutes of Health, 1994. **Electronic Version:**

http://oc.nci.nih.gov/services/Clear_and_Simple/HOME.HTM

Description: This guide outlines a process for developing publications for people with limited-literacy skills. Includes information on target audience research, designing and developing materials and how to pre-test publications.

Developing client education materials

Jo Ellen Shield and Mary C. Mullen

Chapter 10 (pages 91-104) in Communicating as Professionals

Ronnie Chernoff, editor.

Chicago, IL: American Dietetic Association, c1994. 210 p.

NAL Call Number: R118 C6 1994

ISBN: 0880911239

Description: Discusses use of a three-phase process for developing readable materials: planning, development and evaluation. Includes information on needs assessment, learning and behavioral objectives, wording, graphics, layout, readability formulas, and pre-testing.

Communicating with: people who have difficulty reading

Helen Osborne

Chapter 1 (p1-9) in: Overcoming Communication Barriers in Patient Education

Gaithersburg, MD: Aspen Publishers, Inc., c2001. 65 p.

NAL Call Number: R118 O83 2001

ISBN: 083422030X

Description: Provides general health literacy information, and reviews various communication strategies including writing, graphics and pictographs, videotapes and audiotapes. Also includes resource lists.

Effective patient education.

Chapter 1 (p1-29) in: Diabetes Patient Education Manual.

Simon Weavers and Judy Marcus, editors.

Gaithersburg, MD: Aspen Publishers, Inc., c1999.

NAL Call Number: RC660 D544 1999

ISBN: 0834212757

Description: Discusses literacy assessment using the Rapid Estimate of Adult Literacy of Medicine (REALM) instrument, readability assessment using the SMOG index, layout and design of print materials and how to teach patients with low-literacy skills.

Guidelines: Writing for Adults with Limited Reading Skills.

Nancy Gaston and Pat Daniels.

Alexandria, VA: United States Department of Agriculture, Food and Nutrition Service, Office of Information, 1988. 23 p.

NAL Call Number: APE1126 A4G8

Abstract: These guidelines are intended to assist writers and editors in preparation of written materials for adults with limited reading skills. Basic points in preparing informational material are as follows: know the characteristics of the audience so that the material is appropriate; clearly identify and organize the message; and present the material in a way to get and hold readers' attention long

enough for them to retain the message. Illustrations, references, and a high-frequency word list are included.

Teaching Patients with Low Literacy Skills.

Cecilia C. Doak, Leonard G. Doak and Jane H. Root. Philadelphia, PA: JB Lippincott Co., c1996. 224 p.

NAL Call Number: RT90 D6 1996

ISBN: 0397551614

Description: Provides strategies for improving patient comprehension and assessing the suitability of materials (SAM method). Reviews use of the Fry Readability Graph. Also discusses how to teach patients using written materials, tapes, video, computer aided instruction, visuals, and graphics.

Writing and Designing Print Materials for Beneficiaries: A Guide for State Medicaid Agencies

Jeanne McGee

Baltimore, MD: United States Department of Health and Human Services, Health Care Financing Administration, 1999. Publication Number 10145. 335 p. **Electronic Version (PDF):** Only the 'Guide Checklist for Assessing Print Materials' is available online.

http://www.hsph.harvard.edu/healthliteracy/how_to/guide_cklst.pdf

Description: Guide focused on the development of print materials for Medicaid beneficiaries. It provides advice and tips for writing, designing, and pre-testing written materials.

Writing for Reading: Guide for Developing Print Materials in Nutrition for Low-Literacy Adults

Susan Nitzke et al.

Madison, WI: University of Wisconsin-Madison, c1986.

9 p.

Electronic Version (PDF) (printing not allowed):

http://cf.uwex.edu/ces/pubs/pdf/B3545.PDF

NAL Call Number: LB1050.42 W7

Description: Guide for targeting and developing nutrition information for adults

with limited literacy skills.

C. Brochures, Handouts

Writing for a Changing World: Reaching Low Literacy Audiences with Print Material. North Central Region Extension Publication No. 475.

Ellen Schuster and David W. McAllister.

St. Paul, MN: University of Minnesota Extension, 1993

NAL Call Number: S544 N6

Electronic Version:

http://www.extension.umn.edu/distribution/communications/DL6052.html **Description:** Brochure featuring writing tips and resources designed to help Cooperative Extension staff communicate health messages to audiences with limited literacy skills.

D. Kits

Developing Health Education Materials for Special Audiences: Low-Literate Adults.

Jo Ellen Shield and Mary Catherine Mullen.

Chicago, IL: American Dietetic Association, c1992.

NAL Call Number: Audiocassette no. 503

Description: This audiocassette tape and study guide reviews the impact of illiteracy on healthcare and foodservice industries, how to evaluate the readability of education materials and ways to adapt existing print materials.

E. Web Sites

Easy to Read

Oregon State University Extension Family and Community Development, May 4, 2001.

Web Site: http://www.orst.edu/dept/ehe/nu_literacy_wt_et.htm

Description: Covers four ways to improve the layout and readability of educational materials for low literacy viewers.

Just Sav It!

Oregon State University Extension Family and Community Development

Web Site: http://www.orst.edu/dept/ehe/nu literacy wt is ws.htm

Description: Includes information on how to simplify the words you use in your

materials. Includes a Word Substitution List.

Pictograph Research Project: Developing Ways to Communicate Large **Amounts of Medical Information to Non Literate Persons.**

Johns Hopkins Oncology Center, February 8, 1999.

Web Site: http://www.med.jhu.edu/cancerctr/ptfamsvc/pict/pictogr.htm

Description: Describes a research project that uses pictographs, pictures that represents an idea, to communicate health information. Contains 192 pictographs of actions to manage fever and sore mouth due to cancer treatment and actions to manage HIV symptoms of nausea, diarrhea, fatigue, depression, and spread of HIV infections.

IV. Readability Formulas Commonly Used in Nutrition (in alphabetical order)

This sections contains citations for key readability articles and sources of readability formulas.

A. General Information

i. Journal Articles

Readability formulas: An overview. Chafai Tekfi. Journal of Documentation 43(3) 261-73. 1987.

Abstract: Not Available.

Readability formulas: Caution and criteria. Cathy D. Meade and Cyrus F.

Smith. Patient Education and Counseling, 17:153-158. 1991.

Abstract: Not available.

Readability formulas may mislead you. James W. Pichert and Peggy Elam.

Patient Education and Counseling, 7:181-191. 1985.

Abstract: Not available.

ii. Web Sites

In Other Words...Assessing Readability: Rules for Playing the Numbers

Game. Helen Osborne, Health Literacy Consulting, December 2000.

Web Site: http://www.healthliteracy.com/oncalldec2000.html

Description: Includes a discussion on how to prepare materials before

assessing readability using a computer software program.

Tips on Developing Patient Education: Readability and Reading Tests

University of Virginia Health System, August 28, 2000.

Web site: http://www.med.virginia.edu/patient-ed/provider/read.html

Description: Includes information on the Fry Readability Formula, Flesch-

Kincaid Formula, SMOG Readability Formula, and the REALM reading level

test.

B. Flesch Reading Ease

i. Journal Articles

A new readability yardstick. Rudolf Flesch. Journal of Applied Psychology,

32:2211-2223.1948.

Abstract: Not available.

C. Fry Readability Formula

i. Journal Articles:

A readability formula that saves time. Edward Fry. Journal of Reading,

11:513-516, 575-578, 1968.

Abstract: Not available.

Fry's Readability Graph: Clarifications, validity, and extensions to level

17. Edward Fry. *Journal of Reading*, 242-252. 1977.

Abstract: Not available.

ii. Books

Suitability Assessment of Materials: Assessing readability using the Fry Formula

Pages 44-46 in: *Teaching Patients with Low Literacy Skills* Cecilia C. Doak, Leonard G. Doak and Jane H. Root. Philadelphia, PA: JB Lippincott Co., c1996. 224 p.

NAL Call Number: IPM020313326

ISBN: 0397551614

Description: Reviews use of the Fry Readability Graph.

ii. Web Sites

The Fry Readability Scale

Atlanta, GA: Centers for Disease Control, May 2001.

Web Site: http://www.cdc.gov/od/ads/fry.htm

Description: Offers instructions and graph for calculating readability using the

Fry Formula.

D. SMOG Grading

i. Journal Articles

SMOG grading: A new readability formula. G. Harry McLaughlin. *Journal*

of Reading, 12:639-46. 1969. **Abstract:** Not available.

ii. Books

Using the SMOG Index

How to Test for Readability

Appendix B in: Making Health Communication Programs Work: A Planner's

Guide

Bethesda, MD: National Cancer Institute, 1989.

Electronic Version:

http://oc.nci.nih.gov/services/HCPW/APPEN.HTM#anchor113849

NAL Call Number: RA440.3 U5P82 1989

Description: Provides instructions and an example on how to use the SMOG

formula.

iii. Web Sites

Human Subjects Research: SMOG Readability Formula

Atlanta, GA: Centers for Disease Control, March 14, 2001.

Web Site: http://www.cdc.gov/od/ads/smog.htm

Description: Includes information on the SMOG Readability Formula, Spanish readability formulas, and a list of replacement words and phrases.

V. Distributors of Easy-to-Read Nutrition Education Materials (alphabetical order)

The Food and Nutrition Information Center did not test the readability of these materials. In most cases, distributors identified their materials that are written at the 6^{th} grade level or below. Samples of materials that you can order are listed below. This is not a complete listing.

Adaptive Materials, Inc.

Attn: Rose Redmond 16531 Greenly St. Holland, MI 49424

Telephone: (616) 399-5520 E-mail: rose@airseds.com

Picture Cookbooks/Recipes:

- 101 Picture Recipes Cookbook
- 101 Picture Recipes Shopping List

American Diabetes Association

Attn: Customer Service 1701 North Beauregard St. Alexandria, VA 22311 Telephone: (800) 342-2383

Web Site: http://www.diabetes.org/

Booklets:

- The American Diabetes Channel: A Guide to Eating and Diabetes
- The American Diabetes Channel: All About Food Myths
- El Canal de la American Diabetes Association (Spanish language)

Pamphlets:

• First Step in Diabetes Meal Planning

American Dietetic Association

216 W. Jackson Blvd. Chicago, IL 60606-6995

Telephone: (800) 877-1600 ext. 5000 Web Site: http://www.eatright.org

Booklets:

• Eating Healthy with Diabetes

Fact Sheets:

- 7 Steps to Healthful Eating
- 7 Steps to a Healthful Weight
- Calcium for Strong Bones and Teeth
- Healthful Eating for Your Young Child
- 7 Steps to Home Food Safety
- 7 Steps to Being More Active

Aprendo Press

P.O. Box 51392 Durham, NC 27717

Telephone: (919) 361-1857

Fax: (919) 361-2284

E-mail: aprendopress@mindspring.com

Web Site: http://ww2.choicemall.com/aprendopress/

Photonovelas:

• From Mother to Mother: Advice for a Healthy Pregnancy

- De Madre A Madre: Consejos para embarazo sano (Spanish language)
- From Mother to Mother: Mothers Give Advice on Breastfeeding
- De Madre A Madre: Las mamas dan consejos de cómo amamantar (Spanish language)

Association of Farmworker Opportunity Programs

AFOP - Publications

4350 North Fairfax Dr., Suite 410

Arlington, VA 22203

Telephone: (703) 528-4141

Fax: (703) 528-4145

Web Site: http://www.afop.org/frames.html English as a Second Language Curricula:

• A Taste of English

Non-print Materials (audio):

- Radio Nutricion Service Provider's Kit
- Radio Nutricion (Supplemental Edition)

Attainment Company, Inc.

P.O. Box 930160

Verona, WI 53593-0160 Telephone: (800) 327-4269

E-mail: info@attainmentcompany.com

Web Site: http://www.attainmentcompany.com/home.html

Picture Cookbooks/Recipes:

- Home Cooking Picture Cookbook
- Look n' Cook Microwave

Curricula:

• Shopping Smart

California Diabetes and Pregnancy Program (CDAPP)

Resource Center

4542 Ruffner St, #140

San Diego, CA 92111-2250 Telephone: (858) 467-4990 Fax: (858) 467-4993

Web Site: http://www.llu.edu/llumc/sweetsuccess/catalog/order.htm

Pamphlets:

• Eating Well to Keep Your Blood Sugar Normal

Channing Bete Company, Inc.

One Community Place

South Deerfield, MA 01373-0200

Telephone: (800) 628-7733

Fax: (800) 499-6464

E-mail: custsvcs@channing-bete.com Web site: http://www.channing-bete.com

Booklets:

- A Healthy Diet is For Everyone
- Lead and Your Child's Diet
- Folate and Planning a Healthy Pregnancy

Diabetes Association of Greater Cleveland

3601 S. Green Road, Suite 100

Cleveland, OH 44122

Telephone: (216) 591-0800

Fax: 216-591-0320

Web site: http://www.dagc.org/infoform.cfm

Pamphlets:

- Culturally Specific Diabetes Education Materials: Hispanic Series
- Culturally Specific Diabetes Education Materials: African American Series
- Smart Shopper
- Winning the Battle of the Bulge Part 1
- Winning the Battle of the Bulge Part 2
- Fast Food...Eating Out

Food Safety and Inspection Service

United States Department of Agriculture

Washington, DC 20250-3700

E-mail: fsis.outreach@usda.gov

Web Site: http://www.fsis.usda.gov/index.htm

Booklet (storyboard):

• Cómo Héctor se enfermó (Spanish language: How Hector Got Sick)

Health Promotion Council of Southeastern Pennsylvania

260 South Broad St., 17th Floor Philadelphia, PA 19102-5085 Telephone: (215) 731-6150

Fax: (215) 731-6199

E-mail: hlphpc@libertynet.org Web site: http://www.hpcpa.org/

Pamphlets:

- Put Away Your Frying Pan: Cooking for Good Health
- I'm Doing this for Me: Mr. Hudson Goes on a Diet
- Stay Regular: Eat High Fiber Foods
- Put the Fat Back: Smart Shoppers Take Control
- Mr. Bates Learns About Cholesterol
- Your Best Body: A Story About Losing Weight
- The Odette Winters Show: Exercise is for You Too
- Get Up and Move

IDC Publishing

International Diabetes Center 3800 Park Nicollet Blvd. Minneapolis, MN 55416-2699 Telephone: (888) 637-2675

Fax: (952) 993-1302

E-mail: idcpub@parknicollet.com

Web site: http://www.idcpublishing.com/index.cfm

Booklets:

• Healthy Eating for People with Diabetes (in English and Spanish)

Iowa State University

Extension Distribution Center 119 Printing and Publications Building Iowa State University Ames, IA 50011-3171 Telephone: (515) 294-5247

Fax: (515) 294-2945

Pamphlets:

- How to Read the New Food Label Electronic Version (PDF): http://www.extension.iastate.edu/Publications/NCR559.pdf
- Do You Want to Feel Better? Lose Weight? Stay Healthy? Electronic Version (PDF): http://www.extension.iastate.edu/Publications/NCR560.pdf

National Cancer Institute

Publications Ordering Service P.O. Box 24128 Baltimore, MD 21227 Telephone: (800) 422–6237

Fax: (301) 330-7968

TTY: (800) 332–8615 (US only)

Brochures:

- 5–A–Day: Time to Take Five: Eat 5 Fruits and Vegetables Every Day Electronic Version (HTML): http://5aday.nci.nih.gov/index-takefive.shtml
- Coma 5 frutas y verduras todos los dias (Spanish language: Eat 5 Fruits and Vegetables Every Day)
- Coma menos grasa: usted puede reducir su riesgo de padecer ciertos tipos de cancer (Spanish language: Eat Less Fat)
- Eat Five Fruits and Vegetables Everyday
- Tips on How to Eat Less Fat
- Traditional Foods can be Healthy

Photonovella

Su Familia Se Merce Los Mejores Alimentos!
 Electronic Version (HTML): http://www.5aday.gov/media-other.shtml

National Center for Farmworker Health, Inc.

1770 FM 967

Buda, TX 78610

Telephone: (512) 312-2700

Fax: (512) 312-2600

Web Site: http://www.ncfh.org/catalog.htm#ordrform

Portfolios:

Bilingual Patient Education Materials
 Electronic Version (HTML): http://www.ncfh.org/pateduc.htm

• Healthy Mommy, Healthy Baby (Mamá Sana, Bebé Sano) (bilingual)

National Diabetes Information Clearinghouse

1 Information Way

Bethesda, MD 20892-3560 Telephone: (800) 860-8747 Fax: (301) 907-8906

E-mail: ndic@info.niddk.nih.gov

Web site: http://www.niddk.nih.gov/health/diabetes/ndic.htm

Booklets:

Diabetes Nutrition Series
 Electronic Versions (HTML):
 http://www.niddk.nih.gov/health/diabetes/pubs/nutritn/index.htm

Resource Lists:

• Searches on File: Topics in Diabetes: Diabetes Educational Materials for People with Limited Reading Skills

National Digestive Diseases Information Clearinghouse

2 Information Way

Bethesda, MD 20892-3570 Telephone: (800) 891-5389 Fax: (301) 907-8906

E-mail: nddic@info.niddk.nih.gov

Web Site: http://www.niddk.nih.gov/health/digest/pubs/ddpubs/ddform.htm

Booklets:

• Why Am I Constipated?

Electronic Version (HTML):

http://www.niddk.nih.gov/health/digest/pubs/whyconst/whyconst.htm

• Why Do I Have Gas?

Electronic Version (HTML):

http://www.niddk.nih.gov/health/digest/pubs/whygas/whygas.htm

• Why Does Milk Bother Me?

Electronic Version (HTML):

http://www.niddk.nih.gov/health/digest/pubs/whymilk/index.htm

• Eat Right to Feel Right on Hemodialysis

Electronic Version (HTML):

http://www.niddk.nih.gov/health/kidney/pubs/kidney-failure/eat-right/eat-right.htm

National Heart Lung and Blood Institute

Health Information Center

P.O. Box 30105

Bethesda, MD 20824-0105 Telephone: (301) 592-8573

Fax: (301) 592-8563 TTY: (240) 629-3255

Web Site: http://www.nhlbi.nih.gov/health/infoctr/ic_ordr.htm

Booklets:

• Improving Cardiovascular Health in African Americans Package of Seven Easy-To-Read Booklets

Electronic Versions (HTML):

http://www.nhlbi.nih.gov/health/public/heart/other/chdblack/

http://www.nhlbi.nih.gov/health/public/heart/other/sp-page.htm

• Easy-to-Read English/Spanish Booklets on Heart Health

Electronic Versions (HTML):

- Eat Right to Help Lower Your High Blood Cholesterol
- Eat Right to Help Lower Your High Blood Pressure

Photonovella:

• An Ounce of Prevention: A Guide to Heart Health (Más Vale Prevenir: Que Lamentar)

Electronic Version (PDF) (English):

http://www.nhlbi.nih.gov/health/prof/heart/latino/foto_eng.pdf

Electronic Version (PDF) (Spanish): http://www.nhlbi.nih.gov/health/prof/heart/latino/foto_sp.pdf

National Maternal Child Health Clearinghouse

Telephone: (888) ASK-HRSA

E-mail: ask@hrsa.gov

Web Site: http://www.ask.hrsa.gov

Booklets:

• Healthy Foods, Healthy Baby

National Oral Health Information Clearinghouse

1 NOHIC Way

Bethesda, MD 20892-3500 Telephone: (301) 402–7364

Fax: (301) 907–8830

Web Site: http://www.nohic.nidcr.nih.gov/cgi-bin/ohpubgen_new

Booklets:

• A Healthy Mouth For Your Baby Electronic Version (HTML with graphics):

http://www.nidcr.nih.gov/health/pubs/hmouth/main.htm

Electronic Version (text only):

http://www.nidcr.nih.gov/health/pubs/hmouth/text.htm

Oregon State University

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422 Kerr Administration Corvallis, OR 97331-2119

Fax: (541) 737-0817

E-mail: puborders@orst.edu

Web Site: http://eesc.orst.edu/agcomwebfile/EdMat/EdmatIndexFam.html

Picture Cookbooks/Recipes:

Spanish-English Pictorial Recipes, 1999
 Electronic Version (HTML):
 http://osu.orst.edu/dept/ehe/nu_diverse_se.htm

- Spanish/English Pictorial Recipes Set #2
- Spanish/English Pictorial Recipes Set #3
- Spanish/English Pictorial Recipes Set #4

Redwood Coast Regional Center

Attn: Janet Foos, RD, MPH 525 Second St, Suite 300

Eureka, CA 95501

Telephone: (707) 445-0893 ext 324 E-mail: jfoos@redwoodcoastrc.org

Picture Cookbooks/Recipes:

• Independent Picture Recipes

United States Environmental Protection Agency

Region 1

1 Congress Street

Boston, MA 02114-2023 Telephone: (888) 372-7341

Web Site: http://www.epa.gov/region01/eco/lead/index.html

English as a Second Language Curricula:

• Healthy Beginnings: Lead Safe Families (beginner and advanced versions, teacher's guide)

Electronic Version (HTML):

http://www.epa.gov/region01/eco/lead/index.html

United States Food and Drug Administration

HFI-40

Rockville, MD 20857-0001 Telephone: (888) 463-6332

Web Site: http://www.fda.gov/opacom/lowlit/7lowlit.html

Booklets:

• Eating for a Healthy Heart

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/hlyheart.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/hlyheart.pdf

 Dieta Para un Corazón Saludable (Spanish language: Eating for a Healthy Heart)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/shlyhart.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/shlyhart.pdf

• Eating Well as We Age

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/eatage.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/eatage.pdf

• Comiendo Bien en la Vejez (Spanish language: Eating Well as We Age)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/seatage.html

Electronic Version (PDF): http://www.fda.gov/opacom/lowlit/seatage.pdf

• Feeding Baby With Breast Milk or Formula

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/feedbby.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/feedbby.pdf

• Alimentando a su Bebé con Leche Materna o Biberón

(Spanish language: Feeding Baby With Breast Milk or Formula)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/sfeedbby.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/sfeedbby.pdf

Keep Your Food Safe

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/foodsfe.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/foodsfe.pdf

• ¡Goce de Buena Salud; Proteja los Alimentos! (Spanish language)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/sfoodsfe.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/sfoodsfe.pdf

• Losing Weight Safely (FDA 96-1247)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/weightls.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/weightls.pdf

 Pierda Peso sin Riesgo Para la Salud (Spanish language: Losing Weight Safely)

Electronic Version (HTML):

http://www.fda.gov/opacom/lowlit/sweghtls.html

Electronic Version (PDF):

http://www.fda.gov/opacom/lowlit/sweghtls.pdf

United States Government Printing Office

Superintendent of Documents

P.O. Box 371954

Pittsburgh, PA 15250-7954 Telephone: (866) 512-1800

Fax: (202) 512-2250

Web Site: http://bookstore.gpo.gov/index.html

Booklets:

• Making Healthy Food Choices (USDA Home and Garden Bulletin No. 250)

University of Connecticut Family Nutrition Program

Department of Nutrition

3624 Horsebarn Hill Rd.

University of Connecticut

Storrs, CT 06269-4017

Phone: (860) 486-3635

E-mail: lphillip@canr.uconn.edu

Web Site: http://www.hispanichealth.com/pana.htm

Fotonovelas:

• The Power of Love and Support: A Romantic Breastfeeding Story Electronic Version: (PDF) (English):

http://www.hispanichealth.com/efotonovela2.pdf

• Electronic Version: (PDF) (Spanish): http://www.hispanichealth.com/sfotonovela2.pdf

University of Massachusetts, Amherst

School of Public Health and Health Sciences, Department of Nutrition

210 Chenoweth, 100 Holdsworth Way

Amherst, MA 01003-9282 Phone: (413) 545-0740 Fax: (413) 545-1074

E-mail: ritabo@nutrition.umass.edu

Web Site: http://www.umass.edu/sphhs/nutrition/index.html

Modules:

NIBBLE

Electronic Version: http://www.umass.edu/nibble/

University of Minnesota Extension Service

Extension Distribution Center 405 Coffey Hall 1420 Eckles Avenue University of Minnesota St. Paul, MN 55108-6068

Telephone: (800) 876-8636

Fax: (612) 625-6281

E-mail: order@extension.umn.edu

Web Site: http://www.extension.umn.edu/units/dc/

Brochures:

Choosing Foods for Good Health

North Central Regional Extension Publication No. 472

Electronic Version (HTML):

http://www.extension.umn.edu/distribution/nutrition/DJ6046.html

• Fruits and Vegetables

North Central Regional Extension Publication No. 539

Electronic Version (HTML):

http://www.extension.umn.edu/distribution/nutrition/DJ6415.html

University of Wisconsin Cooperative Extension

Cooperative Extension Publications

45 North Charter St. Madison, WI 53715

Telephone: (877) 947-7827

Fax: (608) 265-8052

E-mail: breitzman@admin.uwex.edu

Web Site: http://www.uwex.edu/ces/publishing/distribution.html

Booklets:

- Cooking for Pleasure and Health: How to Fix Traditional Food with Less Fat—Latino Foods
- Creative Cooking
 Electronic Version (PDF)(printing not allowed):
 http://www1.uwex.edu/ces/pubs/pdf/B3485.PDF
- Eating for Pleasure and Health: How to Buy and Fix Good Food with Less Fat

Electronic Version (PDF)(printing not allowed): http://www1.uwex.edu/ces/pubs/pdf/B3538.PDF

- Feeding Young Children
 Electronic Version (PDF)(printing not allowed):
 http://www1.uwex.edu/ces/pubs/pdf/B3572.PDF
- How Food Affects You
 Electronic Version (PDF)(printing not allowed):
 http://www1.uwex.edu/ces/pubs/pdf/B3479.PDF
- Keeping Food Safe
 Electronic Version (PDF)(printing not allowed):
 http://www1.uwex.edu/ces/pubs/pdf/B3474.PDF
- Stretching Your Food Dollars: Planning Meals and Shopping Electronic Version (PDF)(printing not allowed): http://www1.uwex.edu/ces/pubs/pdf/B3487.PDF

Brochures/pamphlets:

• Food and Nutrition Fact Sheet Series Electronic Version (PDF)(printing not allowed): http://www.uwex.edu/ces/wnep/p6/foodfact.html

VI. Easy-to-Read Nutrition Materials at the National Agricultural Library (in alphabetical order)

Alimentos saludables, bebé saludable: un cuento sobre cómo comer bien cuando estás embarazada

Spanish language: Healthy Foods, Healthy Baby.

Philadelphia, PA: Maternal and Infant Health, Department of Public Health, City of Philadelphia, 1989.

28 p.

NAL Call Number: RG559 H4218

Description: This booklet presents nutrition information for pregnant teens and young adults at the 4th to 6th grade reading level. Two pregnant teens, Kim and Maria, meet at the health clinic and learn from one another about how to make good food choices. Information is conveyed through realistic dialogue, illustrations, and specific recommendations. Kim and Maria's friendship develops throughout the book as they discuss the joys and discomforts of their pregnancies, how much weight to gain, where their advice came from and how to feed their

new babies. They begin to adopt health promoting eating habits that they will share with their families.

A Taste of English: Nutrition Workbook for Adult ESL Students

Kathleen Flannery Silc and Beth Outterson

Arlington, VA: Association of Farmworker Opportunity Programs, c1994.

NAL Call Number: TX357 S65 1994

ISBN: 1886567050

Description: Teachers manual and student workbook designed to introduce basic nutrition concepts to adult English as a Second Language students. Features eight lessons that address healthy lifestyle behaviors, eating a variety of foods, food safety, grocery shopping, and food assistance. Also includes recipes.

Guia Para Latinos, Como Comer Saludablemente

Spanish language: Guide to Healthy Eating for Latinos

Aracely Rosales

Philadelphia, PA: Health Promotion Council of SEPA, c1995.

1 volume

NAL Call Number: TX361 H57R672 1995

Description: Part of a Latino Health Literacy Project, this booklet uses graphics

and simple text to explain healthy nutrition practices.

Healthy Foods Healthy Baby: A Story About How to Eat Right When You Are Pregnant

Philadelphia, PA: Maternal and Infant Health, Department of Public Health, City of Philadelphia, 1990.

28 p.

NAL Call Number: RG559 H42 1990

Description: This booklet presents nutrition information for pregnant teens and young adults at the 4th to 6th grade reading level. Two pregnant teens, Kim and Maria, meet at the health clinic and learn from one another about how to make good food choices. Information is conveyed through realistic dialogue, illustrations, and specific recommendations. Kim and Maria's friendship develops throughout the book as they discuss the joys and discomforts of their pregnancies, how much weight to gain, where their advice came from and how to feed their new babies. They begin to adopt health promoting eating habits that they will share with their families.

Home Cooking Picture Cookbook

Ellen M. Sudol

Verona, WI: Attainment Company, c1990. **NAL Call Number:** TX714 S83 1990

Description: This picture cookbook provides instruction to low literacy populations for making main and side dishes, vegetables, salads and desserts.

Low Fat Express

Owatonna, MN: Pineapple Appeal, 1995.

NAL Call Number: Kit no. 283

Description: A collection of activities that emphasize simple messages about eating foods with less fat. Includes a cookbook, leader's guide, calendar, 2 tubes of fat, 1 deck of cards, 1 measuring spoon, 1 jar-opening aid, and a nutrition fact sheet.

Look n' Cook Microwave

Ellen Sudol

Verona, WI: Attainment Company, Inc, c1999.

NAL Call Number: TX832 S83 1999

Description: Provides 68 simple microwave recipes. Each recipe features step-by-step illustrations. Also includes an instructor's guide featuring 32 lesson plans

based on the recipes in the cookbook

Radio Nutricion: A Program for Nutrition Education with the Hispanic Community

Arlington, VA: Association of Farmworker Opportunity Programs, 1996.

NAL Call Number: Audiocassette no. 501

Description: Uses novelas and social marketing techniques to reach Hispanic Farmworkers via the radio. Includes six audiocassette tapes in novela, public service announcement and "talk show" formats that address diabetes, high blood pressure, heart disease, pregnancy and smart shopping. Also provides a Provider's Guide (in English and Spanish) that features information about the program and social marketing, transcripts of the novelas, and evaluation instruments.

Shopping Smart: Towards Independence in Shopping

Verona, WI: Attainment Company, Inc. not dated. 230 p.

NAL Call Number: Pending

Description: Includes 288 laminated cards that illustrate food and non-food items. The cards are used to create a pictorial shopping list that is stored and carried in a provided wallet/pocketbook. An instructor's guide includes lesson plans and illustrates how to shop for groceries in a step-by-step format.

This resource list was compiled by:

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Food and Nutrition Information Center (FNIC), NAL/ARS/USDA

Acknowledgment is given to the following FNIC reviewers:

Shirley King Evans, EdM, RD Elizabeth Hill, RD Janice Schneider, MS, RD Desire' Stapley, RD, LD

This publication was developed through a Cooperative Agreement between the Food and Nutrition Information Center and the Department of Nutrition and Food Science in the College of Agriculture and Natural Resources at the University of Maryland.

Food and Nutrition Information Center Agricultural Research Service, USDA National Agricultural Library 10301 Baltimore Avenue, Room 105 Beltsville, MD 20705-2351 Phone: 301-504-5719

> Fax: 301-504-6409 TTY: 301-504-6856

e-mail: http://www.nal.usda.gov/fnic/fniccomments.html

Web site: http://www.nal.usda.gov/fnic

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