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Meeting the Dietary Needs of Older Adults: Workshop in Brief

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WORKSHOP IN BRIEF

Institute of Medicine

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Meeting the Dietary Needs of Older Adults—Workshop in Brief

On October 28–29, 2015, the National Academies of Sciences, Engineering, and Medicine Food and Nutrition Board convened a workshop in Washington, DC, to examine factors in the physical, social, and cultural environment that affect the ability of older adults to meet their daily dietary needs. The workshop built on two previous Institute of Medicine (IOM) workshop summaries, Providing Healthy and Safe Foods as We Age (IOM, 2010) and Nutrition and Healthy Aging in the Community (IOM, 2012).

This workshop's planning committee focused on the following areas: (1) providing context by describing the rapid increase in older adult populations worldwide and the need for new paradigms to meet their needs and by examining new understandings of the meaning of "healthy aging," (2) describing emerging insights into the changing physiology of aging and how that affects nutrient needs, (3) describing ecological insights about factors that influence the food choices and nutritional status of older adults, (4) reviewing national programs designed to address dietary and nutrition needs of older adults, (5) exploring how community, retail, and nonprofit organizations are instituting programs and projects to meet older adults' nutrition needs, and (6) examining research priorities and gaps. Organized by session, this workshop in brief highlights key points made by individual speakers during the workshop presentations and discussion. The information and suggestions for future action summarized here reflect the knowledge and opinions of individual workshop participants and should not be construed as consensus. Presentations and other materials can be found at www.nas.edu/OlderAdultNutrition.

SESSION 1: INTRODUCTION AND BACKGROUND

The speakers in Session 1 set the stage for the remainder of the workshop by explaining that, by virtue of its rapidly growing size, the older adult population is having a growing impact on the health care and social services sectors, industry, and the economies of countries worldwide. Speakers conveyed that new ways of thinking are necessary in order to appropriately and comprehensively consider the nutrition and dietary needs of older adults.

Lisa Marsh Ryerson (AARP Foundation) opened the workshop by welcoming participants and describing the AARP Foundation's focus on four key issues for older adults: hunger, housing, income, and social isolation. She noted that the workshop addressed emerging knowledge and insight about the food and nutrition needs of older adults, described existing programs and initiatives designed to meet this population's needs, and highlighted the need for new models to address the pressing food and nutrition challenges facing older adults.

David Donnan (A.T. Kearney) explained that the world is undergoing an "Age Quake" and showed in vivid detail how the rapid growth of older populations is occurring not just in the United States but worldwide. This demographic shift is having profound effects on many sectors, including food and nutrition. A.T. Kearney's Global

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Maturing Consumer Study, which consists of more than 3,000 detailed surveys and interviews and covers 60 percent of the world population, reveals how older adults have different shopping habits, preferences, and needs than younger consumers. Donnan suggested that innovative methods, such as leveraging buying power to secure less expensive prices and capitalizing on existing distribution networks (e.g., UPS), are needed to address the food sourcing, food preparation, and food delivery needs of older adults.

Building on the foundation provided by Donnan, Simin Meydani (Tufts University) reviewed a number of researchers' attempts to define "successful aging." Over the past 50 years, the definition has evolved from one focused on the absence of diseases and disability to one that includes psycho-social domains that are subjective and reflect well-being from the point of view of older adults. However, Meydani noted that consensus on what factors constitute successful aging or what components are essential has not yet been reached. Researchers and older adults define healthy aging somewhat differently, and although most adults do not meet objective criteria for successful aging (e.g., freedom from disability and disease), a majority meet subjective criteria (e.g., well-being and social connectedness). Meydani described how longitudinal studies on the reliability and validity of subjective ratings of successful aging are needed and noted that greater engagement of older adults in developing a comprehensive definition of this important concept would be valuable. Meydani called for more research to better define early determinants and risk factors for key components of successful aging, particularly those related to nutrition.

SESSION 2: EMERGING PHYSIOLOGICAL INSIGHTS

The second session of the workshop, which was moderated by Katherine Tucker (University of Massachusetts–Lowell), opened with her exploration of how nutrition needs change with aging. She noted that key to understanding these changes might be the recognition that older adults have lower energy requirements than do younger adults and less efficient absorption and use of many nutrients. Many older adults also have chronic conditions and use medications, both of which factors affect nutrient requirements, she added. Tucker described how age-related changes influence the requirements for a number of key nutrients, including calcium, vitamin D, folate, and vitamins B6 and B12. She also highlighted the importance for older adults to follow a nutrient-dense diet to meet their nutrient needs, but she cautioned that this can present challenges because of such issues as loss of appetite, changes in taste and smell, declines in oral health, mobility constraints, and low income.

The effect of overweight and obesity on health and mortality gave Gordon Jensen (Pennsylvania State University) an opportunity to deconstruct the "obesity paradox." Obesity does not generally confer health benefits and is associated with decreased life expectancy. In contrast, however, some studies suggest that in older adults, the lowest mortality is associated with overweight and Class 1 obesity. Jensen provided a closer examination of the data in order to explain these seemingly paradoxical findings. For example, body composition might be an important factor. Overweight is protective only in those older adults with high muscle mass, and an elevated body mass index might not have any protective effect in the presence of sarcopenic obesity (i.e., obesity with reduced muscle mass). Jensen observed that the presence of other disease conditions might also mitigate any protective effects of obesity.

In his presentation, Wayne Campbell (Purdue University) examined protein needs, an issue of keen interest among the scientific community and the general public. Campbell posed the question, "Do we have enough data now to support a recommendation for increased protein for older adults?" He explained that current recommendations for protein are derived from mathematical calculations and concluded that there is a need to find functional outcomes on which to base protein intake recommendations. He also noted that any decision to update recommendations for protein should be based on data that are critically and systematically evaluated and supported by high-quality longitudinal research.

In their examination of vitamins D and B, the next two presenters highlighted the importance of a nutrient-dense diet for older adults, as well as the complexities of determining nutrient requirements for this population. Denise Houston (Wake Forest School of Medicine) took a close look at vitamin D, aging, and physical function. Houston noted that vitamin D is particularly important for older adults because it is needed for bone health as well as a range of other body functions. A number of reports have highlighted the low intakes of this nutrient across the population, but it is difficult to determine the extent of inadequate intake and deficiency because of a lack of consensus on what level of vitamin D in the blood constitutes a deficiency. Most older adults are not able to meet the Recommended Dietary Allowance (which is based on amounts needed for skeletal health) through diet alone. Amounts needed to meet nonskeletal health outcomes could be even higher, and this presents an even greater challenge for older adults. Irv Rosenberg (Tufts University) described the complex relationship of the B vitamins, brain lipids, and cerebrovascular

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disease. He noted that high levels of homocysteine (a naturally occurring amino acid found in blood plasma that is related to early development of heart and vascular disease) is associated with low levels of several B vitamins, including B6, B12, and folate. These relationships are complex, however, because although inadequate intake of folate increases the risk of certain diseases, getting too much folic acid (the synthetic form of folate) increases disease risk and accelerates the effects of B12 deficiency. This might be especially important for older adults because they are at increased risk of B12 deficiency and they tend to consume breakfast cereals and other foods that are fortified with folic acid.

Lita Proctor (National Institutes of Health) concluded the session by describing emerging knowledge about the microbiome and the impact that diet can have on regulating the microbiome. She described the microbiome as a "fixed feature" but also a "variable trait" that can be exploited to support health. Microbiomes of older adults vary by living environment, and research suggests that the microbiome could be used as an excellent integrator for all aspects of health.

SESSION 3: EMERGING ECOLOGICAL INSIGHTS

Session 3 of the workshop, moderated by Ucheoma Akobundu (Meals on Wheels America), shifted the focus from the physiological to the ecological. Presenters examined a number of environmental factors that influence the food choices of older adults. These factors are important for the millions of older adults who experience food insecurity and limited mobility.

Julie Locher (University of Alabama at Birmingham) opened her talk by explaining the three pillars of food security: food availability, food access, and food use. The stability of all three pillars at all times supports the health and well-being of older adults. She posed the question, "Why does food choice matter?" and answered it by saying that food choices have health consequences and that they have less to do with free will than with the environment in which the choices are made. She then described the multiplicity of influences that affect food choice in older adults, including social, psychological, medical and health, economic, and religious factors. These factors operate at multiple levels, including individual, interpersonal, institutional, community, and policy. All these factors and their multilevel influences must be acknowledged when designing food assistance programs and interventions. Behavioral economics might present an opportunity to improve healthy eating and reduce the burden of decision making in the senior population.

Craig Gundersen (University of Illinois at Urbana-Champaign) opened by noting that in 2001, about 5 million older adults in the United States experienced food insecurity. By 2013, that number had almost doubled. Gundersen then described food insecurity among older U.S. adults and identified several new approaches for addressing the problem. He explained the various degrees of food insecurity and hunger and how they are defined by the U.S. Department of Agriculture (USDA). He also described the extent to which hunger and food insecurity affect different racial and income groups, and noted that food insecurity is more likely among certain populations of older adults. These include older adults who live at or below the poverty line, do not have a high school degree, are African American or Hispanic, are divorced or separated, have a grandchild living in the household, or are on the young side of older adulthood. Gundersen also outlined several strategies for addressing the food insecurity among this population, including encouraging participation in the Supplemental Nutrition Assistance Program (SNAP), reaching out to the socially isolated, helping those with mobility issues, and recognizing the importance of informal food assistance programs. He concluded by noting that important gaps remain in our knowledge about food insecurity among older adults, and he identified important areas for future research.

Joseph Sharkey (Texas A&M School of Public Health) built on Gundersen's talk by describing challenges to nutritional health faced by Mexican American and Mexican immigrant older adults in Texas border communities. This description vividly illustrated the complexities and contextual factors involved in meeting dietary needs of vulnerable populations. Contending that traditional approaches often do not work, Sharkey described a new, more promising approach that involves developing sustainable training and education activities using community collaborations that integrate place, services, and population health.

Irene Yen (University of California, San Francisco) shifted the discussion somewhat to focus on the importance of the built environment (e.g., the neighborhoods) on food choices and how improving social environments can have positive effects on the built environment and older adults' access to healthy food. Richard Allman (U.S. Department of Veterans Affairs) concluded the session by describing a University of Alabama at Birmingham study that looked at the relationship between weight status, nutritional risk, and mobility. The study (Ritchie et al., 2008) found that nutritional

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risk factors are associated with lower life-space mobility, which is the extent to which people are able to move or to travel through areas defined by the distance from where they sleep. This mobility ranges from staying in the bedroom and needing assistance to move around to the ability to travel independently to another town. The study also found that unintentional weight loss is associated with accelerated declines in life-space mobility.

SESSION 4: NATIONAL PROGRAMS ADDRESSING THE DIETARY NEEDS OF THE OLDER POPULATION

Several pieces of federal legislation and the federal nutrition assistance programs they cover play a role in supporting the nutritional health of older adults. Speakers in this session, which was moderated by Robert Post (Chobani, Inc.), focused on these national programs. Speakers also described programs and emerging research that are highlighting the needs of two populations in particular—older adults transitioning from acute care to the community and Native American populations.

Bob Blancato (National Association of Nutrition and Aging Services Program) reviewed the current status of the main pieces of legislation that affect nutrition and older adults. These pieces include the Older Americans Act, the Affordable Care Act, the Social Services Block Grant from the U.S. Department of Health and Human Services, and USDA's 2014 Farm Bill. He emphasized that national programs must focus on the triple threat of hunger, food insecurity, and malnutrition. The central issue is how to increase the priority placed on nutrition and older adults while not negatively affecting current efforts directed to children. Blancato said that the federal commitment to vulnerable populations of all ages must be strengthened.

Lura Barber (National Council on Aging) and Kathryn Law (USDA Food and Nutrition Service) described the critical, and growing, role that SNAP plays in ensuring the nutritional well-being of older adults. Older adults participate at much lower rates than do other age groups, and a number of efforts are under way to encourage enrollment, such as increasing awareness, simplifying enrollment procedures, and reducing any stigma associated with the program. Barber observed that a better understanding of how to further reach SNAP-eligible seniors, especially those who are eligible for higher-level benefits, is greatly needed.

Rose Ann DiMaria-Ghalili (Drexel University) began her presentation by proposing that one of the most critical time points for the nutritional health and well-being of older adults is the period of transition from hospital care to home care. DiMaria-Ghalili highlighted the lack of a systematic approach in managing care transitions and the inconsistent involvement of registered dietitians during these periods of time. She illustrated the need for better care transition by showing a news story of an older man who, after being recently discharged from the hospital, called 911 because he could not obtain food. Translating nutrition guidance into patient care practice might be necessary in moving nutrition from a "support service" to a critical health intervention. DiMaria-Ghalili described various initiatives under way to understand the dimensions of this problem and noted the great need for better nutrition risk assessments to integrate nutrition into hospital discharge policies and procedures so that an appropriate intensity of nutrition care can be provided after hospital discharge.

Kibbe Conti (Rapid City Indian Hospital) discussed key health challenges and disparities experienced by Native American tribes, explained several federal initiatives to improve food security on reservations, and described the Native Food Sovereignty Movement. This is an effort to strengthen local food production, reclaim native food systems, and promote native economies and people by adapting traditional foodways to current foods (e.g., Four Winds Nutrition Guide, My Native Plate) and using modern equivalents to traditional foods.

SESSION 5: ROLE OF THE COMMUNITY AND FOOD SECTOR

Having described national perspectives on addressing the nutritional needs of older adults, the workshop honed in on the community level in Session 5. This session was moderated by Susan Crockett (University of Minnesota). The for-profit and nonprofit sectors are developing a variety of innovative approaches to ensure access to healthy, safe, and affordable foods, particularly for vulnerable populations.

Annette Maggi (Annette Maggi and Associates, Inc.) set the stage by describing the retail perspective. She noted that although retailers do not specifically designate older adults as target audiences for their health and wellness programs, older adults certainly benefit from them. Partnerships between retail, health and wellness providers, and businesses can have a big impact, as most food-buying decisions are made at the point of purchase. Interested partners must create win-win opportunities and understand the retail environment.

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Eileen Myers (The Little Clinic) introduced The Little Clinic program. These 181 retail health clinics in Kroger stores in nine states provide a convenient and cost-effective way for people to access health care for routine services. These clinics also provide a way for messages about healthy eating and lifestyles to intersect with the place where people shop for food, and they provide ways for dietitians to expand their in-store roles. Despite these benefits and potential opportunities, Myers noted, the clinics face legislative, regulatory, payor, and medical culture barriers to their expansion.

Beth Burrough (Mom's Meals Nourishcare) described the Mom's Meals model, which delivers fresh, nutritionally tailored meals to older adults and those with disabilities and chronic illnesses. Burrough reinforced an idea that was presented several times throughout the day, that is, to rethink nutrition as a critical health intervention. The heterogeneity of the older adult population provides challenges for food manufacturers in developing new products, noted John Ruff (Kraft Food [retired], past president of Institute of Food Technologists). However, he pointed out that opportunities will increase as the size and impact of the older population increase. He described how new product ideas and technologies might be able to address some specific needs of older adults and that the United States can draw on successful global ideas for product ideas, technologies, and legislative frameworks.

Sally Allocca (P.E.E.R., Inc.) and Leslie Gordon (City Harvest) described programs that have similar aims but operate in very different environments. Allocca told participants about P.E.E.R., Inc., an organization in the East Lake Neighborhood of Birmingham, Alabama, that provides assistance with nutrition needs to low-income older adults through various means. These include a farmers' market, home-delivered food baskets, SNAP incentives, a mobile market, and a chef's apprentice program. Gordon described New York City's Healthy Neighborhoods program, which integrates emergency food services, food retail initiatives, partnerships with food retailers, nutrition education programs, and community partnerships. It uses City Harvest's food distribution infrastructure to improve access to healthy food, increase awareness of healthy habits, and encourage positive behavior change.

The session concluded with a talk that provided another broad-brush look at food insecurity. Hilary Seligman (University of California, San Francisco) described the cycle of food insecurity and chronic disease and ways to break the cycle through upstream community and health care interventions.

SESSION 6: POTENTIAL RESEARCH PRIORITIES AND GAPS

The workshop ended with an acknowledgment that there is still much to learn about the nutrition needs of older adults and how best to ensure that this critical population has access to nutritionally adequate, affordable, and culturally appealing food. Kali Thomas (Brown University) described her work to identify notable outcome measures for older adult nutrition programs. Thomas noted that these outcomes can be used to improve understanding of the unmet nutrition needs of older adults, determine what models work best and for whom, inform program improvements, and conduct cost-effectiveness and cost–benefit analyses. Elaine Waxman (Urban Institute) summarized what she viewed as the key points of the workshop. In her remarks, she included potential research needed in various areas, such as in behavioral economics or in nutritional sciences. ♦♦♦

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