Received: 13 January 2022 | Accepted: 12 February 2022

DOI: 10.1111/jgs.17732

Journal of the
American Geriatrics Society

A call for solutions for healthy aging through a systems-based, equitable approach to obesity

Emily A. Callahan MPH, RDN[1] | **Dorothea K. Vafiadis MS**[2] | **Kathleen A. Cameron MPH**[2] | **Fatima Cody Stanford MD, MPH, MPA, MBA**[3] | **Obesity and Equitable Aging Group**

[1]EAC Health and Nutrition, LLC, Washington, District of Columbia, USA

[2]National Council on Aging, Arlington, Virginia, USA

[3]Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts, USA

Correspondence
Fatima Cody Stanford, MD, MPH, MPA, MBA, Departments of Medicine and Pediatrics, Massachusetts General Hospital and Harvard Medical School, 50 Staniford Street, Suite 430, Boston, MA 02114, USA.
Email: fstanford@mgh.harvard.edu

Funding information
The National Council on Aging received an educational grant from Novo Nordisk Inc.

INTRODUCTION

For millions of U.S. adults aged 60 years and older, obesity is a major barrier to aging well. Almost 43% of this population has obesity (body mass index [BMI] ≥30 kg/m^2), compared to about 24% three decades ago (Figure 1).[1] Obesity is a chronic disease linked to more than 200 serious health conditions[2] and is the second-strongest predictor (after age) of COVID-19 related complications, hospitalizations, and death.[3] For older adults, obesity also negatively impacts quality of life[4]; can increase risk of falls,[5] mental health conditions,[6,7] and nursing home admission[8]; and results in higher health care spending.[9]

On October 21, 2021, the National Council on Aging convened a roundtable discussion on obesity and equitable aging. The participants—referred to as the Obesity and Equitable Aging Group ("the Group")—came from 12 organizations that represent diverse groups of older adults. They discussed challenges that impede older adults from accessing the full range of obesity prevention and treatment options. (See Text S1 and Table S1 for the roundtable agenda and participant list, respectively.)

This commentary reports themes that emerged from the roundtable and presents 10 solutions, which include policy recommendations, that the Group proposes to improve obesity prevention and care and promote equitable aging for all older adults in America.

CHALLENGES AND SOLUTIONS FOR EQUITABLE OBESITY CARE AMONG OLDER ADULTS

The Group noted racial and ethnic disparities in prevalence of obesity[1,10] and recognized that systemic disparities based on other factors such as gender, sexual orientation, rural status, zip code, and income are barriers to obesity prevention and management and equitable, healthy aging. It considered potential systemic, policy, and programmatic changes that could have the greatest impact on treatment and coverage gaps, risk factors, stigma, and disparities.

[Correction added after first online publication on March 26, 2022. Funding information section was rectified.]

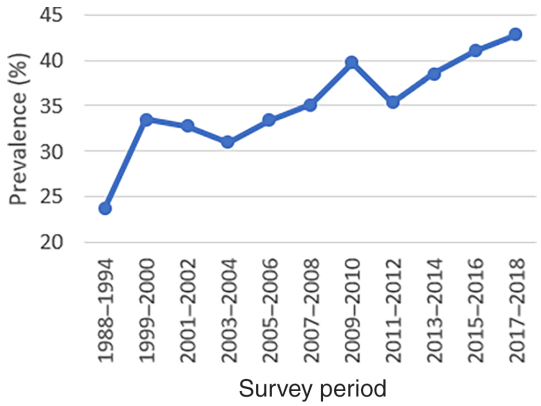

FIGURE 1 Trends in prevalence of obesity (body mass index ≥30 kg/m^2): U.S. adults ages 60 years and older *Source*: Fryar CD, Carroll, MD, Afful, J. Prevalence of overweight, obesity, and severe obesity among adults aged 20 and over: United States, 1960–1962 through 2017–2018. National Center for Health Statistics (NCHS) Health E-Stats. 2020

Ten drivers of inequities emerged from the roundtable presentations and discussions. The Group identified a challenge corresponding to each driver and proposed solutions for each (Figure 2). Context for each of the 10 drivers of inequities follows.

Older adult heterogeneity

Older adult characteristics that may affect obesity treatment include age, race/ethnicity, gender, sexual orientation, income, education, health literacy, functional ability, and chronic disease status (e.g., presence of sarcopenic obesity). A person's functional or physiological age may not match their chronological age, and onset of chronic disease and its risk factors may occur at younger ages among adults who experience structural inequities and other social influences that drive poor health. "Older adults" typically refers to individuals 60 years of age and older, but in some groups this age may need to shift downward to reflect the younger ages at which chronic disease and its risk factors often begin.

Limitations of BMI

BMI is a standard measure for population-wide obesity screening because it is quick, inexpensive, and noninvasive. However, BMI is not a direct measure of adipose tissue and also cannot differentiate between subcutaneous and visceral adiposity; nor does it account for age-related muscle mass changes. Disparities based on BMI may not translate to disparities in actual adiposity, metabolic risk, or mortality risk. For example, BMI cut points differ in Asian Americans, who typically have higher risk of metabolic disease at lower BMI values compared with European populations.[11] An analysis that redefined BMI cut points for obesity by sex and race/ethnicity based on association with presence of metabolic risk factors led to different cut points among specific race/ethnicity and sex subgroups.[12]

Unrecognized complexity

Many factors affect energy balance and contribute to development of obesity. These include conditions related to food and physical activity environments as well as those that are biological, maternal/developmental, social, psychological, economic,[13] and cultural in nature. Relationships between social determinants of health and obesity have gained attention recently. Social determinants refer to conditions in environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.[14] These include housing, neighborhood, racism, income, education, health care access, and access to healthy food and physical activity opportunities.

Lack of healthcare and community integration for services

Because primary care physicians often focus on acute health issues during patient encounters, it is helpful for them to refer patients to (1) care team members who can dedicate more time to weight management counseling such as registered dietitians or behavioral health counselors, and/or (2) weight management-related/lifestyle change programs offered by community-based organizations (CBOs). Leveraging CBOs has been proposed as a high-impact intervention to improve health care outcomes among older racial and ethnic minority groups.[15]

Evidence-based, multicomponent community programs that address nutrition, physical activity, and other behaviors are few, and access to these offerings varies. When available, coordination with participants' primary care medical home is critical to avoid unintended risks (e.g., hypoglycemia, hypotension, loss of lean mass and bone mineral density) as older adults engage in weight loss efforts.

Limited access to the full range of treatment

Approaches to treat obesity include lifestyle interventions (i.e., efforts to modify energy balance), FDA-approved anti-obesity medications, and bariatric surgery. Medicare coverage for obesity treatment varies by type of plan, but even for available benefits, beneficiaries must meet

CHALLENGE	SOLUTION
Older adult heterogeneity: One-size-fits-all approaches are often used to address obesity despite differences among individual members of the older adult population.	Recognize heterogeneity among older adults through comprehensive assessment and provide tailored, personalized approaches to obesity treatment that consider factors such as an individual's level of functional ability, chronic illness, food and activity environments, and health literacy.
Limitations of BMI[a]: BMI is commonly used to select obesity treatment but has limited usefulness for classifying an individual's level of body fat and corresponding health risks.	Recognize that BMI values are an indirect measure of an individual's body fat and health risks and consider sex, race/ethnicity, and presence of metabolic risk factors along with BMI to develop a more individualized approach to obesity treatment. Adapting clinical practice guidelines for obesity for older adults may be optimal.
Unrecognized complexity: Treatment approaches do not always consider the complex, interrelated influences on the development of obesity.	Link obesity treatment approaches to strategies that account for or directly address social determinants of health, including cultural beliefs and practices.
Lack of integration by health care and community: Obesity treatment services in health care and community settings are often singularly focused and disconnected.	Create and strengthen clinical-community linkages that can help coordinate health system-based and community-based weight management and obesity treatment services.
Limited access to the full range of treatment: Several obesity treatment options are available, but all are not accessible for all older adults, creating a gap in care.	Improve access to a wider range of obesity treatment options for older adults by providing reimbursement and addressing other social determinants that limit access to evidence-based options.
Impact of weight bias and stigma: People with obesity often experience weight bias and stigma, which are associated with stress and poor outcomes.	Educate health care providers on the broad causes of obesity and the range of treatment options and promote use of people-first language and imagery that fairly portrays people with obesity.
Aggregate data: Aggregate data are often used to characterize health risks in certain racial/ethnic populations, which masks meaningful subgroup differences and reinforces health inequities.	Collect and report disaggregated data on prevalence of obesity and related chronic conditions by race and ethnicity.
Trauma in tribal communities: Experiences of trauma in Native populations contribute to the disproportionate impact of obesity and their related health conditions.	Apply a lens of historical trauma when working with Native groups to understand how trauma is passed intergenerationally or for some groups, through colonization. Engage indigenous populations in developing community-centered solutions that restore indigenous knowledge and practices and support food sovereignty.
Consequences of discrimination: Among LGBTQ+[b] groups, fear of judgment and of receiving inferior health care leads to delay or avoidance of care-seeking.	Improve health care provider interactions with LGBTQ+ patients to provide better patient-centered care; integrate questions related to sexual orientation and gender identity into the clinical intake process and ensure privacy and confidentiality of this documentation; and allocate clinical care staff that represent the diversity of the patients being served.
Remote-community disparities: In rural areas, difficulty recruiting health care providers leads to limited access to obesity treatment and/or distrust of providers who practice in these areas.	Attract future health care providers from diverse backgrounds, pave the way for their education and training in health care professions, and incentivize them to practice in rural communities of similar backgrounds.

[a] Body mass index.
[b] Lesbian, gay, bisexual, transgender, queer.

FIGURE 2 Drivers of inequity, related challenges, and corresponding solutions for equitable obesity care among older adults *Source*: Developed by the authors based on the National Council on Aging's roundtable discussion on obesity and equitable aging, held October 21, 2021

requirements (see Table S2). Medicare does not cover weight loss programs, long-term weight loss meal delivery services, cosmetic procedures, or anti-obesity medications. Broadening coverage, such as by enacting the Treat and Reduce Obesity Act, would improve beneficiaries' access to the full range of treatment options.

Impact of weight bias and stigma

Obesity stigma and discrimination are prevalent and have far-reaching adverse effects that appear in social, workplace, educational, and health care settings. Weight stigma often results from misperceptions about causes of and solutions for obesity (i.e., belief that personal choices are the sole cause and the remedy is to simply eat less and move more). In reality, obesity has a complex etiology and individual responses to the same treatment vary. Weight bias and stigma are associated with physical and psychological harm and can lead people with obesity to avoid seeking medical care.[16]

Using people-first language—that is, "people with obesity" instead of "obese people"—and images that give dignity to people with obesity and depict them engaging in healthy behaviors are strategies to reduce stigma, encourage healthy lifestyle habits, and facilitate new public narratives.

Aggregate data

Failure to understand differences within population groups leads to and reinforces health inequities and poor access to treatment and health care. For example, Asian American and Pacific Islanders (AAPI) represent 40+ unique cultural and racial identities that vary in terms of factors such as English proficiency and cultural experiences. Disaggregated data on prevalence of obesity in AAPI subgroups are limited, but those that exist reveal substantial differences in prevalence.[17]

Disaggregated research could improve health inequities by providing clinicians insights into screening, intervention, and more frequent monitoring for at-risk conditions; informing development of culturally tailored dietary services and supports; and informing prioritization of health professionals and medical interpreters with the same ethnic and cultural backgrounds as patients.

Trauma in tribal communities

Specific cultural and historical influences contribute to health disparities—such as disproportionate prevalence of adult diabetes[18]—that American Indian/Alaska Native people experience. Such influences include removal from native lands and restriction to reservations, and forced assimilation and urbanization. These experiences severed indigenous peoples' deep connections with their land, eroding cultural ways of living and limiting access to traditional food sources and replacing them with government commodities often high in sugar and fat. Recognition of these experiences and their relationship to stress and poor health outcomes, along with incorporation of indigenous models of holistic health and wellness, can help shape culturally appropriate interventions and policies to improve health in these populations.

Consequences of discrimination

Many LGBTQ+ older people feel reluctant to discuss their sexual orientation and gender identity with health care providers for fear of being judged or receiving inferior care. In particular, transgender older people are concerned that they will experience limited access to health care and be denied medical treatment.[19] LGBT older adults avoid or delay health care or conceal their sexual and gender identity from health providers and social service professionals for fear of discrimination based on these identities.[20]

Remote community disparities

Health care services tend to cluster around urban hubs, and it can be difficult to recruit physicians and other health care providers to facilities in isolated rural areas. In Indian country in particular, health-care providers may originate from outside the United States and lack understanding of the culture and customs of the population they serve. Consequently, community member distrust of these providers leads to avoidance of care or suboptimal care experiences.

CONCLUSION

Obesity is a major barrier to healthy aging for millions of older adults in America. The Obesity and Equitable Aging Group calls for systems-wide, multifaceted changes to achieve a holistic, equitable approach to obesity prevention and management for older adults. We propose 10 solutions and call researchers, health care providers, public health professionals, policymakers, and other stakeholders to take action to improve obesity care as an essential part of equitable aging for all.

ACKNOWLEDGMENTS

The authors would like to thank Laura B. Plunkett of the National Council on Aging for assistance planning the roundtable discussion and preparing this manuscript.

CONFLICT OF INTEREST

The National Council on Aging received an educational grant from Novo Nordisk Inc. that was used in part to support the roundtable event. Emily A. Callahan received consulting fees from the National Council on Aging for science writing. Kathleen A. Cameron and Dorothea K. Vafiadis are employees of the National Council on Aging. Fatima C. Stanford reports grant funding from the National Institute of Diabetes and Digestive and Kidney Diseases in support of her work at the Nutrition Obesity Research Center at Harvard (grant number NIH NIDDK P30 DK040561). The authors have no other disclosures to report.

AUTHOR CONTRIBUTIONS

Dorothea K. Vafiadis and Kathleen A. Cameron designed and planned the roundtable discussion, Fatima C. Stanford facilitated a portion of the roundtable discussion, and all authors attended the roundtable discussion. Emily A. Callahan wrote and edited the manuscript with inputs from Dorothea K. Vafiadis, Kathleen A. Cameron, and Fatima C. Stanford, and all authors read and approved the final version of the manuscript.

SPONSOR'S ROLE

The sponsor did not participate in the roundtable planning or discussions; nor was it involved in the design or preparation of this manuscript.

FINANCIAL DISCLOSURES

The National Council on Aging received an educational grant from Novo Nordisk Inc. that was used in part to support the roundtable event. Novo Nordisk Inc. did not participate in the roundtable planning or discussions; nor was it involved in the preparation or review of this manuscript. Emily A. Callahan received consulting fees from the National Council on Aging for science writing. Kathleen A. Cameron and Dorothea K. Vafiadis are employees of the National Council on Aging. Fatima C. Stanford reports grant funding from the National Institute of Diabetes and Digestive and Kidney Diseases in support of her work at the Nutrition Obesity Research Center at Harvard (grant number NIH NIDDK P30 DK040561). The authors have no other disclosures to report.

ORCID

Fatima Cody Stanford https://orcid.org/0000-0003-4616-533X

REFERENCES

1. Fryar CD, Carroll MD, Afful J. *Prevalence of Overweight, Obesity, and Severe Obesity Among Adults Aged 20 and Over: United States, 1960–1962 Through 2017–2018*. National Center for Health Statistics (NCHS) Health E-Stats; 2020.
2. Centers for Disease Control and Prevention (Division of Nutrition PA, and Obesity, National Center for Chronic Disease Prevention and Health Promotion) Adult Obesity Causes and Consequences; Updated March 22, 2021. Accessed November 16, 2021. https://www.cdc.gov/obesity/adult/causes.html
3. World Obesity Federation COVID-19 and Obesity: The 2021 Atlas; 2021. Accessed January 26, 2022. https://www.worldobesityday.org/assets/downloads/COVID-19-and-Obesity-The-2021-Atlas.pdf
4. Batsis JA, Zagaria AB. Addressing obesity in aging patients. *Med Clin North Am*. 2018;102(1):65-85. doi:10.1016/j.mcna.2017.08.007
5. Neri SG, Oliveira JS, Dario AB, Lima RM, Tiedemann A. Does obesity increase the risk and severity of falls in people aged 60 years and older? A systematic review and meta-analysis of observational studies. *J Gerontol A*. 2019;75(5):952-960. doi:10.1093/gerona/glz272
6. Rajan TM, Menon V. Psychiatric disorders and obesity: a review of association studies. *J Postgrad Med*. 2017;63(3):182-190. doi:10.4103/jpgm.JPGM_712_16
7. Ma Y, Ajnakina O, Steptoe A, Cadar D. Higher risk of dementia in English older individuals who are overweight or obese. *Int J Epidemiol*. 2020;49(4):1353-1365. doi:10.1093/ije/dyaa099
8. Elkins JS, Whitmer RA, Sidney S, Sorel M, Yaffe K, Johnston SC. Midlife obesity and long-term risk of nursing home admission. *Obesity (Silver Spring)*. 2006;14(8):1472-1478. doi:10.1038/oby.2006.167
9. Yang Z, Hall AG. The financial burden of overweight and obesity among elderly Americans: the dynamics of weight, longevity, and health care cost. *Health Serv Res*. 2008;43(3):849-868. doi:10.1111/j.1475-6773.2007.00801.x
10. Villarroel MA, Blackwell DL & Jen A. Summary Health Statistics: National Health Interview Survey: 2018. Table A-15a, Age-Adjusted Percent Distribution (With Standard Errors) of Body Mass Index Among Adults Aged 18 and Over, by Selected Characteristics: United States, 2018; 2019. Accessed January 26, 2022. http://www.cdc.gov/nchs/nhis/SHS/tables.htm
11. WHO Expert Consultation. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *Lancet*. 2004;363(9403):157-163. doi:10.1016/s0140-6736(03)15268-3
12. Stanford FC, Lee M, Hur C. Race, ethnicity, sex, and obesity: is it time to personalize the scale? *Mayo Clin Proc*. 2019;94(2):362-363. doi:10.1016/j.mayocp.2018.10.014
13. The Obesity Society. *Potential Contributors to Obesity Infographic*. Accessed November 4, 2021. https://www.researchgate.net/publication/308102097_Potential_Contributors_to_Obesity_Infographic
14. Office of Disease Prevention and Health Promotion (U.S. Department of Health and Human Services). *Social Determinants of Health: Healthy People 2030*. Accessed November 4, 2021. https://health.gov/healthypeople/objectives-and-data/social-determinants-health
15. Jain B, Khatri E, Stanford FC. Racial disparities in senior healthcare: system-level interventions. *J Am Geriatr Soc*. 2022;70(4):1292-1296. doi:10.1111/jgs.17658

16. Rubino F, Puhl RM, Cummings DE, et al. Joint international consensus statement for ending stigma of obesity. *Nat Med*. 2020;26(4):485-497. doi:10.1038/s41591-020-0803-x
17. Gordon NP, Lin TY, Rau J, Lo JC. Aggregation of Asian-American subgroups masks meaningful differences in health and health risks among Asian ethnicities: an electronic health record based cohort study. *BMC Public Health*. 2019;19(1):1551. doi:10.1186/s12889-019-7683-3
18. Centers for Disease Control and Prevention National Diabetes Statistics Report; 2017. Accessed January 26, 2022. https://dev.diabetes.org/sites/default/files/2019-06/cdc-statistics-report-2017.pdf
19. SAGE (Services and Advocacy for LGBT Elders) Out and Visible: The Experiences and Attitudes of Lesbian, Gay, Bisexual and Transgender Older Adults, Ages 45–75; 2014. Accessed January 26, 2022. https://www.sageusa.org/wp-content/uploads/2018/05/sageusa-out-visible-lgbt-market-research-full-report.pdf
20. Choi SK & Meyer IH LGBT Aging: A Review of Research Findings, Needs, and Policy Implications; 2016. Accessed January 26, 2022. https://www.lgbtagingcenter.org/resources/pdfs/LGBT-Aging-A-Review.pdf

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

Appendix S1. Supplementary file.

Text S1: Agenda for the roundtable discussion on obesity and equitable aging.

Table S1: Obesity and Equitable Aging Group members (roundtable participants).

Table S2: Description of obesity treatments covered by Medicare plans.

How to cite this article: Callahan EA, Vafiadis DK, Cameron KA, Stanford FC, Obesity and Equitable Aging Group. A call for solutions for healthy aging through a systems-based, equitable approach to obesity. *J Am Geriatr Soc*. 2022;70(5):1599-1604. doi:10.1111/jgs.17732