Food and Nutrition Board

Using Systems Applications to Inform Obesity Solutions

Speaker and Moderator Biographical Sketches



Jamy D. Ard, M.D.

Wake Forest Baptist Health

Planning Committee Member, Moderator, Panelist, and Roundtable on

Obesity Solutions Member

Jamy D. Ard is a Professor in the Department of Epidemiology and Prevention and the Department of Medicine at Wake Forest University Baptist Medical Center. He is also co-director of the Wake Forest Baptist Health Weight Management Center, directing medical weight management programs.

Following completion of his residency training, he was selected to serve as a chief resident in internal medicine at Duke. He also received formal training in clinical research as a fellow at the Center for Health Services Research in Primary Care at the Durham VA Medical Center. During this time, he participated in a focused research experience on lifestyle interventions for hypertension and obesity at the Duke Hypertension Center. Dr. Ard's research interests include clinical management of obesity and strategies to improve cardiometabolic risk using lifestyle modification. In particular, his work has focused on developing and testing medical strategies for the treatment of obesity in special populations, including African Americans, those with type 2 diabetes and older adults. Dr. Ard has participated in several major NIH funded multi-center trials including Dietary Approaches to Stop Hypertension (DASH), DASH-sodium, PREMIER, and Weight Loss Maintenance Trial. He has been conducting research on lifestyle modification since 1995 and has received research funding from a variety of federal and foundation sources, including the National Institutes of Health and the Robert Wood Johnson Foundation. His work has been published in numerous scientific journals and he has been a featured presenter at several national and international conferences and workshops dealing with obesity. Dr. Ard has more than 20 years of experience in clinical nutrition and obesity. Prior to joining the faculty at Wake Forest in 2012, Dr. Ard spent nine years at the University of Alabama at Birmingham in the Department of Nutrition Sciences. Dr. Ard has served on several expert panels and guideline development committees, including the Institute of Medicine Committee on Consequences of Sodium Reduction in Populations, the AHA/ACC/TOS Guideline Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, and the American Psychological Association Obesity Guideline Development Panel. He is also serving on the editorial board for the American Journal of Clinical Nutrition and the International Journal of Obesity. Dr. Ard received an M.D. and completed internal medicine residency training at the Duke University Medical Center.

Food and Nutrition Board



Sarah Buzogany, M.S. City of Baltimore Invited Speaker

Sarah Buzogany is the Food Resilience Planner for the Baltimore Food Policy Initiative. Sarah provides direct support to the Food Policy Director and works to implement the Healthy Food Priority Area Strategy, analyze policies and best practices, and manage grants. Her major focus areas include equity

in the food system; food environment mapping and analysis; food resilience and emergency response; and urban agriculture. Previously, Sarah has worked on sustainable agriculture policy at the state and national levels, managed a farmers market, and researched innovative farmer to consumer and nutrition education models. Sarah earned a master of science in food policy and applied nutrition from Tufts University and holds bachelor's degrees in sustainable agriculture and Spanish from the University of Kentucky.



Sara J. Czaja, Ph.D., M.S.

Weill Cornell Medicine

Planning Committee Member, Moderator, and Panelist

Sara J. Czaja is a Professor of Gerontology and the Director of the Center on Aging and Behavioral Research in the Division of Geriatrics and Palliative Medicine at Weill Cornell Medicine. She is also an Emeritus Professor of

Psychiatry and Behavioral Sciences at the University of Miami Miller School of Medicine (UMMSM). Prior to joining the faculty at Weill Cornell, she was the Director of the Center on Aging at the UMMSM. Dr. Czaja is also the Director of the NIH multi-site Center for Research and Education on Aging and Technology Enhancement (CREATE) and C-Director of the Center for Enhancing Neurocognitive Health, Abilities, Networks, & Community Engagement (ENHANCE), funded by NIDILRR. Her research interests include: aging and cognition, caregiving, aging and technology, aging and work, training, and functional assessment. She has received continuous funding from the National Institutes of Health and other funding agencies to support her research, and has published extensively on these topics. She is a fellow of the American Psychological Association (APA), the Human Factors and Ergonomics Society, and the Gerontological Society of American. She served as the Past President of Division 20 (Adult Development and Aging) of APA, as a member of the National Research Council/National Academy of Sciences Board on Human Systems Integration, as a member of the Institute of Medicine (IOM) Committee on the Public Health Dimensions of Cognitive Aging and as a member of the IOM Committee on Family Caring for Older Adults. Dr. Czaja is the recipient of the 2015 M. Powell Lawton Distinguished Contribution Award for Applied Gerontology from the APA; the 2013 Social Impact Award for the Association of Computing Machinery (ACM) and the Franklin V. Taylor Award from Division 21 of APA. She is also the recipient of the Jack A. Kraft Award for Innovation from HFES, the APA Interdisciplinary Team, and the 2019 Richard Kalish Innovative Book Publication Award (GSA) with CREATE. Dr. Czaja holds an M.S. and Ph.D. in industrial engineering from the State University of New York (SUNY) University at Buffalo.

Food and Nutrition Board



Ana Diez Roux, M.D., Ph.D., M.P.H.
Drexel University
Invited Speaker

Ana Diez Roux, is Dean and Distinguished University Professor of Epidemiology in the Dornsife School of Public Health at Drexel University. Originally trained as a pediatrician in her native Buenos Aires, she completed public health training at the Johns Hopkins University School of Hygiene and

Public Health. Before joining Drexel University, she served on the faculties of Columbia University and the University of Michigan, where she was Chair of the Department of Epidemiology and Director of the Center for Social Epidemiology and Population Health at the University of Michigan School of Public Health. Dr. Diez Roux is internationally known for her research on the social determinants of population health and the study of how neighborhoods affect health. Her work on neighborhood health effects has been highly influential in the policy debate on population health and its determinants. Her research areas include social epidemiology and health disparities, environmental health effects, urban health, psychosocial factors in health, cardiovascular disease epidemiology, and the use of multilevel methods. Recent areas of work include social environment-gene interactions and the use of complex systems approaches in population health. She has led large NIH and foundation funded research and training programs in the United States and in collaboration with various institutions in Latin America and has been Principal Investigator of grants totaling more than 30 million US dollars. She has been a member of the MacArthur Network on Socioeconomic Factors and Health and was Co-Director of the Network on Inequality, Complexity and Health. Dr. Diez Roux earned her M.D. from the University of Buenos Aires, and holds a Ph.D. and M.P.H. from The Johns Hopkins School of Hygiene and Public Health.

Food and Nutrition Board



Christina (Chris) Economos, Ph.D., M.S.
Tufts University
Planning Committee Co-Chair, Moderator, and V

Planning Committee Co-Chair, Moderator, and Vice Chair, Roundtable on Obesity Solutions

Chris Economos is a Professor, the New Balance Chair in Childhood Nutrition, and Chair of the Division of Nutrition Interventions, Communication, & Behavior Change at the Friedman School of Nutrition Science and Policy and Medical School at Tufts University. She leads a

research team studying behavioral interventions, strategic communications, and promotion of physical activity using a systems approach to reduce childhood obesity. She has authored more than 150 scientific publications and is also the co-Founder and Director of ChildObesity180, a unique organization that brings together leaders from diverse disciplines to generate urgency and find solutions to the childhood obesity epidemic. Dr. Economos is involved in national obesity and public health activities and has served on four National Academies of Sciences, Engineering, and Medicine committees including the Roundtable on Obesity Solutions and the Committee on an Evidence Framework for Obesity Prevention Decision-Making. She received a bachelor of science from Boston University, a master of science in applied physiology and nutrition from Columbia University and a doctorate in nutritional biochemistry from Tufts University.



Tom FarreyAspen Institute
Invited Speaker

Tom Farrey is executive director of the Aspen Institute's Sports & Society Program, the mission of which is to convene leaders, facilitate dialogue and inspire solutions that help sport serve the public interest. The program's signature initiative is Project Play, which, since 2013, has mobilized hundreds of organizations to build healthy communities through sports. A pioneering

journalist, Mr. Farrey worked for 21 years with ESPN. His reports helped build the reputation of the Outside the Lines and won two Emmys, a Murrow, and in 2014 a duPont – ESPN's first. He is author of the influential book, *Game On: The All-American Race to Make Champions of Our Children*. Mr. Farrey is a graduate of the University of Florida.

Food and Nutrition Board



Joel Gittelsohn, Ph.D.
Johns Hopkins University
Invited Speaker

Joel Gittelsohn is a Professor in the Center for Human Nutrition and Global Obesity Prevention Center, International Health, Johns Hopkins Bloomberg School of Public Health. Dr. Gittelsohn is a public health nutritionist and medical anthropologist, who focuses on developing, implementing and

evaluating community-based programs for the primary prevention of chronic disease in disadvantaged ethnic minority populations. With more than 300 publications, Dr. Gittelsohn has led multiple food source-centered intervention trials aimed at improving the food environment and providing education needed to support healthy food choices and reduce obesity and diabetes in Native communities, Baltimore City, and Pacific Islander communities. He developed a multi-institutional program for diabetes prevention in 7 First Nations in schools and food stores, which has been extended to 11 American Indian communities and includes worksites, social media and policy components. He has conducted a series of intervention trials with corner stores, carryouts, wholesalers, churches, and recreation centers in Baltimore City. These studies have shown success in increasing knowledge, healthy food purchasing and consumption, in reducing obesity, and in improving stocking and sales of healthier foods. More recently, Dr. Gittelsohn has begun to use systems science methods in his work, to simulate policies to improve the urban food environment, and to engage and work with stakeholders in both urban and rural settings. He earned his Ph.D. from the University of Connecticut.



Jack Homer, Ph.D.
Homer Consulting
Invited Speaker

Jack Homer is an expert in system dynamics simulation modeling, a former faculty member at the University of Southern California, and a full-time consultant to private and public organizations since 1989. His articles on modeling applications and methodology are frequently cited, and many

are published in the books, *Models That Matter* (2012) and *More Models That Matter* (2017). In the health sector, he has done modeling projects for federal agencies including CDC, NIH, CMS, FDA, and VHA, and for several foundations, think tanks, and state and county health departments. He has developed models for the Rippel Foundation's ReThink Health initiative since its inception in 2011. He is the recipient of several awards from the International System Dynamics Society, the CDC, AcademyHealth, and the Applied Systems Thinking Institute. Dr. Homer has a Ph.D. from MIT, where he studied system dynamics and economics and wrote his dissertation on the adoption and evolution of new medical technologies.

Food and Nutrition Board



Brent Langellier, Ph.D., M.A. *Drexel University Invited Speaker*

Brent Langellier is Assistant Professor of Health Management and Policy, and a health disparities researcher that uses complex systems methods to understand the mechanisms that contribute to disparities and to identify policy levers to address disparities. He is a co-lead of the systems working group of the Salud Urbana en América Latina (SALURBAL) study, in which a

multidisciplinary team of researchers have used group based modeling and agent-based modeling to examine drivers of health in Latin American cities. Dr. Langellier earned his M.A. in Latin American studies and Ph.D. in community health sciences from the University of California, Los Angeles.



Bruce Y. Lee, M.D., M.B.A.

City University of New York City

Planning Committee Member, Invited Speaker, and Panelist

Bruce Y. Lee is Professor is a Professor of Health Policy and Management at the City University of New York (CUNY) School of Public Health where he is the Executive Director of PHICOR (Public Health Computational and Operations Research), which he founded in 2007, and a Professor by Courtesy at the Johns Hopkins Carey Business School. He is a systems

modeler, computational and digital health expert, writer, and health journalist. He has over two decades experience in industry and academia developing mathematical and computational models to assist a wide range of decision makers in health and public health. His previous positions include serving as Associate Professor of International Health at the Johns Hopkins Bloomberg School of Public Health, Executive Director of the Global Obesity Prevention Center (GOPC), Director of Operations Research at the International Vaccine Access Center (IVAC), Associate Professor at the University of Pittsburgh, Senior Manager at Quintiles Transnational, working in biotechnology equity research at Montgomery Securities, and co-founding two companies. He has been the Principal Investigator for projects supported by a variety of organizations and agencies including the Bill & Melinda Gates Foundation, the National Institutes of Health (NIH), the Agency for Healthcare Quality and Research (AHRQ), the Centers for Disease Control and Prevention (CDC), UNICEF, the Global Fund and USAID. He also has served as a systems science and modeling expert for numerous advisory boards and committees such as the National Academies of Science, Engineering and Medicine committee to evaluate the Dietary Guidelines of America process. Dr. Lee has authored over 200 scientific publications (including over 100 first author and over 65 last author) nearly all of which have focused of systems science and using systems methods as well as three books. Dr. Lee received his B.A. from Harvard University, M.D. from Harvard Medical School, and M.B.A. from the Stanford Graduate School of Business. He completed his internal medicine residency training at the University of California, San Diego.

Food and Nutrition Board



Douglas Luke, Ph.D.Washington University in St. Louis **Planning Committee Member and Panelist**

Douglas Luke is a Professor and Director of the Ph.D. Program in Public Health Sciences at Washington University in St. Louis. Dr. Luke is a leading researcher in the areas of public health policy, systems science and tobacco control. He directs work focused primarily on the evaluation, dissemination and implementation of evidence-based public health

policies. Over the past decade, Luke has used systems science methods, especially social network analysis and agent-based modeling, to address important public health problems. He published the first review papers on network analysis in public health in 2007, and on systems science methods in public health in 2012. He has written books on multilevel modeling and network analysis. Under Dr. Luke's leadership, the Center for Public Health Systems Science has used network analysis to study diffusion of scientific innovations, to model the formation of organizational collaborations, and to study the relationship of mentoring to future scientific collaboration. In addition to his appointment at the Brown School, Dr. Luke is a member of the Institute for Public Health, the director of evaluation for the Institute of Clinical and Translational Science and a founding member of the Washington University Network of Dissemination and Implementation Researchers. In addition, he served on an Institute of Medicine panel that produced a national report on the use of agent-based modeling for tobacco regulatory science. Dr. Luke holds a Ph.D. from the University of Illinois.

Food and Nutrition Board



Patricia (Patty) L. Mabry, Ph.D. HealthPartners Institute Invited Speaker

Patty Mabry is an interdisciplinary scientist at HealthPartners Institute, where she applies cutting-edge research methodologies (e.g., modeling and simulation, data science, network science, Artificial Intelligence) to a variety of topics including issues in healthcare, the biomedical research workforce, tobacco control, and health disparities. Dr. Mabry is currently PI on a project

to develop a quantitative simulation model to understand the best strategies for improving colorectal cancer screening. She spent over a decade at the National Institutes of Health, where she held senior positions in the Office of Disease Prevention (ODP) and the Office of Behavioral and Social Sciences Research (OBSSR), and founded the systems science program. Dr. Mabry was the founding Executive Director and a Senior Research Scientist at the Indiana University Network Science Institute from 2015-2019. She started her career at the Medical University of South Carolina where she conducted research on tobacco cessation. She has served as Guest Editor for theme issues and published on tobacco cessation, tobacco policy modeling, systems science, reproducibility and more. Dr. Mabry contributed to the 2014 Surgeon General's Report on the Health Consequences of Smoking, co-led the Envision obesity modeling network, chaired the 3rd International Meeting on Social Computing Behavioral Modeling and Prediction (SBP), and chaired the federal interagency Tobacco Policy Modeling Meeting. Accolades awards for teaching and federal service, and the inaugural Applied Systems Thinking Award. Dr. Mabry holds a Ph.D. in clinical psychology from the University of Virginia and is a Fellow of the Society of Behavioral Medicine.



David Mendez, Ph.D. *University of Michigan Planning Committee Member and Panelist*

David Mendez is Associate Professor in the Department of Health Management and Policy at the University of Michigan School of Public Health. His research has focused on areas of smoking control, product and service quality on demand, and policies regarding residential radon using

complex systems science research and methodologies. Dr. Mendez is associated with the Decision Sciences Institute, Institute for Operations Research and the Management Sciences. He has served on two National Academies of Sciences, Engineering, and Medicine consensus committees and one planning committee related to tobacco research and modeling approaches to improve population health. Dr. Mendez received his Ph.D. in management science from Michigan State University, M.S. in applied statistics and operations research, and B.S. in civil engineering.

Food and Nutrition Board



Felipe Montes Jimenez, Ph.D., M.Sc. Urban Health in Latin America Invited Speaker

Felipe Montes is Associate Professor of the Department of Industrial Engineering at Universidad de Los Andes, and Director of the Master in Analytics, and of the Social and Health Complexity Center. Dr. Montes' interest focuses on applying computational and data-driven complex

systems methods for exploring the social contagious nature of chronic diseases and epidemics. Specifically, he provides expertise in applying social network analysis, system dynamics, and agent-based models to characterize healthy behaviors in communities for informing interventions and policy-making. He has also experience as a consultant and policymaker. Before his academic appointment, he was Director for Quality Assurance of Higher Education at the Ministry of Education of Colombia and he was recently awarded as Fogarty Global Health Fellow of the National Institutes of Health (USA). Dr. Montes holds an M.Sc. and Ph.D. in industrial engineering from Universidad de Los Andes.



Dev PathikThe Sports Facilities Companies
Invited Speaker

Dev Pathik is CEO and Founder of the Sports Facilities Companies. He founded SFA in 2003 and is widely regarded as an industry thought-leader who has contributed to the well-being of communities around the world. Mr. Pathik is a passionate social entrepreneur and innovator who has dedicated more than 25 years to the development of numerous businesses

that empower and develop communities. His leadership has produced facilities that integrate traditional sports with special events, adventure sports, education, leadership-development, and amusement to turn early concepts into financeable and sustainable facilities that make a difference in communities. He is a sought after public speaker, leadership mentor, and advisor to public and private owners. Under his leadership, SFA has become respected as the industry leader in strategy, program planning, and project finance; a position achieved through global brand presence and measurable impacts for communities. Mr. Pathik's expertise and thought leadership have been sought out by *The Wall Street Journal, Forbes, Market-Watch*, CNBC, NBC, The Aspen Institute Sports & Society, The National Association of Sports Commissions, The National Recreation and Parks Association, The Sports Business Journal, Sports Travel Magazine and many others. Prior to the launch of SFA in 2003, he founded and sold Global Adventures — an International Eco-Tourism Company that guided trips 100 miles into the Amazon basic, and to over 15,000 feet in the Andes of Ecuador. Mr. Pathik holds a bachelor's degree from the University Maryland.

Food and Nutrition Board



Nicolaas (Nico) P. Pronk, Ph.D., M.A., FACSM, FAWHP

HealthPartners Institute and HealthPartners, Inc.

Planning Committee Co-Chair, Moderator, and Chair, Roundtable on Obesity

Solutions

Nico Pronk is President of the HealthPartners Institute and Chief Science Officer at HealthPartners, Inc. and holds a faculty appointment as Adjunct Professor of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health in Boston, Massachusetts. HealthPartners Institute is one of

the largest medical research and education centers in the Midwest, the Institute has about 450 studies underway each year, trains more than 500 medical residents and fellows and more than 500 students, and provides continuing medical education for 25,000 clinicians as well as patient education and clinical quality improvement. HealthPartners, founded in 1957 as a cooperative, is an integrated, non-profit, member-governed health system providing health care services and health plan financing and administration. It is the largest consumer governed nonprofit health care organization in the United States. Dr. Pronk's work is focused on connecting evidence of effectiveness with the practical application of programs and practices, policies, and systems that measurably improve population health and well-being. His work applies to the workplace, the care delivery setting, and the community and involves development of new models to improve health and well-being at the research, practice, and policy levels. His research interests include workplace health and safety, obesity, physical activity, and systems approaches to population health and well-being. Currently, Dr. Pronk serves as co-chair of the U.S. Secretary of Health and Human Services' Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030 (aka Healthy People 2030) and is a member of the Community Preventive Services Task Force. He was the founding and past president of the International Association for Worksite Health Promotion and has served on boards and committees at the National Academies of Science, Engineering, and Medicine, the American Heart Association, the Health Enhancement Research Organization, among others. He is widely published in both the scientific and practice literatures with more than 400 articles, books, and book chapters and is an international speaker on population health and health promotion. Dr. Pronk received his doctorate degree in exercise physiology at Texas A&M University and completed his postdoctoral studies in behavioral medicine at the University of Pittsburgh Medical Center at the Western Psychiatric Institute and Clinic in Pittsburgh, Pennsylvania.

Food and Nutrition Board



Daniel Rivera, Ph.D.

Arizona State University

Planning Committee Member and Panelist

Daniel Rivera is Professor of Chemical Engineering and Program Director of the Control Systems Engineering Laboratory at Arizona State University. He became part of the faculty in the Department of Chemical, Bio, and Materials Engineering (now the School for Engineering of Matter, Transport,

and Energy) at Arizona State University in the fall of 1990. Prior to joining ASU he was an Associate Research Engineer in the Control Systems Section of Shell Development Company. He has been a visiting researcher with the Division of Automatic Control at Linköping University, Sweden, Honeywell Technology Center, the University "St. Cyril and Methodius" in Skopje, Macedonia, the National Distance Learning University (UNED) in Madrid, Spain, and the University of Almería in Andalucía, Spain. His research interests include the topics of robust process control, system identification, and the application of control engineering principles to problems in process systems, supply chain management, and prevention and treatment interventions in behavioral medicine. Dr. Rivera was chosen as 1994-1995 Outstanding Undergraduate Educator by the ASU student chapter of AIChE, and was a recipient of 1997-1998 Teaching Excellence Award awarded by the College of Engineering and Applied Sciences at ASU. In 2007, Dr. Rivera was awarded a K25 Mentored Quantitative Research Career Development Award from the National Institutes of Health to study control systems approaches for fighting drug abuse. He received his Ph.D. in chemical engineering from the California Institute of Technology in 1987, and holds M.S. and B.S. degrees from the University of Rochester and the University of Wisconsin-Madison, respectively.



Stella Yi, Ph.D., M.P.H.

NYU Grossman School of Medicine

Planning Committee Member, Moderator, and Panelist

Stella Yi is Assistant Professor in the Department of Population Health at New York University Grossman School of Medicine. Prior to joining faculty at the NYU School of Medicine in 2014, she worked for six years at the New York City Department of Health and Mental Hygiene (DOHMH) in the

Bureau of Chronic Disease Prevention and Tobacco Control on research pertaining to and evaluation of city nutrition policies and community-based initiatives to reduce the burden of chronic disease. She is a cardiovascular epidemiologist with research focuses on community, clinical and policy-based initiatives for the reduction of chronic disease morbidity and mortality and expertise on health disparities in Asian American and immigrant populations and community-based, collaborative research approaches. Dr. Yi has a Ph.D. from Johns Hopkins University and an M.P.H. from Yale University.