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Ross A. Hammond, Ph.D. is a Senior Fellow in Economic Studies at the Brookings Institution, where he is also Director of the Center on Social Dynamics & Policy. He holds appointments at the Santa Fe Institute and Harvard School of Public Health, and serves as an appointed advisor to the United States National Institutes of Health (NIH) and Food & Drug Administration (FDA).

His primary area of expertise is modeling dynamics in social, economic, and public health systems using methods from complexity science. Dr. Hammond's current research topics include obesity etiology and prevention, food systems, tobacco control, behavioral epidemiology, crime, corruption, health disparities, literacy, and decision-making. His research has been published in major research journals such as *Lancet*, *American Journal of Public Health*, *PNAS*, *Evolution*, and *Journal of Conflict Resolution* and has been covered in major international news media and featured in *The Atlantic Monthly*, *The New Scientist*, *Salon*, and *Scientific American*.

Hammond has served on several expert committees of the National Research Council of the National Academies of Science, and has been a member of four NIH scientific networks using systems science methods: MIDAS (Models of Infectious Disease Agent Study), ENVISION (part of the National Collaborative on Childhood Obesity Research), NICH (Network on Inequality, Complexity, and Health), and SCTC (State and Community Tobacco Control). He has been a consultant on complex systems to NIH, Washington University, the World Bank, the Asian Development Bank, and the New York City Department of Public Health. He has taught at Harvard, the University of Michigan, Washington University, the University of Maryland, and the National Cancer Institute.

A Complexity Lens and Complex Systems Modeling for Public Health

In this talk, Dr. Hammond will provide an overview and several current examples of the fast-growing application of complex systems approaches to public health etiology, policy and interventions. He will talk about important lessons learned, limitations and key best practices, and future potential. The presentation will draw on several recent and active research projects funded by the National Institutes of Health in the United States, covering topics ranging from communicable disease to obesity and tobacco control and ranging from the community to the national level.