Hong Xue, PhD

Associate Professor, Department of Health Administration and Policy

Education

PhD, Nutritional Epidemiology, Johns Hopkins University

Key Interests

Obesity | Nutrition | Tobacco | E-Cigarettes | Health Economics | Health Policy | Simulation Modeling | Big Data | Machine Learning | Natural Language Processing

CONTACT

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SELECT PUBLICATIONS

› Wang, Y. *et al*. (2021). Health policy and public health implications of obesity in China. *Lancet Diabetes Endo*, 9(7), 446-461.

› Cheng, X. *et al*. (2021). Healthfulness assessment of recipes shared on Pinterest: Natural language processing and content analysis. *J. Med. Internet Res*., 23(4), e25757.

› Cheng, X. *et al*. (2021). Does physical activity predict obesity—A machine learning and statistical method-based analysis. *Int. J. Environ. Res. Public Health*, 18(8), 3966.

› Xue, H. *et al*. (2018). Applications of systems modelling in obesity research. *Obes. Rev.*, 19(9), 1293-1308.

Research Focus

I conduct interdisciplinary research in public health and, in particular, integrate economics, nutrition, epidemiology, and systems science in studying multilevel mechanisms and factors (e.g., from policy to behavior) related to obesity and non-communicable chronic diseases (NCDs), as well as smoking (including e-cigarettes). My primary research interests are in health economics, nutritional epidemiology, systems science and modeling, childhood obesity, mHealth, and big data and machine learning. I am a leading expert in systems modeling of obesity epidemiology. I am also interested in systems approach-oriented economic and nutritional epidemiological research on obesity and NCDs prevention and control in domestic and international settings.

Current Projects

■ Systems Simulation Modeling for Youth Tobacco Prevention and Control Research in Virginia, Virginia Foundation for Healthy Youth, 7/1/2021 - 6/30/2024, $450,000: Built upon the models and methods developed in the previous project period, this study continues to examine a package of tobacco control and prevention policies and develop a decision support system to assist Virginia-based simulation models to assist policy development, implementation, and evaluation to prevent and control tobacco use among youth in Virginia.

■ Systems Modeling and simulations for Effective Tobacco Control and Prevention Policies Among Youth, Virginia Foundation for Healthy Youth, 7/1/2018 - 6/30/2021, $457,000: This study is the first to use systems science and simulation modeling methods to build interactive, Virginia-based simulation models to assist policy development, implementation, and evaluation to prevent and control tobacco use among youth in Virginia.