

CURRICULUM VITAE

HONG XUE, Ph.D., M.S.

Department of Health Administration and Policy
College of Health and Human Services
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A. EDUCATION

2016 **Doctor of Philosophy, International Health – Specialty: Nutritional Epidemiology**
Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD
PhD Dissertation Title: *A comparative study of the drivers of the childhood obesity epidemic in China and the United States using systems approaches.*

2010 **Doctor of Philosophy, Economics – Specialty: Health Economics**
Virginia Polytechnic Institute and State University, Blacksburg, VA
PhD Dissertation Title: *Three Essays on Consumer Behavior and Health Outcomes: An economic analysis of the influence of nutrition information and knowledge on food purchasing behavior and the impacts of primary care givers' parenting on childhood obesity.*

2005 **Master of Science, Economics – Specialty: Health Economics**
North Carolina A&T State University, Greensboro, NC
Thesis Title: *Consumers' Food Thermometer Use and Foodborne Illness Behavior*

2001 **Bachelor of Science, Economics,**
Southwest University of Finance and Economics, China

B. ACADEMIC APPOINTMENTS

2020 – present	Associate Professor (tenured), Department of Health Administration and Policy, College of Health and Human Services, George Mason University
2017 – 2020	Assistant Professor (tenure track), Department of Health Behavior and Policy, School of Medicine, Virginia Commonwealth University
2016 – 2017	Assistant Professor (non-tenure track), Data Analysis Director, Systems-oriented Global Childhood Obesity Intervention Program, Fisher Institute of Health and Well-Being, Ball State University
2014 – 2016	Project Manager, Systems-Oriented Global Childhood Obesity Intervention Program, Department of Epidemiology and Environmental Health, School of Public Health and Health Professions, University at Buffalo, State University of New York
2011-2016	Graduate Research Assistant, Johns Hopkins Global Obesity Center, Bloomberg School of Public Health, Johns Hopkins University

C. HONORS AND DISCTICTIONS

- 2019 Recipient of the *Translational Scholar Award* from the C. Kenneth and Dianne Wright Center for Clinical and Translational Research at Virginia Commonwealth University
- 2019 Advisor to the *Fulbright U.S. Scholar Program* for international scholars
- 2017 Recipient of the *Digital Scholar Faculty Fellowship*, Ball State University
- 2017 Recipient of the *Aspire Advance Award*, Ball State University
- 2015 Recipient of the *Pat Simons Travel Award*, The Obesity Society
- 2016 Recipient of a *Graduate Student Travel Award*, The North American Chinese Society for Nutrition
- 2012-2016 Recipient of a *Predoctoral Fellowship* from the Johns Hopkins Global Obesity Center

D. GRANTS AND CONTRACTS

Pending:

Title: Improving childhood obesity in rural primary care

Funding: National Institutes of Health R01, \$1,186,781; 7/1/2023 – 6/30/2028

Objectives: To improve rural pediatric primary care to reduce the incidence and prevalence of childhood obesity and related health disparities by integrating complex obesity etiology and artificial intelligence with clinical decision making to enhance childhood obesity screening, diagnosis, and treatment.

Role: Principal Investigator

Title: Developing and implementing augmented reality assisted just-in-time adaptive electronic cigarette cessation intervention for young adults

Funding: National Institutes of Health R21, \$436, 975; 7/1/2023 – 6/30/2025

Objectives: To design and test a novel immersive technology integrated digital intervention strategy targeting the young adult college student population, which has the highest prevalence of electronic cigarette use compared to other adult age populations

Role: Principal Investigator

Active:

Title: Systems modeling & simulations for effective tobacco control and prevention policies among Youth in Virginia

Funding: Virginia Foundation for Healthy Youth, \$450,000, 7/1/2021-6/30/2024

Objectives: To use systems science and simulation modeling methods to build interactive tobacco prevention and control policy simulation models to assist policy development, implementation, and evaluation to prevent and control tobacco use (e-cigarettes and conventional cigarettes) among youth in Virginia.

Role: Principal Investigator

Title: Prototype development of EARBUD

Funding: George Mason University, \$50,000, 7/1/2021-6/30/2023

Objectives: To develop a Prototype EARBUD system for real-time personalized nutrition intervention

Role: Co-Investigator (PI: Hong)

Title: COVID-19's impact on under-resourced/underrepresented college students and their peers

Funding: George Mason University, \$50,000, 7/1/2021-6/30/2023

Objectives: To assess the impacts of COVID-19 on under-resourced/underrepresented college students and their peers using mHealth and machine learning based technologies.

Role: Co-Investigator (PI: Cheskin)

Completed Grants and Contracts:

Title: Systems modeling & simulations for effective tobacco control and prevention policies among youth

Funding: Virginia Foundation for Healthy Youth, \$450,000, 7/1/2018-12/31/2021

Objectives: Use systems science and simulation modeling methods to build interactive tobacco prevention and control policy simulation models to assist policy development, implementation, and evaluation to prevent and control e-cigarette and conventional cigarette use among youth in Virginia.

Role: Principal Investigator

Title: Family context, child characteristics, child-rearing features, and obesity risk: a 15-year longitudinal analysis

Funding: NIH/NICHD, 5R03HD098546-02, \$155,000, 7/1/2019-6/30/2021

Objectives: To examine the multilevel risk factors for childhood obesity

Role: Consultant (PI: Wang)

Title: A life-course systems and big data approach to improve early life obesity prevention and control

Funding: The C. Kenneth and Dianne Wright Center for Clinical and Translational Research, \$150,000, 7/1/2019-1/31/2020

Objectives: To develop a Life-course Obesity and Chronic Disease Risk Assessment Digital Platform informed by systems science approaches and big-data analytics which identify novel multilevel factors and pathways in early childhood that predispose children to gain excess weight.

Role: Principal Investigator

Title: MRI: Acquisition of a GPU-Based Cloud Infrastructure for Inter-/Multi-Disciplinary Research and Education at a Primarily Undergraduate Institution

Funding: National Science Foundation (NSF), \$260,000, 10/1/2017 - 9/30/2020

Objectives: To establish a GPU-based cloud at Ball State University to promote big data related interdisciplinary research and education projects, including health informatics and systems related obesity and non-communicable chronic disease research.

Role: Co-Investigator (PI: Wu, became consultant after leaving BSU)

Title: Food Assistance, Diet and Body Weight Status among WIC Eligible Children

Funding: NIH/NICHD, R03HD090387-01, 12/08/2016~12/31/2018, \$155,000

Objectives: To examine the impact of WIC program on WIC eligible children's diet and body weight

Role: Consultant (PI: Zhang)

Title: ASPIRE ADVANCE Award

Funding: Ball State University internal grant, \$ 5000, 6/1/2017-5/31/2018

Objectives: To help conduct pilot studies and obtain preliminary results to support extramural grant applications.

Role: Principal Investigator (became consultant after leaving BSU)

Title: Interdisciplinary, Systems Approach & Big Data Enhanced Obesity Research

Funding: Ball State University Digital Scholar Lab Faculty Fellowship, \$10,000, 5/1/2017-4/30/2018

Objectives: To develop prototype systems models, build cloud-based digital analytical and visualization platforms and tool kits, develop a large database/data repository and obtain preliminary results to support our NIH R21 and R01 grant applications.

Role: Principal Investigator (became consultant after leaving BSU)

Title: Systems-Oriented Pediatric Obesity Research and Training Center Grant

Funding: NIH/NICHD (U54 HD070725-01, U54 Center grant total \$16.1 million, 9/2011 - 12/2017).

Objectives: Using integrated conceptual framework, innovative analysis approaches, and rich data 1). To study how complex factors may affect childhood obesity and, 2). To test potential intervention options in the US

Role: Co-Investigator (PI: Wang)

Title: Multilevel Systems-oriented Childhood Obesity Study in China (one of the three key projects in the NIH U54 Center grant)

Funding: NIH/NICHD (U54 HD070725-01, \$2.1 million, 9/2011/9 - 12/2017)

Objectives: Using a systems-oriented approach, 1). To study multilevel complex factors and their changes on children and their families' decisions, eating, physical activity, and adiposity outcomes and 2). To study the differential responses and dynamic feedbacks between individuals and families and the environments

Role: Co- Investigator (PI: Youfa Wang)

Grants not funded:

Title: Facilitating early detection and treatment of Childhood Obesity in Rural Primary Care through Clinical Decision Support

Funding: NIH R21, \$417,460, 7/1/2022 – 6/30/2024

Objectives: To reduce rural childhood obesity by building a clinical decision support system for primary care providers based on novel systems methods and machine learning integrated predictive models.

Role: Principal Investigator

Title: NRT–HESTIA: Health Equity through Sciences and Technology–an Interdisciplinary Approach

Funding: National Science Foundation, \$2,999,868; 7/1/2022 – 12/31/2026

Objectives: A training grant to promote interdisciplinary research and training to enhance health research and improve health equity

Role: Co-Investigator (PI: Pfoer

Title: Prototype development of EARBUD: A wearable sensor system for dietary monitoring and personalized nutrition intervention

Funding: Department of Defense, \$263,654, 1/1/2022 – 12/31/2023

Objectives: To develop an EARBUD system for real-time personalized nutrition interventions among college students

Role: Co-Investigator (PI: Hong)

Title: Elucidating Early Life Risk Factors for Obesity Through Systems and Machine Learning Based Predictive Modeling

Funding: NIH R03, \$245,117, 7/1/2021-6/30/2023,

Objectives: To build predictive models using integrated systems science and machine learning (SSML) approaches to identify the multilevel factors and pathways that influence diet and nutrition in early life and the risk of obesity and related chronic diseases in later life stages.

Role: Principal Investigator

Title: Infant growth and respiratory health outcomes of switching from cigarette to e-cigarette use during pregnancy

Funding: National Institutes of Health, R21, \$29,373, 4/1/2022-3/31/2024

Objectives: To test the feasibility and acceptability of remotely recruiting and following mothers who switch from cigarette to e-cigarette use during pregnancy, and their infants, and assess infant growth outcomes and infant respiratory health associated with maternal switching from cigarette to e-cigarette use during pregnancy.

Role: Subcontract PI

Title: Predictive simulation modeling of fiscal policy effects on sugar-sweetened beverage and water consumption in young children in the US

Funding: Robert Wood Johnson Foundation, \$175,000, 5/1/2021-4/30/2023

Objectives: To develop a predictive system dynamics model (SDM) to assess tax effects on sugar-sweetened beverage (SSB) and energy intakes in the short- and long-run in the US children 5 years of age and younger, estimate the effects of subsidizing bottled water consumption and compared the effects with SSB taxes using SDM simulations, and examine the differential effects of fiscal policies (taxes and subsidies) on SSB and water intake in low-income and racial/ethnic subpopulations.

Role: Principal Investigator

Title: Assessing the impact of COVID-19 on healthy eating of students in Fairfax County, Virginia public schools

Funding: Robert Wood Johnson Foundation, \$49,600, 09/01/2020 – 5/31/2021

Objectives: To examine the nutritional needs and changes of dietary behavior and diet quality before and after school closures due to Covid 19 among K-12 students in Fairfax county in Virginia and to estimate the impact of school closures on food access, changes of dietary behavior and quality, weight outcomes, and long term health effects among school lunch/breakfast program eligible students and participants as compared to non-participants.

Role: Principal Investigator

Title: Integrated Novel Quantitative Systems-and-Machine-Learning Approaches to Prevent Obesity (INQUIRY)

Funding: NIH K01, \$701,157, 07/01/2019 - 06/30/2024

Objectives: use an innovative systems and machine learning assisted approach to study the developmental origins of obesity and chronic diseases, in particular, the complex mechanisms and lifelong effects of early-life diet and nutrition on the risk of obesity and chronic diseases in later life stage.

Role: Principal Investigator

E. TEACHING EXPERIENCE

George Mason University

2021 – present Associate Professor, HAP 850, Research in Health Informatics

2021 – present Associate Professor, HAP 780, Data Mining in Healthcare

2020 – present Associate Professor, HAP 670, Introduction to Health Informatics

2021 and 2022 Invited guest lecture, Department of Health Behavior and Policy, VCU: Substance Use and Rational Addiction Models

Virginia Commonwealth University

2019 – 2020 Assistant Professor, HCPR 703, Health Economics: Theory and Principles

F. STUDENT MENTORING

<u>Student</u>	<u>Status</u>	<u>Role</u>	
Xiaolu Cheng	Post-doctoral Fellow (has started a faculty position)	2018 - 2021	Advisor
<u>Doctoral students</u>			
Sarah Collins	Doctoral student Dept. of Health Behavior and Policy, VCU	2019 - 2020	Advisor
Duanduan Yuan	Fulbright foreign scholar	2018 - 2019	Advisor
Christopher Naso	Doctoral student Dept. of Health Administration and Policy, GMU	2021 - present	Advisor and dissertation committee chair
Kenny Lin	Doctoral student Dept. of Health Administration and Policy, GMU	2018 - present	Advisor and dissertation committee chair
Dustin Gress	Doctoral student Dept. of Health Administration and Policy, GMU	2020 - present	Advisor and dissertation committee chair
Smilee Samuel	Doctoral student Dept. of Health Administration and Policy, GMU	2021 - present	Advisor
Tarang M Parekh	Doctoral student Dept. of Health Administration and Policy, GMU	2021 - present	Member of dissertation committee
Lisa McKeown	Doctoral student Dept. of Health Administration and Policy, GMU	2021 - present	Member of dissertation committee
Ahmed Askar	Doctoral student Dept. of Geography and GeoInformation Science, GMU	2021 - present	Member of dissertation committee
<u>Masters' students</u>			
Ruohong Guan	Dept. of Health Administration and Policy, GMU	2022 - present	Advisor

Abdulrahman Alsayegh Dept.of Nutrition and Food Studies

2021- present Member of
Masters' thesis committee

G. MAJOR PROFESSIONAL SERVICES

Grant Reviewer, Decision, Risk, and Management Sciences program at the National Science Foundation

Grant Reviewer, Virginia Youth Tobacco Projects grant review

Associate Editor, Global Health Research and Policy

Guest editor, PLOS ONE

Reviewer for top-tier journals:

Advances in Nutrition

American Journal of Clinical Nutrition

Annals of Behavioral Medicine

American Journal of Preventive Medicine

Appetite

BMJ Open

Health Education & Behavior

Journal of Nutrition

Nutrients

Obesity

Obesity Reviews

Proceedings of the National Academy of Sciences (PNAS)

Public Health Nutrition

Preventive Medicine

Social Science & Medicine.

Member, Faculty Grievance Committee, College of Health and Human Services, GMU

Member, Health Informatics PhD Program Committee, Department of Health Administration and Policy (HAP), GMU

Member, Health Service Research PhD Program Committee, HAP, GMU

Member, Health Informatics PhD Proposal Task Force, HAP, GMU

Faculty Advisor, PhD Colloquium Series, HAP, GMU

H. PROFESSIONAL SOCIETY MEMBERSHIPS

American Society for Nutrition (ASN)

The Obesity Society (TOS)

American Medical Informatics Association (AMIA)

Agricultural & Applied Economics Association (AAEA)

American Economic Association (AEA)

International Health Economics Association (iHEA)

I. PUBLICATIONS

h-index: 28, i10-index: 46, Citations: 2092 (Google Scholar, May 2022)

Peer Reviewed Journal Articles

** student co-authors*

- (1). **Xue H**, Mainville D, You W, Nayga R. Nutrition Knowledge, Sensory Evaluation and Consumers' Willingness to Pay for Nutritionally Differentiated Grass-Fed Beef, Food Quality and Preference, 2010;21(7): 857-866.
- (2). **Xue H**, You W, Nayga R. Childhood Obesity Risk and the Role of Primary Caregivers: A Triangular Semi-parametric Simultaneous Equations Approach. Agricultural & Applied Economics Association 2011 Annual Meeting, Selected Paper. 2011.
- (3). Fallah-Fini S, Rahmandad H, Chen HJ, **Xue H**, Wang Y. Connecting Micro Dynamics and Population Distributions in System Dynamics Models. System Dynamics Review, 2013;29(4):197-215.
- (4). Wang Y, **Xue H**, Esposito L, Joyner MJ, Bar-Yam Y, Huang T-T. Applications of Complex Systems Science in Obesity and Non-Communicable Chronic Disease Research. Advances in Nutrition, 2014; 5(5): 574-577.
- (5). Wang Y, **Xue H**, Chen HJ, Igusa T. Examining Social Norm Impacts on Obesity and Eating Behaviors among US School Children Based on Agent-based Model. BMC Public Health, 2014, 14(1):923.
- (6). Lim HJ, **Xue H**, and Wang Y. Association between obesity and metabolic co-morbidities among children and adolescents in South Korea: the 2007-2008 Korea National Health and Nutrition Examination Surveys. BMC Public Health, 2014; 14: 279.
- (7). Zhang Q, Liu SY, Liu R, **Xue H**, and Wang Y. Food Policy Approaches to Obesity Prevention: An International Perspective. Current Obesity Reports, 2014: 1-12. 6.919.
- (8). Wang Y, **Xue H**, Liu SY. Applications of Systems Science in Biomedical Research Regarding Obesity and Non-communicable Chronic Diseases --Opportunities, Promise and Challenges. Advances in Nutrition, 2015; 6(1):88-95.
- (9). Zhang JG, Wang HJ, Wang Y, **Xue H**, Wang ZH, Du W, Su C, Zhang J, Jiang HR, Zhai FY and Zhang B. Dietary patterns and their associations with childhood obesity in China. British Journal of Nutrition, 2015;113(12): 1978-1984.
- (10). Liu SY, Osgood N, **Xue H**, Wang Y. Systems Simulation Model for Assessing the Sustainability and Synergistic Impacts of Sugar-sweetened Beverages Tax and Revenue Recycling on Childhood Obesity Prevention . Journal of the Operational Research Society. 2015;67(5): 708-721.
- (11). Zhang J, **Xue H**, Cheng X , Wang ZH, Zhai FY , Wang Y, Wang HJ. Influence of Proximities to Food Establishments on Body Mass Index among Children in China. Asia Pacific Journal of Clinical Nutrition. 2016 Jan 21;25(1):134-41.
- (12). **Xue H**, Wu Y, Wang X, Wang Y. Time Trends in Fast Food Consumption and Its Association with Obesity among Children in China. PLOS One. 11.3 (2016): e0151141.
- (13). Jia P, **Xue H**, Zhang J, Wang Y. Time Trend and Demographic and Geographic Disparities in Childhood Obesity Prevalence in China—Evidence from Twenty Years of Longitudinal Data. International Journal of Environmental Research and Public Health. 2017; 14(4):369
- (14). Jia P, Cheng X, **Xue H**, Wang Y. Applications of geographic information systems related data and methods in obesity-related public health research. Obesity Review. 2017 Apr;18(4):400-411.
- (15). Wu Y, **Xue H**, Wang H, Su C, Du S, Wang Y. The Impact of Urbanization on Community Food Environment in China. Asian Pacific Journal of Clinic Nutrition. 2017 May;26(3):504-513.
- (16). Jia P, Li M, **Xue H**, Lu L, Xu F, Wang Y. School environment and policies and associations with child eating behavior and overweight/obesity in urban China: The Childhood Obesity Study in China Mega-cities. International Journal of Obesity. 2017 Feb;41, 813–819.

- (17). Li M, **Xue H**, Wang WD, Wang Y. Parental Expectations and Children's Screen-based and Academic-related Sedentary Behaviors in China: A Nationally Representative Study. *American Journal of Preventive Medicine*. 2017 May;52(5):680-689.
- (18). Wang Y, **Xue H**, Huang L, Zhang D. A Systematic Review of Application and Effectiveness of mHealth Interventions for Obesity and Diabetes Treatment and Self-Management. *Advances in Nutrition*. 2017 May 15;8(3):449-462.
- (19). Wang H, **Xue H**, Du S, Zhang J, Wang Y, Zhang B. Time trends and factors in body mass index and obesity among children in China: 1997 to 2011. *International Journal of Obesity*. 2017 Jun;41(6):964-970.
- (20). Chen HJ, **Xue H**, Kumanyika S, Wang Y. School Beverage Environment and Children's Energy Expenditure Associated with Physical Education Class: An Agent-based Model Simulation. *Pediatric Obesity*. 2017 Jun;12(3):203-212.
- (21). Li M, **Xue H**, Jia P, Zhao Y, Wang Z, Xu F, Wang Y. Pocket money, eating behaviors, and weight status among Chinese children: The Childhood Obesity Study in China mega-cities. *Preventive Medicine*. 2017 Jul;100:208-215.
- (22). **Xue H**, Cheng X, Zhang Q, Wang H, Zhang B, Qu W, Wang Y. Temporal growth and spatial distribution of the fast food industry and its relationship with economic development in China — 2005-2012. *Preventive Medicine*. 2017 Sep;102:79-85.
- (23). Min J, **Xue H**, Wang HC, Li M, Wang Y. Are single children more likely to be overweight or obese than those with siblings? The influence of China's one-child policy on childhood obesity. *Preventive Medicine*. 2017 Oct; 103:8-13.
- (24). An R, Yang Y, Hoschke A, **Xue H**, Wang Y. Influence of neighbourhood safety on childhood obesity: a systematic review and meta-analysis of longitudinal studies. *Obesity Review*. 2017 Nov; 18(11):1289-1309.
- (25). Li M, **Xue H**, Wen M, Wang W, Wang Y. Nutrition and physical activity related school environment/policy factors and child obesity in China: a nationally representative study of 8573 students in 110 middle schools. *Pediatric Obesity*. 2017 Dec;12(6):485-493.
- (26). Tan Z, Min J, Xue H, Wang W, and Wang Y. Parenting practices and overweight status of junior high school students in China: A nationally representative study of 19,487 students from 112 schools. *Preventive Medicine*. 2018 107: 1-7.
- (27). Mulugeta W, Glick M, Min J, **Xue H**, Noe M, Wang Y. Longitudinal Changes and High-Risk Subgroups for Obesity and Overweight/Obesity Among Refugees in Buffalo, NY, 2004–2014. *Jornal of Racial and Ethnic Health Disparities*. 2018 Feb;5(1):187-194.
- (28). Wang Z, Xu F, Ye Q, Tse LA, **Xue H**, Tan Z, Leslie E, Owen N, Wang Y. Childhood obesity prevention through a community-based cluster randomized controlled physical activity intervention among schools in china: the health legacy project of the 2nd world summer youth Olympic Games (YOG-Obesity study). *International Journal of Obesity*. 2018 Apr;42(4):625-633.
- (29). Min J, Tan Z, Abadie L, Townsend S, **Xue H**, Wang Y. An Evaluation of the Effectiveness of the National Aeronautics and Space Administration Mission-X Child Health Promotion Program in the United States. *American Journal of Health Promotion*. 2018 Jul;32(6):1333-1339.
- (30). Chen H, **Xue H**, Huang TT, Wang YC, Liu Y, Wang Y. Obesity and economic intervention options in the United States: a systems dynamics simulation study. *Public Health*. 2018 Aug;161:20-28.
- (31). Wang V, Min J, **Xue H**, Du S, Xu F, Wang H, Wang Y. What factors may contribute to sex difference in childhood obesity prevalence in China? *Public Health Nutrition*. 2018 Aug;21(11):2056-2064.
- (32). Min J, Wen X, **Xue H**, and Wang Y. Ethnic disparities in childhood BMI trajectories and obesity and potential causes among 29,250 US children: Findings from the Early Childhood Longitudinal Study-Birth and Kindergarten Cohorts. *International journal of obesity*. 2018 Sep;42(9):1661-1670.

- (33). **Xue H**, Slivka L, Huang T, Igusa T, Wang Y. Applications of systems modeling in obesity research. *Obesity Review*. 2018 Sep;19(9):1293-1308.
- (34). Min J, **Xue H**, Wang Y. Association between household poverty dynamics and childhood overweight risk and health behaviours in the United States: a 8-year nationally representative longitudinal study of 16 800 children. *Pediatric Obesity*. 2018 Oct;13(10):590-597.
- (35). An R, **Xue H**, Wang L, Wang Y. Projecting the Impact of a Nationwide School Plain Water Access Intervention on Childhood Obesity: A Cost-benefit Analysis. *Pediatric Obesity*. 2018 Nov;13(11):715-723.
- (36). Li M, Fu R, **Xue H**, Wang Y. Intergenerational Association of Maternal Obesity and Child Peer Victimization in the United States. *Journal of Health and Social Behavior*. 2019 Mar; 60(1):69-83.
- (37). Yang Y, **Xue H**, Liu S, Wang Y. Is the decline of active travel to school unavoidable by-products of economic growth and urbanization in developing countries. *Sustainable Cities and Society*. 2019;47:101446.
- (38). Jia P, **Xue H**, Cheng X, Wang Y. Effects of school neighborhood food environments on childhood obesity at multiple scales: A longitudinal kindergarten cohort study in the US. *BMC Medicine*. 2019;17(1):1-15.
- (39). Jia P, **Xue H**, Cheng X, Wang YG, Wang Y. Association of neighborhood built environment with childhood obesity: evidence from a 9-year longitudinal, nationally representative ECLS-K dataset in the US. *Environment International*. 2019;128:158-164.
- (40). Wei J, Liu X, **Xue H**, Wang Y, Shi Z. Comparisons of visceral adiposity index, body shape Index, body mass index and waist circumference and their associations with diabetes mellitus in adults. *Nutrients*. 2019 Jul 12;11(7).
- (41). Wang Y, **Xue H**, Sun M, Zhu X, Zhao L, Yang Y. The obesity epidemic, prevention and control in China. *The Lancet Global Health*. 2019;7(9):e1166-e1167.
- (42). **Xue H**, Maguire RL, Liu J*, Kollins SH, Murphy SK, Hoyo C, Fuemmeler BF. Snacking frequency and dietary intake in toddlers and preschool children. *Appetite*. 2019 Nov 1;142:104369.
- (43). **Xue H**, Cheng X, Jia P, Wang Y. Road network intersection density and childhood obesity risk in the US: a national longitudinal study. *Public Health*. 2020 Jan;178:31-37.
- (44). Lin SY*, **Xue H**, Deng Y, Chukmaitov A. Multi-morbidities are not a driving factor for an increase of COPD-related 30-Day readmission risk. *International Journal of Chronic Obstructive Pulmonary Disease*. 2020; 15: 143.
- (45). Gao L, Ma L, **Xue H**, Min J, Wang H, Wang Y. A 3-year longitudinal study of effects of parental perception of children's ideal body image on child weight change: The Childhood Obesity Study in China mega-cities. *Preventive Medicine*. 2020; 132: 105971.
- (46). Wang Y, Min J, Khuri J, **Xue H**, Xie B, Kaminsky LA, J Cheskin L. Effectiveness of Mobile Health Interventions on Diabetes and Obesity Treatment and Management: Systematic Review of Systematic Reviews. *JMIR Mhealth Uhealth*. 2020 Apr 28;8(4):e15400.
- (47). Nie P, Ding L, Sousa-Poza A, Alfonso Leon A, **Xue H**, Jia P, Wang L, Díaz Sánchez ME, Wang Y. Socioeconomic position and the health gradient in Cuba: dimensions and mechanisms. *BMC Public Health*. 2020 Jun 5;20(1):866.
- (48). **Xue H**, Liu J*, Cheskin LJ, Sheppard VB. Discrepancy between perceived diet quality and actual diet quality among US adult cancer survivors. *European Journal of Clinical Nutrition*. 2020: 1-8.
- (49). Ma L, Fang Z, Gao L, Zhao Y, **Xue H**, Li K, Wang Y. A 3-year longitudinal study of pocket money, eating behavior, weight status: The childhood obesity study in China mega-cities. *International Journal of Environmental Research and Public Health*. 2020 Dec 7;17(23).
- (50). Cheng X, Lin S*, Liu J*, Liu S, Zhang J, Nie P, Fuemmeler BF, Wang Y, **Xue H**. Does Physical Activity Predict Obesity—A Machine Learning and Statistical Method-Based Analysis. *International Journal of Environmental Research and Public Health*. 2021; 18(8):3966.

- (51). Cheng X, Lin S*, Wang K, Hong A, Zhao X, Gress D, Wojtusiak J, Cheskin L, **Xue H**. Recipe sharing on Pinterest- healthfulness assessment through nutrition information analysis and natural language processing. *The Journal of Medical Internet Research*. 2021;23(4):e25757.
- (52). Nie P, Ding L, Chen Z, Liu S, Zhang Q, Shi Z, Wang L, **Xue H**, Liu GG, Wang Y. Income-related health inequality among Chinese adults during the COVID-19 pandemic: evidence based on an online survey. *International Journal for Equity in Health*. 2021;20(1):106.
- (53). Zhang Q, Chen C, **Xue H**, Park K, Wang Y. Revisiting the relationship between WIC participation and breastfeeding among low-income children in the U.S. after the 2009 WIC food package revision. *Food Policy*. 2021; 101: 102089.
- (54). Sun X, Zhao B, Liu L, Wang Y, **Xue H**. A 3-year longitudinal study of the associations of physical activity and sedentary behaviors with childhood obesity in China: The childhood obesity study in china mega-cities. *Pediatric Obesity*. 2021 Jun;16(6):e12753.
- (55). Wang Y, Zhao L, Gao L, Pan A, **Xue H**. Obesity in China: Public health and policy implications. *The Lancet Diabetes & Endocrinology*. 2021;9(7):446-461.
- (56). Min J, Goodale H, **Xue H**, Rebecca Brey R, Wang Y. Racial–ethnic Disparities in Obesity and Biological, Behavioral, and Socio-cultural Influences in the United States: A Systematic Review. *Advances in Nutrition*. 2021;12(4):1137-1148.
- (57). Lin S*, Cheng X, Rossheim ME, Gress D*, Cuellar AD, Cheskin L, **Xue H**. Associations between use of specific social media sites and electronic cigarette use among college students. *Journal of American College Health*. 2021:1-8.
- (58). Lin SY*, Baumann K, Zhou C, Zhou W, Cuellar AE, **Xue H**. Trends in Use and Expenditures for Brand-name Statins After Introduction of Generic Statins in the US, 2002-2018. *JAMA Netw Open*. 2021 Nov 1;4(11):e2135371.
- (59). Ma L, Wen X, **Xue H**, Zhao L, Ding Y, Xu F, Ruan G, Li Y, Chang S, Wang Y. National childhood obesity-related intervention systems and intervention programs in China in 1949 to 2020: A narrative review. *Obesity*. 2022 Feb;30(2):320-337.
- (60). Cai X, Zhao X, Rossheim ME, **Xue H**. Vaping and COVID-19 risk: perceived link and its correlates among at-risk adolescents. *Preventive Medicine Reports*. 2021 Dec;24:101598.
- (61). Cheng X, Lin S*, Zhang J, Koch JR, Barnes AJ, Cuellar A, Cheskin L, Levy D, **Xue H**. System dynamics prediction of the impact of minimum age of legal sales and licensing enforcement on youth smoking in Virginia. *Tobacco Regulatory Science*. In press.
- (62). Sun X, Yan AF, Shi Z, Zhao B, Yan N, Li K, Gao L, **Xue H**, Peng W, Cheskin LJ, Wang Y. Health consequences of obesity and projected future obesity health burden in China. *Obesity*. 2022 Sep;30(9):1724-51.
- (63). Parekh T, **Xue H**, Cheskin LJ, Cuellar AE. Food insecurity and housing instability as determinants of cardiovascular health outcomes: a systematic review. *Nutrition, Metabolism and Cardiovascular Diseases*. 2022 Jul 1;32(7):1590-608.
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- (67). Parekh T, **Xue H**, Al-Kindi S, Nasir K, Cheskin LJ, Cuellar AE. Food Environment Quality and Cardiovascular Disease Mortality in the United States: a County-Level Analysis from 2017 to 2019. *Journal of General Internal Medicine*. 2023 Jul 28:1-0.

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Scholarly Book Chapters

Wang Y, Yang X, **Xue H** (Lead author), Zhao L, Xu F, He M. China Blue Paper on Obesity Prevention and Control (in collaboration with Chinese Nutrition Society), Chapter 6: Implementation, monitoring, and evaluation of obesity intervention programs and Chapter 7: Policy recommendations for obesity prevention, control, and treatment, and overall book editing. Peking University Medical Publisher, Beijing, 2019.

Lim HJ, **Xue H**, Wang Y. Global trends in obesity. *Handbook of Eating and Drinking: Interdisciplinary Perspectives*. 2020:1217-35.

Peer-Reviewed Professional Presentations (selected)

- (1). Lin S*, Song G*, Yannam J*, Koch JR, Barnes A, Hayes R, **Xue H**. Mining Anti-tobacco Campaigns on Social Media through Natural Language Processing for Effective Campaign Development and Implementation. Society for Research on Nicotine & Tobacco (SRNT) Annual Meeting, March 15-18, 2022.
- (2). Lin S*, Zhou W*, Koch JR, Barnes A, Yang R, **Xue H**. The association between tobacco retailer outlet density and prevalence of cigarette smoking in Virginia. Society for Research on Nicotine & Tobacco Annual Meeting, March 15-18, 2022.
- (3). Cheng X, Lin Y*, Zhang J, Koch JR, Barnes A, Cheskin L, and **Xue H**. The Impact of Tobacco Retail Licensing in Virginia: A System Dynamics Simulation Study. Society for Research on Nicotine and Tobacco Annual Meeting, February 24-27, 2021
- (4). Lin Y*, Wang K*, Cheng C, and **Xue H**. Examining E-Cigarette Use in the US Youth with Machine Learning. The 2021 Virtual ARM, June 14-17
- (5). Cheng X, Lin S*, Koch JR, Barnes A, Levy D, **Xue H**. Predicting the effects of tobacco 21 law on cigarette use among youth in Virginia, Society for Research on Nicotine & Tobacco (SRNT) 2020, New Orleans, March 11-14, 2020
- (6). Koch JR, Cheng X, Kohler K*, Barnes A, **Xue H**. Licensing Retail Tobacco Outlets as a Strategy to Improve MLA Enforcement and Compliance, Reduce Tobacco Use Conference 2020, Alexandria, VA, April 19 - 21, 2020
- (7). Cheng X, Liu J*, Liu S, Zhang J, Lin S*, Nie P, Fuemmeler B, Wang Y, and **Xue H**. Machine learning and statistical methods for obesity prediction. ObesityWeek Las Vegas, NV. Nov. 3–7, 2019.
- (8). **Xue H**, Jin L*, Cheskin L, Shepperd V. Discrepancy between perceived diet quality and actual diet quality among US adult cancer survivors. American Society for Nutrition Annual Meeting, Baltimore, Maryland, June 8-11, 2019.
- (9). **Xue H**, Wu S, Kong X*, Shi W*, Min J, Yang J, Kandiah J, and Wang Y. The public Opinions on Fast Food in the United States based on Social Media Data. ObesityWeek. Nashville, TN, November 11-15, 2018
- (10). **Xue H**, Maguire R, Jin L, Kollins S, Murphy S, Hoyo C, and Fuemmeler B. Snacking frequency and energy intake and weight status in early childhood. American Society for Nutrition Annual Meeting, Boston, MA, June 9-12, 2018
- (11). **Xue H**, Wu Y, Wang V, Qu W, and Wang Y. Income Growth, Western Fast Food Consumption, and Childhood Obesity in China. ObesityWeek Meeting Washington, DC, Oct 29- Nov 02, 2017
- (12). **Xue H**, Zhang J, Xu F, and Wang Y. Agent-based Modeling of Social Norm Impacts on Obesity and Eating Behaviors among School Children in China and the United States. Experimental Biology, Chicago, Apr 22 - 26, 2017

- (13). **Xue H**, Jia P, Wang H, and Wang Y. Spatial analysis of childhood obesity and local food environment inequalities in China. The Obesity Week, Los Angeles, CA, Nov 2 - 7, 2015
- (14). **Xue H**, Cheng X, Jia P, and Wang Y. Community walkability and childhood obesity - A US national longitudinal study (2007-2014). The Obesity Week, Los Angeles, CA, Nov 2 - 7, 2015
- (15). **Xue H**, Wang H, and Wang Y. Effects of Neighborhood Social Norms on Children's Diets and Weight Outcome in China. Experimental Biology, Boston, Mar 28- Apr 1, 2015
- (16). **Xue H**, Wu Y, and Wang Y. "A counterfactual analysis of changing economic context and its impact on dietary intakes in Chinese children", Experimental Biology, San Diego, CA, April 26 - 30, 2014
- (17). **Xue H**, Zhang Q, Chen H, Wu Y, Liu S, and Wang Y. "When Do Sugar-sweetened Beverage Taxes Reduce Consumption? - A Dynamic Approach to Understanding Supply-side Determinants", the 12th International Congress on Obesity, Kuala Lumpur, Malaysia, Mar 17 - 20, 2014
- (18). **Xue H**, Chen H, Wang Y. "System Science Models and National Data Projected Future Trends and Racial/Ethnic Disparities in Childhood Obesity in the US", Experimental Biology, April 20 - 24, 2013, Boston, MA.
- (19). **Xue H** and Wang Y. "Different analysis methods reveal different effect of national school lunch program on childhood obesity in the US", Experimental Biology, Apr 21 -25, 2012, San Diego, CA.
- (20). **Xue H**, Chen H, Hobbs B, Igusa T, and Wang Y." System Dynamics Model Simulated Consumer and Supplier Responses to Sugar-Sweetened Beverage Taxes", Experimental Biology 2012, Apr 21 -25, 2012, San Diego, CA.

Recent Invited Professional Presentations

Xue H: "Systems science in biomedical research regarding obesity and noncommunicable chronic diseases", the 10th International Congress on Lipid & Atherosclerosis (ICoLA 2021), the Korean Society of Lipid and Atherosclerosis, Seoul, Korea, Sep 10-11, 2021

Xue H: "Social network and obesity in school children: Childhood Obesity Study in China Mega-cities", the 11th Asia Pacific Conference on Clinical Nutrition and the 14th China Nutrition Science Congress, the Chinese Nutrition Society and the Asia Pacific Clinical Nutrition Society, Nanjing, China, Sep 19 – 22, 2019.

Xue H: "Advancing Obesity Prevention and Control through Interdisciplinary Systems and Big Data Approaches", The 2020 Childhood Obesity & COVID-19 Prevention and Control International Symposium", the Xi'an Jiaotong University, the Chinese National Health Commission, the Chinese Center for Disease Control and Prevention, Xi'an, China, Sep 20-21, 2020.

Xue H: "Combating Global Obesity Epidemic: Innovative Systems Science and Big Data Enhanced Research and Intervention Programs", the 13th China Nutrition Science Congress, Chinese Nutrition Society, Beijing, China, 22-24 May, 2017.

J. MEDIA APPEARANCES

Slected Research News

News-Medical: Study may provide opportunities to improve diet quality among cancer survivors

7th Space: Cancer survivors overestimate the quality of their diets, finds first study on the topic

Medical Xpress: Cancer survivors overestimate the quality of their diets, finds first study on the topic

Opportunities in social media to influence healthy behavior:

https://www.fastcompany.com/90637932/dont-be-fooled-by-all-those-healthy-recipes-on-social-media-no-one-is-actually-making-them?partner=rss&utm_source=rss&utm_medium=feed&utm_campaign=rss+fastcompany&utm_content=rss?cid=search

New three-year study seeks to understand the effects of policy tools and prevention strategies on youth tobacco use:

<https://www.gmu.edu/news/2022-01/new-policy-study-focuses-tobacco-prevention-and-reduction-virginia-youth>

Each additional hour per day spent on Snapchat associated with a 4.61% increase in the probability of lifetime e-cigarette use:

<https://www.gmu.edu/news/2021-09/study-shows-link-between-using-snapchat-and-vaping-college-students>

New study from George Mason University is first to comprehensively assess the economic impact of generic competition for statins:

<https://www.gmu.edu/news/2021-11/ending-market-exclusivity-statins-saves-us-12-billion-and-individuals-nearly-1000>

COVID related research

The intervention tool uses machine learning and artificial intelligence (AI) algorithms to detect a decline in undergraduate students' mental health and academic performance:

<https://www.gmu.edu/news/2022-01/mason-researchers-create-digital-health-solution-students-experiencing-academic-mental>