

# Koichiro Shiba

Curriculum Vitae

Harvard T.H. Chan School of Public Health  
Department of Social and Behavioral Sciences  
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## EDUCATION

**Harvard University, Graduate School of Arts and Sciences**

Boston, MA

PhD in Population Health Sciences

April 2020

- Advisor: Ichiro Kawachi
- Dissertation Committee: Ichiro Kawachi, Mariana Arcaya, Peter James
- Title of Dissertation: Challenges and Opportunities in Epidemiology of a Natural Disaster: Lessons From the 2011 Great East Japan Earthquake and Tsunami

**The University of Tokyo, Faculty of Medicine**

Tokyo, Japan

Master of Public Health

May 2016

- Thesis Title: Changes in working status in later life, mental health, and social participation: A fixed effects analysis of longitudinal data from the Japan Gerontological Evaluation Study
- Advisors: Naoki Kondo and Hideki Hashimoto

B.S. in Health Sciences

May 2014

- Thesis title: Informal and formal social support and caregiver burden: AGES Caregiver Survey
- Advisors: Naoki Kondo and Hideki Hashimoto

## RESEARCH EXPERIENCE

**Harvard University**

*Graduate Researcher*

Positive psychology and healthy aging

October 2018 - Present

- Investigated how positivity psychological factors (e.g. optimism and purpose in life) is linked to health behaviors and biomarkers of physical health later in life.
- Performed statistical analyses of a national representative cohort study of US population

(Health and Retirement Study) and prepared multiple manuscripts for peer-reviewed journals.

Natural disaster and physical health of survivors

August 2017 - Present

- Investigated the long-term associations between traumatic experiences of natural disaster (i.e. the 2011 Great East Japan Earthquake and Tsunami) and cardiometabolic health of survivors.
- Performed statistical analyses of large cohort data and prepared a manuscript for a peer-reviewed journal.

*Visiting Graduate Student*

May 2015 - July 2015

- Masters' thesis project completion.
- Conducted study design, data analysis, interpretation of results, and manuscript writing within four months.
- Advisor: Ichiro Kawachi

**University of Tokyo**

Tokyo, Japan

*Graduate Researcher*

Study of childhood obesity after the global economic crisis

August 2015 – August 2016

- Assisted in a study that revealed the increased risk of childhood overweight; particularly, among children from single parent households after the global economic crisis in 2008.
- Implemented a panel data analysis of nationwide birth-cohorts and drafted a manuscript.

Health survey project in the City of Rikuzentakata

March 2014 – March 2015

- Epidemiological survey that targeted local residents living in temporary housing in areas affected by disaster.
- Designed questionnaires for local citizens based on qualitative needs interviews.
- Wrote an official report and conducted an oral presentation to be presented to the local government based on the study's results including high prevalence of ill-health and risk factors among residents in temporary housing.

**TEACHING EXPERIENCE**

**Epidemiologic Methods III: Models for Causal Inference (EPI289)**

2019 & 2020

Department of Epidemiology, Harvard T.H. Chan School of Public Health

- Course Contents: Intermediate course on epidemiologic methods for causal inference

from observational data. The methods covered include stratification, regression model, propensity score, g-formula, inverse probability weighting and marginal structural model, g-estimation and structural nested mean model, and instrumental variable estimation.

- Role: Teaching Fellow (Grading, weekly lab sessions, and office hours)
- With: Miguel Hernan, DrPH

### **Measurement Error and Misclassification for Epidemiologists (EPI515)** 2019

Department of Epidemiology, Harvard T.H. Chan School of Public Health

- Course Contents: Overview of the implications of and methods to deal with measurement error and misclassification in epidemiologic studies. Theories and assumptions for valid use of the correction methods were discussed.
- Role: Teaching Fellow (Grading and weekly office hours)
- With: Molin Wang, Ph.D.

### **Society and Health (SBS201)** 2017 & 2018 (Lead Teaching Fellow)

Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

- Course Contents: Introductory course on social epidemiology. Reviewed key evidence of social determinants of health and their implication for population health and health disparities.
- Role: Teaching Fellow (Grading and weekly lab sessions)
- With: Ichiro Kawachi, Ph.D.

### **Principles of Social and Behavioral Research (SBS281)** 2018

Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

- Course Contents: Introductory course on methods for social research in public health. Topics covered include measurement, study design, survey research methods, questionnaire development, sampling, and data collection.
- Role: Teaching Fellow (Grading and weekly lab sessions)
- With: Laura Kubzansky, Ph.D.

### **Advanced Epidemiologic Methods (EPI207)** 2018

Department of Epidemiology, Harvard T.H. Chan School of Public Health

- Course Contents: Advanced course on epidemiologic methods for causal inference to estimate causal effect of time-varying treatment. Topics covered include Directed Acyclic Graphs and Single World Intervention Graphs, g-formula, inverse probability weighting, dynamic regimes, structural nested models, instrumental variable estimation, and doubly

robust methods.

- Role: Teaching Fellow (Grading and office hours)
- With: James Robins, M.D.

### **Explaining Health Behavior: Insights from Behavioral Economics (SBS503) 2018**

Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

- Course Contents: Review of the application of theories and constructs from behavioral sciences (particularly behavioral economics and social psychology) to the field of health behavior.
- Role: Teaching Fellow (Grading)
- With: Ichiro Kawachi, Ph.D.

### **OTHER EXPERIENCE**

#### **Cancer Scanner / Campus for H**

Tokyo, Japan

*Data Analyst*

May 2014 – August 2016

- Worked with central and municipal governments / other national research centers to plan / execute large scale community-based public health interventions via methods such as increases in cancer screening rates.
- Conducted a thorough review of over 200 scholarly articles from diverse disciplines to generate a research hypothesis
- Led a research project that investigated the association between meditation practice and subjective job-performance, in addition to being the first author of the resulting article.

#### **Tokyu Sports Oasis**

Tokyo, Japan

*Personal Trainer*

January 2013 – March 2015

- Promoted habits directed towards healthy dietary and physical activity via counseling local residents and conducting educational programs.

#### **Health and Global Policy Institute**

Tokyo, Japan

*Intern*

January 2013 – April 2015

Worked with multiple stakeholders involved in forming health policies including: central/municipal governments, private companies, mass media, clinicians to plan / execute research and events towards better health policies.

- Engaged in the literature review and data analysis parts of the research.

## PUBLICATIONS

### PEER-REVIEWED JOURNAL ARTICLES

- **Shiba K**, Kondo N. The Global Financial Crisis and Overweight among Children of Single Parents: A Nationwide 10-Year Birth Cohort Study in Japan. *International Journal of Environmental Research and Public Health*. 2019;16(6).
- **Shiba K**, Hikichi H, Aida J, Kondo K, Kawachi I. Long-Term Associations Between Disaster Experiences and Cardiometabolic Risk: A Natural Experiment From the 2011 Great East Japan Earthquake and Tsunami. *American Journal of Epidemiology*. 2019;188(6):1109-19.
- Saito T, Kondo N, **Shiba K**, Murata C, Kondo K. Income-based inequalities in caregiving time and depressive symptoms among older family caregivers under the Japanese long-term care insurance system: A cross-sectional analysis. *PLOS ONE*. 2018;13(3):e0194919.
- **Shiba K**, Kondo N, Kondo K, Kawachi I. Retirement and mental health: does social participation mitigate the association? A fixed-effects longitudinal analysis. *BMC Public Health*. 2017;17(1):526.
- **Shiba K**, Kondo N, Kondo K. Informal and Formal Social Support and Caregiver Burden: The AGES Caregiver Survey. *Journal of Epidemiology*. 2016;26(12):622-8.
- Group JGHW. Protecting human security: proposals for the G7 Ise-Shima Summit in Japan. *The Lancet*. 2016;387(10033):2155-62.
- **Shiba K**, Nishimoto M, Sugimoto M, Ishikawa Y. The Association between Meditation Practice and Job Performance: A Cross-Sectional Study. *PLOS ONE*. 2015;10(5):e0128287.

### PRESENTATIONS/CONFERENCES

- **Shiba K.**, Kim E.S., VanderWeele T.J., Kubzansky L.D. Is the association between purpose in life and mortality modified by key social structural factors? (Oral Presentation) *American Psychosomatic Society*; Long Beach, CA, USA, March 2020.
- Kim E.S., **Shiba K**, Rimm E, Kubzansky L.D. Sense of purpose in life and health behaviors. Society of Behavioral Medicine, San Francisco, CA, USA.
- Kim E.S., **Shiba K**, Rimm E, Kubzansky L.D. Sense of purpose in life and health behaviors over time. Gerontological Society of America Annual Conference, Austin, TX, USA.
- **Shiba K**, Hanazato M, Kawachi I. Does Neighborhood Environment Causally Affect Cardiometabolic Risks? - Natural Experiment From the 2011 Great East Japan Earthquake -. (Poster Presentation) The Society for Epidemiologic Research 2019 Annual Meeting, Minneapolis, MN, USA, June 2019.
- Kamada M, Hayashi H, **Shiba K**, Taguri M, Kondo N, Lee I-M, Kawachi I. Nudging baseball fans to be active: a large-scale, smartphone-based, quasi-experimental study.

7<sup>th</sup> International Society for Physical Activity and Health Congress, London, UK, Oct 2018

- **Shiba K**, Kawachi I. Long-term impact of disaster experiences on cardiometabolic risk: A natural experiment from the 2011 Great East Japan Earthquake and Tsunami. (Oral presentation) The Society for Epidemiologic Research 51<sup>st</sup> Annual Meeting, Baltimore, ML, USA, June 2018.
- Honjo K, **Shiba K**, Tani Y, Sasaki Y, Kondo K, Kondo N. The risk of depressive symptoms according to living alone and social support among Japanese older people: A fixed effects analysis of longitudinal data from the Japan Gerontological Evaluation Study. ICBM2016 2016.12.10 Melbourne, Australia
- **Shiba K**, Kondo N. Pre-adolescent overweight in single-parent households after the global economic crisis: a nationwide 10-year birth cohort study in Japan. (Poster presentation) Epidemiology Congress of the Americas 2016, Miami, FL, USA, June 2016.
- **Shiba K**, Kondo N, Kondo K, Kawachi I. Changes in working status in later life and mental health: Longitudinal findings from the Japan Gerontological Evaluation Study. (Poster presentation) Inaugural Forum on Population Health Equity, Boston, MA, USA, September 2015.
- **Shiba K**, Kondo N. Social roles in households or local communities and depression among older Japanese -the AGES longitudinal study-. (Poster presentation) The Society for Epidemiologic Research 48th Annual Meeting, Denver, CO, USA, June 2015.
- **Shiba K**, Kondo N, Kondo K. The Differential Effects of Informal and Formal Social Supports on Reducing Family Caregiver Burden –AGES Caregiver Survey-. (Oral presentation) The 25<sup>th</sup> Annual Scientific Meeting of the Japan Epidemiological Association, Aichi, Japan, January 2015.

#### **AWARD/FELLOWSHIP**

- Research Fellowship for Well-being Research, Planet Earth Foundation      2020-present
  - This fellowship covered all the expense of my post-doctoral training at the Human Flourishing Program
- Teaching Assistant Award, Harvard T.H. Chan School of Public Health      2019
- Best Presentation, Japan Epidemiological Association      2015
  - Introduction to Epidemiology Slideshow Contest
- Graduate Study Scholarship, University of Tokyo      2015
  - Four months visit to Harvard T.H. Chan School of Public Health as a visiting graduate student

## GRANT FUNDING

**Title of Project:** Simulation of the effect of a continued community intervention facilitating sports participation among older adults on depression 2019

**Funding Agency:** Meiji Yasuda Life Foundation of Health and Welfare

**Funding Mechanism:** Grant for Young Health Science Investigators (\$10,000)

**Role on Project:** Principal Investigator

**Total Amount:** \$10,000

**Title of Project:** Natural Experiment Study of Neighborhood Effects on Cardiometabolic Health of Older Adults: Insights from the 2011 Great East Japan Earthquake 2019

**Funding Agency:** Harvard University (Institute for Quantitative Social Science)

**Funding Mechanism:** Research Grants for Dissertation Research

**Role on Project:** Principal Investigator

**Total Amount:** \$3,000

## KNOWLEDGE/SKILLS

- Statistical software: SAS, STATA, R, Python, ArcGIS
- Statistical knowledge: causal inference from observational data, mediation analyses, longitudinal data analyses, multilevel modeling, survival data analyses, missing data handling (multiple imputation), bootstrapping, panel data analyses, geospatial analyses, data visualization.

## PEER REVIEW ACTIVITIES

- American Journal of Epidemiology
- BMC Nephrology
- European Journal of Public Health
- Social Science and Medicine
- Social Science and Medicine – Population Health
- Journal of Occupational Health
- Journal of Public Health
- PLOS ONE