

Jonathan D. Sugimoto

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EDUCATION

Doctorate of Philosophy (PhD) Department of Epidemiology **Began**
School of Public Health and Community Medicine **Sept 2006**
University of Washington, Seattle, WA

Master of Health Sciences (MHS) Department of International Health **May 2002**
Bloomberg School of Public Health,
Johns Hopkins University, Baltimore, MD

Master's thesis:

"Assessing the Safety, Efficacy, and Cost-Effectiveness of Public Health Programs Co-Administering High-Dose Vitamin A Supplements and Measles Vaccination: An Indonesian Example"

Relevant course work:

- Methods in GIS and Spatial Statistics
- Basic and Intermediate Epidemiology
- Biostatistics
- Epidemiology of HIV and STDs
- Malariology
- Methods in Field Trials
- Infectious Disease and Child Survival
- Vaccine Science and Policy
- Disease Prevention and Control
- Qualitative Research Method

Bachelor of Science in Biology Calvin College, Grand Rapids, MI **May 2000**

RELEVANT EXPERIENCE

Research Associate Vaccine and Infectious Disease Institute (VIDI) **Sept 2006 – Present**
Fred Hutchinson Cancer Research Center, Seattle, WA

- Mathematical modeling of the transmission dynamics of infectious disease agents, focusing on estimating inter- and intra-household transmission probabilities for seasonal and highly-pathogenic H5N1 avian influenza
- Development of a stand-alone software application for estimating the likelihood of sustained human-to-human transmission during outbreaks of acute infectious diseases, particularly highly-pathogenic H5N1 avian influenza or other emerging or re-emerging pathogens
- Mathematical modeling of the incidence of tuberculosis-related morbidity and mortality from the present until the mid-21st century and the relative impacts of various novel interventions
- Estimating the impact of potential interventions against pandemic highly-pathogenic avian influenza spreading in a simulated population of Los Angeles County, California USA

Research Associate / Faculty Bloomberg School of Public Health, **Jul 2002 – Jul 2006**
Johns Hopkins University, Baltimore, MD

Designed, constructed, and managed a large GIS for an international, community-based, nutrition research project, located in rural Bangladesh

Lived and worked in Bangladesh

General tasks and duties

- Collate a 460 km² basemap from smaller, digitized paper maps
- Use a grid-based strategy and GPS survey data to reference the basemap to a geographic coordinate system
- Plan, manage, and implement a GPS field survey of 225,000 landmarks

- Produce maps for publication
- Devise customized navigational aids for project field staff
- Create a GPS guidance system for study area navigation
- Write customized SQL scripts for GIS analyses

Performed exploratory spatial data analyses investigating the following...

- Help develop a **flooding assessment** system for this study area
- Exploring the geographic patterns and variation in nutrition and pregnancy-related mortality and morbidity outcomes
- Assessing effect of access to health care services, or lack there of, has on pregnancy-related outcomes
- Elucidating the relationship between household dietary diversity and proximity to a market center or bazaar
- Relating the geographic patterns of contraceptive use to rates of unplanned pregnancies

Team leader on a **disaster** epidemiology sub-study investigating the environmental and social determinates of observed excess morbidity and mortality resulting from a large tornado

- Created the study protocol
- Developed the data collection instruments
- Involved in training the data collection staff
- Managed a census of the 30,000 individuals living in the affected area
- Monitored data collection through field visits
- Worked with trial physicians during their verbal autopsies reviews of tornado-related deaths
- Interacted with database managers to facilitate the entry of collected data into a database
- Responsible for data analysis
- Currently preparing results for publication

Intern Helen Keller International (HKI), Jakarta, Indonesia **Aug 2001 – Dec 2001**

- Modeled the cost-effectiveness of an Indonesian pilot project co-delivering vitamin A and measles vaccination
- Reviewed the relevant literature

CONSULTANCY EXPERIENCE

Information Systems Consultant PSATT Research Trial, Karachi, Pakistan **Feb 2006 – Jun 2006**

Reviewed and revised trial protocols related to entry and management of research trial data. Prepared data for review by the trial's data safety and monitoring board

Data Analyst Bloomberg School of Public Health, Johns Hopkins **Jun 2001 – Jul 2001**

Spatially modeling of the influence of environmental factors on the human feeding habits of the malaria mosquito vector

VOLUNTEER EXPERIENCE

Disaster relief for tornado victims in rural Bangladesh, March 2005

- Provided first aid to victims
- Helped to disseminate disaster statistics and information about relief efforts to other collaborating organizations

DEVELOPING-COUNTRY EXPERIENCE

3 years of international work experience while residing in northern Bangladesh

- Produced public health informatics solutions for a large international nutrition research trial
- Lived at the trial site
- Educated local scientists in the use of GIS and spatial statistics for public health research

10 years living in the Democratic Republic of Congo and Kenya

- Lived in the Ituri forest region of the Congo
- Volunteered at a hospital in rural Congo
- Volunteered at an elementary school in Kenya
- Attended elementary to high school in Africa

SKILLS

Language:

- Fluent in French
- Knowledgeable in Swahili, Bahasa Indonesia, and Bengali.

GIS and Database Software:

a) ArcGIS Desktop Software Suite

<u>Software and Add-Ins</u>	<u>Extensions</u>
- ArcCatalog	- 3D Analyst
- ArcMap	- Geostatistical Analyst
- ArcGlobe	- Maplex
- ArcScene	- Network Analyst
- ArcToolbox	- Publisher
- ET GeoWizards	- Schematics
	- Spatial Analyst
	- Survey Analyst
	- Tracking Analyst

b) Other Software

- AutoCAD Map 2000 w/ the CAD Overlay extension
- GPS Utility
- MapInfo Professional
- MS Access
- MS FoxPro
- SQL Server Professional

Other Software:

- Adobe Acrobat Professional
- MS Office
- Paint Shop Pro
- Reference Manager
- Netbeans IDE (a Java developer's environment)

Statistics Packages:

- GeoDa
- R version 1.4
- SatScan
- STATA

PUBLICATIONS

Peer Reviewed Publications:

1. **Sugimoto JD**, Labrique AB, Ahmad S, Rashid M, Klemm RDW, Christian P, West KP Jr. Development and management of a geographic information system for health research in a developing-country setting: a case study from Bangladesh. *Journal of Population, Health and Nutrition* 2007 Dec;25(4):436-47.
2. **Sugimoto JD**, Ahmad S, Rashid M, Shamim AA, Labrique AB. A low-cost method to identify tubewells for longitudinal research on arsenic in groundwater. *Journal of Population, Health and Nutrition* 2007 Sept;25(3):377-81.
3. Yang Y, Halloran ME, **Sugimoto JD**, Longini IM Jr. "Detecting Human-to-Human Transmission of Avian Influenza A (H5N1)". *Emerging Infectious Diseases*. 2007 Sept;13(9):1348-53.

Non-Peer Reviewed Publications and Conference Abstracts:

1. "Does proximity to market influence dietary diversity of pregnant women in rural Bangladesh?"
Authors: S Ahmad, **J Sugimoto**, AA Shamim, AB Labrique, M Rashid, JH Rah, P Christian, R Klemm, KP West Jr
(submitted for consideration to the 2006 CAPGAN conference, Dhaka, Bangladesh)

2. West KP Jr, Rice A, **Sugimoto JD**. "Tables on the Global Burden of Vitamin A Deficiency and Xerophthalmia Among Preschool Aged Children and Low Vitamin A Status, Vitamin A Deficiency, and Night Blindness Among Pregnant Women By WHO Region", (<http://www.jhsph.edu/chn/images/GlobalVADtables.pdf>)

Response to Comments and Letters to the Editor:

1. Longini IM Jr, Yang Y, **Suginoto J**, Halloran ME. Detecting human-to-human transmission of avian influenza A (H5N1) [response]. *Emerg Infect Dis* [serial on the Internet]. 2007 Dec [August 27, 2008]. Available from <http://www.cdc.gov/EID/content/13/12/1969.htm>

Acknowledgments in Peer Reviewed Literature:

1. West KP Jr. Extent of vitamin A deficiency among preschool children and women of reproductive age. *J Nutr*. 2002 September;132(9 Suppl):2857S-66S.

Master's Thesis:

Sugimoto, J.D. "Assessing the Safety, Efficacy, and Cost-effectiveness of Public Health Programs Co-administering High-dose Vitamin A Supplements and Measles Vaccination: An Indonesian Example", (Thesis report submitted as a requirement for the completion of a Master's of Health Sciences degree at the Johns Hopkins University, Bloomberg School of Public Health)

HONORS AND AWARDS

Diane Hess Memorial Fund Award, February 2001