

# HEIDI D. SATO

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## EDUCATION

PhD, Health Sciences, November 2007  
International Health Practitioner  
TUI University, Cypress  
Dissertation: Mathematical Model to Predict Foodborne Illness Outbreaks at Restaurants

M.P.H., Population and Family Health, October 1989  
Columbia University, New York

B.S., Nutrition and Food Science, December 1987  
University of California, Berkeley

## PROFESSIONAL EXPERIENCE

*Assistant Professor of Health Sciences*

**College of Health Sciences, TUI University, December 2000 to Present**

Conduct online lectures and discussions for doctoral level research seminar course. Advise doctoral students regarding research design, methodology, and analysis. Also designed and taught courses in epidemiology, emergency & disaster management, issues of terrorism, and culminating project courses for graduate and undergraduate students. Developed and updated course CDs using MS FrontPage. Participate on dissertation committees and curriculum evaluation committees.

*Senior Epidemiology Consultant*

**EpiTech Consulting, April 2006 to Present**

Provide consultation on epidemiologic methodology and analysis, transmission of infectious diseases, and outbreak investigation and surveillance procedures. Expert witness for a high profile hepatitis A outbreak involving 650 cases at a restaurant. Provide consultation to client attorney regarding the source of the outbreak

*Epidemiologist / Chief of MIS-Informatics Unit*

**Environmental Health, Los Angeles County Dept. of Health Services, October 1998 to January 2007**

- Supervised 20 staff within the MIS-Informatics Unit, including Environmental Health Specialists, Information Systems Analysts, and Data Entry Clerks. Provided technical guidance to staff on data queries and analysis of inspection data for management, the media, and the public. Also advised Information Systems Analysts on the design and development of database applications, automation for improving efficiency in data analysis, and on technical support issues. Managed the hiring of new staff within the unit.
- Conducted epidemiological analysis of restaurant inspection and housing program and provided recommendations to senior management. Provided consultation to department staff regarding epidemiologic research methodology, sample size, and design. Also attended meetings with the Director of Public Health & Health Officer for Los Angeles County to advise executive management on data analysis results for distribution of inspection scores among food establishments.
- Developed an award-winning database application that advises inspectors regarding the

validity, etiology, and probable source of a foodborne illness complaint. This application was developed using MS Access and Visual Basic. Also developed intranet site to automate notification of possible foodborne outbreaks.

- Managed the development of rich text format reports and data mapping conversion for the EDAPTS (electronic Development and Permit Tracking System), which is a multi-departmental web-based Oracle database application for tracking permits, inspections, complaints, and land use data.
- Collaborated in writing a *Vibrio vulnificus* position paper for the California Conference of Directors of Environmental Health to influence policymakers and present recommendations for preventing *Vibrio vulnificus* deaths in Los Angeles County, which led to an immediate change in policy.
- Collaborated in writing the Foodborne Illness Investigation Reference Manual.

#### *Epidemiology Analyst*

#### **Acute Communicable Disease Control, Los Angeles County Dept. of Health Services, November 1991 to October 1998**

Designed, conducted, and analyzed epidemiological surveys and investigations of epidemics to determine the pattern of disease in the community. Managed surveillance for shigellosis, campylobacteriosis, and vectorborne diseases. Provided consultation to physicians, nurses, and the public regarding disease control. Interviewed on-camera about AIDS prevention for a video production. Investigated over 60 outbreaks of communicable disease, including

- Cholera Associated with an International Airline Flight, 1992
- Viral Gastroenteritis Outbreak Aboard a Cruise Ship, 1992
- Salmonella Poona Outbreak Associated with Exposure to Iguanas, 1992
- Epidemiologic Investigation of Meningococcal Disease in Los Angeles County, 1993
- Hepatitis B Virus Transmission Associated With Thoracic Surgery, 1993
- E Coli O157:H7 Outbreak in Los Angeles County

#### *Consultant*

#### **American Lung Association, Los Angeles County, November 1991 to March 1992**

Provided consultation for the African American and Asian Pacific Islander Smoking Cessation Project; reviewed participant evaluations and made recommendations for the modification of the program curriculum that was copyrighted and published by the American Lung Association. Also wrote recommendations for future activities for a grant proposal.

#### *Project Manager*

#### **American Lung Association, Los Angeles County, September 1990 to November 1991**

Designed, implemented, and evaluated smoking cessation programs for African American and Asian Pacific teens. Conducted monthly advisory committee meetings.

#### *Graduate Research Assistant*

#### **School of Public Health, Columbia University, February 1989 to September 1989**

Conducted literature search and identified appropriate indicators to use for assessing the nutritional status of school-age children in New York State. Designed instrument for data collection; collected nutritional data from selected school sites, and analyzed data using SPSS software.

#### *Laboratory Assistant*

#### **Medical Science Institute, Beverly Hills, June 1988 to September 1988**

Tested for the presence of syphilis, mononucleosis, rheumatoid arthritis, C-reactive protein, beta-hemolytic streptococcus, and anti-nucleotide antibody. Operated the Coulter S-Plus, the

Coulter Jr., and the Coulter STKR to determine blood counts. Supervised weekend blood testing operations.

*Intern*

**World Health Organization in Geneva, Switzerland, January 1988 to May 1988**

Collected and managed nutrition and disease data from countries throughout the world using Data Base 111+; determined global prevalences of under- and over-nutrition using various cut-off points and analyzed data to determine the correlation between nutritional status and diarrheal disease.

**Ministry of Health and University of Ghana Medical School, June 1987 to August 1987**

Determined the prevalence of malnutrition in the villages of the Suhum region of West Africa for UNICEF's Weaning Food Production Project by taking anthropometric measurements and observing clinical signs of malnutrition; collected diet histories of children with marasmus and kwashiorkor. Educated and advised mothers about their children's nutritional status in primary health care and malnutrition clinics. Also surveyed village sanitation with health inspector; identified hazards for employees in factories, and developed strategies to minimize hazards with factory owners.

PUBLICATIONS AND PRESENTATIONS

Sato H. (2008). Predicting Foodborne Outbreaks at Restaurants: Results of a Risk Assessment Model [Presentation]. American Public Health Association Conference.

Sato H. (2008). Predicting Foodborne Outbreaks at Restaurants: Results of a Risk Assessment Model [Presentation]. National Environmental Health Association 72<sup>nd</sup> AEC Conference.

Sato H. (2004). *Causes, Investigation, and Control of Foodborne Disease* [Guest Lecturer]. PM529 Environmental Health--An Epidemiologic Approach, University of Southern California.

Sato H., Medina A, and Aguirre A. (2003). *Database Automation: An Innovative Approach to Enhance Surveillance, Screening, and Analysis of Foodborne Illness Complaints* [Presentation]. California Conference of Directors of Environmental Health.

Sato H, Medina A. and Aguirre A. (2002). *Database Automation: An Innovative Approach to Enhance Surveillance, Screening, and Analysis of Foodborne Illness Complaints* [Abstract and Presentation]. 7th World Congress on Environmental Health. Retrieved June 8, 2005 from <http://ifeh2002.org/speakers.cfm>

Crowe L, Lau W, McLeod, L, Anand, CM, Ciebin, B, LeBer, C, ... Sato H, et al. (1999). *Outbreaks of Shigella sonnei Infection Associated with Eating Fresh Parsley – United States and Canada, July-August 1998*. MMWR, 48(14).

Sato H (1997). Campylobacteriosis. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 36-38). Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/annual/cd97/cd970.htm>

Sato H (1997). Encephalitis. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 47-48). Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/annual/cd97/cd970.htm>

Sato H (1997). Lyme Disease. In Los Angeles County Department of Health Services.

*Communicable Disease Morbidity Report, 1997*. Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/annual/cd97/cd970.htm>

Sato H (1997). Viral Meningitis. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 87-89). Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/annual/cd97/cd970.htm>

Sato H (1997). Shigellosis. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 103-106). Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/annual/cd97/cd970.htm>

Sato H, Chao S, Tormey M, and Mascola L (1996). *Communicable Disease Reporting Among Physicians: The Impact of Knowledge and Attitudes on Behavior* [Abstract and Presentation]. 124<sup>th</sup> American Public Health Association Conference.

Sato H (1995). *Communicable Disease Reporting Among Physicians: Knowledge, Attitudes, and Reporting Levels*. In Los Angeles County Department of Health Services. *Acute Communicable Disease Control Special Studies Report, 1995* (pp. 17-21). Retrieved June 9, 2005 from <http://lapublichealth.org/acd/reports/spclrpts/spcrrpt95/cd95rpt.htm>

Sato H (1994). Northeast Health Cluster. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 117-121).

Reporter R, Bendana N, Sato H, Watson L, Matsumoto G, and Mascola L (1993). *Rare Serotypes of Salmonella Associated with Iguana Exposure* [Abstract]. 33rd Interscience Conference on Antimicrobial Agents and Chemotherapy.

Sato H, Bendana N, Escobal A, and Mascola L. (1993) *Bloody Diarrhea Associated With Escherichia Coli O157:H7 in a Retirement Home* [Presentation]. West Coast Epidemiology Conference.

Sato H (1993). San Gabriel Valley Health Centers Network. In Los Angeles County Department of Health Services. *Communicable Disease Morbidity Report, 1997* (pp. 140-141).

## PUBLISHED ACKNOWLEDGEMENTS

Development of database acknowledged in Labarca, J, Sturgeon, J, Borenstein, L, Salem, N, Harvey, S, Lehnkering, E, et al (2002). *Campylobacter upsaliensis*: Another Pathogen for Consideration in the United States. *Clinical Infectious Diseases*, 34(1 June).

Thoughtful comments acknowledged in Buchholz, U, Run, G, Kool, JL, Fielding, J, and Mascola, L (2002). *A Risk-Based Restaurant Inspection System in Los Angeles County*. *Journal of Food Protection*, 65(2).

Assistance with outbreak investigation acknowledged in Harpaz, R, Seidlein, LV, Averhoff, FM, Tormey, MP, Sinha, SD, Kotsopoulou, K, et al (1996). *Transmission of Hepatitis B Virus to Multiple Patients from a Surgeon Without Evidence of Inadequate Infection Control*. *New England Journal of Medicine*, 334(9).

## AWARDS

### **APHA Student Award, 2008**

Awarded by American Public Health Association Epidemiology Section for research conducted as a PhD student: Mathematical Model to Predict Foodborne Outbreaks at Restaurants.

**Excellence in Environmental Health Award, 2003**

Awarded by California Conference of Directors of Environmental Health for developing *Foodborne Illness Advisor*, an automated database to enhance surveillance, screening, and analysis of foodborne illness complaints.

**Productivity and Quality Award, 2003**

Awarded by Los Angeles County Board of Supervisors for developing *Foodborne Illness Advisor*.

**Employee Suggestion Award, 2002**

Awarded Certificate of Commendation for developing *Foodborne Illness Advisor* by the Director of Los Angeles County Department of Health Services. This database application resulted in a cost savings of \$51,000 per year.

PROFESSIONAL ASSOCIATIONS

Toastmaster's International, Vice-President of Public Relations, Asst. Area Governor, 2006 to present  
American Public Health Association, 2008  
Southern California Epidemiology Exchange, 1991 to present  
Los Angeles County Food Safety Coalition, 1998 to 2006  
LA County Disaster Communication Service, Radio Amateur Civil Emergency Service, 1999 to 2006  
American Public Health Association, 1988 to 1993  
Executive Board, Asian Pacific Tobacco Control Coalition, 1991  
Professional Review Board for Los Angeles County Tobacco Control Project Grants, October 1991  
National Council for International Health, 1988 to 1991

ACTIVITIES.

Dale Carnegie Effective Communications, Leadership, & Human Relations Course, Coach, 2007  
Sierra Club, Leader, 2007  
International travel: 50 countries in 5 continents  
Mountain Climbing: Summits of Mt. Rainier (1997), Mt. Shasta (1999), Mt. Whitney (1996)  
Hobbies: Hiking, sailing, kayaking, whitewater rafting, mountain biking, racquetball, piano