

Sumiko R. Mekaru

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(a) Professional Preparation

Boston University School of Public Health	Epidemiology	Ph.D. 2013
University of California at Davis	Preventive Vet. Medicine	M.P.V.M. 2006
Cummings School of Veterinary Medicine at Tufts University	Veterinary Medicine	D.V.M. 2003
San Jose State University (California)	Library & Information Science	M.L.I.S. 1996
Dartmouth College	Asian Studies	A.B. 1994

(b) Appointments

Harvard Medical School/Boston Children's Hospital: Post-doctoral research fellow (2013 --)

(c) Recent publications

1. Bennett KJ, Olsen JM, Harris S, Mekaru S, Livinski AA, Brownstein JS. The Perfect Storm of Information: Combining Traditional and Non-Traditional Data Sources for Public Health Situational Awareness During Hurricane Response. PLOS Currents Disasters. 2013 Dec 16. Edition 1. doi: 10.1371/currents.dis.d2800aa4e536b9d6849e966e91488003.
2. Salathé M, Freifeld CC, Mekaru SR, Tomasulo AF, Brownstein JS. Influenza A(H7N9) and the Importance of Digital Epidemiology. N Engl J Med. 2013 Jul 3.
3. P Chakraborty, P Khadivi, B Lewis, A Mahendiran, J Chen, P Butler, EO Nsoesie, SR Mekaru, JS Brownstein, M Marathe, N Ramakrishnan. Forecasting a Moving Target: Ensemble Models for ILI Case Count Predictions. Proceedings of the 2014 SIAM International Conference on Data Mining. 2014
4. Nsoesie EO, Mekaru SR, Ramakrishnan N, Marathe MV, Brownstein JS. Modeling to Predict Cases of Hantavirus Pulmonary Syndrome in Chile. PLoS neglected tropical diseases 8 (4), e2779
5. Lau EHY, Zheng J, Tsang TK, Liao Q, Lewis B, Brownstein JS, Sanders S, Wong JY, Mekaru SR, Rivers C, Wu P, Jiang H, Li Y, Zhang Q, Chang Z, Liu F, Peng Z, Leung GM, Feng L, Cowling BJ, Yu H. Accuracy of epidemiological inferences based on publicly available information: retrospective comparative analysis of line lists of human cases infected with influenza A (H7N9) in China. BMC Medicine 12.1 (2014): 88.
6. SR Mekaru and JS Brownstein. One Health in social networks and social media. OIE Scientific and Technical Review .Vol. 33 (2), August 2014. (In press)

(d) Synergistic activities

- Operations Director for HealthMap group, Informatics Program, Boston Children's Hospital, Harvard Medical School, March 2010 to present.
- Surveillance Epidemiologist for HealthMap group, Informatics Program, Boston Children's Hospital, Harvard Medical School, September 2009 to present
- Licensed Veterinarian, State of New Hampshire (2003-present)

(e) Collaborators & Other Affiliations

- Collaborators: John S. Brownstein (Harvard Medical School), Andrew Fine (Harvard Medical School), Larry Madoff (Massachusetts Department of Public Health and ProMED-Mail), Marcel Salathe (Penn State)
- Graduate advisors: Sherri Stuver (Ph.D. Dissertation Chair, Boston University School of Public Health), Al Ozonoff (Ph.D. Dissertation Committee, Harvard Medical School), John Brownstein (Ph.D. Dissertation Committee, Harvard Medical School), Philip Kass (M.P.V.M. advisor, University of California at Davis).
- Thesis advisees: Natasha Rabinowitz (George Washington University School of Public Health and Health Sciences), Lindsay Bouton (Harvard School of Public Health)

BIO:

Sumiko Mekaru, DVM, PhD, MPVM, MLIS is a Research Fellow with the Computational Epidemiology Group of Children's Hospital Informatics Program in Boston. Dr. Mekaru's research focuses on developing new methods for detection of emerging and reemerging diseases at the human-animal interface. With a background in veterinary medicine, information science, and epidemiology, Dr. Mekaru brings unique expertise to the field of surveillance of zoonotic diseases. Her research leverages communication technology, big data, and non-traditional surveillance methods to enhance early warning detection of zoonotic disease events. Dr. Mekaru's doctoral research examined environmental risk factors associated with waterborne disease and Ebola outbreaks, and evaluated measures of peridomestic forest interface as a risk factor for Lyme-associated pediatric facial palsy. Dr. Mekaru has published and presented over 25 scientific abstracts in peer-reviewed journals and conferences. In her work for the USAID-funded PREDICT project, she has co-created a web tool and map to monitor the illegal wildlife trade, developed new data feeds in several languages for surveillance, trained dozens of graduate students in data curation, and contributed to several manuscripts in process. She trains graduate students in manual data curation methods and novel analytic strategies, and promote knowledge translation to relevant national and international animal health organizations through her membership positions in the American Veterinary Medical Association and the International Society for Disease Surveillance.