Natalie M. Linton

Curriculum Vitae

School of Public Health, Kyoto University
nlinton.epi@gmail.com | nlinton.github.io

Education

Hokkaido University (Sapporo, Japan)
PhD in Medicine, expected 2021. Advisor: Hiroshi Nishiura. Focus on infectious disease modeling.

University of Oviedo (Oviedo, Spain)
MSc in Public Health in Disasters, 2018. Joint degree with the Catholic University of Louvain (Brussels, Belgium).

Oregon State University (Corvallis, OR, USA)
MPH in Epidemiology, 2015.

Ritsumeikan University (Kyoto, Japan) and **American University** (Washington, DC, USA)
BA in International Relations, 2011 and BA in International Studies, 2010. Dual degree program.

Employment

Washington State Department of Health, Office of Communicable Disease Epidemiology – Shoreline, WA, USA

Epidemiologist 2 – November 2016 – September 2017 (11 months)

- Led data tracking and analysis efforts for a statewide mumps outbreak investigation.
- Investigated Tdap vaccination status among teen mothers to determine compliance with state recommendations.
- Subject matter expert for prion disease surveillance; investigated and reported on cases.

CDC/CSTE Applied Epidemiology Fellow – July 2015 – October 2016 (1 year 4 months)
Fellowship administered by the Council of State and Territorial Epidemiologists (CSTE) and funded by the Centers for Disease Control and Prevention (CDC).

- Spearheaded the creation of a statewide epidemiologic profile on hepatitis C virus infections. Wrote a grant to obtain funding, managed co-author contributions, analyzed data, wrote, and designed the final report. Collaborated with stakeholders and coordinated presentations throughout Washington to disseminate findings.
- Worked on infectious disease outbreak investigations (foodborne infections, Zika, and acute flaccid myelitis).
- Investigated causes of death for refugees in Washington State and linked records to determine whether refugee women were referred for perinatal hepatitis B case management.

Centers for Disease Control and Prevention, Center for State, Tribal, Local, and Territorial Support

Public Health Associate – July 2011 – July 2013 (2 years) – La Grande, OR, USA

- Two-year fellowship as a field assignee at the Center for Human Development, Inc., working in chronic disease prevention, family planning, and communicable disease education and outreach. Obtained grants, engaged community partners, coordinated workshops, and promoted regional sustainability of a chronic disease self-management program.

Technical Assistance, Consulting, and Contract Work

Ministry of Health, Labour and Welfare – Tokyo, Japan

Member, COVID-19 Cluster Response Team – February 2020 – June 2020 (5 months)

- Performed ad hoc analyses to meet coronavirus disease 2019 (COVID-19) epidemic response needs, including: estimation of end of epidemic probabilities for case clusters, comparing risk of death and viral testing practices between countries, assessing prefectural differences, and more.

Veterans Education and Research Association of Northern New England, Inc. – White River Junction, VA, USA

Independent contractor, clinical epidemiology – July 2015 – April 2016 (10 months)

- Worked remotely analyzing data and improving visualizations for research on clinical outcomes among veterans.

International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) – Dhaka, Bangladesh

Boren Fellow – December 2014 – April 2015 (4 months)

- Funded by the Boren Awards for International Study to collaborate on chronic disease research and provide training for staff at icddr,b. Additionally supported for Bangla language study with the Bangla Language Institute.

Association of Maternal and Child Health Programs – Portland, OR, USA

Graduate Student Epidemiology Program Intern – June 2020 – September 2020 (4 months)

- Deployed to the Oregon Center for Children and Youth with Special Health Needs (OCCYSHN). Assessed the association between maternal health outcomes and having a child with special health needs using Pregnancy Risk Assessment Monitoring System (PRAMS) data.

Oregon State University – Corvallis, OR, USA

Research Assistant – October 2013 – December 2014 (1 year, 2 months)

- Responsible for conducting and analyzing qualitative interviews as well as managing and analyzing project data for statewide implementation of the Arthritis Foundation Walk With Ease program.

Graduate Research Assistant – March – June 2014 (4 months)

- Conducted literature reviews, researched devices to measure occupational exposures, prepared presentations.

Skills and Professional Development

Technical expertise

- Data-analysis and scripting languages: R, Stan; familiar with Julia, Python, and Ruby.
- Statistical computing environments: Jupyter Lab (via Windows Subsystem for Linux); familiar with RStudio, SAS, Stata, EpiInfo, and SPSS.
- Other software: Microsoft Office, Atom, GitHub Desktop, Mendeley, Adobe Photoshop, Adobe InDesign.
- Markup languages: Markdown; familiar with LaTeX, HTML, XML.
- Experience with Bayesian methods, maximum likelihood estimation, differential equations.

Languages

- English (native)
- Spanish (advanced) – Spanish Healthcare Interpreter Training – Central Oregon Community College, 2014. Volunteer, Clinica Esperanza (Roatán, Honduras), 2013. Triaged patients and assisted with pharmacy work.
- Japanese (advanced) – Japanese Language Proficiency Test Level N1 – Japan Foundation, September 2011. 2010–present. Japanese-English freelance translator and private English teacher for Japanese speakers.
- Elementary proficiency with French, German, and Bangla.

Scientific service

- 2020–present. Peer reviewer for academic journals in epidemiology, public health, and medicine.
- 2014–2015. Curriculum committee, College of Public Health and Human Sciences, Oregon State University.

Funding and Awards

2018–2021	Research Scholarship, Japan Ministry of Education, Culture, Sports, Science, and Technology (MEXT).
2019	Best Poster Presentation, INFECTION 2019, The Chinese University of Hong Kong.
2017–2018	Erasmus Mundus Scholarship, Erasmus Mundus: Public Health in Disasters (EMPHID).
2014–2015	Boren Fellowship, Boren Awards for International Study.
2013–2015	Graduate Laurels Scholarship; Warren & Frederica Schad Fellowship, Oregon State University.
2012	All There Is, Is Us and Us Award: For demonstrating a strong commitment to thinking about and doing what is good for the health department and community, Center for Human Development, Inc.
2009–2010	Special Honors for Foreign Students, Ritsumeikan University.
2007–2008	Presidential Scholarship; Dean's List for Academic Excellence, American University.

Publications

Peer-reviewed publications

2021 1. Linton NM, Akhmetzhanov AR, Nishiura H. Correlation between times to SARS-CoV-2 symptom onset and secondary transmission undermines epidemic control efforts. Under consideration, available at *medRxiv*.

2. Linton NM, Akhmetzhanov AR, Nishiura H. Localized end-of-outbreak determination for coronavirus disease 2019 (COVID-19): examples from clusters in Japan. *Int J Infect Dis*. 2021;105:286-292.

3. Akhmetzhanov AR, Mizumoto K, Jung S-m, et al. Estimation of the actual incidence of coronavirus disease (COVID-19) in emergent hotspots: the example of Hokkaido, Japan during February-March 2020. *J Clin Med*. 2021;10(11):2392.

2020 4. Linton NM, Kobayashi T, Yang Y, et al. Incubation period and other epidemiological characteristics of 2019 novel coronavirus infections with right truncation: A statistical analysis of publicly available case data. *J Clin Med*. 2020;9(2):538.

5. Linton NM, Keita M, Moitinho de Almeida M, et al. Impact of mass vaccination campaigns on measles transmission during an outbreak in Guinea, 2017. *J Infect*. 2020;80(3):1-7.

6. Linton NM, DeBolt C, Newman LP, et al. Mortality rate and causes of death among refugees resettled in Washington State, 2006–2016. *J Immigr Minor Heal*. 2020;22:3-9.

7. Nishiura H, Linton NM, Akhmetzhanov AR. Serial interval of novel coronavirus (COVID-19) infections. *Int J Infect Dis*. 2020;93:284-286.

8. Nishiura H, Linton NM, Akhmetzhanov AR. Initial cluster of novel coronavirus (2019-nCoV) infections in Wuhan, China is consistent with substantial human-to-human transmission. *J Clin Med*. 2020;9(2):488.

9. Anzai A, Kobayashi T, Linton NM, et al. Assessing the impact of reduced travel on exportation dynamics of novel coronavirus infection (COVID-19). *J Clin Med*. 2020;9(601).

10. Nishiura H, Jung S, Linton NM, et al. The extent of transmission of novel coronavirus in Wuhan, China, 2020. *J Clin Med*. 2020;9(2):330.

11. Nishiura H, Kobayashi T, Yang Y, et al. The rate of underascertainment of novel coronavirus (2019-nCoV) infection: Estimation using Japanese passengers data on evacuation flights. *J Clin Med*. 2020;9(2):419.

12. Kamiya H, Fujikura H, Doi I, et al. Epidemiology of COVID-19 outbreak on cruise ship quarantined at Yokohama, Japan, February 2020. *Emerg Infect Dis*. 2020;26(11):2591-2597.

13. Nishiura H, Kobayashi T, Miyama T, et al. Estimation of the asymptomatic ratio of novel coronavirus infections (COVID-19). *Int J Infect Dis*. 2020;94:154–155.

14. Hitoshi Oshitani, The Expert Members of The National COVID-19 Cluster Taskforce at The Ministry of Health, Labour and Welfare, Japan. Cluster-based approach to coronavirus disease 2019 (COVID-19) response in Japan, February to April 2020. *Japan J Infect Dis*. 2020;73(6):491–493.

2017 15. Bonwitt J, Poel A, DeBolt C, et al. Acute flaccid myelitis among children — Washington, September–November 2016. *MMWR*. 2017;66(31):826-829.

2016 16. Conte KP, Odden MC, Linton NM, Harvey MS. Effectiveness of a scaled-up arthritis self-management program in Oregon: Walk with ease. *Am J Public Health*. 2016;106(12).

17. Biswas T, Islam MS, Linton NM, Rawal LB. Socio-economic inequality of chronic non-communicable diseases in Bangladesh. PLoS One. 2016;11(11).

18. Kawakami VM, Bottichio L, Angelo K, Linton NM, et al. Outbreak of multidrug-resistant Salmonella infections linked to pork—Washington, 2015. MMWR. 2016;65(14):379–381.

Other scientific publications

2021 Hiroshi Nishiura. An introduction to data analysis for infectious disease epidemiology. Kinpodo, 2020. Chapter co-author. [In Japanese]

Linton NM, Nishiura H. Key characteristics of COVID-19 as revealed by patterns of secondary infection. Jikken Igaku. 2021. Vol 39, No 2. [In Japanese]

2020 Linton NM, Nishiura H. Mathematics behind the end of epidemics. Suugaku Seminar. 2020, Sept. [In Japanese]