

**Leisha Nolen, MD, PhD**  
**Utah State Epidemiologist**  
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## CAREER HISTORY

2021- current **Utah State Epidemiologist**, Utah Department of Health and Human Services, Salt Lake City, Utah  
 2016-2021 **Medical Epidemiologist**, Arctic Investigations Program, Centers for Disease Control and Prevention, Anchorage, Alaska  
 2015- 2016 **Resident Advisor/Medical Epidemiologist**, Vietnam Field Epidemiology Training Program, Epidemiology Workforce Branch Centers for Disease Control and Prevention

## EDUCATION AND TRAINING HISTORY

2013-2015 **Epidemic Intelligence Officer**, Bacterial Special Pathogens Branch, Centers for Disease Control and Prevention, Atlanta, Georgia  
 2010-2013 **Postdoctoral Researcher**, Human Genetics Unit, Medical Research Council, Edinburgh, Scotland  
 2006 -2010 **Pediatric Intern and Resident**, Boston Children's Hospital, Boston, MA  
 2009 **Postdoctoral Researcher**, Genetics, Massachusetts General Hospital, Boston, MA  
 2006 **Doctorate of Medicine (MD)**, University of Pennsylvania School of Medicine, Philadelphia, PA  
 2006 **Doctorate of Philosophy (PhD)**, University of Pennsylvania, Philadelphia, PA  
 1998 **Bachelors of Science**, Cornell University, Ithaca, NY

## LICENSES AND CERTIFICATIONS

2013–present Board Certification: Pediatrics, continuously meeting maintenance of certification requirements  
 2003–present Drug Enforcement Agency registration  
 2003–present Basic Life Support certified  
 2014–present Medical license (12377184) Utah 7/2021- current (No. 114200), Alaska, 2016-2022  
 Medical license (69139), Georgia, 2013-2016

## PROFESSIONAL EXPERIENCE

July 2021-Present **Utah State Epidemiologist**, Utah Department of Health and Human Services  
*As State Epidemiologist I am the overall scientific lead for the Utah Department of Health and Human Services. In this role I provide scientific review and expertise across Department activities. I often assist with creating partnerships with outside organizations. I identify priorities and push legislative actions. Work includes collaborating with CDC and CSTE to address problems, perform studies, and draft solutions. I have a small office with 3 doctoral level staff, with whom I work to ensure all parts of the Department get the support they need to do high quality epidemiology and provide information needed to ensure the public's health. My office also serves as an incubator, establishing new positions that are needed to address health needs that eventually transition over to stable positions in other parts of the Department. Currently I have one new staff member focused on establishing a public health surveillance system to monitor Long COVID and second who is evaluating the health issues and burden in the homeless population.*

2020-2021 **COVID-19 response related activities**, Centers for Disease Control and Prevention

*I deployed multiple times to assist with the COVID-19 response with CDC. Briefly, I have served as:*

- Deputy lead of the CDC COVID-19 vaccine breakthrough team, 12/20/2020- current
  - Creating a national passive surveillance system to monitor COVID-19 vaccine breakthrough case trends
  - Implementing enhanced surveillance in four states to evaluate COVID-19 vaccine breakthroughs in detail

- Assisting in the design and implementation of a special study looking at the role of viral variants in causing COVID-19 vaccine breakthrough cases that will be performed at Emerging Infections Program (EIP) network sites across the country
- Co-lead of a study evaluating the performance of the BinaxNOW antigen test 10/25-11/18/2020
- Lead of emergency response team for initial COVID-19 cases in Cook County, IL 3/1-5/2020
- Member of team responding to cluster of COVID-19 cases in assisted care facilities around Seattle, WA. 3/5-17/2020
- Assisted with screening of State Department staff for COVID-19 symptoms on evacuation flight from Wuhan, China (Feb 2020)
- Lead of interagency group focused on identifying causes for COVID-19 vaccine hesitancy in the Alaska Native population 11/20-12/20
- Lead of technical assistance team to rural Alaska 9/21-25/2020

2016–2021 **Medical Epidemiologist**, Arctic Investigations Program, Centers for Disease Control and Prevention, Anchorage, AK

*I served as a medical epidemiologist in the Arctic Investigations Program, a CDC office focused on health disparities in Alaska Native (AN) people. My primary role as epidemiologist was to design and implement epidemiologic studies. I led three working groups and routinely taught trainees. I also responded to community questions related to infectious diseases, coordinated public health responses with the Alaska Department of Health and Human Services, and worked with Alaska Native tribal health partners to prioritize public health actions. Specifically:*

- Principal investigator in two studies evaluating the Hepatitis C virus (HCV) positivity in pregnant women.
  - Findings used by the American Association for the Study of Liver Diseases- Infectious Disease Society of America HCV Guideline Committee to support national recommendations that all pregnant women be screened for HCV at their first prenatal visit.
- Organized and led interagency gastric cancer working group.
- Led response to outbreak of *Haemophilus influenzae* serotype A infections in remote Alaska Native village.
- Principal investigator for six additional ongoing studies to address public health priorities and disparities in indigenous populations including studies on human papillomavirus vaccine and a new infant hexavalent vaccine.
- Initiated and led three interagency working groups to address health disparities in the Alaska Native population.
- Co-chair for the circumpolar viral hepatitis working group.

2019-2020 **Acting Epidemiology Team Lead**, Arctic Investigations Program, Centers for Disease Control and Prevention, Anchorage, AK

*I served as the acting epidemiology team lead from November 2019 to August 2020 during a staffing gap.*

- Led team with 7 staff, including three research nurses, one surveillance officer, one Epidemic Intelligence Officer, and two guest researchers.
- Worked with other team leaders to set program plans and priorities.
- Coordinated response to reportable diseases with the Alaska Department of Health and Human Service.
- Coordinated the epidemiology team to assist the State of Alaska's COVID-19 response.

2015-2016 **Resident Advisor**, Vietnam Field Epidemiology Training Program, Centers for Disease Control and Prevention, Hanoi, Vietnam

*The Field Epidemiology Training Program (FETP) is a CDC training program that aims to expand epidemiologic capacity around the world by training local professionals in public health practice. As the*

*resident advisor, I was program lead, scientific expert, and international liaison. I oversaw the training of the fellows, but also worked extensively with the Vietnamese Ministry of Health to expand the training program.*

*Specific work included:*

- Chaired meetings with the leadership of the Vietnamese Ministry of Health to design and initiate a new full time 2-year FETP in Vietnam.
- Trained 18 public health officials in field epidemiology.
- Organized a public health conference attended by >100 participants, Vietnamese Ministry of Health leaders, and critical stakeholders.
- Designed the curriculum and led two 5-day courses for 45 participants from 7 Vietnamese provinces
- Oversaw Cooperative Agreement activities with two non-governmental agencies.
- Mentored 4 fellows who were subsequently awarded a research grant from the US CDC, a travel grant by ICEID International Conference, and selected for EIS international night.
- Created an alumni network of over 20 public health officials that serve as an epidemiology resource for the country.
- Conducted field investigations of potentially serious public health problems, including influenza, dengue and salmonellosis
- Led the workforce development section of the Global Health Security Agenda in Vietnam.
- Initiated a coordinated One Health in-service training program, integrating 3 different divisions of the Ministry of Health and enabling a more rapid response to zoonotic disease.
- Assisted in the development of a national response plan to Zika virus in Vietnam.
- Taught training course for more than 500 local public health and medical professionals regarding the detection and testing of Zika virus cases.

**2013–2015    Epidemic Intelligence Service Officer, Bacterial Special Pathogens Branch, Centers for Disease Control and Prevention, Atlanta, GA**

*As an EIS officer I was on the front line for public health emergencies, deploying frequently to lead and assist responses around the globe. In addition, I worked to advance scientific analysis on the broad range of high-consequence infectious diseases. Specific work included:*

- Provided leadership and support for the CDC's Ebola response in West Africa.
  - Deployed to West Africa on three different occasions for a total of 123 days.
  - Filled an urgent need for CDC epidemiology team lead during August 2014, supervising and coordinating 11 CDC staff members deployed in 5 districts.
  - Led discussions to develop national strategies in both Sierra Leone and Liberia to prevent disease spread, including a safe burial system, a contact tracing system, an isolation procedure and a communication plan.
  - Coordinated the epidemiological response that involved non-governmental organizations, World Health Organization, and Sierra Leone Ministry of Health.
  - Trained 200 local health staff to recognize and respond to Ebola virus infections in rural areas.
  - Brokered agreement between the Liberian Ministry of Health and Firestone Corporation regarding patient transfer and treatment.
  - Created training materials for the Ministries of Health to educate healthcare workers throughout the country to treat and prevent Ebola virus.
- Led studies involving bioterrorism threats including:
  - Outbreak investigation of melioidosis in non-human primates in a primate research center in Louisiana
  - Impact of immune globulin therapy during an anthrax outbreak
  - Outbreak of human monkeypox cases in the Democratic Republic of Congo
- Coordinated interviews and prophylaxis distribution to staff potentially exposed to *Bacillus anthracis* at CDC.

- Initiated long-term project to create a system of leptospirosis surveillance in Indonesia.
- Trained public health providers and physicians about Hansen's disease diagnosis and treatment in American Samoa.
- Answered calls from the public requiring physician consultation, including night and weekend calls.

## PROFESSIONAL COMMITTEES

- Lead
  - Utah State Epidemiologist Lecture Series - 2023-present
  - Utah Epidemiology and Laboratory Working Group, 2023 - present
  - Utah COVID School Health Advisory Workgroup 2021-2022
  - Anchorage Cross-campus Alaska Native *Helicobacter pylori* working group
  - 2017-2021
    - Alaska Native Tribal Health Consortium campus working groups on hepatitis
  - 2017-2021
    - CDC Field Epidemiology Training Program committee with Vietnamese Ministry of Health, 2016
- Advisor and contributor
  - Centers for Public Health Preparedness and Response Coordinating Body, 2023-present
  - National Governors Association's State Learning Collaborative on Strategies to Address the Infectious Disease Consequences of the Opioid Crisis through a Syndemic Approach, Nov 2023- present
  - Utah Healthcare Facility Working Group, 2022-present
  - Utah Scientific Vaccine Advisory Meeting, 2021- current
  - Utah COVID-19 UDOH/DHS Leadership Coordination Meeting, 2021- current
  - Utah COVID-19/DPH emerging issues leadership coordination meeting, 2021- current
    - Utah DHHS Long COVID Workgroup, 2023-present
    - Utah Homelessness Work Group, 2023-present
    - Council of Utah Epidemiologist and Laboratorians, 2023-present
    - Utah Quarterly HCV Elimination Planning Group, 2022- present
    - Hepatitis Alaska working group - 2016-2021
    - Alaska HPV stakeholder group- 2016-2021

## PUBLIC HEALTH ALERTS

**Identified low sensitivity of GenBody Rapid Antigen test** – national announcement regarding test results from Utah testing sites 2/6/222

## EMERGENCY RESPONSE ACTIVITIES

**COVID-19 Related Activities** – please see beginning of CV

**CDC's Rapid Response Tier III team member-** 2016-2021

**USPHS Irma/Maria Hurricane Response**, Services Access Team as intake and discharge coordinator, and temporary deputy and Chief Medical Officer 11/27-12/11/2017

**Mumps Outbreak**, Republic of the Marshall Islands, Team lead for outbreak response 4/4 –28/2017

**Ebola Related Activities**

1. Epidemiology team lead of national response in Sierra Leone 8/3-28/2014
2. Epidemiology lead in rural district of Sierra Leone 11/6/14-4/1/2015

3. Member of small team that established initial surveillance system and initiated public health training in Liberia 4/15-5/2012

**Q-Fever**, Montana and Washington State, Assisted with on the ground investigation 3/31-4/10/2014

#### **Melioidosis**

1. Investigation of fatal Melioidosis cases in Yap Micronesia 2/9-3/2/2014
2. Investigation of Melioidosis cases in a primate facility in Louisiana. 2/9-15/2015 and 3/1-8/2015

**Monkeypox**, Assisted in response to an increase in human Monkeypox cases in the Democratic Republic of the Congo 12/1-17/2013

### **FUNDING AWARDS**

**2023 Outbreak Analytics and Disease Modeling Network** from the center for Forecasting and Outbreak Analytics - with University of Utah as primary awardee, Co-investigator

**2020 American Indian Alaska Native Clinical and Translational Research Program** – project “Prospective Cohort of Individuals at High Risk of Gastric Cancer” chosen for 2020 funding, Co-principal investigator

**2019 American Indian Alaska Native Clinical and Translational Research Program (AI/AN CTRP) Grant** - awarded \$10,000 to create and host an expert panel meeting regarding gastric cancer prevention in the Alaska Native population. Principal investigator

### **ACADEMIC APPOINTMENTS**

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|--------------|--|
| 2023-present | Affiliate Associate Professor, Division of Epidemiology, Department of Internal Medicine, University of Utah                                   |
| 2017-2021    | Affiliate Assistant Professor, WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) School of Medical Education, University of Alaska Anchorage |
| 2006-2010    | Teaching Fellow in Pediatrics, Boston University Medical School  |
| 2006-2010    | Clinical Fellow in Pediatrics, Harvard Medical School  |

### **PUBLICATIONS**

1. **Leisha Diane Nolen**, Lisa Bulkow, Rosalyn Singleton, Debbie Hurlburt, Carolyn Debyle, Karen Rudolph, Laura L. Hammitt, Thomas W. Hennessy, Michael G. Bruce, An investigation of pediatric case-patients with invasive *Haemophilus influenzae* in Alaska, 2005-2011, *Pediatric Infectious Disease*, 2024, in press
2. Shi Y, Bennion E, Ward C, **Nolen, LD**, Circumstances of unintentional fall-related adult deaths: Utah, 2010–2020 *Injury Prevention* Published Online First: 14 February 2024. doi: 10.1136/ip-2023-045063
3. Almendares, Olivia M., Jasmine D. Ruffin, Abigail H. Collingwood, **Leisha D. Nolen**, William A. Lanier, Sarah Rebecca Dash, Allison Avrich Ciesla, Ryan Wiegand, Jacqueline E. Tate, and Hannah L. Kirking. “Previous Infection and Effectiveness of COVID-19 Vaccination in Middle- and High-School Students.” *Pediatrics*, November 14, 2023, e2023062422. <https://doi.org/10.1542/peds.2023-062422>.
4. Lanier, William A., David K. Palmer, D. Keith Willmore, Kelly F. Oakeson, Erin L. Young, and **Leisha D. Nolen**. “Investigation of SARS-CoV-2 Transmission in The Tabernacle Choir at Temple Square in the Context of Prevention Protocols, Utah, September–November 2021.” *Public Health Reports*, February 3, 2023, 00333549231152198. <https://doi.org/10.1177/00333549231152198>.
5. Sadigh, Katrin S., Kiersten J. Kugeler, Sara Bressler, Stephanie C. Massay, Emma Schmoll, Lauren Milroy, Alyson M. Cavanaugh, et al. “Evaluating Risk Factors Associated with COVID-19 Infections among Vaccinated People Early in the U.S. Vaccination Campaign: An Observational Study of Five States, January–March 2021.” *BMC Infectious Diseases* 22, no. 1 (September 1, 2022): 718. <https://doi.org/10.1186/s12879-022-07702-x>.

6. Jack A. Pfeiffer; Abigail Collingwood; Linda E. Rider; Faisal S. Minhaj Audrey M. Matheny; Chantal Kling; Andrea M. McCollum; **Leisha D. Nolen**; Clint N. Morgan. “High-Contact Object and Surface Contamination in a Household of Persons with Monkeypox Virus Infection — Utah, June 2022.” *MMWR. Morbidity and Mortality Weekly Report* 71 (2022). <https://doi.org/10.15585/mmwr.mm7134e1>.
7. Rao, Agam K., Joann Schulte, Tai-Ho Chen, Christine M. Hughes, Whitney Davidson, Justin M. Neff, Mary Markarian, et al. “Monkeypox in a Traveler Returning from Nigeria - Dallas, Texas, July 2021.” *MMWR. Morbidity and Mortality Weekly Report* 71, no. 14 (April 8, 2022): 509–16. <https://doi.org/10.15585/mmwr.mm7114a1>.
8. Watkins, Louise K. Francois, Kiren Mitruka, Layne Dorough, Sara S. Bressler, Kiersten J. Kugeler, Katrin S. Sadigh, Meseret G. Birhane, **Leisha D. Nolen**, and Marc Fischer. “Characteristics of Reported Deaths Among Fully Vaccinated Persons with COVID-19 -United States, January-April 2021.” *Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America*, January 29, 2022, ciac066. <https://doi.org/10.1093/cid/ciac066>.
9. **Nolen, Leisha D.**, Carolyn DeByle, Nadav Topaz, Brenna C. Simons, Amanda Tiffany, Alisa Reasonover, Louisa Castrodale, et al. “Genomic Diversity of Haemophilus Influenzae Serotype a in an Outbreak Community-Alaska, 2018.” *The Journal of Infectious Diseases* 225, no. 3 (February 1, 2022): 520–24. <https://doi.org/10.1093/infdis/jiab376>.
10. **Nolen, Leisha D.**, Nadav Topaz, Karen Miernyk, Sara Bressler, Stephanie C. Massay, Mary Geist, Tammy Zulz, and Rosalyn Singleton. “Evaluating a Cluster and the Overall Trend of Invasive Haemophilus Influenzae Serotype b in Alaska 2005-2019.” *The Pediatric Infectious Disease Journal* 41, no. 4 (April 1, 2022): e120–25. <https://doi.org/10.1097/INF.0000000000003470>.
11. Kugeler, Kiersten J., John Williamson, Aaron T. Curns, Jessica M. Healy, **Leisha D. Nolen**, Thomas A. Clark, Stacey W. Martin, and Marc Fischer. “Estimating the Number of Symptomatic SARS-CoV-2 Infections among Vaccinated Individuals in the United States-January-July, 2021.” *PloS One* 17, no. 3 (2022): e0264179. <https://doi.org/10.1371/journal.pone.0264179>.
12. Sara S. Bressler, Dana Bruden, **Leisha D. Nolen**, et. al. “Mortality Among Alaska Native Adults with Confirmed Hepatitis C Virus Infection Compared with the General Population in Alaska, 1995-2016”, 2022, Canadian Journal of Gastroenterology and Hepatology, vol. 2022, Article ID 2573545, 8 pages, 2022.
13. McMahon, Brian J., **Leisha D. Nolen**, Mary Snowball, Chriss Homan, Susan Negus, Elena Roik, Philip R. Spradling, and Dana Bruden. “HBV Genotype: A Significant Risk Factor in Determining Which Patients With Chronic HBV Infection Should Undergo Surveillance for HCC: The Hepatitis B Alaska Study.” *Hepatology* n/a, no. n/a. Accessed September 24, 2021. <https://doi.org/10.1002/hep.32065>.
14. Haering, Celia, Brian McMahon, Aaron Harris, Nina Weis, Josefine Lundberg Ederth, Maria Axelsson, Sigurdur Olafsson, et al. “Hepatitis B Virus Elimination Status and Strategies in Circumpolar Countries, 2020.” *International Journal of Circumpolar Health* 80, no. 1 (December 2021): 1986975. <https://doi.org/10.1080/22423982.2021.1986975>.
15. Scobie, Heather M. “Monitoring Incidence of COVID-19 Cases, Hospitalizations, and Deaths, by Vaccination Status — 13 U.S. Jurisdictions, April 4–July 17, 2021.” *MMWR. Morbidity and Mortality Weekly Report* 70 (2021). <https://doi.org/10.15585/mmwr.mm7037e1>.
16. Prince-Guerra JL, Almendares O, **Nolen LD**, et al. Evaluation of Abbott BinaxNOW Rapid Antigen Test for SARS-CoV-2 Infection at Two Community-Based Testing Sites - Pima County, Arizona, November 3-17, 2020. *MMWR Morb Mortal Wkly Rep.* 2021;70(3):100-105.
17. **Nolen LD**, Seeman S, Bruden D, et al. Impact of Social Distancing and Travel Restrictions on non-COVID-19 Respiratory Hospital Admissions in Young Children in Rural Alaska. *Clin Infect Dis.* 2020.



18. McClure M., Miernyk M., Bruden D., Rudolph K., Hennessy TW, Bruce MG, **Nolen LD**, Presence of antibodies against Haemophilus influenzae serotype a in Alaska prior to and after the emergence of invasive infections. *Journal of Infectious Disease*. 2020; Jun 28;jiaa369. doi: 10.1093/infdis/jiaa369
19. **Nolen LD**, Tiffany A, Debye C, Burden D, Thompson GR, A.; Hurlburt, D.; Mosites, E.; Simons, B. C.; Klejka, J.; Castrodale, L.; McLaughlin, J.; Bruce, M. G. Haemophilus influenzae serotype a (Hia) carriage in a small Alaska community after a cluster of invasive Hia disease, *Clin Infect Dis*. 2020 Jun 12;ciaa750. doi: 10.1093/cid/ciaa750
20. **Nolen LD**, Seeman S, Desnoyers C, et al. Respiratory syncytial virus and influenza hospitalizations in Alaska Native adults. *Journal of Clinical Virology*. 2020;Available online 18 April 2020, 104347.
21. Ramaswamy M, Bruden D, **Nolen LD**, Mosites E, Snowball M, Nelson NP, Bruce M, McMahon BJ. Hepatitis A Vaccine Immunogenicity 25 Years After Vaccination in Alaska. *Journal of Medical Virology*. 2020; in press.
22. Plumb ID, Gounder PP, **Nolen LD**, Massay S, Castrodale L, McLaughlin J, Snowball M, Homan C, Nelson N, Singleton R, McMahon B. Vaccination Status of Alaska Native Persons with Hepatitis A Infection—Alaska, 1996–2018. *Clin Infect Dis*. 2020; in press.
23. Vingidni S.M., **Nolen LD**, Bruce MG. High-Risk Subpopulation in the U.S. Disproportionately Affected by High Rates of Gastric Cancer: The Alaska Native People, *Clinical Gastroenterology and Hepatology*. 2020; Jun 5;S1542-3565(20)30637-6.
24. **Nolen LD**, Vindigni SM, Parsonnet J. Combating Gastric Cancer in Alaska Native People: An Expert and Community Symposium. *Gastroenterology*. 2020;158(5):1197-1201.
25. McMichael TM, Clark S, Pogojans S, et al. COVID-19 in a Long-Term Care Facility - King County, Washington, February 27-March 9, 2020. *MMWR Morb Mortal Wkly Rep*. 2020;69(12):339-342.
26. **Nolen LD**, O'Malley JC, Seeman SS, et al. Hepatitis C in pregnant American Indian and Alaska native women; 2003-2015. *Int J Circumpolar Health*. 2019;78(1):1608139.
27. **Nolen LD**, Lirow E, Gee JE, et al. Differentiating New from Newly Detected: Melioidosis in Yap, Federated States of Micronesia. *Am J Trop Med Hyg*. 2019;101(2):323-327.
28. **Nolen, Leisha D.**, Courtney Gustin, Sara Seeman, Neil Murphy, Sarah Truitt, Sarah Schillie, Michael G. Bruce, Dana Bruden, James Tiesinga, and Brian McMahon. "Risk-Based Prenatal Hepatitis C Testing Practices and Results, Alaska 2013-2016." *Canadian Journal of Gastroenterology & Hepatology* 2019 (June 2, 2019): 8654741. <https://doi.org/10.1155/2019/8654741>.
29. Mosites E, Zulz T, Bruden D, **Nolen, LD**, Frick, A., Castrodale, L., McLaughlin, J., Van Beneden, C., Hennessy, T. W., Bruce, M. G. Risk for Invasive Streptococcal Infections among Adults Experiencing Homelessness, Anchorage, Alaska, USA, 2002-2015. *Emerg Infect Dis*. 2019;25(10).
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31. **Nolen LD**, Bruden D, Miernyk K, et al. H. pylori-associated pathologic findings among Alaska native patients. *Int J Circumpolar Health*. 2018;77(1):1510715.
32. Nguyen DT, Do HT, Le HX, Vien, M. Q., Nguyen, T. B., Phan, L. T., Nguyen, T. V., Luong, Q. C., Phan, H. C., Diep, H. T., Pham, Q. D., Nguyen, T. V., Huynh, L. K., Nguyen, D. C., Pham, H. T., Ly, K. K., Tran, H. N., Tran, P. D., Dang, T. Q., Pham, H., Vu, L. N., Mounts, A., Balajee, S. A., **Nolen, LD**. Zika preparedness and response in Viet Nam. *Western Pac Surveill Response J*. 2018;9(2):1-3.

33. Hofmeister MG, McCready JA, Link-Gelles R, Cramer, B. G., **Nolen, LD.**, Garstang, H., Foster, M. A. Notes from the Field: Increase in Hepatitis A Virus Infections - Marshall Islands, 2016-2017. *MMWR Morb Mortal Wkly Rep.* 2018;67(17):504-505.
34. Ha NT, Ederer D, Vo VAH, Pham, A. V., Mounts, A., **Nolen, LD.**, Sugerman, D. Changes in motorcycle-related injuries and deaths after mandatory motorcycle helmet law in a district of Vietnam. *Traffic Inj Prev.* 2018;19(1):75-80.
35. Lan PT, Quang LC, Huong VTQ, Thuong, N. V., Hung, P. C., Huong, Ttln, Thao, H. P., Thao, N. T. T., Mounts, A. W., **Nolen, LD.** Fetal Zika Virus Infection in Vietnam. *PLoS Curr.* 2017;9.
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37. **Nolen LD**, Traxler RM, Kharod GA, et al. Postexposure Prophylaxis After Possible Anthrax Exposure: Adherence and Adverse Events. *Health Secur.* 2016;14(6):419-423.
38. **Nolen LD**, Osadebe L, Katomba J, et al. Extended Human-to-Human Transmission during a Monkeypox Outbreak in the Democratic Republic of the Congo. *Emerg Infect Dis.* 2016;22(6):1014-1021.
39. McNamara LA, Schafer IJ, **Nolen LD**, et al. Ebola Surveillance - Guinea, Liberia, and Sierra Leone. *MMWR Suppl.* 2016;65(3):35-43.
40. **Nolen LD**, Osadebe L, Katomba J, et al. Introduction of Monkeypox into a Community and Household: Risk Factors and Zoonotic Reservoirs in the Democratic Republic of the Congo. *Am J Trop Med Hyg.* 2015;93(2):410-415.
41. **Nolen L**, Haberling D, Scollard D, et al. Incidence of Hansen's Disease--United States, 1994-2011. *MMWR Morb Mortal Wkly Rep.* 2014;63(43):969-972.
42. **Nolen LD**, Boyle S, Ansari M, Pritchard E, Bickmore WA. Regional chromatin decompaction in Cornelia de Lange syndrome associated with NIPBL disruption can be uncoupled from cohesin and CTCF. *Hum Mol Genet.* 2013;22(20):4180-4193.
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47. Loebel DA, Lewis SL, Rao RS, **Nolen LD.** New developments in developmental biology. *Genome Biol.* 2005;6(13):364.
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49. Mann MR, Chung YG, **Nolen LD**, Verona RI, Latham KE, Bartolomei MS. Disruption of imprinted gene methylation and expression in cloned preimplantation stage mouse embryos. *Biol Reprod.* 2003;69(3):902-914.



## HONORS/AWARDS

- NCEZID Honor Award** for Excellence in Frontline Public Health Service for dedication to preventing illness in an underserved community, NCEZID, CDC (2019)
- PHS Outstanding Unit Citation** for deployment performance during an extremely difficult and complex set of consecutive disaster responses due to the 2017 hurricane season response. (2018)
- PHS Outstanding Unit Citation** for exemplary performance in the prevention and control of limb and life-threatening infections caused by Group A Streptococcus (2018)
- PHS Outstanding Unit Citation** for response to national and global mumps outbreaks and leading new US vaccine policy recommendations (2018)
- Director's Recognition Award** for protecting the health of Alaskans by successfully controlling a large outbreak of invasive group A Streptococcus infections among homeless persons in Anchorage, AK, NCEZID, CDC (2017)
- PHS Ebola Campaign Medal** to recognize qualified assignment of 30 consecutive or 60 non-consecutive days in direct support of Ebola response mission in SIERRA LEONE (2017)
- PHS Global Response Service Award** for direct support of the Ebola mission (2017)
- PHS Achievement Medal** for strengthening public health workforce and response capacity in Vietnam (2017)
- PHS Outstanding Service Medal** leadership and service during the Ebola response, deployed 3 times, leading efforts in epidemiology, infection control and communication (2016)
- PHS Outstanding Unit Citation** leadership and unwavering dedication and personal sacrifices which saved countless lives and prevented global catastrophe during Ebola outbreak (2016)
- PHS Achievement Medal** for outstanding leadership as an Epidemic Intelligence Service Officer for her role in controlling zoonotic infections (2015)
- PHS Presidential Unit Citation** in recognition of PHS officer support during the Ebola response (2015)
- PHS Foreign Duty Award** Completed 30 consecutive days of service in a foreign duty assignment – VIETNAM (2015)
- PHS Foreign Duty Award** Completed 30 consecutive days of service in a variety of foreign post in support of Ebola related activities. (2015)
- Aspen Ideas Festival Scholar.** One of 300 scholars selected as “action-oriented leaders from all over the United States and around the world, selected for their work and accomplishments—and for their ability to transform ideas into action.” (2015)
- PHS Hazardous Duty Award** Received qualifying HF/ID pay per personnel orders while serving in CONGO (2013)

## HIGHLIGHTED PRESENTATIONS AND POSTERS

- 2024
- Invited speaker for CDC Center for Forecasting Analytics Insight Net annual meeting “Modeling COVID: needs at the state”.
  - Invited speaker at Ogden Surgical-Medical Society 2024 Annual Conference “Public health beyond outbreaks”
- 2023
- Invited speaker for CSTE modeling workshop, “Modeling and public health decision-making; The Utah experience”
  - Panelist at the The National Academies of Sciences, Engineering, and Medicine conference, “Examining the Working Definition for Long COVID” presenting talk “Importance of a Long COVID definition in public health”
  - Panelist for the Center for Forecasting and Outbreak Analytics regional meeting on using models in public communication.
  - Invited speaker at Intermountain Health conference “Pediatric Health Equity Symposium” speaking on “Community Perspectives on Child Health Equity”
  - Presenter at “Hepatitis on the Hill” for legislative session
- 2022
- Invited speaker at Ogden Surgical-Medical Society 2022 Annual Conference “Side Effects of COVID-19”
  - Invited speaker at the Utah Association for Professionals in Infection Control and Epidemiology annual

meeting

- 2021
- Invited speaker at Ogden Surgical-Medical Society 2021 Annual Conference “Utah Department of Health COVID-19 Response”
  - Presented initial data to the Advisory Committee on Immunization Practices (ACIP), COVID-19 vaccine breakthrough cases
  - Presented surveillance system to Council of State and Territorial Epidemiologists (CSTE) on COVID-19 vaccine breakthrough cases
  - Presented to the Advisory Committee on Immunization Practices (ACIP), and the Association of Public Health Laboratories information on COVID-19 vaccine breakthrough cases
- 2020
- Poster presentation at ID week, virtual, “Carriage and Genetics of *Haemophilus influenzae* Serotype A (Hia) in Alaska, 2018”
- 2019
- Oral poster presentation at The Liver Meeting, Boston, MA, “Diagnostic Surveillance for Hepatocellular Carcinoma in Alaska Native People with Chronic Hepatitis B Based on Genotype”
  - Oral presentation at the Infection Control and Prevention conference, Anchorage, AK, “Invasive Bacterial Disease in Alaska”
  - Oral poster presentation at ID Week, Washington DC, “Response to a Cluster of *Haemophilus influenzae* Serotype A Cases in a Small Alaska Community, 2018”
  - Poster presentation at 32<sup>nd</sup> Workshop of the European Helicobacter and Microbiota Study Group, Innsbruck, Austria, “Incidence of gastric pathology in American Indian/Alaska Native individuals with and without documented *Helicobacter pylori* infection, 2001-2014”
- 2018
- Oral Presentation at the 7th International Congress on Circumpolar Health, Copenhagen, Denmark, “Hepatitis C Infection in Pregnant American Indian and Alaska Native Women; 2003-2015”
  - Poster Presentation at the International Conference of Emerging Infectious Diseases, Atlanta, GA, “Hepatitis C Infection in Pregnant American Indian and Alaska Native Women; 2003-2015”
  - Poster Presentation at the Liver Meeting, San Francisco, CA, “Hepatitis C Infection in Pregnant American Indian and Alaska Native Women; 2003-2015”
- 2017
- Oral Presentation at the Alaska Health Summit, Anchorage, AK, “H. pylori-Associated Pathologic Findings Among Alaska Native Patients”
  - Oral Presentation at the Second World Indigenous Peoples' Conference on Viral Hepatitis, Anchorage, AK, “Hepatitis C in Pregnancy”
- 2016
- Keynote speaker at the European Molecular Biology Organization Fellows' Biannual Conference, Boston, MA, “Choosing My Own Adventure: Taking Science Out of the Lab”
  - Invited speaker at the American Veterinary Medical Foundation Annual Conference, San Antonio, TX, “*Burkholderia pseudomallei* at the Tulane National Primate Research Center”
- 2015
- Keynote speaker at the U.S. Public Health Service Annual Conference, Atlanta, Georgia, “Escaping the Pigeonhole; Recognizing how others see you and how to make the most of it”
- 2014
- Invited speaker at the American Academy of Pediatrics Annual Meeting, San Diego, CA, “Stories from the Ebola Front: Beliefs, Babies, Burials and Beds”
  - Invited speaker at the Carter Foundation West Africa Event, Atlanta, GA, “Stories from the Ebola Front: Beliefs, Babies, Burials and Beds”

## MEDIA APPEARANCES

- 2021-23: Numerous media appearances for Utah COVID-19 response, including 3 press briefings with Governor Cox
- 2014-15: Six media interviews regarding the Ebola response, including The Washington Post, The Guardian, WSBTV (Atlanta), CBS46 (Atlanta)
- 2014: Live Facebook Skype interview as part of CDC's Ebola response, Panelist for Kaiser Family Fellows regarding Ebola response, Interview with Healthday regarding Hansen's Disease in America

## SUPERVISORY ROLES

- Utah State Epidemiologist (2021-current); Directly supervise 6 staff. In addition, work with numerous staff to evaluate, implement, and communicate public health actions. Specific students:  
Jack Pfeiffer - EIS officer 2021-23
- Acting epidemiology team lead (2019-2020); Supervised a team of three research nurses, a surveillance officer, an EIS fellow, and two guest researchers. Coordinate epidemiology projects for the office of 35 people. Respond to community questions related to infectious diseases, coordinate public health responses with the Alaska Department of Health and Human Services, and work with Alaska Native tribal health partners to prioritize public health actions.
- Primary supervisor (2019, 2021, 2023) and secondary supervisor (2018) for Epidemic Intelligence Service Officer
- Primary supervisor for two CDC's Epidemiology Elective Program students
- Primary supervisor for four pharmacy residents during research rotations
- Primary supervisor for two pediatric resident during for research electives
- Primary supervisor for three regional medical students during their research rotations
- Doctoral committee member for Thomas Jefferson University's Doctor of Midwifery program
- Primary supervisor to Association of Schools and Programs of Public Health CDC fellow in the field epidemiology training program (FETP) in Vietnam (2016)

## SYMPOSIUM/MEETING ORGANIZATION

- Board member of planning committee for 2023 CSTE national conference, 2023
- Chair: Combating gastric cancer in Alaska Native people: An expert and community symposium, Anchorage Alaska, 2019
- Co-Chair for the Circumpolar Viral Hepatitis Working Group meeting, 2019
- Chair: Public health in Vietnam, 2015 conference

## SERVICE

- 2017–2021      Member of Alaska Chapter of the American Cancer Society
- Work to enhance scientific and community engagement and understanding in cancer treatment and prevention.
- Working Group Member, Advancing Maternal Immunization
- RSV vaccination working group for gap analysis and roadmap development
- Affiliate Assistant Professor of WWAMI School of Medical Education
- Provide lectures regarding public health priority topics
- Volunteer at Alaska Federation of Natives Health Fair
- Assisted with vaccination program
- 2016- 2021      Lecturer for the Alaska Track Pediatric Residency program
- Provide lectures regarding public health priority topics
- Medical Spanish Training
- Improve Spanish proficiency in order to deploy to Spanish speaking countries during outbreaks

## PHS Athletics

- Participated in PHS Athletics Sponsored events, representing PHS in public events
- 2019 Reviewed 2019 National Health Service Corps applications for the NHSC Scholarship Program
- 2018 Trained as part of Alaska's HOPE (Harm reduction, Overdose Prevention and Education)
  - Trained to intervene to prevent drug overdose, carries overdose kit during daily activities.
- 2013–2015 Volunteer physician, Homeless Men's Shelter Clinic, Atlanta, Georgia
  - Provided patient consultations to underserved patients once a month
- 2013-2014 Session Leader for Epidemiology Case Study, Emory University, Rollins School of Public Health
  - Led epidemiology study sessions for foreign and domestic students

**CLINICAL WORK**

**2018-2021** Volunteer pediatrician at tribal hospital four hours each week, Anchorage, AK

**UNIFORMED SERVICE**

**2013-2021** Lt Commander, Commission Corps, US Public Health Service Active Service, Current status: Decommissioned

**PAID TRAVEL AND HONORARIA**

- March 2023 State Epidemiologist Annual Meeting in Atlanta, Georgia- funded by CSTE. Covered costs: air and local transport, hotel, and per diem at GSA rate
- Oct 2023 Center for Forecasting and Analytics regional meeting in Seattle, Washington - funded by CSTE  
Covered costs: air and local transport, hotel, and per diem at GSA rate
- All other honoraria were directed to the Utah Department of Health and Human Services or declined.