

Jennifer Niessen (Zipprich)

Minnesota Department of Health
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PROFESSIONAL EXPERIENCE

Minnesota Department of Health, St. Paul, MN

Epidemiologist Supervisor, Emerging Infections Unit, 07/2022 - present

Epidemiologist Supervisor, Highly Impacted Settings Unit, COVID, 12/2020-06/2022

Epidemiologist Supervisor, Epidemiology Field Services, 12/2018-11/2020

- Supervise up to 13 FTE including epidemiologists and health program representatives.
- Support outbreak investigation in a variety of settings including carceral settings, shelters, long term care facilities, schools for different pathogens including COVID-19, measles, invasive group A streptococcus, meningococcal disease, and Hib.
- Develop surveillance methods and reports.
- Lead grant writing for projects on the Epidemiology and Laboratory Capacity grant and the Emerging Infections Program grant.
- Prepare manuscripts, conference abstracts and presentations.

California Department of Public Health, Richmond, CA

Epidemiologist Supervisor, Vaccine Preventable Diseases (VPD), 07/2010 - 12/2018

- Led a team of up to 12 FTE working on vaccine preventable disease surveillance, investigation, and response.
- Led measles, mumps, rubella, congenital rubella and other VPD case and outbreak investigations. and the Perinatal Hepatitis B Prevention Program. Notable investigations included leading investigation and response to a mumps outbreak on a college campus, a measles outbreak that started in a theme park and a hepatitis A outbreak response among people experiencing homelessness or using drugs.
- Provided guidance to local health jurisdictions on technical aspects of VPD investigations including interpretation of testing results, appropriate public health actions such as post-exposure prophylaxis, quarantine, and isolation for a variety of diseases (meningococcal disease, measles, mumps, varicella, rubella, hepatitis A) in a variety of settings (college campus, healthcare, prison)
- Led Epidemiology-Laboratory Capacity (ELC) grant activities. Notable projects include Tdap vaccine effectiveness, measles enhanced surveillance, and VPD enhanced surveillance.
- Led or contributed to special projects, including: study design, submission of Institutional Review Board application, data collection, analysis, preparation of manuscripts, and presentation of findings. Collaborated on multiple publications on measles transmissibility and risk factors for severe pertussis with academic partners.

Centers for Disease Control and Prevention (CDC) and United States Public Health Service assigned to California Department of Public Health (CDPH), Richmond, California

Epidemic Intelligence Service Officer and Lieutenant Commander, 07/2008 – 06/2010

- Led occupational or environmental health investigations. Notable investigations included occupational exposure to hepatitis B virus infection in retail, occupational transmission of *Neisseria meningitidis*.
- Led analytical projects. Notable projects included association between healthcare work and recent transmission of tuberculosis in California, association between birth weight, gestational age, and autism.
- Served as Deputy Operations Chief for CDPH Emergency Operations Center during the H1N1 influenza pandemic in May 2009. Deployed to Dallas-Fort Worth to assess non-pharmaceutical interventions to prevent spread of H1N1.

- Served as a Lieutenant Commander in the United States Public Health Service. Completed Officer's Basic Training and online training on Incident Command and emergency response to maintain basic readiness.

Columbia University, New York, NY
Post-doctoral Scientist, Laboratory of Dr. Regina Santella, Department of Environmental Health Sciences, 08/2007 – 06/2008

- Led research projects on the relationship between polymorphisms in DNA repair genes, repair capacity and breast cancer risk. Developed cell-based DNA repair assays to quantitate base excision repair and nucleotide excision repair, quantitative real-time PCR assay to measure expression of DNA repair genes, and real-time PCR assays to detect single nucleotide polymorphisms in base excision repair genes. Responsible for designing and performing hypothesis driven experiments.
- Maintained rtPCR instruments for the Columbia University Environmental Health Sciences Biomarkers Core Facility. Provided technical assistance on real-time assays to users of the Core Facility and performed routine calibration and general maintenance of equipment.

EDUCATION

2007	Doctor of Philosophy with Distinction, Department of Environmental Health Sciences, Molecular Toxicology Track, Columbia University, New York, NY Dissertation: The Role of Oxidative Stress, XRCC1 Genotype, and DNA Repair Phenotype in Breast Cancer
2003	Master of Philosophy, Department of Environmental Health Sciences, Columbia University, New York, NY
2000	Master of Interdisciplinary Studies (equivalent to Master of Science), Center for Environmental Studies, Virginia Commonwealth University, Richmond, VA Thesis: An Analysis of Factors that Influence Personal Exposure to Nitrogen Oxides in Residents of Richmond, VA
1997	Bachelor of Science in Biology, cum laude, Department of Biological Sciences, Saint Louis University, St. Louis, MO

WORKGROUPS AND PROFESSIONAL MEMBERSHIPS

Member, Advisory Committee on Immunization Practices (ACIP) Hepatitis Working Group, 3/2016 – present.

Member, Council of State and Territorial Epidemiologists

AWARDS AND HONORS

2015	National Public Health Information Coalition's (NPHIC) Awards of Excellence in Public Health Communications for Measles Outbreak Promotional Campaign
2015	Outstanding Achievement Award for contribution to the 2014/2015 Ebola virus disease preparedness and response operations, California Department of Public Health, Richmond, CA
2010	Outstanding Unit Citation (for work on H1N1), Public Health Service

2009	Certificate of Recognition, Novel H1N1 response, Centers for Disease Control and Prevention, Atlanta, GA
2008	I. Bernard Weinstein Award for Academic Excellence, Department of Environmental Health Sciences, Columbia University. New York, NY
2007	Distinction for PhD, Graduate School of Arts and Sciences, Columbia University, New York, NY

PUBLICATIONS

Peer-Reviewed Publications

Lehnertz NB, Wang X, Garfin J, Taylor J, **Zipprich J**, VonBank B, Martin K, Eikmeier D, Medus C, Wiedinmyer B, Bernu C, Plumb M, Pung K, Honein MA, Carter R, MacCannell D, Smith KE, Como-Sabetti K, Ehresmann K, Danila R, Lynfield R. (2021). [Transmission Dynamics of Severe Acute Respiratory Syndrome Coronavirus 2 in High-Density Settings, Minnesota, USA, March-June 2020](#). *Emerg Infect Dis*. 2021 Aug;27(8):2052-2063.

Worden L, Ackley SF, **Zipprich J**, et al. Measles transmission during a large outbreak in California. *Epidemics*. 2020;30:100375. doi:10.1016/j.epidem.2019.100375.

Ackley SF, Enanoria WTA, Hacker J, Worden L, Porco TC, **Zipprich J**. (2018). Genotype-Specific Measles Transmissibility: A Branching Process Analysis. *Clin Infect Dis*. 66(8):1270-1275.

Winter K, **Zipprich J**, Harriman K. (2018). Pertussis in California: A Tale of 2 Epidemics. *Pediatr Infect Dis J*. 37 (4): 324-328.

Burgis JC, Kong D, Salibay C, **Zipprich J**, Harriman K, So S. (2017). Perinatal Transmission in Infants of Mothers with Chronic Hepatitis B in California. *World J Gastroenterol*. 23 (27):4942-4949.

Wendorf KA, Winter K, **Zipprich J**, Schechter R, Hacker JK, Preas C, Cherry JD, Glaser C, Harriman K. (2017). Subacute Sclerosing Panencephalitis: The Devastating Measles Complication that Might be More Common than Previously Estimated. *Clin Infect Dis* 65 (2): 226-232.

Enanoria WT, Liu F, **Zipprich J**, Harriman K, Ackley S, Blumberg S, Worden L, Porco TC (2016). The Effect of Contact Investigations and Public Health Interventions in the Control and Prevention of Measles Transmission: A Simulation Study. *PLoS One* 11(12):e0167160.

Winter, K, **J Zipprich**, K Harriman, EL Murray, J Gornbein, SJ Hammer, N Yeganeh, K Adachi and JD Cherry (2015). "Risk Factors Associated With Infant Deaths From Pertussis: A Case-Control Study." *Clin Infect Dis* 61(7): 1099-1106.

Liu, F, WT Enanoria, **J Zipprich**, S Blumberg, K Harriman, SF Ackley, WD Wheaton, JL Allpress and TC Porco (2015). "The role of vaccination coverage, individual behaviors, and the public health response in the control of measles epidemics: an agent-based simulation for California." *BMC Public Health* 15: 447.

Leung, J, AS Lopez, J Blostein, N Thayer, **J Zipprich**, A Clayton, V Buttery, J Andersen, CA Thomas, M Del Rosario, K Seetoo, T Woodall, R Wiseman and SR Bialek (2015). "Impact of the US Two-dose Varicella Vaccination Program on the Epidemiology of Varicella Outbreaks: Data from Nine States, 2005-2012." *Pediatr Infect Dis J* 34(10): 1105-1109.

Beckman, S, B Materna, S Goldmacher, **J Zipprich**, M D'Alessandro, D Novak and R Harrison (2013). "Evaluation of respiratory protection programs and practices in California hospitals during the 2009-2010 H1N1 influenza pandemic." *Am J Infect Control* 41(11): 1024-1031.

Copeland, DL, R Basurto-Davila, W Chung, A Kurian, DB Fishbein, P Szymanowski, **J Zipprich**, H Lipman, MS Cetron, MI Meltzer and F Averhoff (2013). "Effectiveness of a school district closure for pandemic influenza A (H1N1) on acute respiratory illnesses in the community: a natural experiment." *Clin Infect Dis* 56(4): 509-516.

Atwell, J. E., J. Van Otterloo, **J. Zipprich**, K. Winter, K. Harriman, D. A. Salmon, N. A. Halsey and S. B. Omer (2013). "Nonmedical vaccine exemptions and pertussis in California, 2010." *Pediatrics* 132(4): 624-630.

Winter, K, K Harriman, **J Zipprich**, R Schechter, J Talarico, J Watt and G Chavez (2012). "California pertussis epidemic, 2010." *J Pediatr* 161(6): 1091-1096.

Materna, B, K Harriman, J Rosenberg, D Shusterman, G Windham, S Beckman, G Brown, E Mortensen, **J Zipprich**. Occupational Transmission of *Neisseria meningitidis* — California, 2009. *MMWR*, 59(45);1480-1483.

Novel Swine-Origin Influenza A (H1N1) Virus Investigation Team*, Dawood FS, Jain S, Finelli L, Shaw MW, Lindstrom S, Garten RJ, Gubareva LV, Xu X, Bridges CB, Uyeki TM. Emergence of a novel swine-origin influenza A (H1N1) virus in humans. *N Engl J Med*. 2009; 360(25):2605-15. Erratum in: *N Engl J Med*. 2009 Jul 2;361(1):102. *Member of the S-OIV team

Li, Y, MJ Marion, **J Zipprich**, RM Santella, G Freyer and PW Brandt-Rauf (2009). "Gene-environment interactions between DNA repair polymorphisms and exposure to the carcinogen vinyl chloride." *Biomarkers* 14(3): 148-155.

Yazici, H, **J Zipprich**, T Peng, EZ Akisik, H Tigli, M Isin, EE Akisik, MB Terry, RT Senie, L Li, M Peng, Z Liu, N Dalay and RM Santella (2009). "Investigation of the miR16-1 (C > T) + 7 Substitution in Seven Different Types of Cancer from Three Ethnic Groups." *J Oncol* 2009: 827532.

Machella, N, MB Terry, **J Zipprich**, I Gurvich, Y Liao, RT Senie, DO Kennedy and RM Santella (2008). "Double-strand breaks repair in lymphoblastoid cell lines from sisters discordant for breast cancer from the New York site of the BCFR." *Carcinogenesis* 29(7): 1367-1372.

Mitsumoto, H, RM Santella, X Liu, M Bogdanov, **J Zipprich**, HC Wu, J Mahata, M Kilty, K Bednarz, D Bell, PH Gordon, M Hornig, M Mehrazin, A Naini, M Flint Beal and P Factor-Litvak (2008). "Oxidative stress biomarkers in sporadic ALS." *Amyotroph Lateral Scler* 9(3): 177-183.

Zipprich, J, MB Terry, P Brandt-Rauf, GA Freyer, Y Liao, M Agrawal, I Gurvich, R Senie and RM Santella (2010). "XRCC1 polymorphisms and breast cancer risk from the New York Site of the Breast Cancer Family Registry: A family-based case-control study." *J Carcinog* 9: 4.

Zipprich, J, MB Terry, Y Liao, M Agrawal, I Gurvich, R Senie and RM Santella (2009). "Plasma protein carbonyls and breast cancer risk in sisters discordant for breast cancer from the New York site of the Breast Cancer Family Registry." *Cancer Res* 69(7): 2966-2972.

Li, Y, M. J Marion, **J Zipprich**, G Freyer, RM Santella, C Kanki and PW Brandt-Rauf (2006). "The role of XRCC1 polymorphisms in base excision repair of etheno-DNA adducts in French vinyl chloride workers." *Int J Occup Med Environ Health* 19(1): 45-52.

Zipprich, J, SA Harris, JC Fox and JF Borzelleca (2002). "An analysis of factors that influence personal exposure to nitrogen oxides in residents of Richmond, Virginia." *J Expo Anal Environ Epidemiol* 12(4): 273-285.

Morbidity Mortality Weekly Report (MMWR)

Dalton AF; Diallo AO, Chard AN, Moulia DL, Deputy NP, Fothergill A, Kracalik I, Wegner CW, Markus, Pathela P, Still WL, Hawkins S, Mangla AT, Ravi N, Licherdel EI, Britton A, Lynfield R, Sutton M, Hansen AP, Betancourt GS, Rowlands JV, Chai SJ, Fisher R, Danza P, Farley M, **Zipprich J**, Prah G, Wende KAI, Niccola Li, Castilho JL, Payne DC, Cohn AC, Feldstein LR, CDC Multijurisdictional Mpox Case-Control Study Group. Estimated Effectiveness of JYNNEOS Vaccine in Preventing Mpox: A Multijurisdictional Case-Control Study — United States, August 19, 2022–March 31, 2023. *MMWR Morb Mortal Wkly Rep* 2023. 72:553-558.

Barnes M, Youngkin E, **Zipprich J**, Bilski K, Gregory CJ, Dominguez SR, Mumm E, McMahon M, Como-Sabetti K, Lynfield R, Chochua S, Onukwube J, Arvay M, Herlihy R. (2023). "Notes from the Field: Increase in Pediatric Invasive Group A Streptococcus Infections - Colorado and Minnesota, October-December 2022. *MMWR Morb Mortal Wkly Rep*. 2023 Mar 10;72(10):265-267.

Foster MA, Hofmeister MG, Albertson JP, Brown KB, Burakoff AW, Gandhi AP, Glenn-Finer RE, Gounder P, Ho PY, Kavanaugh T, Latash J, Lewis RL, Longmire AG, Myrick-West A, Perella DM, Reddy V, Stanislowski ES, Stoltey JE, Sullivan SM, Utah OF, **Zipprich J**, Teshale EH. (2021). "[Hepatitis A Virus Infections Among Men Who Have Sex with Men - Eight U.S. States, 2017-2018.](#)" *MMWR Morb Mortal Wkly Rep*. 2021 Jun 18;70(24):875-878.

Han G, Batra N, Vallejo A, Schechter R, **Zipprich J**, Harriman K. (2018). "Notes from the Field: Measles Outbreak in an Era of Stricter Immunization Requirements - California, March 2018". *MMWR Morb Mortal Wkly Rep*. 2019 Mar 1;68(8):201-202.

Biswas HH, Han GS, Wendorf K, Winter K, **Zipprich J**, Perti T, Martinez L, Arellano A, Kyle JL, Zhang P, Harriman K (2016). "Outbreak of Serogroup B Meningococcal Disease at a University – California, 2016". *MMWR Morb Mortal Wkly Rep*. 2016 May 27;65(20):520-1.

Zipprich, J, K Winter, J Hacker, D Xia, J Watt and K Harriman (2015). "Measles outbreak--California, December 2014-February 2015." *MMWR Morb Mortal Wkly Rep* 64(6): 153-154.

Yen, C, E Murray, **J Zipprich**, K Winter and K Harriman (2015). "Missed opportunities for tetanus postexposure prophylaxis--California, January 2008-March 2014." *MMWR Morb Mortal Wkly Rep* 64(9): 243-246.

Ayscue, P, E Murray, T Uyeki, **J Zipprich**, K Harriman, C Salibay, M Kang, A Luu, R Glenn-Finer, J Watt, C Glaser and J Louie (2014). "Influenza-associated intensive-care unit admissions and deaths - California, September 29, 2013-January 18, 2014." *MMWR Morb Mortal Wkly Rep* 63(7): 143-147.

Sheets, C. D., K. Harriman, **J. Zipprich**, J. K. Louie, W. S. Probert, M. Horowitz, J. C. Prudhomme, D. Gold and L. Mayer (2014). "Fatal meningococcal disease in a laboratory worker--California, 2012." *MMWR Morb Mortal Wkly Rep* 63(35): 770-772.

Zipprich, J, JK Hacker, EL Murray, D Xia, K Harriman and C Glaser (2014). "Notes from the field: measles - California, January 1-April 18, 2014." *MMWR Morb Mortal Wkly Rep* 63(16): 362-363.

Kodagoda, D, A Nelson El Amin, V Nguyen, J Holguin, **J Zipprich**, K Harriman, K Winter, J Talarico, D Wadford, C Preas, C Mikosz. Measles Outbreak Associated with an Arriving Refugee — Los Angeles County, California, August–September 2011. *June 1, 2012 / 61(21);385-389.*

Zipprich, J, K Harriman, J Talarico, C Edwards, D Blythe, D Shah, J Morillo, S Smith, D Hopfensperger, S Tsering, G Wallace, A Barskey, P Kutty, G Armstrong, K Marienau, J Berliet, K Ross, C Schembri, H Burke, D Lee, S Shetty, M Weinberg, W Zhou, M Said, E Taylor. Notes from the Field: Measles Among U.S.-Bound Refugees from Malaysia --- California, Maryland, North Carolina, and Wisconsin, August--September 2011. *MMWR*, 60(37);1281-1282.

Zipprich, J, EL Murray, K Winter, D Kong, K Harriman, C Preas, D Wadford, S Messenger, J Talarico, JP Watt, J Berreman, B Gregory, Pat Cameron, MSN, Brad Buchman, MD, University Health Svcs, Univ of

California, Berkeley. Jonathan J. Nunez. Mumps Outbreak on a University Campus – California, 2011. December 7, 2012 / 61(48);986-989.

Cocoros, NM, **J Zipprich**, D Kuhles, E Rausch-Phung, CR Schulte, DS Blog, P Lurie, R Wiseman, C Kroll, C DeBolt, PK Kutty, SB Redd, AE Barskey, JS Rota, PA Rota, GL Armstrong, WJ Bellini, KM Gallagher, AS Mahamud. Measles imported by returning US travelers Aged 6 – 23 months, 2001 – 2011. MMWR, 60(13);397-400.

ABSTRACTS

Zipprich J, Zahn M, Harriman K, Cherry JD. Clinical Characteristics and Factors Associated with Measles Transmission in California. IDWeek. San Diego, CA, Oct 7-11, 2015.

Ayscue P, Kamali A, Rutledge J, **Zipprich J**, Morrisson M, Harriman K, Bird K. Measles Exposure in a Neonatal Intensive Care Unit and Labor and Delivery Ward – California, January 2015. IDWeek. San Diego, CA, Oct 7-11, 2015.

Burgis J, Kong D, Salibay C, **Zipprich J**, Harriman K, So S. Risk Factors Associated With Immunoprophylaxis Failure in Infants Born to Mothers With Chronic Hepatitis B Infection in California. American Gastroenterological Association Digestive Disease Week. Chicago, IL, May 3-6, 2014. Available at: [http://www.gastrojournal.org/article/S0016-5085\(14\)62750-5/pdf](http://www.gastrojournal.org/article/S0016-5085(14)62750-5/pdf)

Clayton A, Cohen M, **Zipprich J**, Schechter R, Harriman K. Vaccine Error Reporting Program: A System to Collect Data on Vaccine Administration Errors. IDWeek 2013, San Francisco, CA, October 2-6, 2013.

Zipprich J, Murray E, Kong D, Winter K, Nguyen V, Nelson A, Harriman K, Cherry J. Risk Factors Associated with Infant Death from Pertussis: Preliminary Results from a Case-Control Study. The 2012 Pediatric Academic Societies' Annual Meeting, Boston, MA, April 28-May 1, 2012.

Taylor K, Harriman K, Salibay C, **Zipprich J**, Winter K, St. Pierre L. California Birth Hospital Policies to Prevent Perinatal Hepatitis B Transmission. 1st National Immunization Conference Online. March 26-28, 2012.

Taylor E, Burke B, Shetty S, Berliet J, Tsering S, **Zipprich J**, Lee D, Kutty P, Marienau K, Ross K, Schembri C, Wallace G, Barskey A, Harriman K, Talarico J, Edwards C, Blythe D, Shah D, Said M, Morillo J, Smith S, Hopfensperger D, Ortega L, Weinberg M, Marano N, Zhou W. Measles Among US-Bound Refugees from Malaysia—August--September 2011. International Conference on Emerging Infectious Diseases, Atlanta, GA, March 11-14, 2012.

Winter K, **Zipprich J**, Harriman K, Talarico J. Pertussis morbidity and mortality among infants in California – 2010. Council of State and Territorial Epidemiologists Annual Conference. Pittsburgh, PA, June 12-16, 2011.

Winter K, Harriman K, **Zipprich J**, Schechter R, Talarico J. Epidemiology of Pertussis in California – 2010. 45th National Immunization Conference. Washington, D.C., March 28-31, 2011.

Invited Talks/Guest Lectures

Invited Speaker, Northern California American Society for Microbiology. “Deadly Diplococci: Managing *N. meningitidis* Outbreaks in California”. March 4th, 2017.

Invited Speaker, IDWeek, “Measles in Disneyland: Lessons Learned”, New Orleans, LA, October 27th, 2016.

Invited Guest, RedditScience Ask Me Anything, Subject matter expert on measles to answer questions related to the publication: Assessing Measles Transmission in the United States Following a Large Outbreak in California. June 3, 2015.

Invited Speaker, American College Health Association. "Measles update 2015: Implications for the College Setting". Webinar. May 22nd, 2015.

Invited Speaker, CDPH and Emergency Medical Services Authority. Emergency Preparedness Training Workshop. "The 2014 – 2015 California Measles Outbreak". Sacramento, CA. June 24th, 2015,

Invited Speaker, American Red Cross. 14th Annual Measles & Rubella Initiative Partners Meeting, 15-16 September, 2015. Washington, DC. "Measles: A Story from the Field". Washington DC. September 15th, 2015.

Invited Speaker, Emergency Medical Services Authority, 2015 California EMS for Children Educational Forum. "Communicable Disease Awareness". Sacramento, CA. November 5th, 2015.

Invited Speaker, Chicago Department of Health. 20th Annual Chicago Infection control Conference. "Measles: It's a Small World After All". Chicago, IL. June 8th, 2015.

Invited Speaker, Southern California ASM Chapter Symposium. "California Vaccine Preventable Diseases Update". San Diego, April 11th, 2015; Los Angeles, March 7th, 2015.

Guest Lecturer, Public Health Microbiology Training (Measles), Viral and Rickettsial Disease Laboratory, California Department of Public Health, Richmond, CA. 2012, 2013, 2014.

Guest Lecturer, Public Health Seminar (measles, meningococcal disease). University of California, Davis, Davis, CA. 2012, 2013.

Guest Lecturer, Biomarkers of Chemical Exposure (DNA repair), Department of Environmental Health Sciences, Columbia University, New York, NY. 2007, 2006.

Guest Lecturer, Biochemistry for Public Health (DNA repair), Department of Environmental Health Sciences, Columbia University, New York, NY. 2006.