

## **CDR Stacy M. Holzbauer, DVM, MPH; diplomate ACVPM**

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### **ACADEMIC TRAINING, EDUCATION and VETERINARY CERTIFICATIONS**

Doctor of Veterinary Medicine, Iowa State University College of Veterinary Medicine, 2002

Masters of Public Health, University of Iowa College of Public Health, 2004

Thesis: Evaluation of Water Holding Containers and *Aedes aegypti* Populations in Households in Iquitos, Peru

Board Certification – American College of Veterinary Preventative Medicine, 2007 to present

#### Leadership, Management, Career Development Training

Centers for Disease Control and Prevention (CDC) Epidemic Intelligence Service (2006 to 2008)  
-Minnesota Department of Health (MDH), Saint Paul, MN

Association of Teachers of Preventative Medicine Fellowship (2004 to 2005)  
-CDC, Atlanta, GA

### **PROFESSIONAL EXPERIENCE**

#### **2/2024 to present – Career Epidemiology Field Officer (CEFO)/State Public Health Veterinarian**

CDC, Office of Readiness and Response (ORR) assigned to the Minnesota Department of Health (MDH)  
St. Paul, MN

#### *Duties and Responsibilities*

- Lead the Zoonotic Diseases Unit, a team of five epidemiologists, one veterinary technician, and five MPH graduate students. Serve as State Public Health Veterinarian.
  - Conduct zoonotic disease surveillance and investigate zoonotic disease outbreaks; provide technical expertise for Minnesota regarding rabies and other zoonotic disease issues; respond to crisis situations involving zoonotic public health hazards; Conduct original research on zoonotic disease topics including designing and conducting studies, analyzing data, and drafting and editing manuscripts for publication or presentation at national meetings
  - Act as primary liaison for MDH to Minnesota Board of Animal Health, Minnesota Department of Agriculture, and other state agencies concerning animal agriculture issues with human health impact; speak at conferences and with the media about emerging infectious diseases and antimicrobial resistance topics; participate in swine and avian influenza response planning; provide a veterinary public health perspective on state and

national committees regarding infectious diseases, veterinary occupational health, and antimicrobial resistance and animal agriculture.

- Teach and lecture about zoonotic diseases within the University system, for local public health and for healthcare provider groups
- Consult with health care providers about zoonotic disease cases, infection control measures and personal protective equipment to reduce risk for zoonotic disease infection
- Testify on behalf of the state in lawsuits involving raw milk and other zoonotic disease issues; answer questions by phone and produce educational materials for the public regarding infectious disease issues; mentor students
- Direct the MN Unexplained Deaths and Critical Illness Project (UNEX), the nation's only active surveillance program to detect unexplained deaths and critical illnesses of potential infectious origin.
  - Manage a team of 14 laboratory and 2 surveillance staff who coordinate infectious disease testing at MDH and CDC and results reporting for unexplained deaths and critical illnesses from MN and regionally from ND, SD, MI, and WI. Provide logistical support for evaluating and testing patient suspected of developing acute flaccid myelitis (AFM) and coordinate testing in patients presenting with AFM-like illness and myocarditis for enteroviruses
  - Provide guidance and consultation to 23 regional medical examiners, 50 coroners, and MN medical providers. Perform population-based active surveillance for infectious disease related deaths. Manage ~\$1,500,000 in periodic grant funding. Organize yearly MN Medical Examiner Infectious Deaths Conference and case panel presentations for the yearly MN Emerging Infectious Conference attended by ~350 clinicians and public health professionals.
- Serve as MN principal investigator (PI) for the CDC Emerging Infections Program (EIP) Clostridium difficile Infections (CDI) surveillance. Supervise 1 epidemiologist and 3 masters-level student workers who perform the day-to-day duties for Clostridium difficile surveillance. Manage >\$850,000 yearly CDC grant funding and funding for special studies.

## **2/2012 to 1/2024 – Career Epidemiology Field Officer (CEFO)/Deputy State Public Health Veterinarian**

CDC, Office of Readiness and Response (ORR) assigned to the Minnesota Department of Health (MDH)

St. Paul, MN

### *Duties and Responsibilities*

- Serve as MN Deputy State Public Health Veterinarian. Serve as liaison for MDH to MN Board of Animal Health (MBAH) and Department of Agriculture and >30 state and national agencies and industry groups.
  - Provide expert consultations for health care providers regarding zoonoses and infection prevention and control. Conduct zoonotic disease and agriculture occupational safety surveillance and research
  - Teach/lecture about zoonotic disease within the University of Minnesota system, for local public health and for healthcare providers.

- Direct the MN Unexplained Deaths and Critical Illness Project (UNEX), the nation's only active surveillance program to detect unexplained deaths and critical illnesses of potential infectious origin.
  - Manage a team of 14 laboratory and 2 surveillance staff who coordinate infectious disease testing at MDH and CDC and results reporting for unexplained deaths and critical illnesses from MN and regionally from ND, SD, MI, and WI. Provide logistical support for evaluating and testing patient suspected of developing acute flaccid myelitis (AFM) and coordinate testing in patients presenting with AFM-like illness and myocarditis for enteroviruses
  - Provide guidance and consultation to 23 regional medical examiners, 50 coroners, and MN medical providers. Perform population-based active surveillance for infectious disease related deaths. Manage ~\$1,500,000 in periodic grant funding. Organize yearly MN Medical Examiner Infectious Deaths Conference and case panel presentations for the yearly MN Emerging Infectious Conference attended by ~350 clinicians and public health professionals.
- Serve as MN principal investigator (PI) for the CDC Emerging Infections Program (EIP) Clostridium difficile Infections (CDI) surveillance. Supervise 1 epidemiologist and 3 masters-level student workers who perform the day-to-day duties for Clostridium difficile surveillance. Manage >\$850,000 yearly CDC grant funding and funding for special studies.

#### **7/2006 to 6/2008 – CDC Epidemic Intelligence Service Officer**

Centers for Disease Control and Prevention/Minnesota Department of Health  
St. Paul, MN

##### *Duties and Responsibilities:*

- Investigated acute infectious disease cases, clusters, and outbreaks that occur in Minnesota, the US, and abroad as an Epidemic Intelligence Service (EIS) Officer assigned to the Minnesota Department of Health.
  - Served as lead epidemiologic investigator in a multi-state outbreak of E. coli O157:H7 associated with consumption of shredded iceberg lettuce.
  - Investigated what at the time was the world's largest documented Zika virus outbreak in Yap, Micronesia. Explored causes and risk factors for developing Zika virus by completing a serosurvey and entomologic survey
  - Served as co-lead investigator in the identification of a novel clinical syndrome called
  - Immune-mediated Polyradiculoneuropathy (IP), formerly known as Progressive
  - Inflammatory Neuropathy (PIN), in pork abattoir workers
  - Investigated outbreaks of mushroom poisonings in a Hmong family, a case of Lacrosse encephalitis virus, and an E. coli O157:H7 outbreak associated with ground beef from a single beef abattoir. Investigation led to a recall of contaminated beef and USDA closure of the plant until safety issues were resolved.
  - Designed and conducted epidemiologic studies for surveillance of Clostridium difficile and Anaplasma phagocytophilum

#### **8/2005 to 7/2006 – Veterinary Medical Advisor**

Centers for Disease Control and Prevention

Atlanta, GA

*Duties and Responsibilities:*

- Continued web-based veterinary school curriculum on antimicrobial resistance and appropriate antibiotic use in veterinary medicine through collaboration with the Centers for Disease Control and Prevention, Michigan State University, University of Minnesota, and the American Veterinary Medical Association.
  - Conducted and moderated stakeholder summit involving industry partners at the Centers for Disease Control and Prevention, United States Department of Agriculture, and animal industry groups to address medicated milk replacer use in dairy calves.
  - Continued to coordinate activities and educational programs for Get Smart: Know When Antibiotics Work on the Farm. Activities have included fostering relationships with public health, veterinary, and industry partners, reviewing yearly proposals for state health department funding, writing grant proposals, and presenting the programs activities at various conferences and meetings.
  - Developed relationships with partners in the human and veterinary medical fields to collaborate and review developed materials for professional curriculums.
  - Supported health education and epidemiologic activities for the Foodborne and Diarrheal Disease Branch in the Division of Bacterial and Mycotic Diseases. Activities included providing official responses to public inquiries about zoonotic diseases, mentoring visiting veterinary students, creating and disseminating health education materials, coordinating needs assessment surveys, reviewing manuscripts for publication in CDC's Emerging Infectious Diseases, and assisting foodborne outbreak investigations.
  - Served with the CDC Virtual Vet Team to respond to public health inquiries and veterinary public health emergencies.
  - Active member of the Veterinary Student Day Planning Committee. The committee organized the first annual CDC Veterinary Student Day. Ten percent of the total veterinary student population attended.

**8/2004 – 7/2005 – Association of Teachers of Preventative Medicine Fellow**

Centers for Disease Control and Prevention

Atlanta, GA

Fellow

*Duties and Responsibilities:*

- Developed web-based veterinary school curriculum on antimicrobial resistance and appropriate antibiotic use in veterinary medicine through collaboration with the Centers for Disease Control and Prevention, Michigan State University, University of Minnesota, and the American Veterinary Medical Association.
  - Coordinated activities and educational programs for Get Smart: Know When Antibiotics Work on the Farm. Activities included fostering relationships between public health, veterinary, and industry partners; developing funding announcements and reviewing proposals for state health department projects; and presenting program activities at conferences and meetings.

- Developed relationships with partners in the human and veterinary medical fields to develop and update materials for professional curriculums.

**8/2003 to 8/2004 – Adjunct Instructor**

Iowa State University

Ames, IA

*Duties and Responsibilities:*

Developed Foreign Animal Diseases training materials for veterinarians and veterinary medical officers in the United States Department of Agriculture.

- Created and updated “Train the Trainer” program materials for veterinarians and public health officials for the Center for Food Security and Public Health.
- Presented content on bioterrorism, agro-tourism, and biosecurity at professional veterinary and public health meetings in the United States.
- Advocated for veterinary public health careers by highlighting the roles of veterinarians in public health to high school students, first year veterinary students and veterinarians in professional meetings.
- Presented public health course lectures on infectious diseases of public health significance to sophomore veterinary students at Iowa State University College of Veterinary Medicine.
- Led public health field trips for senior veterinary students.

**8/2002 to 8/2003 – Associate Veterinarian**

Cresco Veterinary Clinic

Cresco, IA

*Duties and Responsibilities:*

Performed case and herd diagnostics, treatments, surgical procedures, emergency duties, and client communications for the clinic’s companion animal, equine, dairy, and beef clients.

Emphasized preventative medicine through regular vaccination, deworming and education.

- Trained veterinary assistants in routine laboratory procedures including complete blood counts, basic microbiology and culture sensitivities, and urine analysis.
- Taught local elementary students and high school agricultural students about basic animal care and husbandry.

**6/2002 to 7/2002 – Relief Veterinarian**

Vet Care Plus

Yuma, CO

*Duties and Responsibilities:*

Completed veterinary medical procedures and diagnostics for a mixed animal practice without supervision.

- Performed routine surgeries on small animal and cattle patients.
- Analyzed laboratory diagnostic samples of small animal and dairy patients.

## **PROFESSIONAL, UNIFORMED SERVICE, SPECIALTY ORGANIZATIONS/ACTIVITIES**

Council for State and Territorial Epidemiologists (CSTE), (2016-present)  
 -Infectious Disease Committee (2016-present)

Infectious Disease Society of America (2012-present)  
 -Public Health Committee (2018-2020)

Minnesota Veterinary Medical Association, Member (2009-present)  
 -Executive Board Ex-officio Member (2024-present)  
 -Founder and Co-Chair of Wellness and Gender in Veterinary Environments (WeGIVE) Committee (2018-present)  
 -Co-chair of Public Health Committee (2010-2018)

National Association of State Public Health Veterinarians, Member (2004-present)  
 -Member of the Non-traditional Pet Compendium Committee (2018-present)  
 -Member of the Veterinary Standard Precautions Committee (2013-2017)

American College of Veterinary Preventative Medicine, Member (2007-present)  
 -Provided tutorial on outbreak investigations to online board review class (2010-present)

Minnesota One Health Antibiotic Stewardship Team (2015-present)

Minnesota H5/H7 LPAI Emergency Management Committee, Member (2010-present)

American Veterinary Medical Association (2002-present)

Commissioned Officers Association (2016-present)  
 -Twin Cities COA, Treasurer (2017-2018), Vice President (2018-2019)  
 -Founding member

EIS Alumni Association (2013-present)  
 -Lifetime member

Veterinarians and Mental Health Investigation Team (2014-2015)  
 -Conducted national mental health survey of veterinarians

## **AWARD/HONOR HISTORY**

### **USPHS Honor Awards:**

Outstanding Service Medal	2021, 2016
Achievement Medal	2009
Presidential Unit Citation	2021, 2015
Outstanding Unit Citation	2023, 2020 (x2), 2018 (x2), 2017, 2016, 2015, 2014, 2013, 2010 (x2)
Unit Commendation	2008
Special Assignment Award	2020
COVI-19 Pandemic Campaign Medal with EA	2021
Commissioned Corps Training Ribbon	2006

### **Non-USPHS Honor Awards:**

2022 National Association for Public Health Statistics and Information Systems (NAPHSIS) Team Excellence Award  
 2022 PHS VetPAC Veterinary Responder of the Year Award  
 2021 CDC/ATSDR Excellence in Emergency Response: Toby Merlin Award- Domestic

2021 CDC/ATSDR Excellence in Human Capital Management: James Virgil Peavy Award for Employee Development  
2021 CDC/ATSDR Excellence in Frontline Public Health Service Award  
2021 CDC Charles C. Shepard Science Award for Assessment Nominee  
2020 American Veterinary Epidemiology Society Honorary Diploma Award  
2018 CDC CPR Honor Award for Excellence in Surveillance and Health Monitoring  
2016 PHS Veterinary Responder of the Year Award  
2015 OPHPR Honor Award for Excellence in Surveillance and Health Monitoring  
2014 PHS Veterinary Responder of the Year Award  
2013 OPHPR Honor Award for Excellence in Epidemiology  
2011 CDC Charles C. Shepard Science Award for Assessment and Epidemiology  
2010 United States Coast Guard Meritorious Unit Commendation  
2010 South Dakota State University Outstanding Young Alumni Award  
2010 PHS Veterinary Responder of the Year Award  
2009 Alexander D. Langmuir Prize Manuscript Award  
2009 James H. Steele Veterinary Public Health Award  
2008 Award of Excellence, *Acanthamoeba keratitis* Investigation Team  
2008 FDA Leveraging/Collaboration Award, *E. coli* O157:H7 Investigation Team  
2008 Outstanding Poster Award at the 57th Annual EIS Conference  
2006 FDA Achievement Award

## PUBLICATIONS

### Peer-Reviewed Journal Publications

Guh AY, Li R, Korhonen L, Winston LG, Parker E, Czaja CA, Johnston H, Basiliere E, Meek J, Olson D, Fridkin SK, Wilson LE, Perlmuter R, **Holzbauer SM**, D'Heilly P, Phipps EC, Flores KG, Dumyati GK, Pierce R, Ocampo VLS, Wilson CD, Watkins JJ, Gerding DN, McDonald LC. Characteristics of Patients With Initial *Clostridioides difficile* Infection (CDI) That Are Associated With Increased Risk of Multiple CDI Recurrences. *Open Forum Infect Dis*. 2024 Mar 6;11(4):ofae127. doi: 10.1093/ofid/ofae127. PMID: 38577028; PMCID: PMC10993058.

Schenk KE, Cornille K, Cater J, Vieira AR, **Holzbauer S**, Bye M, Scheftel J. Outbreak of anthrax in livestock with human occupational exposures - Minnesota, 2023. *J Agromedicine*. 2024 Jan 23:1-4. doi: 10.1080/1059924X.2024.2306835. Epub ahead of print. PMID: 38263576.

Firestone MJ, Thorell L, Kollmann L, Fess L, Ciessau G, Strain AK, Danila R, Lynfield R, **Holzbauer S**; UNEX Surveillance Team. Surveillance for Unexplained Deaths of Possible Infectious Etiologies During the COVID-19 Pandemic-Minnesota, 2020-2021. *Public Health Rep*. 2024 Jan 11:333549231218283. doi: 10.1177/00333549231218283. Epub ahead of print. PMID: 38205808.

Thielen BK, **Holzbauer S**, Templen B, Schafer IJ, Artus A, Galloway R, Ireland M, Femrite T, Schleiss MR. Case Report: Locally Acquired Leptospirosis in a Minnesota Boy and His Dog. *Am J Trop Med Hyg*. 2023 Nov 20;110(1):123-126. doi: 10.4269/ajtmh.23-0291. PMID: 37983913; PMCID: PMC10793009.

**Holzbauer SM**, Schrodtt CA, Prabhu RM, Asch-Kendrick RJ, Ireland M, Klumb C, Firestone MJ, Liu G, Harry K, Levine MZ, Orciari LA, Wilkins K, Ellison JA, Zhao H, Niezgodna M, Satheshkumar PS, Petersen BW, Rao AK, Bell WR, Forrest S, Gao W, Dasheiff R, Russell K, Wiseman A, Reichard RR, Smith KE, Lynfield R, Scheftel J, Wallace RM, Bonwitt J. Reply to Willoughby. *Clin Infect Dis*. 2023 Sep 18;77(6):931-932. doi: 10.1093/cid/ciad295. PMID: 37200504.

**Holzbauer SM**, Schrodtt CA, Prabhu RM, Asch-Kendrick RJ, Ireland M, Klumb C, Firestone MJ, Liu G, Harry K, Ritter JM, Levine MZ, Orciari LA, Wilkins K, Yager P, Gigante CM, Ellison JA, Zhao H, Niezgodna M, Li Y, Levis R, Scott D, Satheshkumar PS, Petersen BW, Rao AK, Bell WR, Bjerk SM, Forrest S, Gao W, Dasheiff R, Russell K, Pappas M, Kiefer J, Bickler W, Wiseman A, Jurantee J, Reichard RR, Smith KE, Lynfield R, Scheftel J, Wallace RM, Bonwitt J. Fatal Human Rabies Infection With Suspected Host-Mediated Failure of Post-Exposure Prophylaxis Following a Recognized Zoonotic Exposure-Minnesota, 2021. *Clin Infect Dis*. 2023 Oct 13;77(8):1201-1208. doi: 10.1093/cid/ciad098. PMID: 36988328.

Firestone MJ, **Holzbauer S**, Conelea C, Danila R, Smith K, Bitsko RH, Klammer SM, Gingerich S, Lynfield R. Rapid onset of functional tic-like behaviors among adolescent girls-Minnesota, September-November 2021. *Front Neurol*. 2023 Jan 19;13:1063261. doi: 10.3389/fneur.2022.1063261. PMID: 36742058; PMCID: PMC9892901.

Gargis AS, Karlsson M, Paulick AL, Anderson KF, Adamczyk M, Vlachos N, Kent AG, McAllister G, McKay SL, Halpin AL, Albrecht V, Campbell D, Korhonen LC, Elkins CA, Rasheed JK, Guh AY, McDonald LC, Lutgring JD; **Emerging Infections Program C. difficile Infection Working Group**. Reference Susceptibility Testing and Genomic Surveillance of *Clostridioides difficile*, United States, 2012-17. *Clin Infect Dis*. 2023 Mar 4;76(5):890-896. doi: 10.1093/cid/ciac817. PMID: 36208202.

Kniss K, Sumner KM, Tastad KJ, Lewis NM, Jansen L, Julian D, Reh M, Carlson E, Williams R, Koirala S, Buss B, Donahue M, Palm J, Kollmann L, **Holzbauer S**, Levine MZ, Davis T, Barnes JR, Flannery B, Brammer L, Fry A. Risk for Infection in Humans after Exposure to Birds Infected with Highly Pathogenic Avian Influenza A(H5N1) Virus, United States, 2022. *Emerg Infect Dis*. 2023 Jun;29(6):1215-1219. doi: 10.3201/eid2906.230103. Epub 2023 Apr 24. PMID: 37095080; PMCID: PMC10202859.

Thielen BK, **Holzbauer S**, Templen B, Schafer IJ, Artus A, Galloway R, Ireland M, Femrite T, Schleiss MR. Case Report: Locally Acquired Leptospirosis in a Minnesota Boy and His Dog. *Am J Trop Med Hyg*. 2023 Nov 20:tpmd230291. doi: 10.4269/ajtmh.23-0291. Epub ahead of print. PMID: 37983913.

Prabhu RM, Firestone MJ, Bergman K, Beaudoin A, Hale T, Lorentz A, Garfin J, Wang X, **Holzbauer S**. Use of serial testing to interrupt a SARS-CoV-2 outbreak on a hospital medical floor — Minnesota, October–December 2020. *Infect Cont Hosp Epid*. 2022



Varela K, Brown JA, Lipton B, Dunn J, Stanek D, Behravesh CB, Chapman H, Conger TH, Vanover T, Edling T, **Holzbauer S**, Lennox AM, Lindquist S, Loerzel S, Mehlenbacher S, Mitchell M, Murphy M, Olsen CW, Yager CM. A Review of Zoonotic Disease Threats to Pet Owners: A Compendium of Measures to Prevent Zoonotic Diseases Associated with Non-Traditional Pets: Rodents and Other Small Mammals, Reptiles, Amphibians, Backyard Poultry, and Other Selected Animals. *Vector Borne Zoonotic Dis.* 2022 Jun;22(6):303-360. doi: 10.1089/vbz.2022.0022. PMID: 35724316; PMCID: PMC9248330.

Guh AY, Yi SH, Baggs J, Winston L, Parker E, Johnston H, Basiliere E, Olson D, Fridkin SK, Mehta N, Wilson L, Perlmutter R, **Holzbauer SM**, D'Heilly P, Phipps EC, Flores KG, Dumyati GK, Hatwar T, Pierce R, Ocampo VLS, Wilson CD, Watkins JJ, Korhonen L, Paulick A, Adamczyk M, Gerding DN, Reddy SC. Comparison of the Risk of Recurrent *Clostridioides Difficile* Infections Among Patients in 2018 Versus 2013. *Open Forum Infect Dis.* 2022 Aug 17;9(9):ofac422. doi: 10.1093/ofid/ofac422. PMID: 36072699; PMCID: PMC9439575.

Ruhland A, Fell A, **Holzbauer SM**, D'Heilly P, Curtis K, Wick H, Friedman B, Mumm E, Ireland M, Estey-Dix C, Betts-Roelike M, Beaudoin A. Exposure Outcomes in Fully Vaccinated Healthcare Personnel With Known Severe Acute Respiratory Syndrome Coronavirus 2 Exposure-Minnesota, January-August 2021. *Clin Infect Dis.* 2022 Dec 19;75(12):2247-2249. doi: 10.1093/cid/ciac431. PMID: 35684998; PMCID: PMC9278176.

Wiens T, Taylor J, Cole C, Saravia S, Peterson J, Lunda M, Margetta J, D'Heilly P, **Holzbauer S**, Lynfield R. Lessons Learned From the E-cigarette, or Vaping, Product Use-Associated Lung Injury (EVALI) Outbreak Response, Minnesota, 2019-2020. *Public Health Rep.* 2021 Oct 25;333549211051394. doi: 10.1177/00333549211051394

Skrobarcek KA, Mu Y, Ahern J, Basiliere E, Beldavs ZG, Brousseau G, Dumyati G, Fridkin S, **Holzbauer SM**, Johnston H, Kainer MA, Meek J, Ocampo VLS, Parker E, Perlmutter R, Phipps EC, Winston L, Guh A. Association between socioeconomic status and incidence of community-associated *Clostridioides difficile* infection — United States, 2014–2015. *Clin Infect Dis.* 2021; 73(4): 722-5.

Pecora N, **Holzbauer S**, Wang X, Gu Y, Taffner S, Hatwar T, Hardy D, Dziejman M, D'Heilly P, Pung K, Guh A, Qiu X, Gill S, Dumyati G. Genomic analysis of *Clostridioides difficile* in two regions of the United States reveals a diversity of strains and limited transmission. *J Infect Dis.* 2021. 2021 Jun 9;jiab294. doi: 10.1093/infdis/jiab294.

Cole C, Wiens T, Taylor J, Danila R, D'Heilly P, Margetta J, Bye M, Mumm E, Schwerzler L, Makhtal R, **Holzbauer S**, Lynfield R. Vaping, lung injury, and mental health in Minnesota 2018–2019. *Minn Med.* 2021; May/June: 41-5.

Reagan-Steiner S, Gary J, Matkovic E, Ritter JM, Shieh W-J, Martines RB, Werner AK, Lynfield R, **Holzbauer S**, Bullock H, Denison AM, Bhatnagar J, Bollweg BC, Patel M, Evans ME, King BA, Rose DA, Baldwin GT, Jones CM, Krishnasamy V, Briss PA, Weissman DN, Meaney-Delman D, Zaki SR, The Lung Injury Response Pathology Working Group. Pathological findings in suspected cases of e-cigarette, or vaping, product use-associated lung

injury (EVALI): A case series. *The Lancet Respiratory Medicine*. 2020. August 4, 2020  
[https://doi.org/10.1016/S2213-2600\(20\)30321-0](https://doi.org/10.1016/S2213-2600(20)30321-0) [Epub ahead of print]

Knust B, Brown S, de St. Maurice A, Whitmer S, Koske SE, Ervin E, Patel K, Graziano J, Morales-Betoulle ME, House J, Cannon D, Kerinsa J, **Holzbauer S**, Austin C, Gibbons-Burgener S, Colton L, Dunn J, Zufan S, Joung Choi M, Davis WR, Chiang C-F, Manning CR, Roesch L, Shoemaker T, Purpura L, McQuiston J, Peterson D, Radcliffe R, Garve A, Christel E, Morgan L, Scheftel J, Kazmierczak J, Klena JD, Nichol ST, Rollin PE, on behalf of the Multistate Seoul Virus Outbreak Investigation Team. Seoul virus infection and spread in US home-based ratteries — Rat and human testing results from a multistate outbreak investigation. *J Infect Dis* jiaa307, <https://doi.org/10.1093/infdis/jiaa307> [Epub ahead of print]

Novosad SA, Mu Y, Winston LG, Johnston H, Basiliere E, Olson DM, Farley MM, Revis A, Wilson L, Perlmutter R, **Holzbauer SM**, Whitten T, Phipps EC, Dumyati GK, Beldavs ZG, Ocampo VLS, Davis CM, Kainer M, Gerding DN, Guh AY. Treatment of *Clostridioides difficile* infection and non-compliance with treatment guidelines in adults in 10 US geographical locations, 2013-2015. *J Gen Intern Med*. 2020; 35(2): 412-9.

Werner AK, Koumans EH, Chatham-Stephens K, Salvatore PP, Armatas C, Byers P, Clark CR, Ghinai I, **Holzbauer SM**, Navarette KA, Danielson ML, Ellington S, Moritz ED, Petersen EE, Kiernan EA, Baldwin GT, Briss P, Jones CM, King BA, Krishnasamy V, Rose DA, Reagan-Steiner S, for the Lung Injury Response Mortality Working Group. Hospitalizations and deaths associated with EVALI. *N Engl J Med*. 2020; 382(17): 189-98.

Guh AY, Mu Y, Winston LG, Johnston H, Olson D, Farley MM, Wilson LE, **Holzbauer SM**, Phipps EC, Dumyati GK, Beldavs ZG, Kainer MA, Karlsson M, Gerding DN, McDonald LC, for the Emerging Infections Program *Clostridioides difficile* Infection Working Group. Trends in U.S. burden of *Clostridioides difficile* infection and outcomes. *N Engl J Med* 2020; 382:1320-30

Weng MK, Adkins SH, Bamberg W, Farley MM, Espinosa CC, Wilson L, Perlmutter R, **Holzbauer S**, Whitten T, Phipps EC, Hancock EB, Dumyati G, Nelson DS, Beldavs ZG, Ocampo V, Davis CM, Rue B, Korhonen L, McDonald LC, Guh AY. Risk factors for community-associated *Clostridioides difficile* infection in young children. *Epidemiol Infect*. 2019;147: 1-8.

Whitten TV, Brayshaw G, Patnayak D, Alvarez J, Larson CM, Root Kustritz M, **Holzbauer SM**, Torrison J, Scheftel JM. Seroprevalence of *Brucella canis* antibodies in dogs entering a Minnesota humane society, Minnesota, 2016-2017. *Prev Vet Med*. 2019 Jul 1;168:90-94. doi: 10.1016/j.prevetmed.2019.04.015. Epub 2019 Apr 29

Weng MK, Adkins SH, Bamberg W, Farley MM, Espinosa CC, Wilson L, Perlmutter R, **Holzbauer S**, Whitten T, Phipps EC, Hancock EB, Dumyati G, Nelson DS, Beldavs ZG, Ocampo V, Davis CM, Rue B, Korhonen L, McDonald LC, Guh AY. Risk factors for community-associated *Clostridioides difficile* infection in young children. *Epidemiol Infect*. 2019 Jan;147:e172. doi: 10.1017/S0950268819000372

Hall V, Scheftel J, **Holzbauer S**, Smith K. Gastrointestinal illness among contract construction workers at a chicken processing facility-Minnesota, 2016. *Am J Ind Med.* 2018 Dec 24. doi: 10.1002/ajim.22927.

Shaughnessy MK, Snider T, Sepulveda R, Boxrud D, Cebelinski E, Jawahir S, **Holzbauer S**, Johnston BD, Smith K, Bender JB, Thuras P, Diez-Gonzalez F, Johnson JR. Prevalence and Molecular Characteristics of *Clostridium difficile* in Retail Meats, Food-Producing and Companion Animals, and Humans in Minnesota. *J Food Prot.* 2018 Oct;81(10):1635-1642.

Tomczak S, Whitten T, **Holzbauer S**, Lynfield R. Combatting antibiotic resistance: Antibiotic use survey among dentists. *Gen Dent.* 2018 Sep-Oct;66(5):61-68.

Choi MJ, Worku S, Knust B, Vang A, Lynfield R, Mount M, Obijo T, Brown S, Griffith J, Hulbert S, Lippold S, Ervin E, Stroehner U, **Holzbauer S**, Slattery W, Washburn F, Harper J, Koeck M, Uher C, Rollin P, Washburn F, Nichol S, Else R, DeVries A. A case of Lassa fever diagnosed at a community hospital — Minnesota 2014. *Open Forum Infect Dis.* 2018 Jul 16;5(7):ofy131. doi: 10.1093/ofid/ofy131. eCollection 2018 Jul.

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### **Agency Publications, Guidance Documents and Other Written Communications**

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**Holzbauer, S.** Louping Ill. Blackwell's Five Minute Veterinary Consult: Ruminants. Blackwell Publishing. 2009.

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**PRESENTATIONS/POSTERS/ABSTRACTS (SELECTED)****Selected Presentations**

**Holzbauer, S.** National Occupational Research Agenda (NORA) Symposium. Stressed Out from Work: An Occupational Hazard. Minneapolis MN. May 2019 (Invited)

**Holzbauer, S.** USDA 2018 Live Bird Marketing System Continuing Education Training Course. Saint Paul MN. August 2018. (Invited)

**Holzbauer, S.** Nett, R. Risk Factors for Suicide, Attitudes Toward Mental Illness, and Practice-Related Stressors Among Veterinarians. American Association of Swine Veterinarians Annual Meeting. New Orleans LA. February 2016. (Invited)

**Holzbauer, S.** Nett, R. Risk Factors for Suicide, Attitudes Toward Mental Illness, and Practice-Related Stressors Among Veterinarians. American Veterinary Medical Association Annual Meeting. Boston, MA. July 2015. (Invited)

**Selected Abstracts**

Cash-Goldwasser S, Smith K, **Holzbauer S.** *Trichinella nativa* Infections linked to bear meat from northern Canada — Arizona, Minnesota, and South Dakota, 2022. Conference abstract presented at: Epidemic Intelligence Service Conference; April 24, 2023; Atlanta, GA.

Friedman B, D’Heilly P, Pung K, Wang X, **Holzbauer S.** Summary of epidemiological linked *Clostridioides difficile* infection clusters in Minnesota, 2016-2020. Conference abstract presented at: CSTE Annual Conference; June 19, 2022; Louisville, KY

Firestone M, **Holzbauer S,** Smith K, et al. Rapid onset of functional tic-like behaviors among adolescent girls — Minnesota, September–November 2021. Conference abstract presented at: CSTE Annual Conference; June 19, 2022; Louisville, KY.

Firestone M, Larson L, Kollmann L, Fess L, **Holzbauer S,** UNEX Surveillance Team. Surveillance for unexplained deaths of possible infectious etiologies during the COVID-19 pandemic —Minnesota, 2020–2021. Conference abstract presented at: 11th TEPHINET Global Scientific Conference; September 4, 2022; Panama City, Panama.

Cole C, Wiens T, Taylor JK, D’Heilly P, Margetta J, Bye M, Mumm ES, Schwerzler L, Makhtal R, Danila RN, Lynfield R, **Holzbauer S.** Prevalence of mental health disorders among E-cigarette, or vaping, product use-associated lung injury cases in Minnesota and in two large, population-based samples. Presented at CSTE Annual Conference, June 13-16, 2021.

Mumm E, Taylor J, Wiens T, D’Heilly P, Cole C, Margetta J, Bye M, Fell A, Beaudoin A, Danila R, **Holzbauer S,** Lynfield R. Clinical factors associated with severity of e-cigarette, or vaping, product use-associated lung injury (EVALI) – Minnesota, 2019. Presented at CSTE Annual Conference, June 13-16, 2021.



Firestone MJ, Wienkes H, Garfin J, Wang X, Beaudoin A, Fell A, Gerlach DE, Medus C, Smith KE, **Holzbauer S**. COVID-19 outbreak in a healthcare facility associated with a wedding — Minnesota, September–October 2020. Presented at CSTE Annual Conference, June 13-16, 2021.

Firestone MJ, Wienkes H, Garfin J, Wang X, Vilen K, Smith KE, **Holzbauer S**, Medus C, Lynfield R, Danila R. Motorcycle Rally Outbreak Investigation Team. COVID-19 outbreak associated with a 10-Day motorcycle rally in a neighboring state — Minnesota, August-September 2020. Presented at CSTE Annual Conference, June 13-16, 2021.

Taylor J, Wiens T, Peterson J, Saravia S, Lunda M, Hanson K, Wogen M, D’Heilly P, Margetta J, Bye M, Cole C, Mumm E, Schwerzler L, Makhtal R, Danila R, Lynfield R, **Holzbauer S**. Characteristics of e-cigarette, or vaping, products used by patients with associated lung injury, and seized by law enforcement—Minnesota, 2018–2019. 69th Annual EIS Conference, May 4-7, 2020; Atlanta, GA. Accepted – Conference cancelled due to COVID-19. **Nominated for Mackel Award.**

Reagan-Steiner S, Miers B, Denison A, Uyeki TM, Blanton L, Lees C, Martin K, **Holzbauer S**, Shieh W-J. Deaths occurring after the 2009 H1N1 pandemic with evidence of influenza virus in autopsy tissue specimens, October 2010—May 2018. Presented at CSTE Annual Conference, June 2-6, 2019; Raleigh, NC. (Accepted as oral presentation)

Leof E, Bye M, Beaudoin A, Lynfield R, Rainbow J, **Holzbauer S**. Prescriber adherence to *Clostridioides difficile* infection treatment guidelines, Minnesota 2013–2017. Presented at CSTE Annual Conference, June 2-6, 2019; Raleigh, NC. (Accepted as oral presentation)

Johnson SS, **Holzbauer S**, Whitten T, Bye M, Ireland M, Klumb C, Kohlmann L, Wheeler C, Cater J, Scheftel J. Tail of a rabid puppy: Lessons learned. Presented at CSTE Annual Conference, June 2-6, 2019; Raleigh, NC. (Accepted as oral presentation)

Taylor J, Bye M, Sweet K, Smith K, **Holzbauer S**. Community-associated *Clostridium difficile* infection and antibiotic exposure — Minnesota, 2009–2016. Presented at CSTE Annual Conference, June 2-6, 2019; Raleigh, NC. (Accepted as oral presentation)

**Holzbauer S**, Lockhart S, Reagan-Steiner S, Strain A, Palm J, Kollmann L, Mody R. Medical examiner investigated fungal deaths, Minnesota, 2012-2017. Presented at International Conference on Emerging Infectious Diseases, August 26-9, 2018; Atlanta, GA. (Accepted as oral presentation)

Bye E, **Holzbauer S**, Lees C, Martin K, Friedlander H, Como-Sabeti K, Strain A, Reagan-Steiner A, Lynfield R. Respiratory syncytial virus deaths in Minnesota, 2006-2017. Presented at International Conference on Emerging Infectious Diseases, August 26-9, 2018; Atlanta, GA. (Accepted as oral presentation)

Johnson S, Klumb C, **Holzbauer S**, Scheftel J. The cost of rabies post-exposure prophylaxis in Minnesota, 2017-2018. Presented at International Conference on Emerging Infectious Diseases, August 26-9, 2018; Atlanta, GA. (Accepted as oral presentation)

Martin K, Lynfield K, Strain A, DeVries A, Lees C, Reagan-Steiner S, **Holzbauer S**. Influenza-associated pediatric deaths identified through Minnesota's Unexplained Critical Illness and Death Project — Minnesota, 2004-2017. Presented at CSTE Annual Conference, June 10-14, 2018; West Palm Beach, FL. (Accepted as oral presentation)

Martin K, Banerjee E, Strain A, Rota P, Gastanaduy PA, Mody R, DeSilva M, **Holzbauer S**, Kenyon C, McMahon M, Kuramoto S, Hall V, Ehresmann K. Identifying vaccine-associated rash illness amidst a large measles outbreak - Minnesota, 2017. Presented at CSTE Annual Conference, June 10-14, 2018; West Palm Beach, FL. (Accepted as oral presentation)

Whitten T, Patnayak D, Brayshaw G, Alvarez J, Root P, Larson C, Bender J, **Holzbauer S**, Torrison J, Scheftel J. Prevalence of *B. canis* in stray and previously owned dogs entering a Minnesota animal rescue organization. Presented at CSTE Annual Conference, June 10-14, 2018; West Palm Beach, FL. (Accepted as oral presentation)

Leaf E, Bye M, Fell A, VonBank B, Rainbow J, **Holzbauer S**, Lynfield R, Beaudoin A. Evaluation of National Healthcare Safety Network and Emerging Infections Program surveillance for *Clostridium difficile* infection, Minnesota, 2014–2016. Presented at CSTE Annual Conference, June 10-14, 2018; West Palm Beach, FL. (Accepted as oral presentation)

Danila R, Lynfield R, Hiber L, Jewell B, Lees C, Strain A, Christensen J, Palm J, DeVries A, Reagan-Steiner S, Shieh W-J, Zaki SR, **Holzbauer S**. Surveillance for unexplained critical illnesses and deaths of possible infectious etiologies, Minnesota, 2012-2016. Presented at CSTE Annual Conference, June 10-14, 2018; West Palm Beach, FL. (Accepted as oral presentation)

Skrobarcek K, Mu Y, Ahern J, Beldavs Z, Brousseau G, Dumyati G, Farley M, **Holzbauer S**, Kainer M, Meek J, Perlmutter R, Phipps E, Winston L, Guh A. Socioeconomic status factors associated with incidence of community-associated *Clostridium difficile* infection – United States, 2014-2015. 2018 Epidemic Intelligence Service Conference, April 16-19, 2018. Atlanta GA. (Accepted as oral presentation)

Bye M, Whitten T, **Holzbauer SM**. Antibiotic prescribing for dental procedures in community-associated *Clostridium difficile* cases, Minnesota, 2009-2015. Presented at IDWeek, October 3-8, 2017, San Diego, CA. (Accepted as oral presentation, **highlighted in IDWeek 2017 Hot Topics press event**)

Martin K, Mody RK, DeSilva M, Banerjee E, Strain AK, **Holzbauer S**, Kenyon C, McMahon M, Rota PA, Gastanaduy PA, Muscoplat M, Hall V, Ehresmann K. Sorting the wheat from the chaff: Vaccine-associated rash illness occurring amidst a large measles outbreak — Minnesota, 2017. Presented at IDWeek, October 3-8, 2017, San Diego, CA. (Accepted as oral presentation)

Hall V, Lynfield R, Wright N, Hiber L, Palm J, Christensen J, Smith K, **Holzbauer S**. Deaths associated with opioid use and possible infectious disease etiologies among persons in the Unexplained Death (UNEX) Surveillance System — Minnesota, 2006–2015. Presented at CSTE Annual Conference; June 4-7, 2017; Boise, ID. (Accepted as oral presentation)

Hall V, Scheffel J, **Holzbauer S**, Smith K Gastrointestinal illness in contract workers at a poultry processing facility — Minnesota, 2016. Presented at CSTE Annual Conference; June 4-7, 2017; Boise, ID. (Accepted as oral presentation)

Hall V, Lynfield R, Wright N, Hiber L, Palm J, Christensen J, Smith K, **Holzbauer S**. Deaths associated with opioid use and possible infectious disease etiologies among persons in the Unexplained Death (UNEX) Surveillance System — Minnesota, 2006–2015. Presented at the 67th Annual EIS Conference; April 24-27, 2017. Atlanta GA. (Accepted as oral presentation; **highlighted in EIS 2017 Hot Topics press event**)

Martin K, **Holzbauer S**, Whitten T, Klumb C, Saunders S, McMahon M, Griffith J, Strain A, Boxrud D, Kenyon C, Scheffel J. Public health's role in response to an outbreak of highly pathogenic avian influenza H5N2 – Minnesota, 2015. IDWeek 2015. San Diego, CA. October, 2015. (Accepted as oral presentation)

Saunders S, Whitten T, Klumb C, **Holzbauer S**, Scheffel J. Targeted animal bites and rabies risk training for law enforcement professional. CSTE Annual Conference; Boston, MA. June 2015.

Hunter J, Mu Y, Dumyati G, Farley M, Winston L, Johnston H, Meek J, Wilson L, **Holzbauer S**, Beldavs Z, Phipps E, Dunn J, Cohen J, Stone N, McDonald LC, Lessa F. National estimates of incidence, recurrence, hospitalization, and death of nursing home-onset *Clostridium difficile* infections – United States, 2012. IDWeek 2014. Philadelphia, PA. October, 2014. (Accepted as oral presentation)

Dantes R, Mu Y, Hicks L, Cohen J, Bamberg W, Beldavs Z, Dumyati G, Farley M, **Holzbauer S**, Meek J, Phipps E, Wilson L, Winston L, McDonald LC, Lessa F. Association between antibiotic prescribing practices and community-associated *Clostridium difficile* infection. Infectious Disease Society of America; San Francisco, CA. October, 2013.

See I, Mu Y, Cohen J, Beldavs Z, Winston L, Dumyati G, Dunn J, Farley M, **Holzbauer S**, Lyons C, Johnston H, Phipps E, Perlmutter R, Anderson L, Lessa F. Is *Clostridium difficile* strain type a predictor of disease outcomes? Infectious Disease Society of America; San Francisco, CA. October, 2013.

Wendt JM, Cohen J, Mu Y, Dumyati G, Dunn J, **Holzbauer S**, Winston L, Bamberg W, Meek J, Farley M, Wilson L, Phipps E, Beldavs Z, Gould C, Lessa F. *Clostridium difficile* infection among children – United States, 2010-2011. Presented at 62nd Annual EIS Conference; April 22-26, 2013; Atlanta, GA.

### **Selected Posters**

**Holzbauer S**, Schrod C, Prabhu R, et al. Fatal Human Rabies Infection with Suspected Host mediated Failure of Post-Exposure Prophylaxis Following a Recognized Zoonotic Exposure-Minnesota, 2021. Conference abstract presented at: International Conference on Emerging Infectious Diseases; August 7, 2022; Atlanta, GA.

D’Heilly P, Beaudoin A, Melin D, **Holzbauer S**. Characteristics of antibiotic exposures for surgical procedures prior to *Clostridioides difficile* diagnosis—Minnesota, 2018. SHEA Annual Meeting, April 12-14, 2022; Colorado Springs.

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