

Kristen Pogreba-Brown, MPH: Curriculum Vitae

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EDUCATION

PhD Candidate-Epidemiology

Minor: Environmental Health

University of Arizona, Tucson, AZ ■ 2009-Present

Master's in Public Health

Concentration: Epidemiology

Honors: Summa Cum Laude

University of Arizona, Tucson, AZ ■ 2005

Bachelors of Science- Microbiology

Minor: Chemistry

Honors: Cum Laude

University of Arizona, Tucson, AZ ■ 2000

Dissertation

Title: Determining the Validity of a Case-Case Study Design to Compare Risk Factors for *Campylobacteriosis* Cases for Routine Surveillance and Outbreak Investigations

Abstract: The Centers for Disease Control and Prevention (CDC) estimate that in the United States there are approximately 48 million cases of foodborne illnesses, resulting in 128,000 hospitalizations and 3000 deaths annually. In order for public health to identify risk factors that can be modified to reduce transmission, cases must be identified; this is done through routine surveillance and outbreak investigations. Traditionally, these investigations are conducted through case-control studies. This method, while useful, also has limitations related to certain biases and challenges due to the recruitment and interviewing of controls. The additional time needed for this study design delays the identification of the source of the outbreak and may increase the amount of time people are potentially exposed. A more rapid and novel method is the case-case study design. This approach uses existing case data as a comparison to newly identified cases. A case-case analysis would allow the comparison of outbreak cases to historical cases quickly and potentially identify the source in less time than through a case-control study. For the proposed study *Campylobacter*, the second most common bacterial cause of foodborne disease in the U.S. and most developed countries will be used to test this method. These data will be used to test the utility of this method both for routine surveillance and outbreak investigations. If the case-case analyses are found to have the same results as a case-control study the implication for health departments could be faster investigations and more frequent analyses of risk factors related to commonly reported foodborne diseases.

Advisor: Robin Harris, MPH, PhD

AWARDS

- Homeland Security Career Development Fellowship in Food Protection and Defense ■ 2010-2012
 - Arizona Daily Star Newspaper '40 Under 40' Annual Award Recipient ■ 2009
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- Delta Omega (Public Health Honorary Society) Member ■ Inducted 2006
- Student Poster Presentation Award (Epidemiology in Arizona) ■ 2005

RESEARCH EXPERIENCE

At University of Arizona Mel and Enid Zuckerman College of Public Health, Tucson, AZ:

Epidemiologist – Division of Epidemiology and Biostatistics ■ 2011-Present

- Design and conduct case-control studies on foodborne infectious disease outbreaks in Arizona
 - 2005-Present (Conducted under different job title before 2011)
 - State-wide *Campylobacter* case control study ■ 2010
 - Pima County *Campylobacter* case control and case-case studies following unexplained cluster ■ 2011
 - Various case-control studies following foodborne outbreaks
- Analyze public health department data for elevated risk factors following foodborne disease outbreak
- Collaborate with other Colleges and Departments on topics such as food safety, pandemic influenza preparedness and mass dispensing

Consultant – Maricopa County Department of Public Health ■ 2007-Present

- Developed real-time syndrome surveillance system for special events
- Implemented surveillance system in the field for
 - Super Bowl XLII (2008)
 - Fiesta Bowl (2009 and 2012)
 - NBA All-Star Game (2009)
 - MLB All-Star Game (2011)
- Lead Field Epidemiologist on-site for special events
- Analysis of data to determine utility of surveillance to public health preparedness

Research Specialist – Children's Research Center, University Medical Center ■ 2000 -2005

- Molecular biological research on the effects of proteins on cardiac valve development and deformation. Utilized techniques such as PCR, histology, probe and primer development, cell and organ cultures, and other basic laboratory practices.

TEACHING EXPERIENCE

At University of Arizona Mel and Enid Zuckerman College of Public Health, Tucson, AZ:

Program Coordinator Senior – SAFER – Student Aid for Field Epidemiology Response (EPID 596D) ■ 2005-2011

- Instruct the SAFER course, with the main objective of teaching graduate level public health students how to conduct field epidemiology investigations
- Act as a liaison between the College of Public Health and Arizona state and county health departments during infectious disease outbreaks
- Coordinate student response to outbreak investigations when aid is requested by local health departments. To date, students have volunteered over 1000 hours with county and state health departments on outbreak investigations.
- Recruit guest speakers on infectious disease, public health preparedness, or other relevant topics for the course
- Advise students on internship placements and projects within health departments
- 120 students taught over 12 semesters

Co-Instructor – Infectious Disease Epidemiology ▪ 2007

- Present lectures on specific infectious disease and epidemiology principles
- Design homework and class activities to help students gain an understanding of infectious diseases in Arizona

Laboratory Instructor Teaching Assistant – Department of Microbiology University of Arizona ▪ 2003

- Taught two sections of undergraduate microbiology lab including laboratory techniques, bacteriology and research methodology.

OTHER PROFESSIONAL EXPERIENCE

Program Coordinator Senior – Arizona Center for Public Health Preparedness ▪ 2005-2010

- Develop competency based online coursework on public health preparedness
 - Includes extensive research on specific preparedness topics, collaboration with subject matter experts, writing coursework, and designing online presentations
- Develop and teach *Outbreak Epidemiology Workshop* at various locations (Tucson, Yuma, Benson, Phoenix) throughout Arizona
- Coordinate *Forensic Epidemiology* two day workshops various times throughout Arizona (Tucson, Phoenix and Flagstaff)
- Interact with evaluation team to ensure learning and competency objectives are met
- Present to a variety of community and academic groups on public health preparedness topics
- Participate in various work groups on preparedness topics

SERVICE

Intramural

Food Consortium Committee Member

Public Health representative on Food Safety Committee for University of Arizona which works to

promote education and research related to food safety in AZ and beyond.
2010-Present

Campus Mass Clinic Planning Committee Member

Campus Mass Clinic Planning group designs plans for campus wide points of dispensing. Operations Officer for POD activities on campus including October 2009 H1N1 Drive Up Clinic.
2006 – Present

Campus Pandemic Flu Planning Committee Member

As part of the Campus Emergency Response Team, plan and coordinate response to an infectious disease outbreak on campus.
2009-Present

Inter-Professional Exercise for Pandemic Flu Facilitator

Co-developed exercise for students in the Colleges of Public Health, Medicine, Nursing, Pharmacy and Law. Trained facilitators and assisted in organization of exercise.
2008 - 2012

Epidemiology in Arizona Planning Committee Member

2008 & 2010

Extramural

Measles Outbreak Volunteer

Pima County Health Department. Contact investigation.
February-March 2008.

TOPOFF 4 National Preparedness Exercise for a Radiological Disaster Participant

Maricopa County Department of Public Health. Epidemiology Intelligence Section member.
October 2007.

Exercise Facilitator

Tucson Area Indian Health Service. Points of Dispensing Functional Exercise.
October 2007.

Exercise Evaluator

Tucson Area Indian Health Service. Points of Dispensing Table Top Exercise.
September 2007.

PUBLICATIONS

Pogreba-Brown K, Ersnt, K, and Harris RB. Teaching Epidemiology Concepts Experientially: A 'Real' Foodborne Outbreak in the Classroom. Public Health Reports. Accepted for publication in 2012 Sept-Oct;127(5).

Pogreba-Brown K, Harris RB, Stewart J, Anderson S, Erhart LM, England B. *Outbreak Investigation Partnerships: Utilizing a Student Response Team in Public Health Responses*. Public Health Reports.

2010 Nov-Dec;125(6):916-22.

Ernst K, **Pogreba-Brown K**, Rasmussen L, Erhart LM. *The Effect of Policy Changes on Hepatitis A Vaccine Uptake in Arizona Children (1995-2008)*. Public Health Reports. 2011 Jul-Aug;126 Suppl 2:87-96.

Klewer, S., Yatskievych, T., **Pogreba, K.**, Stevens, M., Antin, P., Camenish, T. *Has2 expression in heart forming regions is independent of BMP signaling*. Gene Expression Patterns. 2006 Jun;6(5):462-70

Barber, B., Donnerstein, R., Secomb, T., **Pogreba-Brown, K.**, Steelman, R., Ellenby, M., Shen, I., Ungerleider, R. *The Dicrotic Pulse: A Common, Non-Ominous Finding After the Ross Operation*. Pediatric Cardiology. 11 June 2007.

Epidemiology for Preparedness Online Training Module available through the Arizona Center for Public Health Preparedness

Outbreak Epidemiology Online Training Module available through the Arizona Center for Public Health Preparedness

GRANTS AND FUNDING

SAFER Program, University of Arizona, Mel and Enid Zuckerman College of Public Health Intergovernmental Agreement with the Maricopa County Department of Public Health: Total Award \$297,000. Epidemiologist
2008-2012

Homeland Security Career Development Fellowship. Total Award \$74,500. PhD Student
2010-2012

MEZCOPH Community Advisory Board Scholarship. Total Award \$2000. PhD Student
2009

Internship Funding, University of Arizona, Mel and Enid Zuckerman College of Public Health Academic Health Department Grant: Total Award \$5000. MPH Student
2004

MEMBERSHIPS

- International Association for Food Protection: 2011
 - CDC National Collaborative Group on Student Response Teams: 2010
 - Delta Omega Member: 2006 - Present
 - University of Arizona Mass Dispensing Planning Group: 2006- Present
 - Pima County Health Department Pandemic Influenza Ethics Sub-Committee: 2007-Present
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- CDC National Collaborative Group on Training Students in Public Health Preparedness: 2005-2006

SCHOLARLY PRESENTATIONS

Poster: *Outbreak Investigation Partnerships: Utilizing a Student Response Team in Public Health Responses*. National Center for Food Protection and Defense Biennial Meeting, Minneapolis, MN (October 2010).

Poster: *Real-Time Syndromic Surveillance at Super Bowl XLII*. National Center for Food Protection and Defense Biennial Meeting, Minneapolis, MN (October 2010).

Invited Speaker: *Student Epidemiologic Response Teams: An Avenue for Partnerships*. Regional CDC Epidemic Intelligence Service (EIS) Conference, Phoenix, AZ (March 2009).

Invited Speaker: *Epidemiological Investigations*. Regional Weapons of Mass Destruction Conference, Federal Bureau of Investigation and the U.S. Attorney's Office for District of Arizona, Phoenix, AZ (January 2009).

Invited Speaker: *"Pandemic Flu Preparedness and Response – What do I do? What do you do?"*. Arizona Center for Public Health Preparedness Seminar, Tucson, AZ (January 2009).

Poster: *Teaching MPH students "shoe leather epidemiology" through foodborne illness outbreaks, case investigations, and surveillance at the Super Bowl*. American Public Health Association Annual Meeting, San Diego, CA (October 2008) (Presented by C. Vanessa Barnes in my absence).

Invited Speaker: *Student Aid for Field Epidemiology Response (SAFER)*. U.S. Public Health Service Annual Conference, Phoenix, AZ (June 2008).

Poster: *SAFER BORDER Using Promotores as Surge Capacity for Public Health Emergencies*. U.S. Public Health Service Annual Conference, Tucson, AZ (June 2008).

Invited Speaker: *Using Promotores as Surge Capacity for Public Health Emergencies*. 10th Annual National Promotores Conference and Community Health Outreach Workforce, Phoenix, AZ (October 2007).

Invited Speaker: *Student Aid for Field Epidemiology Response (SAFER)* San Carlos Apache Tribe Health and Human Services, Globe, AZ (March 2007).

Poster: *Student Aid for Field Epidemiology Response (SAFER) The Development and Implementation of a Student Epidemiology Response Team*. NACCHO Public Health Preparedness Summit, Washington, D.C. (February 2007).

Invited Speaker: *Introduction of the Student Epidemiology Response Team*. 2nd Annual North Region Tribal Bioterrorism Conference, Flagstaff, AZ (February 2006).

PROFESSIONAL DEVELOPMENT

Conferences and Meetings

Emerging Infectious Diseases Annual Conference, Atlanta, GA (June 2010)

Homeland Security Science and Technology Career Development Annual Meeting, Washington, D.C. (October 2010).

National Center for Food Protection and Defense Biennial Meeting, Minneapolis, MN (October 2010).

Agroterrorism Working Group for the State of Arizona, Phoenix, AZ (March 2010)

Arizona Foodborne Illness/Food Defense Surveillance/Response Work Group, Phoenix, AZ (January 2010)

Institute on Global Policy Conference, Tucson, AZ (December 2009)

Mass Fatalities Conference, Arizona Department of Public Health, Phoenix, AZ (July 2007)

NACCHO Public Health Preparedness Summit, Washington, D.C. (February 2006)

Arizona Pandemic Readiness Conference, Phoenix, AZ (January 2006)

Vector-Borne/Zoonotic Diseases & Bioterrorism/Public Health Threats Conference, Arizona Department of Public Health, Phoenix, AZ (April 2004)

Certificates

Quantitative Microbial Risk Assessment Summer Institute (August 2011)

FEMA – Emergency Management Institute (EMI) – IS 100 – Incident Command System

FEMA – Emergency Management Institute (EMI) – IS 200 – ICS for Single Resources and Initial Action Incidents

FEMA – Emergency Management Institute (EMI) – IS 700 – National Incident Management System (NIMS), an Introduction

FEMA – Emergency Management Institute (EMI) – IS 800 – National Response Framework, an Introduction

REFERENCES

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