An Epidemiology Elective at CDC Enriched My Scholastic Experience  By Melissa Garrick

One of the great blessings in being a member of the veterinary profession is the wide variety of career options available. While many go into general practice, I have been contemplating using my soon-to-be-obtained DVM degree to pursue a career in public health. So I jumped at the opportunity to do a six-week epidemiology elective program at the Centers for Disease Control (CDC) and Prevention in Atlanta, Georgia as an externship. I was not quite sure what to expect of the program, offered to 4th year medical and veterinary students, but I was excited about the opportunity to see if public health is a field I would enjoy and what, if any, opportunities are available for veterinarians.

The first two weeks of my Epi Elective I worked in the Enteric Disease Epidemiology Branch (EDEB). My supervisor, Dr. Casey Barton Behravesh, is a veterinary epidemiologist and has been an integral part of many high-profile food outbreak investigations. While in Atlanta, I learned about a few of the current enteric outbreaks that were working on, including Salmonella montevideo illnesses associated with the handling of chicks, S. typhi associated with frozen maney fruit pulp, and two large, multi-state outbreaks of S. hartford and S. baliidan that were suspected to be restaurant-related. I was able to participate in a case-control study, which involved interviewing both sick and healthy individuals as we aimed to identify the food vehicle that caused so much illness. The days were long and intense as I saw firsthand how difficult it was to find the “smoking gun.”

I was only in EDEB for two weeks when I was offered the chance to travel to an outbreak. I traveled with a team from the Meningitis and Vaccine-Preventable Diseases Branch to Richmond, California. The culprit: Pertussis, aka Whooping Cough.

California is experiencing a 47-year high in disease rates in 2010, and eight infant deaths have been reported for this year alone. The California Department of Public Health (CDPH) has done a tremendous job of publicizing the outbreak and encouraging vaccination but called in the CDC to help identify why the disease rates are still increasing and what is driving the current outbreak.

As a veterinary student, I knew nothing about whooping cough but, as a veterinary student at U.C. Davis, I have excellent biomedical training that allows me to translate my skills toward this human pathogen. While Bordatella pertussis was not a bacteria I was specifically trained on, many of the same veterinary medicine principles applied. I was able to do the research and understand epidemiology, pathogenesis, diagnostic techniques, treatment, and vaccinology fundamentals. I was soon entrusted with my own project to research infant mortality during years of pertussis epidemics in California. The work was important and something that both CDPH and CDC were anxious to know more about. I received great guidance and encouragement from CDC and CDPH mentors as I worked on something that was a distant cry from veterinary medicine.

While my externship is now over and I return to the reality of senior clinics, I still communicate with CDC and CDPH team members to continue my project and eventually (hopefully) publish my results. Although, as a veterinary student, I was inexperienced in the CDC environment, I was always treated as a colleague. Perhaps CDC staff know that many great veterinarians have already made positive contributions to the field of public health. It was great to see the opportunities available to veterinarians at the CDC and the recognition we receive for our training and skills. I enjoyed my epidemiology elective program immensely and look forward to returning to the CDC some day as a veterinary epidemiologist!