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JRCOSTEP Summer 2022
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I am a current undergraduate student at the University of Georgia studying environmental health. I am planning to graduate in December of 2022 and continue pursuing a career in Public Health. I have always had a passion for service and a strong interest in science. In recent years, I have recognized the interconnectedness between the health of the environment and that of human populations. This association has led me to pursue a career in which I can serve others while improving the health of the natural environment. I was initially introduced to the Junior Commissioned Officer Student Training and Extern Program (JRCOSTEP) through an advisor and decided to apply after connecting with an Environmental Health Officer guest speaker.

I was fortunate to receive the opportunity to complete my externship with the Indian Health Service at the Oklahoma City Area Office. CDR David Bales served as my preceptor and created a work plan in which I could experience numerous aspects of the interdisciplinary field of environmental health. Throughout my JRCOSTEP experience, I was able to gain exposure to disciplines including industrial hygiene, food safety, emergency preparedness, injury prevention, disease prevention, and other environmental health-related practices. Although I was primarily assigned to the Oklahoma City Area Office, I frequently traveled to surrounding field offices and tribal facilities. I had the opportunity to work with numerous Environmental Health Officers while traveling throughout the state of Oklahoma.

I visited a variety of tribally-owned hospitals and health clinics to evaluate the effectiveness of their infrastructure and equipment. Testing the ventilation of these facilities is critical in order to control airborne disease transmission via the strategic use of positive and negative pressure rooms. Similarly, healthcare equipment must be evaluated periodically to guarantee its effectiveness and safety. For example, I used an x-ray meter to test radiology equipment for reproducible data and controlled exposures to radiation. One aspect that I especially enjoyed was measuring exposure to compounds including nitrous gas and formalin. Although these substances play a critical role in healthcare procedures, they can cause adverse health effects and therefore are monitored to limit occupational exposure.



Preparing for my first individual ventilation assessment



Measuring air flow in an Indian clinic with a VelociCalc ventilation meter



Measuring the water chemistry of a hotel swimming pool

I also conducted assessments of tribal-owned casinos, hotels, restaurants, waterparks, and gas stations with the intention of preventing negative health outcomes. These efforts are not only important for ensuring the safety of employees, but also the guests. I frequently evaluated kitchens for general cleanliness, ergonomic hazards, proper food storage, and potential for contamination. These food service sanitation surveys are based on the FDA Food Code which outlines deficiencies in food service and how they should be corrected. On a similar note, I tested pools and waterparks for free chlorine, combined chlorine, pH, and hardness to evaluate potential health hazards.

Throughout the summer, I was assigned an individual project in which I updated and revised a “cheat sheet” for citing the FDA Food Code. Safety officers and sanitarians will often require access to this resource when generating reports from food surveys. However, the original document is lengthy and can be difficult to navigate. I created a dynamic guide for looking up specific categories of deficiencies within the FDA Food Code to facilitate the process of generating a report. I also made revisions and updates so that the guide would reflect the most recent information published by the FDA.

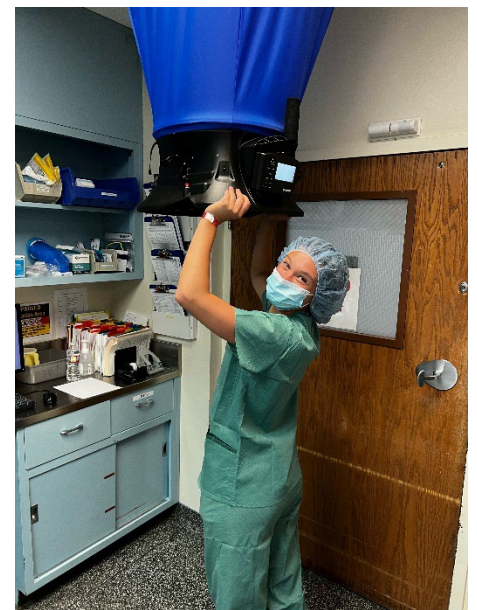
This experience was incredibly rewarding for me. After participating in the JRCOSTEP, I feel even more compelled and inspired to contribute to the field of public health. I have gained an appreciation for the value of serving Native Americans in order to improve community health. Injury and disease prevention are essential elements in lessening the burden on today’s healthcare system. I strongly believe that emphasizing these principles can help us to achieve improved widespread health outcomes. I am so thankful for all the support and guidance that I received from the Oklahoma City Area Office. This program is valuable in so many ways and I would recommend it to any student pursuing a career in public health.



Using an x-ray meter to monitor exposure to radiation from a dental panoramic x-ray machine



Visiting Mount Scott in the Wichita Mountains Wildlife Refuge



Measuring the air flow in the operating room at Claremore Indian Hospital