

ENS George F. Carroll
JRCOSTEP Summer 2012
Eastern Kentucky University
San Carlos Service Unit
San Carlos, AZ



Hello! My name is George Carroll and I am a graduate student at Eastern Kentucky University nearing completion of my Masters of Public Health degree with a concentration in Environmental Health Science. I am also an alumnus of Western Carolina University where I majored in Environmental Health. This summer I was fortunate to serve as an intern with the U.S. Public Health Service and the Indian Health Service. My experience was nothing short of extraordinary.

Some might say I was a little far from home. My duty station was the San Carlos Service Unit in San Carlos, Arizona which is approximately 100 miles east of Phoenix, Arizona and roughly 2,000 miles from my hometown of Charlotte, North Carolina. This service unit works with the San Carlos Apache Tribe which has approximately 14,000 enrolled tribal members. My preceptor was LTJG Tim Shelhamer, who was a tremendous help throughout the entire process and served as a great mentor. This summer I also had the pleasure of traveling to the Fort Apache Indian Reservation to work with the White Mountain Apache Tribe, and another project took me further north to work on the beautiful Hopi reservation. The COSTEP was no ordinary internship. I wasn't there to simply watch and learn; I was a part of a team dedicated to improving the health of entire communities.

True to the nature of environmental health, the activities I was involved with this summer were diverse, interesting, and, needless to say, extremely rewarding. Perhaps the most alluring attribute about working in environmental health is the amount of time you're *not* stuck in the office. While I was able to experience routine events such as meetings, conference calls, and report writing, I was glad to spend the majority of my time outside working hands-on to improve the different communities IHS serves. I was actively involved in many tasks such as animal bite investigations, swimming pool surveys, a jail survey, occupant restraint surveys, and conducting food safety training. After years of schooling it is exciting to put knowledge to use and, inevitably, learn so much more.

It didn't take long to get involved. My first week of work I was involved with the Rocky Mountain spotted fever prevention ("RMSF Rodeo") project, an effort led by the CDC in collaboration with IHS, USDA, Arizona Department of Health Services, the San Carlos Apache Tribe, and Bayer Animal Health. The project aimed to reduce tick populations in order to decrease the incidence of RMSF in a project area that included roughly 600 homes. Since 2004, RMSF has been of increasing concern here as there have been nearly 100 confirmed cases and several deaths on this reservation alone. As someone who is extremely interested in disease etiology, investigation, and prevention, this project was a great start to the summer. The components for the "Rodeo" included monthly pesticide application outside of the homes, a month-long spay and neuter clinic, placing tick collars on dogs, and educating homeowners regarding RMSF and ways they can protect themselves and their family from the disease. Dogs, the preferred host of the type of ticks in this area, were our primary focus. The goal was to control the amount of ticks on the dog and, subsequently, around the home. In the beginning, nearly half of the dogs in the project area had ticks. By the end of the four month treatment, roughly 90% of dogs were tick free. I am honored to have been involved with such a successful project.



Another great experience I will elaborate on was the rabies vaccination clinic on the Hopi reservation. I had the pleasure of working directly with Centers for Disease Control and Prevention medical epidemiologist and veterinarian LCDR Sherry Burrer to conduct a portion of the CDC's Epi-Aid for determining how many dogs on the reservation had been exposed to the bacterium *Rickettsia rickettsii*, the causative agent of RMSF. To do this, we drew blood from roughly 100 dogs throughout the villages, in addition to providing the rabies vaccinations, parvovirus/distemper combination vaccinations and tick collars that were distributed. It was a mobile operation which visited 20 clinic sites. During the three-day clinic we vaccinated roughly 530 dogs, more than double the amount normally seen during this clinic! My experience at Hopi was fascinating. Coming from a densely populated city, I found myself enthralled with the Hopi people, their kindness, and their humble way of life in such a remote location.

It wasn't long ago that I was at school reading COSTEP narratives just like this one. It is surreal now to think that I am finishing up that same type of unique experience and will soon begin a career with IHS. If you have an interest in environmental health or public health in general, the COSTEP is an exceptional internship and I encourage you to apply. This program is one of a kind. You can't imagine the great experiences you will encounter and the relationships you will build. More importantly, you will begin to see just how easy it is for you to make a difference in improving the health of communities. This is grassroots public health. Who would've thought that the best summer of my life would be a summer spent working?

