

ENS Raymond Lopez
JRCOSTEP Summer 2015
University of Georgia
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Tempe, Arizona

My name is Ray Lopez, I'm a senior at the University of Georgia and I currently have two semesters left before graduating with a B.S. in Environmental Health. This summer I participated as a JRCOSTEP working with the Phoenix Area Indian Health Service officially starting the first week of June. I worked out of the the Western Arizona District Office in Tempe and was assigned to my preceptor CDR Rob Morones. After arriving, I was given a tour of the work place and introduced to the permanent staff before being assigned to an office for the summer.



Throughout the first few weeks I learned about the roles and responsibilities of the Indian Health Service and was assigned a project to be completed by the end of my internship which consisted of two phases. The first phase, I compiled data from statewide sources and created summaries which were used for a grant proposal which provided up to \$800K to the Western Arizona District tribes. The second phase of the project, I compiled and analyzed data from numerous sources and used Microsoft Excel to create *injury data sheets*. The sheets were used to help identify any injury trends and patterns in the tribal communities.

I completed the IHS online food handler's safety course and received a certificate that I later used to assist CDR Vince Garcia in teaching at the Ak-Chin Reservation. I took it a step further by registering for the ServSafe® Certified Food Manager Course which was taught in Yuma, AZ by Environmental Health Officers LT Isaac Ampadu and LT Kendra Vieira. This was a 2-day course that consisted of a 90 question test on the 3rd day. I took the instructors test which allowed me to teach a class by myself at the end of the summer at the Havasupai Reservation.

In the Ak-Chin Indian community, I conducted food and beverage inspections in Harrah's Ak-Chin Hotel and Casino which consisted of a Dunkin Donuts and two bars. CDR Garcia and I checked the freezer, refrigerator, and food temperatures. Next, we ensured that all food products were labeled, dated, and stored correctly. We finished the inspection by testing the staff's knowledge on proper protocol and procedures. Once completed, we entered the discrepancies into a system called WebEHRS and sent a final report with a corrective actions list to the establishments. Eventually I was given the opportunity to conduct inspections on my own. I was given full responsibility at the Phoenix Indian Medical Center to conduct an unannounced survey of the cafeteria and snack bar.



In Yuma I assisted LT Vieira with dengue hemorrhagic fever surveillance. Mosquito traps were set in different locations around various trailer parks. These traps were designed to draw *Aedes aegypti*, which are attracted to small amounts of stagnant water and tend to stay within 50 feet of their breeding area. During the survey no mosquitos were caught so we couldn't test them for the presence of Dengue Fever. A couple of weeks later I assisted LT Ampadu in West Nile virus (WNV) surveillance in Fort Mohave and Chemehuevi, here we used CO₂ traps which used dry ice to attract mosquitos. The sublimation of the

dry ice was used to attract *Culex tarsalis* which is a common carrier of WNV. Once close enough, the mosquitos were pulled in by a fan and blown into a net which were collected the next morning. We separated the mosquitos by species and used the RAMP testing method to determine if they were infected with WNV. Fortunately, none tested positive. We completed a report and sent the findings to the tribes. I also learned a great deal about mosquitos talking to Chris Sumner (an entomologist in Yuma).

I traveled along with CDR Garcia and PIMC COSTEP Anthony Lee to the Havasupai Indian Tribe located at the bottom of the Grand Canyon. Due to the remote location, we spent the night at Hualapai and woke up the next morning at 0400 to begin the 8-mile hike to Supai. Once we arrived we began the inspection of the village jail and shortly taught a 2-hour food handler's class. We graded the exams and were pleased to see that we had a 100 percent pass rate. The next morning we conducted a total of five inspections, which included the hotel, café, store, campgrounds, and senior center. Once all inspections were complete, we walked two miles to Havasu and Mooney Falls to get a population count all while having a little fun in the streams and pools. We were fortunate to take a chopper out of the canyon instead of hiking the eight miles, especially after the last few exhausting days.

This internship was truly a life changing experience. Working with IHS has broadened my perspective of the environmental health field and has me looking forward to a potential career with the U.S. Public Health Service. I really enjoyed learning the broad range of skills and duties that IHS Environmental Health Officers carry out on a daily bases. The most rewarding part was helping those in need. Both CDR Morones and CDR Garcia provided me insight and wisdom and have me excited to apply for a potential position after graduation.