

**INDIAN HEALTH SERVICE
2014 ENVIRONMENTAL HEALTH SPECIALIST OF THE YEAR
LCDR LANDON WIGGINS**



INTRODUCTION

Since June 2012, LCDR Landon Wiggins has served as the Senior Environmental Health Officer for the Schurz Service Unit providing direct services to 7 Tribes in Nevada (pop. 2500). He also serves as the primary environmental health advisor to an urban health program serving Native Americans in the greater Reno, NV area. As the Senior EHO, LCDR Wiggins serves as a mentor to the Junior Field EHO at this duty station. The Schurz Service Unit is 1 of 4 that comprises the Reno District Office (RDO) which serves a total of 28 tribes in Nevada, Utah, and California. LCDR Wiggins consistently demonstrates commitment to the mission of the IHS and is a valued and highly respected resource to the RDO, the Phoenix Area, and to the Tribes he serves.

SPECIAL ACCOMPLISHMENTS

ATP Bioluminescence Evaluation of Environmental Cleaning in Healthcare Settings: Disinfection of environmental surfaces to reduce the risk of health care associated infections, including those associated with multi-drug resistant organisms. There are 26 clinics and health stations in the RDO in which EHOs conduct routine environmental health surveys. LCDR Wiggins analyzed survey findings and identified gaps in environmental cleaning practices. Employing a comprehensive public health approach, LCDR Wiggins took the lead in developing an initiative to improve cleaning practices in healthcare facilities throughout the RDO. He researched and identified adenosine triphosphate (ATP) bioluminescence technology as a tool to test and provide a rapid detection of microbial surface contamination. He then adapted CDC's hospital focused *Options for Evaluating Environmental Cleaning and Objective Methods for Evaluating Environmental Hygiene* and designed a pilot project targeting the ambulatory healthcare setting.

He established and led a team of five RDO EHOs to assess cleaning practices at 5 clinics. He developed a survey protocol to ascertain baseline measures of surface contaminants, inventories of cleaning chemicals, housekeeping procedures, and infection control capacity. Baseline survey results indicated: 68% of ATP tested surfaces failed, indicating inadequate cleaning practices; several primary disinfectants were not EPA registered; 60% of the facilities had no written housekeeping policies & procedures; and no facility infection control program was linked to environmental cleaning.

Using the baseline findings, LCDR Wiggins developed an improvement initiative with one of the participating facilities, the Pyramid Lake Paiute Tribal Health Clinic. He worked closely with clinic housekeeping staff in

developing cleaning policies and procedures. He led the development and instruction of a customized training for housekeeping staff to improve cleaning practices. The procurement of cleaning chemicals was updated to assure all were approved for the healthcare setting. Clinic leadership influenced by the project sent four staff for advanced training through the Association for Professionals in Infection Control and Epidemiology (APIC). To evaluate cleaning practices, LCDR Wiggins partnered with the clinic Quality Assurance Coordinator to conduct unannounced ATP assessments. Over a 6 month period, results went from an initial 88% fail rate to a 92% pass rate.

This project, including the innovative use of ATP and sampling procedures developed by LCDR Wiggins, has been expanded for use by his peers at additional healthcare facilities in the RDO. The project has also been adapted to evaluate environmental cleaning practices at other facility types, including child care facilities. LCDR Wiggins' focus on a process approach to interventions and systems change; and his leadership in planning and implementation, significantly contributed to the success of this project and increased technical capacity within the Reno District Environmental Health program.

Head Start Preventative Maintenance Initiative: Children's environmental health is a high priority for the Phoenix Area. In 2014 the RDO completed a project that provided the Inter-Tribal Council of Nevada (ITCN) Head Start (HDST) Program, and tribes a prioritized facility repair and renovation needs list to target significant repeat health, safety, and code compliance issues for each of their 10 facilities. The priority report identified more than 100 significant issues, including 58 critical items. EH staff seized the opportunity to promote routine repair and preventative maintenance (PM) programs, which was identified as a substantial contributing factor to the findings at 9 out of 10 facilities. LCDR Wiggins took the lead in developing a PM tool that could be applied to one or multiple facilities, from basic to complex. The RDO will be pilot testing the tool to adapt it to other facility types during 2015, while continuing to partner with HDST programs. LCDR Wiggins' efforts served to build capacity within the EH, tribal, and partner programs, as well as to provide a needed resource to Tribal programs.

PROFESSIONALISM

LCDR Wiggins is a model environmental health practitioner who maintains professional registration through NEHA (RS/REHS) and is a certified *ServSafe* instructor, a nationally-recognized food safety training curriculum. In addition to serving as a mentor to a Junior Field EHO, he also served effectively as the Preceptor to an EHO JRCOSTEP in 2014. He is committed to professional development and volunteered to participate in the OEHE Leadership and Personal Development Leadership Learning Team Pilot Project - a virtual training opportunity focused on enhancing leadership and management competencies. In 2014, he was among a team of IHS EHOs who contributed to the IHS Workforce Development Committee through their submittal of a formal report of training recommendations for junior EHOs. He continues to develop his professional presentation skills, co-authoring a formal poster presentation in 2014, ("*Evaluation of Environmental Cleaning in Ambulatory Healthcare Settings*", regional American Society of Safety Engineers Research Poster Competition) and presenting EH educational sessions at the Inter-Tribal Council of Nevada's 47th and 48th Annual Conventions ("*Promoting Children's Environmental Health & Safety in the Childcare Environment*"). His current role as the Vice President of the Northern Nevada Commissioned Officers Association demonstrates his leadership abilities and commitment to the Commissioned Corps.

INNOVATION

Capacity Builder: LCDR Wiggins identified environmental cleaning effectiveness as a public health concern and conceptualized the evaluation strategy using ATP technology, which was a new tool within the RD EH program. In addition to the technology, the project also required research and staff training in environmental cleaning and infection control best practices in a district where the majority of healthcare facilities lacked a

designated and trained infection control officer. LCDR Wiggins' intervention plan has shown notable success in improving environmental cleaning, with a major factor being the ability to quantify and provide immediate and visual results. This effort utilizes each of the ten essential public health services. LCDR Wiggins' efforts and systematic, process-driven approach increased both Tribal and RD EH program capacity and provided a tool and intervention strategy that is already being applied to other facility types and public health issues.

SUMMARY

LCDR Wiggins demonstrates a high degree of professional and personal commitment to the mission of the Public Health Service and the Indian Health Service. His performance and willingness to go the extra mile have allowed him to strengthen relationships with tribal partners and have enhanced the quality of environmental health services provided to the Schurz Service Unit Tribes. He is a dedicated and talented Environmental Health professional who demonstrates leadership qualities that inspire cooperation and confidence in his colleagues, peers and tribal partners. He is an up and coming leader and a credit to the environmental health category.