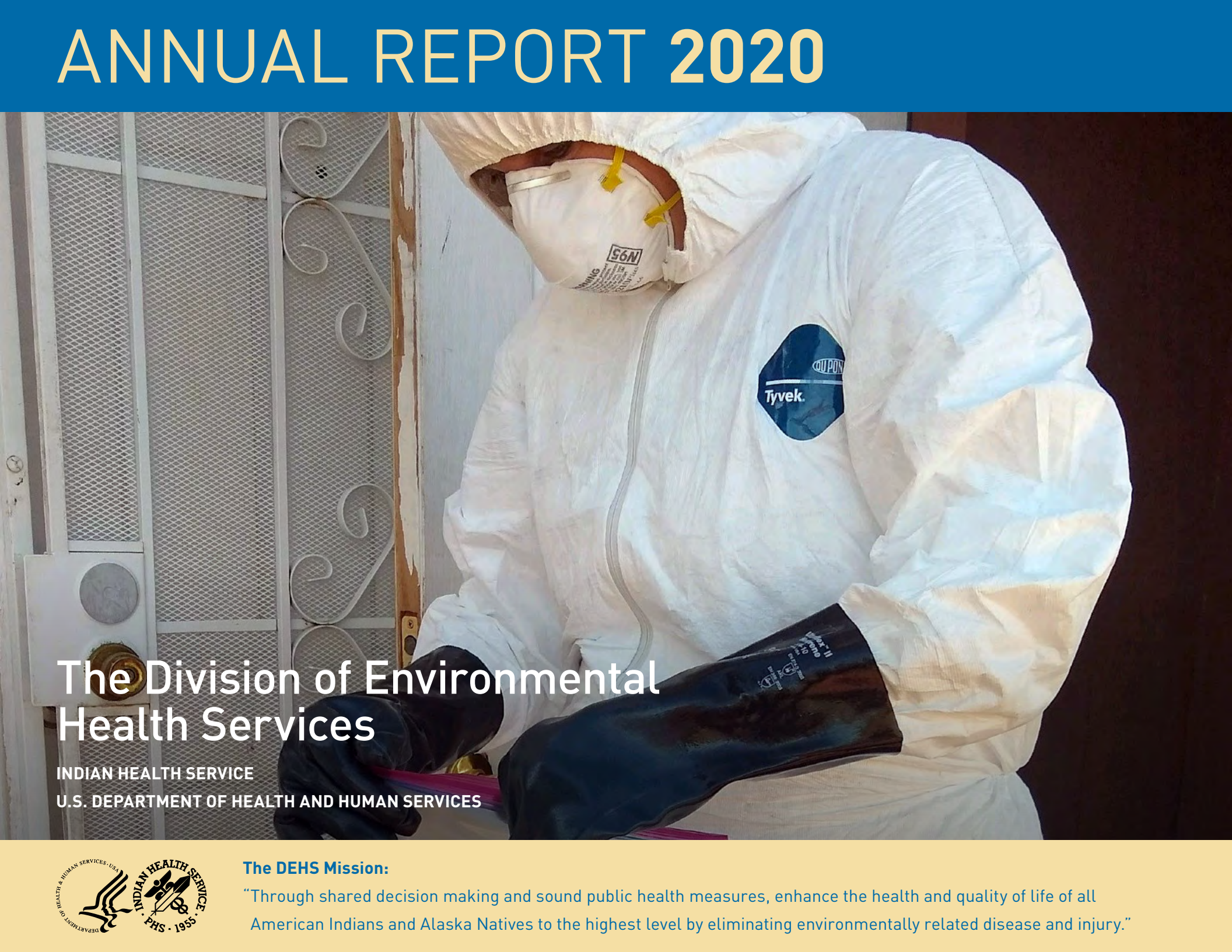


ANNUAL REPORT 2020



The Division of Environmental Health Services

INDIAN HEALTH SERVICE

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES



The DEHS Mission:

“Through shared decision making and sound public health measures, enhance the health and quality of life of all American Indians and Alaska Natives to the highest level by eliminating environmentally related disease and injury.”

The Division of Environmental Health Services

INDIAN HEALTH SERVICE • U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

ANNUAL REPORT 2020

This Annual Report for Calendar Year 2020 was produced by the Indian Health Service Division of Environmental Health Services to provide relevant information about the Program. Additional information can be obtained by contacting:

INDIAN HEALTH SERVICE

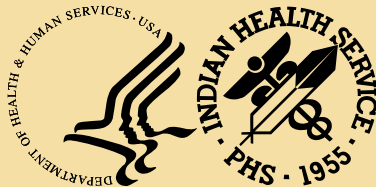
Office of Environmental Health and Engineering

Division of Environmental Health Services

5600 Fishers Lane MS: 10N14C

Rockville, MD 20857

www.ihs.gov/dehs



Mention of trade names or commercial products does not constitute endorsement or recommendation for use.



On the cover: The 2020 photo contest winner... CDR Sarah Snyder collecting a specimen during a hantavirus investigation, taken by LT Kate Pink, both of Phoenix Area IHS (Phoenix Area; October 2020).



Table of Contents

6 COVID-19

8 Profile of the DEHS Program

- 9 Program History
- 10 Program Vision
- 11 Program Mission
- 12 Our Operating Philosophy
- 13 Program Structure
- 14 Program Services
- 15 Program Resources
- 20 Education
- 26 Recognition

32 DEHS Services

- 33 Core Services to AI/AN Communities

38 DEHS National Focus Areas

- 39 DEHS Services
- 40 Children's Environment
- 41 Safe Drinking Water
- 42 Food Safety
- 47 Vectorborne & Communicable Diseases
- 57 Healthy Homes

62 Area DEHS Programs

- 63 Alaska
- 64 Albuquerque
- 65 Bemidji
- 66 Billings
- 67 California
- 68 Great Plains
- 69 Nashville
- 70 Navajo
- 71 Oklahoma City
- 72 Phoenix
- 73 Portland
- 74 Tucson

76 IHS Area DEHS Program Directory

List of Tables

- 16 *Table 1:* DEHS Program Funding Sources.
- 18 *Table 2:* Level of Need Funded (LNF) 2020.
- 21 *Table 3:* EHSC Sponsored Courses – 2020.
- 23 *Table 4:* Active IEH Residency Graduates.
- 25 *Table 5:* Summary of Certifications Held by Federal and Tribal Staff.
- 26 *Table 6:* Summary of Awards Received by Federal and Tribal Staff.
- 28 *Table 7:* EHS of the Year, 2020 through 1993.
- 30 *Table 8:* Gefroh Award Winners, 2020 through 2008.

List of Figures

- 17 *Figure 1:* RRM (workload) vs. actual DEHS funding from 2011 to 2020.
- 22 *Figure 2:* Number of college students participating in the DEHS extern program, 2011 to 2020.
- 24 *Figure 3:* Distribution of environmental health staff within the national program.
- 24 *Figure 4:* Percentage of environmental health staff with master's degrees.
- 24 *Figure 5:* Percentage of environmental health staff with REHS/RS credentials.
- 33 *Figure 6:* Activities completed in 2020 as reported in WebEHRS.
- 42 *Figure 7:* Trends in services and reportable food and waterborne illnesses.

COVID-19

The COVID-19 pandemic impacted our staff, customers, and the work we conducted in 2020. Readers may notice some of the metrics in this report skew from historical trends as a result of the pandemic. For example, the number of student externs we hosted (*Table 3*), activities we conducted (*Figure 6*), and quantity of projects highlighted in the Focus Areas section of this report all show notable changes.

The COVID-19 pandemic challenged not only the healthcare industry, but also public health infrastructure more broadly in new and wide-ranging ways. Environmental Health (EH) professionals proved to be an essential component of the interdisciplinary public health solution required to counter the COVID-19 pandemic.

The Indian Health Service's Division of Environmental Health Services (DEHS) is comprised of talented professionals who fulfilled various roles in the prevention, response, and recovery of the COVID-19 pandemic related to community-based environmental health, occupational safety and health, and within incident command systems.

DEHS staff roles in the prevention of, response to, and recovery from the COVID-19 pandemic

- Community-based EH
 - technical assistance/guidance/outreach to community programs
 - plans and preparations to reopen tribes and establishments
- Institutional EH
 - personal protective equipment training/management/supply
 - safety/infection control assessments
 - various support of vaccine distribution
- Incident Command System Support
 - Healthcare Facility and Area Office safety officers
 - Incident Commanders
 - Emergency Management Point of Contacts
 - preparations for surge capacity/recovery

As growing case counts necessitated activation of federal/state/ county/tribal incident command systems, we were there to step up. DEHS staff were sought to provide critical leadership and used their established, trusted, interdisciplinary partnerships to help ensure critical resources and services were available in Indian Country. Throughout the pandemic, DEHS staff modeled unselfish commitment to service, utmost professionalism, and steadfast resilience in the face of ever-changing conditions.



DEHS was recognized with the Outstanding Service [Natl Impact] Award at 2020 NIHB Heroes in Health Awards Gala for exceptional COVID-19 response and prevention efforts. See award acceptance by RADM Kelly Taylor on behalf of the Division and [press release](#).



CDR John Hansen with Abbott ID Now Test Kits.



LCDR Molly Madson at COVID-19 testing site.



LT Michael Hiles and LT Riley Grinnell conducting a food service sanitation survey.



LCDR Landon Wiggins serving at the Nevada Emergency Operations Center.



CAPT Stephen Piontkowski deployed to the Chicago quarantine station.



LCDR Shawn Blackshear at hand hygiene station.



LT Francis Park and CDR William Crump loading Coast Guard helicopter.



LT Riley Grinnell measuring the temperature of food.



Rebekah Abangan conducting a respirator fit test.

Profile of the DEHS Program



Program History



DEHS staff pivoted during the COVID-19 pandemic to complete work and engage partners in virtual settings more than had previously been conducted prior to the pandemic.

The roots of the DEHS can be traced to 1921, when Commissioner Charles Burke, Office of Indian Affairs, U.S. Department of the Interior, issued a circular directing agency physicians to serve as Health Officers for their reservation. Over the next several decades, responsibility for community surveys shifted to the sanitary engineering staff. These surveys came to include a wide range of facilities, from water systems to community buildings to dairy plants.

By the time of the Transfer Act of 1954 (Public Law 83-568), which moved the responsibilities for American Indian/Alaska Native (AI/AN) healthcare from the Bureau of Indian Affairs (BIA) to the Indian Health

Service (IHS), most of the components of the current Environmental Health Services Program were in place, with agency policies for food handler training, radiological health, facility inspections, and water fluoridation. The emphasis was on establishing, expanding, and resolving basic sanitation services.

The Sanitarian Aides were the workforce in the field, with a few supervisory Sanitariums at Area Offices.

In 1962, the first headquarters (HQ) Institutional Environmental Health (IEH) Officer was hired and provided advice and technical guidance on all community-based institutions.

In 1963, a joint conference of the BIA and the IHS leadership discussed collaborative efforts to combat the community accident mortality problem among AI/AN. An Accident Prevention Program was established within the Division of Indian Health while calls for expanded funding and authority went to Congress.

In 1969, Congress provided funding and positions for the Accident Prevention Program within the Health Education Program. The Accident Prevention Program continued as a collaborative effort with Health Education until 1979, when Emery Johnson, Director of IHS, formally transferred responsibility to Environmental Health Services and the name changed to Community Injury Control, and later to Community Injury Prevention (IP).

We are Environmental Health Officers, Environmental Health Specialists, Health Care Safety Officers, Institutional Environmental Health Officers, and Injury Prevention Specialists. We provide direct environmental health services and consultation to American Indian and Alaska Native tribal governments and Indian Health Service programs.

Program Vision

The vision of the DEHS is “Every American Indian and Alaska Native will live in a safe, healthy environment. Community-based environmental health programs, developed in partnership with tribes, will utilize sound public health practices and resources to achieve the lowest disease and injury rates in the nation.”

Our Operational Model is available in the [OEHE Technical Handbook, Volume VIII, Part 112-1](#) and aligns with [Part 3 Chapter 11 of the Indian Health Manual](#). It identifies core services all Areas should provide the tribes.



Program Mission

The mission of the Division of Environmental Health Services (DEHS) is “through shared decision making and sound public health measures, [to] enhance the health and quality of life of all American Indians and Alaska Natives to the highest level by eliminating environmentally related disease and injury.” In support of this mission, the DEHS provides a range of services to the AI/AN communities.



Our Operating Philosophy

The operating philosophy of the DEHS is based on the Ten Essential Public Health Services first articulated in 1994 by a partnership of local, state, and national public health leaders. IHS adopted them as the [Ten Essential Environmental Health Services](#) and incorporated this set of strategies into the methods in which it delivers services to AI/AN communities across the country.

ASSESSMENT

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.

POLICY DEVELOPMENT

3. Inform, educate, and empower people about environmental health issues.
4. Mobilize community partnerships to identify and solve environmental health problems.
5. Develop policies and plans that support individual and community environmental health efforts.

ASSURANCE

6. Support laws and regulations that protect health and ensure safety.
7. a) Link people to needed environmental health services and
b) Assure the provision of environmental health services when otherwise unavailable.
8. Assure a competent environmental health workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based environmental health services.

SYSTEM MANAGEMENT

10. Conduct research for new insights and innovative solutions to environmental health problems.

Using the Ten Essential Environmental Health Services as a framework, the IHS DEHS developed five national focus areas: children's environment, safe drinking water, food safety, vectorborne and communicable diseases, and healthy homes. Details on projects conducted throughout the tribal communities served by the DEHS Program in 2020 can be found in the [National Focus Areas](#) section of this report.

[The Ten Essential Public Health Services were revised in 2020](#) to align the framework with the future of public health practice. The DEHS will work with environmental health partners to determine how the revised version will impact the Division.



Program Structure

The DEHS is a field-based environmental health services program that takes pride in supporting the needs of individual tribal communities. The DEHS operates under a decentralized organizational structure, with most of its staff employed in district and field offices throughout the 12 IHS Areas. In 2020, the national DEHS program consisted of a total of 263 staff, excluding the headquarters staff listed below. The DEHS at Area Offices were typically staffed with a Division Director and one or two professional staff (e.g., IP Program Manager and/or IEH Program Manager). District Environmental Health Specialists (EHS) and their support staff are often located away from the Area Offices and closer to the tribal communities. DEHS HQ, located in Rockville, Maryland, is staffed similarly to the Areas.



RADM Kelly Taylor
Director



CDR Martin Smith
Deputy Director



CAPT Charles Woodlee
Institutional Environmental Health (IEH) Program Manager



CAPT Holly Billie
Injury Prevention (IP) Program Manager



LCDR Molly Madson
Injury Prevention Specialist



CAPT Stephen R. Piontkowski
Senior EH Officer



CAPT Mike Reed
Senior EH Officer



LCDR Brandon Parker
IEH resident

The DEHS is a comprehensive, field-based program.



Kayla Davis conducting a respirator fit test.

Program Services

The DEHS staff provide direct environmental health services and technical assistance to tribes on a broad scope of program areas like water quality, waste disposal, food safety, community injury prevention, vector control, and occupational safety and health. More details are in the [DEHS Services](#) section of this report.

SERVICES

- Investigations
- Surveys/Inspections
- Training
- Plan Review
- Policy Development
- Technical Assistance
- Vector Control
- Disease Surveillance
- Project Development

TOPICS

- Water Quality
- Air Quality
- Injury Prevention
- Infection Control
- Sanitation
- Fire Safety
- Occupational Safety & Health
- Waste Management
- Food Safety
- Epidemiology
- Vectorborne/ Zoonotic Diseases
- Aquatic Facilities
- Emergency Preparedness



Program Resources

The current budget of the DEHS Program is approximately \$34.5 million. This funding is derived from three primary sources: congressional allocation; the IHS Director's Initiatives; and IP budget enhancements (*Table 1*). DEHS funds support a wide variety of activities, including IP, IEH, safety management, industrial hygiene, food safety, vectorborne disease control, and technical assistance to community water and waste disposal facility operators.

The DEHS budget is derived from the overall Environmental Health Support Account (EHSA) that supports the activities of both the DEHS as well as the Division of Sanitation Facilities Construction (DSFC). For 2020, the DEHS share of the EHSA budget was approximately **38%**, or \$34,535,832. *Figure 1* depicts a historical comparison of the workload-based Resource Requirement Methodology (RRM) versus the distribution of Program funds from 2011 to 2020. *Table 2* displays the current level of need funded (LNF) for each of the 12 Areas; the data represent both IHS staff and tribal staff.



Table 1: DEHS Program Funding Sources.

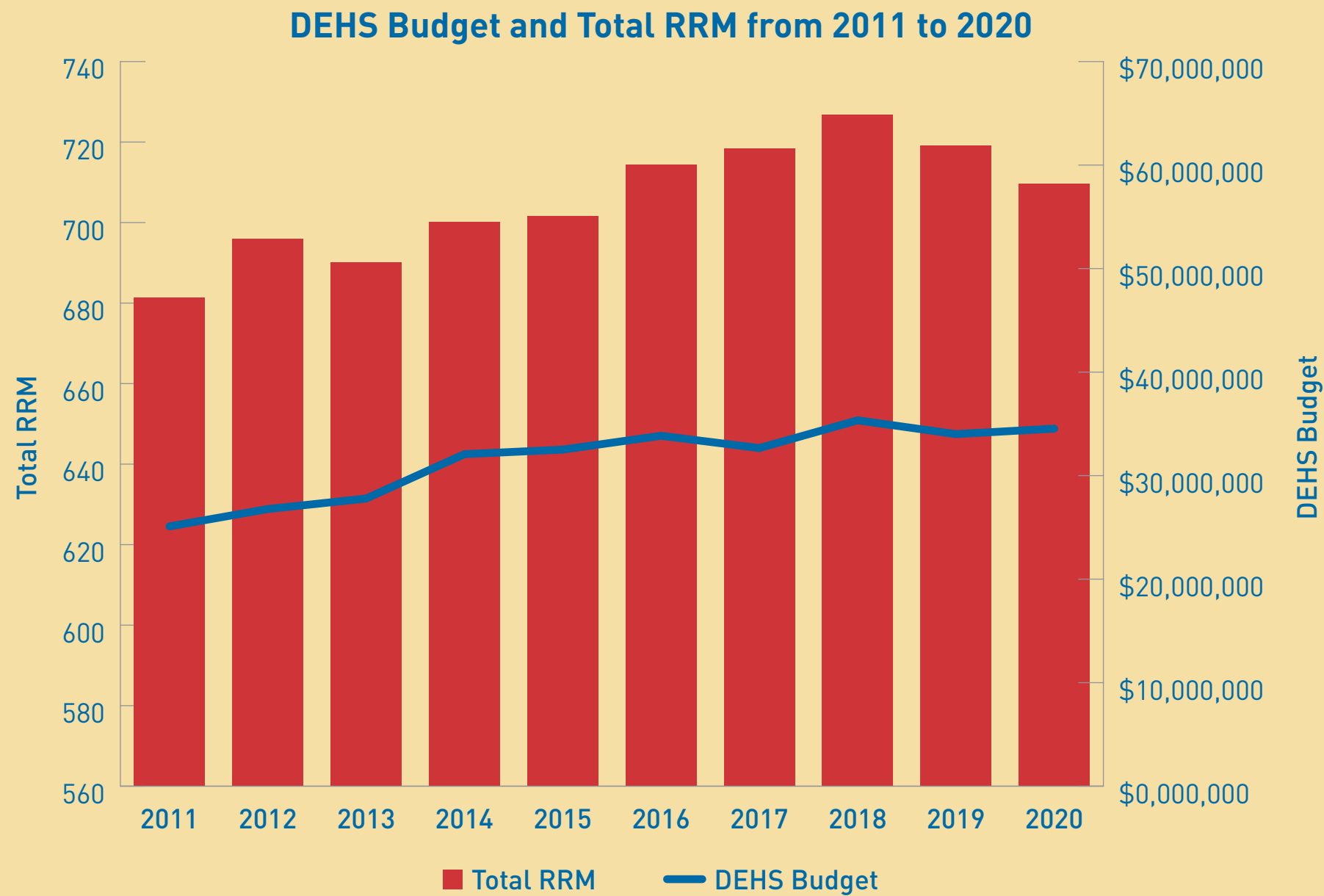
Fiscal Year	Total EHSA Budget	DEHS RRM Share	DEHS Budget*	OEHE Funds Provided to DEHS			IHS Director's Initiative***	Injury Prevention Budget Enhancements***	Total DEHS Budget
				COSTEP**	Injury Prevention**	Residency**			
2011	\$69,057,608	32.00%	\$22,098,435	\$144,000	\$84,000	\$0	***	\$2,771,942	\$25,098,377
2012	\$69,703,294	34.00%	\$23,699,120	\$160,000	\$49,000	\$100,000	***	\$2,763,473	\$26,771,593
2013	\$66,521,479	38.00%	\$25,278,162	\$128,000	\$0	\$100,000	***	\$2,280,000	\$27,786,162
2014	\$70,901,479	41.00%	\$29,069,606	\$136,000	\$63,000	\$100,000	***	\$2,766,698	\$32,072,304
2015	\$72,550,497	41.00%	\$29,745,696	\$176,000	\$0	\$125,000	***	\$2,766,698	\$32,512,394
2016	\$69,531,437	42.00%	\$29,203,204	\$184,000	\$0	\$125,000	***	\$2,766,698	\$32,278,902
2017	\$70,793,387	40.00%	\$28,642,933	\$160,000	\$0	\$125,000	***	\$3,734,092	\$32,662,025
2018	\$77,088,387	41.00%	\$31,387,041	\$96,000	\$0	\$125,000	***	\$3,734,092	\$35,342,133
2019	78,496,387	38.00%	\$30,056,230	\$96,000	\$0	\$125,000	***	\$3,734,092	\$34,011,322
2020	\$80,707,396	38.00%	\$30,660,740	\$16,000	\$0	\$120,000	***	\$3,734,092	\$34,535,832

*Represents an approximation based on initial DEHS and DSFC RRM calculations

**Office of Environmental Health and Engineering funds provided to DEHS

***IHS Director's Initiative, \$304,000 was added to Injury Prevention Budget Enhancements (column to the right) starting in 2001

Figure 1: RRM (workload) vs. actual DEHS funding from 2011 to 2020.



As Table 2 shows, the DEHS Program strives to accomplish its tasks at a funding level of 37.1% of the estimated actual need. In order to maximize the utilization of available resources, the DEHS has established partnerships with federal agencies. Partnerships change as needs are addressed or emerge. A few of the partners over the years include:

- Centers for Disease Control and Prevention (CDC)
- National Highway Traffic Safety Administration
- Uniformed Services University of the Health Sciences
- National Institutes of Health (NIH)
- Johns Hopkins University
- University of North Carolina
- University of Colorado Denver

Table 2: Level of Need Funded (LNF) 2020.

Area	Total Staff*	RRM	%LNF	Federal Staff	Tribal Staff
Alaska	37	100.920	36.7%	0	37
Albuquerque	17	34.343	49.5%	17	0
Bemidji	24	52.281	45.9%	11	13
Billings	17	28.372	59.9%	6	11
California	10	53.505	18.7%	6	4
Great Plains	25	53.573	46.7%	16	9
Nashville	14	41.269	33.9%	3	11
Navajo	32	109.517	29.2%	28	4
Oklahoma City Area	35	104.083	33.6%	11	24
Phoenix	37	67.784	54.6%	24	13
Portland	10	51.124	19.6%	2	8
Tucson	5	12.851	38.9%	2	3
Total**	263	709.622	37.1%	126	137

*Includes tribal staff hired with IHS Cooperative Agreement Funds (HQ staff are not reflected here).

**Total is not exact due to rounding. Data from 2019 determines the 2020 LNF.







Education

Education is a cornerstone of any successful public health program because it is the first step in raising awareness and empowering individuals and communities to participate in resolving community health issues. DEHS staff conducted training sessions during 2020 on a variety of topics. The Environmental Health Support Center (EHSC) in Albuquerque, New Mexico, provided program management, IP, topic-specific EH, and IEH courses or webinars. In 2020 there were four in-person classes with 89 students, and 15 webinars with 98 students, for a total of 187 participants (*Table 3*).

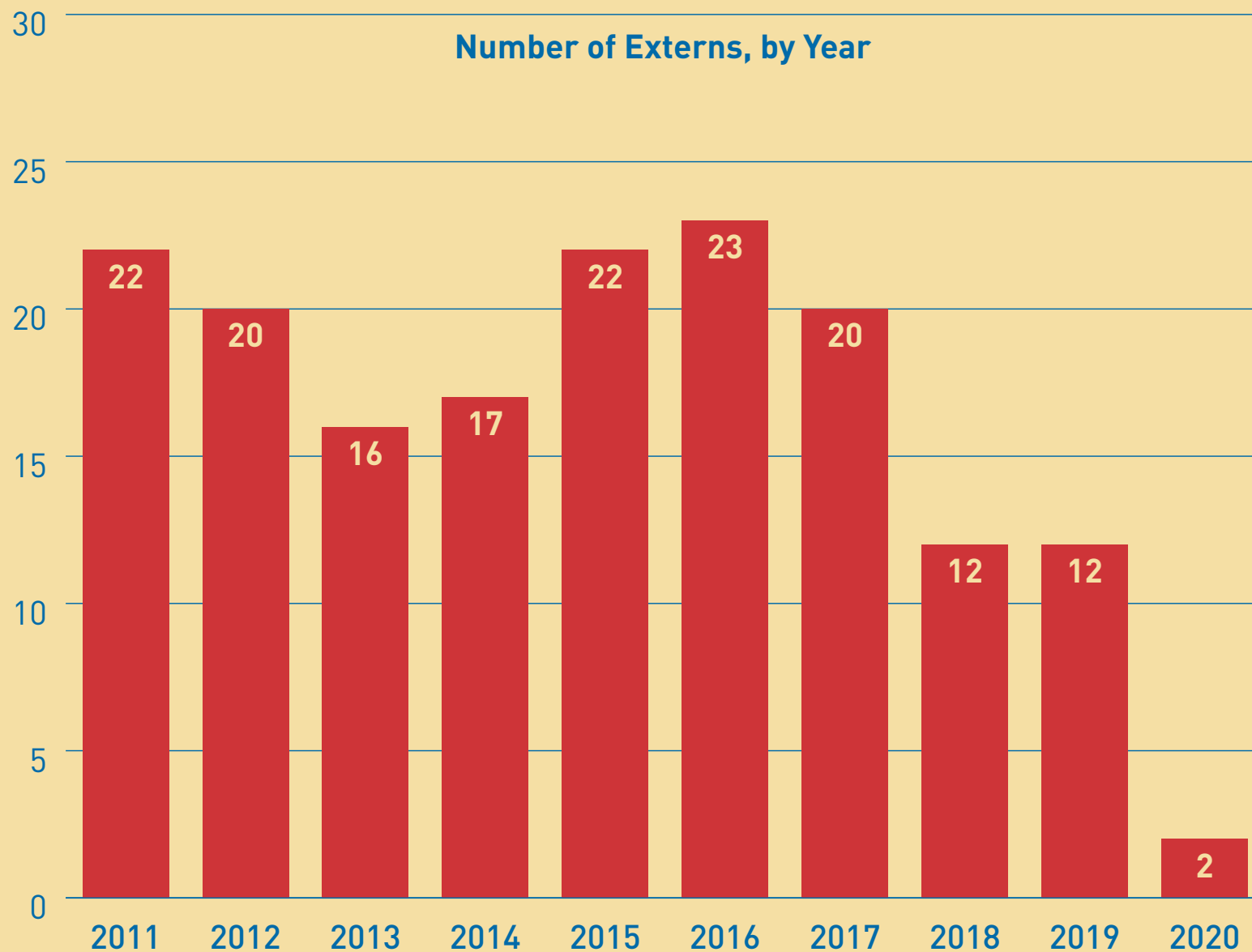
Successful delivery of environmental health services to tribal communities rests on the foundation of a competent and motivated workforce. *Figure 2* shows the numbers of student externs hired since 2011. The number of externs hired annually fluctuated from 23 to 02. DEHS supported two student externs in 2020.

Table 3: EHSC Sponsored Courses – 2020.

Course	Date	Location	Number of Participants
Healthcare Safety Accreditation	3/10/20	Albuquerque, NM	33
Intermediate Injury Prevention	5/11/20	Anchorage, AK	12
NFPA 101 Life Safety Code	2/11/20	Phoenix, AZ	24
NFPA 99 Standards for Healthcare	2/14/20	Phoenix, AZ	20
TOTAL Classroom Participants			89

Webinars	Date	Location	Number of Participants
Applied Learning Online and Virtual Acquisition Office User Access Request	1/7/21	Online	7
Healthcare Safety Accreditation Webinar: Physical Environment Tracers	2/10/20	Webinar	22
Leading Others Virtual Cohort	10/26/20	Webinar	2
Leading Self Virtual Cohort	7/6/20	Online	10
LPD Webinar Series - Career Development Toolkit	6/16/20	Webinar	10
LPD Webinar Series - Delegating Effectively	11/17/20	Webinar	5
LPD Webinar Series - Leading Transformation and Change	7/21/20	Webinar	3
LPD Webinar Series - The Art of Strategic Thinking	8/18/20	Webinar	4
LPD Webinar Series - Tools for Constructive Conflict Management	5/19/20	Webinar	6
LPD Webinar Series - Tools for Increasing Engagement/Participation	9/22/20	Webinar	7
LPD Webinar Series - Tools, Tips, Methods for Creating Positive Work Enviro	10/20/20	Webinar	6
LPD Webinar Series-The Power of Listening	4/21/20	Webinar	10
LPD Webinar Series-The Role of Values in the Workplace	3/17/20	Webinar	2
Technical On-Demand Training: Account Access	1/1/20	Online	1
Webinar: Introduction to Solid Waste Transfer Design for Rural Communities	12/16/20	Webinar	3
TOTAL Webinar Participants			98
TOTAL PARTICIPANTS			187

Figure 2: Number of college students participating in the DEHS extern program, 2011 to 2020.



PROFILE OF THE DEHS PROGRAM

The DEHS views the opportunity to offer financial support for long-term training as a major retention tool and has supported staff in master's programs for many years. Areas reported eleven DEHS staff funded by IHS for college courses in 2020. Of the eleven, eight were federal employees and three were tribal employees.

There are 14 IEH Residency Graduates currently active with IHS and tribal programs (*Table 4*) and a resident continued with the program in 2020.

Table 4: Active IEH Residency Graduates.

Graduate	Residency Year
Dustin Joplin	2019
John Hansen	2017
Katherine Hubbard	2014
Timothy Taylor	2014
Valerie Herrera	2010
Ricardo Murga	2010
Danny Walters	2009
Charles Woodlee	2008
David Cramer	2005
Mark Strauss	2005
Brian Hroch	2003
Kit Grosch	2001
Chris Kates	2001
Keith Cook	1999



LT Michael Hiles and
LT Riley Grinnell
conducting a
food service
sanitation survey.

Figure 3: Distribution of environmental health staff within the national program.

2020 Environmental Health Staff (N=263)

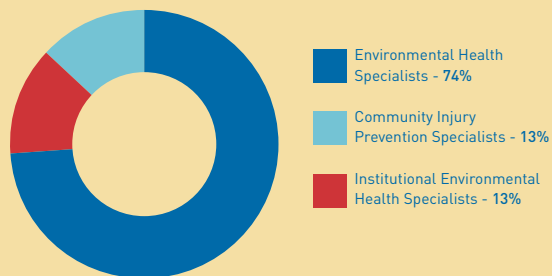


Figure 4: Percentage of environmental health staff with master's degrees.

Percentage of Environmental Health Staff with Master's Degrees (2020)

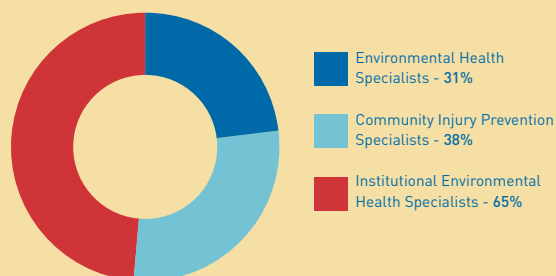
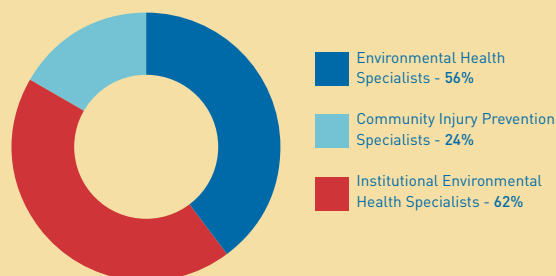


Figure 5: Percentage of environmental health staff with REHS/RS credentials.

Percentage of Environmental Health Staff with REHS/RS Credentials



Distribution of federal (126) and tribal (137) staff (N=263) within the national program (this excludes headquarters staff) (Figure 3).

- Environmental Health Specialists (EHS) – 74% (195/263)
- Community Injury Prevention (IP) Specialists – 13% (34/263)
- Institutional Environmental Health (IEH) Specialists – 13% (34/263)

Federal and tribal staff with master's degrees in Environmental Health or a related field.

- Total – 36% (95/263)
- Federal – 50% (63/126)
- Tribal – 23% (32/137)

Staff with master's degrees by specialty (Figure 4).

- EHS – 31% (60/195)
- Community IP Specialists – 38% (13/34)
- IEH Specialists – 65% (22/34)

Federal and tribal staff who are Registered Environmental Health Specialists or Registered Sanitarians (REHS/RS).

- Total – 53% (139/263)
- Federal – 68% (86/126)
- Tribal – 39% (53/137)

Staff with REHS/RS by specialty (Figure 5).

- EHS – 56% (110/195)
- Community IP Specialists – 24% (8/34)
- IEH Specialists – 62% (21/34)

Federal and tribal staff with additional credentials (Table 5).

- Child Passenger Safety Technicians – 23% (61/263)
- IHS IP Fellowship Program Graduates – 16% (42/263)
- Certified Pool Operators – 15% (39/263)

Table 5: Summary of Certifications Held by Federal and Tribal Staff.

Certification	Environmental Health Specialist	Community Injury Prevention Specialist	Institutional Environmental Health Specialist	Total	Percent of total
REHS/RS*	110	8	21	139	53%
IP Fellow	26	13	3	42	16%
Certified Safety Professional	4	1	5	10	4%
Certified Industrial Hygienist	1	0	4	5	2%
Child Safety Passenger Safety Technician	46	14	1	61	23%
Certified Playground Safety Inspector	15	0	0	15	6%
Certified Radiation Protection Surveyor	1	0	4	5	2%
Certified Environmental Health Technician	6	0	0	6	2%
FDA Standard	10	0	0	10	4%
Lead/Asbestos Certification	6	1	4	11	4%
IEH Residency	0	0	12	12	5%
Certified Pool Operator	36	1	2	39	15%
OSHA 40 Hr HAZWOPER‡	15	0	7	22	8%
Healthy Homes Specialist	5	0	1	6	2%
Certified Professional in Food Safety	25	0	1	26	10%

*Registered Environmental Health Specialist/Registered Sanitarian

†Certificate of Healthcare Emergency Management

‡Hazardous Waste Operations and Emergency Response Standard

Recognition

There are several awards the federal and tribal staff may earn in recognition of contributions and achievements toward IHS goals, objectives, and the completion of significant activities. *Table 6* summarizes awards received by federal and tribal staff in 2020.

Table 6: Summary of Awards Received by Federal and Tribal Staff.

Summary of Awards Received by Federal and Tribal Staff			
Award Type	Federal	Tribal	Total
Public Health Service Awards	25		25
Indian Health Service Area Awards	27		27
Civil Service Personnel Awards	5		5
National IHS Awards			0
Other National Awards	1		1
Tribal Awards		1	1
TOTAL	58	1	59

DEHS was recognized with the Outstanding Service [Natl Impact] Award at 2020 NIHB [Heroes in Health Awards Gala](#) for exceptional COVID-19 response and prevention efforts. [See award acceptance by RADM Kelly Taylor](#) on behalf of the Division and [press release](#).



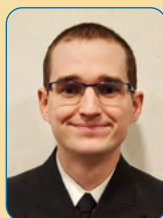


CDR John Hansen with
Abbott ID Now Test Kits.

Individuals who received
Area EHS of the Year (2020) were:



Francis Park
Bemidji Area



Justin Bunn
Great Plains Area



George Chung
Phoenix Area

These Area EHSs of the Year were
nominated for the IHS EHS of the
Year (2020) and **George Chung**,
Phoenix Area IHS, was selected.

INDIAN HEALTH SERVICE ENVIRONMENTAL HEALTH SPECIALIST OF THE YEAR

Beginning in 1993, DEHS has annually recognized an outstanding Environmental Health Specialist (EHS) for the year. Nominees are scored on two major categories: special achievements and professionalism. The achievements of those individuals who have been selected as EHS of the Year are recognized by their peers as being instrumental in advancing the DEHS Program's vision of improving the lives of AI/AN people through model public health practices. A list of all the national EHS of the Year recipients to date can be found in *Table 7*.

Table 7: EHS of the Year, 2020 through 1993.

Year	Recipient
2020	George Chung, Phoenix Area IHS
2019	Robert Morones, Phoenix Area IHS
2018	Timothy Taylor, Bemidji Area IHS
2017	Kate Pink, Phoenix Area IHS
2016	Mike Reed, Great Plains Area IHS
2015	Sarah Snyder, California Area IHS
2014	Landon Wiggins, Phoenix Area IHS
2013	Martha Maynes, Bemidji Area IHS
2012	Lisa Nakagawa, California Area IHS
2011	Bryan Reed, Bristol Bay Area Health Corp.
2010	Amanda M. Parris, Phoenix Area IHS
2009	Timothy Duffy, Bemidji Area IHS
2008	Holly Billie, Phoenix Area IHS
2007	Stephen Piontkowski, Phoenix Area IHS

Year	Recipient
2006	Troy Ritter, Alaska Native Tribal Health Consortium
2005	Andrea Horn, Phoenix Area IHS
2004	Celeste Davis, Albuquerque Area IHS
2003	Casey Crump, Bemidji Area IHS
2002	Pete Wallis, Tanana Chiefs Corporation
2001	Molly Patton, Tanana Chiefs Corporation
2000	Shawn Sorenson, South East Alaska Regional Health Corp.
1999	Mike Welch, Phoenix Area IHS
1998	Diana Kuklinski, Phoenix Area IHS
1997	Mark Mattson, Bemidji Area IHS
1996	Harold Cully, Oklahoma Area IHS
1995	Keith Cook, Navajo Area IHS
1994	Carol Rollins, Ho-Chunk Nation
1993	John Sarisky, Navajo Area IHS

2020 ENVIRONMENTAL HEALTH SPECIALIST OF THE YEAR – GEORGE CHUNG, MPH, REHS



LT George Chung, MPH, REHS, was selected as the [2020 Environmental Health Specialist of the Year](#). LT Chung is recognized for his [IHS Injury Prevention Fellowship project](#) to assess the Hopi Tribe's motor vehicle crash data collection and reporting system, which resulted in six significant evidence-based recommendations to improve the system. He was also recognized for his leadership during the COVID-19 pandemic in which he provided outreach and technical assistance to facilities serving at-risk populations, and for leading the healthcare center's

respirator fit testing program. LT Chung demonstrates the highest degree of innovation, excellence, and personal commitment to the mission of IHS, and his performance and willingness to go the extra mile have allowed him to strengthen relationships with tribal partners and enhance the quality of environmental health services provided.

RICK SMITH INJURY PREVENTION AWARD – DEBBIE WHITEGRASS BULLSHOE



Beginning in 2019, DEHS initiated the annual Rick Smith Injury Prevention Award. The purpose of the award is to recognize the performance of individuals or groups whose special efforts and contributions in the field of injury prevention resulted in a significant impact and led to improved public health for American Indians and Alaska Natives.

Debbie Whitegrass Bullshoe, Tribal Injury Prevention Coordinator for the Blackfeet Nation, received the [2020 Rick Smith Injury Prevention Award](#). Ms. Whitegrass Bullshoe served as the coordinator under the IHS Tribal Injury Prevention Cooperative Agreement Program from 2015-2020. Under her leadership, community members and youth in local schools received traffic safety education, child passenger safety technicians were certified, car seats were provided to children, an active injury prevention coalition was created, and mandates were developed for increased law enforcement of traffic laws. These efforts resulted in passage of the Blackfeet Nation primary seatbelt law, known as Ordinance 85, and an increase in driver seatbelt use rates from 17% to 39%, a 129% increase in seatbelt use.



GARY J. GEFROH SAFETY AND HEALTH AWARD

CAPT Gary J. Gefroh was a nationally recognized and highly respected Institutional Environmental Health (IEH) Officer. He served the IHS for 20 years providing expert technical consultation in the fields of healthcare accreditation, safety management, infection control, and industrial hygiene. The purpose of the Gary J. Gefroh Safety and Health Award is to recognize significant contributions by an individual or group resulting in improved healthcare safety and/or infection control at an IHS or tribal healthcare program. This award is sponsored annually by DEHS.

2020 GEFROH AWARD WINNER – MICHELLE LIVINGSTON



LCDR Michelle Livingston, Infection Preventionist, Western Oregon Service Unit, Portland Area, received the [2020 Gary J. Gefroh Safety and Health Award](#). LCDR Livingston led a multi-disciplinary team to standardize cleaning agents and environmental services competencies. Utilizing the Advanced Model for Improvement, this resulted in a **25%** increase in cleaning efficiency and also reduced blood borne pathogen exposures to environmental services staff. Also serving as the IHS Portland Area acting infection preventionist, she

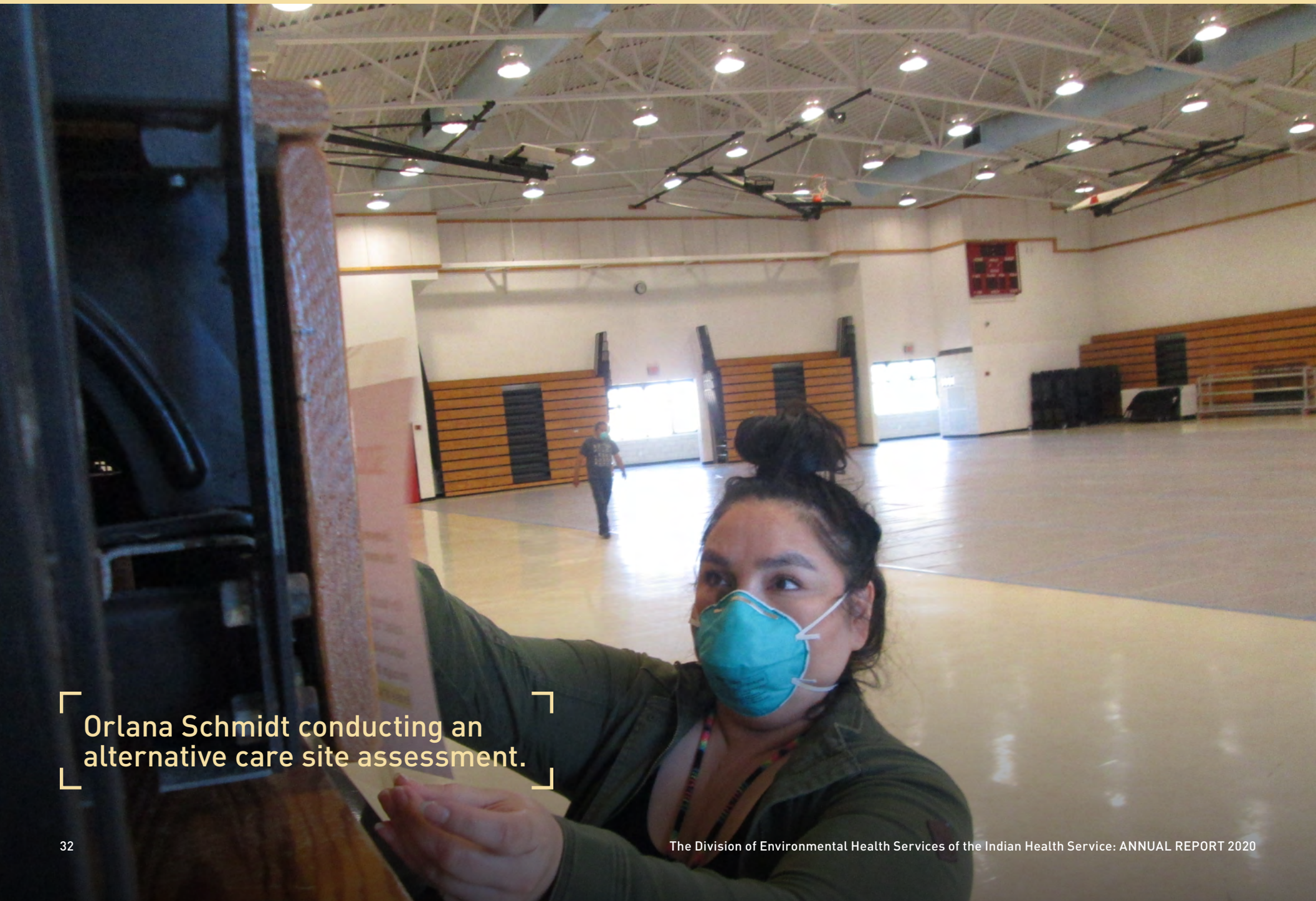
successfully guided standardization of infection control policies across the Area. She was vital to the Western Oregon Service Unit's response to COVID-19 by developing the pandemic policy and screening protocol, leading PPE management and training, and providing employee health services. Her efforts helped improved health care infection control and patient care conditions at both the service unit and in the Portland Area.

Table 8: Gefroh Award Winners, 2020 through 2008.

Year	Recipient	Profession	Area/Facility
2020	Michelle Livingston	Infection Preventionist	Portland Area
2019	Francis Robinson	Safety Officer	Phoenix Area
2018	Jeffery Conner	IEH Officer	Navajo Area
2017	Chris Kates	IEH Officer	Oklahoma City Area
2016	Matthew Ellis	IEH Officer	Portland Area
2015	Emily Warnstadt	Dental Hygienist	Portland Area (Team Award)
2015	Angel Daniels- Rodriguez	Medical Technologist	Portland Area (Team Award)
2014	Brian Hroch	IEH Officer	Albuquerque Area
2013	Greg Heck	Safety Officer	Phoenix Indian Med. Ctr.
2012	Jeff Morris	IEH Officer	Chickasaw Nation Div of Health
2011	Tim Duffy	IEH Officer	Bemidji Area
2010	Wayne Keene	Safety Officer	Northern Navajo Med. Ctr.
2008	David Cramer	Safety Officer	Phoenix Indian Med. Ctr.



DEHS Services



Orlana Schmidt conducting an
alternative care site assessment.

Core Services to AI/AN Communities

The DEHS is a comprehensive, field-based program with an overarching responsibility to provide community environmental health support. We are leaders in the environmental health profession who provide a range of services on water quality, waste disposal, hazardous materials management, food safety, community injury prevention, vector control, occupational safety and health, and other environmental health issues.

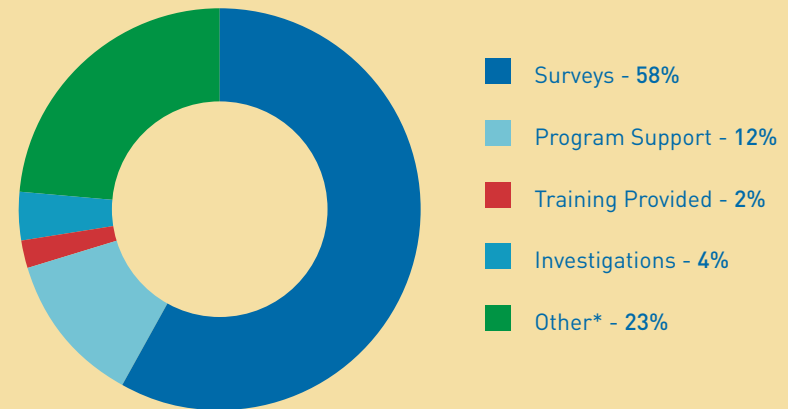
A snapshot of activities related to these services include *(Figure 6)*:

- Approximate number of establishments¹ – **20,000**
- Staff recorded activities – **6,104**
 - Surveys – **58%** (3,545/6,104)
 - Program support – **12%** (752/6,104)
 - Training provided – **2%** (136/6,104)
 - Investigations – **4%** (246/6,104)

¹ WebEHRS Reports, National Establishment Counts 2020 (excludes Headquarters items)

Figure 6: Activities completed in 2020 as reported in WebEHRS.

Activities Completed in 2020 as Reported in WebEHRS (percent of total)



*Other includes: Mobilize Community, Policy Development, Sample/Test, Evaluation, Control, Training

The DEHS uses the Custom Data Processing, Inc., Environmental Health Inspection Management System to operate the DEHS Web-based Environmental Health Reporting System (WebEHRS). Features include electronic survey capabilities, tracking environmental health activities, a myriad of report functions, and a mobile application for field use.

The DEHS manages the Notifiable Disease and External Cause of Injury (NDECI) web-based data retrieval system. NDECI tracks and reports specific disease and injury categories that can provide reports by national, Area, Service Unit (SU), facility, and community levels. Data can be retrieved by International Classification of Diseases (ICD), 10th Revision, codes used to define the groupings for asthma, notifiable diseases, intestinal diseases, vectorborne diseases, and injuries. In 2017, an initiative began to update NDECI with ICD10 codes and transition to new business intelligence software. The new platform was designed and fixes were implemented in 2018. The upgrade was piloted in 2019-2020. NDECI provides DEHS staff an environmental health relevant dashboard of key health indicators from which to monitor public health status and enhance the ability to run ad-hoc reports tailored to program needs.

SPECIALIZED SERVICES TO AI/AN COMMUNITIES

The DEHS provides specialized services in IP and IEH through consultation and technical assistance. IP Specialists take the lead in working with communities to develop public health strategies to reduce the burden of injury experienced by AI/AN communities. IEH Specialists have skills to identify, evaluate, and respond to unique environmental safety hazards found in healthcare, educational, childcare, correctional, and industrial facilities. Accomplishments for the two specialized services can be found in this section of the report.

Community Injury Prevention Program

Implementation of IP interventions using a comprehensive approach is effective. Successful IP interventions incorporating all strategies (education, legislation, enforcement, and environmental modification) can have the most impact to improve public health. There were several IP projects and interventions implemented by the Areas in 2020:

- Motor vehicle injury prevention effective strategies
- Unintentional elder falls prevention programs (exercise, home safety assessments, clinical)
- Opioid overdose prevention projects (home lock box, medication disposal units)
- Determining magnitude of the injury problem (e.g., injury atlas)
- Child death prevention

The IHS [Tribal Injury Prevention Cooperative Agreement Program](#) (TIPCAP) started in 1997 to help tribes/tribal organizations build IP infrastructure and capacity. TIPCAP applies the public health approach to employ effective strategies that address education, policy development with enforcement and environmental modifications to ensure effective and sustainable programs. TIPCAP projects address the IHS IP program priorities of motor vehicle injury prevention and unintentional elder fall prevention. It also supports local tribal community IP priorities such as suicide prevention, violence prevention, drowning prevention, helmet use, poisoning prevention, and fire safety.

2020 was to be TIPCAP's last year of the 2016-2020 funding cycle with \$1.3 million distributed to 31 tribal programs or organizations. However, because of COVID-19 an extension was granted for the programs to complete their work. In addition, the Notice of Funding Opportunity for the new 2021-2025 funding cycle was announced, and it included an increased annual funding amount per site. Despite the many challenges of 2020, this opportunity will provide funding to 27 sites to implement an injury prevention program or project.

Institutional Environmental Health Program

The mission of the Institutional Environmental Health (IEH) program is to provide leadership in the development and implementation of effective environmental health and safety management systems to: 1) reduce risks of injury and/or illness to clients, employees, and visitors of community institutions; 2) to protect our environment; and 3) to minimize property losses. The IEH Program staff offer services in federal and tribal healthcare facilities, as well as a range of community facilities such as childcare, school, and elder programs. A primary objective is to support local safety programs by providing education, onsite technical support, accreditation assistance, and program evaluation.

In 2020, the IHS Web-based Incident Reporting System (WebCident) was replaced with the IHS Safety Tracking and Response (I-STAR) system. The IEH program collaborated with the agency to provide substantial expertise with the development of, transition to, and launch of I-STAR. This web-based application serves as the single portal for IHS healthcare facilities to report good catch near misses, along with patient/visitor, medication and occupation safety events. I-STAR also significantly enhanced data analytics and reporting features.

WebCident and I-STAR are critical data collection and analysis tools supporting healthcare accreditation in the areas of information management, medication management, environment of care, and regulatory concerns for occupational safety and health reporting. Since 2002 when WebCident was launched, it has collected information on nearly 58,000 worker, visitor, and patient incidents at over 200 IHS and tribal hospitals, health centers, health stations, dental stations, school health stations, youth regional treatment centers, and Area and other offices. During 2020, there were 5,016 incidents reported.

The reporting of incidents and analysis of WebCident and I-STAR data has an impact on the reduction of risk in the work environment through heightened awareness, the development of interventions such as educational programs, changes to policy and work practices, and environmental modification. These impacts may result in the reduction of occupational injury and workers' compensation cases.



LT Braden Hickey, collecting
a water sample.





LT Patricia Wrona measuring a sanitizing solution at a community COVID-19 testing event.

DEHS National Focus Areas



DEHS Services



The DEHS delivers a comprehensive EH program to more than 2.6 million AI/AN people in 37 states. We consult with and provide technical assistance to tribes in an effort to provide safe, healthy environments. This section of the report describes each of the focus areas and highlights projects conducted by the IHS Areas in 2020. Evidence-based or promising practices are used most often, but specific projects are also evaluated for effectiveness. Comprehensive interventions

use a multi-targeted approach involving education, environmental modification, legislation, and enforcement.

Four common activities are related to each focus area:

- Conduct inspections that identify EH risk factors
- Recommend corrective actions to reduce or eliminate risk factors
- Investigate disease and injury incidents
- Provide EH training classes to federal, tribal, and community members

5 Focus Areas



Children's Environment

Prevent illness and injury by reducing risk factors where children live, learn, and play.



Safe Drinking Water

Prevent waterborne illness and ensure safe drinking water supplies.



Food Safety

Prevent foodborne illness and promote food safety and security.



Vectorborne and Communicable Diseases

Prevent diseases transmitted by insects, animals, humans, and the environment.



Healthy Homes

Prevent diseases and injuries in homes caused by unhealthy living conditions.

Children's Environment

The DEHS is responsible for ensuring EH settings for AI/AN children are safe and ultimately provide a healthy environment in which to learn, play, and grow. EH issues associated with children are present in schools, Head Start Centers, and childcare facilities on tribal lands. These issues present an ever-increasing set of complex challenges to be addressed. A few examples of EH-related issues of concern are as follows: indoor air quality, lead exposure, child passenger safety, and infectious disease exposure. The DEHS staff provides services to approximately 3,000 child-occupied facilities as well as services in community housing. Comprehensive interventions, based on local surveillance, are conducted to reduce the impact of disease and injury in the communities.

Many indicators of effective programs focus on reducing the number of critical or repeat violations within a particular facility. Critical violations are threats to the public's health that need to be corrected immediately, and repeat violations occurred in more than one consecutive facility inspection. The DEHS staff focus on eliminating risk factors related to fire safety, emergency response, asthma triggers, lead-based paint, communicable disease exposure, and child passenger safety. Due to the amplified emphasis on COVID-19 prevention, response, and recovery efforts, no projects were reported in 2020.



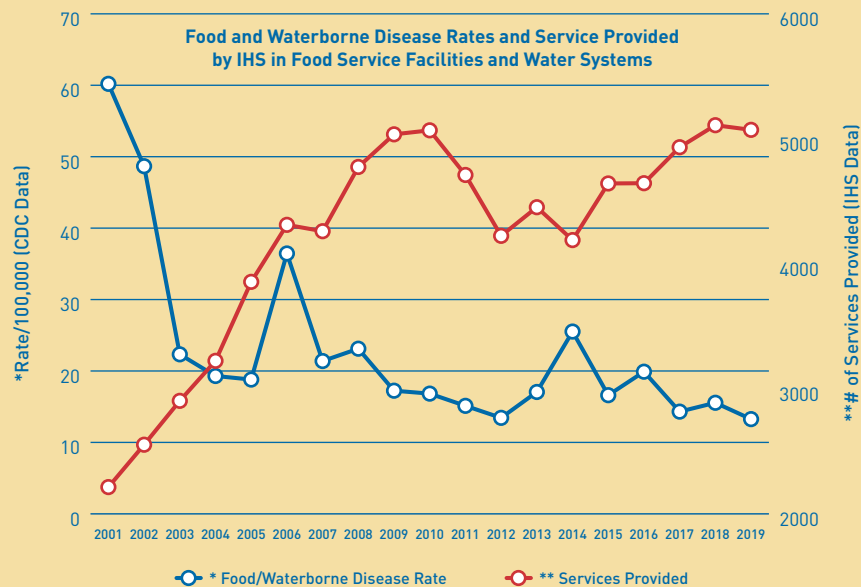
Safe Drinking Water

The DEHS is one of the partners responsible for ensuring safe drinking water for AI/AN people. EH issues associated with drinking water can be caused by organisms or contaminants spread through water. Examples of waterborne illnesses include giardiasis, shigellosis, cryptosporidiosis, lead poisoning, and copper toxicity. Annually, the DEHS staff report 50-100 activities related to drinking water.

Due to the amplified emphasis on COVID-19 prevention, response, and recovery efforts, no projects were reported in 2020.



Figure 7: Trends in services and reportable food and waterborne illnesses.



Sources:

* CDC MMWR, Summary of Notifiable Diseases, United States.

** IHS WebEHRS Data System.



Food Safety

The DEHS staff provide services at more than 5,000 food service facilities across the country. The CDC estimates over 48 million cases of foodborne illness occur in the United States annually, 128,000 of which require hospitalization and 3,000 of which are fatal. Organisms that result in the most common foodborne illnesses include *Norovirus*, *Salmonella*, *Clostridium perfringens*, *Campylobacter*, and *Staphylococcus aureus* (CDC, Estimates of Foodborne Illness in the United States, 2011, available at: <http://www.cdc.gov/foodborneburden/2011-foodborne-estimates.html>).

Effective programs focus on reducing the number of critical or repeat violations within a particular facility. Critical violations are threats to the public's health that need to be corrected immediately, and repeat violations occurred in more than one consecutive facility inspection. Some DEHS staff focus on eliminating risk factors related to inspector bias through standardization of the inspection process. Other staff work to persuade tribal councils to pass food code legislation, whereas others focus on eliminating specific deficiencies (e.g., temperature control, hand washing, and/or employee health).

Implementation of effective EH strategies can substantially reduce disease and injury rates. For instance, from 2001 through 2019 (latest data available), as the number of services provided by IHS to food service establishments and drinking water systems increased **129%** (2,214 to 5,072), the incidence of food and waterborne diseases in the United States decreased **78%** (60.2 to 13.26) (Figure 7). Projects with an emphasis on food safety conducted in 2020 can be found on the following pages.

REDUCED OXYGEN PACKAGING IN A CASINO FOOD SERVICE ESTABLISHMENT

Justin Bunn

Great Plains Area

Introduction

Reduced Oxygen Packaging (ROP), when done properly, can help to increase the storage life and preserve the quality of certain foods by removing the oxygen that allows for the growth of spoilage bacteria. When done improperly, they can lead to the growth of *Clostridium botulinum* and *Listeria monocytogenes*. During a routine food service sanitation survey of a casino snack bar it was discovered that the establishment utilized ROPs to extend the shelf life of products as well as sell fully cooked and cooled foods in ROPs directly to the customer to reheat at home, without a Hazard Analysis and Critical Control Point (HACCP) Plan.

Methods

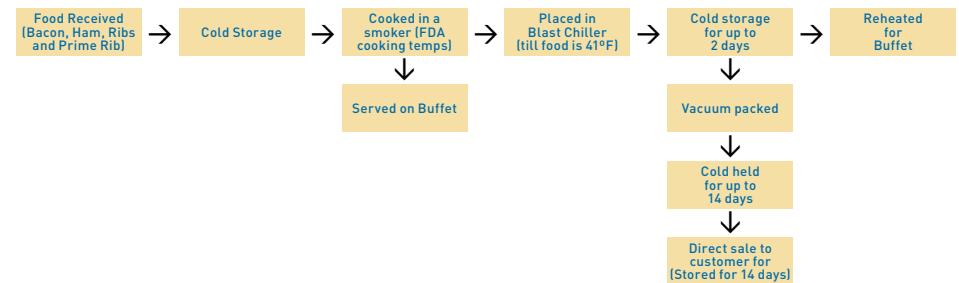
Two groups of food were vacuum packaged within the facility

1. Excess smoked meats (Ribs, Bacon, Ham) that were not used for the buffet and homemade soups produced in the establishment. Smoked Meats followed the process in Figure 1, and sold directly to the consumer in the ROP packaging.
2. Excess soups that were made with the establishment that follow the following process Cooked → Cooled → Sealed → Reheated → Served.

Issues

1. The direct selling of smoked meats in ROPs would have to be stopped or altered as ROP foods can't be sold packaged to the consumer. (Food Code 3-502.12(D)(2)(a)).
2. Cook-Chill soups would need to be vacuum sealed before cooled and would require a HACCP Plan with additional temperature monitoring, record keeping, and training than currently used.

Figure 1. How ROPs were used for smoked meats.



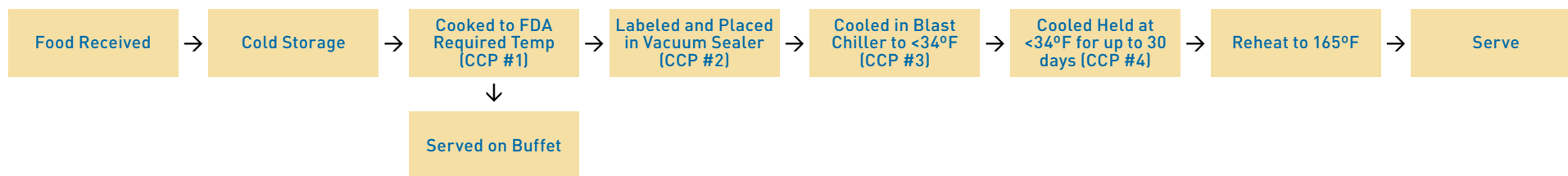
Results

DEHS staff worked with the establishment to create a HACCP Plan for the soups used within the establishment. A cook-chill process was designed where the soups were vacuum packed before being cooled and stored (Figure 2). Four critical control points (CCPs) for the process were identified:

- CCP#1** Cooked so that all parts are at the required temperature (e.g., chicken → 165°F) with temperature recorded.
- CCP#2** Soup should be placed in vacuum bag immediately after cooking or cooled to <135°F and labeled with product name and date of packaging.
- CCP#3** Soup should be cooled to 41°F in at least 6 hours and to 34°F in 48 hours.
- CCP#4** Held at 34°F with an automatic system that monitors time and temperature with temperatures recorded at least twice a day.

Additionally, all temperatures taken should be recorded and stored for at least six months.

Figure 2. Proposed HACCP flowchart for cook-chill soups.



Discussion

It was determined that the HACCP Plan and cook-chill process was more than the establishment wanted to take on and they removed the vacuum sealer from use entirely. Instead, soups would be cooled and stored for seven days and smoked meats would be sold directly to the public in clam shell To-Go containers.

Conclusions/Recommendations

While the establishment had the capacity and equipment (e.g., blast chillers, monitored cold holding at <34°F) to successfully perform a cook-chill process, it proved to not be worth the extra effort to extend the shelf life due to rapid turnover of product and extra processes involved. Instead, a simpler method was found to meet the needs of the establishment while insuring product safety.





Vectorborne & Communicable Diseases

Diseases transmitted through humans, insects, or animals present an ever-increasing burden on human health. A few examples of vectorborne or communicable diseases include West Nile virus, H5N1 (Avian Influenza), hantavirus, Rocky Mountain spotted fever, and plague.

The DEHS staff work on the elimination of risk factors through identifying H5N1 in bird populations, conducting spay, neuter, and rabies clinics for dogs and cats, and investigating prairie dog die-offs to prevent human plague cases. Projects with an emphasis on vectorborne and communicable diseases conducted in 2020 can be found on the following pages.



COVID-19 ALTERNATIVE CARE SITE ASSESSMENTS

Charles Mack

Great Plains Area

Introduction

A tribe requested IHS assist in addressing the potential needs for COVID-19 alternative care sites on the reservation. The Great Plains Area assembled a technical assistance team to survey nine existing institutions for potential quarantine for housing “low acuity” patients. Early on with the tribe administering highway checkpoints, curfews, and various COVID-19 infection control standards for schools, and businesses, it was important that the technical assistance team review potential sites.

Methods

The technical assistance team reviewed potential sites around the reservation for both acute care and non-acute care. The team consisted of three tribal officials and six IHS personnel. They evaluated nine locations over the two days. The sites included: schools; a college gymnasium; adult and juvenile correction facilities; a wellness center, and a casino.

The U.S. Army Corps of Engineers facility suitability assessment form was used for each site. A matrix selected for appropriate needs including: ingress/egress; domestic water; sanitary sewer; emergency generator; fire hydrant proximity; telecommunications; food service, life safety; and more. Attention was given to primary advantages and disadvantages of each site. A written report of the assessments was submitted to the tribe.

Results

The tribe chose to use the two schools that were close to the hospital listed in the report. One school as the acute care/isolation shelter and the other school for the quarantine shelter. Both schools had gymnasiums. Funds from the Coronavirus Aid, Relief, and Economic Security (CARES) Act were used to set-up the facilities.

Discussion

During the initial assessments, the technical assistance team came across some of the institutions managers and directors who were somewhat resistant to the team entering and assessing their buildings. With COVID-19 fresh in the local populace and the many unknowns it presented, the team explained that they were there at the request of the tribe and the team was had the best interest of the local populace at hand.

Later in the year, the tribe discontinued use of the schools and with some of their CARES Act funds started to purchase mobile homes for use as COVID-19 shelters.

CLEANING IN THE AGE OF COVID-19 – TRAINING NEEDS

Shelby Foerg

Great Plains Area

Introduction

Two tribal entities requested COVID-19 prevention training for their housekeeping staff, food service workers and bus drivers.

The communities we live, work and play in have a lot of “new norms” since the COVID-19 pandemic began. One thing that has drawn the attention of business owners, school principals, kitchen managers and anyone who manages a building is cleaning and sanitizing. The pandemic spawned new cleaning products, methods and myths. There was concern on how to use these new products and methods safely and effectively. It took many months, along with constantly evolving guidance from federal and local authorities, to develop best practices and policies to ensure safe re-opening and operation of businesses and institutions and to protect the health and safety of essential workers.

Methods

Using a pre-COVID-19 housekeeper training course as a template relevant material was taken from that training along with guidance provided by the CDC and state to create a course titled, “Janitorial Principals & COVID-19 Best Practices”. Our “Top 5 Contributing Factors to Foodborne Illness” training course was altered with a COVID-19 focus.

Results

A mixed media power point presentation was created. The presentation includes informational slides, graphics, videos and other tools.

Training topics:

- Proper PPE – Handling, Care, Donning, Doffing; types of masks
- Cleaning vs. Sanitizing vs. Disinfecting
- How to mix cleaning solutions, contact time (also called dwell time) and proper application
- Essential Worker Safety Tips – Chemical, biological, fire and other hazards
- Open Discussion – “what if...” scenarios

Trained:

- 85 school district staff
- 10 casino staff
- 4 tribal cleaning staff
- 1 Tribal Environmental Health Specialist (train the trainer”)

Discussion

One anecdotal finding was the amount of participants who did not know there was a difference between the terms clean, sanitize and disinfect. There was a lot of participant engagement when recommendations were provided for mixing solutions at different concentrations and how to use them based on the situation. This project has only been in the works since November 2020 so there is a lot of potential for improvement. Examples include adding a pre and post exam, hands-on activities and/or a feedback questionnaire after the training is complete.

Conclusions/Recommendations

This training will prepare essential staff to protect themselves, and the public, from COVID-19. The information provided may also result in improved sanitary practices which will positively affect public health such as reduced illness caused by unsanitary conditions.

APPLYING CDC COVID-19 PREVENTION GUIDANCE – IS IT EASY?

Rebekah Abangan, Jennifer Corrigan, George Chung

Phoenix Area

Introduction

Throughout the country, including tribal communities, businesses were not prepared to deal with the COVID-19 pandemic and were forced to shut down operations. As facilities and industry looked to open, many had to develop a plan to return to work safely. Although a significant amount of industry guidance was available on the internet, understanding and applying the infection control measures can be difficult for facilities outside the healthcare arena.

Therefore, the Phoenix Area DEHS staff provided technical assistance to 22 different establishment types within reservations by reviewing re-opening plans developed by businesses and tribal facilities. DEHS staff provided recommendations and guidance in personal protective equipment, engineering controls, and administrative controls to assist facilities and businesses in lowering the risk of COVID-19.

We highlight the difficulty that facilities had in applying CDC recommendations and describes the critical deficiencies observed in the submitted re-opening plans. Our findings assisted the Phoenix Area DEHS develop training targeting the topics that were found to be deficient in the re-opening plans.

Methods

The following methods were used to complete this project:

- Staff conducted outreach to all tribal facilities and businesses
- Staff offered a consultative review to all facilities that created a re-opening, plan to assure that all CDC preventative measures had been incorporated (May-November 2020)
- Copies of re-opening plans (n=66) were reviewed from May to November 2020 and stored in a central database
- DEHS comments were then categorized by subject into the following categories: 1) Mask; 2) Other PPE; 3) Physical Distance; 4) Facilities and Equipment; 5) Handwashing and Sanitizer; 6) Cleaning/Disinfection; 7) Response to Positive Case; 8) Training – these categories are based on the CDC-provided example controls to prevent the spread of COVID-19 in work environments
- Data were recorded and analyzed

- A category was checked off if a comment in a re-opening plan is made about that category
- Descriptive statistics were calculated and presented in table form

Results

- Plans from 66 facilities were reviewed
- The number of comments relating to CDC prevention measures ranged from zero to eight
- On average, five DEHS feedback comments related to the CDC prevention measures were provided
- At least 1 comment was provided involving masks in **62%** of reopening plans and 1 comment involving other forms of PPE in **38%** of reopening plans
- **>50%** of plans received feedback on engineering and administrative controls
- Physical distancing guidance was provided by Phoenix Area DEHS in **64%**, and facilities and equipment guidance were provided in **56%** of the plans
- Admin control technical assistance was provided by Phoenix Area DEHS addressing the following prevention measures: handwashing/hand sanitizer (**52%**); cleaning and disinfection (**92%**); response to positive cases (**65%**); and training (**61%**)

Discussion

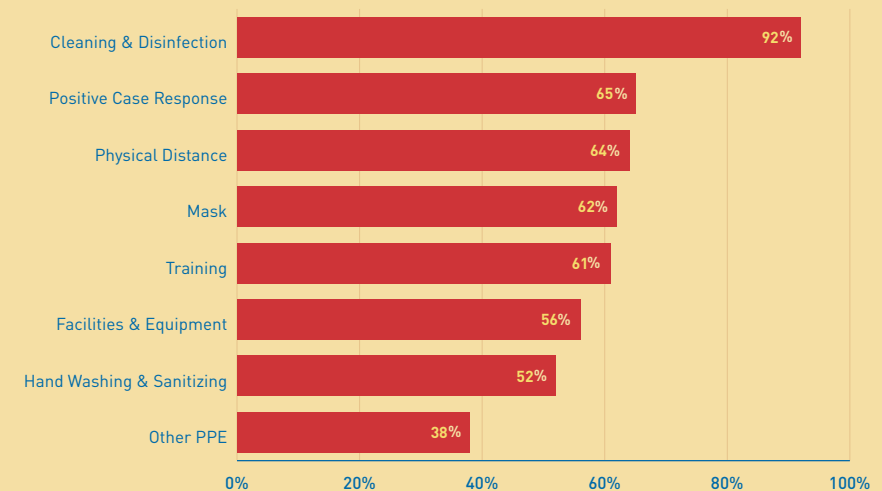
All but one reopening plan had gaps where CDC guidance was not addressed and Phoenix Area DEHS staff provided guidance. In 92% of re-opening plans, there was at least one comment on cleaning and disinfection. Some of the reasons for this gap could include: (1) lack of understanding of the difference between cleaning, sanitizing, and disinfecting; (2) lack of understanding that not all cleaning products are the same (EPA's List-N); and (3) plans may have been written by facility managers who are not directly responsible for cleaning and disinfecting, thus do not have the proper technical knowledge. Overall, comments regarding mask wear, physical distancing, and positive case response were new concepts to businesses.

Limitations: Guidance and prevention strategies were changing rapidly in the first few months of the pandemic. Therefore, while this assessment noted which prevention method comments were discussed, the file date reviewed was not evaluated, which may have impacted the comments we provided as some guidance had not been published. Tribal facilities receive technical services from Phoenix Area DEHS at different frequencies. Therefore research on the commonalities between facility types should be compared in future assessments to determine if those facilities who receive our services more frequently were better able to apply CDC guidance.

Conclusions/Recommendations

Re-opening plans help managers clarify infection control measures and manage cases. The review of re-opening plans have highlighted the critical need to supply technical guidance to tribal facilities on the practical application of CDC's recommendations. Tribes should consider requiring plans and developing a re-opening plans review process. The results of this project provided Phoenix Area DEHS the inspiration to develop thorough virtual trainings that addressed these knowledge gaps. Moving forward, DEHS staff should continue to offer services to review re-opening plans, assure that they incorporate the most updated guidance, and draw from the deficiencies to develop targeted training modules.

Percentage of Reopening Plans with Identified Gaps in the Following Categories (n=66)



COVID-19 COMMUNITY-BASED PUBLIC HEALTH MESSAGING AND TRAINING

Sherry Chase, Zachary Hargis, Brad Strait, Patty Wrona

Phoenix Area

Introduction

In response to the COVID-19 pandemic, the Phoenix Area DEHS ensured priority populations in tribal communities received public health outreach from each Service Unit. Standardized messaging was developed and distributed to establishments serving high-risk populations, such as senior centers, childcare/K-12 programs, detention/correctional facilities, and food establishments.

The messaging was adopted from CDC interim guidance and was distributed electronically to all facilities. Through this outreach, the DEHS identified trainings gaps on COVID-19 precautions. Training options were developed based on the needs of the tribally operated programs. These COVID-19 specialized trainings were created with a focus on facility reopening plans, housekeeping practices, community transportation, and general PPE for essential program staff.

Methods

Phase 1: Development of Targeted Community-based Public Health Messaging

- DEHS Area and District team members produced standardized messaging specific to facilities
- Primary focus was for establishments serving high-risk Elders (e.g., senior centers, assisted living, elder nutrition centers, etc.)
- Standardized messaging was then created for childcare/K-12 programs, detention/correctional facilities, and food establishments
- The messaging was adopted from CDC interim guidance

Phase 2: Distribution and Consultation

- Service Unit EH staff distributed guidance documents via email and followed up by phone to each of their facilities while acting as a point of contact for consultation on COVID-19 safety precautions and daily operations
- Facilities were provided with routine updates based on national or statewide guidance documents to ensure up-to-date information was being shared with Tribal communities
- Through outreach and consultation, facility management requested specific training on how to operate safely during the COVID-19 pandemic; this led to the adaptation of routine trainings, and the development of new trainings to meet these needs

Phase 3: Live Virtual Trainings

- Trainings were developed based on community and facility needs including: COVID-19 Precautions for School and Daycare Operations, School Custodial, School Transportation, Correctional Facilities, Workplace PPE, and Gaming Facilities
- Multiple virtual training platforms were used to engage students and interact (e.g., *Kahoot*, *Mint*, *Survey Monkey*, *Adobe Connect*)
- Evaluations were collected after each session through the Survey Monkey platform to answer any questions and improve future trainings

Phase 4: On-Demand Virtual Trainings

- The Phoenix Area partnered with the Bemidji Area to produce a set of eight on-demand training videos using the Adobe Connect Platform
- These trainings were developed to meet the annual Head Start training requirements for remote tribal areas with limited internet access
- Training modules included: Injury Prevention; Communicable Disease Control; Building Safety; Fire Safety; Emergency Management; Hazard Communication; Blood-borne Pathogens; and COVID-19 for Childcare Facilities
- Ability to scan a QR Code for on-demand trainings.

Results

Public Health Advisories

- Standardized Public Health Advisories were sent out to a total of 545 facilities (*Table 1*)
- Advisories were written specifically for high-risk facility types, with a high potential for spread of COVID-19
- High-Risk facility types included: café/restaurant; grocery/convenience store; bar; food service operations; senior citizen's center; jail/detention home, school; and Head Start.

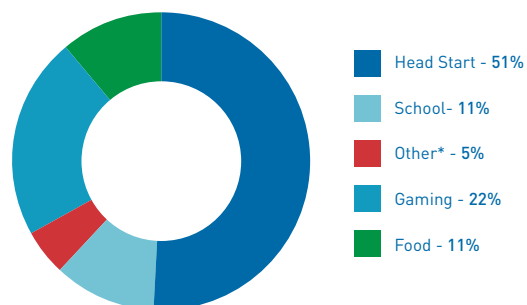
Table 1. Public Health Advisories Distributed

Food Establishments	377
Detention/Corrections Facilities	16
Childcare/Schools K-12	111
Tribal Elder Care Programs	41

Live and On-Demand Virtual Trainings

- A total of 47 trainings were provided in the Phoenix Area since June 2020 to essential service employees (*Table 2*).
- A total of 1,111 individuals who participated in the virtual trainings from various facilities, which included gaming, school, food service, institutional (health care and corrections), and Head Start
- Majority of participants (n=562, or 51%) were from Head Start/Childcare facilities since these facilities were scheduled to reopen as essential services and a considered high priority; trainings served as the annual pre-service requirement
- Approximately 38 Head Start programs were able to maintain accreditation by meeting annual head start standards training requirements
- Head Start/Childcare on-demand trainings were distributed throughout the Phoenix Area to access as needed
- In addition to our live trainings, the [IHS Online Food Handler Training](#) was promoted as an alternative option reaching 1,985 food handlers

Distribution of Virtual Training Attendees (n=1111)



* Other Institutional facilities (Health Care, Corrections)

Table 2. Total of Trainings Provided

Head Start	28
Public Food Handler	4
School Custodial	4
Casino	3
School Transportation	2
Workplace PPE	2
School Food Service	2
Jail	1
Clinical	1

Conclusion

Public health messaging and trainings are critical during public health emergencies. They require everyone to work together to mitigate disease spread and ensure the wellbeing of our tribal partners. The Phoenix Area DEHS team developed standardized guidance and then worked directly with operators to identify any safety or training gaps. Trainings continue to be conducted by DEHS staff across the Area as part of a broader effort to prevent COVID-19 for all high-risk facility types. A main objective of this initiative was to provide flexible training options on multiple training platforms for attendees to retrieve information, even from remote areas with limited internet access.

As DEHS staff continue to navigate the COVID-19 pandemic and the challenges that arise providing services to our tribal communities, we will continue to:

- Evaluate progression of COVID-19 impact on tribal communities served
- Adjust messaging and training to include most recent federal guidance
- Identify additional resource and training gaps
- Continue to provide Food Handler Training on a quarterly basis
- Continue to provide COVID-19 trainings by request

COVID-19 INSTITUTIONAL ENVIRONMENTAL HEALTH RESPONSE

Sung Jik “Andrew” Park, Kayla Davis, Kate Pink

Phoenix Area

Introduction

Institutional Environmental Health (IEH) is a key component of the Phoenix Area DEHS and a primary focus of the overall COVID-19 response. Phoenix Area DEHS response activities included policy and procedure review, staff training, N95 respirator fit testing, evaluation of environmental surface disinfection, and support of tribal community-based collection events. These activities were intended to protect tribal staff, healthcare providers, first responders, and provide the tribal communities expanded access to COVID-19 testing.

Facility Consultation and Safety Officer Support

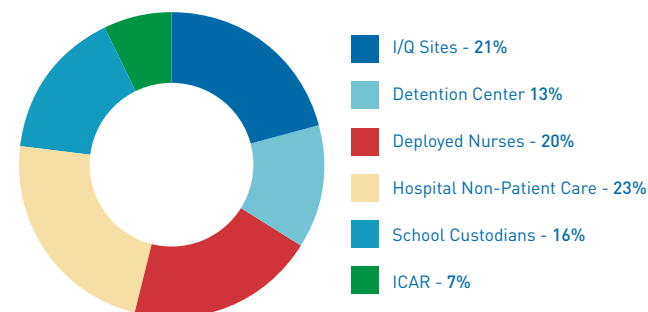
Institutional facilities such as hospitals, schools, and detention facilities often serve vulnerable populations (i.e., children, elders, patients, inmates) that are more susceptible to disease. Properly trained staff adhering to specific policy and procedures ensures: (1) facilities meet re-opening/opening requirements; (2) correct use of PPE; and (3) adequate cleaning and disinfecting procedures.

The following consultative services were provided:

- Service Unit Safety & Health Protocols
 - Trained: IHS staff and 45 deployed nurses (Commissioned Corps and Veteran’s Affairs)
 - Results: IHS staff and deployed nurses were more prepared to integrate into Service Unit and hospital protocol; providing safe and efficient health services to 420+ COVID-19 patients
- Infection Control Assessment and Response (ICAR)
 - Participants: Collaborative effort, led by CDC in support of both IHS and tribally operated facilities
 - Results: Assessment activities identified eight recommendations for two facilities concerning PPE, infection control, staffing, telehealth and healthcare personnel safety to be addressed in the development and implementation of policy and procedures

- PPE Use and Communicable Disease Control
 - Trained: 79 staff members for the isolation/quarantine (I/Q) sites and detention centers
 - Results: (1) allowed for four I/Q sites to open providing safe space for community members to isolate away from family members and remaining service population of 17,000; (2) worker inmates (responsible for laundry and cleaning) and detention center staff received respirator fit testing and training in order to address communicable disease control and reduce the spread of COVID-19 within their facilities

IEH Facility Consults



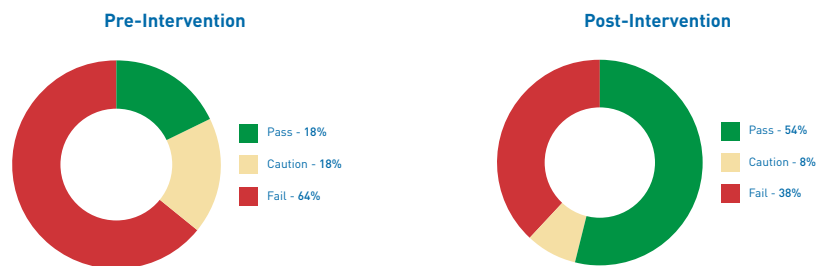
Respiratory Fit Testing

The Occupational Safety and Health Administration (OSHA) requires an annual respirator fit test to confirm that the respirator forms a tight seal on the employee’s face before it is used in the workplace. This test ensures that the employees using the respirator is getting the expected level of protection by minimizing any contaminant leakage into the mask. Proper respirator use is required for healthcare workers who are expected to interact or be exposed to individuals with infectious respiratory diseases. With the COVID-19 outbreak, the need for fit testing to healthcare workers, first responders, and other essential employees in the communities we serve increased dramatically.

- 17 fit test events
- 13 train-the-trainer events
- 700 individuals fit tested
- 1 community partnership with Johns Hopkins

Environmental Surface Disinfection

Effective environmental surface disinfection is critical in responding to COVID-19, especially in a clinical setting. To quantify the effectiveness of surface cleaning in the facility, adenosine triphosphate (ATP) swab assessments were conducted to monitor the efficacy of the surface cleaning procedures. The ATP swabs use bioluminescence to detect residual ATP as an indicator of surface cleanliness. The presence of ATP on a surface indicates improper cleaning and the presence of contamination. Two clinics participated in the ATP swab assessment, and a total of two ATP swab assessments were conducted. The ATP swab assessment also involved programmatic and education interventions to identify potential deficiencies in environmental surface disinfection policies and practices.



Programmatic and Educational Interventions

- Review/Revision of policy and procedures
- Define roles and responsibilities
- Review of chemical inventories
- Provide environmental surface disinfection training
- Implement revised policy and procedures

Community-based Events

Phoenix Area DEHS staff provided logistical support and personnel to multiple community-based collection events throughout the Phoenix Area in order to provide expanded access to COVID-19 testing to those communities in need. These community-wide events were provided in partnership with local tribes, state partners, and the Army National Guard.

- 7 community-based testing events
- 1,029 COVID-19 tests conducted

Conclusions/Recommendations

Phoenix Area DEHS staff were able to serve as safety officers, provide respiratory fit testing, and assess environmental surface disinfection and communicable disease control. They conducted environmental health assessments in healthcare settings, alternate care/recovery and surge capacity sites, drive-up testing sites, schools, childcare centers, restaurants, gaming and more. In addition, they were also deployed as IHS liaison officers to state emergency operations centers and were assigned to both tribal and service unit incident command teams. Staff members were able to mobilize multiple partnerships with tribes, states, and the Army National Guard to effectively provide essential Institutional Environmental Health services.

Based on these assignments, interactions, and partnerships; the following are recommendations to improve future IEH responses:

- Community Partnerships and Communication
 - Restricted communication within the hierarchy of Service Unit Incident Command Systems and Phoenix Area DEHS created gaps in service and delays in providing facility-specific guidance and information
 - > Recommendation: Ensure that there is a clear line of communication for DEHS within the ICS command structure for improved coordination
 - Miscommunication with deployed nursing staff created confusion and distrust; this was resolved with the creation of an orientation program
 - > Recommendation: Solidify the orientation program in writing so that it can be replicated should future needs arise; ensure all staff deployed to a Service Unit know the Service Unit Incident Command structure and who to report to if issues arise
- Staff Training and Respiratory Fit-testing Procedures
 - DEHS staff observed external programs using a variety of fit testing procedures
 - > Recommendation: Confirm that programs utilize established written fit testing procedures to ensure consistency and a proper fit test
 - DEHS staff observed a variety of train-the-trainer procedures throughout the service area
 - > Recommendation: Establish a written train-the-trainer policy and procedure to ensure consistency and adherence to standard protocol; provide additional DEHS train-the-trainer sessions to tribal entities to increase capacity and preparedness



Healthy Homes

EH issues associated with housing on tribal lands present an ever-increasing set of complex challenges to be addressed. A few examples of EH related issues of concern are lead exposure, asbestos exposure, mold, disease vectors, lack of potable water, radon gas, solid and liquid waste disposal, injuries (e.g., fires, electrocution, and slips/ trips/falls), chronic chemical exposures, and asthma triggers.

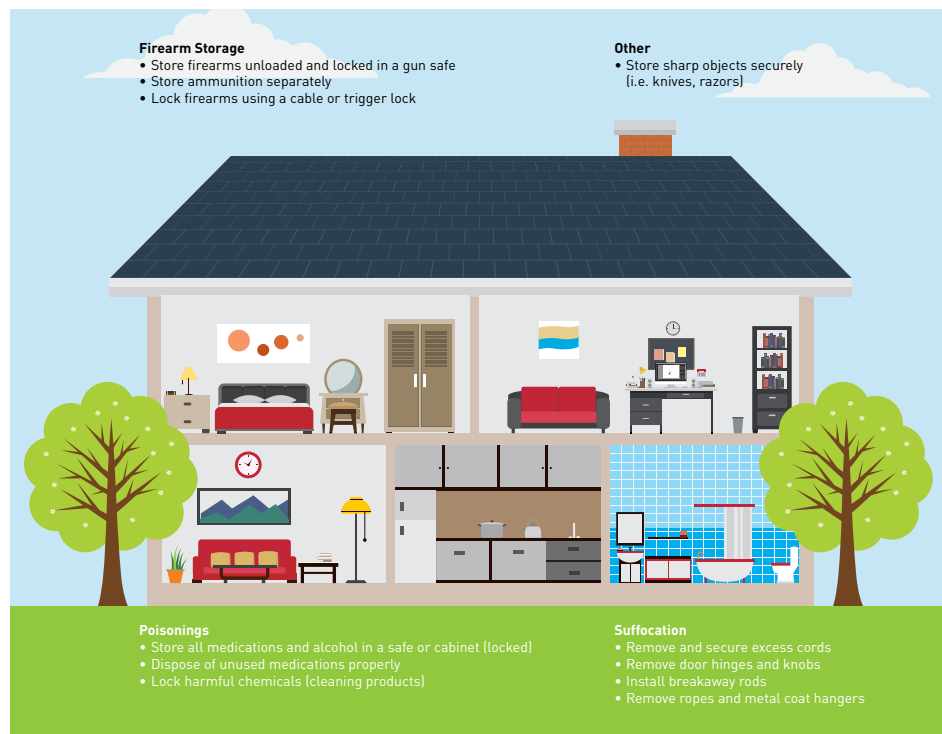
Many programs focus on capacity building and education related to reducing asthma attack rates, mold and moisture problems, chemical exposure, and other events that are documented through health surveillance systems and through a home inspection program. Home inspections identify threats to the health of occupants and the DEHS staff focus on identifying and eliminating related risk factors. A project with an emphasis on healthy homes was conducted in 2020 and can be found on the following pages.



REDUCING LETHAL MEANS IN THE HOME ENVIRONMENT DURING COVID-19 PANDEMIC

Andrea Tsatoke, Martin Stephens, Isaac Ampadu, Robert Morones

Phoenix Area



Introduction

- COVID-19 has taken more than 200,000 lives nationwide, and has further exposed vulnerable American Indians/Alaskan Native (AI/AN) populations
- Adolescents suffer from poor mental health and suicidality. The COVID-19 pandemic may further erode adolescent mental health
- Suicide is the second leading cause of death among AI/AN youth and young adults
- Majority of suicides occur in the home
- Harm reduction is a comprehensive approach to suicide prevention

Methods

1. Service Gap Identified
 - No tool for parents and caregivers to identify risk in the home
 - Outreached to stakeholders (i.e. Behavioral Health, Schools, etc.) for interest in a harm reduction tool
2. Literature review
 - Lack of harm reduction tools available for the home environment
 - Lack of culturally appropriate suicide resources for harm reduction
 - Lack of harm reduction for suffocation
3. Developed culturally competent brochure (i.e. language, visual)
 - Focused on lethal means
 - Target population are parents and caregivers of youth and young adults
 - Reviewed by Tribal and IHS behavioral health programs

Results

- Currently being piloted by tribal behavioral health as part of the safety plan and crisis counseling
- Provides parents and caregivers guidance to reduce lethal means
- Presented to tribal a coalition including local school administrators, police, and universities

Next Steps

- Continue to replicate in other tribal communities – sharing with community partners and other programs providing services
- Evaluate use of brochure at participating communities to determine additional support
- Mitigate the impact of COVID-19 on adolescents by partnering with behavioral health to reduce lethal means in the home

HEALTHY HOMES PROGRAM – BEMIDJI AREA

Francis Park

Bemidji Area

Introduction

In 2017, the Bemidji Area entered into an agreement with U.S. EPA Region 5 to fund work pertaining to healthy homes assessments and initiatives. In 2020, the Area's healthy homes coordinator position was filled and this is a summary of the new project.

In addition to conducting three home assessments, two lead assessments of tribal Head Starts were completed in Michigan. Along with completing home assessments and providing technical assistance, our program coordinated with two tribal consortia to successfully apply for the U.S. EPA's Water Infrastructure Improvements for the Nation (WIIN) Act grants to conduct lead testing in tribal schools and child care programs. Future initiatives include providing training for tribal housing authority staff on healthy homes topics, assisting with policy and guidance document development, and regional trainings.

Methods

Electronic questionnaires were sent to the Area's 34 tribal housing directors to identify areas of need and requested resources. Survey responses will be used to develop healthy homes resources and training areas to be distributed to tribal housing departments. The Bemidji Area will support the implementation of the WIIN grants by conducting on-site water sampling and submission, as well as interpretations and remediation recommendations of the results.

Results

The questionnaire response rate was **54%** among the housing departments. Eight areas for resource development were identified to include: policy development, staff training, methamphetamine cleanup, liaison between housing and tribal clinics to assess homes for indoor air quality, mold and mold cleanup, integrated pest management, fire safety, and building science. Development is underway to provide tailored resources on priority healthy homes topics identified. WIIN grants have been awarded to two tribal consortia covering all three states in the Bemidji Area. Coordination is underway to complete lead water sampling of all tribal childcare facilities by second quarter of CY2021.

Discussion

There is a high demand for healthy home assessments within the Bemidji Area. old and indoor air quality are the predominant issues related to healthy home assessment requests. With intermittent staffing challenges at both the Area and tribal departments, there is a need for training resources and tools to be shared with tribal partners to ensure the quality of the healthy homes programs does not decrease with staff turnover.

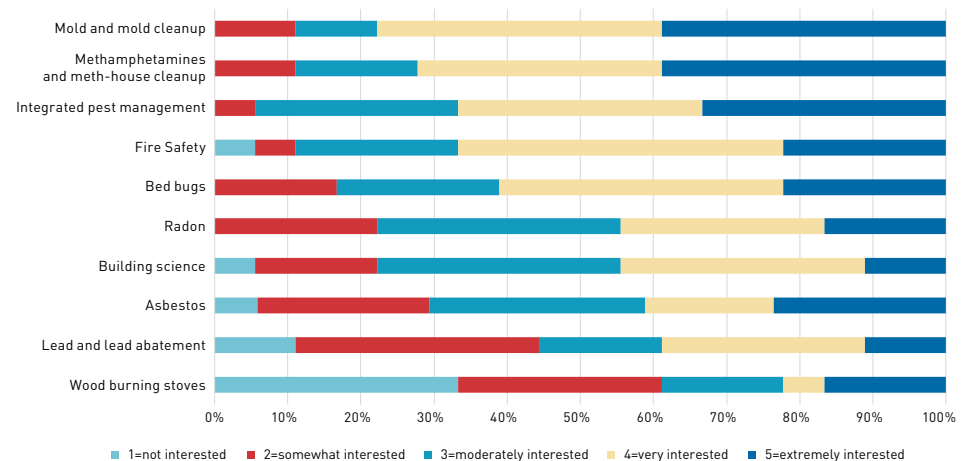
Tribal resources to be developed and compiled include

- Healthy housing inspection checklist for on-site surveys by housing staff
- Notification of housing grant and funding opportunities
- Virtual training materials
- Technical assistance

Conclusions/Recommendations

It is critical that the Bemidji Area maintains a strategic partnership with U.S. EPA regarding healthy homes initiatives. Staffing challenges need to be addressed so that the healthy homes position can be filled to address the ever increasing requests that are received regarding mold and indoor air quality issues. Training for staff in indoor air quality, lead assessments, and mold should be a priority to ensure that staff have the proper skill sets needed to complete healthy homes assessments.

13. Please rate your level of interest in receiving information about these healthy homes topics, from "not interested" to "extremely interested"



CALIFORNIA AREA ATLAS OF INJURIES

Carolyn Garcia

California Area

Introduction

The California Area Environmental Health program updated its Atlas of Injuries among American Indians and Alaska Natives in California in 2020. This document was last updated in 2009. The California Area Atlas of Injuries provides injury data for the 2006-2017 timeframe and will be used by the California Area Environmental Health program to identify and prioritize injury prevention program activities.

Methods

Secondary data sourced from the state of California were used for this project to calculate crude injury rates for the AI/AN population in California. The California AI/AN population in this study is defined as individuals reporting one race that is American Indian, Aleut or Eskimo on the 2000 and 2010 Census.

Results

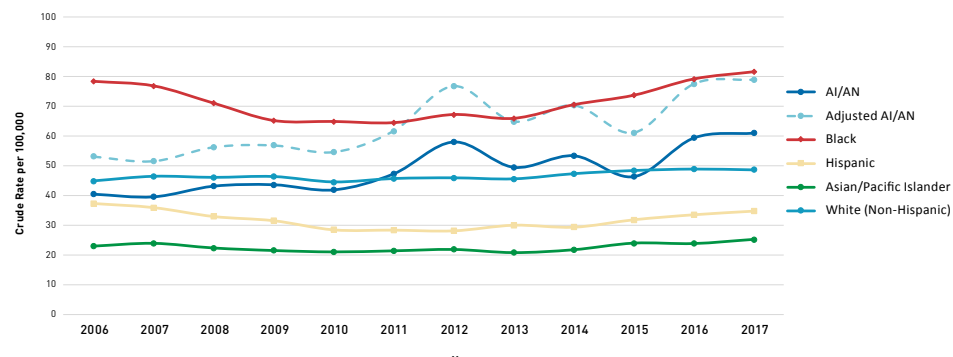
The California AI/AN

- adjusted fatal all injury rate exceeded the rate for all races by **35%**
- adjusted fatal poisoning injury rate exceeds the rate for all races by **50%**
- adjusted fatal poisoning injury rate by prescription medication exceeded the rate for all races by **27%**
- adjusted fatal poisoning injury rate increased by **34%** between 2006 and 2017
- nonfatal poisoning injury rate increased by **25%** between 2006 and 2017
- fatal self-harm injury rate for age group 20 – 34 exceeds the rate for the same all races age group by **17%**

The highest AI/AN nonfatal injury rate was associated with falls and the highest fatal injury rate is associated with accidental poisoning followed by motor vehicle traffic

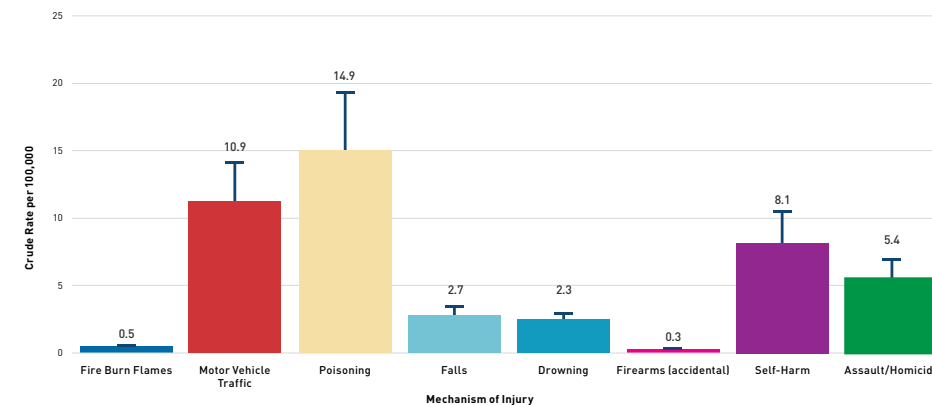
The most costly California AI/AN injuries were motor vehicle traffic and assault/homicide injuries

Comparison of Fatal All Injury Rates (2006 - 2017) California AI/AN and Other Race/Ethnicity Groups in California



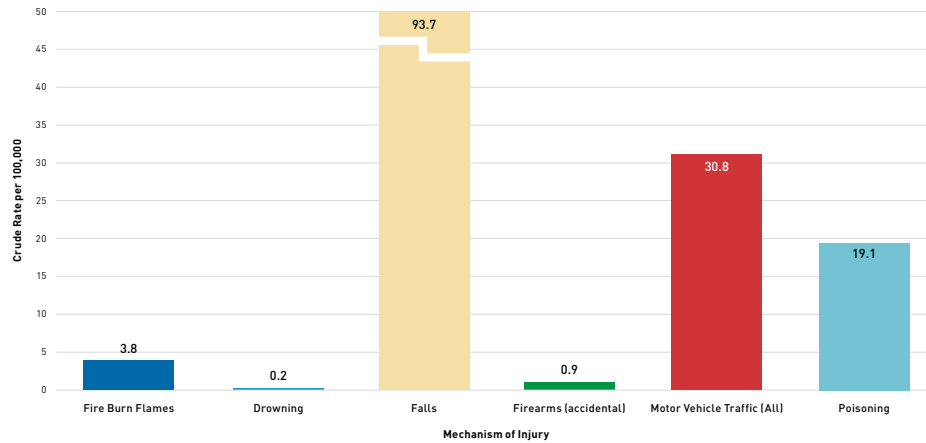
All Fatal Injuries includes Unintentional Injuries, Assault/Homicide Injuries, Self Harm Injuries and Undetermined Intent Injuries
 *Adjusted Rates: A rate that has been adjusted by 30.4% to compensate for misreporting of AI/AN race on state death certificates
 Source: California Vital Statistics 2006-2017

California AI/AN Fatal Injury Rates by Injury Mechanism 2006 - 2017



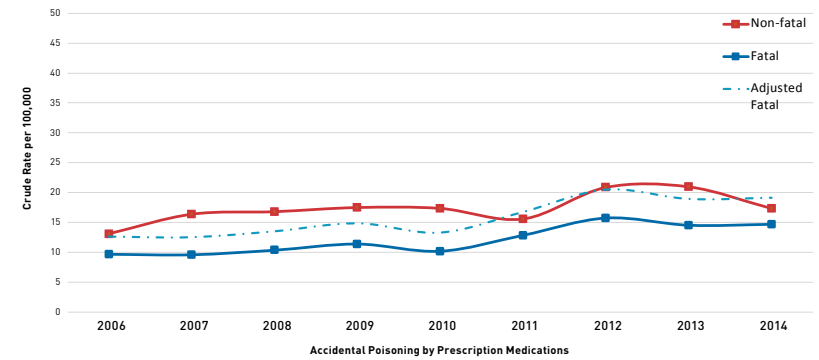
Error Bars: Rate has been adjusted by 30.4% to compensate for misreporting of AI/AN race on state death certificates
 Source: California Vital Statistics 2006 - 2017

California AI/AN Nonfatal Unintentional Rates by Injury Mechanism 2006 - 2017



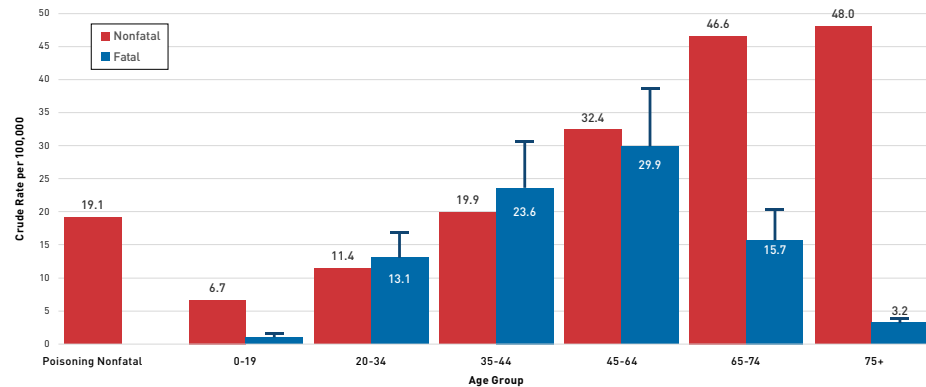
Source: OSHPD PDD Data 2006 - 2017

California AI/AN Fatal and Nonfatal Poisoning by Prescription Medications Injury Rates (2006 - 2014)



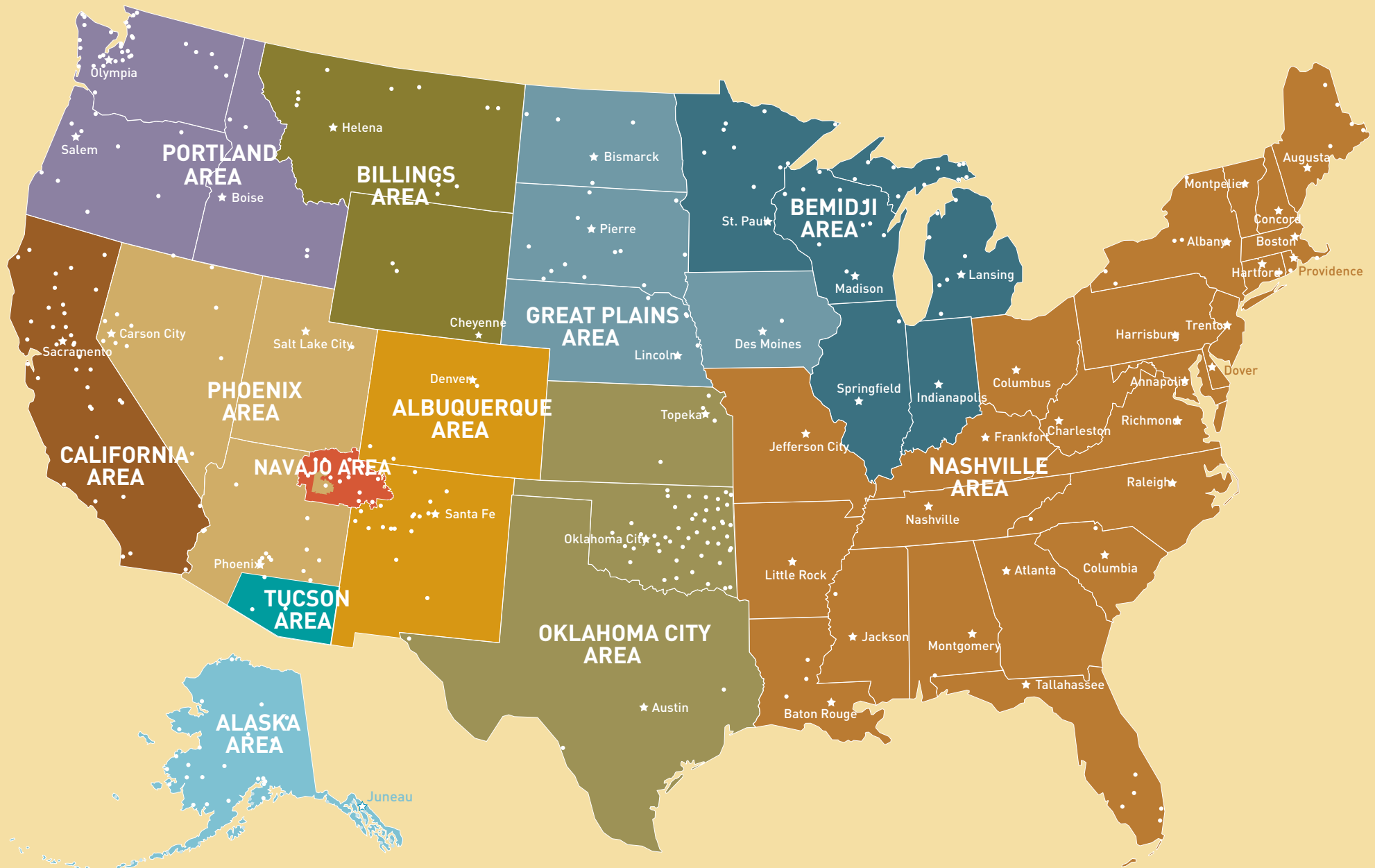
Adjusted Rates: A rates that has been adjusted by 30.4% to compensate for misreporting of AI/AN race on state death certificates
Source: California OSHPD PDD Data 2006 - 2014
Source: California Vital Statistics 2006 - 2014

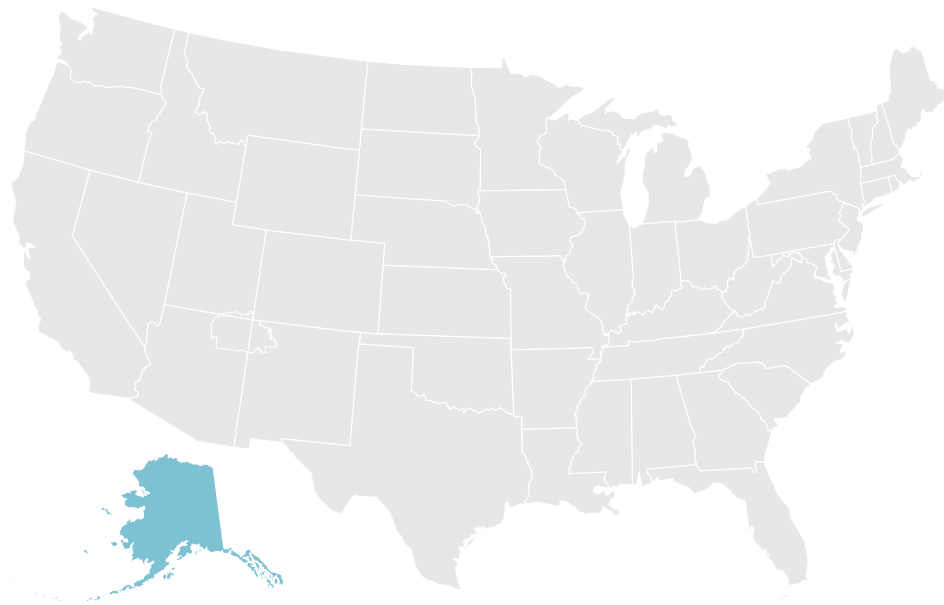
California AI/AN Fatal and Nonfatal Poisoning Injury Rates by Age Group 2006 - 2017



Error Bars: Rate has been adjusted by a 30.4% to compensate for misreporting of AI/AN race on state death certificates
Source: California Vital Statistics 2006 - 2017
Source: California OSHPD PDD Data 2006 - 2017

Area DEHS Programs





Alaska

EH programs in the Alaska Area are all tribally managed under the authority of the Indian Self-Determination and Education Assistance Act (Public Law 93-638), as amended. Seven regionally-based EH programs serve a specific geographical area. These organizations include the South East Alaska Regional Health Consortium (Sitka), the Bristol Bay Area Health Corporation (Dillingham), the Yukon- Kuskokwim Health Corporation (Bethel), the Norton Sound Health Corporation (Nome), the Maniilaq Association (Kotzebue), the Tanana Chiefs Conference (Fairbanks), and the Alaska Native Tribal Health Consortium (ANTHC, of Anchorage).

Typical services include assistance related to water, sewer, solid waste, air, and vector control activities. Other services include disease outbreak investigations, support for community-based clinics related to infection control and safety, and IP efforts. Additionally, several of the tribal EH programs operate State of Alaska certified drinking water laboratories that assist communities in ensuring the safety of their drinking water and ensuring compliance with state and federal regulations.

The regional EH programs, together with ANTHC, offer communities and tribes a comprehensive set of environmental health services that protect and enhance the wellbeing of AI/ANs.

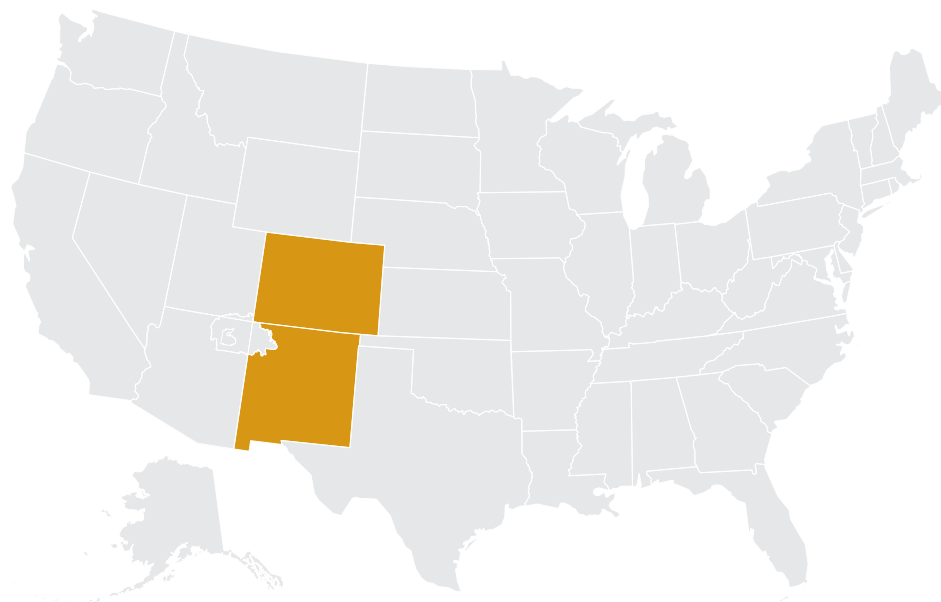


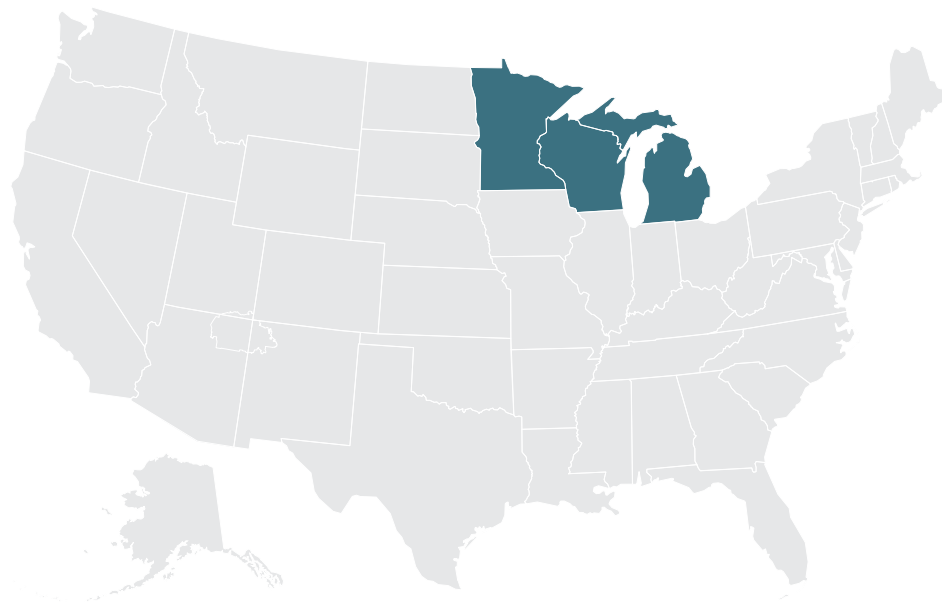
Albuquerque

The Albuquerque Area DEHS Program serves 27 federally recognized tribes in Colorado, New Mexico, Texas, and Utah. The Area's service population of over 100,000 members comprises 20 Pueblos, three Navajo Nation Chapters, two Apache Reservations, and two Ute Reservations. The Area's EHS staff is stationed at the Area Office and six Service Units. Professional positions include the DEHS Director, District and Service Unit Environmental Health Officers, Environmental Health Technicians, an Industrial Hygiene and Safety Manager, and an IEH Specialist.

The Albuquerque Area DEHS is responsible for a wide range of general EH services, including surveys, investigations, consultations, assessments, and technical assistance. The DEHS staff provide training and community outreach on a broad range of topics. Additional services are provided in IP and IEH. The IEH Manager serves as the Area Emergency Management point of contact, providing needed coordination in emergency situations. Staff often participates in national program work, as well as working in partnership with many tribal, federal, state, county, and local groups.

The Albuquerque Area DEHS implements creative methodologies to provide high quality services to their tribal partners. The Area is committed to program excellence and staff expertise. With consideration of tribal needs and priorities, extensive long-range planning is conducted to ensure the provision of necessary and timely services. The Albuquerque Area DEHS Program strength is in its staff's commitment to continuous program, team, and individual improvement, collaborative partnerships, and innovation in providing quality services to tribes in a myriad of programmatic areas.





Bemidji

The Bemidji Area DEHS program serves 31 federally recognized tribes and over 120,000 American Indians in an area covering 5,183 square miles throughout the states of Minnesota, Wisconsin, and Michigan. Staff includes six field EHS, two District EHS, one DEHS Director, one IP Specialist, and one Area IEH Specialist within four offices. Both the area office and a district office are located in Bemidji, Minnesota. The second district office is located in Rhinelander, Wisconsin, and there is a field office in Ashland, Wisconsin.

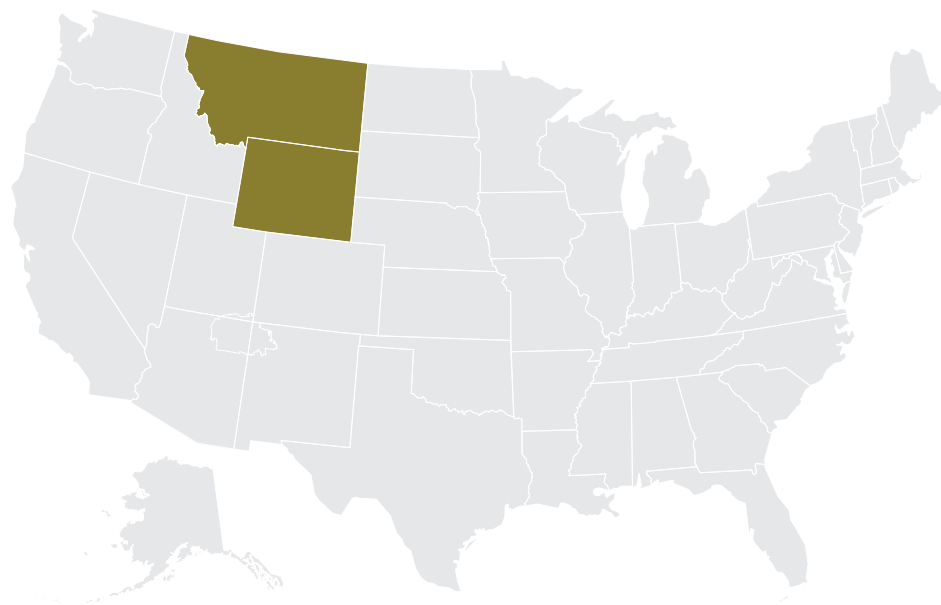
The Bemidji Area provides EH services in the form of surveys, investigations, testing and monitoring, training, policy development, program support and facility plan reviews. This is done in effort to improve food safety, solid and liquid waste management, water quality, hazard communication, epidemiology, vector control, recreation/celebration sanitation, indoor/outdoor air quality, home sanitation and safety, and childcare environments. The DEHS is also responsible for specialized services in injury prevention, environmental sustainability, and institutional EH.

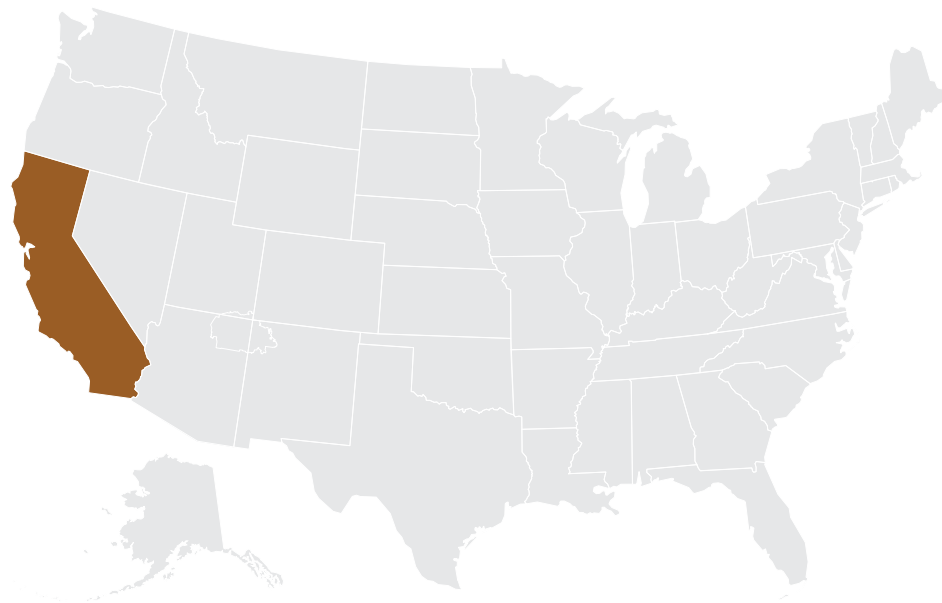
The Bemidji Area emphasizes a shared decision-making process to champion the systems change necessary to create vital healthy tribal communities by preventing environmentally related diseases and injury through environmental health practices.



Billings

The Billings Area DEHS serves nine tribes (totaling 70,000 people) on eight reservations throughout Montana and Wyoming. Fully staffed, the Billings Area DEHS Program consists of the DEHS Director, an Area Environmental Health Officer, an IEH Officer, and an IP Specialist. The Billings Area has three direct service tribes, four Title I tribes that have contracted the DEHS Program, and two Title V tribes that have compacted all IHS services. Field staff in the area include three federal EHSs, five tribal EHSs, and two tribal EH Technicians. Although the tribes and reservations of Montana and Wyoming are diverse in their cultures, landscapes, and communities, the Billings Area DEHS Program seeks to provide comprehensive services that address environmental health, including the two specialty areas of IP and IEH. The focus of the program includes food safety, vector control, health, and safety at schools, Head Starts, IHS hospitals and clinics and other community facilities, technical assistance to the hospital and clinics safety officers, and prevention of injuries from falls, motor vehicle crashes, assaults, and suicides. Implementation of the DEHS Program consists of technical assistance, training, health and safety inspections, and communication and coordination between the tribes, other government agencies, and the IHS.





California

The California Area serves approximately 104 federally recognized tribal governments in the state of California who represent a service population of 151,242 persons in nearly 1685 facilities. The California Area DEHS is comprised of career tribal employees, federal civil service and PHS Commissioned Corps Officers. Staff directly employed by the IHS are stationed in the Area office located in Sacramento, district offices located in Redding and Escondido, and field offices located in Clovis and Ukiah. All of our staff are registered Environmental Health Specialists who possess a bachelor's degree or higher in environmental health or a related discipline.

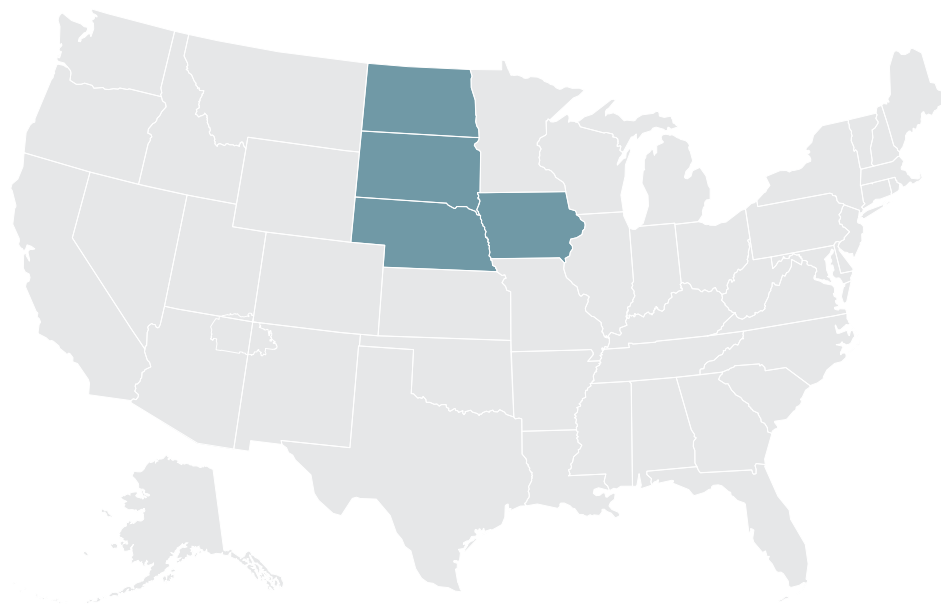
The majority of services provided by California Area DEHS fall into the category of general environmental health. Technical consultation, training, surveillance, and investigative services are provided in the following program areas: children's environmental health, communicable disease control and epidemiology, food safety, recreational water, community facilities and institutions, operation and maintenance sanitation facilities, and solid waste management. The California Area DEHS also provides IEH services to support partner tribal programs in their efforts to reduce chemical, biological, radiological, and ergonomic workplace hazards. Healthcare accreditation, infection control, and compliance are priorities for our IEH Program.

The California DEHS injury prevention program is dedicated towards increasing the capacity of tribes to reduce injury problems within their community. Our program currently provides technical assistance, funding, and other resources to tribes for use in the collection of injury data, training, and the development and implementation of interventions based on best practices.



Great Plains

The IHS Great Plains Area encompasses 18 tribes in four states (Iowa, Nebraska, North Dakota, and South Dakota) totaling 281,459 square miles and is the fifth largest Area in the IHS. The DEHS is one of three divisions (DEHS, DSFC, and Facilities Management) within the Great Plains Area OEHE. The DEHS program is comprised of career tribal employees, federal civil service, and PHS Commissioned Corps Officers. At the Area level, Great Plains has a DEHS Director, an Area IP Specialist, and a Staff Environmental Health Specialist. In addition, the DEHS Program funds one IEH Officer, which is managed through the Area Chief Medical Officer and works closely with the compliance program. At the district level, the DEHS Program has three staff located in Minot, North Dakota; Pierre, South Dakota; and Sioux City, Iowa. At the field level, the program has 13 offices with Field EHS and/or IP Specialists. Seven of the field offices are contracted programs that are managed by the tribes. The other six field offices are direct service programs and staffed with Civil Service or PHS Commissioned Corps staff. All DEHS district and field staff are responsible for providing environmental health and safety surveys of facilities listed in the WebEHRS database, technical consultation and trainings to tribal programs and beneficiaries, and carrying out epidemiological investigations as necessary. The remaining facility survey work is covered by the IEH Officer. District and field staff spend approximately **60%** of their time working on general EH issues and **40%** of their time engaged in IP activities related to data collection and assisting communities with implementing proven interventions. Injuries have had a significant negative impact on the health of Great Plains Area communities, and as a result, IP is a significant focus for the DEHS Program.



The Nashville Area Indian Health Service serves 36 tribes or nations with fourteen Title I (contracted) Tribally Administered programs, nine Title V (compacted) Tribally Administered programs, three IHS Federal Direct Care Service Unit programs, three Purchased/Referred Care operations, three Urban Indian Health programs, and one Youth Regional Treatment Center. These tribes and nations are dispersed across fifteen states, although the Nashville Area also assists patients in a total of 24 states in the eastern, southeastern, and mid-United States.

Navajo

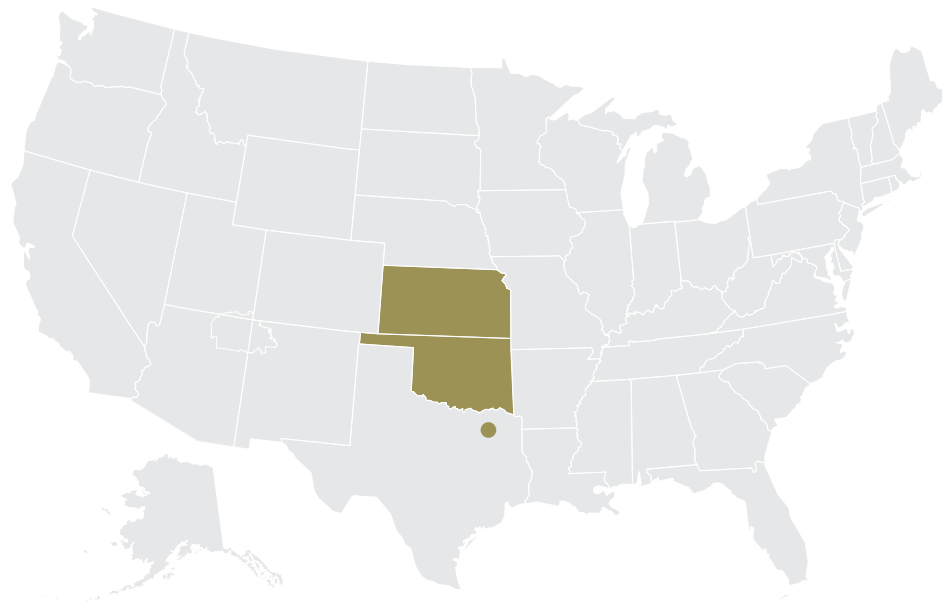
The Navajo Area DEHS is a large comprehensive EH program serving more than 250,000 members of the Navajo Nation and the Southern Band of San Juan Paiutes. EH services are provided to Indian communities on reservations encompassing more than 25,000 square miles of land in northeast Arizona, northwest New Mexico, and southern Utah.

The DEHS staff plan and provide EH programs and services in many areas such as food safety, prevention of elder falls, motor vehicle injuries, emergency preparedness, water and sewer sanitation, and prevention of zoonotic diseases including plague, rabies, hantavirus, and West Nile virus. Public health assessments in the form of facility surveys, training, investigations, sampling, and technical assistance (i.e., participation on facility and community committees, facility plan reviews) are just a few services provided by the program to tribes.

The Navajo Area DEHS also provides an IP Program and IEH services through the Division of Occupational Health and Safety Management (DOHSM). The IP Program provides services that address traumatic injuries that can often greatly affect communities while the DOHSM deals with IEH issues in healthcare facilities. Both programs rely heavily on assessments, surveillance, and best practice interventions to target health risks in communities. Training is also offered to build tribal capacity for IP and occupational health and safety issues.

These programs and services are provided through multiple offices, including the Navajo Area Office in Window Rock, Arizona; three district/field offices in Fort Defiance, Arizona, Shiprock, New Mexico, and Gallup, New Mexico; and field offices at three Service Units in Kayenta, Arizona, Many Farms, Arizona, and Crownpoint, New Mexico. The professional, technical, and clerical staff of the Navajo Area DEHS and tribal EH programs work as a team in partnership with tribes to promote healthy environments in Indian communities.





Oklahoma City

The IHS Oklahoma City Area serves 43 tribes with a service population of nearly 350,000 AI/AN people. The service area covers the States of Kansas, Oklahoma, and Texas. The DEHS provides direct EH support services to 31 Tribes and has five field offices located in Okmulgee, Shawnee, Clinton, Lawton, and Pawnee, Oklahoma, and one in Holton, Kansas.

The DEHS Program includes 11 staff members: one Director, one IEH Specialist, one Injury Prevention Specialist, one District Environmental Health Officer, and seven field staff, that provide a wide range of EH services that include, but are not limited to, food safety, solid and liquid waste management, water quality, hazard communication, epidemiology, vector control, emergency management and response, infection control, recreation/celebration sanitation, indoor/outdoor air quality, home sanitation and safety, Head Start and childcare food and safety, in addition to meeting a wide selection of specific training needs.

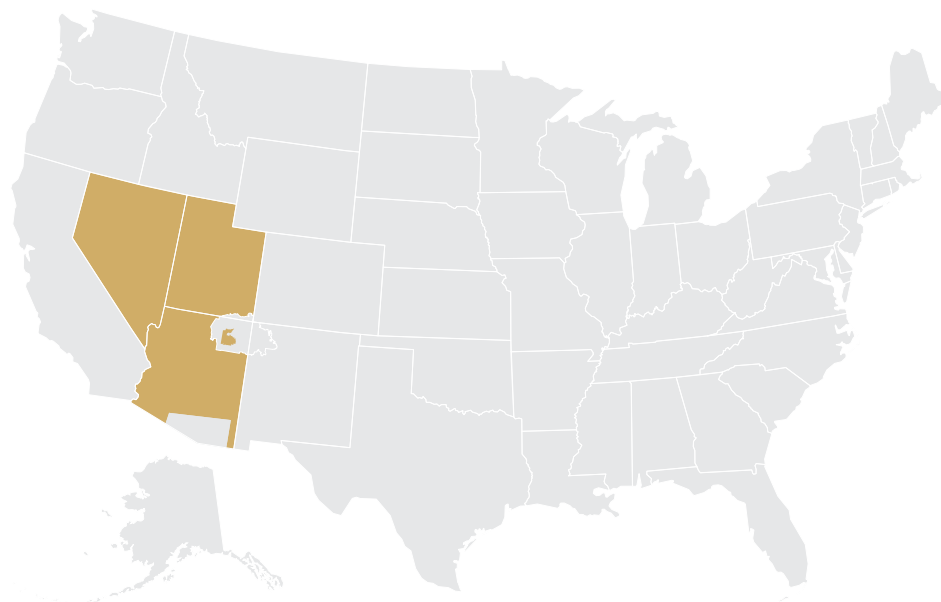
The DEHS is also responsible for specialized services in the areas of IP and IEH. The goal of the Oklahoma City Area IP program is to reduce the incidence and severity of injuries and deaths within the tribes they serve and work in collaborations with. IP services include training, partnership building, and IP grant funding technical assistance. In addition, an Area IP specialist provides direct oversight to ensure an effective implementation and completion of established program goals and objectives. Program objectives are met by conducting injury surveillance surveys and by identifying problem areas that can be solved through direct intervention and through community activities. The IEH Program assists healthcare facilities provide a safe environment for patients, visitors, and staff. The IEH Specialist provides direct technical assistance to safety officer and committees, infection control officers and committees, facilities management, and leadership. In addition, the IEH Specialist is responsible for conducting annual radiation protection surveys of all x-ray equipment within IHS and tribal hospitals and clinics to ensure safe levels of radiation are used and maintained; and also to conduct comprehensive industrial hygiene surveys within those facilities to ensure that a safe environment is being achieved and maintained.

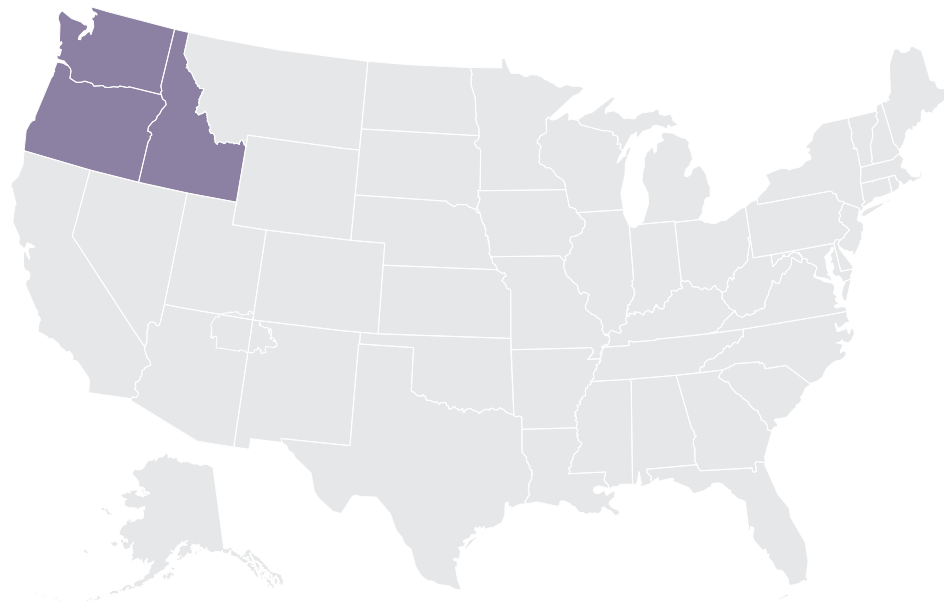


Phoenix

The Phoenix Area serves 46 tribes/tribal organizations with a combined population of nearly 170,000 and over 2,000 facilities in four states (Arizona, California, Nevada, and Utah). A cadre of EH professionals accomplish the work of the DEHS. The staff is located in the Area Office; three district offices; and nine Service Units/field offices.

The DEHS provides a breadth of technical and consultation services that include facility hazard assessments, policy development, investigations, and training. The diverse technical scope of the program includes food sanitation, vector control, water quality, waste management, air quality, infection control, and occupational safety. Specialized services are provided in IP and IEH. The IP services include epidemiology, training, partnership building, and the development of proven intervention strategies for community-based injury prevention. The IEH services include industrial hygiene, occupational health, emergency preparedness, and healthcare accreditation consultation.





Portland

The IHS Portland Area provides a health system for an estimated 150,000 American Indian residents of Idaho, Oregon, and Washington. Health delivery services are provided by a mix of health centers, health stations, preventive health programs, and urban programs. The Portland Area DEHS works in partnership with tribes, the six Service Units, and other organizations/agencies to implement a comprehensive service delivery model that includes the following: monitor and assess environmental hazards and conditions in AI/AN homes, institutions, and communities; educate and inform residents about EH issues; develop policies for addressing EH and injury concerns; evaluate programs, plans, and projects; and conduct projects and studies to determine best practices and solutions to environmental public health problems. The outcomes and impacts of these services control and prevent environmentally related disease and injury and improve personal and overall community wellness.

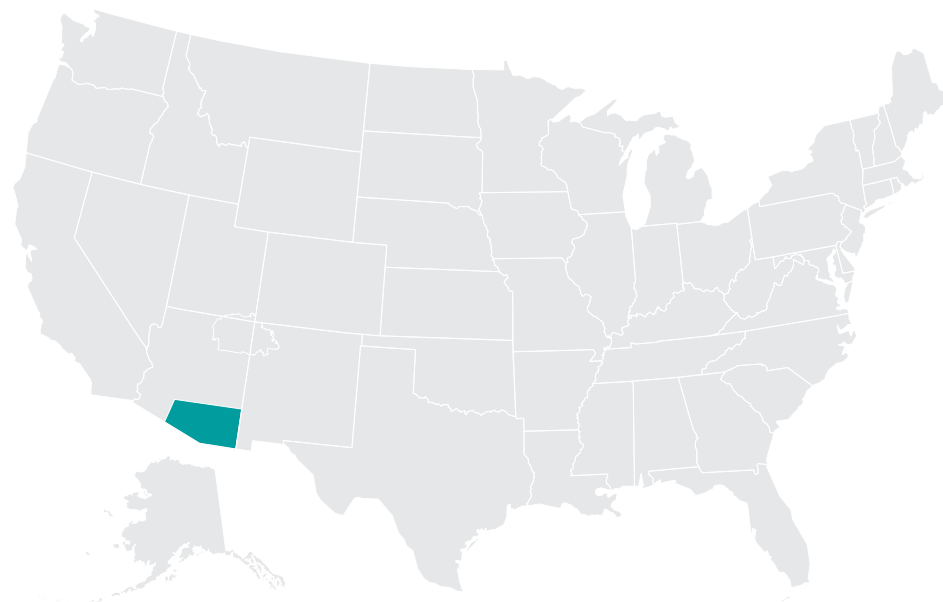
The Portland Area DEHS Program has enhanced services in pesticide safety through an interagency agreement with EPA Region X. In the Portland Area, many of the 43 tribes have assumed all or a portion of the DEHS Program under the authority of the Indian Self- Determination and Education Assistance Act (Public Law 93-638, as amended). The direct service tribes are provided services through a DEHS Director and IEH Specialist at the Area Office as well as EHS positions in district and field offices. This organizational structure maximizes the delivery of direct services to 23 tribes. The Portland Area IEH Officer also serves as the Area Emergency Management Coordinator, providing services in emergency preparedness and response and continuity of operations planning.



Tucson

The Tucson Area Environmental Health Services Branch (EHSB) serves the Pascua Yaqui Tribe, which has a total population of about 20,000. The EHSB program consists of an Environmental Health Director and an Environmental Health Officer. The program strives to provide comprehensive EH support by including IP, industrial hygiene, and general EH areas. The specific services include, but are not limited to, food safety, vectorborne disease surveillance, accreditation assistance, life safety surveys of public buildings, child safety seat installations, exposure analyses, and clinical referrals pertaining to environmental health.

The EHSB staff also provide training in bloodborne pathogens, food handling, and multiple vector related issues. The IP and industrial hygiene sections of the program assist the tribe by collecting injury statistics and exposure assessment data to determine the most appropriate evidence-based intervention strategy. The intent of which is to both preserve health and wellness as well as reduce morbidity and mortality. Great emphasis is also placed on strengthening external partnerships (i.e., collaborating with federal, state, and local stakeholders) and building capacity within the respective tribal programs.





IHS Area DEHS Program Directory



Partnerships are an essential force multiplier that enhance the successful implementation of community-based environmental health services.

ALASKA AREA/OEHE

4141 Ambassador Drive, Suite 300
Anchorage, AK 99508
Ph. (907) 729-3501

ALBUQUERQUE AREA/DEHS

4101 Indian School Road
NE Albuquerque, NM 87110
Ph. (505) 248-4947

BEMIDJI AREA/EHSS

2225 Cooperative Court
Bemidji, MN 56601
Ph. (218) 444-0503

BILLINGS AREA/OEHE

2900 4th Avenue
North Billings, MT 59101
Ph. (406) 247-7090

CALIFORNIA AREA/DEHS

650 Capitol Mall, Suite 7-100
Sacramento, CA 95814
Ph. (916) 930-3981, ext. 336

GREAT PLAINS AREA/DEHS

115 4th Avenue SE
Room 309, Federal Building
Aberdeen, SD 57401
Ph. (605) 226-7597

NASHVILLE AREA/DEHS

711 Stewarts Ferry Pike
Nashville, TN 37214
Ph. (615) 467-1622

NAVAJO AREA/DEHS

P.O. Box 9020
Window Rock, AZ 86515
Ph. (928) 871-5807

OKLAHOMA CITY AREA/DEHS

701 Market Drive
Oklahoma City, OK 73114
Ph. (405) 951-6001

PHOENIX AREA/DEHS

40 North Central Avenue, Suite 720
Phoenix, AZ 85004
Ph. (602) 364-5068

PORTLAND AREA/DEHS

1414 NW Northrup Street, Suite 800
Portland, OR 97209
Ph. (503) 414-7774

TUCSON AREA/EHSB

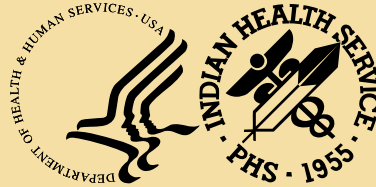
7900 South J Stock Road
Tucson, AZ 85746
Ph. (520) 295-5629



The Division of Environmental Health Services

INDIAN HEALTH SERVICE • U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

ANNUAL REPORT 2020



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

INDIAN HEALTH SERVICE

Office of Environmental Health and Engineering

Division of Environmental Health Services

5600 Fishers Lane MS: 10N14C

Rockville, MD 20857

www.ihs.gov/dehs