ANNUAL REPORT 2024

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 2024

This Annual Report for Calendar Year 2024 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:

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On the cover: The 2024 photo contest winner... Cori Crocker collecting a soil sample for lead analysis as part of an elevated blood lead level investigation was taken by CDR Sarah Snyder, both of Phoenix Area IHS

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Profile of the DEHS Program

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.

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 communities and Indian Health Service programs.

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. The Ten Essential Public Health Services were revised in 2020 to align the framework with the future of public health practice. DEHS adapted them and incorporated this set of strategies into the methods in which it delivers services to AI/AN communities across the country. Specific environmental health-related resources are available from the Centers for Disease Control and Prevention (CDC).

ASSESSMENT

1. Assess and monitor population health status, factors that influence health, and community needs and assets.
2. Investigate, diagnose, and address health problems and hazards affecting the population.

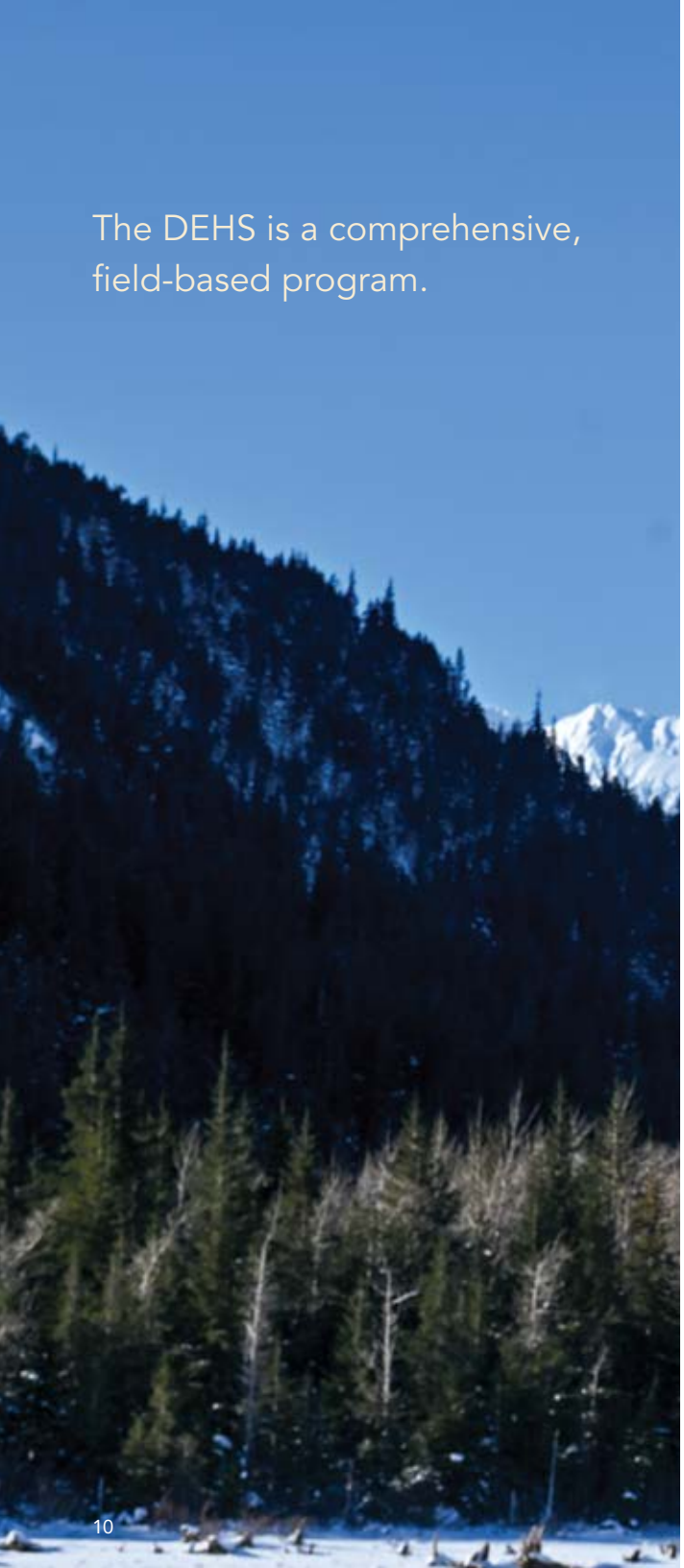
POLICY DEVELOPMENT

3. Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it.
4. Strengthen, support, and mobilize communities and partnerships to improve health.
5. Create, champion, and implement policies, plans, and laws that impact health.
6. Utilize legal and regulatory actions designed to improve and protect the public's health.

ASSURANCE

7. Assure an effective system that enables equitable access to the individual services and care needed to be healthy.
8. Build and support a diverse and skilled public health workforce.
9. Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.
10. Build and maintain a strong organizational infrastructure for public health.

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 2024 can be found in the National Focus Areas section of this report.



The DEHS is a comprehensive, field-based program.

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 (Figure 1). In 2024, the national DEHS program consisted of a total of 267 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 in Rockville, Maryland, is staffed similarly to the Areas.

List of headquarters staff from the Division of Environmental Health Services

CAPT Mike Reed
Director

CDR Timothy "Matt" Albright
Deputy Director

Brian Hroch
Institutional Environmental Health (IEH) Program Manager

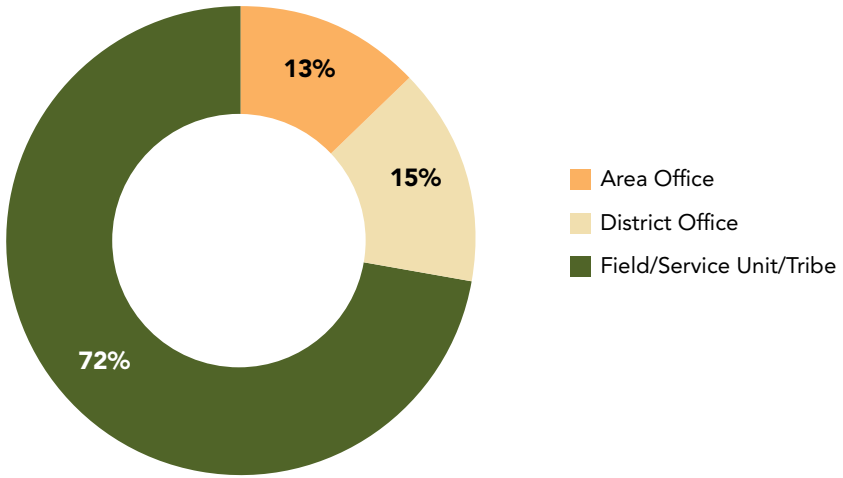
CDR Molly Madson
Injury Prevention (IP) Program Manager

CDR Andrea Tsatoke
Injury Prevention Specialist

CAPT Stephen R. Piontkowski
Senior EH Officer

LCDR Samuel Frank
Senior EH Officer

Figure 1: Environmental Health Staff by Duty Station.



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

Performance Measures

Performance measures represent key outcomes that the program can reasonably expect to influence and should be selected with a focus on mission and key activities a program performs.

The FY 2021-2025 Environmental Surveillance Performance Measure, the percent of establishments with a Certified Food Protection Manager, is tracked in the DEHS Web-based Environmental Health Reporting System (WebEHRS) for food service establishments.

FY 2024	FY 2023	FY 2022	FY 2021
77.5%	80.6%	81.5%	87.5%

The FY 2021-2025 Injury Prevention Performance Measure, the number of persons who received injury prevention training, is tracked in WebEHRS.

FY 2024	FY 2023	FY 2022	FY 2021
543	599	484	473

Performance measures are required by federal agencies and designed to improve program management throughout the federal government. In general, they represent a fiscal year (FY) performance period, should align with the Department of Health and Human Service's Strategic Plan, and should fit at least one of three basic criteria:

1. demonstrate the impact of the budget request
2. demonstrate a key benefit to the public
3. inform/support program-level management decisions

Environmental Surveillance

The Division of Environmental Health Services and Area Environmental Health Directors selected Food and Drug Administration (FDA) 2-102.12 Certified Food Protection Manager (CFPM) as the performance measure at the annual DEHS Directors meeting in 2019 based on a Centers for Disease Control and Prevention Environmental Health Specialist-Network (EHS-Net) study. That study recognizes the presence of a CFPM reduces the risk of foodborne illness outbreaks for an establishment and was a distinguishing factor between restaurants/food services that experienced a foodborne illness outbreak and those that had not. The measure aligns with the DEHS Operational Model and Ten Essential Environmental Health Services.

Injury Prevention

This measure was selected at the annual DEHS Directors meeting in 2019. It focuses on the importance of injury prevention training to help build the capacity of staff and tribes to prevent injuries and deaths due to injuries in tribal communities. It raises awareness and empowers individuals and communities. Training is also one of the components of 3Es (Education, Environmental modifications and Enforcement) that are essential in a comprehensive approach to reduce health impacts from injuries.

Program Resources

The current budget of the DEHS Program is approximately $27 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.

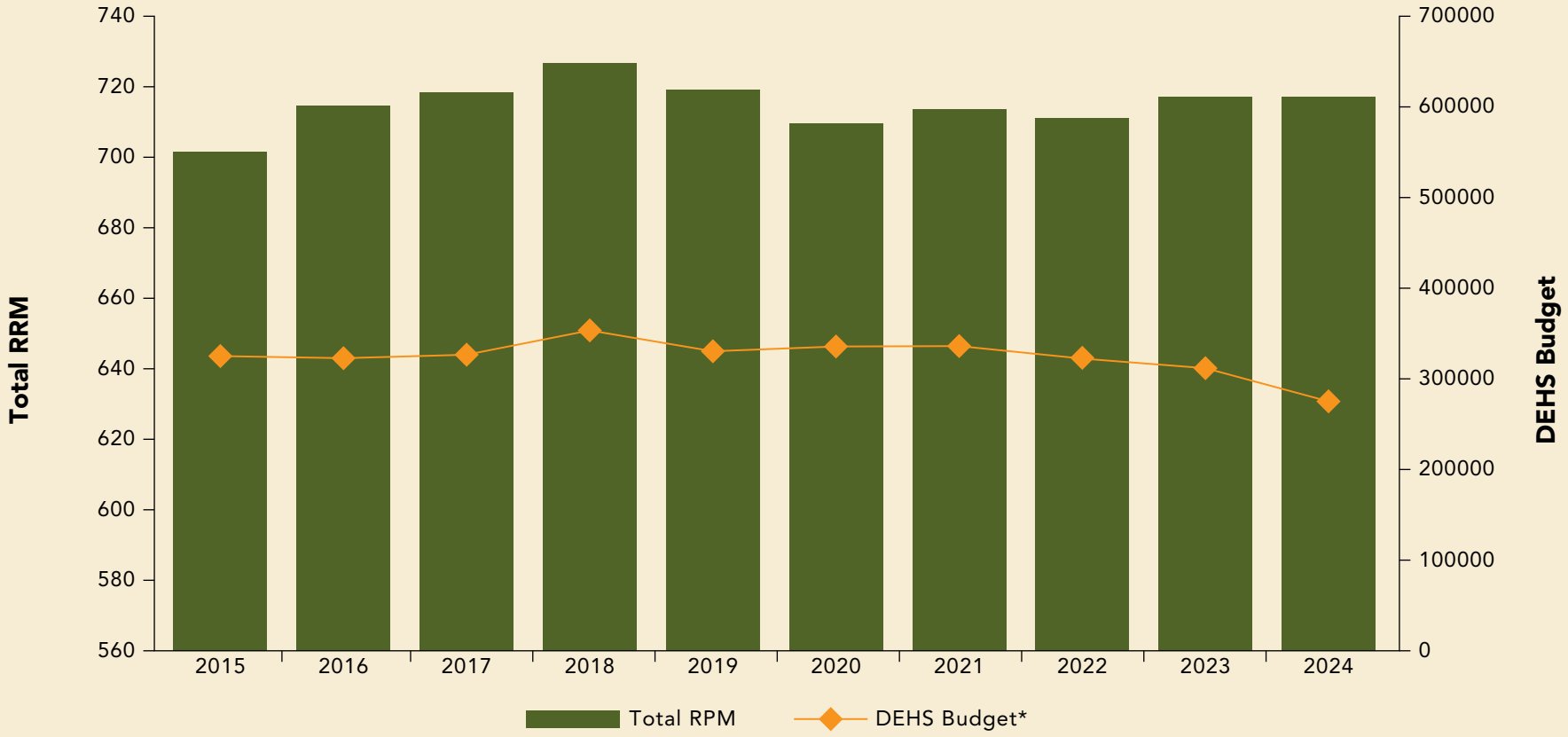
The DEHS budget is derived from the overall Environmental Health Support Account (EHSA) that supports the activities of both the DEHS as well as the Division of Sanitation Facilities Construction (DSFC). For 2024, the DEHS share of the EHSA budget was approximately 26%, or $27,514,216. Figure 2 depicts a historical comparison of the workload-based Resource Requirement Methodology (RRM) versus the distribution of Program funds from 2015 to 2024. 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.

				OEHE Funds Provided to DEHS					
Fiscal Year	Total EHSA Budget	DEHS RRM Share	DEHS Budget*	COSTEP**	Injury Prevention**	Residency**	IHS Director's Initiative***	Injury Prevention Budget Enhancements	Total DEHS Budget****
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	***	$2,766,698	$32,662,025
2018	$77,088,387	41.00%	$31,387,041	$96,000	$0	$125,000	***	$2,766,698	$35,342,133
2019	$78,496,387	38.00%	$30,056,230	$96,000	$0	$125,000	***	$2,766,698	$33,043,928
2020	$80,707,396	38.00%	$30,660,740	$16,000	$0	$125,000	***	$2,766,698	$33,568,438
2021	$80,723,396	35.06%	$30,666,818	$56,000	$0	$125,000	***	$2,766,698	$33,614,516
2022	$86,952,526	33.79%	$29,381,258	$48,000	$0	$125,000	***	$2,766,698	$32,320,956
2023	$93,530,565	30.30%	$28,339,761	$40,000	$30,032	$0	***	$2,766,698	$31,176,491
2024	$93,731,565	26.30%	$24,651,402	$64,000	$32,116	$0	***	$2,766,698	$27,514,216

*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 starting in 2001
****Dollar amounts in this table may appear different when compared to tables published prior to 2023 due to a calculation correction

Figure 2: RRM (workload) vs. actual DEHS funding from 2015 to 2024*.



*Dollar amounts in this chart may appear different when compared to charts published prior to 2023 due to a calculation correction.

As Table 2 shows, the DEHS Program strives to accomplish its tasks at a funding level of 37.2% 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:

- Administration for Children and Families (Head Start Region XI)
- Bureau of Indian Education
- Centers for Disease Control and Prevention (CDC)
- Uniformed Services University of the Health Sciences
- National Institutes of Health (NIH)
- Johns Hopkins University
- University of North Carolina
- University of Colorado Denver
- Safe States Alliance

Table 2: Level of Need Funded (LNF) 2024.

Area	Total Staff*	RRM	%LNF	Federal Staff	Tribal Staff
Alaska	37	98.723	37.5%	0	37
Albuquerque	17	34.229	49.7%	17	0
Bemidji	25	52.576	47.6%	13	12
Billings	16	29.053	55.1%	5	11
California	12	54.033	22.2%	7	5
Great Plains	25	52.323	47.8%	18	7
Nashville	3	44.314	6.8%	3	0
Navajo	33	107.955	30.6%	27	6
Oklahoma City Area	35	107.89	32.4%	11	24
Phoenix	46	69.672	66.0%	29	17
Portland	14	53.306	26.3%	2	12
Tucson	4	13.134	30.5%	2	2
Total**	267	717.208	37.2%	134	133

*Includes tribal staff hired with IHS Cooperative Agreement Funds.
**Total is not exact due to rounding.
Data from 2023 determines the 2024 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 2024 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 and webinars. In 2024 there were sixteen in-person classes with 357 students, seven webinars with 188 students, six virtual classes with 131 students, and office hours with 1454 attendees for a total of 2130 participants (Table 3).

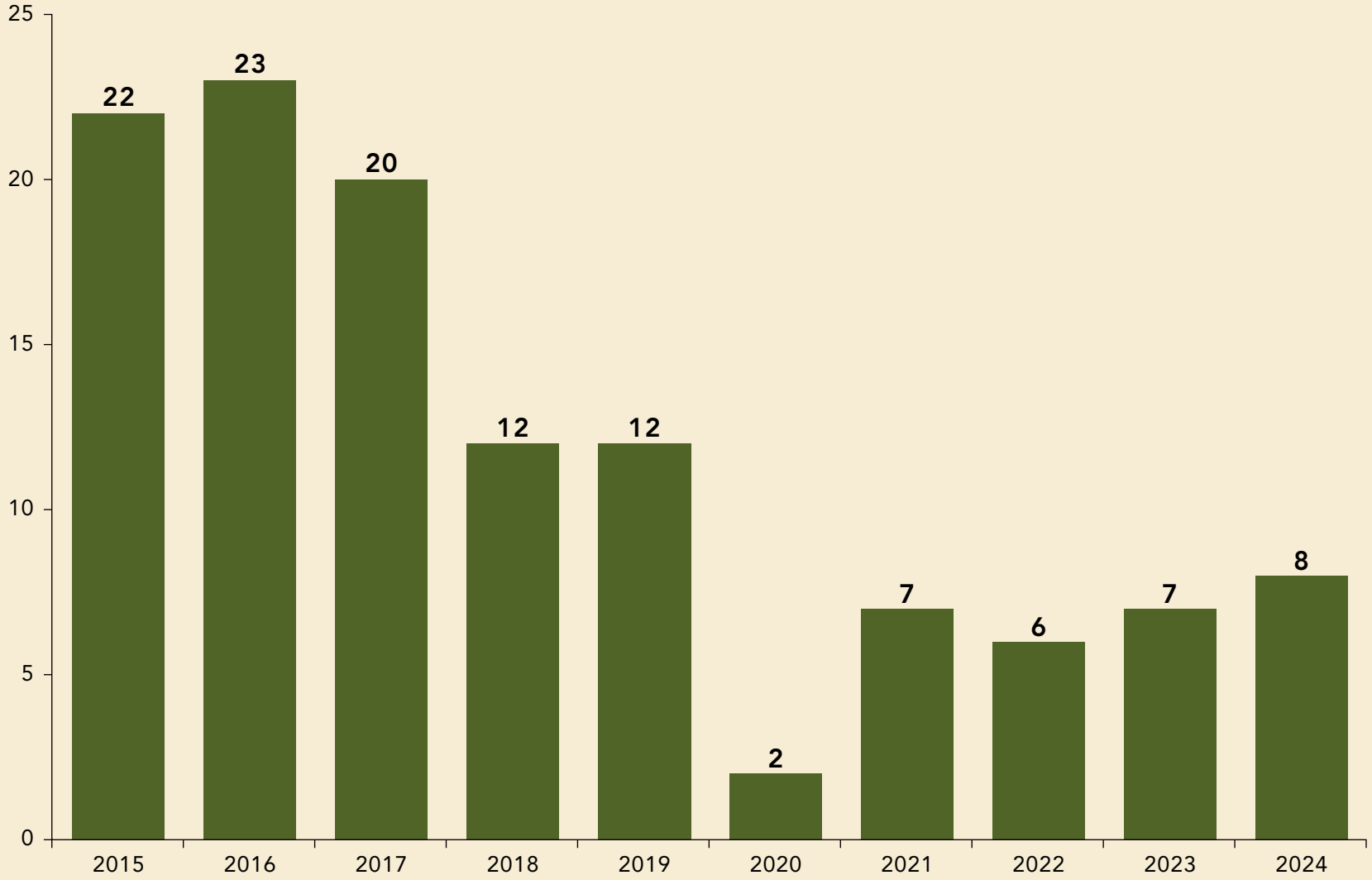
Monthly "office hours" began in 2023 and continued throughout 2024 for the general environmental health track and for safety officers. Office hour sessions provide condensed training on specific hot-topics and the opportunity for open discussion on issues, fostering connection, dialog, and collaboration among the staff across the Areas.

Table 3: EHSC Sponsored Courses – 2024.

In-Person Courses	Number of Participants	Date	Location
OSHA 10-HR General Industry Course - Phoenix Area	37	17-Jan	Pinetop, AZ
NFPA 101 Life Safety Code	27	23-Jan	Oklahoma City, OK
NFPA 99 Standards for Healthcare	29	26-Jan	Oklahoma City, OK
LPD-Leading Others Cohort	18	30-Jan	Albuquerque, NM
Injury & Violence Prevention: Course 3	10	30-Jan	Albuquerque, NM
Fundamentals of Ambulatory Health Care Safety	26	27-Feb	Valley Center, CA
NFPA 101 Life Safety Code	25	19-Mar	Billings, MT
NFPA 99 Standards for Healthcare	25	22-Mar	Billings MT
Fundamentals of Hospital Safety Management	12	8-Apr	Claremore, OK
Fundamentals of NFPA for EHOs	12	4-Jun	Albuquerque, NM
Introduction to Injury Prevention	21	30-Jul	Scottsdale, AZ
WebEHRS 101	8	30-Jul	Albuquerque, NM
Injury Prevention Course 2	26	10-Sep	Minneapolis, MN
Fundamentals of Hospital Safety Management	30	16-Sep	Rapid City, SD
Fundamentals of Hospital Safety Management	30	16-Sep	Rapid City, SD
Fundamentals of Hospital Safety Management	21	28-Oct	Anchorage, AK
TOTAL IN-PERSON STUDENTS	**357**		

Webinars/Virtual Courses	Number of Participants	Date	Location
LPD Webinar Series - Accountability Principle	23	22-Jan	Online
LPD Webinar Series: Win-Win Solutions	9	18-Mar	Online
LPD Webinar Series - Accountability Principle	48	20-Aug	Online
LPD Webinar Series - Avoiding Microagressions	8	27-Aug	Online
LPD Webinar Series: Building & Sustaining Effective Relationships	23	16-Dec	Online
Indoor Air Quality - Resources & Tools	48	12-Feb	Online
WebEHRS Virtual Learning Session	29	16-May	Online
EH Office Hours (11 Sessions)	324	Monthly	Online
EH District Office Hours (6 Sessions)	30	Monthly	Online
Safety Officers Office Hours (12 Sessions)	1100	Monthly	Online
Introduction to Injury Prevention	38	5-Feb	Virtual
Effective Training Methods for Adult Learners	14	27-Aug	Virtual
NFPA 101 Life Safety Code Virtual	16	16-Sep	Virtual
NFPA 99 Healthcare Facilities Code Virtual	14	17-Oct	Virtual
Introduction to Injury Prevention	27	4-Nov	Virtual
Online Injury & Violence Prevention Course 3	22	2-Dec	Virtual
TOTAL WEBINAR/VIRTUAL STUDENTS	**1773**		
TOTAL PARTICIPANTS	**2130**		

Figure 3: Number of college students participating in the DEHS extern program, 2015 to 2024.



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 2015. The number of externs hired annually fluctuated from 23 to 02. DEHS supported seven student externs in 2024.

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 twelve DEHS staff funded by IHS for college courses in 2024. Of the twelve, nine were federal employees and three were tribal employees.

There are 16 IEH Residency Graduates currently active with IHS and tribal programs (Table 4).

Table 4: Active IEH Residency Graduates.

Graduate	Residency Year
Katheryn McNamara*	2024
Brandon Parker	2021
Dustin Joplin	2019
John Hansen	2017
Timothy Taylor	2014
Valerie Herrera	2010
Ricardo Murga	2010
Danny Walters	2009
Charles Woodlee	2008
David Cramer	2005
Mark Strauss	2005
Brian Hroch	2003
Chris Kates	2001
Keith Cook	1999

*Field-based residency

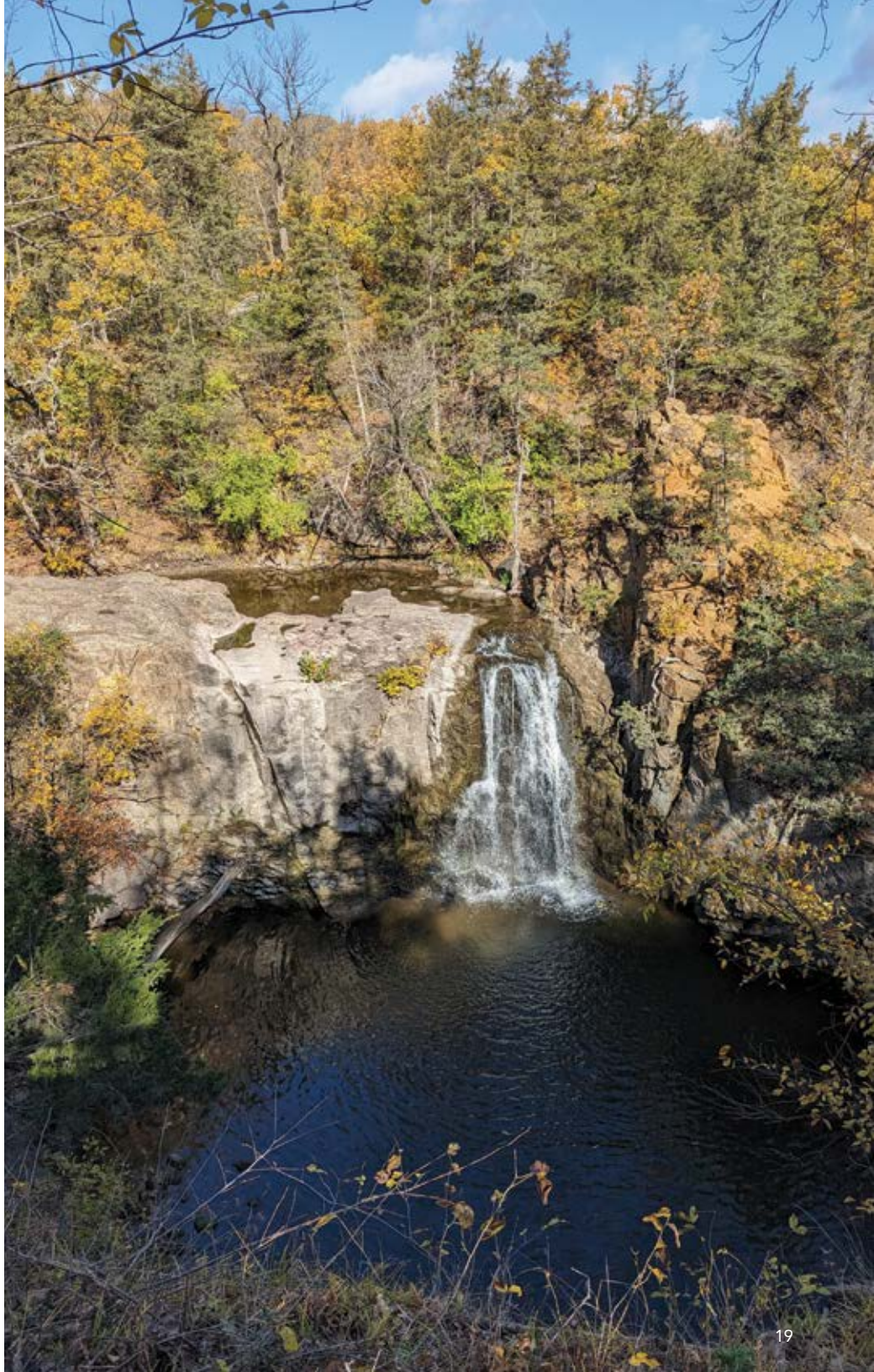
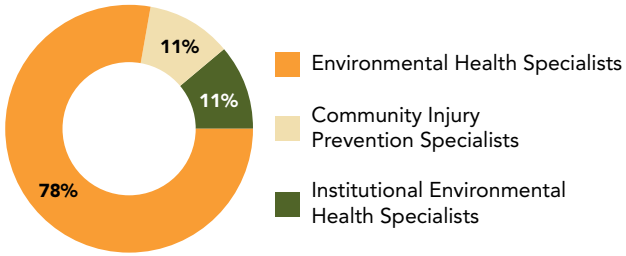


Figure 4: Distribution of environmental health staff within the national program.



Distribution of federal (134) and tribal (133) staff (N=267) within the national program (this excludes headquarters staff) (Figure 4).

- Environmental Health Specialists (EHS) – 78% (208/267)
- Community Injury Prevention (IP) Specialists – 11% (30/267)
- Institutional Environmental Health (IEH) Specialists – 11% (29/267)

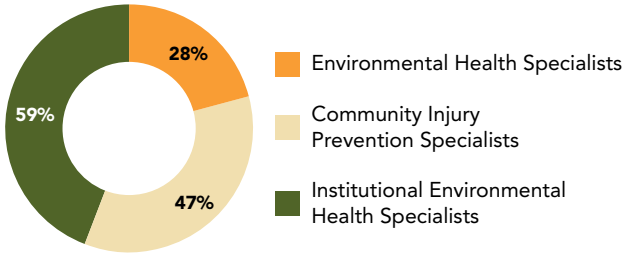
Federal and tribal staff with master's degrees in Environmental Health or a related field.

- Total – 33% (89/267)
- Federal – 49% (65/134)
- Tribal – 18% (24/133)

Staff with master's degrees by specialty (Figure 5).

- EHS –28% (58/208)
- Community IP Specialists – 47% (14/30)
- IEH Specialists – 59% (17/29)

Figure 5: Percentage of environmental health staff with master's degrees.



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

- Total – 41% (109/267)
- Federal – 61% (82/134)
- Tribal – 27% (27/133)

Staff with REHS/RS by specialty (Figure 6).

- EHS – 40% (83/208)
- Community IP Specialists – 30% (9/30)
- IEH Specialists – 59% (17/29)

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

- Child Passenger Safety Technicians – 27% (71/267)
- IHS IP Fellowship Program Graduates – 9% (24/267)
- Certified Pool Operators – 9% (23/267)
- FDA Standard – 3% (7/267)
- Certified Professional in Food Safety – 3% (8/267)

Figure 6: Percentage of environmental health staff with REHS/RS credentials.

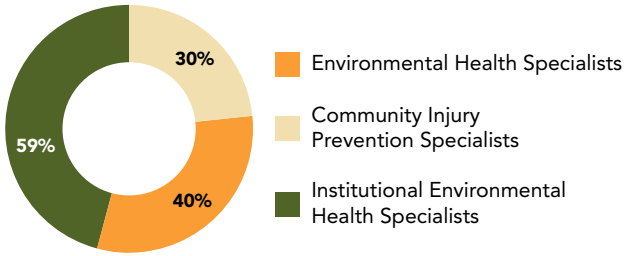


Table 5: Summary of Certifications Held by Federal and Tribal Staff.

Certification	Environmental Health Specialist	Community Injury Prevention Specialist	Institutional Environmental Health Specialist	Total	Percent of total
REHS/RS*	83	9	17	109	41%
IP Fellow	17	6	1	24	9%
Certified Safety Professional	6	1	3	10	4%
Certified Industrial Hygienist	1	0	6	7	3%
Child Passenger Safety Technician	51	19	1	71	27%
Certified Playground Safety Inspector	3	0	0	3	1%
Certified Radiation Protection Surveyor	1	0	3	4	1%
Certified Environmental Health Technician	1	0	0	1	0%
FDA Standard	7	0	0	7	3%
Lead/Asbestos Certification	2	1	2	5	2%
IEH Residency	6		4	10	4%
Certified Pool Operator	22	1	0	23	9%
OSHA 40 Hr HAZWOPER**	4	0	0	4	1%
Healthy Homes Specialist	2	0	0	2	1%
Certified Professional in Food Safety	7	0	1	8	3%

*Registered Environmental Health Specialist/Registered Sanitarian
**Hazardous Waste Operations and Emergency Response

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 2024.

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

Award Type	Federal	Tribal	Total
Public Health Service Awards	14		14
Indian Health Service Area Awards	4	1	5
Civil Service Personnel Awards	10		10
National IHS Awards			0
Other National Awards			0
Tribal Awards			0
TOTAL	**28**	**1**	**29**

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, 2024 through 1993.

2024	Kathryn McNamara, Albuquerque Area IHS
2023	Justice Lambon, Phoenix Area IHS
2022	Joseph Sarisky, Bemidji Area IHS
2021	Braden Hickey, Albuquerque Area IHS
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	Michael 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
2008	Holly Billie, Phoenix Area IHS
2007	Stephen Piontkowski, Phoenix Area IHS
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

Individuals who received the Area EHS of the Year (2024) were

- Albuquerque Area: Katheryn McNamara
- Navajo Area: Lucynda Dahozy
- Oklahoma City Area: Gabriel Gamez
- Phoenix Area: Daniel Dicks

Individuals who received the Area EHS of the Year (2024) were:

Lucynda Dahozy
Navajo Area

Daniel Dicks
Phoenix Area

Gabriel Gamez
Oklahoma City Area

Kathryn McNamara
Albuquerque Area

2024 ENVIRONMENTAL HEALTH SPECIALIST OF THE YEAR – KATHRYN MC-NAMARA, MPH, REHS, CSP

LCDR Kathryn McNamara, MPH, REHS, CSP was selected as the 2024 Environmental Health Specialist of the Year. LCDR McNamara piloted first Institutional Environmental Health Field-based Residency which required the formal training in IHS healthcare safety, infection control, fire safety, healthcare accreditation, and radiology/x-ray surveys, the completion of a two-week intensive field rotation in Alaska, and her capstone was to draft an IHS Standard Operating Procedure for safety and Institutional EH staff nationwide on conducting ergonomics and safe patient handling assessments healthcare settings. Her dedication and commitment are essential to the success of the Albuquerque Area DEHS as she has built close partnerships with tribal administrations and program leads. She was a team lead improving interagency coordination between the Bureau of Indian Education and the Area's DEHS, mentored new staff, and participates in several national workgroups. McNamara is a model professional who excels in planning, communication, and technical work. LCDR McNamara goes above and beyond to achieve independent, and team goals and consistently exceeds performance expectations.

RICK SMITH INJURY PREVENTION AWARD

Beginning in 2019, DEHS has annually recognized leaders in injury prevention. 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.

Table 8: Smith Award Winners, 2024 through 2019.

2024	Megan Talahaftewa, Hopi Tribe, Phoenix Area IHS
2023	Sisseton Wahpeton Oyate - Tribal Opioid Response Team, Great Plains Area IHS
2022	Monte Yazzie, Salt River Pima-Maricopa Indian Community, Phoenix Area
2021	Medication Disposal Team, Bemidji, Oklahoma City, and Phoenix Areas IHS
2020	Debbie Whitegrass Bullshoe, Blackfeet Nation, Billings Area
2019	Robert Morones, Phoenix Area IHS

2024 SMITH AWARD WINNER – MEGAN TALAHAFTEWA – HOPI TRIBE

Megan Talahaftewa, Tribal Injury Prevention Cooperative Agreement Program Coordinator, Hopi Department of Transportation, received the 2024 IHS Rick Smith Injury Prevention Award. She has built a sustainable and comprehensive child safety seat program within the Hopi community. The program provides a variety of pathways to obtain assistance and guidance for car seats, and ensuring children are properly restrained in vehicles. She organized nine child passenger safety events where more than 230 car seats were provided. As a result, car seat usage across Head Start centers increased from 19% to 46%. She worked with the tribal police department and tribal council to propose a primary seatbelt law, a proven policy to increase seatbelt use. This effort included conducting more than 420 seatbelt observations (with outreach and education), documenting an increase in seatbelt use from 50% to 61% in two years. She also conducted approximately 360 community surveys on their knowledge and attitudes on a primary seatbelt law. About 90% of those surveyed supported the law and language for it is currently under review.

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 the Office of Environmental Health and Engineering.

Table 9: Gefroh Award Winners, 2024 through 2008.

Year	Winner	Profession	Area/Facility
2024	Jeffery Conner	IEH Officer	IHS Environmental Health Support Center
2023	Lea Luper	Infection Preventionist	Chickasaw Nation Dept of Health
2022	David Bales	EH Officer	Oklahoma City Area
2021	Katherine Hubbard	Senior Institutional Environmental Health Consultant	Alaska Native Tribal Health Consortium
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.

2024 GEFROH AWARD WINNER – JEFFERY CONNER

CDR Jeffrey Conner, Institutional Environmental Health Officer, Environmental Health Support Center, IHS received the 2024 Gary J. Gefroh Safety and Health Award. CDR Conner demonstrated distinguished value and contributions toward furthering the mission of the Indian Health Service. His achievements with Institutional Environmental Health, Environment of Care/Life Safety (EC/LS), healthcare safety, healthcare facilities management and infection prevention exhibit a sustained career of distinguished accomplishments and commitment to serving American Indians/Alaskan Natives, and the professionals performing public health, and occupational health and safety in healthcare facilities and in tribal communities.

DEHS Services

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.

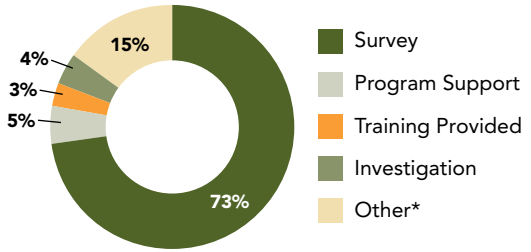
A snapshot of activities related to these services include (Figure 7):

- Approximate number of establishments[1] – 22,000
- Staff recorded activities – 9,509*
  - » Surveys – 73% (6,981/9,509)
  - » Program support – 5% (453/9,509)
  - » Training provided – 3% (254/9,509)
  - » Investigations – 4% (397/9,509)

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. In 2022, WebEHRS Mobile[2] was a significant upgrade to the previous mobile application. In 2023 efforts began to increase the use of Mobile[2]. And in 2024 the number of users doubled and finalized surveys quadrupled. These upgrades and increased use will generate more comprehensive system use and supports the DEHS/IHS data system modernization and quality priorities.

The DEHS manages the Notifiable Disease and External Cause of Injury (NDECI) web-based data retrieval system. 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. 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.

Figure 7: Activities Completed in 2024 as Reported in WebEHRS.



*Other includes: Mobilize Community, Policy Development, Sample/Test, Evaluation, Control, Training Received, Consultation/Professional Advice, Data Collection/Surveillance, Document Interventions

1 WebEHRS Reports, National Establishment Counts 2024 (excludes Headquarters items)
*Contributing factors to increased activities reported from prior year include the COVID pandemic and WebEHRS establishment type definition changes.

Injury and Violence Prevention Fellowship Class of 2024

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.

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 2024:

- Motor vehicle injury prevention effective strategies
- Unintentional elder falls prevention programs (exercise, home safety assessments, clinical)
- Opioid overdose prevention projects (home lockbox, medication disposal units)
- Determining magnitude of the injury problem (e.g., injury atlas)
- Suicide and violence prevention through safe firearm storage projects
- IP media gallery (images, infographics, brochures, etc.) available

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.

The 2021–2025 TIPCAP funding cycle began with 27 tribes or tribal programs from 11 IHS Areas being awarded a cumulative total of $2.4M per year. Injury topics addressed include motor vehicle related injuries, falls, and other emerging issues based on tribal needs. These could include, poisoning/opioids, suicide, traumatic brain injury, or drowning.

Injury and Violence Prevention Fellowship – Class of 2024

- Fellows represented seven different IHS Areas and five different tribes
- Symposium: May 2024, 7 Fellows completed their 18 month long-term training to reduce injuries and violence in tribal communities
  - » Each fellow presented at IHS Headquarters on overdose prevention, suicide prevention, elder fall prevention, school bus safety, and traumatic brain injury prevention

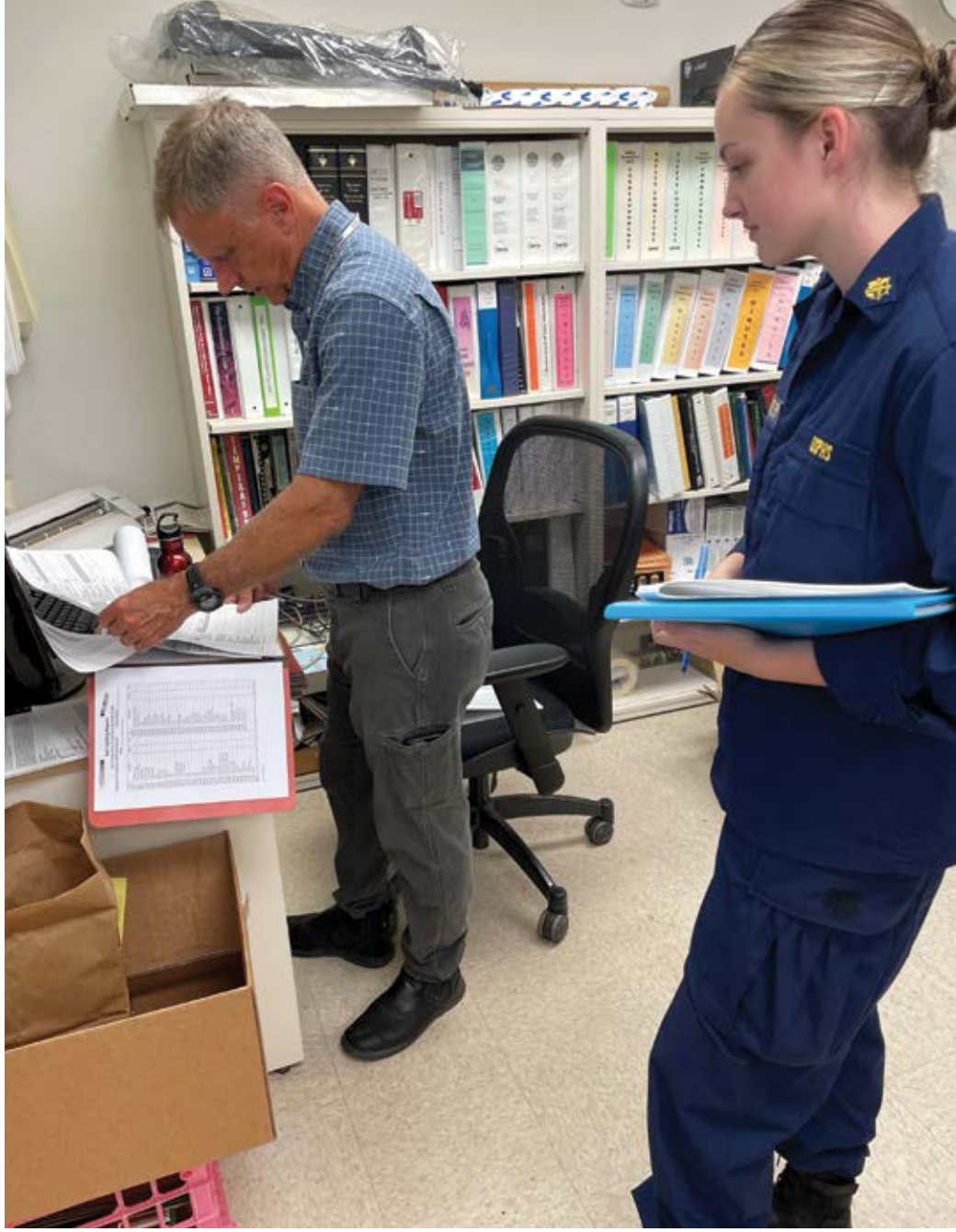
Institutional Environmental Health Program

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.

IEH Field-based Residency

- IEH Program collaborated with Albuquerque Area DEHS and the Environmental Health Support Center
- Initiated pilot of the first IEH Field-based Residency
- LCDR Kathryn McNamara, Environmental Health Officer, Albuquerque Service Unit, served as the first Field-based Resident for this professional development initiative
- Field-based residency serves as alternative to the ongoing IHS Institutional Environmental Health Long-Term Training Program at the Uniformed Services University of the Health Sciences (USUHS)
- Field-based Residency seeks to broaden the workforce of eligible professionals who will be the future of the IEH Program
- Similar to Residency at USUHS, the Field-based Residency is also designed to develop highly competent and technically qualified IEH Officers to enhance and advance environmental health and safety
- Outcomes include
  - » Earning a Master in Industrial Hygiene
  - » Professional certifications
  - » Rotations and continuing education courses
    - ◊ Industrial hygiene
    - ◊ Safety management
    - ◊ Healthcare accreditation
    - ◊ Life safety (i.e. fire safety)
    - ◊ Hazardous materials
    - ◊ Emergency management
    - ◊ Security
    - ◊ Environmental infection prevention

The IEH Program provides extensive technical assistance and training to safety and facility management staff as well as the many inter-related medical program and leadership staff. These efforts have led an IHS total occupational injury & illness case rate decrease from 4.35 injuries/100 employees in 2004 to 2.65 injuries and illness/100 employees in 2024.



Reduction in IHS injury/illness rate

2004	2024
4.35/100 employees	2.65/100 employees

DEHS National Focus Areas

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 2024. 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

Childern's Enviroment
Prevent illness and injury by reducing risk factors where childern 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 include: 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.

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. The DEHS staff also focused on eliminating risk factors related to the operation and maintenance of water systems.

Food Safety

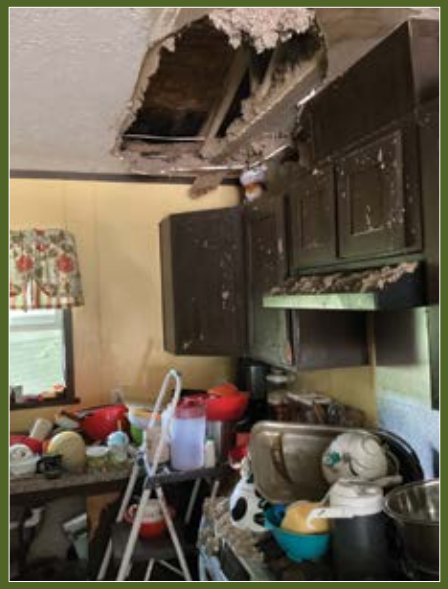
The DEHS staff provide services at more than 5,000 food service facilities across the country. The CDC estimates over 48 million cases of foodborne illness occur in the United States annually,128,000 of which require hospitalization and 3,000 of which are fatal. Organisms that result in the most common 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).

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 by enhancing hazardous communications, reducing safety risk factors, enhancing tribal capacity, and conducting case investigations. Projects with an emphasis on vectorborne and communicable diseases conducted in 2024 are on the following pages.



Asthma Control in Tribal Communities

Alan Bloch, William Bloomfield, Barry Hugo
Bemidji Area

Introduction

Data from the Centers for Disease Control and Prevention show that American Indian and Alaska Natives have an increased rate of asthma as compared to other races. To help reduce the prevalence of asthma, the Bemidji Area is collaborating with tribes to bring awareness to asthma and the environmental risk factors that can lead to an asthma diagnosis. In 2023, IHS introduced the Asthma Control in Tribal communities (ACT) initiative and in 2024 the Bemidji Area Division of Environmental Health Services joined the initiative as another resource for American Indian and Alaska Natives.

Methods

- Conducted outreach with potential tribal partners using materials created by the ACT initiative

Results

- Regular healthy homes surveys were conducted throughout the year and one tribe agreed to join the ACT initiative
- This partnership helped increase awareness on why a healthy home is important

Discussion

Healthy homes assessments overlap with asthma control in recognizing indoor air quality issues and asthma triggers. Previous home surveys by the Bemidji Area showed mold and indoor air quality were predominant issues. Both are asthma triggers. For the ACT initiative, DEHS staff were trained by Association of Asthma Educators to recognize asthma triggers and how asthma is managed. Controlling asthma triggers was promoted to be an effective method of controlling asthma symptoms along with an asthma action plan. This led DEHS to promote a referral based healthy homes visit for asthma awareness to IHS clinic staff as a beneficial tool for their patients.

Conclusions/Recommendations

We will continue to let tribes in know of this initiative. Additional tribal involvement will result in increased awareness of environmental risk factors that contribute to asthma. An enhanced understanding of these issues will lead to a happier home. We recommend expanding outreach efforts and increasing awareness of asthma prevention services.

Nitrous Oxide Assessments

Brian Lewelling
California Area

Introduction

The Division of Environmental Health Services, California Area, has performed nitrous oxide exposure assessments at each participating tribal health program since 2018. Since that time, our program has completed two cycles of exposures assessments at 13 of the 21 clinics that use nitrous oxide. Clinics not assessed declined this service.

Exposure assessments are performed every three years, with follow-up assessments performed at facilities identified as having an exposure exceedance to validate the implementation of recommended corrective actions and their impact on exposure.

Methods

Nitrous oxide exposure assessments and equipment leak detection were performed with a Thermo Scientific Miran Sapphire Portable Ambient Analyzer (results 2018-2021) or a Diamond Scientific Nitrous Oxide Gas Analyzer (results 2022-2024). The method used to assess the safe use of nitrous oxide was based on the California Area Division Operating Guidelines 4-1 Guideline for the Safe Use of Nitrous Oxide. This document drew heavily from the Oklahoma City Area Guidance Document: Safely Administering Nitrous Oxide during Dental Procedures.

Results (see figure on next page)

- 54% of the clinics having a Short-Term Exposure Limit (STEL) exceedance during the first cycle of exposure assessments
- No STEL exceedances during the second cycle of exposure assessments
- Exceedances of American Conference of Governmental Industrial Hygienists exposure limit decreased by 8%
- Number of clinics with leaking equipment decreased by 38%
- Number of clinics with insufficient vacuum exhaust decreased by 7%
- Number of clinics that lacked local exhaust ventilation decreased by 24%
- Number of clinic that failed to inspect nitrous oxide equipment before use decreased by 54%
- Unsafe handling of nitrous oxide cylinders was unchanged
- Number of clinics performing exposure monitoring of dental staff was unchanged
- Number clinics without any written nitrous oxide policies and procedures increased by 23%

Discussion

By comparing two cycles of nitrous oxide exposure assessments at 13 clinics, the California Area Institutional Environmental Health Program is able to assess the long-term impact of performing these assessments.

Conclusions/Recommendations

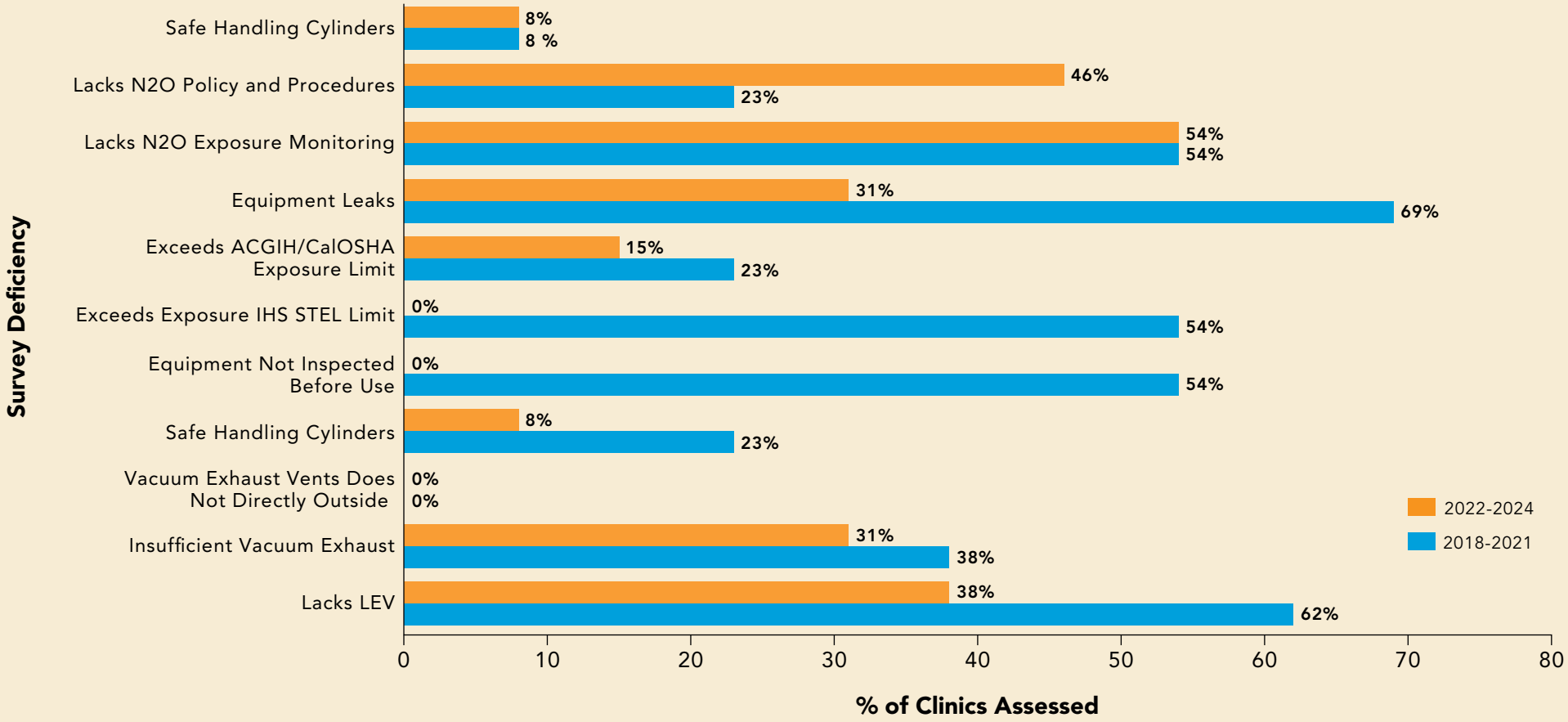
Recurring nitrous oxide exposure assessments were effective in mitigating exceedances of STEL and ACGIH exposure limits and operating conditions associated with exposure exceedances such as the lack of local exhaust ventilation and equipment leaks.

Conditions that need improvement include

- Reducing the number of clinics exceeding the ACGIH exposure limits for nitrous oxide
- Increasing the number of clinics performing exposure monitoring of dental staff engaged in procedures where nitrous oxide is used
- Advocating for the development and adoption of nitrous oxide policies and procedures

Figure: Percent Clinics Assessed with Deficiency

n=13, 2018-2021 vrs. 2022-2024



Building a Framework to Understand Risk Factors in the Workplace

Jorge Rivera-Gonzalez, Sarah Snyder, George Chung
Phoenix Area

Introduction

The mission of DEHS is to reduce environmental related injuries and deaths. One way this is done is by providing health and safety audits to various facilities within the tribal communities. In the past, the use of the Risk-Based Site Selection Model (RBSSM) and the Risk-Based Inspection Approach (RBIA) have been successfully applied in the Eastern Arizona District for food service facilities where inspection frequency is based on the level of risk, and where inspection focus is based on critical risk factors that if left unaddressed could lead to foodborne illness.

With 2.6 million workplace nonfatal injuries and illnesses reported and 5,190 fatalities by the Bureau of Labor Statistics (BLS) in 2021 for facilities that are not food service, there is a need to help facilities identify risk. Phoenix Area IHS has limited funding and staff, thus having a way to prioritize time and look at areas of high risk is important.

To provide consistency with the scope of services, a national standardized electronic survey was developed called the "Institutional Survey Form" for nonfood service facilities. This new form is used for facilities like hotels, schools, and jails. It has a total of eight sections and is separated into 46 items on a checklist, with a heavy focus on fire safety. From previous work by S. Mitchell, looking at BLS Injury and Illness data falls account for 35% of all injuries in hotels, while fires account for 1%. Because the institutional survey form is not tied to a specific reference or guidance document, the interpretation can vary, and it can be difficult for new inspectors to know where to focus their time during the survey to prevent the most injuries and deaths.

The goal of this project was to develop and test a framework that creates 'risk-based' survey recommendations for the new institutional form. Using hotels as a pilot facility type and 20 years of Occupational Safety and Health Administration (OSHA) data focusing on violence and falls, we reviewed injury and death data to identify risk and protective factors, which could be shared with staff to make their surveys more efficient and risk-focused.

Methods

1. Identified facility type to focus on: Hotels (NAICS # 721110) and Casino Hotels (NAICS # 721120)
2. Determined data set to review using a timeframe of 20 years (01/01/2004 – 12/31/2023)
3. Started with a small data set. Searched the OSHA Investigation Summaries with search term: "violence"
4. Downloaded event summaries from search
5. Created an event summary database: Date, Demographics, OSHA keywords, Abstract, Degree of Injury and Occupation (~10 minutes per case)
6. Reviewed each case (~5 minutes per case)
7. Evaluated and tested 3 injury models on each case; resulted in use of Three E's model
8. Risk factor identification for each case using the Three E's model
9. Evaluated the WebEHRS institutional e-survey form to assure identification of all risk factors
10. Searched the Federal Code of Regulations (21 CFR) for codes that could be cited to help inspectors write reports that address these risk factors
11. Identified potential intervention strategies that could serve as corrective action suggestions
12. Reran the above process to test our framework using a larger data set: "Falls"

Injury Models

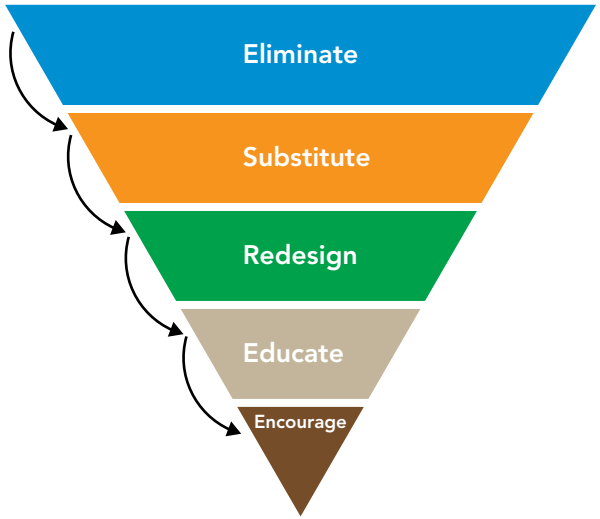
Haddon-Matrix: The matrix looks at factors related to the host (individual at risk), the agent (the 'vehicle' causing the mechanism of injury), and the physical/social environment; before, during, and after an injury or death.

Phase	Influencing Factors			
	Host	Agent	Physical Environment	Social Environment
Pre-event				
Event				
Post-event				

The Three E's: provides a comprehensive approach to injury prevention. Aims to achieve a safer workplace by employing a combination of all three E's used in model.

(Christoffel and Gallagher 2006)

Total Worker Health Hierarchy of Controls: conceptual model that aids in prioritizing efforts to design work that protects and promotes worker well-being starting at the organizational and environmental levels.



Results

We decided to use the Three E's of Injury Prevention as our tool to evaluate our data. The Three E's enabled a better assessment of the information found in the OSHA database summary. Each case was evaluated using the following definitions of the Three E's to identify risk factors and to develop possible intervention strategies:

- Environment approaches deal with making the environment or product safer
- Education approaches deal with providing information to individuals
- Enforcement approaches rely on requiring change through laws or policies

OSHA Keyword Search: "Violence"

- 14 cases total in the last 20 years
- Average age of case: 39 years old
- Sex: 10 males, 2 Females, and 2 Not Specified
- Degree of injury: 12 Fatalities, 1 Hospitalized Injury, and 1 Non-hospitalized Injury

OSHA Keyword Search: "Fall"

- 118 cases total in the last 20 years
- Average age of case: 50 years old
- Sex: 42 males, 21 Females, and 55 Not Specified
- Common Accident Themes: 39 Ladder, 13 Trip, 8 Slips, 8 Elevator, 5 Carrying, 4 Scaffolding, 3 Tree Trimming, and 3 Pool-related incidents

Examples of Risk factor identification

1. Violence Hotel Case #1:At 11:15 a.m. on August 7, 2023, an employee was eating lunch on a break when an employee from another work area came through the back door and kitchen, into the dining area and stabbed the employee to death with a knife.
   - » Three E's
     - ◊ Environment: The back door was unlocked
     - ◊ Education: Conflict resolution/training
     - ◊ Enforcement: Secure access/cameras
   - » Risk factors identified
     - ◊ Environment: Lack of controlled access to facility. Lack of monitoring of safety equipment
     - ◊ Education: No training on de-escalation/conflict resolution. No sign postage to advise guests or staff of prohibited items/actions
     - ◊ Enforcement: Policies on weapons. Review of emergency policies and when to call police
2. Fall Hotel Case #102: At approximately 4:00pm on January 5, 2004, an employee was using "A" frame ladder to change a flood light bulb located on the rooftop of a motel unit site, which he managed for his employer. He fell and sustained a broken left wrist, a laceration over his left eye, and extensive internal injuries. He was hospitalized and treated for his injuries.
   - » Three E's
     - ◊ Environment: Ladder in unstable surfaces and work areas free of hazards
     - ◊ Education: Ladder safety training and fall protection
     - ◊ Enforcement: Conduct regular ladder inspections based on safety standards
   - » Risk factors identified
     - ◊ Environment: Lack of fall protection and unfavorable conditions
     - ◊ Education: Training on ladder safety and fall protection
     - ◊ Enforcement: Monthly equipment inspections and training requirements

Discussion

Our findings were compared to the items in the Institutional Survey (2023 update) as well as the previous version. Data of violence cases was compared with Item 10 on the Institutional Survey, which says "Security/Violence control plans and measures are in place if applicable". Further guidance on how to provide recommendations supported with references was identified as an area in need of improvement.

From our fall data, we found that 33% of falls were from ladders with 26% of ladder falls being fatal. Evaluation of fall cases allowed us to identify six items on the current checklist (i.e. 1, 38, 40, 42, 44, and 45) that partially address the risk factors. Given that many of the fall cases can fall under multiple items on the survey form, we identified areas where our attention could have the biggest impact to reduce risk factors in the workplace.

Conclusions/Recommendations

When conducting institutional environmental health surveys, we agreed that more attention on falls, slips, and trips hazards as well as ladder safety was needed. Our data elicited the need for the incorporation of new items on the survey form:

Added to the Emergency Preparedness Section

- New item: Employees are trained to identify their role in an emergency medical situation, ensuring they can provide initial assistance or alert appropriate medical personnel as required. [OSHA Standard 29 CFR 1910.151 (Medical Services and First Aid)]

Added to the Facilities Management Section

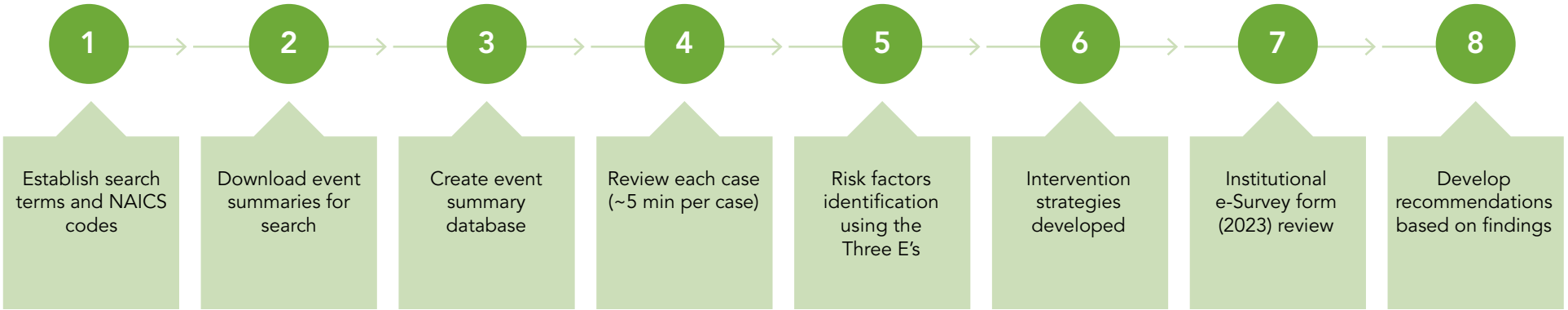
- New item: A comprehensive spill cleanup plan is in place, and all workers are aware of the procedures to promptly and effectively manage spills to prevent workplace accidents. [OSHA Standard 29 CFR 1910.120 (Hazardous Waste Operations and Emergency Response)]
- New item: All flooring is level and even, or otherwise identified and marked to prevent slips, trips, or falls. [OSHA Standard 29 CFR 1910.22 (Walking-Working Surfaces)]
- New item: Trip hazards are routinely identified, assessed, and promptly mitigated to maintain a safe working environment. [OSHA Standard 29 CFR 1910.22 (Walking-Working Surfaces)]
- New item: All cords, cables, and hoses are managed and secured to prevent tripping hazards. [OSHA Standard 29 CFR 1910.22 (Walking-Working Surfaces)]

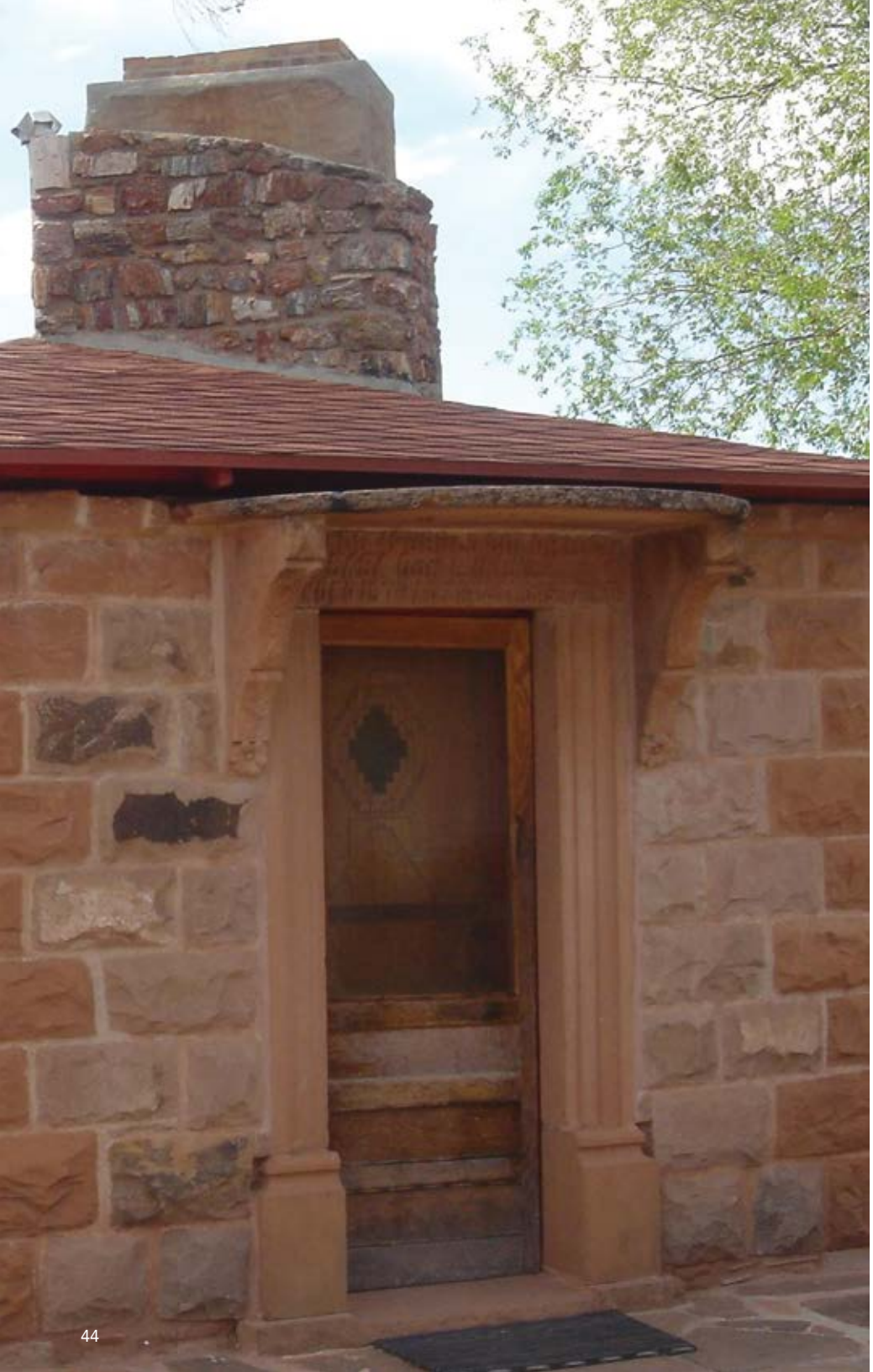
Create a new section and label it Ladder Safety

- New item: Employees demonstrate proficiency and confidence in the safe use of ladders. [OSHA Standard 29 CFR 1910.23 (Ladders)]
- New item: All ladders are maintained in sound condition, inspected regularly, and are appropriate for safe usage. [OSHA Standard 29 CFR 1910.23 (Ladders)]
- New item: Employees are trained to select the appropriate ladder type for each task. [OSHA Standard 29 CFR 1910.23 (Ladders)]
- New item: Employees demonstrate understanding of the three-point contact rule when working with ladders. [OSHA Standard 29 CFR 1910.23 (Ladders)]

The Institutional Survey for the 10 different facility types served by IHS should be re-evaluated based on injuries, illnesses, and occupational risks specific to each facility type, and risks to the general public should be evaluated utilizing similar methodologies.

Developed Framework





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 conducted in 2024 are on the following pages.

Safe Drug Deactivation Bags: Lowering the Risk of Overdoses through a Pharmacy Collaboration

George Chung, Kayla Davis, Robert Morones
Phoenix Area

Introduction

Background

- Opioids were involved in 70% of U.S. drug overdose deaths in 2018
- AI/AN populations had the second highest overdose rates from all opioids in 2018 among racial/ethnic groups in the U.S.
- Deaths from drug overdoses increased 30% from 2019 to 2020, during the COVID-19 pandemic per the CDC
- From 2020-2023, PHX DEHS staff piloted several programs aimed at reducing the risk of drug-related overdoses, including
  - » Medication lock boxes for the home
  - » Medication drop boxes in clinic lobbies
  - » Drug deactivation pouches used by PHN staff during client encounters
- Drug deactivation pouches were shown to be an effective method of disposing unused or expired medications in the home environment
- The pouches expand the disposal options already offered by IHS programs

Project Purpose

- Determine if the Pharmacy Department is an effective point of distribution for drug deactivation bags to potentially reach a larger portion of the target population

Methods

This project was designed as a pharmacy-led intervention to reduce the quantity of unused or expired prescription medications accessible by high-risk individuals. The intervention took place at an IHS Service Unit, which includes the main outpatient pharmacy and emergency room (ER) pharmacies. Phoenix Area provide the bags to the pharmacies.

- Eligibility criteria: patients receiving opioid medication, or pharmacist's judgement such as polypharmacy or history of medication being stolen
- DEHS partnered with the pharmacies on the project design and evaluation
- Drug deactivation bags were provided to eligible patients and were taught by pharmacists how to use them
- Pharmacists followed-up by phone14 days later to determine use of the bag
- Pharmacists collected de-identified data on the distribution, use of bags, high-risk indicators (e.g., chronic opioid use, polypharmacy), and demographic information

Results

The Pharmacy is another potential point-of-distribution for drug deactivation bags. The Pharmacy distributed 108 bags to 99 patients. Of those that were able to be contacted for follow-up (n=62), 30 (48%) reported using them to destroy their expired or unused medications.

- Patients liked the bags because they are simple, can be used at home, and can be thrown in the trash can with less concern about environmental impacts
- Pharmacy liked the addition of another disposal option for the patients to reduce stockpiling in the homes

Dispensing Pharmacy
Number of Patients = 99

	ER Outpatient	Main Outpatient	Satellite Outpatient	Total
# of bags dispensed	54 (50.0%)	48 (44.4%)	6 (5.6%)	108

Reason for Dispensing Bag (n=108)		Patient Follow-up (n=99)	
Short term opioid Rx	81 (75%)	Successful follow-up	Loss to follow-up
Pharmacist judgment	27 (25%)	62 (62.6%)	37 (37.4%)

Bag Status: Used (n=30)		Bag Status: No Use (n=32)	
Used to destroy opiods	23 (76.7%)	Finished opioid RX	29 (90.6%)
Used to destroy non-opioids	7 (23.3%)	Other reasons	3 (9.4%)

Discussion/Conclusion

- Using a pharmacy-led approach to distribute drug deactivation bags proved to be highly successful by eliminating a barrier for patients to discard their medications: transportation
- Simplicity of the bag allowed for patient adoption and satisfaction
- Lowered the risk of overdoses by reducing the amount of unused/expired opioid and other medications that could have been stolen or diverted for illicit use

Acknowledgement
We wish to acknowledge the partnerships and contributions from the participating IHS Service Unit Pharmacy Department.

Prescription Drug Disposal Program

William Crump
Bemidji Area

Introduction

Disposal of prescription drugs no longer being used, that are expired, or after the patient has passed away has been an issue within the Bemidji Area for many years. Elder home assessments completed by elder home programs have identified multiple expired prescriptions, discontinued prescriptions, and excess drugs present in elder's homes stored along with their current prescriptions. During routine screenings of elder's prescriptions many of the elder's responded they do not have a means to dispose these outdate or no longer prescribed drugs. In addition, responses from families of elders who are on multiple drugs indicated when a drug is no longer being prescribed or the elder is deceased many of the drugs are placed into a bag with the intent of disposing but becomes an issue when there is no place to dispose of these drugs. Not only does this lead to elders being confused about which drug is correct or they should be taking, it can also lead to families having drugs within their homes that would not normally be present.

Goals

- Reduce the risk of drug overdose or mistaken poisoning by removing unused and outdated drugs from the homes of patients in a secure way that ensures proper disposal to protect both people and the environment
- Reduce access to prescription drugs for those seeking illicit use or sale of drugs stolen from homes where drugs are present in abundance either from outdated, discontinued, or unnecessary prescription drugs stored inside tribal homes

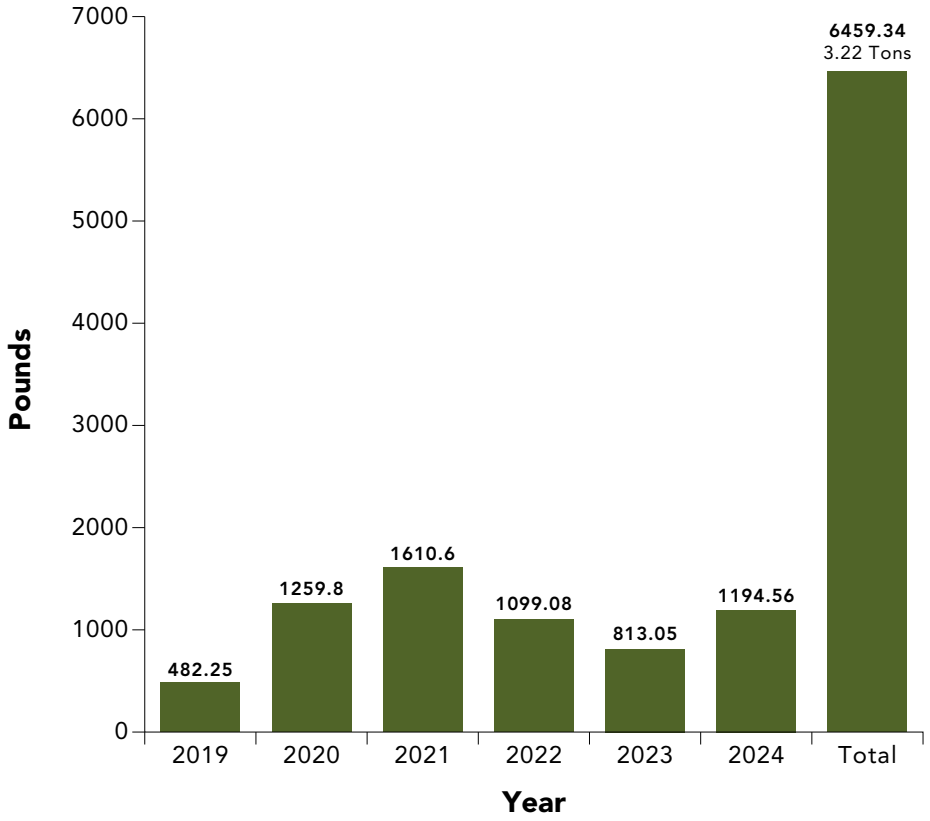
Methods

- Within 1 year have one unit installed at 31 Tribes, located either in the clinic or hospital most accessible to tribal members and be actively collecting drugs from tribal members
- Within 1 year begin to collect disposal data from disposal firm via pounds disposed or collected

Results

- 20 Disposal Bins and 4 packs of liners were provided to 16 Tribes
- Total medications disposed from tribal citizens was 3.22 tons (2019 to 2024)

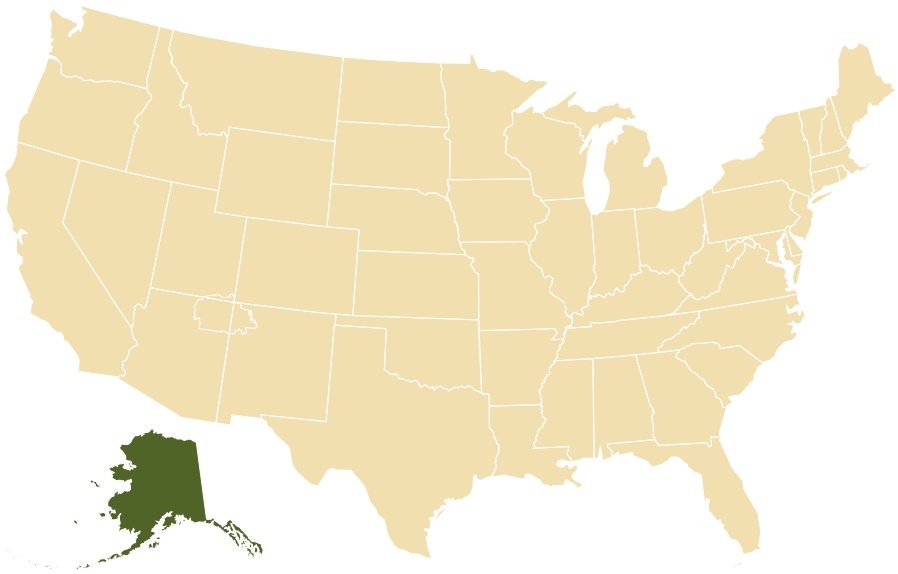
Figure: Total Disposal per Year (lbs).



Discussion

- The original number of 1 disposal bin per tribe (31) did not occur as some tribes moved ahead of our program because of delays in receiving bins from us or chose to only utilize existing DEA collection bins at police departments
- Calendar year 2021 had the largest quantity disposed
- It is unclear if COVID had an impact on the use of this disposal method with citizens using curbside and drive up services allowing better education or access to staff

Area DEHS Programs



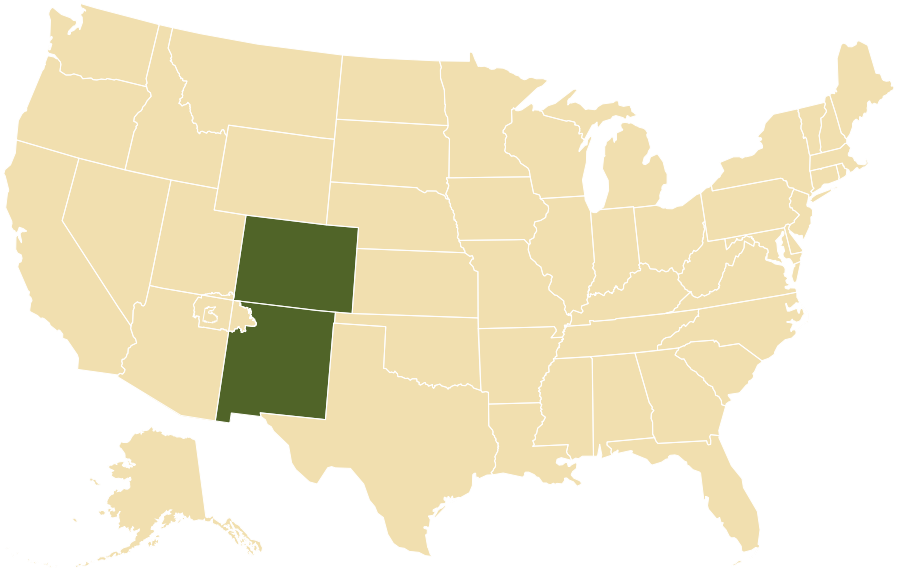
Alaska

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



4101 Indian School Road, NE
Albuquerque, NM 87110
(505) 256-6815
https://www.ihs.gov/albuquerque/oehe/dehs/

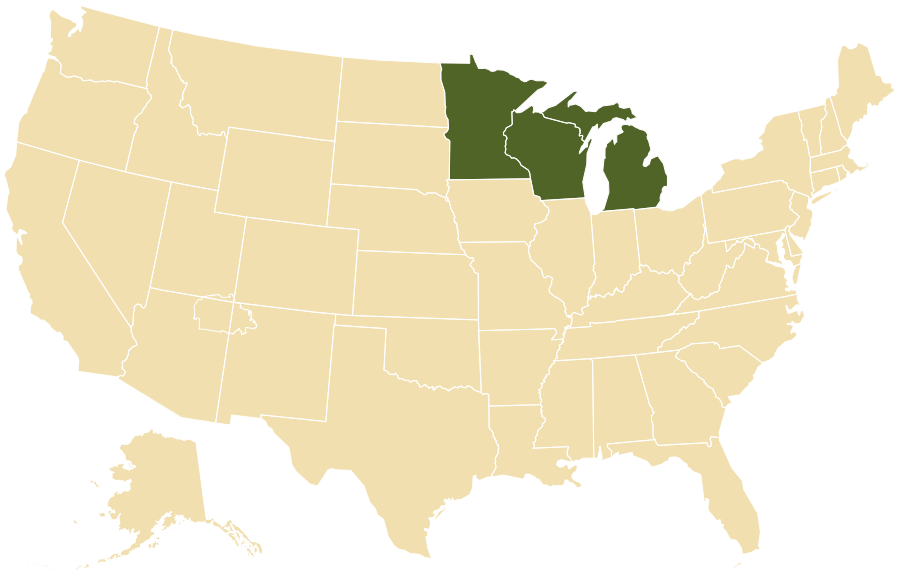
Number of tribes/pueblos: 25 total; all directly receive EHS services

User population: 80,025 (FY23)

Staff: 17 (15 EH Generalists, 2 Institutional EH Officer)

Field/District offices: Albuquerque District Office; Santa Fe District Office; Durango Field Office; Mescalero Field Office; Taos Field Office; Zuni Field Office

Accomplishment: Continue to produce highly lauded Albuquerque Area DEHS Annual Report to service units, stakeholders and community members



Bemidji

2225 Cooperative Court
Bemidji, MN 56601
(218) 444-0503
https://www.ihs.gov/bemidji/areaservices/oehe/dehs/

Number of tribes: 34 tribes in total and 31 of them receiving direct services from the BAIHS, DEHS

User population: 101,603 (FY23)

Staff: 13 (11 EH Generalists, 1 Injury Prevention Specialist, 1 Institutional EH Officer)

Field/District offices: Minnesota District Office, Rhinelander District Office, Duluth Field Office, Mount Pleasant Field Office

Accomplishment: Elevated DEHS performance measures by providing injury prevention training and through our ServSafe training efforts managed to have 99% of food establishments with Certified Food Protection Managers

Billings

2900 4th Avenue North
Billings, MT 59101
(406) 247-7099

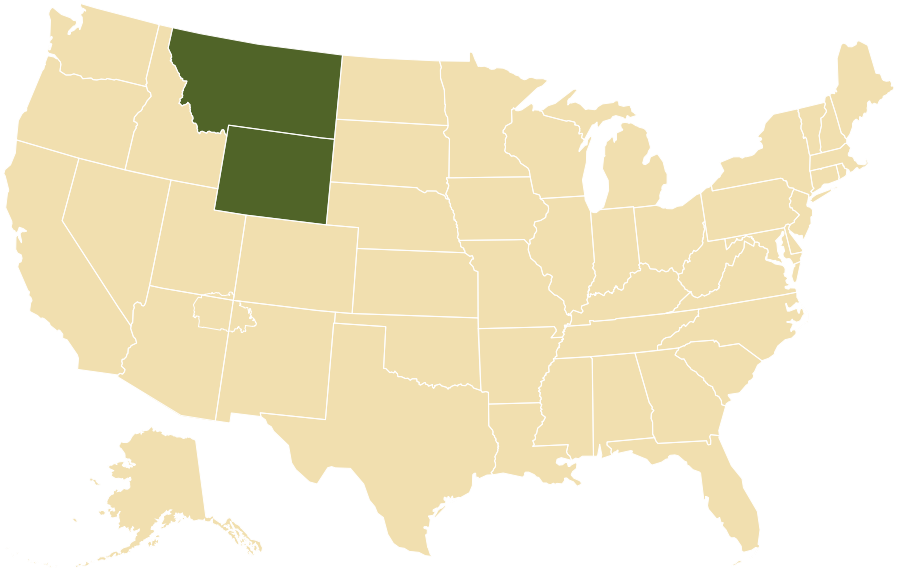
Number of tribes: 14 total; 2 receive services directly from DEHS

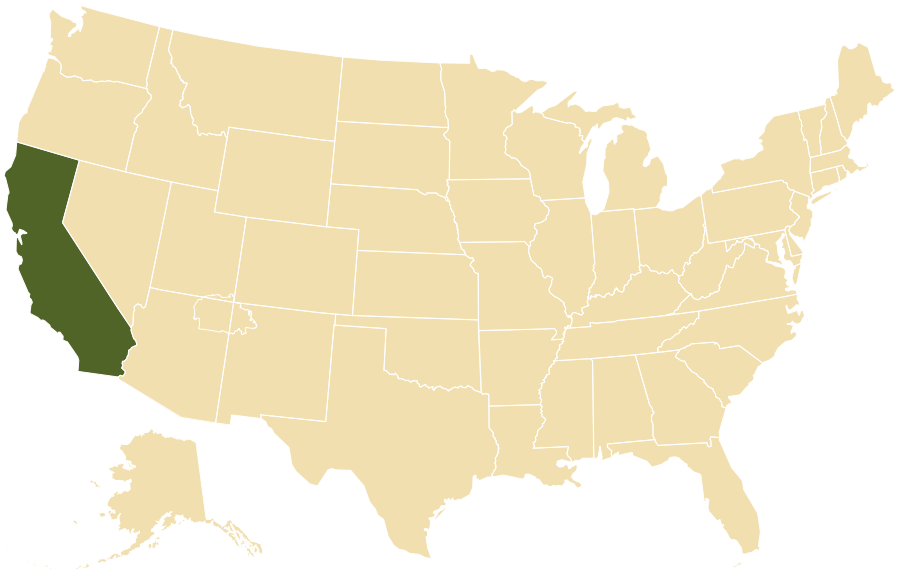
User population: 69,977 (FY23)

Staff: 5 (3 EH Generalists, 1 Injury Prevention Specialist, 1 Institutional EH Officer)

Field/District offices: Crow, Blackfeet, Eastern Shoshone

Accomplishment: Initiated an elder fall prevention project with the Eastern Shoshone Tribe; eight tribal staff members trained in the "A Matter of Balance" program and the Berg Balance Scale; tribal elders participated in the courses and were assessed for improvements in balance and strength





California

650 Capitol Mall, Suite 7-100
Sacramento, CA 95814
(916) 930-3981, ext. 336
https://www.ihs.gov/california/index.cfm/offices/oehe/dehs/

Number of tribes: 96 tribes in total and 86 federally recognized tribes and 34 tribal health programs receive direct services from the CAIHS, DEHS

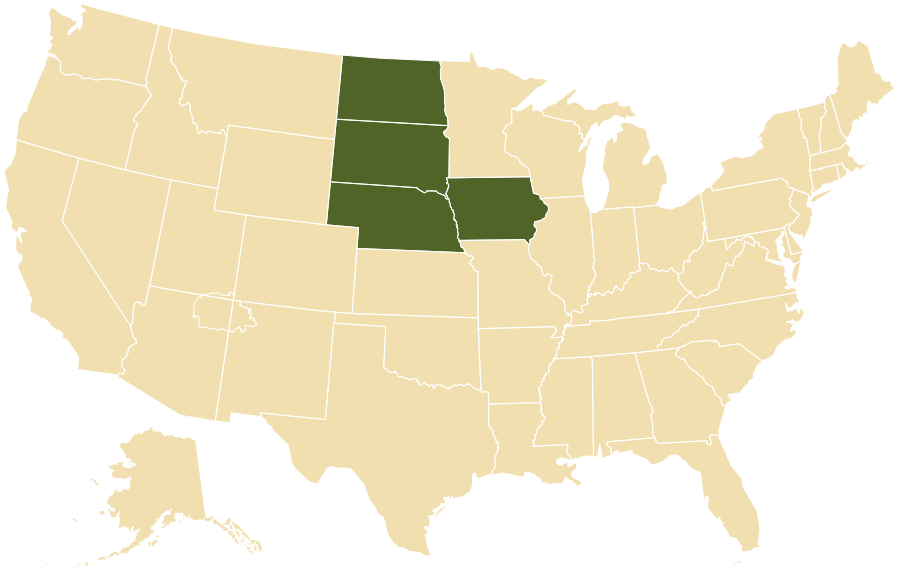
User population: 84,647 (FY23)

Staff: 7 (7 EH Generalists)

District/Field offices: Escondido District Office; Redding District Office; Sacramento District Office; Arcata Field Office; Clovis Field Office; Ukiah Field Office

Accomplishment: Assisted tribes prepare for emergencies such as wildfire smoke events and extreme heat events and incidents impacting water systems

Great Plains



115 4th Avenue SE
Room 309, Federal Building
Aberdeen, SD 57401
(605) 226-7597
https://www.ihs.gov/greatplains/programs/officeofenvironmentalhealthandengineering/oeheenvironmentalhealthservices/

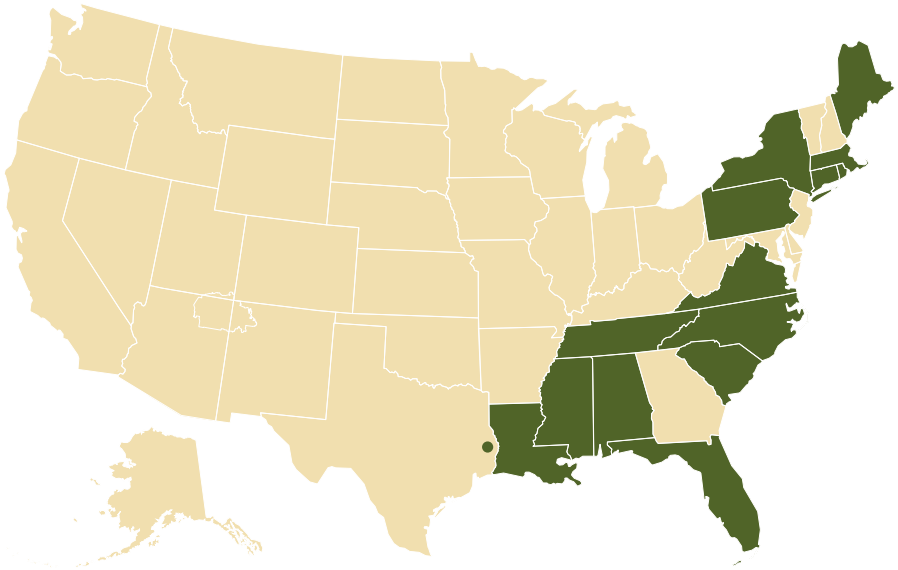
Number of tribes: 16; 10 receive services directly from DEHS

User population: 131,051 (FY23)

Staff: 18 (14 EH Generalists; 1 IP Specialists; 3 IEHOs)

District/Field Offices: Minot District Office, Pierre District Office, Sioux City District Office; Field Offices/Service Units: Dunseith, Sisseton, Rosebud, Pine Ridge

Accomplishment: Field staff were issued mobile devices to better utilize WebEHRS Mobile[2]



Nashville

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

Number of tribes: 36 total; 27 receive services directly from DEHS

User population: 58,831 (FY23)

Staff: 3 (2 EH Generalists; 1 IEHO)

Accomplishment: Continued emphasizing data quality by diversifying the range of work activities being tracked

Navajo

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

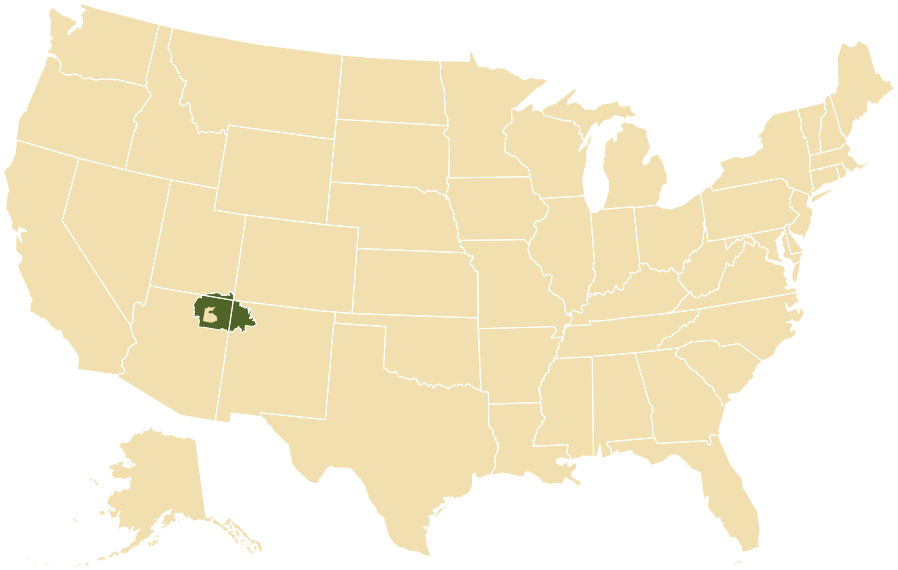
Number of tribes: 1

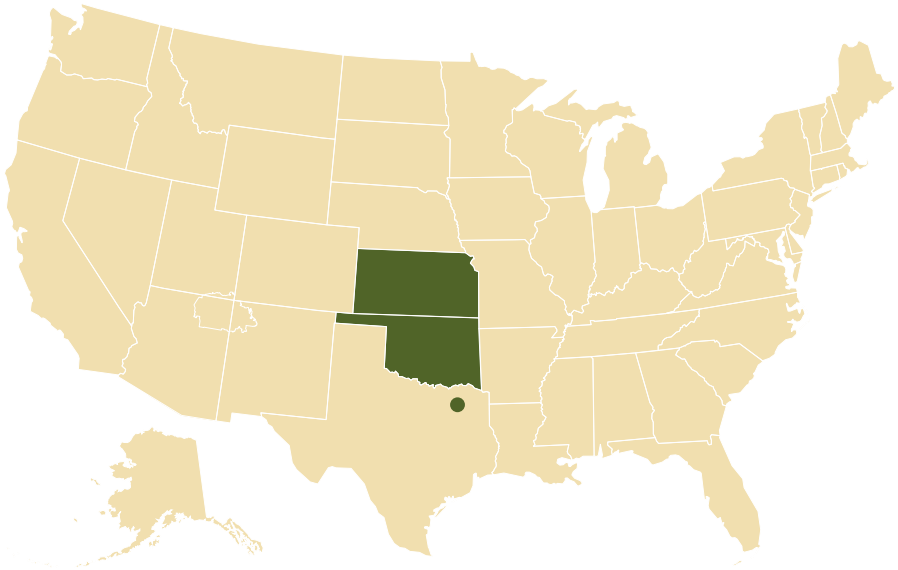
User population: 224,905 (FY23)

Staff: 27 (20 EH Generalists, 4 Injury Prevention Specialist, 3 Institutional EH Officer)

District/Field offices: Gallup District Office; Shiprock District Office; Fort Defiance Field Office; Kayenta Field Office; Many Farms Field Office

Accomplishment: Developed and implemented Navajo Area WebEHRS management guidance to be used by DEHS staff





Oklahoma City

701 Market Drive
Oklahoma City, OK 73114
(405) 951-6001
https://www.ihs.gov/oklahomacity/oehe/dehs/

Number of tribes: 43 total; 28 receive services directly from DEHS

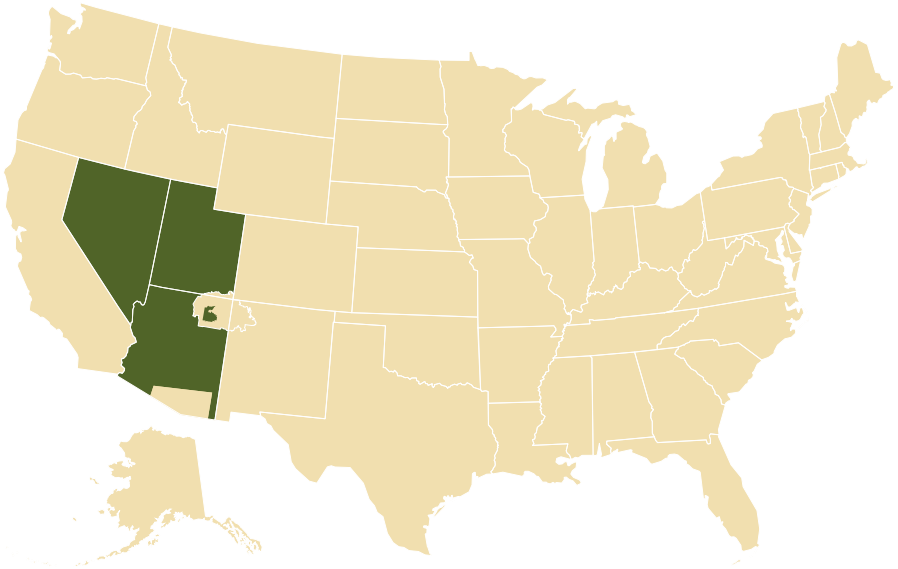
User population: 420,385 (FY23)

Staff: 11 (9 EH Generalists, 1 Injury Prevention Specialist, 1 Institutional EH Officer)

District/Field offices: Okmulgee District Office; Pawnee District Office; Clinton Field Office; Holton Field Office; Lawton Field Office; Shawnee Field Office

Accomplishment: Implemented of medication lock box and locking medication vial project for patients to safely store medications

Phoenix



40 North Central Avenue, Suite 720
Phoenix, AZ 85004
(602) 364-5068
https://www.ihs.gov/phoenix/programsservices/enviromentalhealth/

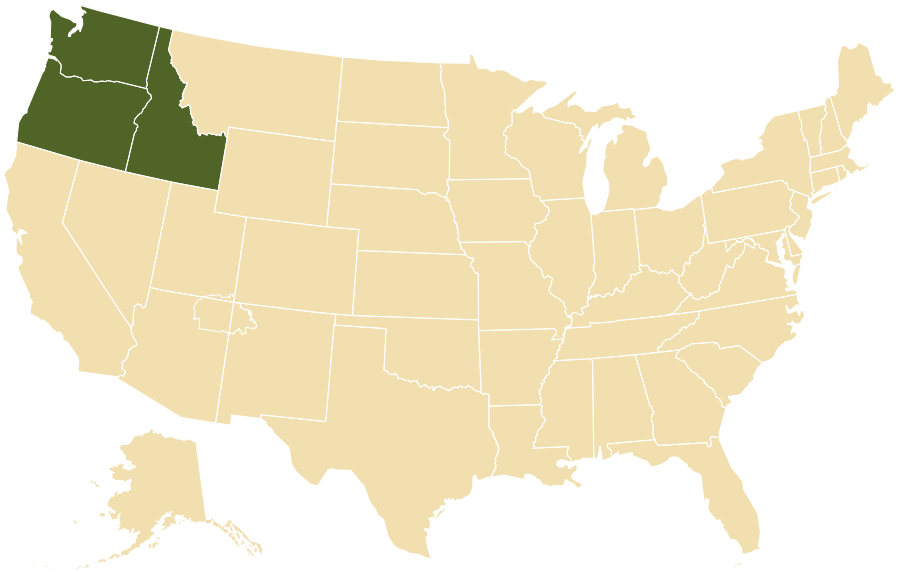
Number of tribes: 46 total; 44 receive services directly from DEHS

User population: 178,750 (FY23)

Staff: 29 (22 EH Generalists, 4 Injury Prevention Specialist, 2 Institutional EH Officers; 1 EMPOC)

District/Field offices: Eastern Arizona District Office; Reno District Office; Western Arizona District Office; San Carlos Field Office; Whiteriver Field Office; Hopi Field Office; Schurz Field Office; Owens Valley Field Office; Elko Field Office; Fort Duchesne Field Office; Phoenix Field Office; Fort Yuma Field Office; Colorado River Field Office

Accomplishment: Collaborated with pharmacy, behavioral health and tribes to provide opioid deactivation bags in tribal communities



Portland

1414 NW Northrup Street, Suite 800
Portland, OR 97209
(503) 414-7774
https://www.ihs.gov/portland/dehs/

Number of tribes: 43 total; 6 receive services directly from PAIHS, DEHS

User population: 111,471 (FY23)

Staff: 2 (2 EH Generalists)

District/Field offices: Yakama Field Office

Accomplishment: Balanced Portland Area's EH, Safety, Infection Control, and EMPOC programs with one staff member

Tucson

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

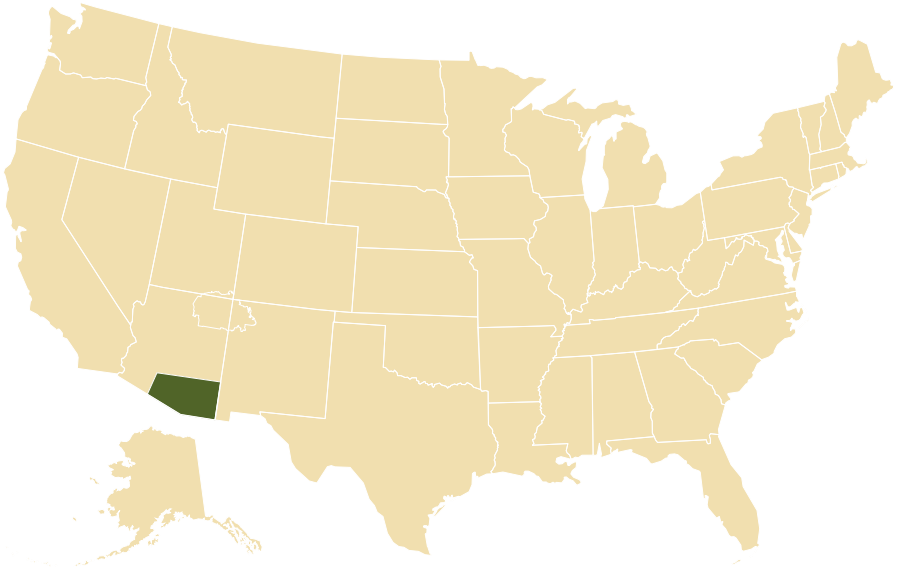
Number of tribes: 2 total; 1 receives services directly from DEHS

User population: 26,312 (FY23)

Staff: 2 (2 EH Generalists)

District/Field offices: San Xavier, AZ

Accomplishment: Hired Director, Division of Environmental Health Services



The Division of Environmental Health Services

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

ANNUAL REPORT 2024

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Division of Environmental Health Services
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