



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

The Environmental Health Services Program

—of the—

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Annual Report 2009

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.”



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This Annual Report for Calendar Year 2009 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 writing to the following address:



INDIAN HEALTH SERVICE
Division of Environmental Health Services
801 Thompson Avenue, TMP 610
Rockville, MD 20852

Website: www.dehs.ihs.gov



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Table of Contents



The Environmental Health Services Program Annual Report 2009

Message from the Director	1
Profile of the DEHS Program	2
Core Services to AI/AN Communities	2
Program History	3
Program Resources	4
Program Structure	5
DEHS and the Ten Essential Environmental Health Services	6
Our Operating Philosophy	6
1) Monitor Health	7
2) Diagnose and Investigate Health Problems	10
3) Inform, Educate, and Empower People	11
4) Mobilize Community Partnerships	16
5) Develop Policies and Plans That Support Community Efforts	17
6) Support Laws and Regulations That Protect Health and Enhance Safety	19
7) Link People to Services	20
8) Assure a Competent Workforce	21
9) Evaluate Effectiveness of Services	26
10) Implement Innovative Solutions to Environmental Health Problems	28
Area Reports	33
Looking Ahead into 2010	47
IHS Area EHS Program Directory	48
List of Figures	
Figure 1: RRM (workload) vs. actual DEHS funding from 2001 to 2009	5
Figure 2: Worker WebCident reported incidents and OWCP injury rates from 2004 to 2009	8
Figure 3: Number of college students participating in the DEHS extern program, by year	21
Figure 4: Distribution of staff within the three major program areas	23
Figure 5: Percentage of staff with master's degrees within the three major program areas	23
Figure 6: Percentage of DEHS staff with RS or REHS credentials	24
List of Tables	
Table 1: DEHS Program funding sources	4
Table 2: IHS TIPCAP funding	12
Table 3: LNF for 2009	20
Table 4: Summary of awards received by DEHS staff in CY 2009	22
Table 5: Summary of DEHS staff certifications	24





Message from the Director

KELLY M. TAYLOR, M.S., R.E.H.S.

Division of Environmental Health Services

Calendar Year (CY) 2009 has been an exciting year of change for the Indian Health Service (IHS). Dr. Yvette Roubideaux, Director of the Indian Health Service, has identified four priorities for our agency:

1. To renew and strengthen our partnership with Tribes
2. In the context of national health insurance reform, to bring reform to IHS
3. To improve the quality of and access to care
4. To make all our work accountable, transparent, fair and inclusive

You will find that the activities and projects in this report support many aspects of the Director's priorities. This report highlights some of the CY 2009 accomplishments of our federal staff and Tribal environmental health partners throughout the nation, but we could not include everything. There are so many environmental health projects being conducted across the country that if we included all of them, this report would be enormous.

This past year, the agency has been consumed with the American Recovery and Reinvestment Act (ARRA) of 2009. IHS received \$590 million in ARRA funding to serve American Indian and Alaska Native communities. Although our division did not directly receive any of these funds,

Environmental Health Services staff were able to assist with the identification of some of the 292 sanitation facilities construction projects and the 302 maintenance and improvement projects that did get funded. Our staff will continue to provide comprehensive environmental health services at the two new hospitals being built with ARRA funds and for many of the 292 water, wastewater, and solid waste systems being built. The staff also will provide technical assistance and direct services for the continued safe operation of many of the 200 pieces of medical equipment bought with ARRA funds. We will continue providing such services and assistance long after these projects are completed.

In 2007, we began a national program planning initiative that was intended to get staff input into the direction of the Program and to encourage more communication among all staff. We continued to make progress in our strategic planning initiatives in 2009 by completing two of our four Primary Vision Elements and beginning a third element. The challenge now is to implement those recommendations and plans as we provide more services at an increasing number of facilities with few additional resources.

I invite you to learn more about the IHS Environmental Health Services Program and the many exciting projects being conducted across the country.

Profile of the DEHS Program

2009 DEHS Program Performance

- Service to over 19,000 facilities
- More than 7,000 surveys
- Over 340 environmental health investigations
- More than 620 training activities



CORE SERVICES TO AI/AN COMMUNITIES

The current mission of the Division of Environmental Health Services (DEHS) is “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.”

In support of this mission, the DEHS Program provides a range of services to the American Indian and Alaska Native (AI/AN) communities.

These services include:

- Monitoring health
- Diagnosing and investigating health problems
- Informing, educating, and empowering people
- Mobilizing community partnerships
- Developing policies and plans that support community efforts
- Supporting laws and regulations that protect health and ensure safety
- Linking people to services
- Assuring a competent workforce
- Evaluating effectiveness of services
- Implementing innovative solutions to environmental health problems

Within the Environmental Health Services Program, there are three areas of emphasis: Field Operations, Community Injury Prevention,

and Institutional Environmental Health. Field Operations staff are the lead environmental health professionals providing a range of services for issues of water quality, waste disposal, hazardous materials management, food safety, community injury prevention, vector control, occupational safety and health, and other environmental health issues. Community Injury Prevention staff take the lead in working with communities to develop public health strategies to reduce the burden of injury experienced by AI/AN communities. Institutional Environmental Health staff have specialized skills to identify, evaluate, and respond to unique environmental safety hazards found in healthcare, educational, childcare, correctional, and industrial facilities.

PROGRAM HISTORY

The roots of the DEHS Program can be traced back to 1912, when the U.S. Department of the Interior's Office of Indian Affairs Commissioner Burke issued a circular directing agency physicians to serve as health officers for their reservation. Over the next several decades, this responsibility for community surveys shifted toward 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 (Public Law 83-568), which moved the responsibilities for AI/AN health care 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 Sanitarians at Area Offices. In 1962, the first headquarters Institutional Environmental Health Officer was hired, providing advice and technical guidance on all community-based institutions.

In 1963, a joint conference of BIA and Division of Indian Health (renamed IHS in 1969) leadership discussed collaborative efforts to combat the community accident mortality problem among Indians. An Accident Prevention Program was established within Environmental Health Services while calls for expanded funding and authority went to Congress. In 1969, Congress provided funding and positions for the Accident Prevention Program in the Health Education Program. The Accident Prevention Program continued as a collaborative effort with Health Education until 1979, when IHS Director Emery Johnson formally transferred responsibility to Environmental Health Services and the name changed to Community Injury Control, and later to Community Injury Prevention.



PROGRAM RESOURCES

The current budget of the DEHS Program is approximately \$29.2 million; this funding is derived from three primary sources: Congressional allocation; the IHS Director's Initiatives; and injury prevention budget enhancements (see Table 1). DEHS funds support a wide variety of activities, including injury prevention, institutional environmental

health, safety management and industrial hygiene, food safety, vectorborne disease control, and technical assistance to community water and waste disposal facility operators.

As presented in Table 1, below, the DEHS Program budget is derived from the overall Environmental Health Support Account (EHSA) that supports the activities of both the DEHS as well as Division of Sanitation Facility

Construction (DSFC) Programs. For 2009, and based on the workload-based Resource Requirement Methodology (RRM), the DEHS share of the EHSA budget was 39%.

Figure 1, on the next page, depicts a historical comparison of the workload-based RRM versus the distribution of Program funds from 2001 to 2009.

Table 1: DEHS Program Funding Sources

Fiscal Year	Total EHSA Budget	DEHS RRM Share	DEHS Budget*				IHS Director's Initiative	Injury Prevention Budget Enhancements	Total DEHS Budget
				COSTEP**	Injury Prevention**	Residency**			
1998	\$42,159,000	33.80%	\$14,249,742	\$81,000	\$116,000	\$90,000	\$304,000	\$0	\$14,840,742
1999	\$44,244,000	33.80%	\$14,954,472	\$206,000	\$174,100	\$120,000	\$304,000	\$0	\$15,758,572
2000	\$49,162,000	33.20%	\$16,321,784	\$208,000	\$175,000	\$67,600	\$304,000	\$1,475,000	\$18,551,384
2001	\$50,997,000	34.20%	\$17,440,974	\$184,000	\$69,000	\$63,100	***	\$1,779,000	\$19,536,074
2002	\$52,856,000	34.93%	\$18,460,797	\$224,000	\$111,000	\$100,000	***	\$1,779,000	\$20,674,797
2003	\$54,437,000	36.62%	\$19,937,064	\$194,100	\$88,000	\$100,000	***	\$1,779,000	\$22,098,164
2004	\$55,888,650	33.63%	\$18,794,176	\$240,000	\$118,700	\$100,000	***	\$1,779,000	\$21,031,876
2005	\$56,328,611	32.80%	\$18,475,968	\$232,000	\$74,000	\$100,000	***	\$1,779,000	\$20,660,968
2006	\$57,447,796	34.03%	\$19,547,711	\$208,000	\$67,500	\$100,000	***	\$1,779,000	\$21,702,211
2007	\$63,235,458	35.68%	\$22,564,290	\$232,000	\$98,000	\$100,000	***	\$2,779,000	\$25,773,290
2008	\$64,576,052	37.65%	\$24,313,637	\$216,000	\$61,000	\$100,000	***	\$2,779,000	\$27,469,637
2009	\$67,022,000	38.97%	\$26,117,871	\$228,500	\$66,782	\$100,000	***	\$2,779,000	\$29,292,153

COSTEP = Commissioned Officer Student Training Extern Program.

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

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

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

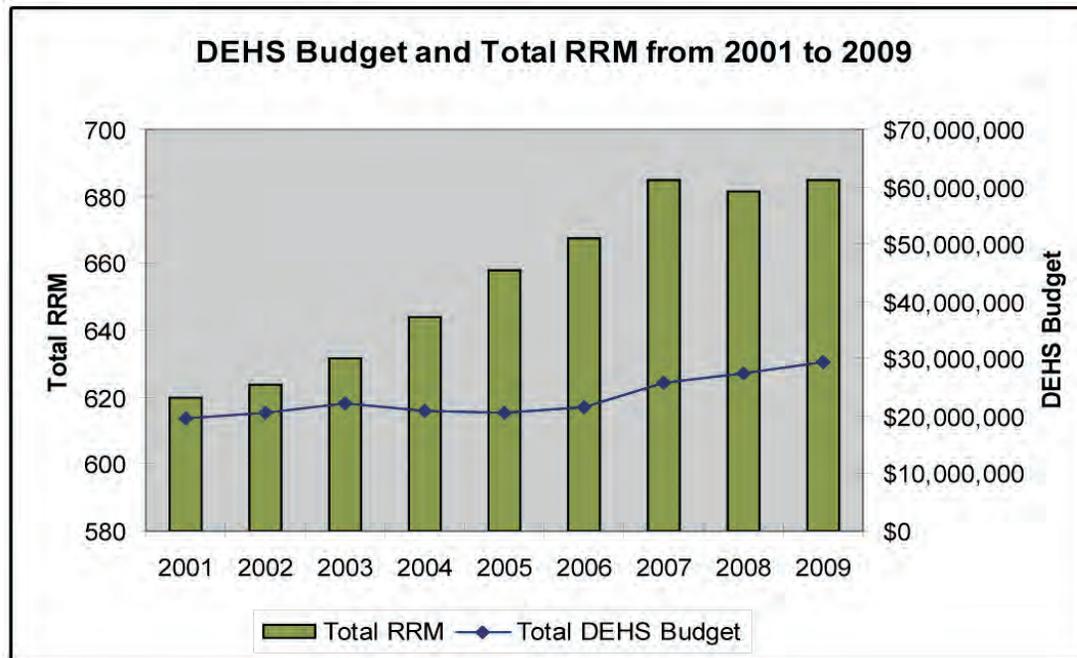


Figure 1: RRM (workload) vs. actual DEHS funding from 2001 to 2009

PROGRAM STRUCTURE

True to its historical beginnings, the DEHS Program is a field-based environmental health services program that takes pride in supporting the needs of individual Tribal communities. The DEHS operates under a very decentralized organizational structure, with most of its staff employed in district and field offices throughout the 12 IHS Areas. Area Office staff typically

consist of the DEHS Division Director and one or two professional (Injury Prevention Program Manager and/or Institutional Environmental Health Program Manager) staff. District Environmental Health Officers and their support staff are often located away from the Area Office and closer to the Tribal communities.

DEHS Headquarters (HQ), located in the IHS Headquarters office in Rockville, Maryland,

consists of a Director, Assistant Director, Institutional Environmental Health Program Manager, and Injury Prevention Program Manager. In addition, an Environmental Health Data Systems Manager supports the information systems used by the Program on a national basis.

In 2009, the DEHS Program consisted of a total of 275 staff, including the 8 HQ staff positions.

DEHS

and the Ten Essential Environmental Health Services

OUR OPERATING PHILOSOPHY

The operating philosophy of the DEHS Program is based on the Ten Essential Public Health Services first articulated in 1994 by a partnership of local, state, and national public health leaders. These services were used by the National Center for Environmental Health of the Centers for Disease Control and Prevention (CDC) as a basis for its six goals for the revitalization of environmental health in the 21st century. IHS has taken a proactive approach and adapted the Ten Essential Public Health Services as the Ten Essential Environmental Health Services and has incorporated this set of strategies into the methods in which it delivers services to Tribal communities across the country.

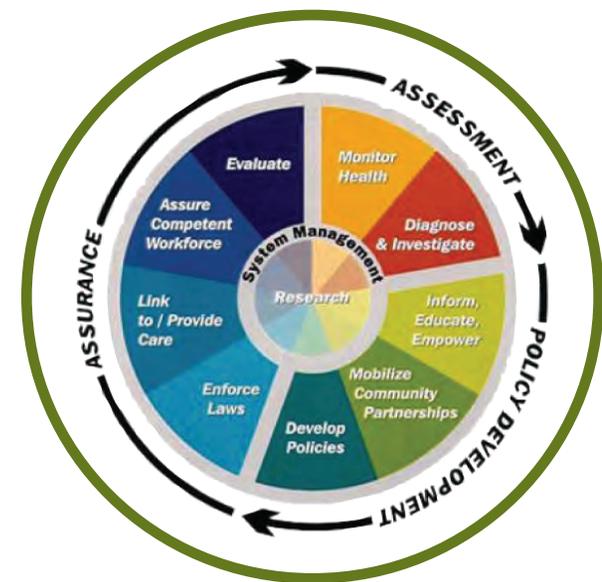
The Ten Essential Environmental Health Services are as follows:

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 following pages present a detailed glimpse at Program operations as well as projects conducted throughout the Tribal communities served by the Environmental Health Services Program.

1) MONITOR HEALTH

For the DEHS Program, health monitoring activities not only include real-time surveys for a variety of public health-related issues but also the proactive use of regional and national information systems to manage, track, and respond to trends and issues. Program staff provided services to a total of 19,036 facilities

during 2009 (Source: Web-based Environmental Health Reporting System [WebEHRS] Reports, National Establishment Counts, Fiscal Year [FY] 2009). These services included 10,735 activities with 7,074 surveys that monitored the environmental health status of these facilities (Source: WebEHRS Reports, Activity Reports, sorted by filter, month, and type). Also, staff reported in WebEHRS that there were 340 investigations conducted and 629 training sessions provided.

In FY 2008, 12 Areas used data from WebEHRS to identify baseline environmental risk factors and to establish baseline measures. In FY 2009, 11 of the 12 Areas implemented at least 3 interventions to address the identified risk factors. The data will be captured in 2010 to determine the effectiveness of the interventions. Many of the identified interventions involved food safety, whether it involved either commercial restaurants or school and Head Start kitchens.

The educational interventions included training provided to food service and IHS Environmental Health Services staff on various food safety-related issues, such as the current Food and Drug Administration (FDA) Food Code, FDA Retail Food Safety, and Hazard Analysis and Critical Control Points. Some Areas revised their food handler courses.

The policy development interventions included requiring IHS Environmental Health

Services staff to use electronic surveys, collaborating with school leaders to develop U.S. Department of Agriculture School Food Safety Program implementation plans, and requiring Environmental Health staff to include Tribal adoption of food codes into their annual program plans. Advocacy efforts directed toward Tribal leaders encouraged food code adoption.

Enforcement/requirements included providing inspections and follow-up activities at the facilities.

Environmental modification interventions addressed lower respiratory tract infections, motor vehicle injuries, and fire prevention. These interventions included provision of piped water into homes, provision of occupant protection devices (car seats), and the installation of smoke alarms and emergency lighting in Head Start Programs.

For the Community Injury Prevention Program, in 2009, 11 Areas implemented at least 1 comprehensive injury prevention intervention directed at improving the motor vehicle occupant restraint rates determined in 2008. A comprehensive injury prevention intervention targets several strategies (education, legislation and enforcement, and environmental modification) rather than only one.

Comprehensive interventions included (1) provision of the National Highway Traffic Safety Administration's 32-hour Technician Certification course to staff who install car

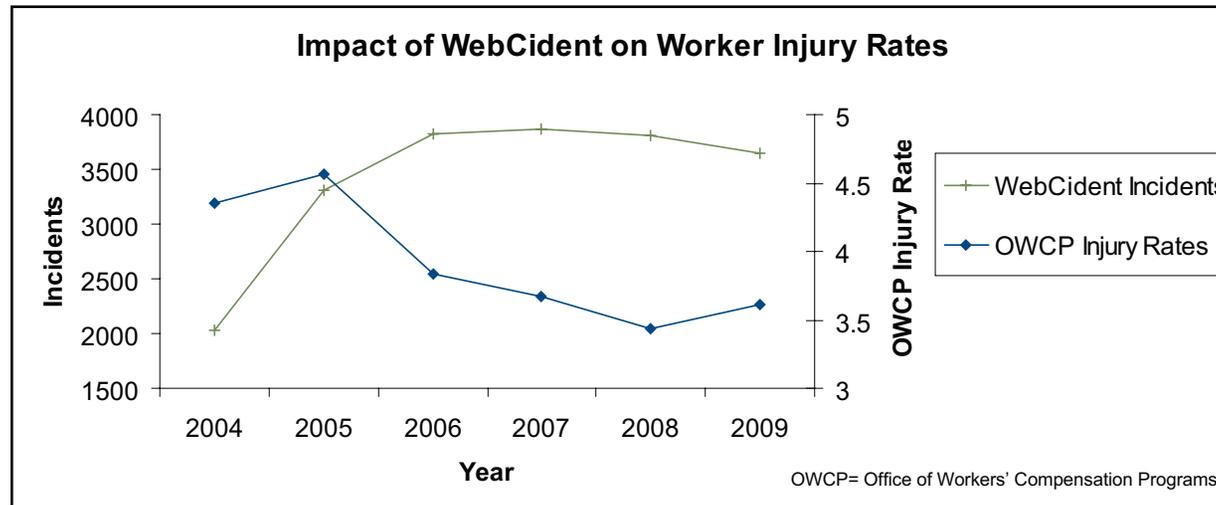


Figure 2: Worker WebCident reported incidents and OWCP injury rates from 2004 to 2009

seats, (2) advocacy meetings with Tribal councils, (3) awareness campaigns in communities, (4) implementation of primary seat belt laws, (5) implementation of motor vehicle checkpoints that look for incorrect or no use of child car seats, (6) implementation of the IHS Ride Safe Child Passenger Safety Program (the Ride Safe Program) in Head Start Programs, and (7) distribution and installation of car seats by trained professionals.

Tribes in three Areas (Bemidji, Phoenix, and Tucson) received Centers for Disease Control and Prevention (CDC) funding to support comprehensive Tribal motor vehicle intervention programs. Each program utilizes comprehensive effective strategies (education,

legislation and enforcement, and environmental modification). Tribes in six Areas (Aberdeen, Albuquerque, Bemidji, California, Navajo, and Oklahoma) received IHS Tribal Injury Prevention Cooperative Agreement Program funding that included at least one component of a comprehensive motor vehicle occupant restraint program.

During 2009, an Implementation Team was formed to serve as a “board” to review inquiries for use of the data, address user interface problems and questions, and recommend and review enhancements and changes to the Notifiable Disease and External Cause of Injury Web-based data retrieval system. The system retrieves specific injury or disease

categories for tracking and reporting using “passively” exported Resource Patient Management System (RPMS) data to national programs. The application tracks and reports the targeted injury or disease categories via a Web-based application that can provide reports by national, Area, service unit, facility, and community levels. The application also supports a robust security system that allows designated national- or Area-level users to provide access to appropriate staff in their respective organizations. Data can be retrieved by International Classification of Diseases, 9th Revision, codes used to define the groupings for injuries, asthma, notifiable diseases, intestinal diseases, and vectorborne diseases.

WebCident is a critical data collection and analysis tool supporting healthcare accreditation in the areas of information management, medication management, environment of care, and regulatory concerns for occupational safety and health reporting. Since its launch in 2002, WebCident has collected information on more than 53,000 worker, visitor, and patient incidents at 391 IHS and Tribal facilities. During 2009, there were 21,544 incidents reported.

Figure 2, on page 8, shows the impact of incident reporting on the reduction of workers' compensation case rates. As more worker, hazardous condition, and security incidents are reported and investigated, safety programs improve and help to reduce the number of employees being injured each year, which results in fewer workers' compensation cases.

In 2006, the Office of Clinical and Preventive Services (OCPS) staff asked the Environmental Health Data Systems Manager and the Institutional Environmental Health Program Manager to work with them in expanding WebCident to collect patient safety data such as medication errors, patient falls, and adverse drug events. The patient safety expansion was very successful. Since it began, the WebCident pharmacy medication error module has saved IHS \$250,000 each year for costs associated with the reporting system it replaced. The patient safety component was a performance measure for OCPS and, by the end of 2009, had accumulated 17,715 incidents to monitor and evaluate.

The following are a few highlights from the Areas regarding the first Essential Environmental Health Service: "Monitor health status to identify community health problems."

ABERDEEN AREA: The Sisseton Office of Environmental Health reviewed employee injury and illness events and workers' compensation claims for casino operations to identify injury trends and areas of operation that were producing greater numbers of injuries or specific types of injuries.

BEMIDJI AREA: Beginning in January 2004, the Minnesota District Environmental Health Office of Bemidji Area IHS began to track foodborne illness complaints and incidences associated with all Tribal facilities within their service area. In addition, this office began to use WebEHRS exclusively for the preparation of food sanitation surveys to allow them to monitor and evaluate critical violations that fell within the five foodborne illness risk factors identified by the CDC. These risk factors are (1) purchasing food from unsafe sources; (2) failing to cook food adequately; (3) holding food at improper temperatures; (4) using contaminated equipment; and (5) practicing poor personal hygiene.

NAVAJO AREA: A review of RPMS and Office of Environmental Health and Engineering (OEHE) data from 2003 to 2008 indicated that per year 39.6 people contemplated suicidal ideations, 44.5 displayed suicidal gestures,

and 1.8 people committed suicide. OEHE data for 1996 to 2005 indicated suicide as the fourth leading cause of injuries and fatalities. These data identified a problem that resulted in the Chinle Service Unit *Suicide Prevention Empowerment Initiative*.

PHOENIX AREA: The Reno District has undertaken efforts to assist Tribes with the prevention of suicides because every Environmental Health Officer in the district has at least one Tribe who is actively working or seeking to begin work in the area of suicide prevention. In an effort to define the problem:

- Every staff member developed a community injury profile for at least one Tribe they served. Profiles included information on suicide attempts resulting in hospitalization.
- Reno District staff generated an IHS RPMS suicide report for one Tribal health center.
- Reno District staff began encouraging IHS and Tribal health center facilities to populate the IHS RPMS system. DEHS staff facilitated two WebEx training sessions on use of the IHS RPMS suicide reporting form, and Phoenix Area mental health staff provided the training. Health Directors and mental health providers from five health clinics participated, as well as the evaluator for the *Preserving Life Initiative*, Nevada Office of Suicide Prevention staff, and Reno District staff.



2) DIAGNOSE AND INVESTIGATE HEALTH PROBLEMS

Environmental Health Services staff conducted a variety of environmental health investigations during 2009, with 338 reported in the Web-based Environmental Health Reporting System (WebEHRS). Following are a few highlights that represent the level of activity.

ALBUQUERQUE AREA: DEHS staff worked with Dr. Anthony Neri of the Centers for Disease Control and Prevention (National Lead of the Environmental Blood Lead Level in Children Project) to determine the level of health problems and health hazards in American Indian and Alaskan Native (AI/AN) populations, as well as in the local Area communities, based on national and local datasets. The team was able to identify lead as a potential significant threat to children's health for AI/AN communities.

BEMIDJI AREA: The Minnesota District Environmental Health Office tracked foodborne illness complaints and incidence associated with Tribal facilities. The office analyzed foodborne illness complaint/illness reports and critical violations documented in WebEHRS food sanitation surveys. This analysis indicated that the primary food safety issues in the district were improper holding temperatures, cross-contamination, personal hygiene, and date marking and disposition. This trend analysis also showed that the number of critical violations were extremely high in the same year

that the district was receiving a large number of foodborne illness complaints.

NAVAJO AREA: During the Chinle Service Unit's A Safer You is a Safer Me project, the social marketing message used was developed from community focus groups. Questions focused on factors that influence use or nonuse of safety restraints and assessments of Chinle Service Unit community attitudes, beliefs, and self-efficacy.

PHOENIX AREA: A descriptive injury report showed falls were an issue in the Quechan Tribal community, and several key informant interviews and focus groups were held to better understand the possible risk factors involved. Some of these risk factors were dizziness, muscular weakness, and physical hazards in the home. This information was used while developing the intervention components of a comprehensive fall prevention program.

3) INFORM, EDUCATE, AND EMPOWER PEOPLE

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 over 629 training sessions during 2009 on a variety of topics.

The Environmental Health Support Center in Albuquerque provided environmental health program management, injury prevention, topic-specific environmental health, and institutional environmental health courses for a total of 21 courses with 463 individuals attending. Twelve Fellows in eight Areas are scheduled to graduate from the Class of 2009 Program Development track of the Injury Prevention Fellowship Program in May. The Epidemiology track has been postponed for 2010 because of the small number of qualified applicants.

To assist Tribes in building injury prevention infrastructure and capacity, IHS began awarding Cooperative Agreements in 1997. During this initial funding cycle, 13 Tribes or Tribal organizations were awarded 3-year program awards of \$25,000 each and four 1-year training or conference attendance awards at \$5,000 each. In 2000, this program was announced again, with increased program funding of \$50,000 for 5 years with 25 awards and increased project funding of \$15,000 for 3 years with 11 awards, and 1-year training or

conference attendance awards of \$5,000 with 3 awards. In 2004, there was supplemental funding awarded to eight Tribes for 1 year. Five of these awards were for program grants, and three were for projects. The current award cycle of 5-year Cooperative Agreements totals more than \$1 million to 32 Tribes beginning in Fiscal Year 2005. In 2009, the Community Injury Prevention Program distributed approximately \$1.4 million through the Tribal Injury Prevention Cooperative Agreement Program (TIPCAP). A summary of this funding, by Area, is presented in Table 2, on the following pages.



Table 2: IHS TIPCAP Funding

	Funding Cycle	1997 to 2000		2000 to 2005			2004		2005 to 2010		
	Tribe	\$25,000 for 3 yrs	\$8,000 for 1 yr	\$50,000 for 5 yrs	\$15,000 for 3 yrs	\$5,000 for 1 yr	\$50,000 for 1 yr	\$15,000 for 1 yr	\$75,000 for 5 yrs	\$50,000 for 5 yrs	\$10,000 for 3 yrs
1	United Tribes Technical College	X		X							
2	Pueblo of Jemez	X		X					X		
3	Ysleta Del Sur Pueblo	X									
4	Bristol Bay Area Health Corporation	X									
5	Pokagon Band of Potawatomi Indians	X									
6	Fort Peck Assiniboine and Sioux Tribes	X									
7	Hoopa Valley Tribe	X		X							
8	Miccosukee Corporation	X									
9	Osage Nation of Oklahoma	X								X	
10	Sac and Fox Nation	X									
11	Fallon Paiute Shoshone Tribe	X									
12	Yavapai-Prescott Indian Tribe	X									
13	Jamestown S'Klallam Tribe	X									
14	Ponca Tribe of Nebraska		X		X						
15	Aleutian Pribilof Islands Association		X								
16	Houlton Band of Maliseet Indians		X		X						X
17	Ponca Tribe of Oklahoma		X	X							
18	Spirit Lake Tribe			X							
19	Three Affiliated Tribes			X							
20	Trenton Service Area			X							
21	Southeast Alaska Regional Health Consortium			X					X		
22	Kodiak Area Native Association			X							
23	Fond Du Lac Reservation			X					X		
24	Bad River Band of Lake Superior Tribe of Chippewa Indians			X							
25	Rocky Boy Tribal Health			X							
26	St. Regis Mohawk Tribe			X							
27	Eastern Band of Cherokee Indians			X							
28	Hardrock Chapter			X					X		
29	Navajo Nation			X					X		
30	Colorado River Indian Tribes			X							
31	First Mesa Consolidated Villages			X							
32	Reno-Sparks Indian Colony			X							
33	California Rural Indian Health Board, Inc.			X					X		
34	Chickasaw Nation			X							
35	Caddo Nation			X					X		
36	Comanche Nation of Oklahoma			X							
37	The Kaw Nation			X					X		
38	Pascua Yaqui Tribe of Arizona			X							

Table 2: IHS TIPCAP Funding (continued)

	Funding Cycle	1997 to 2000		2000 to 2005			2004		2005 to 2010		
		Tribe	\$25,000 for 3 yrs	\$8,000 for 1 yr	\$50,000 for 5 yrs	\$15,000 for 3 yrs	\$5,000 for 1 yr	\$50,000 for 1 yr	\$15,000 for 1 yr	\$75,000 for 5 yrs	\$50,000 for 5 yrs
39	Rosebud Sioux Tribe				X						
40	Southcentral Foundation				X						
41	Mille Lacs Band of Ojibwe				X						
42	White Earth Reservation Tribal Council				X						X
43	Gerald L. Ignace Indian Health Center				X						
44	Stockbridge-Munsee Community Band Mohican Indians				X						X
45	Wichita and Affiliated Tribes				X						
46	White Mountain Apache Tribe				X					X	
47	Ak-Chin Indian Community				X						
48	Dakota Center for Independent Living					X					
49	Grand Traverse Band of Ottawa and Chippewa Indians					X					
50	Sault Ste. Marie Tribe of Chippewa Indians					X					
51	Winslow Indian Health Care Center, Inc.						X				
52	Oneida Tribe of Wisconsin						X			X	
53	Sisseton-Wahpeton Oyate of the Lake Traverse						X			X	
54	Norton Sound Health Corporation						X			X	
55	Pawnee Nation of Oklahoma						X				
56	Chilkoot Indian Association							X			
57	Mount Sanford Tribal Consortium							X			
58	Aroostook Band of Micmacs							X			
59	NNAHA Ojibwe Tribes								X		
60	Toiyabe Indian Health Project, Inc.									X	
61	Choctaw Nation of Oklahoma									X	
62	Bristol Bay Area Health Corporation									X	
63	San Felipe Pueblo									X	
64	Indian Health Council, Inc.									X	
65	Standing Rock Sioux Tribe									X	
66	Kiowa Tribe of Oklahoma									X	
67	Quechan Indian Tribe									X	
68	Lac Vieux Desert Band of Lake Superior Chippewa Indians										X
69	Pyramid Lake Paiute Tribe										X
70	Jena Band of Choctaw Indians										X
71	Chitimacha Tribe of Louisiana										X
72	Nambe Pueblo										X
73	Sapulpa Indian Health Center										X
74	Seneca-Cayuga Tribe of Oklahoma										X

In collaboration with the IHS *Primary Care Provider*, beginning in 2007, every July issue will be dedicated to injury prevention. The 2007, 2008, and 2009 issues presented articles on cost of injuries, guiding principles of the Injury Prevention Program, TIPCAP, a case study on partnerships, and other injury prevention-related strategies addressing issues such as lack of occupant restraint use in motor vehicles, gang violence, and suicide.

In 2009, the IHS Community Injury Prevention Program, the U.S. Fire Administration, and the IHS Head Start Program are continuing the support for the Sleep Safe Fire Safety Program (Sleep Safe Program), which ultimately began as an IHS Injury Prevention Fellowship project. The National Indian Safe Home Coalition (NISHC) began as an extension of Wendy Fanaselle's IHS Injury Prevention Fellowship Project in 1993. Harold Cully, former Oklahoma Area Injury Prevention Specialist, led this multiagency, multi-nonprofit organization coalition that provided funding, primarily through the U.S. Fire Administration, to American Indian and Alaska Native (AI/AN) communities to reduce fire and burn injuries in their homes. In 1998, Diana Kuklinski, former Bemidji Area Injury Prevention Specialist, led the development of a new program, Sleep Safe, which was based on the same concept of community mobilization used in the NISHC. The goal of the Sleep Safe Program is to reduce the fire and burn injury rate for AI/AN children, ages 0 to 5 years, by

increasing the use of operable smoke detectors in homes, providing a fire safety curriculum in Head Start Programs, and developing and adopting Tribal laws requiring fire safety codes in homes. The Sleep Safe Program is funded by the U.S. Fire Administration, the IHS Community Injury Prevention Program, and the IHS Head Start Program.

Building on the same concepts used in the Sleep Safe Program, Chris Allen, through his IHS Injury Prevention Fellowship project, developed the Ride Safe Program in 2002. The goal of the Ride Safe Program is to reduce motor vehicle-related injuries to AI/AN children ages 3 to 5 years by increasing the correct use of child safety seats; providing child passenger safety instruction to Head Start staff, parents, and caregivers; and conducting home visits and observational safety seat surveys in communities. The Ride Safe Program has been funded through the National Highway Traffic Safety Administration, the Health Resources and Services Administration, the IHS Community Injury Prevention Program, and the IHS Head Start Program.

For the 2009 to 2010 school year, in addition to children up to 5 years of age, grandparents of Head Start children were included in the Sleep Safe Program. Thirty-six Head Start Programs were funded \$150,000 for Sleep Safe, and over 3,850 smoke detectors were distributed to Head Start families with

children. Also, IHS continues to support Ride Safe. Sixteen Ride Safe Head Start projects were funded a total of \$120,000 in the 2009 to 2010 Head Start school year. Over 1,560 child safety seats were distributed to Head Start families with children. Since 1999, the Sleep Safe Program has provided \$1.8 million and more than 40,000 smoke alarms. Since 2002, Ride Safe has provided \$1.3 million and more than 6,000 child safety seats to AI/AN Head Start Programs to reduce motor vehicle deaths and injuries from fires and burns.

Other activities in the Areas that inform, educate, and empower people about health issues are the following.

ABERDEEN AREA: In an evaluation of the health and safety training provided in the Aberdeen Area to IHS and Tribal programs over the past 3 years, it was noted that housekeeping was not offered as stand-alone training. To address this gap, and to help sites develop a stronger housekeeping program through improved staff knowledge, the Aberdeen Area DEHS began to offer a basic housekeeper training course in 2009. With the assistance of the Bemidji Area EHS Program, an initial train-the-trainer course was conducted in May 2009 at the Sisseton Service Unit (Sioux City District). After this training, three 1-day courses were conducted during the year in the Minot and Pierre Districts for a total of 180 individuals receiving this training in 2009.

ALASKA AREA: In the spring of 2009, the Tanana Chiefs Conference Office of Environmental Health (TCC-OEH) provided emergency response and disaster relief to the four communities located on the Upper Yukon River. TCC-OEH led an initial emergency response and facilitated the involvement of Department of Human Services personnel, the Fairbanks Food Bank, and the American Red Cross. This effort led to quick delivery of emergency supplies including water, food, fuel, backup power supplies, sanitation/hygiene supplies, satellite phones, cots and sleeping bags, dog food, radios, and water pumping equipment. Included in the delivery to the communities were informational packets containing emergency contact numbers as well as guidelines for drinking water disinfection, food safety, and wastewater disinfection.

BEMIDJI AREA: Education is one of the primary tools used by the Minnesota District Office to improve food safety. District staff provide food safety training to more than 200 food service employees each year. The WebEHRS data assessment was used to evaluate training materials.

In 2006, the district staff decided to evaluate the content of its training materials that pertained to the five CDC food safety risk factors and the critical deficiencies most frequently cited in WebEHRS. Gaps were identified in the district's training materials and evaluation tools. As a result, the training materials and evaluation tools were significantly revised.

PHOENIX AREA: In an effort to reduce the risk of lead poisoning among Head Start children, Environmental Health Services personnel assisted the Colorado River Indian Tribes' Head Start Health Specialist and Director in distributing health hazard information specific to lead exposure to parents and caregivers. These personnel provided risk communication and education materials available from the CDC and Environmental Protection Agency (English and Spanish) to the Program operators.



4) MOBILIZE COMMUNITY PARTNERSHIPS

To leverage resources toward public health issues, all Areas work with local, state, and regional public health agency partners and encourage Tribes to do the same. In addition, to deliver services, Areas work with regional offices of other federal agencies, including the following:

- Administration on Aging
- Administration for Children and Families, Head Start Bureau
- Agency for Toxic Substances and Disease Registry
- Bureau of Indian Affairs
- Centers for Disease Control and Prevention
- Food and Drug Administration
- Environmental Protection Agency (EPA)
- Department of Homeland Security

Examples of these community partnerships for 2009 include the following.

BEMIDJI AREA: For the Creating Caring Communities Bully-Proofing Your School Program, the functions and activities involve members of the schools' student body and staff, as well as Tribal and non-Tribal community members, community elders, Tribal health clinic staff, county health services staff, law enforcement, Emergency Management Services, IHS, and the Creating Caring Communities organization.

CALIFORNIA AREA: The Yurok Tribe, the State of California, EPA, and the IHS Division of

Environmental Health Services (DEHS) worked to identify and remediate three separate, large, and illegal open dump sites within the Yurok reservation. To help solve the problems, several town hall meetings in the Yurok communities asked specific questions regarding the proposed clean-up and how to keep the problems from recurring. California DEHS staff also used this time to address concerns about the clean-up. Several great comments and concerns came out of these meetings, such as the inadequate facilities for recycling and solid waste.

PHOENIX AREA: In 2009, the Quechan Tribe's Injury Prevention Coordinator advanced the Program through her work in promoting child passenger safety and elder fall prevention. Through these efforts, the Office of Environmental Health and Engineering and the Tribal coordinator have reached out to several outside internal and external entities in an attempt to enhance her program. Some of these entities include the IHS Tribal Injury Prevention Cooperative Agreement Program, IHS Ride Safe and Sleep Safe Programs, Quechan community health programs, Yuma County (Arizona) Safe Kids Coalition, Imperial County (California) Burn Institute, local law enforcement, and various local schools. In recognition of the need for assistance from a variety of healthcare disciplines, an elder fall coalition was developed to help plan, implement, and evaluate activities related to the comprehensive elder fall prevention program.



5) DEVELOP POLICIES AND PLANS THAT SUPPORT COMMUNITY EFFORTS

Once community health issues are identified, policies and plans can be effective tools in the management of these issues.

In addition to Area efforts to develop policies and plans, program strategic planning continued to be a major national emphasis during 2009. Approximately 30 DEHS staff were involved on teams formed to create significant, tangible progress on the four Primary Vision Elements conceived during the February 2007 annual meeting held in Nashville, Tennessee. Program leadership (HQ and Area Environmental Health Services Directors) identified these four initiatives as having the most positive impact on the DEHS Program over the next several years. These initiatives follow.

DEHS PRIMARY VISION ELEMENTS

1. A nationwide clear and uniform definition of needs to make a compelling case for budget and prioritization of our work
2. A dynamic, effective, and sustainable DEHS data system
3. Standardized guidelines across the program that support uniform program management and result in positive outcomes
4. Active involvement in budget and RRM discussions



These Primary Vision Element Teams were supported by a Core Group comprising several HQ and Area-level staff. The Core Group was responsible for reviewing work products from the four teams and for providing input to each of the teams through liaison members.

In April 2008, over 31 DEHS staff from the 12 IHS Areas participated in a 3-day strategic planning workshop in Denver, Colorado. The objective of this workshop was to provide a working session for the four teams. During this workshop, each team provided a progress update to the group-at-large, conducted work on their initiatives, and provided deliverables and/or a projection of deliverables for moving forward.

On August 18 and 19, 2009, a combination of DEHS senior leadership, mid-level management, and field office staff met in Tulsa, Oklahoma, to participate in a 2-day strategic planning workshop dedicated to informing, brainstorming, and continuing progress on key strategic initiatives for the DEHS Program. This workshop was designed as an opportunity for (1) the four Primary Vision Element Teams to share their progress; (2) capturing lessons learned from the past experiences of team members; and (3) identifying any additional strategic initiatives for the Program.



The following is a summary of the accomplishments of the teams in 2009.

TEAM 1 – AN IMPROVED DEFINITION OF NEEDS:

In 2009, this team developed five briefing document templates for the five national priorities they established in 2008. These national priorities are food safety, children’s environment, safe drinking water, healthy homes, and vectorborne and communicable diseases. Currently, IHS is using the priorities and templates to guide the DEHS Program.

TEAM 2 – A DYNAMIC, EFFECTIVE, AND SUSTAINABLE DATA SYSTEM: Team 2 developed a feasibility study with five alternatives for replacing the existing DEHS data system, WebEHRS. During the 2009 meeting in Tulsa,

Area representatives approved alternative 5, a Commercial-Off-The-Shelf system that will be modified to meet IHS needs. Funds for the first year were secured at HQ, and staff are procuring the services for this system. The contract for the development of the system should be signed in 2010.

TEAM 3 – STANDARDIZED GUIDELINES:

This team has taken on the task of rewriting Chapter 11 of the IHS manual. This chapter establishes the policy, objectives, responsibilities, and functions of a comprehensive community-based Environmental Health and Engineering program. During 2009, the team has been diligently drafting sections for review.

TEAM 4 – RESOURCE REQUIREMENT METHODOLOGY

(RRM): In 2008, Team 4 began drafting a written document and a slide presentation that explain how the DEHS RRM is calculated. RRM is used, in part, to determine funds distribution nationally and in the Areas. The team believed that institutional knowledge of this process should be captured. At the 2009 meeting, the document was presented for review and input from the Core Group. Comments were received, and the document was updated and distributed to the Office of Environmental Health and Engineering (OEHE) and DEHS Directors for review and comment. A final document is anticipated in 2010.

Throughout 2009, the teams conducted virtual team meetings, typically on a monthly basis.

Examples of how Area Offices developed policies and plans to support community efforts include the following activities.

ALBUQUERQUE AREA: As part of the Area-wide Environmental Blood Lead Level (EBLL) Investigation Standard Operating Procedure (SOP) Development Project, the Area initially developed a DEHS-specific EBLL-SOP. This SOP led to the development of an Area-specific SOP; revisions to existing clinic-based case management policies; development of investigation protocols and forms; and a compilation document, by the Consumer Product Safety Commission, of lead hazards in products to which children may be exposed. The SOP continues to be considered for adoption by other IHS Chief Medical Officers.

OKLAHOMA AREA: During 2009, the All-hazards Emergency Management Plan was updated. The plan is a comprehensive document that addresses an entity's readiness and preparedness for all hazards through a systematic policy and plan template.

PHOENIX AREA: In 2009, the Quechan Tribe's Injury Prevention Coordinator advanced the injury program through her work in promoting child passenger safety. OEHE and the Tribal coordinator developed a standardized policy that covers the training and distribution of child passenger safety seats to expectant mothers. This policy is included in the Fort Yuma IHS Prenatal Care ("Circle of Life") Program.



6) SUPPORT LAWS AND REGULATIONS THAT PROTECT HEALTH AND ENHANCE SAFETY

Because IHS is not a regulatory authority, we often mistakenly overlook this essential service. On the contrary, our staff have an important part to play in the enforcement process. Our surveys assure compliance with environmental health and protection laws and policies. We collaborate with Tribal programs to review, evaluate, and revise laws and regulations designed to protect health and safety to ensure that they reflect current scientific knowledge and best practices. We educate people who are supposed to obey or to enforce laws and regulations in order to encourage compliance.

Some examples from the Areas include the following.

ABERDEEN AREA: This Area reported the passage of primary seat belt laws by two Tribes (Rosebud and Standing Rock). Comprehensive motor vehicle occupant restraint initiatives were implemented to increase safety belt use.

NAVAJO AREA: As part of the *Reducing Traffic Crash Fatalities Initiative* in Eastern Navajo Nation, drinking and driving laws, primary and secondary occupant restraint laws, and speeding laws were enforced by conducting sobriety checkpoints, patrolling in communities with low seat belt and car seat usage rates, and educating the public.

PHOENIX AREA: As part of Reno District's efforts to assist Tribes with the prevention of suicides, the DEHS is supporting a local coalition's efforts to change a Tribal law related to suicide. Currently, an individual can be fined and/or spend time in jail for attempting suicide. Judges and law enforcement have all agreed that this law is a barrier to individuals seeking help and needs to be repealed. Work is ongoing.

7) LINK PEOPLE TO SERVICES

Table 3 displays the current level of need funded (LNF) for each of the 12 Areas; the data represent both IHS staff and Tribal staff.

Table 3: LNF for 2009

LNF 2009			
Area	No. of Tribal & IHS Staff	RRM	%LNF
Aberdeen	26	54.5	47.7%
Alaska	37	93.8	39.5%
Albuquerque	14	35.9	39.1%
Bemidji	24	50.7	47.3%
Billings	12	32.3	37.2%
California	9	47.3	19.0%
Nashville	36	42.7	84.3%
Navajo	39	109.8	35.5%
Oklahoma	26	90.7	28.7%
Phoenix	26	67.4	38.6%
Portland	10	48.1	20.8%
Tucson	5	11.7	42.7%
Total	264	684.9	38.5%
RRM = Resource Requirement Methodology			



As Table 3 shows, the DEHS Program strives to accomplish its tasks at a funding level of approximately 40% of the estimated actual need. In order to maximize the utilization of available resources, the DEHS has established interagency agreements with the following federal agencies:

- Centers for Disease Control and Prevention
- National Highway Traffic Safety Administration
- Uniformed Services University of the Health Sciences
- U.S. Fire Administration
- Consumer Product Safety Commission

Examples of the activities various Areas are doing to meet this essential service follow.

ALASKA AREA: While responding to the Tanana Chiefs Conference (TCC) flood, TCC-Office of Environmental Health (OEH) staff worked to identify medical needs of the elders, and those with special needs, and made arrangements for their evacuation to relatives or location to communities unaffected by the flood. In less than 24 hours after the flooding, TCC-OEH staff implemented a plan that began the delivery of generators, fuel, medical supplies, bottled water, satellite phones, walkie-talkies, and all-terrain vehicles for transporting the supplies through the woods to the flooded communities.

NAVAJO AREA: As part of the Chinle Service Unit's A Safer You is a Safer Me project, during checkpoints, health fairs, and community

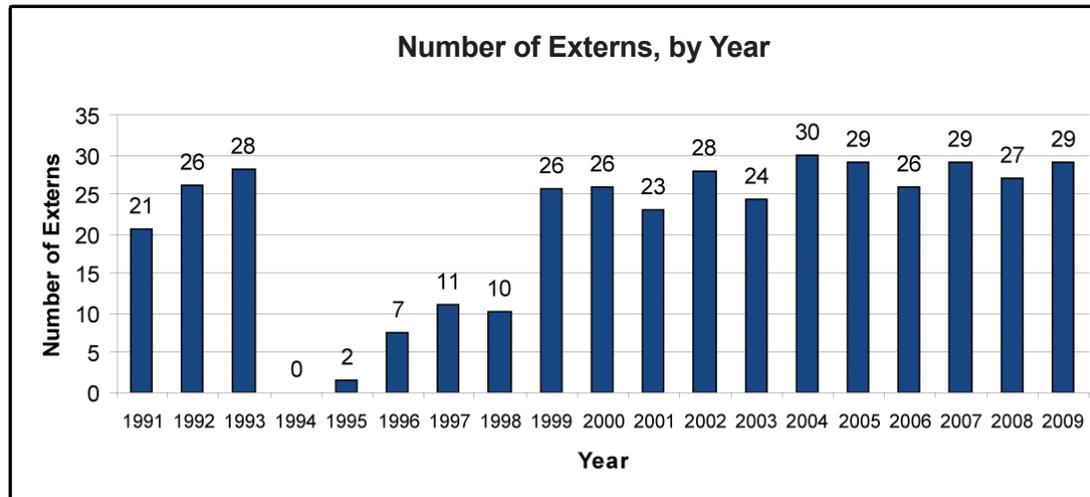


Figure 3: Number of college students participating in the DEHS extern program, by year

events, personnel were available to discuss health issues and concerns with community individuals and guide them to the proper person or department for help.

OKLAHOMA AREA: As part of the Riverside School H1N1 outbreak response, IHS, Tribal health and Urban health facilities offered annual flu and H1N1 vaccines for American Indians. If the vaccines were not available at these facilities, other sources, such as local county and state health department availability, were listed.

PHOENIX AREA: As part of the suicide prevention program in the Reno District, the provision of suicide training and gatekeeper training is designed to help link people to needed services. For example, Suicide Awareness for Everyone (safeTALK) teaches community members

the skills to recognize people with thoughts of suicide and to connect them with suicide intervention resources. An individual trained through Applied Suicide Intervention Skills Training (ASIST) can serve as a suicide caregiver helping people who are at immediate risk to stay safe and seek further help. By providing such workshops and training in the Tribal communities, trained community members can better help other community members and can facilitate the connecting to needed resources.

8) ASSURE A COMPETENT WORKFORCE

Successful delivery of environmental health services to Tribal communities rests on the foundation of a competent and motivated workforce. Figure 3, above, shows the numbers

of student externs hired for the past 19 years. In 1994, a mandated reduction in Full-Time Equivalent staff resulted in a moratorium being placed on the recruitment of summer externs. In 1994, there were no externs hired. However, the program began to rebound in FY 1996 and by FY 1999 was back to pre-1994 levels. During 2009, the DEHS supported 29 externs.

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 24 DEHS staff funded by IHS for college courses in 2009. Of the 24, 19 were federal employees and 5 were Tribal employees. Staff in 9 of the 12 Areas received long-term training support. Two additional staff graduated in June 2009 from the Uniformed Services University of the Health Sciences through the Institutional Environmental Health Residency and Post-graduate Program. One additional DEHS staff member enrolled in the Uniformed Services University of the Health Sciences as part of the Career Development Opportunity for staff Environmental Health Officers (EHOs) and Engineers that is shared between the Division of Sanitation Facilities Construction and the DEHS at Headquarters.

Staff recognition is another important aspect of DEHS retention efforts. Table 4 shows the distribution of U.S. Public Health Service (PHS), IHS, and Tribal awards presented to DEHS staff during Calendar Year (CY) 2009.

Table 4: Summary of Awards Received by EH Staff in CY 2009

Award Type	AB	AK	AQ	BE	BI	CA	NS	NV	OK	PH	PO	TU	TOTAL
PHS Awards													
Outstanding Service Medal													
Commendation Medal		1		1		1				1			4
PHS Achievement Medal		3								3	1		7
PHS Citation		2	1						2	5			10
Crisis Response Service Award	3								1				4
Outstanding Unit Citation	3	1											4
Unit Commendation		2	1	1					1	2		1	8
Isolated Hardship		6						1		4			11
Training Ribbon		4	1	1						2		1	9
Field Medical Readiness Badge		3				1			2	1			7
Foreign Duty Award										1			1
Special Assignment Award										2			2
Hazardous Duty		5											5
Recruitment						1	1			2			4
IHS Area Awards			1					10	2	1	3	1	18
Civil Service Personnel Awards	3			1					1		1		6
National IHS Awards		1	2							1	1		5
Other National Awards													
Tribal Awards													
Navy Meritorious Unit Award										1			1
TOTAL AWARDS	9	28	6	4	NR	3	1	11	9	26	6	3	106
Percentage of Staff Receiving Awards													
Federal	46%	None	18%	NR	NR	NR	33%	31%	82%	75%	NR	40%	
Tribal	0%	NR	75%	NR	NR	NR	0%	0%	NR	0%	NR	0%	
NR = No Report													

Figure 4, to the right, shows the distribution of DEHS staff (N=275) among the three major program areas: Field Operations, Community Injury Prevention, and Institutional Environmental Health.

Thirty-three percent (33%) of all DEHS staff, including Tribal, have master's degrees in public health or a related field. Fifty-two percent (52%) of federal staff and 17% of Tribal staff have this advanced degree. Figure 5, to the right, presents a breakout by discipline. Ninety-one percent (91%) of Institutional Environmental Health staff have master's degrees. Field Operations follows with 30% and Community Injury Prevention has 20%.

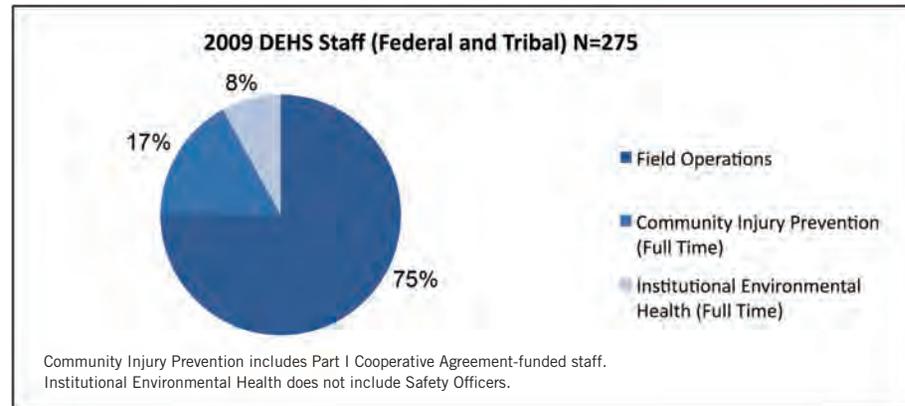


Figure 4: Distribution of DEHS staff within the three major program areas

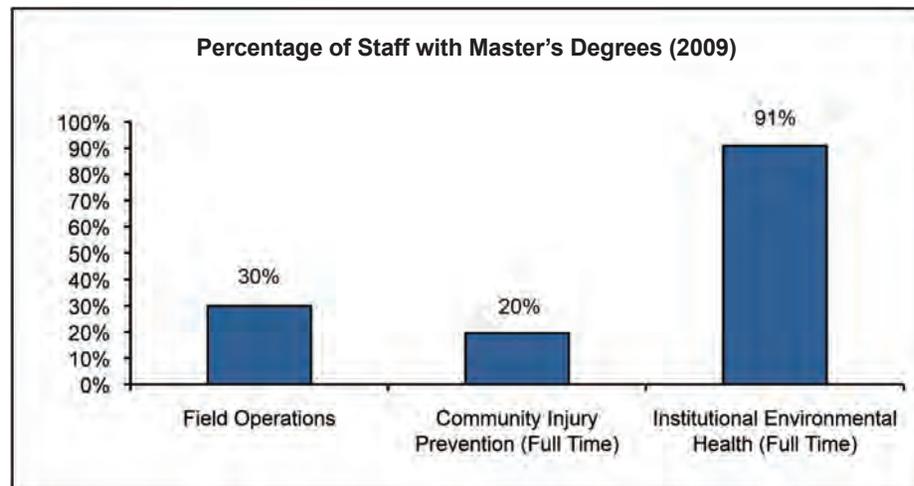


Figure 5: Percentage of DEHS staff with master's degrees within the three major program areas

Sixty-three percent (63%) of all DEHS staff are Registered Sanitarians (RSs) or Registered Environmental Health Specialists (REHSs), with 68% of federal staff and 59% of Tribal staff registered. Figure 6, to the right, summarizes registration by the three major program areas. Registration is highest in the Institutional Environmental Health Program, with 100% of Tribal staff and 94% of federal staff registered.

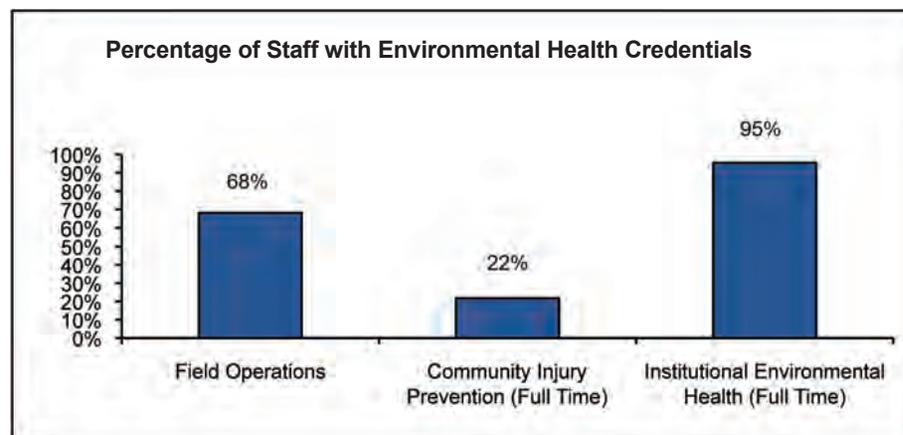


Figure 6: Percentage of DEHS staff with RS or REHS credentials

Table 5: Summary of DEHS Staff Certifications

Federal and Tribal Staff	Field Operations	Community Injury Prevention (Full Time)	Institutional Environmental Health (Full Time)	Total
Registered Environmental Health Specialist/Registered Sanitarian/Other State Registrations	141	10	21	172
IP Fellow	43	22	5	70
Certified Safety Professional	4	1	4	9
Certified Industrial Hygienist	0	0	5	5
Certified in Infection Control	1	0	1	2
Child Passenger Safety Technician	44	16	0	60
Certified Playground Inspector	25	1	0	26
Certified Radiation Protection Surveyor	2	0	13	15
Certified Environmental Health Technician	3	0	0	3
Diplomate, American Academy of Sanitarians	3	1	4	8
Certificate of Health Care Environmental Management	2	0	5	7
FDA Standards	25	0	0	25
Lead/Asbestos Certification	3	0	6	9
Institutional Environmental Health Residency	1	0	15	16

Twenty-five percent (25%) of all DEHS staff have completed the IHS Injury Prevention Fellowship Program, 22% are Child Passenger Safety Technicians, and 9% have met Food and Drug Administration (FDA) standards to conduct retail food service inspections. Table 5, to the right, summarizes these and other credentials.

Some examples of how Areas provide opportunities to assure a competent workforce are below.

ABERDEEN AREA: Team surveys are a way to foster team building, cross-training, and improved services to Tribes in the Aberdeen Area. In the team survey exercise of gaming facilities, four EHOs with a variety of experience levels participated. One individual was very competent in water and wastewater, another had extensive Safety Officer experience, and a third had participated in two previous team surveys. Throughout the process, the team worked together to create a product that could be used as a baseline survey for the next 2 years by the Service Unit EHO and property management.

As an added benefit, this was the first property survey by the new Service Unit EHO. Having a team consisting of a District EHO, a Senior EHO, and two Junior EHOs helped to assure a complete assessment of the property and provided on-the-job training opportunities.

ALBUQUERQUE AREA: While developing a standard operating procedure (SOP) for elevated blood levels for Head Start Programs, the DEHS sponsored an in-service training session for clinical and DEHS staff on this issue. The training included a question-and-answer session on the implementation of the SOP. Information also was provided to the case management teams regarding lead-contaminated sources that may be found in children's environments.

BEMIDJI AREA: The Bemidji Area IHS DEHS Director supports radiation safety-related credentialing for staff, such as the Certified Radiation Protection Surveyor Levels I and II, and provides mentoring to the Area Institutional EHO, which increases competencies in radiation safety.

OKLAHOMA AREA: To assure competency in food service operation inspection, one staff member received intense training from FDA regional staff and obtained her certification as an instructor/trainer for the FDA standardization program. She then trained DEHS district and field-level staff in standardization requirements and procedures.





9) EVALUATE EFFECTIVENESS OF SERVICES

Constant and consistent evaluation assures that DEHS Program actions and services are successfully addressing Tribal community health needs. In 2009, DEHS met the Office of Management and Budget's performance measures, as stated below:

- **Environmental Surveillance Performance Measure:**

Each of the 11 federally managed Area Environmental Health Services Programs will implement at least 3 interventions in order to address the 1 environmental health risk factor identified in 2008.

- **Injury Intervention Performance Measures:**

Each of the 11 federally managed Areas will develop at least 1 comprehensive injury intervention that is aimed at improving the baseline seat belt or car seat use rates in the communities identified in 2008.

Technical assistance for the Tribal Injury Prevention Cooperative Agreement Program grantees was provided by contract with the University of North Carolina, Chapel Hill.

Area assessments of the Tucson and Aberdeen Environmental Health Services Programs were conducted using an IHS-specific assessment tool based on the National Public Health Performance Standards, the National Environmental Public Health Performance Standards, the University of North Carolina's Injury Prevention Program Assessment tool, and the Ten Essential

Environmental Health Services. The Area assessments consist of a self-audit, a site visit, and interviews with key personnel to determine the Program stage of development for each of the Ten Essential Environmental Health Services. Forty-two performance standards are examined to determine whether a program is at a "Basic," "Intermediate," or "Comprehensive" stage of development.

Locally, the Areas evaluate effectiveness, accessibility, and quality of services. Some examples follow.

ABERDEEN AREA: To evaluate the effectiveness of the housekeeping training in Pierre District schools, pre- and post-tests were conducted. As expected, staff had a relatively strong knowledge before the training and showed modest gains (7%) after the training.

The Sisseton training had a mixed group of participants from different facility types. Their final test scores improved 15.2% from baseline levels.

The real test of the training will come when facility survey results are compared in subsequent years. Because of staff turnover, it may take some time to see sustained improvements.



BEMIDJI AREA: A new food safety training module and its associated evaluation tools have been adopted by most of the staff in the Bemidji Area. Minnesota District Office Environmental Health Services staff routinely evaluate their training courses and report this information to the district and to their facility contacts.

As more and more course evaluations were received by the district, poor results for cross-contamination were consistently noted. Also, the results of the pre- and post-tests indicated that there was a lack of rigor in the evaluation materials.

Based on the trends noted in the course evaluations, the materials were revised to include more content on cross-contamination and to improve the rigor of the evaluation materials. These changes appear to have eliminated many of the issues with the training materials. Test scores improved in all areas except food contamination and time/temperature.

NASHVILLE AREA: Nashville Area Environmental Health Services staff conducted surveys of all Tribes in the Nashville Area to determine customer satisfaction, with these results:

- Nine questions regarding service provided, usefulness of surveys, technical assistance, and thoroughness were all rated “Excellent” or “Good.”
- One question regarding waiting time for reports was rated “Excellent” or “Good” (83.3% of the time) and “Fair” (16.7% of the time). The 2010 Work Plan will discuss ways to improve this number.
- One question was based on the overall service provided by Environmental Health Services. Responses were “Excellent” (83.3%) and “Good” (16.7%). This staff will strive to obtain all “Excellent” ratings.

PHOENIX AREA: After the lead abatement project of the Colorado River Indian Tribes’ Head Start Center was completed in February 2009, the Tribe’s EPA Certified Lead Paint Inspector and Risk Assessor resampled and tested surfaces for lead content. The post-project sampling revealed that the lead paint removal and encapsulation project was successful.



10) IMPLEMENT INNOVATIVE SOLUTIONS TO ENVIRONMENTAL HEALTH PROBLEMS

Community health issues often require innovative thinking and actions to provide effective solutions. These solutions typically consist of a combination of new technologies, new ways to collect and use health-related data, and new ways to communicate and influence behavior change.

The following five DEHS Program projects have been highlighted based on a variety of factors, including their positive outcomes, community involvement, sound research to support problem diagnoses, and fulfillment of a large number of the Ten Essential Environmental Health Services.

PREVENTING WATER-RELATED DISEASE AMONG ALASKA NATIVES THROUGH ENHANCED EDUCATIONAL AND INFORMATIONAL CAPACITY

Providing improved water and wastewater infrastructure has been a cornerstone of Alaskan public health efforts for a half century. Available information shows that many residents are slow to adapt to utilizing these services. Disease data from rural Alaska also show very high rates of water-related disease. Of particular concern are lower respiratory tract infections and skin infections, as well as illnesses that are preventable by frequent and proper use of water for hand-washing and by domestic hygiene practices. Although extensive efforts have been undertaken to provide approximately

76% of rural Alaska Natives with water service, programs have not educated residents on how to utilize this service for prevention of water-related disease. This project is aimed at (1) promoting the use of treated water in four Alaskan villages receiving in-home water service for the first time and (2) building the capacity to extend these efforts beyond the project communities with the ultimate goal of reducing water-related diseases throughout rural Alaska.

In a survey of 157 Alaska Native families from the Yukon-Kuskokwim Delta region of Alaska, 55% indicated that they primarily drink untreated water, even though all have access to potable supplies. Of the respondents, 47% did not believe it was possible to get sick from drinking untreated water. The survey also noted significant differences in hand-washing practices among those with in-home water service compared with those who must carry water from a central location. Historical water consumption records from one Alaska Native village found that it took 14 years for residents to begin fully utilizing their piped water system.

This public information and education campaign chose a model of behavior change that addressed all levels of the public – individual, community, and society. The campaign used a formative process to determine water use practices and reasons for these practices within four communities in the Yukon-Kuskokwim Delta region. Questionnaires were completed with 270 households before they received



pipled water service within their home. When the questionnaires were administered, there was a central location in each community where residents had “basic access” to treated water, which means it would take the family 5 to 30 minutes to pack water from this location. Even though treated water was available in the community, the majority of residents continued using untreated water sources, such as rain or river water, for drinking.

Through outreach activities, the Alaska Native Tribal Health Consortium (ANTHC) provided community members with information on how to protect themselves and their family from water-related infections. In addition, the local village coordinator acts as a resource to community members on how to prevent these sanitation-related infections. Alaska programs never formally agreed upon the definition for

“served” homes, so this discrepancy resulted in some houses being built without necessary plumbing and water use fixtures. ANTHC now promotes one definition of a served home as one with hot- and cold-water plumbing, flush toilets, bathtub or shower, kitchen sink, and washer and dryer hookups. ANTHC has now accepted this definition as standard practice, and all future sanitation projects will equip every home with all necessary fixtures.

In addition to these outreach and policy changes, ANTHC is measuring soap and water use monthly, allowing staff to track changes in soap and water use throughout the project period.

The project is still ongoing, and post-promotion questionnaires will be conducted again to monitor changes in knowledge, attitudes, and practices of the community as a result of the water use promotion program.

THE PORTLAND AREA 2009 H1N1 INFLUENZA PUBLIC HEALTH EMERGENCY RESPONSE

In the Portland Area, the DEHS Director is also the Emergency Management Coordinator. During the 2009 H1N1 public health emergency, there was a need for an immediate response, so a multidisciplinary, incident management team (IMT) was formed with the Area and the Northwest Portland Area Indian Health Board (NPAIHB) to galvanize and focus response activities. The DEHS Director and the Medical Epidemiologist were joint leaders in this effort.

A robust surveillance system was implemented at several clinics. This surveillance system bolstered situational awareness during the first wave of the 2009 H1N1 influenza. In addition, the surveillance efforts provided a common operating picture, allowing better coordination and communication with the states. This system had eight sites with active surveillance for influenza-like illnesses (ILI), with two Tribal sites participating in the national sentinel surveillance system for ILI.

The situation was assessed by looking at current and evolving conditions. The high-risk priority groups and specific critical infrastructure workers for immunization were identified. Also, capabilities related to medical countermeasure stockpiles and worker protection were assessed. The high-risk priority population groups and specific critical infrastructure workers for immunization were identified. H1N1 influenza hospitalizations and fatal cases were investigated.

To inform, educate, and empower people about the H1N1 emergency, professional presentations were provided at the NPAIHB Tribal Emergency Preparedness Conference and Affiliated Tribes of the Northwest Indians Winter Conference and at the NPAIHB Fall Quarterly Board Meeting. For the public, educational flyers were developed for distribution to clinics, schools, and other community sites, and the Portland Area Office Intranet and NPAIHB Internet sites were continuously updated with information.

The Tribes worked with local IHS and Tribal clinics, counties, and schools to conduct mass immunization clinics. Also, they worked with the states and counties to ensure Tribal population numbers were correct and included in the state vaccination plans. Working through the National Supply Service Center and IHS HQ, the Area coordinated efforts for the distribution of 28,000 N-95 respirators, over 1,900 courses of anti-viral medication, and more than 1,500 doses of vaccine.

The team facilitated the implementation of clinical practice guidance for (1) treatment; (2) use of anti-viral medications; (3) exclusion of patients, staff, and students; (4) occupational health and safety (infection control and respiratory protection); (5) individual case management; and (6) patient isolation/return to work. In-services were held to educate Area, service unit, and Tribal staff on this guidance.

The team worked with the regional Health and Human Services Attorney to provide clarification and guidance on tort laws associated with public health emergency declarations.

After the response, there were after-action reviews and reports. Both internal (IHS and NPAIHB) and external (states and HHS Region X) meetings and conference calls were attended to glean lessons learned for the next response. Also, the Medical Epidemiologist assisted in authoring clinical publications regarding health impacts and disparities for AI/ANs related to influenza.



MINOT DISTRICT TEAM SURVEY OF A MANUFACTURING FACILITY

Conducting general environmental health surveys accounts for 60% of the workload in the Aberdeen Area DEHS Program. Much of this work consists of carrying out environmental health surveys at a wide range of facilities (assembly occupancies, daycare centers, casinos, hotels, event centers, schools, dorms, Head Start Centers, Food Service Operations, clinics, and treatment facilities). Not all facilities are easy to evaluate for health and safety concerns because of either their size or complexity, or both. The Minot District DEHS Program held a district meeting in July 2009 in North Dakota, and as part of the meeting, the host Tribal Environmental Health Program organized a team survey of a manufacturing plant situated on the reservation. The Tribe had been monitoring survey frequency and identified updating the survey at this facility as a priority.

The manufacturing plant does contract work for the Department of Defense and employs a significant number of Tribal members. The survey team consisted of the Minot District Environmental Health Officer (EHO), five Tribal Environmental Health Services staff from within the Minot District, the Aberdeen Area DEHS Director, and two summer COSTEPs. All necessary follow-up activity was done by the local Tribal Environmental Health Services staff and the Aberdeen Area Institutional Health Office.

The survey incorporated observations and recommendations from all the participants and provided the manufacturing plant with key health and safety recommendations pertaining to personal protective equipment usage, safety management, employee health, materials handling, and indoor air quality. Having multiple EHOs with varied backgrounds conduct a health and safety survey of a large/complex facility helped to ensure critical concerns were identified, and a high-quality survey was provided to the plant and to Tribal leadership. Conducting this survey also promoted communication between programs that resulted in an interactive learning experience expected to improve survey skills for all participants.



REDUCING THE RISK OF LEAD POISONING AMONG HEAD START CHILDREN

The Colorado River Indian Tribes' (CRIT's) Head Start Center consists of 10 classrooms and offices. Five of the classrooms date back to the 1930s, when the units were designed to serve as part of a day school. Modular buildings were added in the late 1980s to meet increases in enrollment. Near the complex of buildings and adjacent to one of the playgrounds are old wooden barracks. Today, the CRIT Head Start Center has an enrollment of 183 children (aged 3 to 5 years old) and employs nearly 50 full-time personnel.

IHS Environmental Health Services (EHS) professionals perform annual environmental health and safety assessments of Head Start facilities within the Western Arizona District, including the CRIT Head Start Center in Parker, Arizona. Over the past 7 years, annual environmental health surveys of the Head Start Center revealed many critical environmental health and safety deficiencies.

An immediate threat to the cognitive development of Head Start children was revealed in 2008 when paint and soil samples collected by the CRIT Environmental Protection Office were confirmed to have elevated levels of lead (Pb). At least two of the original five classrooms, major sections of the hallway daily accessed by children, and soil in the playground were found to have elevated lead levels. Water sampling found

lead concentrations below 0.02 mg/L. In 2009, CRIT Head Start Program and Tribal officials solicited technical assistance from Western Arizona District EHS personnel in (1) developing a corrective action plan to remediate the known hazard and (2) taking part in a local coalition formed to provide feedback on the design of a new Head Start facility.

EHS staff assisted the CRIT Head Start Health Specialist and Director in locating and distributing lead exposure information to parents and caregivers. Representatives from the CRIT Head Start Program, CRIT Environmental Protection Office, CRIT Head Start Policy Council, IHS Office of Head Start, and IHS EHS met to identify funding sources to aid in the abatement project. Approximately \$42,000 was secured for the project, which was completed in February 2009. Post-project sampling revealed the lead paint removal and encapsulation project was successful.

The Head Start Health Services Advisory Committee developed a plan to improve blood-lead level monitoring in the community by screening all eligible children before the start of each school year. After the abatement project was completed, representatives from several Tribal and IHS offices met to discuss replacing the existing facility. A Tribal resolution authorized over \$400,000 to initiate architectural design work for a new facility that meets current Head Start and environmental health guidelines.





REDUCING PATIENT RADIATION EXPOSURE THROUGH FILM SELECTION AND DIGITAL X-RAY TECHNOLOGY

The Bemidji Area IHS EH Program is committed to reducing patient radiation exposure from dental x-ray equipment to a level as low as reasonably achievable while maintaining diagnostic film quality that is acceptable to the providers. Since 2006, patient exposures have been reduced in the Bemidji Area primarily because of the selection of better intraoral film and the use of digital x-ray technology. Two Certified X-Ray Surveyors conduct routine dental radiation protection surveys at least every 3 years in the Bemidji Area. Surveyors evaluate equipment performance, quality assurance measures, film speed, and estimated entrance skin exposures (ESE). The ESE is an estimated amount of radiation delivered to the patient's skin when producing a radiograph and acts as a proxy for radiation exposure from intraoral x-ray equipment.

Data indicating changes in dental patient radiation exposure, such as film speed, estimated ESE, and percentage of x-ray units exceeding recommended ESE range, were collected and analyzed for 2004 to 2009. It was discovered that there was a noteworthy downward trend in yearly average estimates of patient radiation exposures for the first 3 years, but in 2009, there was an upward spike of 46%. The downward trend was primarily due to the transition from slow film speed (D-speed)

and an increase in the number of dental x-ray units utilizing digital technology.

During scheduled surveys, dental departments with the highest estimated ESE values receive priority for additional follow-up services. Follow-up services include informing dental staff when values fall outside the recommended range and make recommendations for technique adjustment that bring the values back within range. Staff also inform providers about the need to move away from using D-speed film to using E/F-speed film. This change in film speed, along with appropriately adjusted exposure times, can reduce patient exposures to radiation by up to 60%. Even greater reductions are made when switching from D-speed film to a digital system.

The Bemidji Area Institutional Environmental Health Program has recognized and advocated the use of increased film speeds and digital dental systems that can reduce cancer risk to dental patients.

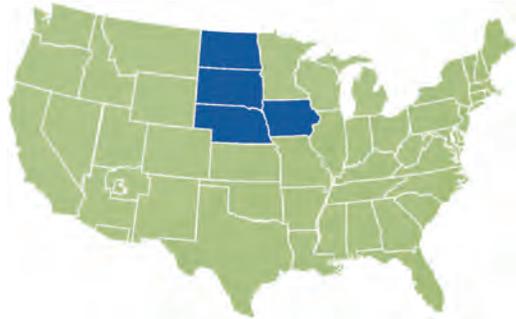
Area Reports





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.”

Aberdeen



ABERDEEN AREA

The Aberdeen Area IHS encompasses 18 tribes in 4 states (Iowa, Nebraska, North Dakota, and South Dakota) totaling 281,459 square miles. The Aberdeen Area is the fifth largest in IHS, with 2,139 facilities and a user population of 121,903 American Indians. EHS is one of three divisions (EHS, Sanitation Facilities Construction [SFC], and Facilities Management [FM]) within the Aberdeen Area OEH&E. The most valuable asset within the Aberdeen Area DEHS is its staff. The Aberdeen Area DEHS comprises career Tribal employees (11), Federal Civil Service (9), and PHS Commissioned Corps Officers (6). At the Area level, Aberdeen has a DEHS Director, an Area Injury Prevention Specialist, and an Institutional Environmental Health Officer (EHO). At the district level, this Area has three District Environmental Health staff located in Minot, North Dakota; Pierre,

South Dakota; and Sioux City, Iowa. At the field level, the Aberdeen Area DEHS staffs 14 offices with 21 Field Environmental Health Specialists and Injury Prevention Specialists. Seven of the field offices are contracted programs and managed by the Tribe. The other seven offices are direct service programs and staffed with Civil Service or PHS Commissioned Corps staff. Currently, 45% of the DEHS staff have their professional registration (Registered Sanitarian or Registered Environmental Health Specialist). DEHS district and field staff are responsible for providing surveys, technical assistance, and investigations at 1,898 general environmental health facilities listed in WebEHRS. The remaining 241 facilities are covered by the Institutional EHO. District and field staff spend approximately 60% of their time working on general environmental health issues and 40% of their time engaged in community injury prevention activities.

Injury prevention is a primary focus area for the Program because of the significant impact it has on the communities. For example, Aberdeen Area American Indian children (birth to 6 years of age) suffer a fire death rate three times higher than white children and a motor vehicle death rate seven times higher than white children. The health impact is clear as is the health disparity. One way the Tribes and the Aberdeen Area DEHS Program are working to address these two concerns is to partner with the IHS Head Start, the IHS Community Injury Prevention

Program, and the U.S. Fire Administration. In 2009, five Aberdeen Area Tribal Head Start Programs were selected for the national Sleep Safe Program, and one Aberdeen Area Tribe was selected for the national Ride Safe Program. These two programs provided 400 smoke alarms and 150 child safety seats to high-risk Head Start students and their families. Additionally, two Aberdeen Area Tribes are funded by the IHS Tribal Injury Prevention Cooperative Agreement Program to fund full-time Injury Prevention Coordinators (the Standing Rock Sioux Tribe and the Sisseton Wahpeton Oyate Tribe). During 2009, the Aberdeen Area had three individuals participate in the IHS Injury Prevention Fellowship Program.

During FY 2009, IHS DEHS used the Institute of Medicine's 10 Essential Services to guide the Aberdeen Area Performance Improvement activities. The priority issues for 2010 are as follows: (1) Implement proven injury prevention activities based on the 3-year Severe Injury Surveillance System profile for each location, (2) complete 50 to 60 man days factors (MDF) of priority facility surveys and 40 to 46 MDF for second-tier facilities for each EHS staff person, (3) increase occupant restraint use (Area-wide, 20% restraint use) throughout the Area by using proven intervention strategies, and (4) implement continuous quality improvement activities – typically team-based environmental health projects that address a significant public health issue at a larger facility.

Alaska



ALASKA AREA

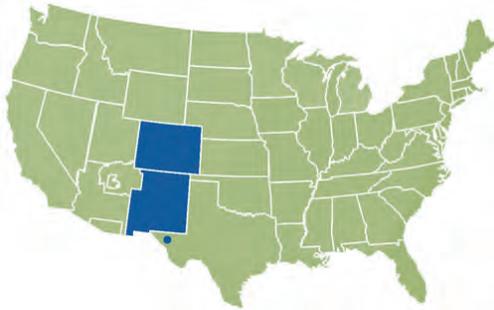
Environmental health programs in the Alaska Area are all tribally managed under the authority of Public Law 93-638, as amended. There are seven regionally based environmental health programs that serve a specific geographical area. These organizations include the Southeast Alaska Tribal Health Consortium (Sitka), 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, Inc. (Fairbanks), and the Alaska Native Tribal Health Consortium (ANTHC, of Anchorage).

These regionally based health organizations provide a full suite of basic consultative environmental health services for the communities and Tribes in their respective regions. 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, as well as injury prevention efforts. Additionally, several of the Tribal environmental health programs run 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.

ANTHC's environmental health program offers services and support on a statewide basis that are not normally available from the regional environmental health programs. For example, ANTHC provides institutional environmental health services and industrial hygiene support. ANTHC also provides environmental health research, water use promotion, and program consultation activities. The regional environmental health programs, together with ANTHC, offer communities and Tribes a comprehensive set of environmental health services that protect and enhance the well-being of Alaska Natives and American Indians.



Albuquerque



ALBUQUERQUE AREA

The Albuquerque Area DEHS Program serves 27 distinctly different, federally recognized Tribes in Colorado, New Mexico, Texas, and Utah. The estimated 2009 Albuquerque Area service population of 109,500 members comes from 20 Pueblos, 3 Navajo Nation Chapters, 2 Apache Reservations, and 2 Ute Reservations.

Environmental health services are performed across the Albuquerque Area by 17 EHS professionals detailed to the Area Office and the six service units. EHS professional positions include a DEHS Director, two District Supervising Environmental Health Officers (EHOs), one Supervising EHO, four Service Unit EHOs, one Injury Prevention Specialist, one Industrial Hygiene and Safety Manager, an Institutional EHO, and six Environmental Health Technicians (EHTs). Three of the staff hold Collateral-Duty Safety Officer positions in IHS medical facilities, and one of the EHTs performs Area-wide Injury Prevention Program duties half time.

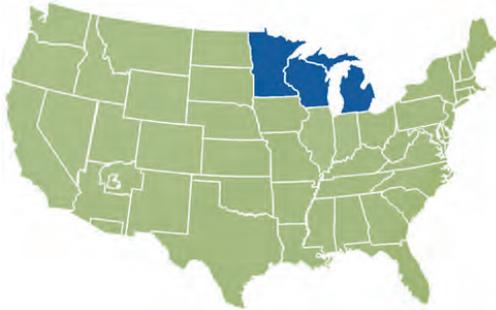
Environmental health services were first delivered in the Albuquerque Area around 1955, through the efforts of an Area Engineer and EHTs. Program staffing was expanded to include other specialists after the more formal establishment of the Area-wide DEHS Program. The Albuquerque Area, unlike other Areas, continues to receive unique Tribal liaison benefits by continuing the tradition of including EHTs as part of the DEHS workforce.

The current services offered to local Tribes include the traditional environmental health essential services of the DEHS Program. The Area-wide Emergency Management Program is also housed within the DEHS. This Program provides internal and external emergency response services, as well as ongoing community outreach activities. The Albuquerque DEHS

staff also partner with the Division of Sanitation Facilities Construction for surveys of water, wastewater, and solid waste systems; with the Division of Health Facilities for health facility plan reviews and equipment installation compliance reviews; and with the Division of Clinical Quality – the Public Health Nursing Program for case management of elevated blood lead levels in children. Although the Southern Ute Tribe, the Mescalero Apache Tribe, and the Alamo Navajo Chapter are not receiving direct EHS support from the Albuquerque Area, the DEHS provides administrative and technical advice, as well as “buy-back environmental health services,” to these entities through Public Law 93-638 (as amended) contract agreements.

The Albuquerque Area DEHS staff often participate in national program workgroups, and are called on to be trainers and/or to sponsor national EHS training for their peers and for Tribal members. The team also aspires to be the first DEHS Area Office to complete a program of the the Food and Drug Administration, the Voluntary National Retail Food Regulatory Program Standards. The Albuquerque Area DEHS strength is in its staff’s commitment to continuous program improvement.

Bemidji



BEMIDJI AREA

The Bemidji Area Indian Health Service (BAIHS) serves 34 Tribes occupying an area covering 5,183 square miles. Approximately 100,000 American Indians live within the BAIHS service area covering three states: Michigan, Minnesota, and Wisconsin. There are two district offices within the Area: Minnesota (Bemidji) and Rhinelander, Wisconsin. IHS DEHS staff comprise four IHS field Environmental Health Specialists (EHSs), two District EHSs, one DEHS Director, one Area Staff EHS, and one Area Institutional EHS. IHS DEHS staff provide field services to 19 Tribes; Tribal EHSs provide field services to 15 Tribes. All current IHS EHSs and 81% of Tribal EHSs have their professional registration (RS/REHS). DEHS staff are responsible for providing surveys of the 1,828 facilities entered in WebEHRs, providing technical assistance, conducting investigations, and performing other services in general and for implementing institutional environmental health and community injury prevention.

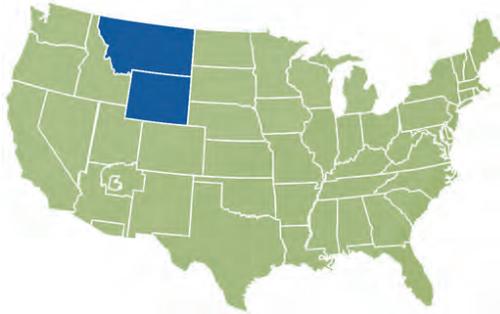
During 2009, the DEHS Community Injury Prevention earmark for special projects (\$91,300) was distributed to the Menominee Nation to implement an elder falls prevention project, and to five Tribes (Oneida, Stockbridge Munsee, Bad River/Ashland School, Forest County Potawatomi, and Red Lake) to participate in their second year of the Creating Caring Communities Bully-Proofing Your School Program. Funds supported a 2-day training retreat for core teams in Duluth, purchase of curriculum materials, and program activities and

evaluation. Our continuing partnership with IHS Head Start, the IHS Community Injury Prevention Program, and the U.S. Fire Administration resulted in funding of nine Tribes for the Sleep Safe Fire Safety Program and six Tribes for the Ride Safe Child Passenger Safety Program. These programs provided funding to BAIHS DEHS in the amount of \$64,135 to support a coordinator's workshop, curriculum, 911 smoke alarms, and 507 child safety seats for high-risk Head Start students and their families. Three Tribes were funded by the IHS Tribal Injury Prevention Cooperative Agreement Program to fund full-time Injury Prevention Coordinators (Oneida, Bad River [Northern Native American Health Alliance], and Fond du Lac).

At two staff retreats during FY 2009, IHS DEHS staff used the Institute of Medicine's 10 Essential Services framework to develop a program vision and program priorities. Four priority issues were identified to focus on in 2010 for development of standard operating procedures, indicators, and tracking tools: (1) food safety; (2) environmental stewardship; (3) institutional environmental health: radiation and nitrous oxide safety; and (4) injury prevention: violence prevention through the Creating Caring Communities Bully-Proofing Your School Program. In addition, IHS DEHS staff worked on developing and implementing a formal leadership development program based on principles of transformational and strengths-based leadership. Two IHS DEHS staff participated as core team members of the new IHS OEHE *Leadership Development Initiative*.



Billings



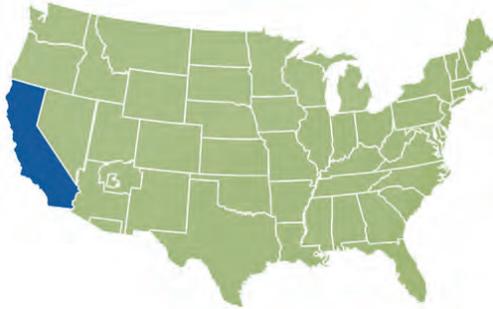
BILLINGS AREA

The Billings Area IHS serves 9 tribes (totaling 7,000 people) on 8 reservations throughout Montana and Wyoming. The Billings DEHS Program employs five staff, two work in field operations, two work in community injury prevention, and one works in institutional environmental health. Tribal programs that have contracted or compacted the DEHS Program in the Area employ six staff: Five work in field operations and one works in community injury prevention. Two federal staff members and one Tribal staff member are registered in environmental health. Three federal staff have completed the IHS Injury Prevention Fellowship Program, and two have a master's degree.

During 2009, of the 166 activities recorded in WebEHRS, 96% were surveys of facilities. The remaining activities were training provided at 3% and control at 1%.



California



CALIFORNIA AREA

The California Area Indian Health Service (CAIHS) DEHS serves 102 federally recognized Tribes and Bands throughout California.

According to the 2000 Census data, the Indian population in California is 333,346, and the population that stated they were American Indian and a combination of one or more other races was 294,216.

The CAIHS DEHS staff are divided among the Escondido District Office, Redding District Office, Ukiah Field Office, and the Sacramento Area Office. The CAIHS DEHS staff comprise six positions, including five Environmental Health Services (EHS) staff and one Environmental Engineer, currently serving as the Area Tribal Utility Consultant. All CAIHS DEHS staff have bachelor's degrees in environmental health or a related field, with an additional 83% of the staff earning an advanced degree. Other credentials the CAIHS DEHS staff possess are as follows: 83% have their REHS or RS, and 66% are credentialed Certified Hazardous Waste Operators.

CAIHS DEHS is directly responsible for providing environmental health surveys, investigations, technical assistance, program support, and numerous other services as they relate to field operations, institutional environmental health, and community injury prevention activities for 1,554 facilities.

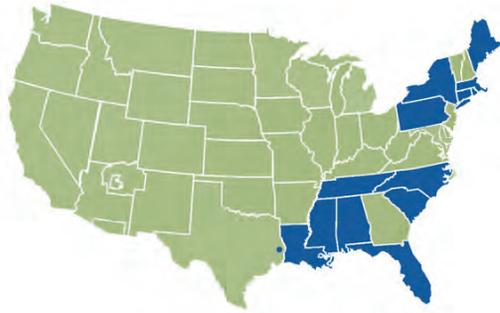
The EHS Program provides all field operations services that include, but are not limited to, technical assistance, facility plan review, food

service inspection, safety training courses, vector control, water quality, hazardous waste, solid waste management, indoor air quality, healthy housing, mold, and wastewater.

The Institutional Environmental Health Program is directly responsible for providing institutional services to the Tribal health programs. These services include accreditation assistance, radiological surveys, health and safety, infection control, bloodborne pathogens, Head Start Programs, childcare facilities, and Tribal schools.

The Community Injury Prevention (IP) Program has recently completed a statistical analysis for American Indian injuries from the State of California raw injury data. These data will provide Tribes with more up-to-date information to access injury prevention programs and grants. In addition, this Program is currently assisting and supporting two National IHS Tribal Injury Prevention Cooperative Agreement Programs and has co-sponsored several training courses. These training courses include IHS Intermediate Injury Prevention and two National Highway and Traffic Safety Administration Child Passenger Safety Technician certifications. The CAIHS IP Program provides mini-grants for the purchase of bike helmets, car seats, and smoke detectors. In 2009, the IP Program purchased 544 car seats, 481 bike helmets, and 202 smoke detectors.

Nashville



NASHVILLE AREA

Nashville Area Indian Health Service (NAIHS) serves 28 Tribes and an American Indian population of approximately 47,438. Thirteen states are covered by the NAIHS: Alabama, Connecticut, Florida, Louisiana, Maine, Massachusetts, Mississippi, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, and Texas. Currently, the NAIHS DEHS staff include one Director and one Injury Prevention Specialist.

The NAIHS DEHS provided or supported environmental health training courses in National Fire Protection Association Life Safety Code, FDA food service code, hazard communications/bloodborne pathogens, and WebCident that trained over 150 employees. Surveys of 164 facilities, including casinos, hotels, food service venues, healthcare facilities, and pools, were also completed. Critical Accreditation Association for

Ambulatory Health Care accreditation guidance was provided to the Catawba Health Clinic through the use of comprehensive safety reviews, mock accreditation surveys, training, and policy review. This guidance resulted in a successful renewal of the health clinic's 3-year accreditation. DEHS also provided Joint Commission accreditation guidance and professional services to the Choctaw Hospital under "buy-back" arrangements that resulted in the removal of their "conditional" accreditation and achievement of full accreditation.

Navajo



NAVAJO AREA DIVISION OF ENVIRONMENTAL HEALTH SERVICES

The Navajo Area DEHS is responsible for the delivery of services to American Indians in portions of the States of Arizona, New Mexico, and Utah (a region known as the 4-Corners Area of the United States). DEHS is primarily responsible for services to approximately 250,000 members of the Navajo Nation and Southern Band of San Juan Paiutes. The Navajo Nation is the largest Indian Tribe in the United States and has the largest reservation, which encompasses more than 25,000 square miles in Colorado, northeast Arizona, northwest New Mexico, and southern Utah, with three satellite locations in central New Mexico.

A comprehensive environmental health program is provided by Navajo Area IHS through the Field Operations Program, the Community Injury Prevention Program, and the Division of Occupational Health and Safety Management. The DEHS is centered at the Navajo Area Office located in Window Rock, Arizona, three district offices located in Fort Defiance, Arizona, Shiprock, New Mexico, and Gallup, New Mexico; and three service unit field offices located in Kayenta, Arizona, Many Farms, Arizona, and Crownpoint, New Mexico. Our 39 professional, technical, and clerical staff members work as a team to promote a healthy environment across the Navajo Nation.

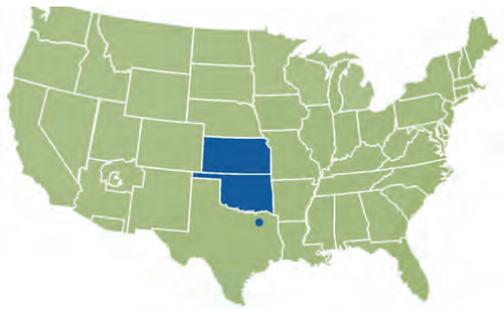
In addition to the service areas covered by the DEHS, three Health Care Corporations authorized by the Navajo Nation provide similar environmental health services. These services are provided by the Tuba City Regional Health Care Corporation (Tuba City, Arizona), Utah Navajo Health Systems (Utah strip portion of the Navajo Nation), and the Winslow Indian Health Care Center (Winslow, Arizona).

DEHS staff members plan and implement an environmental health and safety program with emphasis on food protection, prevention of motor vehicle crashes and falls, institutional environmental health, emergency preparedness, water and sewer sanitation, and prevention of zoonotic diseases including plague, rabies, hantavirus, and West Nile Virus. The staff also provide injury prevention training, food handler courses, and communicable disease prevention training to community and facility staff. In addition to field responsibilities, staff members participate on various facility and community committees.

Part of the Navajo Area DEHS Food Program is implemented by the Navajo Tribe, which operates the Navajo Division of Health in Window Rock, Arizona. The Navajo Nation provides inspection services, food handler training, and enforcement action for retail and itinerant food services on the reservation.



Oklahoma City



OKLAHOMA CITY AREA

The Oklahoma City Area IHS currently serves 42 Tribes and a service population of nearly 340,000. The service area covers the States of Kansas, Oklahoma, and Texas. The DEHS has two district offices in Okmulgee, Oklahoma, and Shawnee, Texas, and five field offices in Pawnee, Oklahoma, Lawton, Oklahoma, Holton, Kansas, Clinton, Oklahoma, and Miami, Oklahoma.

Our workforce ranges from eight Commissioned Officers in the U.S. Public Health Service to three federal civil service Environmental Health Officers (EHOs), who all have graduated from accredited environmental science universities and have obtained Oklahoma and National Environmental Health Association credentialing. They have received extensive education and training in conducting health, safety, and food service surveys. All the Field Operations staff have received FDA Procedures for Standardization and Certification of Retail Food Inspection training.

The Oklahoma City Area DEHS Program provides environmental health services that address elements such as food sanitation; solid and liquid waste management; water quality; hazard communication; epidemiology; vector control; emergency response; recreation/celebration sanitation; indoor/outdoor air quality; home sanitation and safety; Head Start, daycare, and school issues; and training.

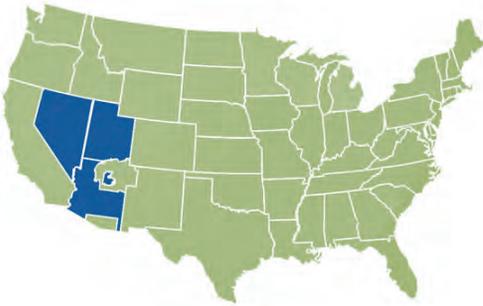
The DEHS is also responsible for two specialty fields, community injury prevention and institutional environmental health.

The purpose of the Community Injury Prevention Program is to reduce the incidence and severity of injury among American Indians. Program objectives are met by conducting injury surveillance surveys and identifying problem areas that can be solved through direct intervention and through community activities.

The Institutional Environmental Health Program assists healthcare facilities in providing a safe environment for patients, visitors, and staff. The Institutional EHO provides direct technical assistance to safety committees, infection control committees, facilities management, and others. In addition, the Institutional EHO is responsible for conducting annual radiation protection surveys of all x-ray equipment to ensure that there is no unnecessary exposure to radiation and for conducting other industrial hygiene activities in those facilities.



Phoenix



PHOENIX AREA

The Phoenix Area IHS DEHS serves 46 Tribes/ Tribal organizations with a combined population of nearly 150,000, in over 2,000 facilities, and in 4 states (Arizona, California, Nevada, and Utah). A cadre of 20 Commissioned Corps Environmental Health Officers accomplish the work of the DEHS. These staff are located in the Area Office (n=2); three district offices (n=6); and nine service units/field offices (n=12). The skills and competencies of the division staff are illustrated by all having bachelor's degrees in Environmental Health or a related field, 60% having advanced graduate degrees, and 70% being professionally credentialed (RS or REHS).

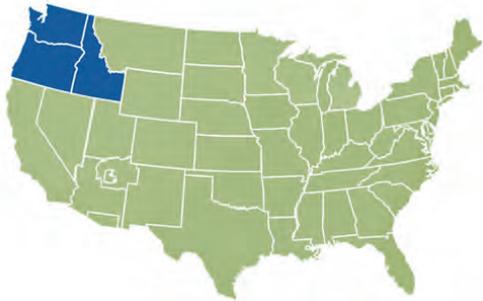
The scope of its services focuses on three functional areas: Field Operations, Institutional Environmental Health (IEH), and Community Injury Prevention.

The Field Operations Program 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. Recent staff work has led to accomplishments in responding to a Rocky Mountain spotted fever epidemic, reducing lead poisoning risk among school children, and establishing a comprehensive Tribal animal control program.

The IEH Program provides industrial hygiene services, accreditation consultation, and a variety of safety training to IHS and Tribal healthcare facilities. The Program values close mentorship of new Safety Officers in fire safety, hazardous materials, security, and safety program management. The IEH team also provides technical support to DEHS staff consulting on community institutions such as childcare centers, correctional facilities, and schools. As the Phoenix Area Emergency Management Point of Contact, the Program ties Tribal communities and IHS healthcare facilities into the resources of the national response framework and coordinates a network-wide response to local disasters (i.e., flooding, forest fires, and mass vaccination).

The Community Injury Prevention Program places priority on epidemiology, training, partnership building, and the development of proven intervention strategies to reduce the risk of death and disability due to injuries. Staff provide public health expertise in the prevention of both unintentional injury (i.e., motor vehicle crashes and falls) and intentional injury (i.e., suicide and assaults). Mini-projects, funded through the Community Injury Prevention Program, currently support three suicide prevention initiatives and four elder fall prevention projects. In addition to technical assistance, close mentoring is provided to three Tribal IP Programs funded by the multi-year IHS Tribal Injury Prevention Cooperative Agreement Program.

Portland



PORTLAND AREA

The Portland Area IHS provides access to health care for an estimated 150,000 Indian residents of the 43 federally recognized Tribes located in Idaho, Oregon, and Washington. Health delivery services are provided by a mix of health centers, health stations, preventive health programs, and urban programs.

In addition, the Northwest Portland Area Indian Health Board (www.npaihb.org) works closely with the Portland Area Office, operating a variety of important health-related programs on behalf of their member Tribes, including the Northwest Tribal Epidemiology Center.

The IHS DEHS Program provides comprehensive environmental health services to American Indian and Alaska Native (AI/AN) communities through a network of community-based DEHS professionals. The DEHS is a critical part of the IHS preventive care programs.

The purpose of the DEHS Program is to address a wide range of environmental conditions in AI/AN homes and communities that contribute to high morbidity and mortality among AI/AN people. The environment, which includes the home, community, and workplace, as well as the natural surroundings, is recognized as a vital factor in a person's overall health and well-being.

The DEHS is administered through three programmatic focus areas. In addition to the



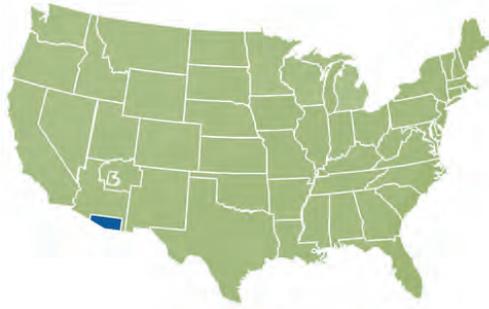
three below, the Portland Area also focuses on Area Program Management:

- Field Operations
- Community Injury Prevention
- Institutional Environmental Health

In the Portland Area, 22 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 DEHS direct services are provided by six staff, four of whom are located in field offices throughout the region.

The Ten Essential Public Health Services provide a nationally accepted framework to describe public health activities needed to achieve the goal of healthy people in healthy communities. The Portland Area DEHS uses the modified Ten Essential Environmental Health Services to define its Program, clarify its role in public health, and plan its activities to achieve maximum public health benefits.

Tucson



TUCSON AREA

The Tucson Area Indian Health Service (TAIHS) developed out of an effort to curb tuberculosis outbreaks among Indian communities in the very early 1930s. After the Indian Oasis Papago Hospital in Sells burned down in 1947, the Papago Indian Sanatorium was converted into a hospital and then in 1965 into an outpatient clinic, and continues to serve the San Xavier Indian community and other Tribally enrolled members. In 1964, the Public Health Services Sells Indian Hospital (34 beds) was constructed to serve the needs of the then Papago Tribe, now known as the Tohono O'odham Nation. Eventually, the concept of operations formalized into the Office of Health Programs and Research and Development and into the present-day Tucson Area IHS in 2000.

Today, the TAIHS serves two Tribes: Tohono O'odham Nation and the Pascua Yaqui Tribe of Arizona (PYTAZ). The total land base equates to nearly 3.2 million acres, an area about the size of the State of Connecticut. The Tohono O'odham Nation's southernmost boundary shares about 62 miles of contiguous boundary with Mexico. Respectively, the Tohono O'odham Nation has approximately 25,000 enrolled Tribal members, and the PYTAZ has approximately 5,000 enrolled Tribal members. The Tohono O'odham are all direct service, and the PYTAZ have mostly compacted and contracted the majority of their services, except for environmental health. Three field (service unit and district) personnel and one Area person staff the TAIHS Environmental Health Services Branch (EHSB). The EHSB

continues to provide basic environmental health services in an effort to raise the Tribes' health status to the highest level.

As a team, the EHSB has the responsibility to survey and report to Tribal and federal operators on the environmental health and safety of 369 federal and Tribal facilities, tracked through WebEHRS. Historically, the facility survey completion rate overall has risen from 36.5% in December 2007 to 45.6% in December 2008, peaking at 52% by the close of March 2009. Given the precarious workload, the EHSB team has done an exceptional job at reaching a peak of 52% completion of the 369 surveys for which they are responsible.

As a team, the EHSB must conduct annual rabies vaccination clinics because rabies is endemic to the areas where Tucson Area Tribes reside. In 2009, the branch's rabies vaccination clinics were conducted jointly between IHS and two U.S. Army Veterinarians. The branch was able to utilize two vaccination teams at the same time, each led by a U.S. Army Doctor of Veterinary Medicine. The branch was able to vaccinate 974 dogs and cats in 6 days instead of the usual 10 to 11 days in usually 100°F plus-degree heat. Under similar circumstances in 2008, the EHSB was able to vaccinate only 739 dogs and cats.

In 2009, EHSB staff provided food handler training to 521 people, investigated numerous dog bites, increased seat belt usage rates from 43% to 75%, brought Tai Chi classes to elders to prevent falls, and identified 52 Life Safety Code violations at 4 local Bureau of Indian Affairs schools.

Looking Ahead into 2010



For CY 2010, the DEHS Program looks forward to accomplishing the following:

- The DEHS will continue to be guided by the IHS Director's four priorities:
 - To renew and strengthen our partnership with Tribes
 - In the context of national health insurance reform, to bring reform to IHS
 - To improve the quality of and access to care
 - To make all our work accountable, transparent, fair and inclusive
- Each Area will evaluate the effectiveness of the three interventions they implemented in 2009 that were expected to improve previously identified environmental health indicators.
- Each Area will evaluate the effectiveness of the comprehensive intervention they implemented in 2009 that was expected to increase seat belt use rates.
- The contract to replace the current Web-based Environmental Health Reporting System will be awarded.
- More Areas will adopt and use the Notifiable Disease and External Cause of Injury reporting system to extract Resource Patient Management System data.
- The DEHS Program will continue to design and advocate for implementation of the IHS Environmental Stewardship Plan.
- The IHS Community Injury Prevention Program will fund approximately 40 Tribal Community Injury Prevention Programs and projects for up to 5 years through the Tribal Injury Prevention Cooperative Agreement Program.
- The use of environmental health program assessments will be expanded to improve program effectiveness.
- An action plan will be developed for one of the five environmental health priorities identified in 2009.
- The robust effort will continue on the four Primary Vision Element Teams, with major deliverables completed by each team.

IHS Area EHS Program Directory

Aberdeen Area/DEHS
115 4th Avenue S.E.
Aberdeen, SD 57401
Ph. (605) 226-7597

Alaska Area/OEHE
4141 Ambassador Drive, Suite 300
Anchorage, AK 99508-5928
Ph. (907) 729-3623

Albuquerque Area/DEHS
5300 Homestead Road, N.E.
Albuquerque, NM 87110
Ph. (505) 248-4947

Bemidji Area/EHSS
522 Minnesota Avenue N.W.
Bemidji, MN 56601
Ph. (218) 444-0503

Billings Area/OEHE
2900 4th Avenue North
Billings, MT 59101
Ph. (406) 247-7098

California Area/DEHS
650 Capitol Mall, Suite 7-100
Sacramento, CA 95814
Ph. (916) 930-3945, ext. 336

Nashville Area/DEHS
711 Stewarts Ferry Pike
Nashville, TN 37214-2634
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) 951-3852

Phoenix Area/DEHS
40 North Central Avenue, Suite 720
Phoenix, AZ 85004
Ph. (602) 364-5078

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 85746-7012
Ph. (520) 295-5629

The Environmental Health Services Program

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INDIAN HEALTH SERVICE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

INDIAN HEALTH SERVICE

Division of Environmental Health Services

801 Thompson Avenue, TMP 610

Rockville, MD 20852

Website: www.dehs.ihs.gov



Environmental Health Services

• *Healthy Environments = Healthy People* •