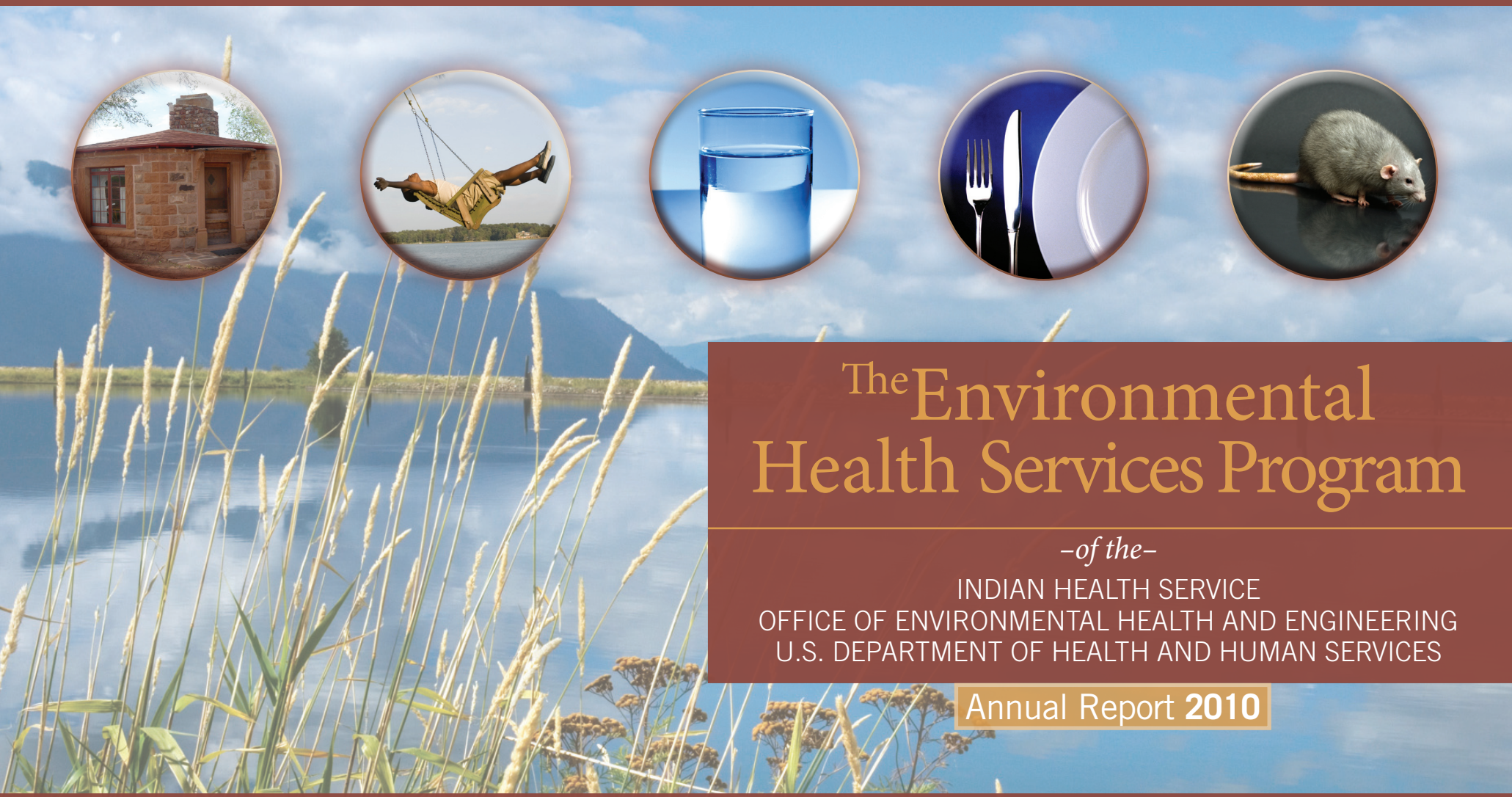
INDIAN HEALTH SERVICE
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES



The Environmental Health Services Program

–of the–

INDIAN HEALTH SERVICE
OFFICE OF ENVIRONMENTAL HEALTH AND ENGINEERING
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Annual Report **2010**

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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Annual Report 2010

This Annual Report for Calendar Year 2010 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: http://www.dehs.ihs.gov

Message from the Division Director

KELLY M. TAYLOR, M.S., R.E.H.S.
Division of Environmental Health Services

I am proud to present the Division of Environmental Health Services (DEHS) Annual Report 2010. This report covers activities and projects conducted by Indian Health Service (IHS) and Tribal/Corporation environmental health partners throughout the nation. The intent of the report is twofold: to capture historical program information so that it will not be lost to the ages and to highlight activities and accomplishments that address the five DEHS national program focus areas. All of our activities support the four IHS priorities.

IHS PRIORITIES

1. To renew and strengthen our partnership with tribes;
2. To reform IHS;
3. To improve the quality of and access to care; and
4. To make all our work accountable, transparent, fair, and inclusive.

Although the DEHS addresses almost every public health initiative in some capacity, we identified five national focus areas. Each IHS Area is encouraged to continue to identify and work on local priorities, using maximum stakeholder input, but when it comes to defining need and identifying roles and responsibilities nationally, we have agreed to focus on these areas. IHS DEHS has already identified community injury prevention as a priority for our program, and it has been and will continue to be our biggest community need. We have merely followed the lead of the injury prevention program and narrowed our focus so that we can (hopefully) see greater impact.

With scrutiny of federal budgets and the enhanced reporting requirements for the American Recovery and Reinvestment Act funding, IHS saw a renewed emphasis on accountability in 2010. It is equally important that we not only account for our actions, but that we demonstrate those actions are effective. For the last 5 years, our national performance measures have been directed toward identifying "model" or "best" practices that impact community health, but it has always been difficult to show impact when our activities prevent something from happening in the first place. Throughout this report, we tried to highlight Area activities that demonstrate impact. In this time of enhanced accountability, it is critical that we all demonstrate the effectiveness and impact of our actions.

Nationally, we accomplished many of the objectives planned for this year. Areas compared their environmental surveillance and injury intervention performance measures with their baseline measures to evaluate the effectiveness of their activities. Some Areas saw improvements, whereas others saw the opposite effect, but all were able to identify activities that did or did not work. We awarded the contract for a new Environmental Health (EH) data system to Custom Data Processing, Inc. (CDP), and have worked closely with stakeholders and CDP to clarify requirements. The Community Injury Prevention Program awarded 40 Injury Prevention Cooperative Agreements, of which 33 provided funding for a full-time employee dedicated to coordinating the Tribal Injury Prevention Cooperative Agreement Program (TIPCAP). We completed the deliverables on a third Vision Element and made progress on the remaining two. The DEHS continued to implement the IHS Environmental Stewardship Plan by transitioning to an Organizational Environmental Management System. NDECI, the Notifiable Disease and External Cause of Injury reporting system, continues to be adopted by Areas, though slowly. The five national EH focus areas have been used in budget justifications, but an implementation plan still needs to be developed.

I hope you will enjoy reading about IHS DEHS projects and activities across the country. I welcome your input on how we can better serve the American Indian and Alaska Native people and demonstrate our effectiveness.

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The Environmental Health Services Program Annual Report 2010

Profile of the DEHS Program

PROGRAM MISSION

The 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.

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 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 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 2010, the DEHS Program consisted of a total of 299 staff, including the 6 HQ staff positions.

PROGRAM RESOURCES

The current budget of the DEHS Program is approximately $27.7 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 2010, and based on the workload-based Resource Requirement Methodology (RRM), the DEHS share of the EHSA budget was approximately 36%.

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
2010	$69,196,000	35.74%	$24,730,653	$176,000	$0****	$100,000	***	$2,779,000	$27,785,653

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.
****There were no Injury Prevention Fellows selected for Calendar Year (CY) 2010; therefore, no money was allocated.

Figure 1, below, depicts a historical comparison of the workload-based RRM versus the distribution of Program funds from 2001 to 2010.

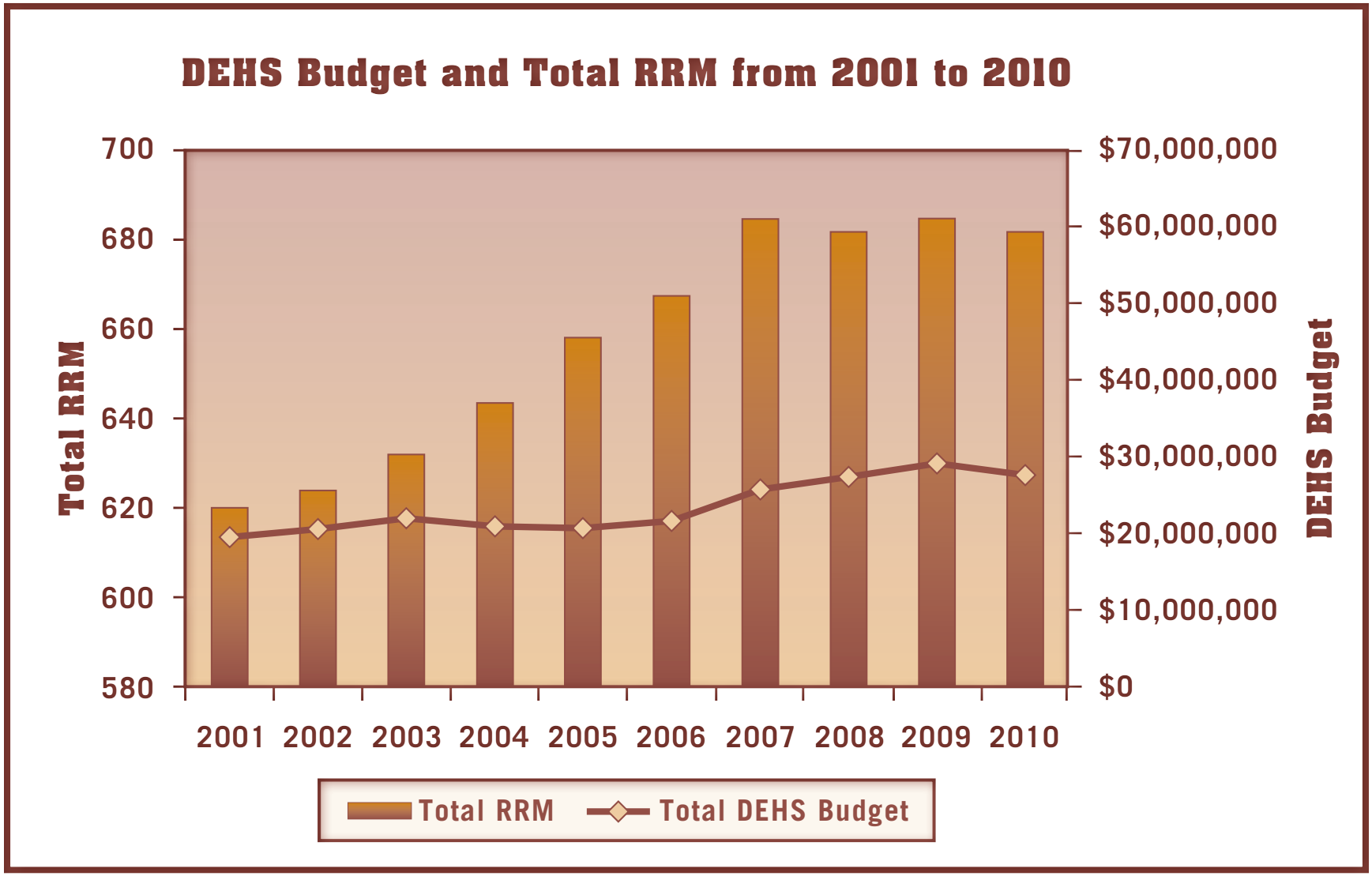


Figure 1: RRM (workload) vs. actual DEHS funding from 2001 to 2010

Table 2 displays the current level of need funded (LNF) for each of the 12 Areas; the data represent both IHS staff and tribal staff.

Table 2: LNF for 2010

LNF 2010			
Area	Tribal & IHS Staff*	RRM	%LNF
Aberdeen	28	54.7	51.2%
Alaska	35	91.5	38.3%
Albuquerque	23	35.7	64.4%
Bemidji	26	49.9	52.1%
Billings	15	32.5	46.2%
California	12	47.8	25.1%
Nashville	36	43.6	82.6%
Navajo	46	110.0	41.8%
Oklahoma	26	89.1	29.2%
Phoenix	29	67.7	42.8%
Portland	12	47.3	25.4%
Tucson	5	11.7	42.7%
Total	293	681.5	43.0%

* Includes tribal staff hired with IHS Cooperative Agreement funds.

As Table 2 shows, the DEHS Program strives to accomplish its tasks at a funding level of 43% 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; and
- Consumer Product Safety Commission.

EDUCATION AND RECOGNITION

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 540 training sessions during 2010 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 41 classes.

Successful delivery of environmental health services to tribal communities rests on the foundation of a competent and motivated workforce. Figure 2 shows the numbers of student externs hired for the past 20 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 Fiscal Year (FY) 1996 and by FY 1999 was back to pre-1994 levels. During 2010, the DEHS supported 24 externs.

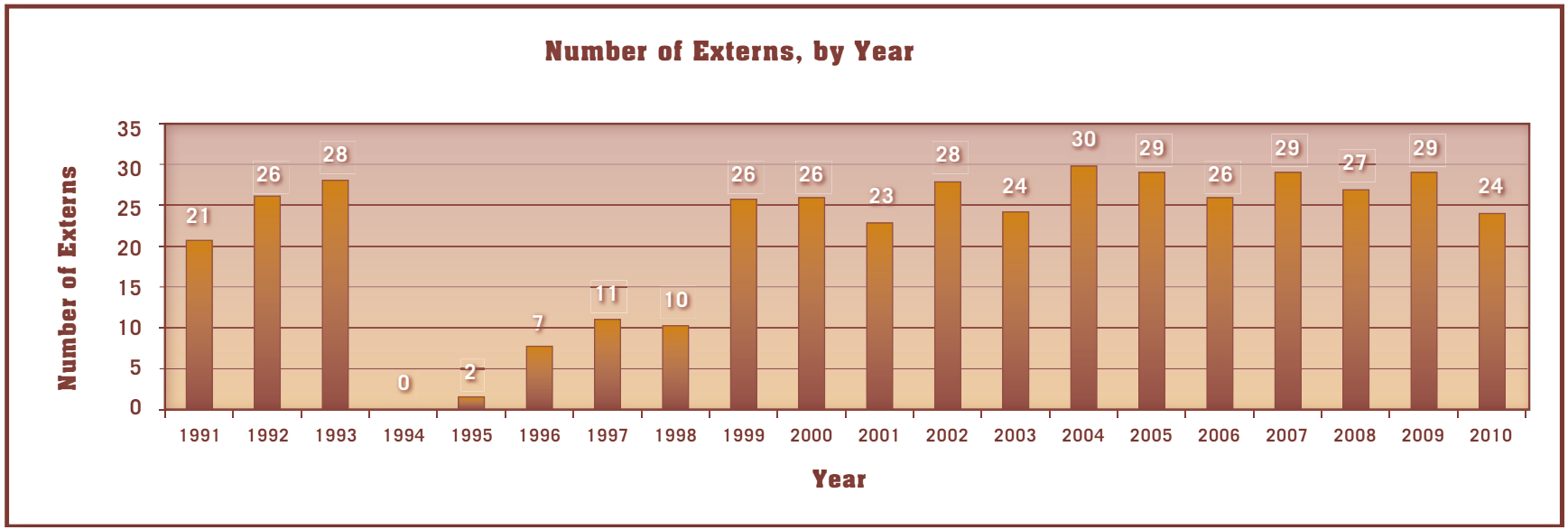
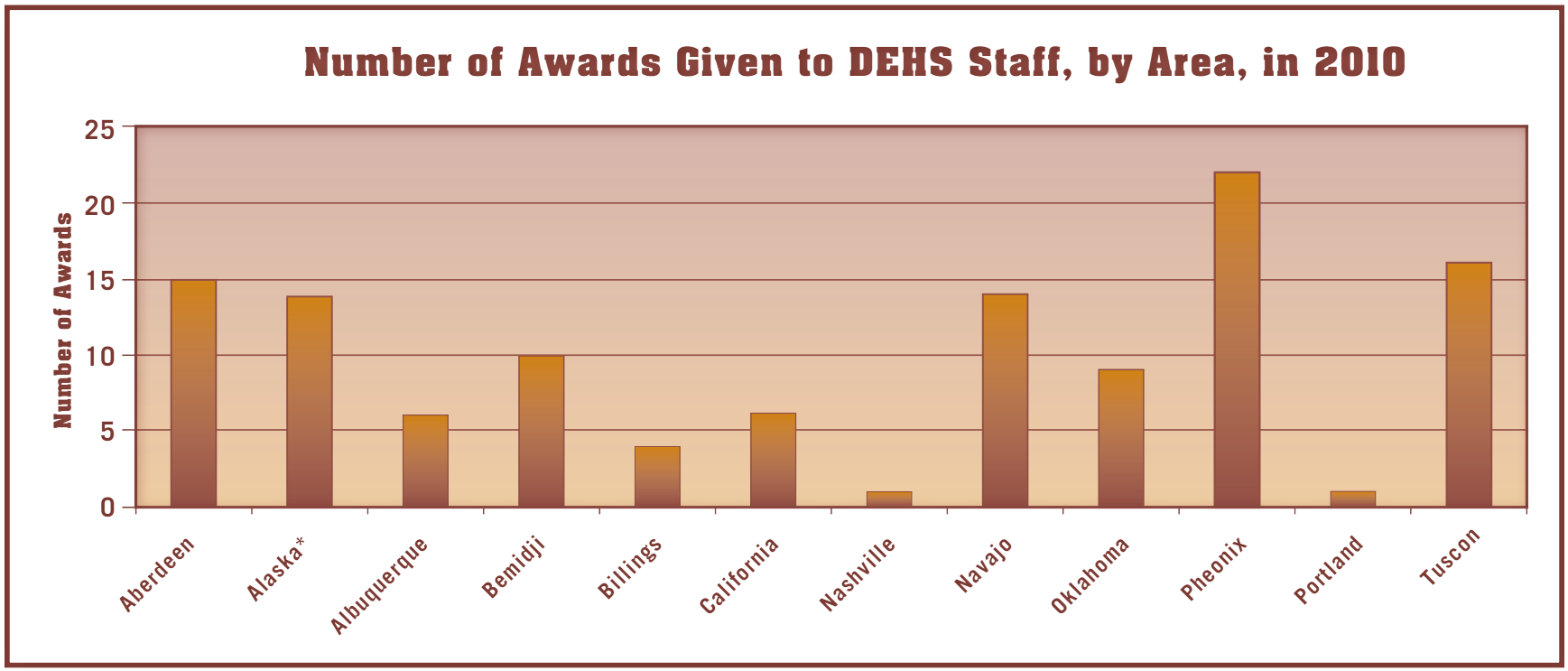


Figure 2: Number of college students participating in the DEHS extern program, by year

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 22 DEHS staff funded by IHS for college courses in 2010. Of the 22, 18 were federal employees and 4 were tribal employees. Staff in 7 of the 12 Areas received long-term training support. One additional staff member graduated in June 2010 from the Uniformed Services University of the Health Sciences with a Master of Public Health degree as part of the Career Development Opportunity for staff Environmental Health Officers (EHOs) and Engineers that is shared between the DSFC and the DEHS at Headquarters.

Staff recognition is another important aspect of DEHS retention efforts. Figure 3, below, illustrates the number of awards given to federal staff, by Area, in 2010. Table 3, on the next page, shows the distribution of U.S. Public Health Service (PHS), IHS, and tribal awards presented to DEHS staff during CY 2010.



* Alaska tribal staff are included.

Figure 3: Number of awards given to DEHS staff, by Area, in 2010

Table 3: Summary of Awards Received by DEHS Staff in CY 2010

Award Type	AB	AK	AQ	BE	BI	CA	NS	NV	OK	PH	PO	TU	TOTAL
PHS Awards													
Outstanding Service Medal					1				1				2
Commendation Medal		1						2				1	4
PHS Achievement Medal		1		2		2				1		2	8
PHS Citation		1	1	2					1	3		1	9
Crisis Response Service Award												1	1
Outstanding Unit Citation													0
Unit Commendation		8	1			1		3	1	11		1	26
Isolated Hardship		3											3
Training Ribbon			1			1				1			3
Field Medical Readiness Badge								1					1
Foreign Duty Award													0
Special Assignment Award				3	1	2	1	2	2	3		2	16
Hazardous Duty		1											1
Recruitment													0
IHS Area Awards	10		1	1	1			1	2	2		7	28
Civil Service Personnel Awards	3			1	1			3	2		1	1	12
National IHS Awards	1		2						1				4
Other National Awards	1			1				2	1				5
Tribal Awards										1			1
TOTAL AWARDS	15	15	6	10	4	6	1	14	11	22	1	16	124
Percentage of Staff Receiving Awards													
Federal	56%	NR	92%	66%	21%	83%	33%	NR	NR	57%	NR	100%	
Tribal	28%	NR	NR	NR	NR	NR	0%	NR	NR	0%	NR	0%	

NR = No Report

Figure 4, below, shows the distribution of DEHS staff (N=299) within the national program. Environmental Health (EH) Specialists, Community Injury Prevention Specialists, and Institutional Environmental Health Specialists.

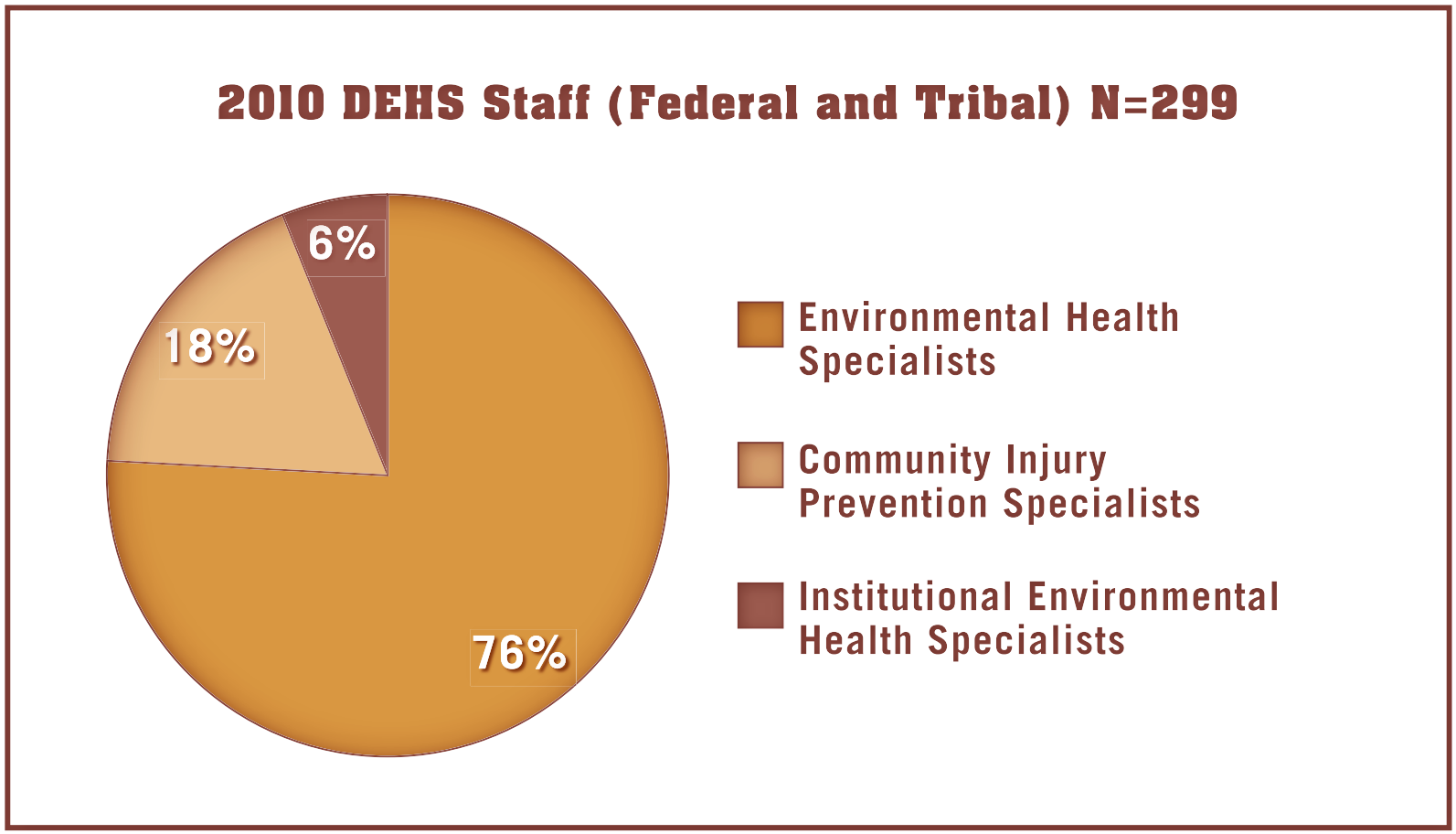


Figure 4: Distribution of DEHS staff within the national program

Twenty-nine percent (29%) of all DEHS staff, including federal and tribal employees, have master's degrees in Public Health or a related field. Forty-five percent (45%) of federal staff and 17% of tribal staff have this advanced degree. Figure 5 presents a breakout by discipline. Ninety-four percent (94%) of Institutional Environmental Health staff have master's degrees. Environmental Health Specialists follow with 27% and Community Injury Prevention Specialists with 19%.

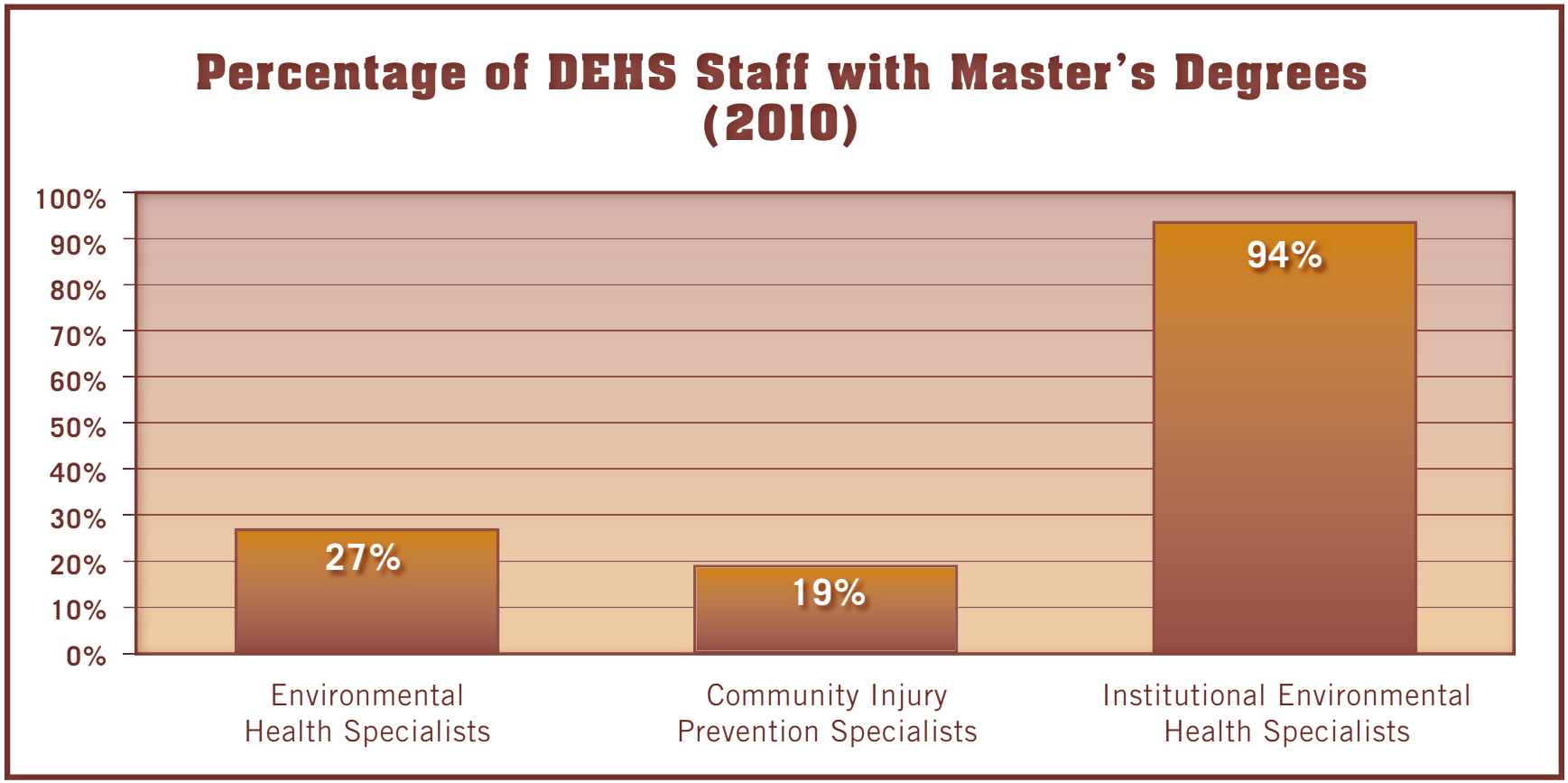


Figure 5: Percentage of DEHS staff with master's degrees

Fifty-two percent (52%) of all DEHS staff are Registered Sanitarians (RSs) or Registered Environmental Health Specialists (REHSs), with 69% of federal staff and 39% of tribal staff registered. Figure 6, on the next page, summarizes registration according to specialty. Registration is highest in the Institutional Environmental Health Program, with 88% of federal staff registered.

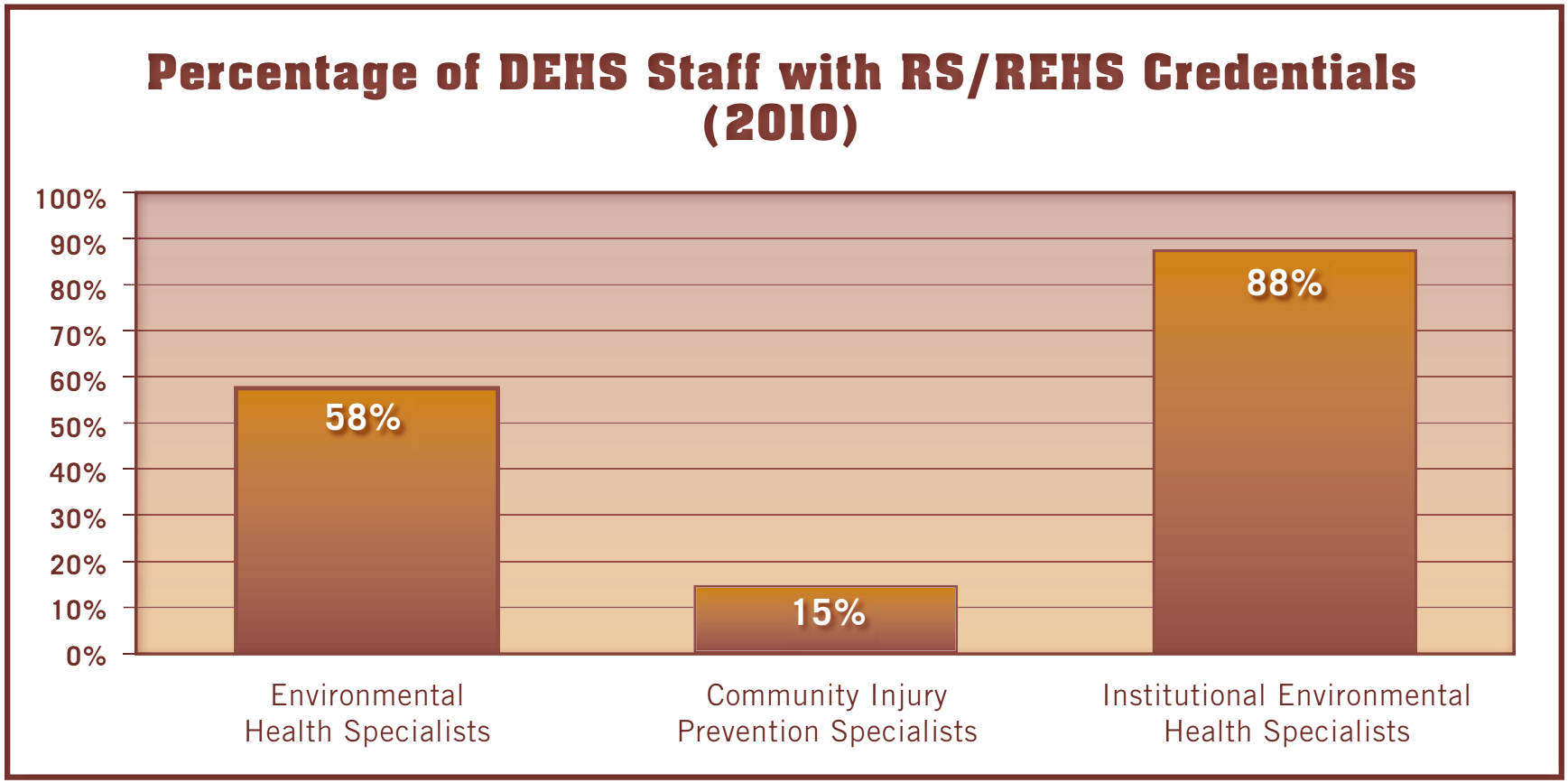


Figure 6: Percentage of DEHS staff with RS or REHS credentials

Twenty-three percent (23%) of all DEHS staff have completed the IHS Injury Prevention Fellowship Program; 17% are Child Passenger Safety Technicians; and 9% have met Food and Drug Administration (FDA) standards to conduct retail food service inspections. Table 4, on the next page, summarizes these and other credentials.

Table 4: Summary of DEHS Staff Certifications

Federal and Tribal Staff	Environmental Health Specialist*	Community Injury Prevention Specialist*	Institutional Environmental Health Specialist*	Total DEHS Budget
Registered Sanitarian/Registered Environmental Health Specialist/ Other State Registrations	132	8	15	155
IP Fellow	50	15	4	69
Certified Safety Professional	2	0	4	6
Certified Industrial Hygienist	1	0	3	4
Certified in Infection Control	1	0	0	1
Child Passenger Safety Technician	42	10	0	52
Certified Playground Inspector	30	0	0	30
Certified Radiation Protection Surveyor	3	0	10	13
Certified Environmental Health Technician	6	0	0	6
Diplomate, American Academy of Sanitarians	3	0	1	4
Certificate of Health Care Environmental Management	3	0	2	5
FDA Standards	27	0	0	27
Lead/Asbestos Certification	3	0	5	8
Institutional Environmental Health Residency	1	0	12	13

*Only full-time specialists were counted.

PROGRAM VISION

In addition to Area efforts to develop policies and plans, program strategic planning continued to be a major national emphasis during 2010. 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.

A summary of the accomplishments of the teams in 2010 follows:

- **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 children's environment, safe drinking water, food safety, vectorborne and communicable diseases, and healthy homes. 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 (the Web-based Environmental Health Reporting System). 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 have procured the services for this system. The contract for the development of the system was signed in 2010, and it is currently in the development stage. The new system is expected to roll out for field use by the end of 2011;
- **Team 3 – Standardized Guidelines:** This team has taken on the task of rewriting Chapter 11 of the Indian Health Manual. This chapter establishes the policy, objectives, responsibilities, and functions of a comprehensive community-based Environmental Health and Engineering Program. During 2010, the team developed a new draft of Chapter 11 that is under 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. The final document was completed in 2010; and
- **Team 5 – Effective Marketing to Internal and External Stakeholders:** In 2009, a Vision Element was added to the four Primary Vision Elements. It was found that there was a need to develop communication tools in order to demonstrate to our customers (the communities served, HHS and IHS personnel, and external partners) the breadth of our Program and positive impacts made on the health and well-being of tribal members. The team is charged with the development of a DEHS marketing toolbox that provides DEHS personnel with presentation materials for effective communication of Program components, capacity, strengths, and achievements to a variety of audiences.

Throughout 2010, the teams conducted virtual team meetings, typically on a monthly basis.

DEHS

Operating Philosophy and Services

OUR OPERATING PHILOSOPHY

The operating philosophy of the Division of Environmental Health Services (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 American Indian/Alaska Native (AI/AN) 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, five national focus areas were developed: children's environment, safe drinking water, food safety, vectorborne and communicable diseases, and healthy homes. Details on Program projects conducted throughout the tribal communities served by the DEHS Program can be found on the following pages.

CORE SERVICES TO AI/AN COMMUNITIES

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

2010 DEHS Program Performance
Service to over 19,000 facilities
More than 7,000 surveys
Over 330 environmental health investigations
More than 500 training activities

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 19,082 facilities during 2010 (Source: Web-based Environmental Health Reporting System [WebEHRS] Reports, National Establishment Counts, FY 2010). These services included 10,794 activities with 7,276 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 336 investigations conducted and 540 training sessions provided.

In 2009, five national focus areas were developed: children's environment, safe drinking water, food safety, vectorborne and communicable diseases, and healthy homes. Details on Program projects conducted throughout the tribal communities served by the DEHS Program can be found in the DEHS National Focus Areas section of this document.

In 2010, an Implementation Team continued to serve as a "board" to review inquiries for use of the DEHS patient safety data, address user interface problems and questions, and recommend and review enhancements and changes to the Notifiable Disease and External Cause of Injury (NDECI) Web-based data retrieval system. The NDECI 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.

SPECIALIZED SERVICES TO AI/AN COMMUNITIES

The DEHS provides specialized services in community injury prevention and institutional environmental health for focused support and consultation. Community Injury Prevention Specialists 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 Specialists have skills to identify, evaluate, and respond to unique environmental safety hazards found in healthcare, educational, childcare, correctional, and industrial facilities. Special accomplishments for the two specialized services can be found in the next section of this report.

COMMUNITY INJURY PREVENTION PROGRAM

In 2010, 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 seats, (2) advocacy meetings with tribal councils, (3) awareness campaigns in communities, (4) implementation of primary seatbelt 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 (TIPCAP) funding that included at least one component of a comprehensive motor vehicle occupant restraint program.

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; 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 2005 to 2010

award cycle of 5-year Cooperative Agreements totals more than $1 million to 32 tribes, beginning in Fiscal Year (FY) 2005. In 2010, the program was announced for another cycle that began in September and will run through 2015. The program included an increase from $50,000 to $65,000 for 5 years to 16 tribes. Seven tribes were awarded grants for small projects at $10,000 for 3 years. There were also 17 tribes awarded continuing funding for $80,000 for 5 years. In 2010, the Community Injury Prevention Program distributed approximately $2.47 million through TIPCAP. A summary of this funding, by tribe, is presented in Table 5, on the following pages.

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

Table 5: IHS TIPCAP Funding

	Funding Cycle	1997 to 2000		2000 to 2005			2004		2005 to 2010			2010 to 2015		
	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	$65,000 for 5 yrs	$80,000 for 5 yrs	$10,000 for 3 yrs
1	United Tribes Technical College	X		X										
2	Pueblo of Jemez	X		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 & Sioux Tribes	X												
7	Hoopa Valley Tribe	X		X										
8	Miccosukee Corporation	X												
9	Osage Nation of Oklahoma	X								X				
10	Sac & 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	South East Alaska Regional Health Consortium			X					X				X	
22	Kodiak Area Native Association			X										
23	Fond Du Lac Reservation			X					X				X	
24	Bad River Band of Lake Superior Tribe of Chippewa Indians			X									X	
25	Rocky Boy Tribal Health			X										
26	St. Regis Mohawk Tribe			X										X
27	Eastern Band of Cherokee Indians			X										
28	Hardrock Chapter			X					X				X	
29	Navajo Nation			X					X				X	
30	Colorado River Indian Tribes			X								X		
31	First Mesa Consolidated Villages			X										

Table 5: IHS TIPCAP Funding (continued)

	Funding Cycle	1997 to 2000		2000 to 2005			2004		2005 to 2010			2010 to 2015		
	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	$65,000 for 5 yrs	$80,000 for 5 yrs	$10,000 for 3 yrs
32	Reno-Sparks Indian Colony			X								X		
33	California Rural Indian Health Board, Inc.			X					X				X	
34	Chickasaw Nation			X										
35	Caddo Nation			X					X					
36	Comanche Nation of Oklahoma			X										
37	The Kaw Nation			X					X				X	
38	Pascua Yaqui Tribe of Arizona			X										
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			X
45	Wichita and Affiliated Tribes				X									
46	White Mountain Apache Tribe				X					X				
47	Ak-Chin Indian Community				X									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			X	
53	Sisseton-Wahpeton Oyate of the Lake Traverse						X			X			X	
54	Norton Sound Health Corporation						X			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			X	
62	Bristol Bay Area Health Corporation									X			X	
63	San Felipe Pueblo									X			X	
64	Indian Health Council, Inc.									X			X	
65	Standing Rock Sioux Tribe									X				
66	Kiowa Tribe of Oklahoma									X			X	
67	Quechan Indian Tribe									X			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			

Table 5: IHS TIPCAP Funding (continued)

	Funding Cycle	1997 to 2000		2000 to 2005			2004		2005 to 2010			2010 to 2015		
	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	$65,000 for 5 yrs	$80,000 for 5 yrs	$10,000 for 3 yrs
71	Chitimacha Tribe of Louisiana										X			X
72	Nambe Pueblo										X			
73	Sapulpa Indian Health Center										X			
74	Seneca-Cayuga Tribe of Oklahoma										X			
75	Gila River Indian Community											X		
76	San Carlos Apache											X		
77	Hualapai Tribe											X		
78	Northwest Washington Indian Health Board											X		
79	Northwest Portland Area Indian Health Board											X		
80	Oglala Tribe											X		
81	Great Plains Tribal Chairmen's Health Board											X		
82	Maniilaq Association											X		
83	Tanana Chiefs Conference											X		
84	Ho-Chunk Nation											X		
85	Menominee Indian Tribe of Wisconsin											X		
86	Tule River Indian Tribe											X		
87	Tuba City											X		
88	Absentee Shawnee Tribe											X		
89	Southern Ute Indian Tribe													X
90	Walker River Paiute Tribe													X
91	Greenville Rancheria													X

In collaboration with the IHS *Primary Care Provider*, beginning in 2007, every July issue will be dedicated to injury prevention. The 2007, 2008, 2009, and 2010 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 2010, the IHS Community Injury Prevention Program, the U.S. Fire Administration, and the IHS Head Start Program continued 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 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 alarms 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 2010 to 2011 school year, in addition to children up to 5 years of age, grandparents of Head Start children were included in the Sleep Safe Program. Twenty-nine Head Start Programs were funded $150,000 for Sleep Safe, and over 3,600 smoke alarms were distributed to Head Start families with children. Also, IHS continues to support Ride Safe. Twenty Ride Safe Head Start projects were funded a total of $357,600 in the 2010 to 2011 Head Start school year. Over 1,800 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.

INSTITUTIONAL ENVIRONMENTAL HEALTH PROGRAM

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 89,000 worker, visitor, and patient incidents at 449 IHS and tribal facilities. During 2010, there were 36,681 incidents reported.

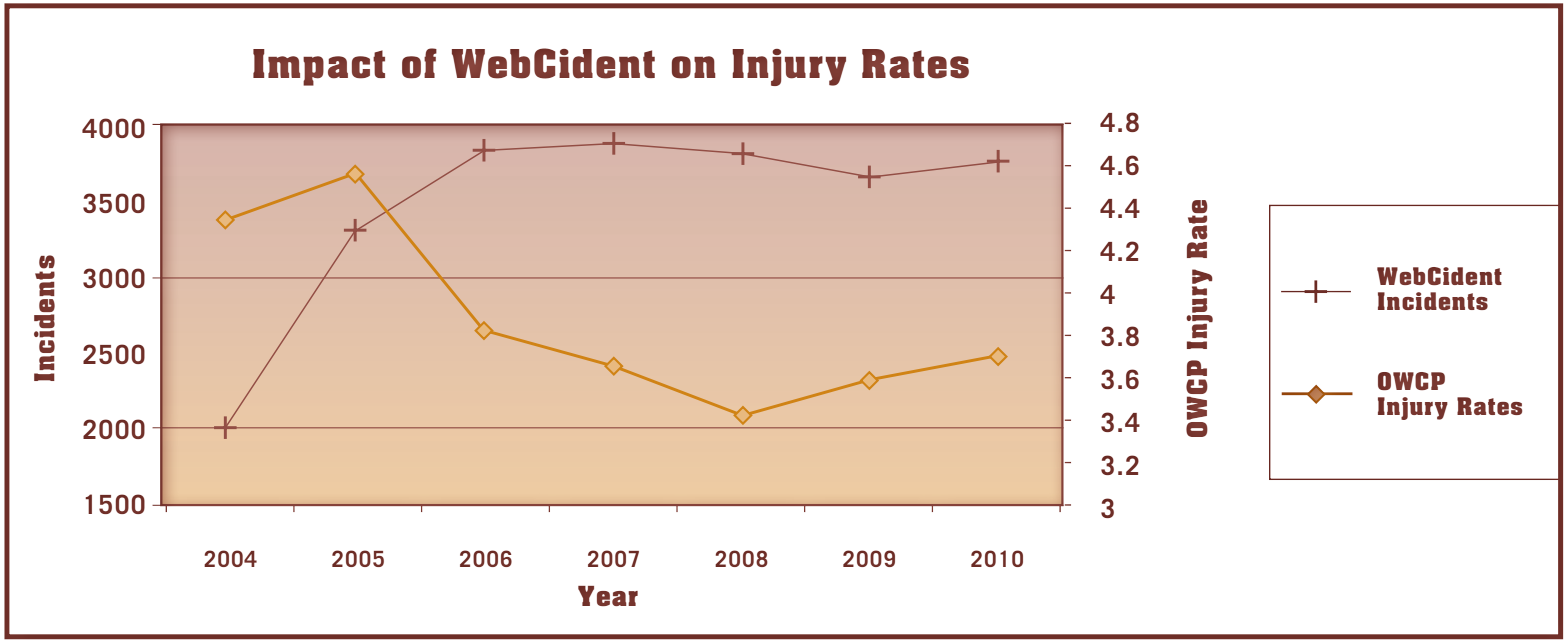


Figure 7: Worker WebCident-reported incidents and OWCP injury rates from 2004 to 2010

Figure 7, above, shows the impact of incident reporting on the reduction of workers' compensation case rates (Source: Office of Workers' Compensation Programs [OWCP]). 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 2010, had accumulated 32,769 incidents to monitor and evaluate.

DEHS National Focus Areas

The IHS Division of Environmental Health Services (DEHS) delivers a comprehensive environmental health program to more than 1.9 million American Indian/Alaska Native (AI/AN) people in 35 states. We consult with and provide technical assistance to tribes in an effort to provide safe, healthy environments. IHS DEHS identified five national focus areas: children's environment, safe drinking water, food safety, vectorborne and communicable diseases, and healthy homes. Below you will find descriptions of each of the focus areas and highlights of projects conducted by the Areas in 2010. Evidence-based or promising practices are used most often, but specific projects are also evaluated for effectiveness. Comprehensive interventions use a multi-target approach involving education, environmental modification, and legislation and enforcement. The following four key activities are common to each of the focus areas:

- Conduct inspections that identify environmental health risk factors;
- Suggest corrective actions to reduce or eliminate risk factors;
- Conduct investigations of disease and injury incidents; and
- Provide environmental health training classes to federal, tribal, and community members.

CHILDREN'S ENVIRONMENT

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

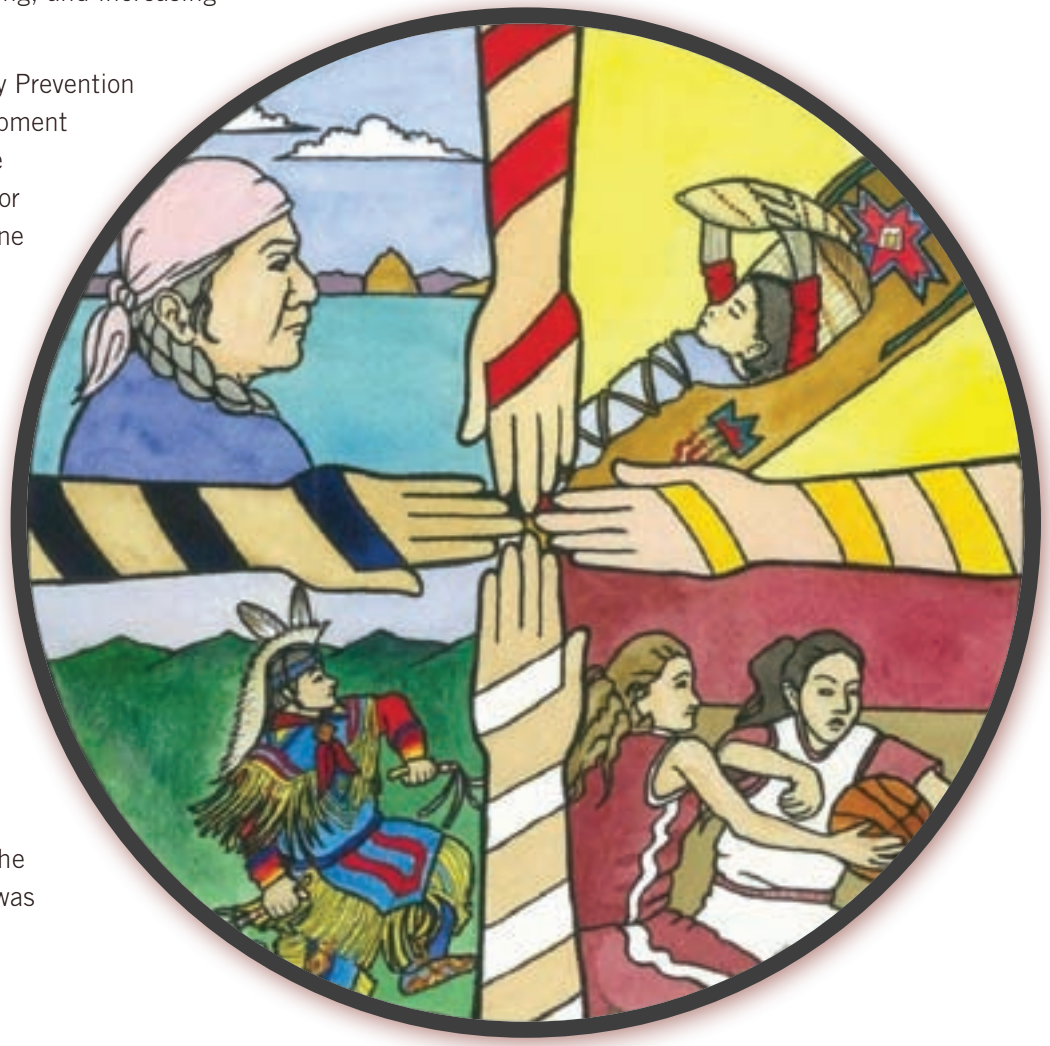
Results vary across the country, but many indicators of effective programs focus on reducing the number of critical or repeat violations within a particular facility. Critical violations are threats to the public's health that need to be corrected immediately, and repeat violations are the same violation that has occurred in more than one consecutive facility inspection. Some DEHS staff focus on eliminating risk factors related to fire safety, emergency response, asthma triggers, lead-based paint, bullying, communicable disease exposure, or child passenger safety. Specifically:

- Oklahoma City Area was able to increase participation by four tribes in a statewide initiative on eliminating the effects of asthma on the health of Oklahomans;
- Phoenix Area identified eight key elements needed to sustain a child passenger safety program;
- Phoenix Area developed a suicide prevention task force that piloted text messaging as a way of accessing a crisis call center (the first crisis call center in the United States to employ this technology and the first tribal pilot site);
- Portland Area conducted lead-based paint assessments in 50 Tribal Housing and Urban Development homes. The Tribal Housing Authority can now conduct containment or abatement procedures to keep children healthy;
- California Area conducted inspections at 10 Tribal Head Start buildings where they identified 9 critical and non-critical health and safety deficiencies. One tribe was able to resolve three critical playground deficiencies by using the inspection findings to apply for funding to purchase new, safer playground equipment, which reduced the risk of severe injury to children;
- Bemidji Area funded special projects 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 training, curriculum materials, and program activities and evaluation; and
- Bemidji Area DEHS also continues to partner with IHS Head Start, the IHS Community Injury Prevention Program, and the U.S. Fire Administration to fund tribes for the Ride Safe and Sleep Safe Programs. These programs provided funding to support a coordinator's workshop, curriculum, smoke alarms, and child safety seats for high-risk Head Start students and their families.

An example of an effective initiative is the Pyramid Lake Suicide Prevention Task Force in the Phoenix Area, established in 2006 in response to two suicide completions on the Pyramid Lake Reservation. The Task Force includes representatives of the Pyramid Lake Jr./Sr. High School,the Reno DEHS, the Nevada Office of Suicide Prevention,the Pyramid Lake Behavioral Health Services, and tribal administration. The Task Force was able to implement several effective strategies during 2010. These initiatives include the American Indian Life Skills Development Curriculum, gatekeeper training, and increasing access to support services.

The high school received funding from the Phoenix Area Injury Prevention Program to implement the American Indian Life Skills Development Curriculum for students in grades 7 and 8. The success of the program led to the school's decision to adopt the curriculum for the 2010 to 2011 school year. A Suicide Alertness for Everyone (safeTALK) workshop was held before the 2010 to 2011 school year for all school staff members. An Applied Suicide Intervention Skills Training (ASIST) workshop, training school staff and community members to better recognize and intervene with a person at risk of suicide, was also held during 2010.

The Pyramid Lake Jr./Sr. High School was one of four pilot sites for the Nevada Text Messaging Support Services campaign. This program allows individuals to access the Reno-based Crisis Call Center (a member of the National Suicide Prevention Lifeline network) via text messaging. Promotional materials were developed specifically for Native American youth and were distributed throughout the school. Focus groups were conducted with students to evaluate the effectiveness of promotional materials. The Crisis Call Center was the first call center in the United States to employ this technology, and Pyramid Lake was the first tribal pilot site in the United States.



SAFE DRINKING WATER

The DEHS is responsible for ensuring safe drinking water for AI/AN people. The DEHS is responsible for ensuring environmental health settings for AI/AN people are safe and ultimately provide a healthy environment in which to live. Environmental health issues associated with drinking water can be caused by organisms or contaminants that are directly spread through water and are an ever-present risk to human health. Examples of waterborne illnesses include Giardiasis, Shigellosis, Cryptosporidiosis, lead poisoning, and copper toxicity. Annually, DEHS staff report approximately 300 activities related to drinking water.

In 2010, many effective programs focused on reducing the risk factors related to waterborne illness. Some DEHS staff focused on eliminating risk factors related to unsafe or insufficient water supply and the operation and maintenance of existing individual and community systems. Specifically:

- Portland Area partnered with the Simnasho-Schoolie Flat Tribe to conduct a study of their community water system. The water in the system was found to contain arsenic levels that exceed the Environmental Protection Agency (EPA) maximum contaminant level, and as a result, a $2.5 million project was developed for which funding is currently pending;
- California Area worked with EPA to support a training curriculum for tribal Water System Operators;
- Bristol Bay Area Health Corporation's Department of Environmental Health added two remote water sampling labs in the native villages of Chignik Bay and Iliamna because it is nearly impossible to collect water samples in an Alaskan village and get them to an Anchorage laboratory within the 30-hour required holding time. These new labs help 21 rural Alaska Native communities to improve compliance with state and federal regulations and to enjoy safe, clean drinking water;
- Alaska Area Tanana Chiefs Conference's Office of Environmental Health (TCC-OEH) conducted eight training classes in Dillingham, Alaska, in an effort to improve the operation of small locally operated sanitation facilities. Over 18 community members were trained in 2010. What sets this training apart from other training is the additional on-site assistance provided to students after the classroom training;
- South East Alaska Regional Health Consortium (SEARHC) and Alaska Native Tribal Health Consortium (ANTHC) mobilized a rapid response team to assess damage and return the Klawock water treatment plant to full operation after a fire caused extensive damage. Three days after the fire, treated water began flowing through the distribution system, and by the end of the week, boil water notices were rescinded. Work continues with planning, designing, and funding permanent building renovation of fire damage; and
- Albuquerque Area partnered with the San Felipe Pueblo to identify deficiencies in their community water system. Repair and remediation projects were identified to provide adequate storage to meet normal and emergency demands and replace gate valves in strategic areas of the system to allow proper system isolation, flushing, and disinfection. Such collaboration between DEHS staff and tribal partners may eventually result in measurable health impacts.

An example of an effective initiative is the interagency agreement between the California Area DEHS and EPA. In 2010, 18 community water system surveys were completed by EPA and the health risks associated with these systems documented for monitoring. There were 110 environmental health-related deficiencies identified during these surveys. Also, two tribal community water systems had untrained and/or uncertified Water System Operators.

One strategy utilized to address these health risks was to increase available training opportunities for Water System Operators. The DEHS sponsored training sessions to assist Tribal Water System Operators with their efforts to manage tribal utility systems and/or become certified Water Treatment Operators. In partnership with the Environmental Health Support Center, the DEHS also cosponsored two additional training courses: "Electrical Controls for Utility Operators" and "Pumps and Controls for Operators."

Combined, 79 Tribal Water System Operators attended these courses. Of these course participants, 31 have become, or have maintained, their California State Water Operator Certification. This initiative greatly increased the number of Water System Operators with professional training and/or certification in California. It also assisted tribes with their efforts to provide safe drinking water on tribal lands.

FOOD SAFETY

DEHS staff provide services at more than 5,000 food service facilities across the country. The Centers for Disease Control and Prevention (CDC) estimates that for the entire United States, over 76 million cases of foodborne illness occur, 300,000 of which require hospitalization and 5,000 of which are fatal (CDC, 2009, Food Safety. Retrieved July 30, 2010, from http://www.cdc.gov/foodsafety). Organisms that result in common foodborne illnesses include *Salmonella enterica*, *Escherichia coli* O157:H7, Norovirus, *Listeria monocytogenes*, *Staphylococcus aureus*, and *Clostridium perfringens*.

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

- Bemidji Area identified and began tracking food safety indicators related to critical risk factors and saw a trend that they were able to address, which resulted in a decrease in the number of repeat critical violations. In 2010, the percentage of identified repeat critical violations was reduced from more than 20% to 12%, and those violations that were corrected before the Inspector left the establishment increased from fewer than 5% to almost 25%;
- Oklahoma City Area saw the need to focus on staff consistency and competency in conducting food safety inspections. One staff member completed the Food and Drug Administration (FDA) Standardization and Certification process and now serves as the Food Safety Training Officer for the Oklahoma City Area. Because of this effort, 39% of the general environmental health staff in the area are Standardized Inspectors;
- Tucson Area staff worked with the tribal council to update their 1960 Food Code. In 2010, the tribal council took the first step toward adopting a more current version of the code. The council updated the Tribal Food Code, based on the current FDA Food Code, for all temporary food service establishments on the reservation; and
- In response to the environmental health impact of Tulalip Tribe's economic growth, Portland Area DEHS provided assistance to the Tribe in hiring an Environmental Health Inspector to focus on food safety. Even though IHS DEHS provides direct services to the Tulalip Tribe, the Tribe hired this Environmental Health Inspector to work alongside DEHS in an effort to improve the public's health. This is one step toward the Tribe's development of a comprehensive public health department.

Implementation of effective environmental health and injury prevention strategies can substantially reduce disease and injury rates. For instance, from 2001 to 2007, as the number of services provided by IHS to food service establishments and drinking water systems went up, the incidence of food and waterborne diseases decreased (see Figure 8).

An example of an effective initiative is the Bemidji Area Food Safety initiative. Bemidji EHS wanted to evaluate the effectiveness of their

food safety program, so they first identified appropriate health status indicators that could be tracked from one inspection to the next. They identified risk factors that are most commonly reported to the CDC as contributing factors in foodborne illness outbreaks, for example, factors related to poor personal hygiene, contamination by hands, food from unapproved sources, and improper holding temperatures. After providing specific technical assistance to Food Service Workers and Managers and focusing on providing training to Inspectors and Food Service Workers, they found that after an initial increase in numbers of repeat critical violations, the violations began to decline. In 2010, the percentage of identified repeat critical violations was reduced from more than 20% to 12%, and those violations that were corrected before the inspector left the establishment increased from fewer than 5% to almost 25%.

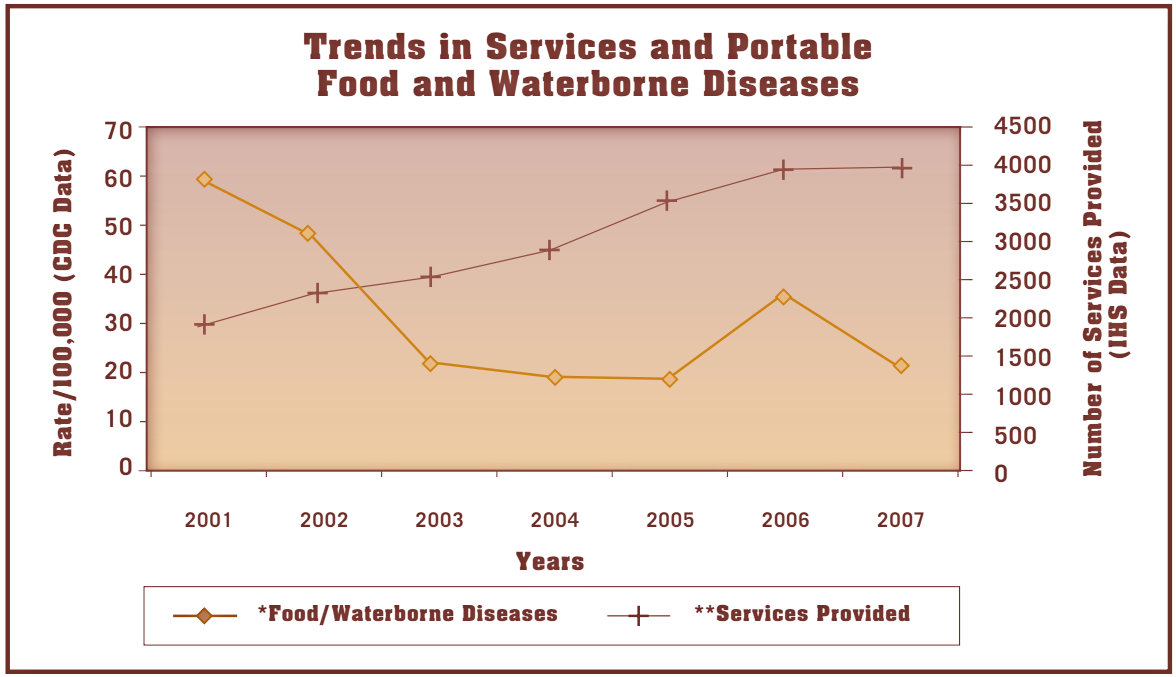


Figure 8: Trends in services and reportable food and waterborne diseases

An example of an effective initiative is the Bemidji Area Food Safety initiative. Bemidji EHS wanted to evaluate the effectiveness of their food safety program, so they first identified appropriate health status indicators that could be tracked from one inspection to the next. They identified risk factors that are most commonly reported to the CDC as contributing factors in foodborne illness outbreaks, for example, factors related to poor personal hygiene, contamination by hands, food from unapproved sources, and improper holding temperatures. After providing specific technical assistance to Food Service Workers and Managers and focusing on providing training to Inspectors and Food Service Workers, they found that after an initial increase in numbers of repeat critical violations, the violations began to decline. In 2010, the percentage of identified repeat critical violations was reduced from more than 20% to 12%, and those violations that were corrected before the inspector left the establishment increased from fewer than 5% to almost 25%.

VECTORBORNE AND COMMUNICABLE DISEASES

Environmental health issues associated with diseases transmitted via humans, insects, or animals present an ever-increasing burden on human health. A few examples of vectorborne or communicable diseases include West Nile Virus, H1N1, Hantavirus, Rocky Mountain Spotted Fever, and Plague.

DEHS staff focused on the elimination of risk factors through identifying H5N1 in bird populations; conducting spay, neuter, and rabies clinics for dogs and cats; and investigating prairie dog die-offs to prevent human Plague cases.

Specifically:

- Yukon-Kuskokwim Health Corporation staff coordinated the collection of tissue samples from 3,000 subsistence-harvested migratory birds to identify the presence of the highly pathogenic H5N1 influenza virus;
- Navajo Area staff conducted intensive measures to prevent the transmission of Plague to humans after a prairie dog die-off. No human infections ever developed;
- Navajo Area helped Public Health Nurses identify risk factors for Giardiasis in a youth shelter home. DEHS staff stopped the transmission of the disease through staff training, a focus on diligent cleaning and disinfection practices, and referral for treatment;

- Billings Area partnered with the Fort Belknap Fish and Game Department and held a spay and neuter event in the Fort Belknap and Hays communities. With the help of the Montana Spay/Neuter Task Force, they were able to spay and neuter 173 dogs and cats. They also provided rabies vaccinations; and
- Tucson Area field staff developed a Health Insurance Portability and Accountability Act (HIPAA) secure and confidential dog bite referral form. It could be completed within the Resource Patient Management System (RPMS) Electronic Health Record (EHR) system to investigate dog bites within 10 days of the incident. This is the first use of the system and is a new and innovative process.

An example of an effective initiative is the Plague prevention efforts conducted by the Navajo Area staff. This initiative began with a site investigation after a report of prairie dog die-off in the St. Michaels Chapter in late July 2010. The initiative included the mobilization of DEHS staff to collect flea samples and canine blood samples and to apply insecticide. Sample testing was coordinated with the CDC. Division staff informed medical staff at the Fort Defiance hospital of the suspect Plague area and what to look for in patients presenting with unexplained fever. Also, with the assistance of Public Health Nurses, the residents in the affected area were notified.

Flea treatment chemicals provided by the Navajo Nation Veterinary Program were applied to roaming dogs. Follow-up with residents living near the die-off was effective in the communication of health information, permitted face-to-face checks on their current health, and provided staff with information on local rodent activity. With no lab confirmation, the area continued to be suspect for Plague, and DEHS staff proceeded as if the area were positive for Plague.

By the end of August, and nearly daily surveillance of rodent activity, there were no human cases. No results had been received from the CDC laboratory on the flea and canine blood samples. Near the end of September, the CDC reported the samples taken in July were positive for Plague. A public service announcement was developed and distributed. No human infections ever developed. It is likely that the DEHS and community response prevented human cases of Plague.

HEALTHY HOMES

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

Many programs focus on capacity building and education related to reducing asthma attack rates, mold and moisture problems, chemical exposure, and other events that are documented through health surveillance systems and through a home inspection program. Home inspections identify critical and repeat violations that are threats to the health of occupants. Critical violations are issues that are identified during inspections that need to be corrected immediately, and repeat violations are the same violation that has occurred in more than one consecutive home inspection. DEHS staff focus on identifying and eliminating risk factors related to fire safety, asthma triggers, lead-based paint, and chemical exposure, as well as chronic and acute exposure to mold and moisture. Specifically:

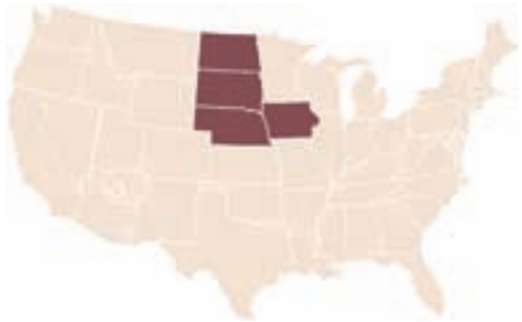
- South East Alaska Regional Health Consortium (SEARHC) Environmental Health Department completed surveys of health and safety conditions in elder homes in Angoon and Kake. These surveys identified health and safety risks in elder homes and facilitated the organization and prioritization of improvement, repair, and abatement activities;
- Albuquerque Area DEHS staff created new partnerships with EPA and the Department of Housing and Urban Development (HUD) to offer a "Tribal Healthy Homes" course through Montana State University. This initiative built tribal capacity and led to the development of Healthy Homes Coalitions and Community Healthy Homes Action Plans;
- Portland Area staff conducted home inspections for occupants complaining of insect infestation. More than half of the homes surveyed for infestation reported mild to severe respiratory symptoms. DEHS partnered with the Yakama Nation Tribal Environmental Management Program to provide integrated pest management education and environmental modification to reduce infestations;
- Tucson Area Elderly Falls Prevention Program incorporated these four elements into their fall reduction program: a home visit, medication review, vision check, and exercise. A Master Tai Chi Instructor trained 18 tribal Wellness/Fitness Instructors and 3 IHS employees who hold classes and train others in Tai Chi and are a true example of program sustainability; and
- The Alaska Native Tribal Health Consortium investigated the health risks associated with the oil fields near the village of Nuiqsut after the community raised concerns over the impact of industry on their sustainable lifestyle. DEHS staff created a risk communication plan and an educational program to give high school students the skills to conduct air quality monitoring at home.

An example of an effective initiative is the study and subsequent response by the Portland Area to pulmonary distress complaints in homes with cockroach infestations. DEHS staff conducted home inspections and determined that a large percentage of the homes had German cockroach infestations. Residents were briefed on the findings of their home inspection and instructed in how to treat infestations and clean and sanitize the home. Several homeowners had difficulty controlling the infestations because of their lack of understanding of how to properly keep the home clean enough to deny food sources to cockroaches. Some homeowners did not follow recommendations to clean inside the home and relied heavily on insecticides for cockroach control. Respiratory complaints from these homes continue to be an issue.

In response to these experiences with helping residents understand, as one homeowner stated, "…the level of cleanliness needed to starve a roach," the Yakama Field Office developed a PowerPoint presentation that was specific to education on cockroach infestations. It includes biology of the insect, ways to prevent and protect your home, treatment of an infestation, and health risks caused by an infestation. In addition, the Yakama Field Office continued responding to referrals from the Yakama Nation Housing Authority for housing inspections and technical assistance. The cockroach presentation was given at the 2010 Yakama Nation Healthy Housing Fair at the Heritage Center in Toppenish, Washington. The presentation was supplied to the Yakama Nation Housing Authority for its use in educating residents. As a result of this project, Portland Area DEHS has formed a partnership with the Yakama Nation Tribal Environmental Management Program to assist homeowners with integrated pest management.

Area DEHS Programs

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, and Facilities Management) within the Aberdeen Area Office of Environmental Health and Engineering (OEHE). 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 U.S. Public Health Service (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 and the health disparity are clear. 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.

Alaska

ALASKA AREA

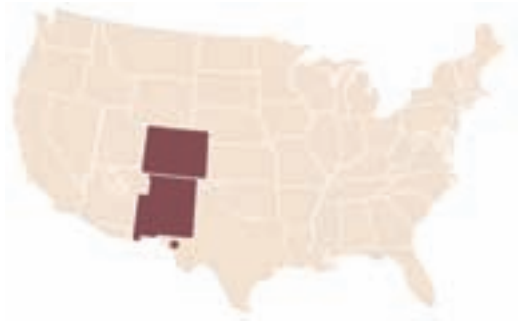
Environmental health programs in the Alaska Area are all tribally managed under the authority of Public Law 93-638, as amended. Seven regionally based environmental health programs serve a specific geographical area. These organizations include the South East Alaska Regional Health Consortium (Sitka), 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 (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 and 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 2010 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 6 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). Two of the staff hold Collateral-Duty Emergency Management roles; 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 halftime.

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 carrying on 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; and with the Division of Clinical Quality – the Public Health Nursing Program for case management of elevated blood lead levels in children and injury prevention efforts. 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 the Food and Drug Administration's (FDA's) Voluntary National Retail Food Regulatory Program Standards Certification.

The Albuquerque Area DEHS Program 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 are composed of 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 or 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.

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) community 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. The OEHE Director and one additional IHS DEHS staff member participated as core team members of the IHS OEHE Leadership Development Initiative.

Billings

BILLINGS AREA

The Billings Area IHS serves 9 tribes (totaling 70,000 people) on 8 reservations throughout Montana and Wyoming. The Billings DEHS Program employs five staff, two work at the Area Office, one as a staff Injury Prevention Specialist and the other as an Environmental Health Specialist, and three work part time in both environmental health and community injury prevention. Eight staff 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. Four federal staff have completed the IHS Injury Prevention Fellowship Program, and three have a master's degree.

California

CALIFORNIA AREA

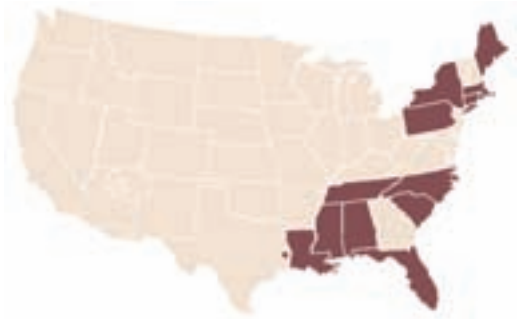
The California Area DEHS serves approximately 101 federally recognized tribal governments representing a service population of 87,950 persons, in over 1,550 facilities, in the State of California. Six public health professionals, five Environmental Health Specialists and one Engineer, perform the work of the DEHS. These staff are located in the Area Office (n=3), two district offices (n=2), and one field office (n=1). All DEHS staff have a bachelor's degree in environmental health or a related discipline. In addition, 66% of the staff have advanced degrees and 83% have professional credentials (RS or REHS).

The California DEHS Program addresses a variety of areas, including, but not limited to, food sanitation, hazardous waste, home sanitation and safety, indoor air quality, solid waste management, vector control, wastewater, and water quality. The services provided to California American Indian Tribes consist of investigations, surveys, technical assistance, training, and sampling and testing.

Specialists in the Injury Prevention Program provide tribes with additional services that aim to address community injuries (e.g., motor vehicle injuries, fire/burn injuries, and elder falls). The mission of the program is to decrease the incidence of severe injuries and death to the lowest possible level and increase the capacity of tribes to address their injury problems. The program currently provides technical assistance to tribes with injury data collection, development and implementation of interventions or projects based on best practices, and training.

Specialists in the Institutional Environmental Health Program are responsible for providing additional services to tribal health programs and community institutional facilities such as Head Start Centers, daycare centers, schools, youth facilities, and substance abuse centers. The services currently provided by this program consist of training, safety program development, accreditation support, radiation protection, risk assessments, industrial hygiene, policy development, and Occupational Safety and Health Administration (OSHA) compliance.

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, NAIHS DEHS staff include one Director, one Environmental Health Specialist, and one Injury Prevention Specialist.

The NAIHS DEHS provided or supported environmental health training courses that trained over 150 employees in National Fire Protection Association Life Safety Code, FDA food service code, hazard communications/ bloodborne pathogens, and WebCident. Surveys of 101 facilities, including casinos, hotels, food service venues, healthcare facilities, and pools, were also completed. Intervention projects for retail food safety helped to reduce repeat violations noted during food service surveys from 29.7% to 12.3% in 2010. NAIHS DEHS staff also participated in meetings with the University of Kentucky and the Poarch Band of Creek Indians to focus on injury prevention projects for farm injuries.

Navajo

NAVAJO AREA

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). The 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. It 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 DEHS. Additional specialized services are also provided by the Community Injury Prevention Program and by 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 System (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. DEHS 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 43 tribes with a service population of nearly 330,000 American Indian or Alaska Native (AI/AN) people. The service area covers the States of Kansas, Oklahoma, and Texas. The DEHS has two district offices in Okmulgee and Shawnee, Oklahoma, and four field offices located in Oklahoma (Clinton, Lawton, Miami, and Pawnee) and one in Holton, Kansas.

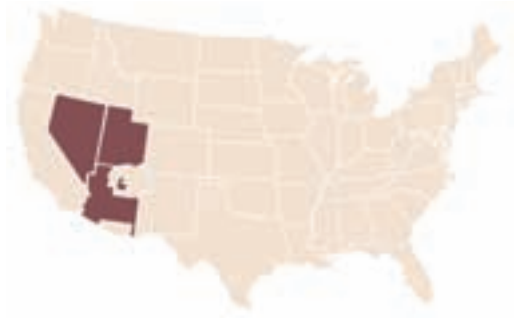
Our workforce is composed of six PHS Commissioned Officers and four federal civil service Environmental Health Officers (EHOs), who all have graduated from accredited environmental science universities and have obtained Oklahoma and National Environmental Health Association credentials. They have received extensive education and training in conducting health, safety, and food service surveys. All 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 specialized services in 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 by 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

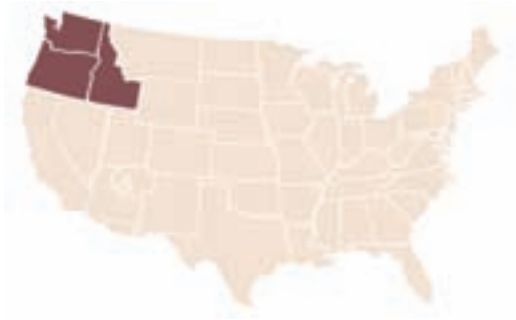
The Phoenix Area IHS DEHS serves 46 tribes/tribal organizations with a combined population of nearly 150,000 and over 2,000 facilities in 4 states (Arizona, California, Nevada, and Utah). A cadre of 21 Environmental Health Officers/Sanitarians accomplish the work of the DEHS. These staff are located in the Area Office; three district offices; and nine service units/field offices (n=12). The skills and competencies of our staff are illustrated by their all having bachelor's degrees in Environmental Health or a related field, 43% having advanced graduate degrees, and 76% having professional credentials (RS or REHS).

The Environmental Health (EH) 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 response to a Rocky Mountain Spotted Fever epidemic, reduction in lead poisoning risk among school children, and establishment of a comprehensive tribal animal control program. Specialized services are provided in institutional environmental health and community injury prevention.

The Institutional Environmental Health (IEH) Specialists within the EH program provide industrial hygiene services, accreditation consultation, and a variety of safety training to the IHS and tribal healthcare facilities. The program values close mentorship of new Safety Officers on 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 (EMPOC), 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 Injury Prevention (IP) Specialists within the EH program place a priority on epidemiology, training, partnership building, and the development of proven intervention strategies to reduce the risk of death and disability from 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 IP 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 Injury Prevention Programs funded by a multi-year IHS cooperative agreement.

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 (http://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 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 Portland Area program is aligned with the IHS national strategic initiatives and priorities of children's environment, safe drinking water, food safety, communicable and vectorborne diseases and healthy homes, as well as the specialty services in community injury prevention and institutional environmental health. The Portland Area DEHS Program is funded at approximately 21% of the need.

The IHS DEHS Program provides comprehensive environmental health services to AI/AN communities through a network of community-based DEHS professionals. In the Portland Area, many 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 Portland Area DEHS is organized with a Director and 7 positions to deliver direct services in field operations to 24 tribes, community injury prevention to 22 tribes, and institutional environmental health to 33 tribes.

The DEHS Director also serves as the Federal Supervisor to two commissioned officers who provide services to five tribes under Public Law 93-638 Title I contracts. The DEHS recently entered into an Interagency Agreement with EPA, Region X, to provide work in Integrated Pest Management. The Portland Area DEHS Director also serves as the Area Emergency Management Coordinator, providing services in emergency preparedness and response, continuity of operations planning, deployment coordination, and physical security.

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 PHS 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. 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 375 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 March 2010, and down to 37.6% at the end of 2010. Given the precarious workload, the EHSB team has done an exceptional job at reaching a peak of 52% completion of the 375 surveys for which they are responsible.

The STOP (Securing Tohono O'odham People) Coalition, which conducted a very successful CDC Grant Campaign to increase restraint use, continues its work. Regular traffic safety messages have been in the tribal newspaper and public service announcements continue on the tribal radio station. Seatbelt surveys have shown that use continues to increase. A final result was reported to the CDC in 2009 as having reached 79% from the 43% baseline. Subsequent surveys reveal that usage rates in 2010 are 81%.

Looking Ahead into 2011

For 2011, the DEHS looks forward to accomplishing the following:

- Establish a national baseline for "out of compliance" food safety risk factors;
- Establish a national seatbelt use rate for communities identified by Tribal Injury Prevention Cooperative Agreement Program (TIPCAP) sites;
- Pilot the new DEHS data system and begin training staff on its use;
- Complete the remaining two DEHS Vision Elements;
- Continue with the U.S.-Canadian Environmental Health Officer Staff Exchange and improve IHS participation;
- Provide input into the congressional report required by the Indian Health Care Improvement Act on effective strategies that have improved the disease and injury rate for American Indians and Alaska Natives;
- Continue to enhance capacity of tribal injury prevention programs in developing and managing effective community-based programs through support of TIPCAP and the IHS Ride Safe and Sleep Safe Programs; and
- Create a new chapter in the Indian Health Manual that clarifies roles and responsibilities of IHS staff in environmental sustainability and improves communication among stakeholders.

IHS Area
DEHS 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
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Annual Report **2010**

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

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