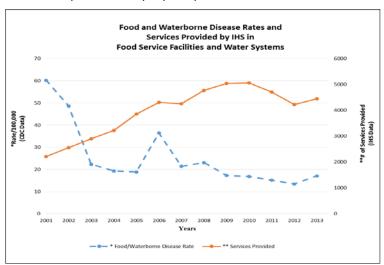
SAFE DRINKING WATER

The Indian Health Service, Division of Environmental Health Services (DEHS) delivers a comprehensive Environmental Health program to the American Indian/Alaskan Native (AN/AI) population. A major component of this program is Safe Drinking Water.

The DEHS is one of several partners responsible for preventing waterborne illness to a population of over 2 million AI/ANs. Activities associated with safe drinking water include conducting inspections of sanitation facilities on a regular basis, investigation of suspected waterborne illnesses, provision of homeowner and operator training, and identification and inclusion of deficiencies of Tribally-owned community and non-community water supplies in the IHS national Sanitation Deficiency System (SDS). These activities are provided to over 560 tribes and 1567 Tribal water systems. In order to meet EPA Safe Drinking Water Act requirements, more sophisticated and larger systems are being developed. This in turn requires an increased level of monitoring to ensure compliance and proper operation.

Activities provided over the past several years have proven to prevent major waterborne illness outbreaks and have decreased the incidence of waterborne illness. Although DEHS activities have increased, there has been no associated increase in funds.

This document describes a strategy for addressing and determining the environmental health needs for this national priority. This issue statement is formatted for flexibility and adaptability so that regional and local programs may use it to develop their own systems and strategies, while maintaining uniform methods of determining need and delivering services.



The DEHS activities revolve around the Ten Essential Services of Environmental Health:

SERVICES

Environmental and Health Monitoring and Surveillance

- Enhanced Disease Surveillance Capabilities
- Enhanced Hazard Monitoring Capabilities

Investigation

Improved Hazard Investigation

Environmental Health Education

Increase Public Awareness and Promote Health Literacy

Mobilization of Partnerships

Develop Partnerships with Other Programs

Public Health Policy Development

Tribal Code Development

Support Public Health Laws & Regulations

Inform Tribes/Partners of Federal Laws & Regulations

Link People to Environmental Health Services

Integrate with Clinical Services

Assure Competent Workforce

Staff Credentialing

Evaluate Environmental Health Services

- Program and Project Evaluations
- Conduct Customer Satisfaction Assessments

Research New Insights and Innovative Solutions

- Community Based Research
- Project Funding

STRATEGY	OBJECTIVES	INDICATORS	PERFORMANCE MEASURES
Enhanced Disease Surveillance The DEHS recently developed a web-based data system, Notifiable Disease and External Cause of Injury (NDECI) that will provide surveillance data and reports for a wide range of disease groups, including waterborne illness.	 Improve the current web-based disease and injury data system; Align with other state and federal monitoring systems Provide training 	Health Effects Indicator: Waterborne Illness Rates	Data on waterborne illness rates and disease thresholds Decrease waterborne illness rates by 5% over 10 years
Enhanced Monitoring Capabilities DEHS needs the capability of real-time documentation of critical risk factors identified during sanitary surveys. This will improve efficiency and maximize resources.	 Implement an electronic survey capability into our Web-based Environmental Health Reporting System (WebEHRS); Provide tablet PCs to provide on-the-spot, rapid reporting Provide training 	Hazard Indicator: Waterborne Illness Risk Factors	Data on critical risk factor frequency; develop risk factor indicators to monitor over time Reduce frequency by 10% over 5 years
Improved Hazard Investigation Disease outbreaks and significant survey findings may require rapid interventions and public education across the socio-ecological spectrum.	 Implement a critical incidence response training designed to educate on crisis communication, community action and prevention policy and protocol development Implement a fax-blast or alert network capability into WebEHRS to ensure boil water notice is distributed and trace backs are completed Provide portable hazard investigation equipment 	Intervention Indicator: Surveillance and Warning Systems	Data on # of Warning Systems Determine Baseline Rates ➤ Reduce the # of boil order advisories by 5% over 5 years
Increase Public Awareness and Promote Health Literacy DEHS should develop a standardized Utility Management training program that covers operation and maintenance of water systems.	 Develop a standard educational video Distribute copies of the video to community water systems Implement an online training, testing, and certification program 	Intervention Indicator: Education	Number of utility managers trained and certified under new program Increase number trained and certified by 1% each year
Expand the system management, operation and maintenance courses to include distance learning.	 Develop a standard distance learning course Provide training and testing to utility managers 	Intervention Indicator: Education	Number of operators and system managers trained and certified under new program ➤ Increase number trained and certified by 1% each year

STRATEGY	OBJECTIVES	INDICATORS	PERFORMANCE MEASURES
Develop Partnerships with Other Programs Community, State and Federal partners with interests in community water systems need to be aware of survey findings, and follow up should be documented.	identified with community water system facilities or infrastructure with IHS DSFC and other state and federal agencies	Intervention Indicator: Safe Drinking Water Networks	Number of meetings/workshops with stakeholder partners attended or coordinated Attend or coordinate at least one meeting/workshop annually that are focused on healthy homes
Tribal Code Development Tribes should have policies to respond to critical incidences and changing federal drinking water regulations. Such public health policies are a proven intervention of waterborne illness.	tribal public health policies; Focus efforts to develop tribe-specific policies	Intervention Indicator: Tribal Drinking Water Codes	Percentage of Tribes with drinking water (DW) codes. Increase % of Tribal –operated systems with DW codes by 5% over 5 years
Inform Tribes/Partners of Federal Laws & Regulations EPA regulations and survey findings and suggestions for improvement should be formatted so that is easily understood by community leaders	sanitary survey that will assist communities	Intervention Indicator: Education	Number of Tribal utilities/programs who are compliant with Sanitary Survey rules Increase % compliance by 10% over 5 years
Integrate with Clinical Services Communicate disease surveillance and survey findings with Tribes, clinicians and State/County health departments and align practices and protocols with these partners. Ensure the community is linked to environmental health services through clinical services.	referrals to the environmental health services department in response to suspected	Intervention Indicator: Referral Program	Percentage of waterborne illness cases referred to environmental health services Determine baseline rate of referrals Increase referrals by 40% over 5 years
Assure the environmental health workforce is trained and equipped for using the data systems, generating statistical analyses and reports, standardizing surveyors, and field epidemiological investigation.	for Environmental Health Specialists	Intervention Indicator: Workforce Credentials	Percentage of the workforce that is adequately trained and equipped Assure 95% of the workforce is trained and equipped to respond to outbreaks and public health emergencies

STRATEGY	OBJECTIVES	INDICATORS	PERFORMANCE MEASURES
Program and Project Evaluations	Provide comprehensive evaluation of EH services	Intervention Indicator:	Percentage of EH programs that provide comprehensive services
Develop tools & procedures to assess the		Program	Increase percentage of programs
effectiveness, accessibility and quality of services		Standards	that provide services by 1% each
delivered to our customers.		and Best	year
		Practices	
Conduct Customer Satisfaction Assessment	Develop local or Area standardized	Intervention	Assessment results
	assessment methodology	Indicator:	> 100% of Area programs conduct
Gauge the perception and opinion of the level,	Complete surveys of stakeholders and	Program	tri-annual assessment
type, and quality of environmental health	residents that measure the satisfaction with	Assessment	Results improve each three-year
services	the services of the environmental health		cycle by 10%
	program		
Community Based Research	Develop a rate setting program	Intervention	Percentage of homes with cost of
	Distribute copies of the program to	Indicator:	producing and delivering a sufficient
DEHS should develop a rate-setting and asset	community water systems	Delivery	quantity EPA approved drinking
management program to assist communities in		Rates	water is below 5% of the MHI
improving their financial capacity to provide a			Increase % of homes by 10% over
sufficient quantity of potable water to end users.			5 years
Project Funding	Assist tribal entities in master planning for	Intervention	Number of tribes or tribal programs
	drinking water infrastructure needs	Indicator:	that receive funding
Ensure tribal entities are prepared for funding	> Assist tribal entities in procuring funding to	Program and	> Assist tribal entity in successful
projects and competitive in receiving grants	translate research into practice	Policy Best	receipt of drinking water funding
		Practices	every 5 years

ESTIMATED COST			
Equipment	\$2000/tablet PC * 150 personnel = \$300,000		
	\$10,000/Area for hazard investigation equipment = \$120,000		
Training	\$100,000/Area for training = \$1,200,000		
Supplies and Materials	\$10/CD-ROM * 15,000 facilities = \$150,000		
	\$25,000 for NDECI		
	\$20,000 for WebEHRS		
Personnel / Services	\$50,000 for rate-setting program development		
	\$10,000 to develop an online educational program		
	\$80,000/Area to conduct assessments and develop policies = \$960,000		
TOTAL	\$2,915,000		