# THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR) ANNUAL TRIBAL BUDGET AND CONSULTATION REPORT FISCAL YEAR 2007

#### **SECTION IV: ATSDR SPECIFIC ACTIVITIES**

**ATSDR: Division of Toxicology and Environmental Medicine** 

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<b>Priority Number:</b>	<b>Priority Title:</b> Health Promotion and Disease Prevention
1	

Summary of Activity: <u>PCB Congener/Metabolite Patterns in Akwesasne Mohawks</u> Objective: Conduct research to assess in persons from the Great Lakes states the adverse human health effects of water pollutants via the diet, i.e., the consumption of contaminated fish from the Great Lakes.

Collaborating with the State University of New York at Albany, research was conducted that involved participants from the Mohawk Nation at Akwesasne. The research yielded information about the health impact from past and present exposures to PCBs via consumption of contaminated fish. In addition, information has been determined on the pattern and proportion of PCB congeners contributing to the body burden for adults.

**Outcomes of Activity:** This information provides evidence for the sources of PCB exposures in addition to diet, the main source for many individuals. Results from this research also indicated that the profile of PCB body burden differed across age groups for the specific congeners. These findings are being pursued to determine the exposures that are the basis for the differing profiles.

#### **ATSDR: Division of Toxicology and Environmental Medicine**

<b>Priority Number:</b>	<b>Priority Title:</b> Health Promotion and Disease Prevention
1	

Summary of Activity: Neuropsychological and Thyroid Effects of PBDE's

Objective: Conduct research to assess in persons from the Great Lakes states the adverse human health effects of water pollutants via the diet, i.e., the consumption of contaminated fish from the Great Lakes.

Collaborating with the State University of New York in Albany with another research study, the neurobehavioral effects of PCBs among older men and women who live along contaminated potions of the Hudson River was investigated. Several participants within the study are American Indian/Alaskan Native.

**Outcomes of Activity:** Results from the study indicate that current body burden of PCBs among the participants were low or slightly elevated and correlated with the estimated number of sport-caught fish meals consumed in the past. Nonetheless, there was an association between the body burden of PCBs and neuropsychological function among these older adults. Tests results showed that higher serum total PCB concentration was associated with increased depression and decreases in select cognitive functions and fine motor skills.

#### **ATSDR: Division of Toxicology and Environmental Medicine**

<b>Priority Number:</b>	Priority Title: Health Promotion and Disease Prevention
1	

**Summary of Activity:** Organochlorides and Sex Steroids in Two Michigan Cohorts
Objective: Conduct research to assess in persons from the Great Lakes states the adverse human health effects of water pollutants via the diet, i.e., the consumption of contaminated fish from the Great Lakes.

Collaborating with Michigan State University, several American Indian/Alaskan Natives participated in a study, which examined whether the exposure of mothers to contaminants from Lake Michigan fish affected the expression of sex-steroid related genes in their female offspring.

**Outcomes of Activity:** Results from this investigation indicate that babies from mothers' exposed to DDE had a reduced expression of important genes involved in the formation and degradation of sex steroids. The altered expression of these genes may play a role in the development of hormonally related chronic diseases in adults. This research is being expanded to determine if the changes in gene expression can be inherited from one generation to the next.

#### **ATSDR: Division of Toxicology and Environmental Medicine**

<b>Priority Number:</b>	<b>Priority Title:</b> Health Promotion and Disease Prevention
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Summary of Activity: The Agency strives to address issues of environmental contamination exposures, working in the field, directly with tribal governments and communities, and also using other forms of communication. Environmental media that may be sources of exposures – air, water, soils, and traditional foods – are considered, along with tribal-specific sources, such as plants which are harvested for ceremonial and cultural purposes. Both cancer and non-cancer health outcomes may be associated with exposures to toxic chemicals. Tribal concerns are related to how much exposure is occurring and whether those exposures are potentially harmful. Exposure evaluations, usually in the format of a Public Health Assessment or Public Health Consultation report, are completed by agency staff or by recipients of agency externally funded programs (cooperative agreements). This fiscal year, we have responded to tribal concerns of mining waste on tribal lands, contamination of traditional foods, and areas of tribal lands affected by industrial usage. More rapid responses may also be provided as technical assists to the tribes. Health education is also conducted. Tribal consultation is an integral component of any product addressing tribal issues.

In addition, the Agency provided environmental health training for tribal health care providers at the following venues:

- NANAINA Annual Conference Pre Conference Workshop, November 11, 2006, 16 participants representing Tribes around the country;
- Gila River Indian Community, June 13, 2007, 10 participants;
- Region 8 Tribal Nations Children Environmental Health Summit, 9 participants representing Tribes from EPA regions 8, 6 and 10.

This training is an 8 hour workshop designed to introduce tribal healthcare providers to environmental health issues. The course carries continuing education credits for MDs, RNs, Health Educators, Emergency Response Workers and other allied health care professionals. Core topics covered are: 1 Introduction to ATSDR: Need for Environmental Health Education. 2. Exposure Pathways. 3. Taking an Exposure History. 4. Environmental Toxicology. 5. Environmental Exposure in Repatriated Sacred Objects. There are five elective modules that workshop organizers can select to complete the 8 hours. The modules are: Risk Communication, Children's Environmental Health, Radiation, Chemical Terrorism, and Methamphetamine labs. All topics and issues are presented with tribal examples and input from workshop organizers.

#### **Outcomes of Activity:**

ATSDR released the following reports at the request of Tribes:

- Occurrence of Selected Health Conditions in Ottawa County, Oklahoma, Public Health Assessment
- Rocky Boy's Solvent (Chippewa Cree Tribe) Public Health Consultation
- Lone Butte Industrial Park Public Health Consultations
- Aero Dyne Corporation Public Health Consultation
- Penobscot River, Maine, Technical Assistance Response
- Ambler Gravel Pit, Alaska, Technical Assistance Response

These reports provide vital information for the Tribes to make decisions related to the potential for harm to their people via exposures to environmental contaminants. The reports also provided recommendations for the Tribes for health promotion and behavioral changes to prevent disease. The agency's work with the Chippewa Cree Tribe in Montana quickly stopped drinking water exposures to solvents that had been mistakenly added to the water distribution system instead of hypochlorite. ATSDR recommended management techniques to reduce the possibility of a reoccurrence of the misapplication.

The environmental health training efforts have resulted in:

- Increased knowledge of ATSDR OTA and its activities;
- Increased knowledge of environmental health issues found in Indian Country;
- Better understanding of signs and symptoms to look for in patients; and,

Increased collaboration among other health care providers of possible environmental health issues in their area.

#### **ATSDR: Division of Health and Consultation**

<b>Priority Number:</b>	<b>Priority Title:</b> Health Professions Recruitment
2	

**Summary of Activity:** The numbers of individuals trained to conduct environmental, scientific, public health evaluations in Indian Country is severely under the needs for such public health expertise. ATSDR has a cooperative agreement with the Gila River Indian Community funding the Tribe to hire needed personnel and we also assist with training staff to develop the environmental public health expertise to address issues of chemical exposures. Similarly, our cooperative agreement program funds a collaborative effort for the Alaska Division of Public Health and the Alaska Native Tribal Health

Consortia to respond to environmental public health concerns of Alaska Native peoples. We also promote building the tribal environmental public health workforce through our cooperative agreements with Tribal Colleges and Universities (TCUs). The TCU programs are developing associate degree programs in this field.

**Outcomes of Activity:** During this Fiscal Year, ATSDR funded a noncompete continuation award for the Cooperative Agreement Program to Build Capacity and to Conduct Site-Specific Activities. Recipients included:

- Gila River Indian Community, Arizona
- Alaska Native Tribal Health Consortia and Alaska Division of Public Health

ATSDR also funded cooperative agreements with Tribal Colleges and Universities (TCUs). Recipients included:

- Dine College, Shiprock, New Mexico
- Turtle Mountain Community College, Belcourt, North Dakota

Accomplishments within the TCU agreements are focused on building degreed programs for tribal students in environmental public health. Turtle Mountain Community College has refocused its efforts to provide distance learning and provide a visiting professor series to provide students with classes that may not be available for a year or more through their memorandum of understanding with Dickinson College. Dine College has begun to focus more on providing access to public health and health education classes, filling in the gaps that exist in the curriculum.

#### **ATSDR: Division of Health Assessment and Consultation**

<b>Priority Number:</b>	Priority Title: Increase Access to HHS (ATSDR) Programs and
6	Grants

Summary of Activity: Often tribal governments and people are alerted to the regulatory work conducted by the US Environmental Protection Agency (EPA) and inquire from EPA answers to the public health significance of contaminants present in their environment. Both regulators and tribes are becoming more aware of ATSDR's expertise in environmental public health. ATSDR works with the Community Tribal Subcommittee (CTS) to the Center's Board of Scientific Counselors (BSC). The CTS members include BSC members and representatives from communities and tribal peoples. The CTS advises and discusses with the agency ongoing and planned tribal initiatives. Also, Agency staff attend national meetings that focus on tribal environmental concerns (Phoenix Area Indian Health Service Health Summit) to work collaboratively with others addressing tribal environmental public health issues. In addition, ATSDR convened an Expert Panel to evaluate ATSDR's Office of Tribal Affairs (OTA) past accomplishments and to recommend critical actions to guide future directions.

**Outcomes of Activity:** The Community Tribal Subcommittee has provided comments and ideas for the Center's new Environmental Justice Policy, and has integrated tribal-specific questions into the BSC's program peer review of agency-wide public health practice and research programs. The ATSDR Expert Panel recommended that the Agency elevate the OTA to the Office of the Director, develop a strategic plan for growth, conduct a tribal survey for tribal environmental public health needs, conduct additional training/capacity building and research.

# TRIBAL DELEGATION MEETINGS

## ATSDR: Division of Health Assessment and Consultation

<b>Priority Number:</b>	Priority Title: Tribal Consultation	
8		
Summary of Activity:		
<u>Cook Inlet Study</u> : Agency staff met with the tribal leader and environmental council of		
Port Graham, Alaska to discuss risk assessment questions regarding estimated exposures		
to contaminated fish.		
Tar Creek, Oklahoma: Agency staff met with tribes to discuss how we could work		
together to assess their exposures to potentially contaminated native plants.		
Outcomes of Activity:		
Cook Inlet Study: Consultation with the tribal members will result in a better		
understanding of the Agency's activities to protect their health and a more tribal-specific		
focused estimation of subsistence exposures to contaminated fish.		
<u>Tar Creek, Oklahoma</u> : Consultation with the tribes will result in a collaborative effort		
between Harvard University and the tribes to collect and analyze the native plants. The		
tribes will use this sampling data to determine the extent of ATSDR's involvement to		
assess related exposures.		

# WORKGROUPS/TASKFORCE MEETINGS

### ATSDR: Division of Health Assessment and Consultation

Workgroup/Taskforce Name: Expert Par	nel to Evaluate ATSDR's Office of Tribal	
Affairs		
Members: Patrick Bohan, Assistant Profes	ssor, East Central University, Ada,	
Oklahoma; Connie Garcia(Meeting Facilitat	or), Program Director, Albuquerque Area	
Indian Health Board Inc., Albuquerque, Nev	w Mexico; Edward Garrison, Faculty, Biology	
and Public Health, Dine College, Shiprock,	New Mexico; Earl Hatley, Grand River	
Keeper, LEAD Agency Inc., Vinita, Oklaho	ma; Linda Holt (Panel Chair), Council	
Member of the Suquamish Tribe, Chairwoman Northwest Portland Area Indian Health		
Board, Portland, Oregon; Derrith Watchman-Moore, Policy Advisor, Office of the		
Secretary and Office of the Governor, New Mexico Environmental Department, Gallup,		
New Mexico		
Meeting Date(s): January 31-February 1,	Where was meeting? Albuquerque, New	
2007	Mexico	
Frequency of Meetings: Monthly	Quarterly Semi-Annually 🖂	
Annually		
<b>Summary of Yearly Activities:</b> ATSDR co	nvened this expert panel to evaluate	
ATSDR's Office of Tribal Affairs past acco	mplishments and to recommend critical	
actions to guide future directions.		

# ATSDR: Division of Health Assessment and Consultation

Workgroup/Taskforce Name: Office of T	ribal Affairs Ad-Hoc Workgroup	
Meeting		
Members: Randolph Runs After, Tribal En	vironmental Health Specialist, Cheyenne	
River Sioux Tribe, South Dakota; Earl Hatley	y, Grand River Keeper, LEAD Agency Inc.,	
Vinita, Oklahoma; Irene Folstrum, National	Tribal Environmental Council; Virginia	
Begay, Director, Environmental Health Services, Gila River Indian Community, Arizona;		
Karen Pletnikoff, Community Environmental Health and Safety Manager, APIA; Steve		
Crawford, Environmental Director, Passamaquoddy Tribe at Pleasant Point;		
Meeting Date(s): 4/3/07 Where was meeting? Atlanta,		
	Georgia	
Frequency of Meetings: Monthly Quarterly Semi-Annually		
Annually		
Summary of Yearly Activities: In April the	Ad-Hoc Workgroup was convened to	
provide implementation input on the recomm	endations of the ATSDR Expert Panel.	