

US EPA ARCHIVE DOCUMENT

# Assessing Public Health Risks of the Practice of Water Hauling on the Navajo Nation

Centers for Disease Control and Prevention

August 2010

# Public Health Risks from Water Hauling

## CDC Activities

### □ 2006-2007

- Tested 199 unregulated water sources used for hauling drinking water
- Identified drinking water sources containing bacteria, arsenic, uranium and other contaminants and shared data with EPA
- Identified the 5 regions with greatest levels of contaminants

### □ 2008-2009

- Assessed human exposure to drinking water contaminants
- Collected data from 296 households in identified 5 regions
  - Conducted interviews on water use and hauling practices, tested household drinking water, tested household residents' urine for exposure to uranium and other contaminants.
  - Found that exposure to uranium was below levels known to cause health effects, was higher than the general US population and comparable to other southwest populations.

# Public Health Risks from Water Hauling

## CDC Activities

### □ 2009-2010

- Collaborated with Navajo Division of Health to conduct follow up visits with households that participated in the study to share and explain results, offer additional testing to family members, and provide information on enrollment in the IHS screening program.
- Collaborated with Navajo EPA and US EPA to test additional water sources for uranium and other contaminants.
- Provided resources for a community education and a public awareness campaign on safe drinking water practices.

# A Prospective Birth Cohort Study

Agency for Toxic Substances & Disease Registry  
August 2010 Report

## **ATSDR Timeline**

- ❑ ATSDR met with Navajo Nation representatives in September 2009 to discuss study objectives and design**
- ❑ ATSDR received \$2M allocation in FY2010**
- ❑ Funding Opportunity Announcement (FOA) for research solicited in March 2010 and closed in May 2010**
- ❑ Awardee to be announced in late August 2010**
- ❑ Kick-off meeting planned for October 2010**
- ❑ Anticipate entire project period to be 3 years (FY2010-12)**

## **Why a Prospective Birth Cohort Study?**

- ❑ Congenital anomalies are the leading cause of infant deaths on the Navajo reservation**
- ❑ Limited epidemiological and toxicological data available on the association between uranium exposure and adverse birth and reproductive outcomes**
- ❑ Study will evaluate potential associations with uranium exposure during pregnancy and adverse birth outcomes**
- ❑ Additional applied public health benefit – increased prenatal care utilization on Navajo Nation**

## **ATSDR will work closely with Awardee, IHS & NN on Prospective Birth Cohort Study**

- ❑ **Investigator-initiated (cooperative agreement) applications to support design and conduct epidemiological studies of health conditions among Navajo mothers and their infants caused by non-occupational exposures to uranium released from past mining and milling operations on the Navajo Nation.**
  - **Priority areas are health outcomes associated with uranium exposure during prenatal, perinatal, and early postnatal life periods.**
- ❑ **\$1M will fund one awardee in FY2010.**
- ❑ **\$1 M will be distributed as supplemental agreements with Indian Health Services (IHS) and Navajo Nation Division of Health (NNDOH) for medical screening, recruitment, education, and outreach, as well as cover ATSDR intramural costs.**