

# ATSDR Supporting Communities



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# A Tribal Partner's Perspective



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## ATSDR Supporting Communities

# Communicating to Restore Hózhó



Supporting communities with information to increase their understanding of uranium issues on the Navajo Nation

# Background

- History of uranium mining and processing
- Federal Actions to Address Uranium Contamination (“Five Year Plan”)
- ATSDR’s role
  - Navajo Birth Cohort Study (NBCS)
  - Community Health Education

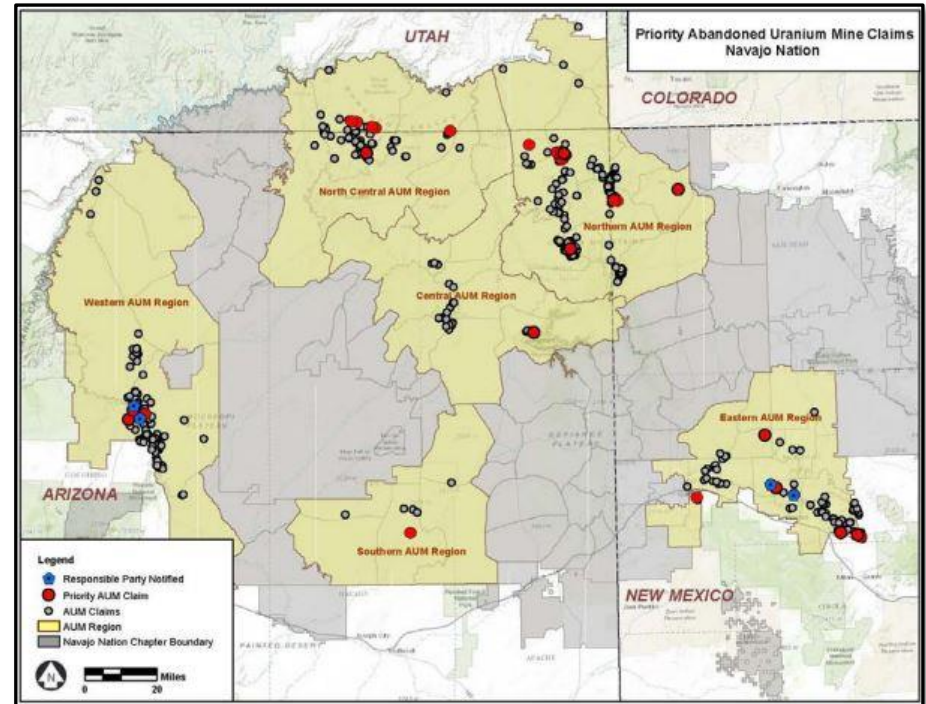


Image from 2014 Five Year Plan

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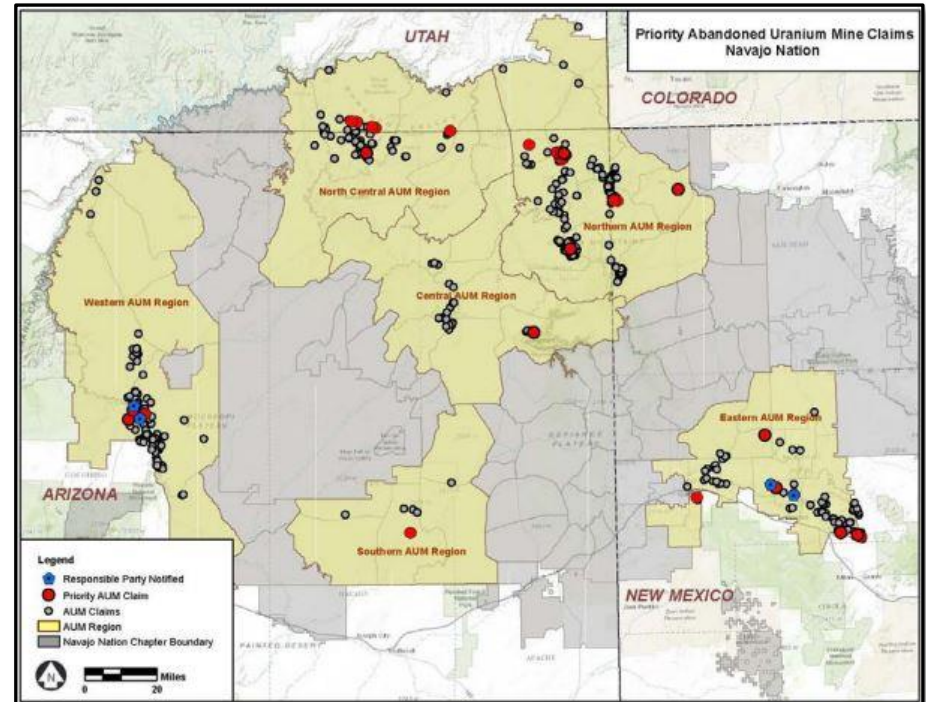


Image from 2014 Five Year Plan

# Need

- Navajo community members want to understand
  - Where the mines are located
  - If and how uranium can affect their health
  - What they can do to protect their families and themselves



Community meeting, Navajo Nation. Photo courtesy A. Pease, US EPA (upper image). Charles Huskon No. 3 Mine, Western AUM Region. Photo courtesy of Amanda Pease, US EPA (lower image).



# Education Materials

- Posters
  - 10 versions of the poster, each customized to a geographic area
  - Title matches geographic area
  - Other sections same
- 4 Fact sheets

Poster

## URANIUM in the Shiprock Area

Uranium is part of the earth. It is close to the surface throughout the southwest U.S. Uranium is part of the environment and is naturally occurring in soil and water. Uranium is also present in waste piles from uranium mines and mills. Exposure to uranium has health concerns for humans—some known, many unknown.

### KNOW

about mine and mill sites and contaminated water sources

**There are abandoned uranium mines and mills on the Navajo Nation.**

- We cannot undo past contact with uranium.
- We can lessen contact with uranium now and in the future.

### LEARN

how to recognize mines and contaminated water sources

**IF YOU SEE SIGNS LIKE THIS:**

**STAY AWAY** from the area.

- Learn where uranium mines were located and stay away from them if there are no signs.
- DO NOT dig, dig up, or take anything from abandoned uranium mines.
- DO NOT gather plants, or take gravel, soil, sand, or water from mine sites.

**IF YOU SEE SIGNS LIKE THIS:**

**DO NOT** use water from that source for human drinking, cooking or bathing. It is contaminated with uranium or other contaminants.

- DO NOT use contaminated water sources for humans use, even if the water looks, smells, or tastes good. There are no reliable tests for uranium in water for drinking, cooking, bathing or washing clothes or fruits and vegetables.
- DO NOT use regulated water sources for human drinking, cooking or bathing. Regulated water sources are piped water in your home or regulated watering points (usually near Chapter Houses).

### TEACH

the location of mines and contaminated water sources

The map shows locations of abandoned uranium mines and contaminated water sources in this area.

- Stay away from mines. Mines can be dangerous to human health and safety.
- Only use regulated water sources for human drinking, cooking, and bathing.
- Livestock use only wells should not be used for human drinking, cooking, or bathing.

**Legend**

- Abandoned Mine Facility
- Regulated Watering Site
- Chapter House
- Water Well
- Regulating Site
- Oil Well Property Boundary
- Contaminated Water Source

### CARE

for your family and yourself

**Community-level exposure to uranium is not like the exposure of miners and millers, but it is still concerning for health. Exposure can occur by contact with contaminated soil, water, or radon gas. Here are suggestions to help decrease exposure and to promote good health:**

**CARING FOR YOUR HEALTH**

There is a lot of research to tell us exactly what community level exposures do to the human body. But there is some information from research on people at work.

**Uranium exposure:**

- Can cause kidney damage.
- Can cause problems with high blood pressure and kidney or bladder diseases.
- May increase risk of cancer.
- May increase reproductive problems.

So, it is very important for anyone exposed to uranium to do the following:

- Prevent or manage diabetes and high blood pressure with healthy weight, healthy diet, daily exercise, and taking any prescribed medication correctly every day.
- Prevent cancer by not smoking, healthy weight, eating well.
- Get regular health care and let your provider know about kidney, lung, bladder, and heart health and check for auto-immune diseases.

**SOIL**

- Work and play away from mine sites.
- Do not gather gravel, sand or dirt near mine sites.
- Gaze and gather plants away from mine sites.
- Gaze livestock away from mine sites if it is not possible, do not use pastures where uranium concentrates—fence, kidneys and bones.

**WATER**

- If you have running water, use it. If you don't like the taste or color, try a filter.
- If you had water for human use, use only regulated watering points and your company and hoses approved for human drinking water.
- Check hoses and containers before each use.
- Separate hoses used for human water and livestock water.

**RADON**

- Radon is a radioactive gas that comes from uranium.
- Radon is dangerous if inhaled and causes lung cancer.
- You cannot see, taste or smell radon. But you can test for it.
- Get your home tested for radon and keep it well-ventilated until you get the results.

**Get help with questions about... Please call...**

Abandoned mines	Navajo Abandoned Mine Lands	Shiprock at (505) 487-4892	Shinarump at (505) 368-1322	Tuba City at (505) 871-6962
Bathes in your home, radon test kits	Navajo Nation EMU Radon Program at (505) 871-7792	800-871-6962	800-871-6962	800-871-6962
Water from an unregulated watering source	Navajo Department of Water Resources at (505) 729-4000			
Location of contaminated water sources	Navajo Public Water System at (505) 871-7776			
Water from an unregulated watering point on private lands	Navajo Tribal Utility Authority at (505) 528-5011			
Safe water drinking practices	Navajo Public Water System at (505) 871-7752			
Contaminated structures	Navajo Nation EMU Superfund Contaminated Structures Program at (505) 1-814-9446			
Uranium medical screening and monitoring program	Community Uranium Exposure - Journey to Healing, Navajo Area (505) 368-6311			
Uranium in your home	U.S. Environmental Protection Agency at (800) 231-9075			

U.S. EPA Home Inspector  
epa.gov/epa/pollution/uranium

Fact sheets

### Basics

Here's some more detailed information about uranium on the Navajo Nation.

**Quick Facts**

- Uranium is a natural element found in soil, rock, and water.
- Radiation in the air comes from natural sources like radon gas, radon, and radon.
- Because of uranium being in the ground, some rocks and structures on the Navajo Nation have small levels of uranium and radiation.
- You can take steps to control your exposure to uranium and radiation.

### Your Health

Uranium can have chemical and radiological effects on the body.

**Chemical effects**

Uranium is a chemical that is found naturally in the ground and some rocks and structures on the Navajo Nation. It can cause health problems such as kidney disease, high blood pressure, and other health problems.

**Radiation effects**

Radiation is the release of energy and particles from uranium and other radioactive materials. It can cause health problems such as kidney disease, high blood pressure, and other health problems.

More information and resources for staying healthy on the back page.

### Reduce Your Contact

There are four main ways to reduce your contact with uranium and radiation on the Navajo Nation. Because of uranium being in the soil, water, and some rocks, and structures on the Navajo Nation, there are health concerns.

Radiation is a type of energy that comes from uranium and other radioactive materials. It can cause health problems such as kidney disease, high blood pressure, and other health problems.

There are four main ways to reduce your contact with uranium and radiation on the Navajo Nation.

- Stay away from abandoned uranium mines and mills.
- Only use regulated water sources for human drinking, cooking, and bathing.
- Stay away from radon gas in your home.
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### Resource List

Agencies to Contact with Questions

Agency	Program and Contact	Telephone
Abandoned Mine Lands	Navajo Abandoned Mine Lands	(505) 487-4892
Radon in your home	Navajo Nation EMU Radon Program at (505) 871-7792	800-871-6962
Water from an unregulated watering source	Navajo Department of Water Resources at (505) 729-4000	800-871-6962
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# How to Conduct Public Education?



Photo of a presentation at a Chapter House meeting. →

Photo courtesy Amanda Pease, US EPA.

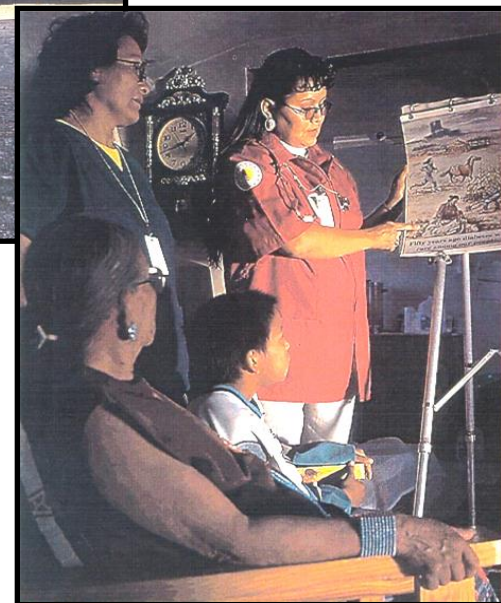
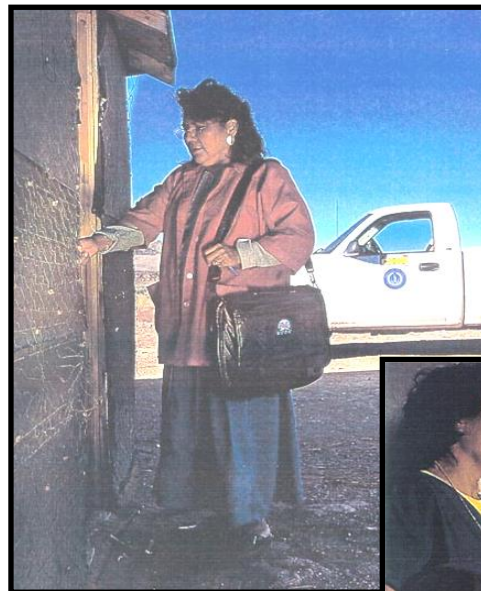
# Community Health Representative (CHR) and Outreach Program

- Program of the Navajo Nation Department of Health
- Serve 110 Chapters with 90 CHRs
- CHR, TB Control, Social Hygiene, and Navajo Birth Cohort programs
- Certified nurse assistant & public health certified



# Roles of CHRs

- Provide individual and group health education
- Assist community schools with health screening
- Coordinate community health fairs
- Provide referrals
- Conduct joint home visits with health care providers
- Find cases
- Provide personal health care and homemaker services
- Emergency transport and first response



# Dissemination of Materials by CHR Program

## Successes:

- 91 posters presented
- Paired presentations
- Interest
- Questions

## Challenges:

- Time limitation
- Chapter requirements
- Chapter agenda
- Posters being removed

## Next Steps

- “Refresher” training course with CHRAs completed in December 2015
- Development of “uranium 101” training course for community members
- New Community Outreach Liaison organizing a Community Outreach Network of Five Year Plan partners

# Links and Contact Info

- ATSDR Navajo Birth Cohort Study
  - [http://www.atsdr.cdc.gov/sites/navajo\\_birth\\_cohort\\_study/index.html](http://www.atsdr.cdc.gov/sites/navajo_birth_cohort_study/index.html)
- Navajo Nation Department of Health – Navajo Birth Cohort Study Pages
  - <http://nbcs.healthyvoices.org/>
- Federal Actions to Address Impacts of Uranium Contamination on the Navajo Nation - 2014 (the “Five Year Plan”)
  - <http://www3.epa.gov/region9/superfund/navajo-nation/pdf/nn-five-year-plan-2014.pdf>
- US EPA Addressing Uranium Contamination on the Navajo Nation
  - <http://www3.epa.gov/region9/superfund/navajo-nation/index.html>

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# Conclusions

## **ATSDR works effectively with tribal communities**

- Engaging tribes to understand their concerns and needs
- Providing technical and educational support to help tribes understand if a health impact is associated with chemical contamination in the environment
- Making recommendations to protect the health of the tribe