

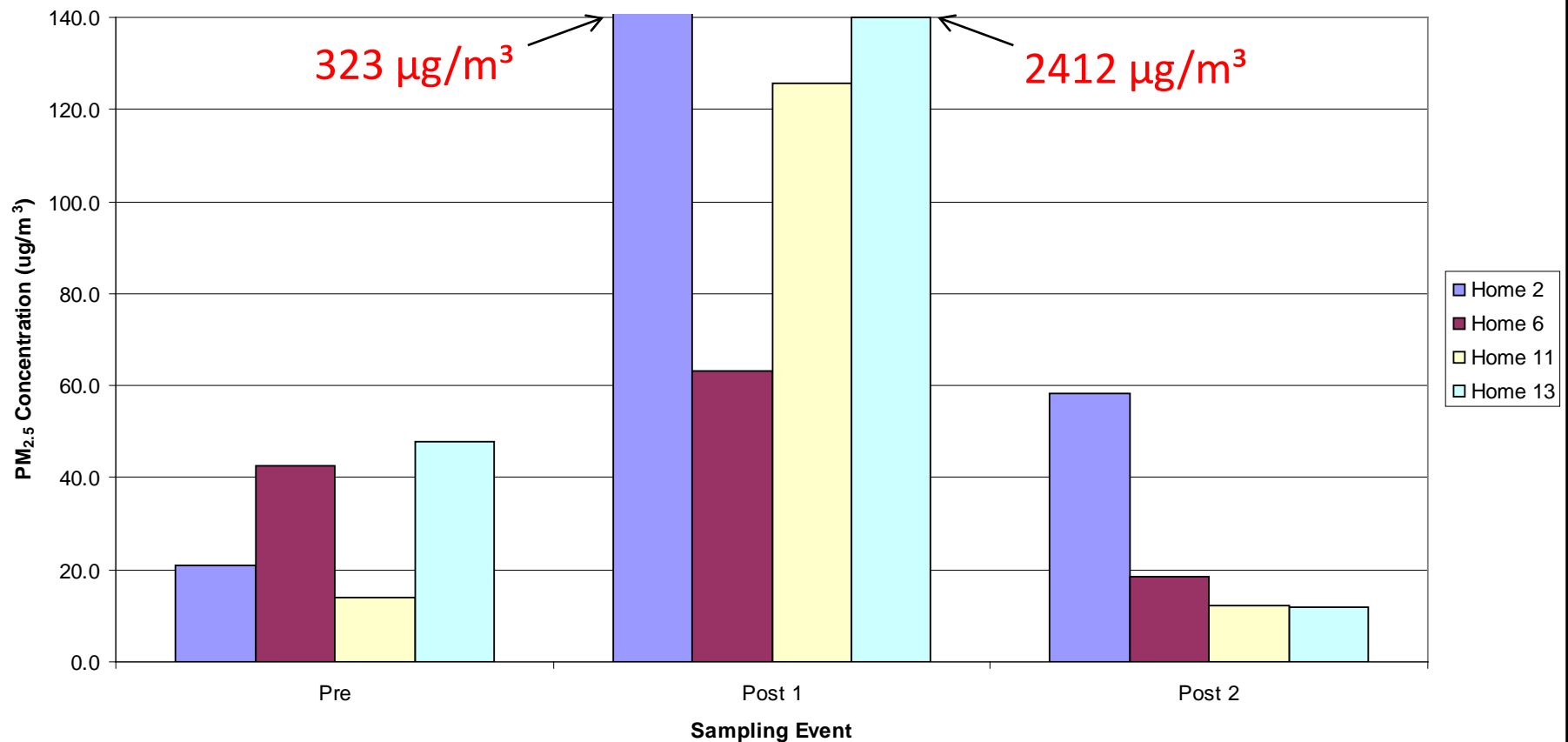
Wood Stove Studies & Education on the Nez Perce Reservation

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Nez Perce Tribe Air Quality Program

Measurable Outcomes of a Woodstove Changeout on the Nez Perce Reservation

Particulate Matter 2.5 Levels Following Outreach & Education



Other Wood Smoke Related Studies

- ARTIS (asthma randomized trial of indoor wood smoke) (2009-2011)
- Alternative Wood Fuel Study (2013 - 2014)
 - Phase 1: Woodstove Use, Home Heating and Health Effects: A Survey of Attitudes, Knowledge and Behaviors in Tribal Communities
 - Phase 2: Briquette Pilot - Testing the Viability of an Alternative Woodstove Fuel



Current Study

- Residential Wood Smoke Interventions Improving Health in Native American Populations (2014 - 2020)
 - National Institute of Health funding: University of Montana, Nimiipuu Health, NPT Forestry & Fire Management, NPT ERWM Air Quality
 - Navajo Nation
 - Community and home level interventions
 - Community Advisory Board

Community Level Intervention



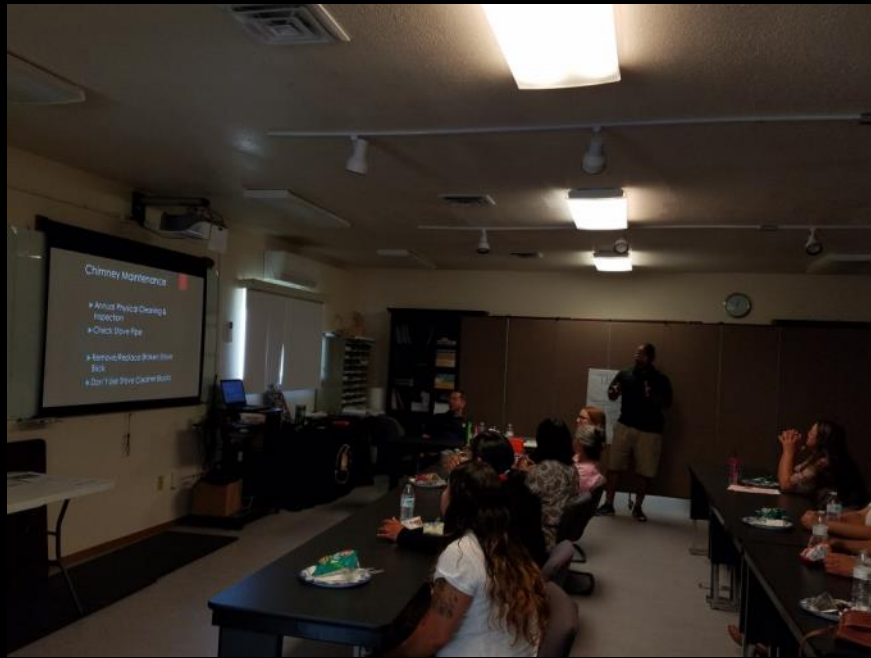
Lapwai
Wood Yard

Home Education Intervention

- Digital stories combining Nimiipuu stories with Burn Wise messaging
 - How to Treat Firewood
 - How to Optimize Your Wood Burning
- Tools received: moisture meter, stove thermometer, fire starters



Community Education



Home Level: Health Measures & Indoor Air Sampling



R10 Tribal Clean Burning Workgroup

WET WOOD IS A WASTE

BURN DRY FIREWOOD TO SAVE MONEY AND HEALTH

Four Easy Steps to Dry Firewood



STEP 1
SPLIT

STEP 2
STACK



STEP 3
COVER

STEP 4
STORE

Burn Wise
Program of U.S. EPA



EPA 456/F-10-003

SMOKY FIRES ARE A WASTE

USE DRY FIREWOOD AND BURN EFFICIENTLY



Photo: Gary Ehrlich

Tips and Information to Save Money and Protect Your Family's Health

SMOKY FIRES ARE A WASTE

BURN EFFICIENTLY

3 Steps for Efficient Heating



STEP 1
START IT HOT*



STEP 2
ADJUST AIRFLOW SLOWLY



STEP 3
CREATE DRAFT TO REFUEL

**Note: Steps are for non-catalytic stoves. See the stove instruction manual (if available) for further details.*

BURN WISE

How to Burn Wood Efficiently

1. START IT HOT

- Start with a small fire. Use dry kindling and a few pieces of wood (no more than 20% moisture content).
- Completely open the damper or air control to give the fire plenty of air. Older stoves may need the door slightly open at startup.
- Get the chimney or flue hot. Add kindling if necessary.
- Gradually add larger pieces of split, dry firewood.
- Close the door to heat the stove and flue (15-30 minutes depending on the stove).

2. ADJUST AIRFLOW SLOWLY

- Once the stove is fully-heated, add dry firewood.
- Keep space between firewood when adding more fuel to the fire.
- Gradually close the air controls because closing down too quickly can smolder the fire.
- A smoldering fire, "dirty" glass doors or smoke from the chimney are all signs that the fire needs more air or that the firewood is too moist.

3. CREATE DRAFT TO REFUEL

- When more firewood is needed, fully open the air control to create a draft in the chimney first.
- Open the door slowly to prevent smoke from entering the room.
- Add wood and adjust burn rates by adding or reducing airflow.

For More Information Contact:

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Burn Wise
Program of U.S. EPA



For digital copies, contact Erin McTigue at mctigue.erin@epa.gov

EPA Burn Wise

- Burn Wise Awareness Kit
- How & Why to Use a Moisture Meter
- Two Videos:
 - “Split, Stack, Cover, Store”
 - “Wet Wood is a Waste”
- Wood Smoke Activity Book
- Wood Smoke PSA (May 2018)
 - (Nimiipuutimt & English)



Thank You!

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