Wood Stove Studies & Education on the Nez Perce Reservation

Johna Boulafentis
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

PM$_{2.5}$ Concentration (µg/m$^3$)

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<th>Home 2</th>
<th>Home 6</th>
<th>Home 11</th>
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<td>323 µg/m$^3$</td>
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<td>2412 µg/m$^3$</td>
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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, Nimíipuu 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 Nimipuu 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

FOR DIGITAL COPIES, CONTACT ERIN MCTIGUE AT MCTIGUE.ERIN@EPAGOV.
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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