

# Nez Perce Tribe Woodstove Study & Change Out



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# Study Overview

- 16 participating households
- Sampling before/after changeout
  - Ambient  $PM_{2.5}$  mass
  - Indoor  $PM_{2.5}$  levels and chemical markers of woodsmoke
- Woodstove change out
- Outreach and education



# Indoor Sampling

## ■ Equipment

- DustTrak (Model 8520)
- Leland Sampler / Personal Environmental Monitor (PEM) with a quartz filter

## ■ Data Collection

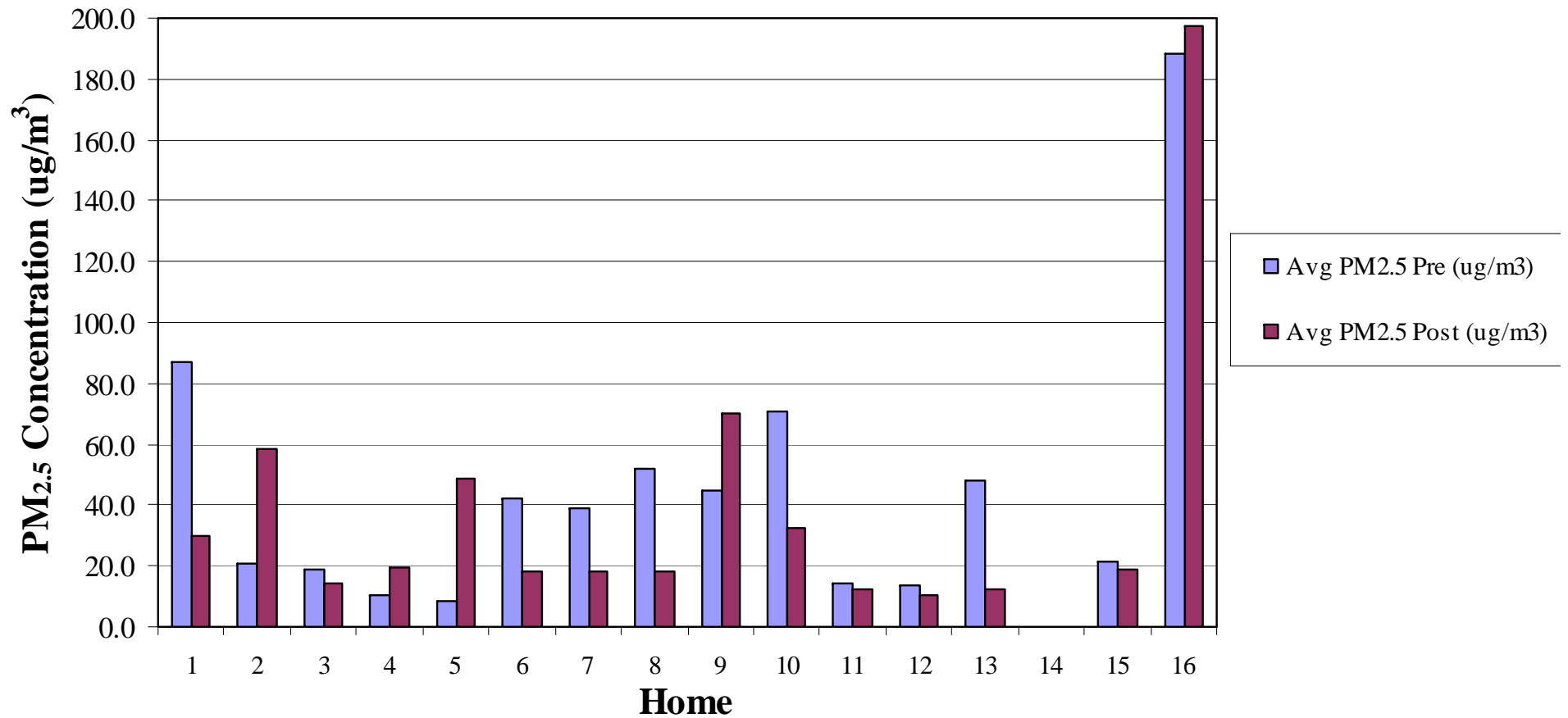
- Sampled for 24-hour period, one to five sample days
- Intern sampling duties
- Participant responsibilities



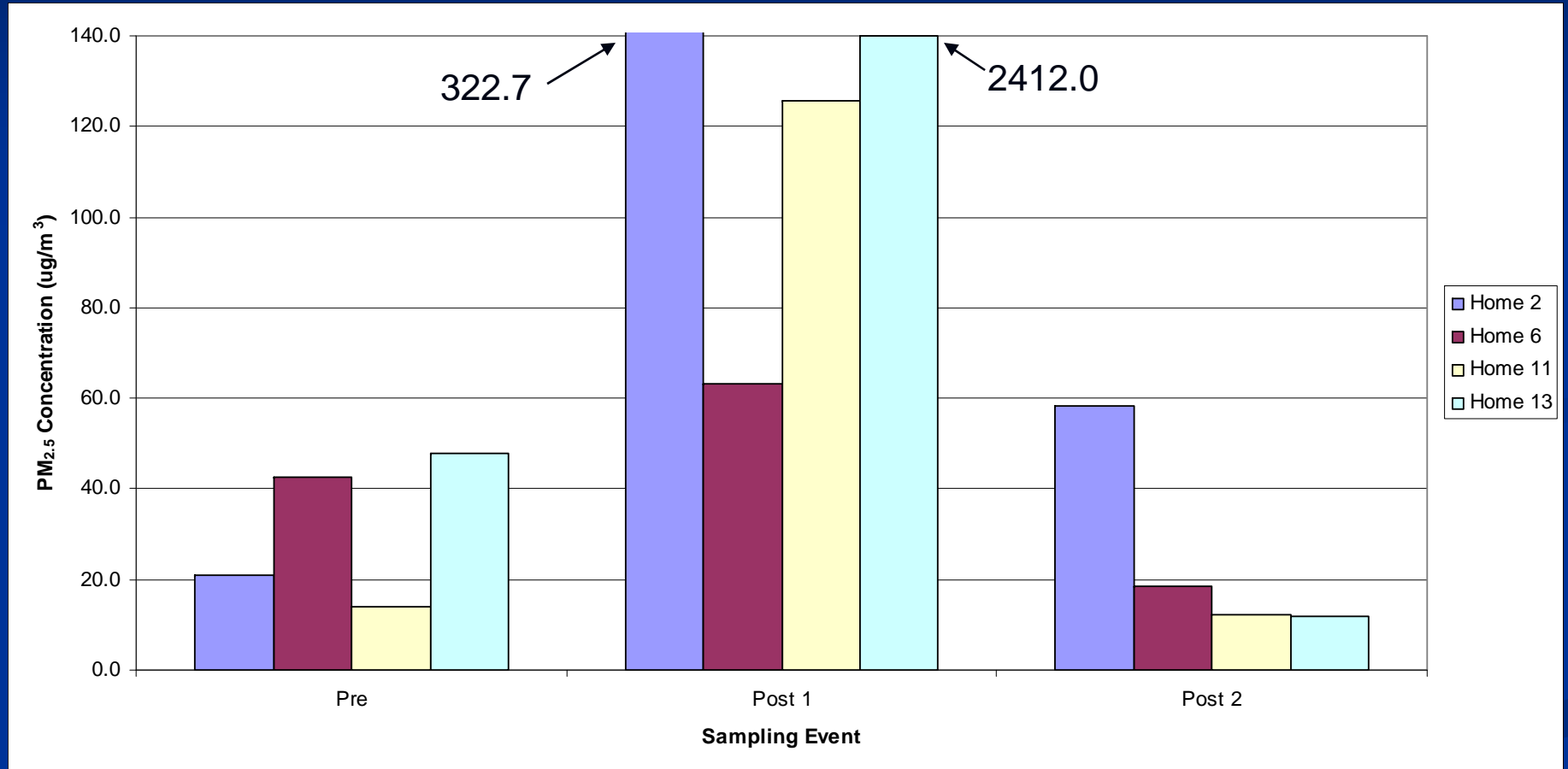
# From Old to New



# Indoor PM<sub>2.5</sub> Mass Comparisons



# PM<sub>2.5</sub> Mass Following Outreach/Education



# Outreach and Education Lessons Learned

- New stove learning curve
- Less is more
- Be specific. Step by step directions



# Outcomes / Successes

- Partnerships & intern participation
- Reduced ambient PM<sub>2.5</sub> in each community
- Reduced indoor levels
  - PM<sub>2.5</sub> levels by 52%
  - Levoglucosan by 63% (chemical marker)
- 16 tribal homes with EPA certified stoves
- Outreach and Education

# Thank You!

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