New Mexico Department of Health
Biomonitoring Project
and State Lab Capacity Building

<table>
<thead>
<tr>
<th>What is Biomonitoring?</th>
<th>Biomonitoring Steps</th>
<th>Biomonitoring Health Goals</th>
<th>Biomonitoring Project Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomonitoring is the evaluation of human sample media such as blood or urine to assess chemical exposures</td>
<td>1. Identify the exposed population 2. Collect samples (blood/urine/saliva) 3. Analyze to determine chemical exposure levels</td>
<td>1. Assess health risk from chemical exposures 2. Treat and/or prevent exposure</td>
<td>1. Identify NM populations at risk for exposure 2. Develop lab capabilities to analyze samples 3. Conduct Studies</td>
</tr>
</tbody>
</table>

### Biomonitoring Aspects

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**Uses of biomonitoring data**
- Are exposures to chemicals in the environment occurring?
- Are exposure levels associated with disease?
- Is the exposure high enough to warrant intervention?
- Are toxicant levels above those seen in the general US population?
- Do toxicant levels vary across people with different environmental exposures?

**What exposures can be evaluated?**
Exposures can occur from a variety of sources including:
- air pollution
- drinking water contaminants
- pesticides
- second-hand smoke
- certain plastics
- contaminated soil/dust
And a variety of exposure routes:
- Ingestion
- Inhalation
- Dermal
- Contact
- Food

Many types of chemicals can be evaluated by NM or other Consortium State Labs:
- Metals
- Solvents
- Radionuclides
- Pesticides
- Herbicides
- Nicotine metabolites
- Phthalates (from plastics)
- Chlorinated compounds

### Progress and Products

- **Biomonitoring Plan for NM Exposures**
- **Plan for Pilot Study of Arsenic and Metals in Urine**
- **Plan for sampling in early 2005**

Meetings are being held with environmental health partners and the public throughout the State to identify potential chemical exposures of concern:
- Concerned citizens
- Tribal Representatives
- NM Environment Dept.
- UNM/NMDOH Epidemiologists
- Local Health and Environment Agencies

**Initial study will evaluate metals in urine and drinking water:**
Antimony, arsenic Beryllium, cadmium Chromium, copper Lead, Manganese Mercury, Molybdenum Uranium, Vanadium And Zinc

**All results are reported to the participant and are confidential**
- Participants complete an exposure survey and provide a one-time urine sample
- Proposed metal pilot study counties:
  - Sandoval
  - Dona Ana
  - Taos

Biomonitoring Project is funded through a CDC Grant -- Interest in the project should be directed to NM Department of Health Environmental Health Epidemiology Bureau: 888-878-8992