

# Introductory Comments

## Environmental Exposures in Early Childhood Education Environments (ECEs)

Asa Bradman, Ph.D. UC Berkeley  
Contract 08-305

Jeffery Williams Ph.D.  
Contract manager

# Why Fund this Study?

- Children more vulnerable to air pollution
  - Children experience higher exposures to contaminants than adults per unit body mass
  - Children still developing immunologically and neurologically
  - Exposures can exacerbate asthma, impair neurocognitive function, cause reproductive harm, increase risk of cancer
- Unhealthful levels of some air pollutants found in prior studies of California schools and homes
- Need better understanding of exposure in daycare centers

# Health Findings

- Most air pollutant levels in daycare centers similar to those in schools and homes:
  - Most facilities had levels of formaldehyde exceeding health guidelines
  - Many facilities had particle levels (PM10) exceeding the California ambient air quality standard (24 hour)
  - Lead was detectable in floor dust

# Reducing Indoor Exposures

## Actions by ARB

- Air Toxic Control Measure for formaldehyde from composite wood products expected to improve indoor air quality
  - Consumer products regulations and California Green Building Standards Code helping to reduce emissions from some sources
  - Challenges lie ahead to reduce formaldehyde from other indoor sources
- Control measures to reduce PM from outdoor sources will continue to reduce indoor levels
- Guidance available to reduce exposures to indoor pollutants further