OPPORTUNITIES FOR IMPROVING COMMUNITY HEALTH & WORKING TOWARDS ENVIRONMENTAL JUSTICE

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OPPORTUNITY #1: WORK WITH SMALL BUSINESSES

Small businesses particular risk:
• Use hazardous solvents
• Less likely to provide health insurance, medical screening tests, employ safety personnel
• Number exceeds regulatory capacity
• Barriers with language/literacy and marginalized status

Community Assist of Southern Arizona (CASA):
• Comprehensive multi-media pollution prevention program
• Source reduction, recycling, treatment and disposal
• Promotoras conduct outreach and trainings

Moreno Ramirez et al. IJERPH (2015); Beamer et al. Ped Pul (2016)
Community Partnerships
UA, SERI, El Rio (FQHC)

Hierarchy of Controls
PPE
Admin Controls
Engineering Controls
Substitution
Elimination

Community Health Worker Intervention

Socio-ecological Model:
Occupational & Environmental Health Disparities

Ingram et al. JESEE (2021)
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OPPORTUNITY #2: ADDRESS CONTAMINATED SOIL

- Air transport pathway has substantial contributions to indoor inhalation and non-dietary ingestion exposures.
  - 60-90% via air

- Current soil sampling strategies (sieve < 150 µm) may not be adequate to assess these risks
  - 89% of particles on hands < 60 µm
  - Most soil contaminants are more concentrated in smaller soil size fractions

Layton and Beamer, ES&T (2009)
Beamer et al., JEM (2012)
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OPPORTUNITY #3: CONSIDER CUMULATIVE IMPACTS

Carr et al., JACI In Practice (2017), Benton et al. in Preparation
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OPPORTUNITY #4: REDEFINE RESEARCH APPROACH

Incorporating the environmental justice principles into exposure science

Van Horne et al., JESEE (2022)