Superfund Community Engagement:

An Opportunity for Advancing Implementation Science

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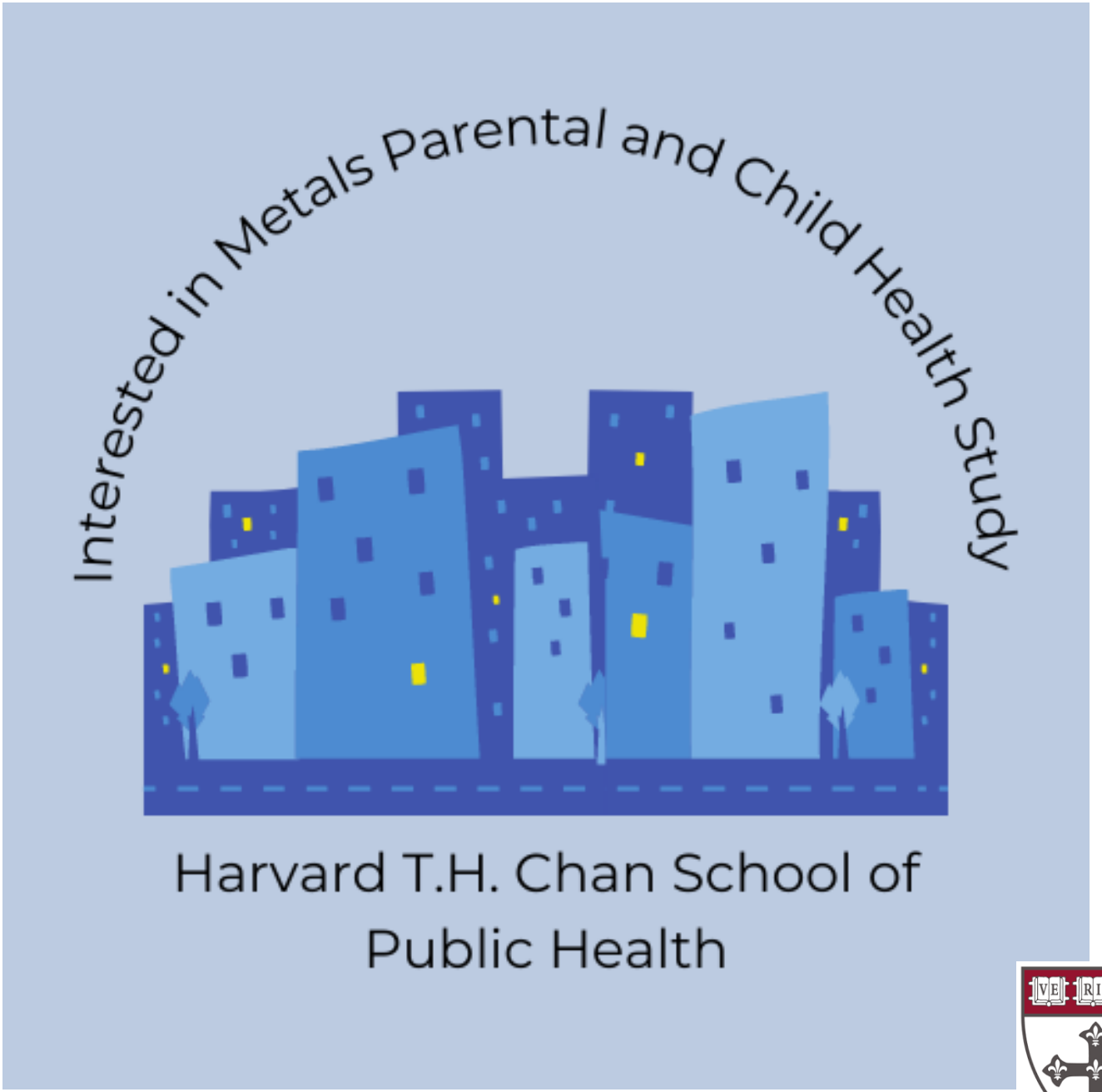


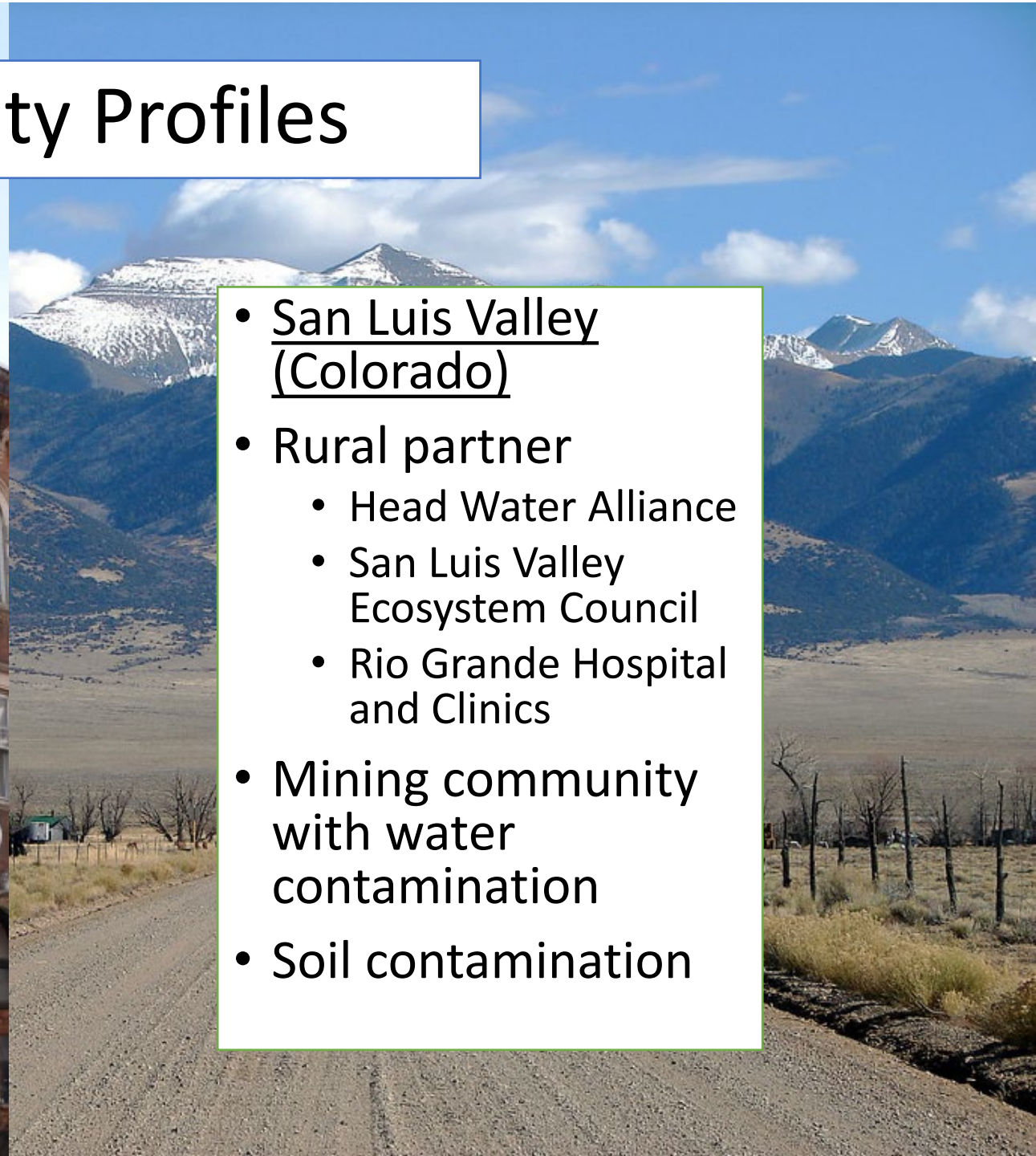
Harvard MEMCARE Superfund Center Goals

Working with pregnant people and parents:

- Identify community concerns around metals exposures and remediation opportunities
- Conduct community science to assess exposures to multiple metals
- Engage the community in an intervention to reduce metals exposures to improve health

Community Profiles

- <u>Roxbury (Massachusetts)</u>
- Urban partner
  - Dimock Community Health Center
- Contamination of neighborhood soil—air pollution
- *Possible* water contaminants due to older housing stock/pipes



- <u>San Luis Valley (Colorado)</u>
- Rural partner
  - Head Water Alliance
  - San Luis Valley Ecosystem Council
  - Rio Grande Hospital and Clinics
- Mining community with water contamination
- Soil contamination

Moving from research *to* translation *to* implementation

- Understand communities' concerns
- Identify the barriers
- Leverage resources
- Identify key stakeholders that could help facilitate change

From research *to* translation

Understanding communities' concerns and co-developing solutions:

- Clinical information sheets
- Social media information distribution
- Podcasts
- Environmental Racism Story Map

BABY FOOD FACTS

"Food for us comes from our relatives, whether they have wings or fins or roots. That is how we consider food. Food has a culture. It has a history. It has a story. It has relationships." – Winona LaDuke, Ojibwe Nation, environmental activist

You have likely seen in the news warnings about toxic metals in baby food and rice cereal. Toxic metals such as lead, arsenic, cadmium, and mercury exist in the earth both naturally and unnaturally. The unnatural types of these metals come from building dust, burning trash, and car and truck exhaust. They are carried by wind, settle into farm soil, and then get absorbed by the farm's crops that are then turned into baby food.

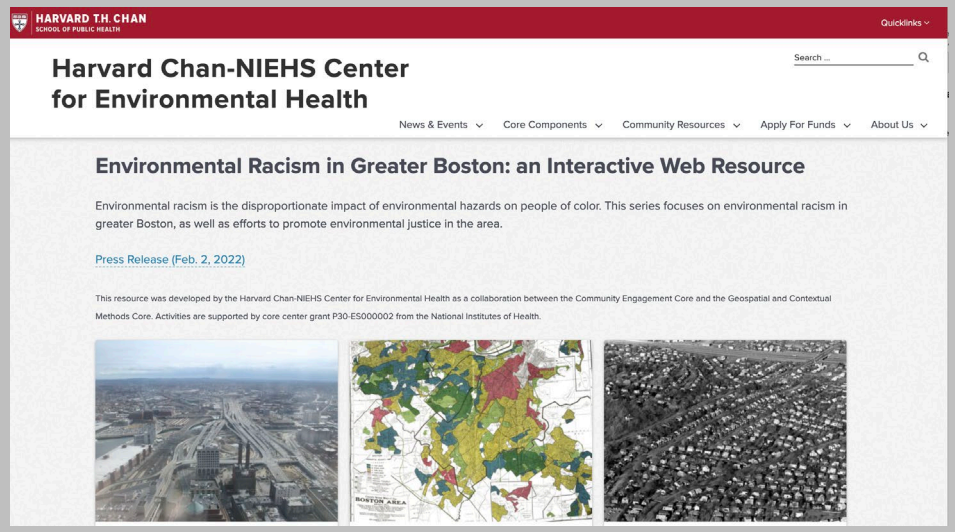
POSSIBLE HEALTH CONCERNS INCLUDE

- **Lead** can effect brain growth and learning.
- **Arsenic** can cause digestion issues and increase risk of cancer. It can also cause changes in the skin.
- **Cadmium** can damage lungs, kidneys, and bones and increase cancer risk.

HERE ARE SOME WAYS YOU CAN REDUCE EXPOSURE

Food known to have toxic metals	Alternatives that reduce exposure to toxic metals
Rice cereals and rice flour Rice milk Brown rice syrup	• If you can, switch to rice-free foods, like oatmeal, quinoa, multi-grain cereal, polenta, and farro. Mix it up during the week. • Rinsing rice before cooking can reduce the amount of arsenic in rice.
Teething biscuits	• Try frozen banana slices or cold peeled cucumber to help with teething pain • Other ideas: a clean wet washcloth or spoon (watch for choking)
Baby food made from vegetables grown in the ground like carrots and sweet potatoes	These plants are healthy and should still be eaten, but to reduce metals, mix it up with other fruits and veggies during the week. Every color of the rainbow in a week is a good guideline for baby food.
Juice, especially apple, pear, and grape	• Cold water and milk are safer options when it comes to toxic metals. • Just like vegetables, mix it up throughout the week.

*adapted from materials by the California Department of Public Health and the Food and Drug Administration



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Environmental Racism in Greater Boston: an Interactive Web Resource

Environmental racism is the disproportionate impact of environmental hazards on people of color. This series focuses on environmental racism in greater Boston, as well as efforts to promote environmental justice in the area.

Press Release (Feb. 2, 2022)

This resource was developed by the Harvard Chan-NIEHS Center for Environmental Health as a collaboration between the Community Engagement Core and the Geospatial and Contextual Methods Core. Activities are supported by core center grant P30-ES000002 from the National Institutes of Health.

From translation *to* implementation

Identifying barriers and co-designing solutions:

- Listening + community science
- Hybrid model of effectiveness + implementation
- Qualitative + quantitative methods
- Environmental health literacy

From translation *to* implementation: evaluating awareness and uptake of information

Identifying key stakeholders that could help implement effective change:

- Health care professionals
- Adult community members and organizations
- Youth community members and organizations

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  - Franklin Park Zoo
  - Roslindale Farmers Market
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