



Advancing Environmental Health Equity Through Implementation Science

Hosted by:
National Institute of Environmental Health Sciences
National Institutes of Health
U.S. Department of Health and Human Services



Why are you interested in this workshop?

Please use the Zoom Q&A feature to tell us about your interests in coming today!



Welcome & Workshop Introduction

Lindsey Ann Martin, Ph.D.
Health Scientist Administrator

Division of Extramural Research & Training

Population Health Branch

National Institute of Environmental Health Sciences

Overview

- Acknowledgements
- Why are we having this workshop?
- Why does implementation science matter for environmental health?
- Workshop overview





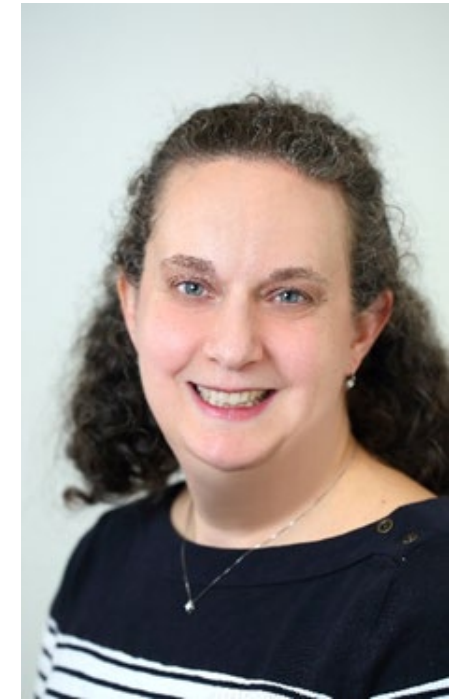
Acknowledgements



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- **Special Thank You:**

- Kate Stoney, formerly NHLBI
- Jennifer Alvidrez, ODP

- **Avanti Corporation**

- Devan Smith-Brown
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- **Division of Extramural Research & Training**
 - Helena Kennedy & Nicole Popovich
 - Population Health Branch

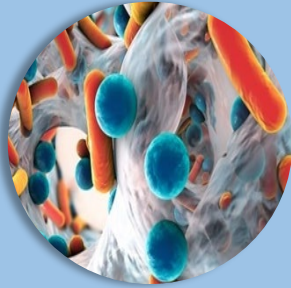




Why are we
having this
workshop?

Exposures in the *physical, built and social* environments

Microbiome



Infectious Agents



Air, Water and Soil



Agricultural Chemicals, Pesticides



Synthetic Materials



Disasters and Wildfires



Green Spaces



Personal Care Products



Stress



Exercise



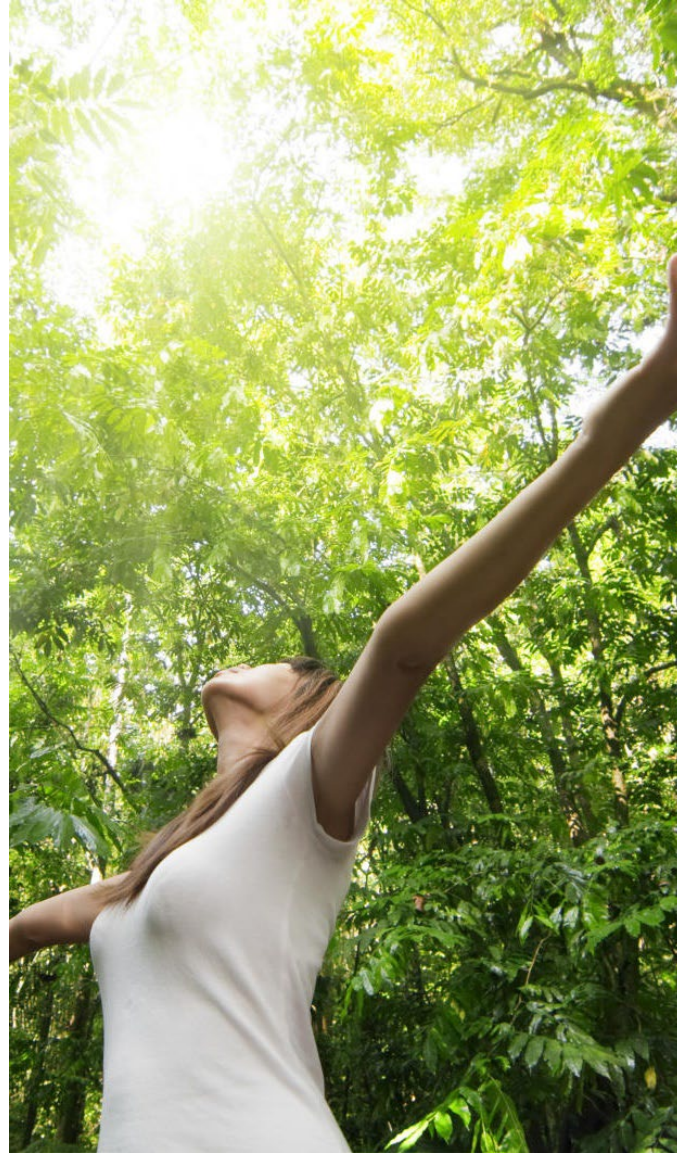
Lifestyle

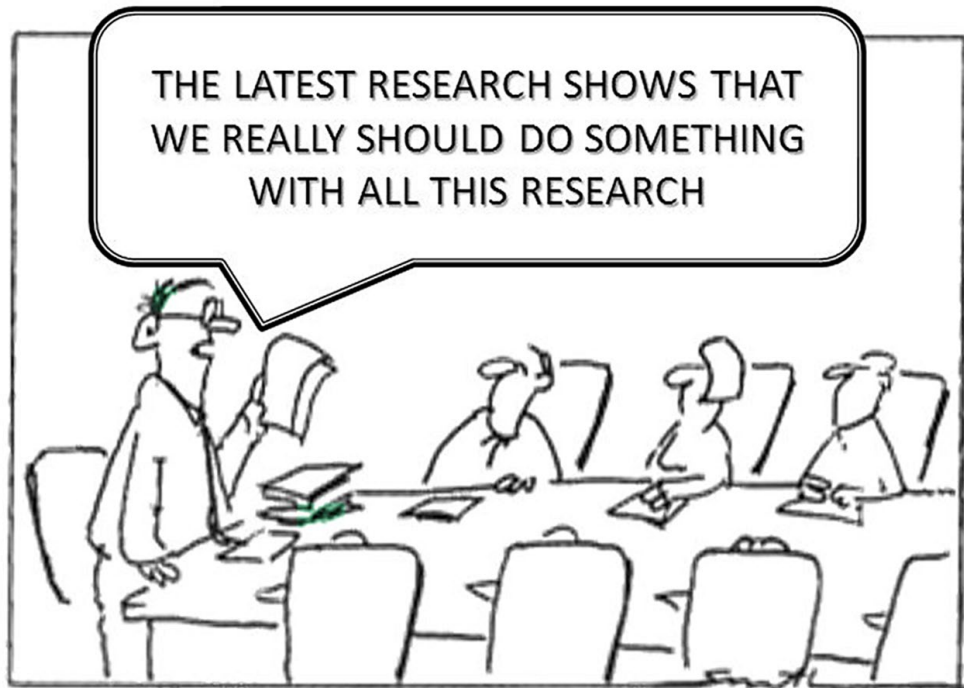


Diet



**Etiologic Evidence
Environmental Exposures Lead
to Chronic Disease**





Call to Action: the need for *equitable* evidence-based interventions...*and* implementation science

What is Implementation Science?

- “The intervention/practice/innovation is **THE THING**”
- Effectiveness research looks at whether **THE THING** works
- **Implementation research looks at how best to help people/places DO THE THING...**
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**”



Workshop Goals

1. To discuss how implementation science approaches can be used to advance environmental health equity
2. To identify research opportunities and gap areas to promote equitable implementation of evidence-based environmental health interventions
3. To identify resources, training, and capacity building needs as well as opportunities for collaboration





Why Does Implementation Science Matter for Environmental Health?

**A Case Study of Household
Air Pollution (HAP)**

Environmental Health *Equity* Issue

- WHO: “the **forgotten** 2.6 billion”
- Almost **4 million** premature deaths/year
- Women and young children have the highest rates of exposure
- Climate change impacts – black carbon and methane



WHO 22 September 2021: <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>



Why does Implementation Science Matter?

- Clean cooking technology (**“the THING”**) can reduce HAP...but why is **“the THING”** not being used?
- **Clean Cooking Implementation Science Network (CC-ISN)** examined **implementation gaps**
 - Uptake...
 - Scale-up...
 - And sustainment of **“the THING”**
- **Contextual factors impacting implementation of “the THING”**
 - Individual level
 - Community level
 - Societal and policy-levels

CC-ISN examples

- Which community-based participatory research methods most effectively advance **uptake** of “**the THING**” in rural India? (Ronzi)
- What are the household, network, and organizational **drivers of adoption** and **sustained use** of “**the THING?**” (Kumar)
- Do conditional cash transfers provide effective financial incentives to increase **adoption** of “**the THING**” among pregnant women? (Smith)
- What **strategies** *reduce* the use of stacking (“**the THING**”) with polluting stoves? (Pillariseti)



Community Mobilization for Improved Clean Cookstove Uptake, Household Air Pollution Reduction, and Hypertension Prevention – Olugbenga Ogedegbe R01HL157091

- Low adoption rate of clean cookstoves in Africa
- Community Mobilization (CM) *strategy* tested in Lagos, Nigeria (periurban communities)
- Hybrid Type II design – Cluster Randomized Control Trial – Exploration, Preparation, Implementation and Sustainment Framework
- *Adoption* of clean cooking (primary outcome) – improved systolic BP and sustained use of clean cooking (secondary outcomes)





National Institutes of Health



Workshop Overview



Rinad Beidas



Meghan Lane-Fall

Implementation Science – An Introduction

Keynote Address

Panel Discussions

- Setting the Stage
- Environmental Health Science Research Overviews
- Implementation Science Research Opportunities & Capacity Building
- Large Group Discussion – Audience Q&A





Veena Singla



Leopoldo Cabassa

Implementation Science in the Context of Environmental Health Disparities & Environmental Justice



Melissa Smarr



Ami Zota



Marion Koso-Thomas
Moderator



Rachel Shelton



Tamarra James-Todd



Nanette Benbow



Gina South

Evidence Based Prevention & Interventions



Chris Gordon
Moderator



Gwen Collman



Maria Fernandez



Lisa Thompson



Aruni Bhatnagar



Nicole Errett



Russell Glasgow

Emerging Environmental Health Issues: Climate Change & Disasters



Karletta Chief



Aubrey Miller



Gila Neta
Moderator



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Perry Sheffield



Liam O'Fallon



Lisa Saldana



Katrina Korfmacher



Natasha DeJarnett



Glen Mays



Paloma Beamer

Community & Multi-Sectoral Partnerships

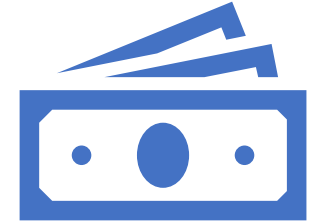


Dara Blachman-Demner
Moderator

Additional Activities - Funding



10 Key Ingredients



**Overview of Implementation
Science Funding Opportunities**



SIHH Study Section



Program Staff Q&A

Additional Activities – Next Steps

We want to hear from *you!*

- Get your smart phones ready!
- What are the research gaps?
- What are the opportunities?
- How can we build implementation science capacity in environmental health?





Welcome! Please keep the conversation going! Lindsey.Martin@nih.gov