

# Insights from the Precision Public Health Summit

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# What do we mean by Precision Public Health?

Broadly speaking...

- Application of advancements in measurement, data, technology to public health issues in both discovery and intervention science.

# Common understandings of precision public health

1. Science of the “Exposome” – complex interplay of social, environmental, behavioral determinants of health
  - And integration of this science with “omics” biology
2. Application of data, data integration, and technology to target public health interventions more effectively
3. Inclusion of diverse populations, and a focus on the health conditions that affect them, in precision medicine



## The crux of the argument

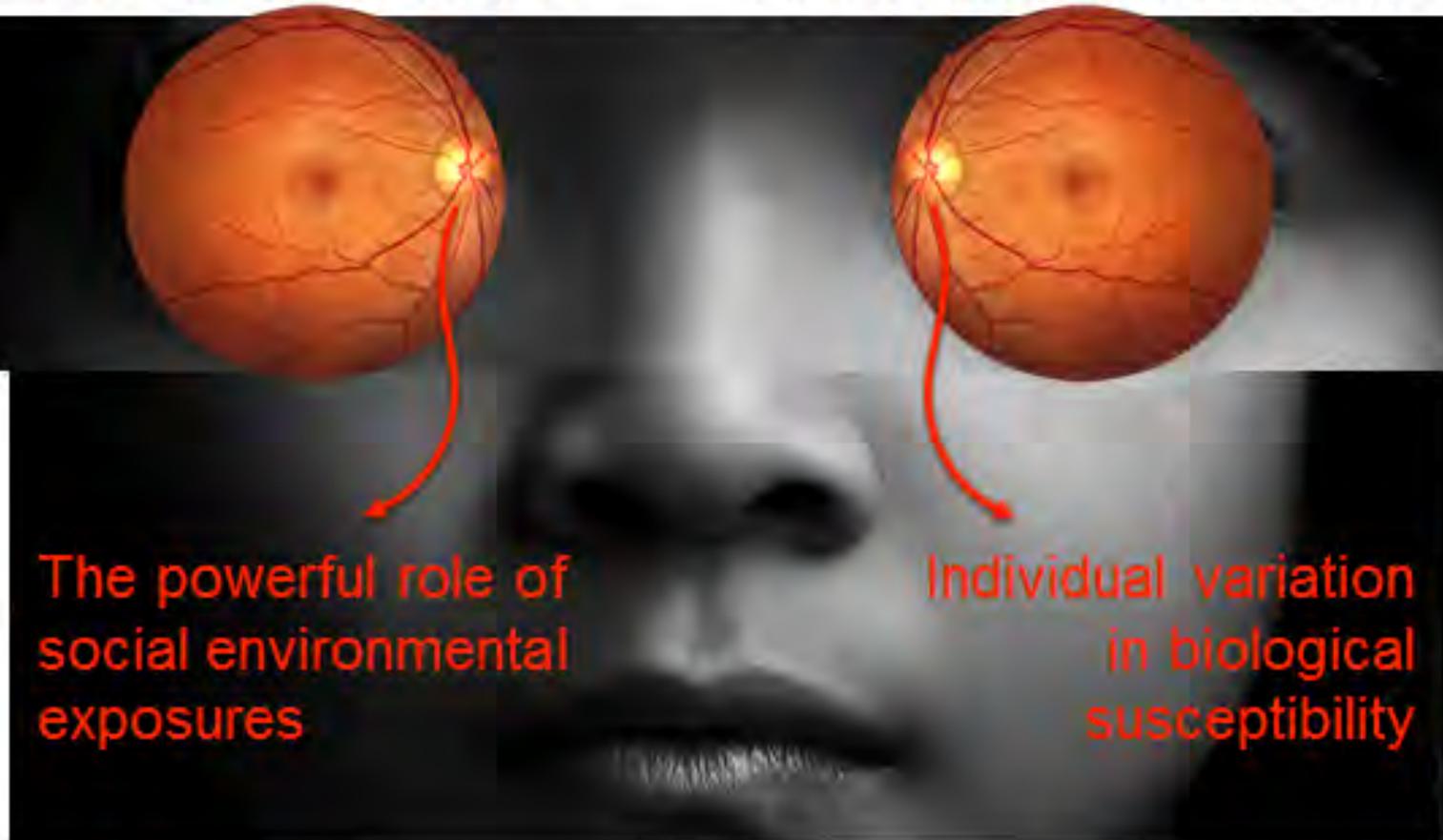
- Public health and medicine have labored for centuries as distant, largely estranged, health science siblings—each regarding the other with a level of vague suspicion and slightly moralistic derision;
- But emerging “precision” science—especially that addressing early child development—is now disallowing this familial disjunction, demanding a more convergent, synthetic view that involves *both* public health and medicine;
- From this point forward, understanding and intervening upon the genesis of human morbidities will almost certainly require a collaborative, interactive knowledge of *both* broad social and physical environmental exposures *and* individual biological variation in susceptibility to those exposures.

*Courtesy of Dr. Tom Boyce*

# The Binocularity of

Precision Medicine

Precision Public Health



Only a true partnership of precision medicine and precision public health will allow three-dimensional insights into how we might protect and sustain the critically formative first 1000 days of life.

*Courtesy of Dr. Tom Boyce*



# Summit Statistics

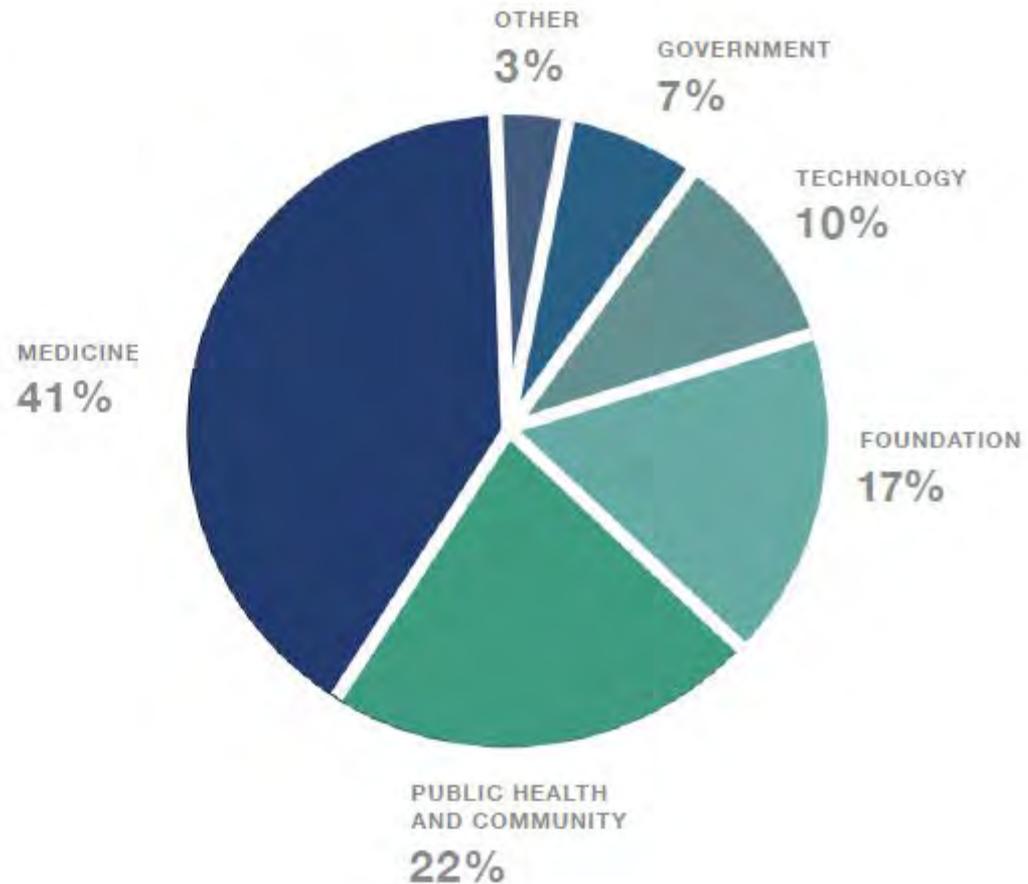
Attendees came together from all over the spectrum of Precision Public Health. Over the course of the summit, they connected, discussed, and shared ideas. Many committed to next steps to move the field of Precision Public Health forward.

**2** DAYS

**136** ATTENDEES

**21** BREAKOUT IDEAS

**12** BREAKOUT SESSIONS



# Top Themes - 1

## Social Justice

- Reduction in health disparities reduction and commitment to social justice must be a core principle.
- Requires new types of transdisciplinary collaborations

# Top Themes - 2

## Data Sharing

- Open access to data, integration of data from multiple sources, commitment to multi-level data collection is key.
- Requires thoughtful planning and commitment in both discovery and intervention phases.

# Top Themes - 3

## Community Engagement

- Community engagement, partnership, leadership is key.
- Deliberate actions to develop citizen scientists and leaders

# Final Thoughts

- Read the report available online
- Engage in the discussion on this topic to help define and develop these concepts.
- Commit to transdisciplinary, multi-sector teams - essential as these discussions continue.