Communicating Health & Impact: Why the message isn't landing?

Lessons learned from the personal exposure monitoring study among school-aged childern in Jakarta

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Why the message is not landing?

Health communication fails when it doesn't meet people where they are. A message that is culturally insensitive won't be understood, one that is hard to use won't be acted on, and one that doesn't connect to people's real lives won't stick.

How this study reshapes the message?

Through this study's **citizen science approach**, children carried personal air sensors, making air pollution personal and relatable.

When children bring their own exposure data home, air pollution stops being a city statistic — and becomes a family conversation.

Every child is inside an invisible *“pollution bubble”*

Two students live in the same neighborhood, but Student A walks through a quiet green alley, while Student B rides a motorcycle along a congested main road. **Even though the city AQI data is the same for both, the “pollution bubble” they inhale is very different.**

TWO LAYERS OF THE SAME STORY

Ambient data tells us about the shared air. Personal data tells us what exactly our childern breathe in the “bubble”.

CITY-LEVEL MONITORING

The foundation — outdoor air quality across the city

Fixed outdoor location · Essential for tracking ambient and city-wide air quality trends · Supporting policy evaluation

PERSONAL EXPOSURE MONITORING

What this study adds — the personal layer

Worn by the child · 24-hour continuous · Microenvironment monitoring: captures home, school, commute, and nighttime exposure

Air Pollution: The Invisible Silent Killer

Much of the exposure happens at home, a place where children should feel safe and protected.

4 IN 5 CHILDREN BREATHE HAZARDOUS AIR

About 4 in 5 children participating in the study experienced high PM2.5 exposure (≥55 μg/m^3).

11 P.M. TO 1 A.M. — MOST FREQUENT HIGH LEVELS OF POLLUTION

Nighttime indoor exposure is invisible to outdoor sensors.

HOME IS WHERE MOST EXPOSURE HAPPENS

PM2.5 exposure occurs across multiple daily settings, with the home as the dominant one—where children spend around 70% of their time.

The message lands when you can see your child's *"pollution bubble"*

A Citizen Science Approach to Meaningful & Actionable Communication

With citizen science approach, we will be able to produce information that is:

- **Engaging:** information that captures attention and drives action
- **Contextually relevant:** aligned with the real-life situations of specific audiences

Future Works

- Develop and deliver effective health information to vulnerable populations
- Build community-based, participatory strategies to improve the design and dissemination of health communication that better meets the needs of these populations

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