

**It's time to focus on action on air pollution**

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Air Sensors International Conference

May 1, 2024

# The health impact on cities can be very high

- Chronic Obstructive Pulmonary Disease
- Heart disease
- Asthma
  - Nairobi, Kenya: about 300,000 asthma cases in 2019
  - Surat, India: about 400,000 asthma cases in 2015-2016

## There are many benefits to acting to reduce air pollution

- Better health
- Less climate change
- Better quality of life

Also, people would have more peace of mind.

# The world has made a lot of progress on air quality

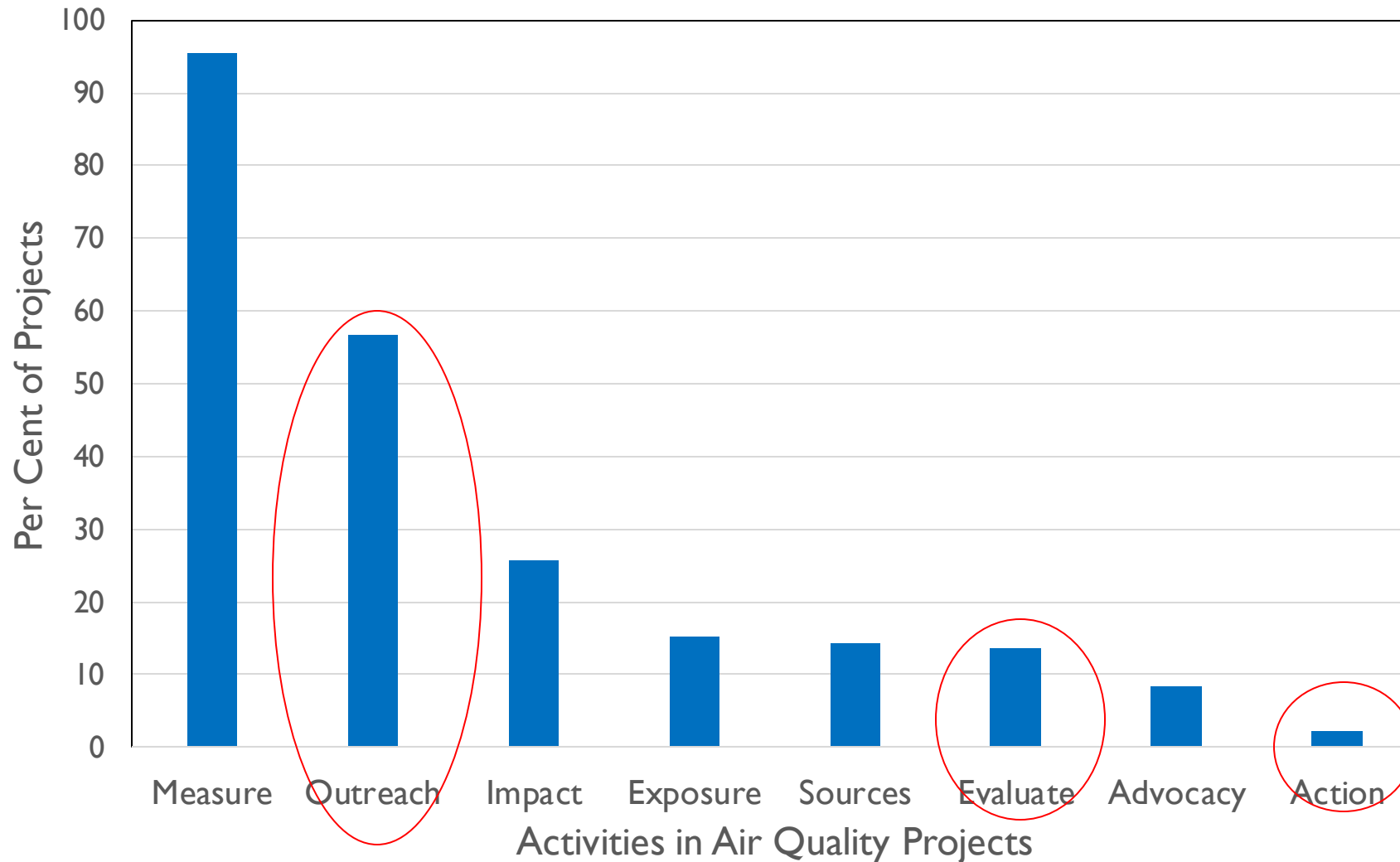
- Measurement
  - More coverage (6728 cities had sensors in 2022 per WHO)
  - Calibration equations for different conditions
- Data management
  - Error corrections and data storage
  - Data formats
- Funding
  - From EPA community grants, Clean Air Fund, Bloomberg

## Some initiatives and funders are supporting planning and action

- Breathe Cities
- Clean Air Fund
- EPA grant program

These efforts are a giant step in the right direction.

## Many city air quality projects focus on measuring



- EPA's ARP Enhanced Air Quality Monitoring Competitive Grants
  - About half do outreach
  - About 15% evaluate actions
  - Less than 5% take action

# Cities are taking action without having complete information

- Many cities have some information:
  - Pollution concentrations at different times of day
  - Approximate contributions of sources
  - Some information on health impacts
  - Political appetite for some actions

## How can cities achieve health benefits sooner?

- Change the focus of air quality projects to be about action
- Funders can provide incentives to encourage and reward actions
- Provide a path for taking action



## Some ingredients for taking action

- Willingness to act
- Ability to act
- Information about the city

Every city will use its own ingredients to get to action.

## Willingness to act

- Enthusiastic mayor - **If you have this then you have hit the jackpot!**
  - Enthusiastic mayors are able to take action quickly and decisively
  - Example: London, which has established an Ultra Low Emission Zone with Breathe London
- Clean reputation to uphold
- Politicians that are willing to act with incomplete information
- Supportive agencies
- High portion of the public supports action

## Ability to act

- Regulatory authority to set pollution standards and enforce them
- Resources, especially funds or data
- Buy in from stakeholders including city residents
- Expertise (can be obtained to some degree using resources)

## Information about the city

- Estimates of health impacts and trends
- Some understanding of the sources of pollution
- Understand the process for getting to action
- Know what actions are possible and their costs, benefits and timing
- Know how to set a target that is achievable

# Nairobi, Kenya

- Context
  - Population of 4.4 million in 2019
  - Expect rapid urbanization in the next decades
- Approach
  - Passed an air quality law and drafting an air quality plan
  - Developed a set of potential actions
- Results
  - Evaluating actions based on political feasibility, effectiveness, etc.

## Surat, India

- Context
  - Population of 6.1 million in 2016
  - Municipal solid waste and construction dust were environmental problems
  - City managed to become the second cleanest city in India but became out of attainment for air quality
- Approach
  - Provided data on waste burning in collaboration with the city
    - Implemented waste management techniques
    - Implemented dust reduction techniques for construction
- Results
  - Reduced waste burning from 3% of the total generated waste to 0.5%
  - Reduced on-site waste generated from construction activities by 90%

## Curtis Bay, Baltimore, US

- Context
  - Lower SES neighborhood
  - Coal dust in yards and houses from nearby coal transfer station
  - Illnesses such as asthma, lung cancer, etc.
- Approach
  - Johns Hopkins University and others helped city apply for and receive a grant from EPA
  - Universities measured air quality levels and emissions from trucks that transport coal
  - Universities confirmed coal dust as the source of observable dust
- Results
  - Considering covers for coal in trucks
  - Evaluating synchronizing traffic lights so trucks idle less
  - Residents are proposing changes to the facility's operating permit

## Bottom line: cities can act sooner

- Make **action** the focus of air quality projects
- It's possible to act without having complete information
- City residents will benefit sooner
  
- Let's hear your ideas about how cities can act sooner!



Thank you!

### Contact us

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