# Communicating about the health effects of air pollution to the public

Sammy Simiyu

Health Sector Engagement Consultant

Vital Strategies



### Strengthening Health Systems to Address Environmental Determinants of Health



- 1) Identify important gaps, perceptions, and misinformation of air pollution health impacts, sources and solutions
- 2) Strengthen public health data systems and data use to inform policies and investments, including active support to increase capacity to collect and use routinely collected data to inform and measure progress on clean air action
- 3) Mainstream air quality into ongoing public health efforts to address child survival and non-communicable disease

Clean Air Catalyst: Jakarta, Indore, and Nairobi



### **Communicating Health Effects of Air Pollution**

### Enhance Public Awareness and Education

• lifestyle changes, and preventive measures to minimize exposure.

### Safeguard Vulnerable Populations

 precautions to protect vulnerable members by understanding the specific risks associated with air pollution

### Foster Community Engagement and Advocacy

local initiatives and advocate for cleaner air policies

### Promote Prevention and Early Intervention

reduced disease burden

### **Encourage Collaboration**

 government agencies, non-profit organizations, academia, and community groups



### Air pollution has adverse health effects along the life course

#### IMPACT OF AIR POLLUTION AT DIFFERENT LIFE STAGES

**PRENATAL** 



Reduced growth

**BIRTH** 



Preterm birth and low birth weight

**EARLY** CHILDHOOD



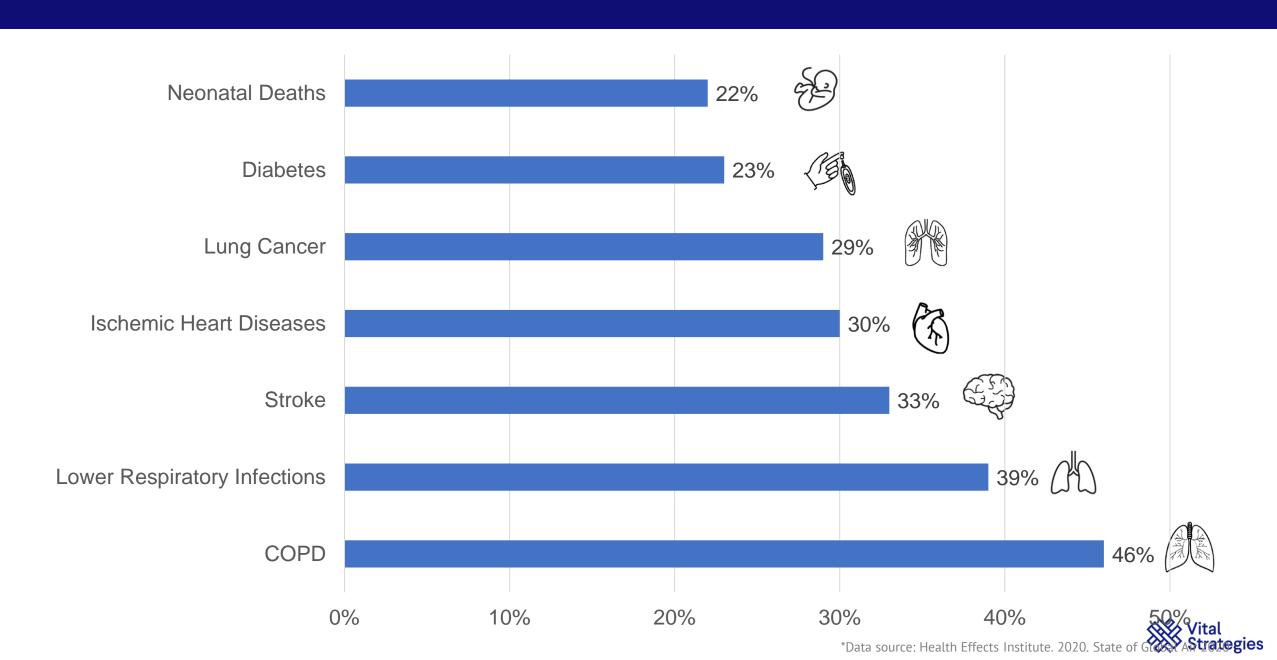
Decreased lung growth, reduced lung function, lower respiratory infections, including pneumonia, and developmental effects LIFE-LONG IMPACTS



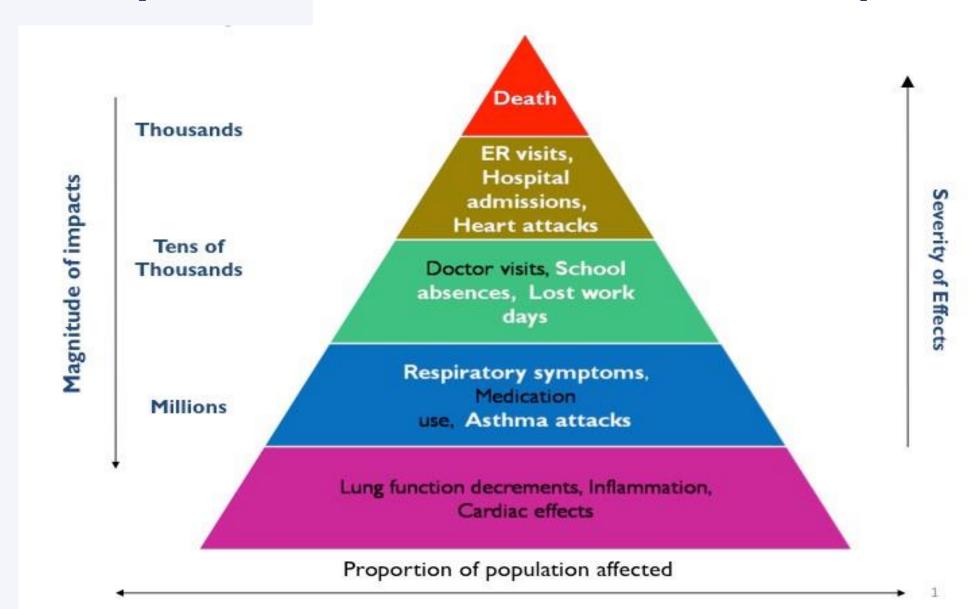
Chronic respiratory and cardiovascular disease



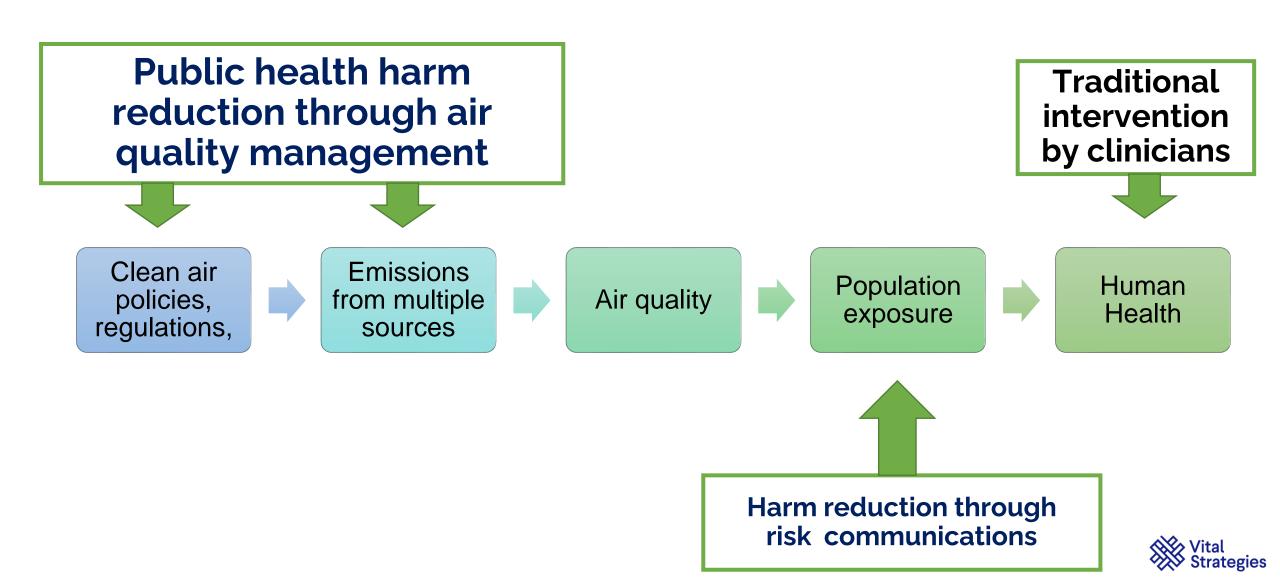
### Deaths (%) Attributed to Air Pollution in Kenya, By Cause, 2019



### **Beyond Deaths: Air Pollution's Health Impacts**



### **Equipping Frontline Health Workers to Promote Clean Air for Health**



### Role of Frontline Health Workers in Promoting Clean Air for Health

- Clinicians:
  - Clinical guidance
- Beyond clinicians
  - Nairobi: Public Health and Community Health Officers trained in April 2023
- Why public health professionals?
  - Health education
  - Trusted health advocates



#### Clean Air Catalyst

Communicate about leading sources of air pollution in Nairobi







Transportation

Waste Burning

Industry



Clean Air Catalyst

# Communicate strategies to reduce exposure



### Advise the city residents to:

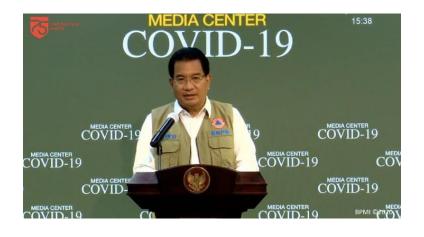
- Be aware of local sources of air quality in the environment, especially if there may be sudden changes in air quality.
- What should you do on poor air quality days?
- If walking or exercising outdoors,
  - Adjust timing to avoid peak pollution times.
  - Try to avoid areas with heavy vehicular traffic or near known pollution sources.

## Critical times for Implementing health communication activities?



**Directly** 

Example: Home visitation



### During Emergency Situations

Example: Announcements during the pandemic



### For Advocacy Purposes

Example: Healthy Lifestyle Campaigns



### Playbook for Accredited Social Health Activistst - India

The purpose of this playbook is to build the capacity of ASHAs to integrate key messages on promoting clean air for health into their interactions with community members especially women and children. It is believed that this knowledge would empower ASHAs to prioritize air quality messages in their work.

#### The objectives of this playbook are:

- Raise awareness of air pollution, its sources, and the impact it has on health
- Suggest ways to increase community understanding of air quality and impacts
- Provide recommended approaches for reducing local emissions and lowering exposure to air pollution, and
- Promote improved communication within the community about these topics



### Glimpses of the Playbook – Available in English and Hindi

### आशा कार्यकर्ता के लिए एक प्लेबुक

वायु प्रदूषण और स्वास्थ्य पर इसके प्रभाव



### Playbook for Accredited Social Health Activist (ASHA)

Air Pollution and its Impact on Health





#### Advice to the community during poor to severe air quality

- Close doors and windows on polluted days
- Remain indoors on days with poor air quality (severe AQI) and reschedule outdoor activities as per AQI level
- Consult the nearest doctor in case of symptoms like breathlessness, giddiness, cough, chest discomfort or pain, irritation in the eyes (red or watery)
- In winters take extra care where there is agriculture waste burning
- Always wear a high-quality mask when going out
- Avoid exercise or walks during peak hours of pollution



#### **Advice to vulnerable populations:**

Groups who are extra susceptible to air pollution, like patients with chronic pulmonary or cardiovascular problems; pregnant women, young children, and the elderly should take additional measures:

- Avoid exposure to air pollution, restrict outdoor movements as far as possible and avoid any strenuous activity.
- Avoid exercise or walks during peak hours of pollution
- Avoid areas with heavy vehicular traffic or known pollution sources
- Seek immediate medical advice if symptoms worsen.
- follow doctor's instructions and keep prescribed medications readily available.
- Consider wearing a high-quality protective face mask like N95 or N99





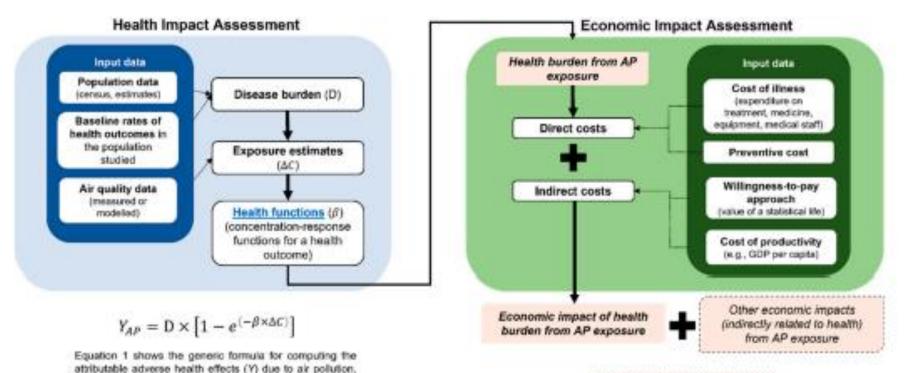




Article

### Impacts of Air Pollution on Health and Cost of Illness in Jakarta, Indonesia

Ginanjar Syuhada <sup>1</sup>, Adhadian Akbar <sup>2</sup>, Donny Hardiawan <sup>2</sup>, Vivian Pun <sup>1</sup>, Adi Darmawan <sup>3</sup>, Sri Hayyu Alynda Heryati <sup>3</sup>, Adiatma Yudistira Manogar Siregar <sup>2</sup>, Ririn Radiawati Kusuma <sup>1</sup>, Raden Driejana <sup>4</sup>, Vijendra Ingole <sup>5</sup>, Daniel Kass <sup>5</sup> and Sumi Mehta <sup>5</sup>,\*



### Using local data to inform local policies

- Over 7000 adverse health outcomes in children, over 10,000 deaths attributed to air pollution each year in Jakarta
- Total annual costs of these health impacts approach 3 billion USD

Total economic impacts from AP exposure

### **New!** Vital Strategies & BBC StoryWorks Programme Partnership



#### **Awareness**

Raise awareness of the various ways in which climate change is impacting human lives and health, highlighting the threat it poses to decades of progress from the global health community



#### Understanding

Deepen audience understanding of the ways in which the health community is seeking to be part of the solution: building capacity to reduce health vulnerability and promote health whilst reducing carbon emissions



#### Perception

Mobilise future climate and health leaders, championing youth participation and supporting young leaders, marginalised communities and health practitioners to work together with key stakeholders to realise the gains to be had from more ambitious climate action

#### **RESULT 1**

Engage a wide audience with the message that the climate crisis is a health crisis which demands transformative solutions

#### **RESULT 2**

Inspire solutions to protect human health and combat the climate crisis



### https://www.bbc.com/storyworks/the-climate-and-us/vital-strategies-data



AIR \_\_\_\_\_\_ INDONESIA

The data healing the lungs of a city



Opportunities to strengthen Communication for clean air action within State and Non State Actors?

- Capacity building of frontline health workforce.
- Advocacy and Community engagement
- Supporting the media
- Technical guidelines development
- Private sector and civil society engagement



Sumi Mehta <u>smehta@vitalstrategies.org</u>
Sammy Simiyu <u>ssimiyu.consultant@vitalstrategies.org</u>

