TB at the centre of airborne Pandemic Preparedness and Response

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Play video first: https://vimeo.com/139926588
COVID-19 Pandemic Experience

TB program resources and expertise were used to fight Covid:

- TB human resources
- Hospitals, laboratories / diagnostics
- Airborne infection control practices

TB programs were familiar with measures used in COVID:

- Masking, contact tracing, respiratory care, social distancing, ventilation, UV lights, etc.

TB programs were underfunded & capacity was already stretched; this led to:

- Disruptions to TB services
- Inadequate support to COVID
Tuberculosis and COVID-19 – more in common than you think

Common manifestations

- Airborne infections transmitted through breath
  - 1 untreated TB infects 15/y; 1 C19 infects many
- Causing similar symptoms (e.g., cough, fever)
- Affecting primarily the respiratory tract
- Both have high mortality
  - TB kills slowly but untreated TB has 50% mortality

Common responses

- Testing
- Tracing
- Masking
- Isolating
- Airborne infection control

INTEGRATED APPROACH NEEDED FOR PREVENTION AND CARE OF LETHAL RESPIRATORY INFECTIONS – COVID-19, TB AND FUTURE AIRBORNE PANDEMICS
Why TB needs to be in the centre of future pandemic preparedness and response?

• Very likely that next pandemic will be an airborne infection
  • Particularly if it is of a magnitude like COVID-19

• TB is an airborne infection, *ever present everywhere*, likely to outlive COVID-19 pandemic

• Adding investments to strengthen infrastructure and capacity of TB programs will help in developing surge capacity to fight any new airborne infection of pandemic potential

• Monitoring progress in TB could serve as a *marker* of the state of preparedness to fight any new airborne infection
Areas of investments which will help TB and also prepare the world for the next airborne pandemic

- Airborne infection prevention and control (AIPC)
- Diagnostics: multiplex testing platforms for respiratory pathogens, genome sequencing for drug/vaccine resistant variants, X-ray/imaging with a.i., mobile diagnostic units
- Contact tracing: human resources and infrastructure
- Community systems: community care, community led systems
- Digital health tools: a.i. based CADs, DATs
- Respiratory care: human resources, beds, equipment, supply, surge capacity, pvt sector care
- Disease surveillance and data: ILI/SARI as starting point of surveillance, next gen sequencing capacity for variants
- Vaccine research
Airborne Infection Prevention and Control

• A component of TB programmes for decades, but missing from health system and public spaces/buildings
• Time to change this to prepare for the next airborne pandemic

1. Administrative controls
   • Triage those with respiratory symptoms
   • Isolation
   • Respiratory hygiene

2. Environmental controls
   • Upper-room germicidal ultraviolet (GUV) systems
   • Ventilation systems and filters

3. PPE
Taking respiratory care to the people - INVEST in dual purpose TECHNOLOGY for TB as well as other airborne respiratory illness

Philippines, in a C19 quarantine facility: “How are your lungs? Free Chest X-ray”

Rapid molecular test for TB & C19 - portable

A standardized van with onboard diagnostics developed by private sector partners
Thank you

Secretariat would like to have Board guidance on making TB the centre of future airborne pandemic preparedness.