



GLOBAL TASK FORCE ON  
**CHOLERA CONTROL**

## **GTFCC SUPPORT TO COUNTRIES**

In-country surveillance for early detection and response, targeting of interventions, M&E

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# Role of Surveillance in Ending Cholera Roadmap I

- Axis 1: Early detection and response
  - Reliable recognition of clinical syndrome of suspect cholera case
  - Screening initial suspects with reliable rapid diagnostic test
  - Raising a cholera alert
  - Confirming presence of cholera transmission with culture or PCR
  - Regular interval check for on-going transmission with RDT-culture/PCR until end of outbreak
  - Outbreak containment with epi- and lab-directed targeted interventions

# Role of Surveillance in Ending Cholera

## Roadmap I

- Axis 2: Targeting of interventions, M&E
  - Use historical epidemiologic (place and time) and lab (culture confirmation) data to identify areas of high disease burden (hotspots)
  - Use hotspot data to target and prioritize cholera control interventions, including OCV and WaSH, and improved cholera surveillance
  - As part of a multi-disease public health surveillance system, systematically track cholera disease burden (cases, deaths, microbiology) over time
  - Analyse temporal cholera trends to measure impact of interventions, identify changes in hotspot mapping, adjust priority/mix of interventions

# Obstacles identified by countries

- For early detection, confirmation, and response
  - Unavailability of cholera RDT
  - Absence of mechanisms to raise an alert
  - Limited availability/equipment/clear objectives of multi-sectoral rapid response teams
  - Lack of equipment to transport samples to a culture-equipped lab in the periphery
  - Limited capacities of peripheral laboratories (hardware, supply of reagents) to perform cholera culture and biochemical testing

# Obstacles identified by countries II

- Lack of standardized historical data organized by time and place, linked to culture confirmation
- Lack of standard operating procedures, training, and technical support to properly estimate country cholera burden for precise mapping.
- Lack and/or low quality of supplementary indicators (WaSH, vulnerable groups, etc) to identify at-risk areas also requiring long-term intervention



# GTFCC Offer of Services I

- Guidance documents, job aids, training packages for
  - Clinical case definition
  - RDT sampling and interpretation
  - Line list template
  - Collection, packaging, and transport of specimens to lab
  - Cholera culture procedure and antibiotic drug resistance testing
  - Outbreak response team standard composition/objectives/SOP
  - Environmental surveillance methods at district level

# GTFFCC Offer of Services II

- Materials:
  - RDTs
  - Sample collection, package and transport materials
  - Basic hardware and reagents for culture and drug sensitivity testing
  - Standard supply kit for outbreak response teams
  - Supplies for monitoring of free residual chlorine levels and faecal coliforms

# GTFCC Offer of Services III

- Improving what is already in service:
  - Support country health information system that integrates key cholera epidemiologic and lab indicators that permits timely, reliable monitoring of cholera disease burden.
  - External and internal lab Quality Assurance program
  - Support to advanced analyses, including whole genome sequencing through established agreements with a network of GTFCC supranational reference lab partners
  - Support development, coordination, and implementation of cholera field research (diagnostics, control methods, treatment protocols, etc)



# Cost and support

- Investment case, for surveillance based on
  - global at risk population of 415 million people at baseline
  - capital costs, operations and maintenance, consumables
  - depreciation and amortization
  - staff salaries
  
- Per person cost per year: \$0.13 initially

# Initial facilitation cost of Surveillance Package: Assumptions

- Time horizon for initial investment is 3 years
- Only countries currently or likely to be engaged in that time frame are included (with flexibility to be more inclusive).
- Only countries with cholera transmission in the preceding 3 years were considered.
- Hotspot population per country and cost per individual per year as in the Investment Case.
  - except in countries with humanitarian crises limited to a maximum of 2 million people reachable given circumstances
  - Country support apportioned based on Gavi categories from WB GNI figures
  - Total initial hotspot population supported: 52 million people

# Initial estimates

- Cost (examples): per 200,000 population per year
  - Materials cost estimate based on GTFCC-recommended use:
    - RDTs: \$2 each
    - Culture: \$15 each
    - Sample collection: \$379/100 samples collected
  - Training, documentation, salary support: \$6000/year
  - Capital costs: \$5000/year
- Proportional financing (Gavi support schema)
  - Initial self-financing
  - Preparatory transition
  - Accelerated transition phase
  - Fully self-financing

**Total annual  
surveillance support  
cost:**

**\$4,751,751**



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Thank you