

# The Role of Vaccination Towards Typhoid Elimination

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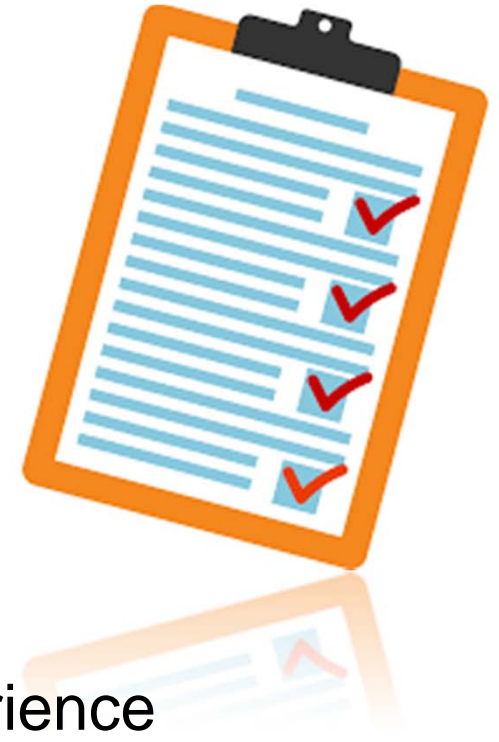
*11th International Conference on Typhoid &  
Other Invasive Salmonellosis*

*Hanoi, Vietnam*

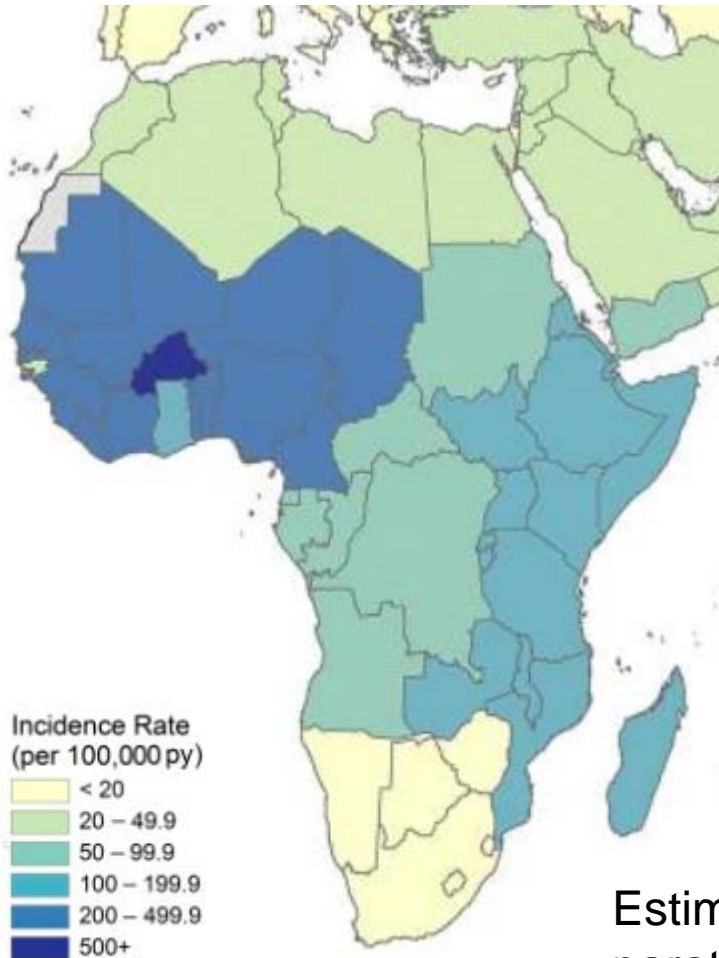
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# Overview



- ✓ Typhoid Burden in Africa
- ✓ Why Typhoid Vaccination
- ✓ Role of WHO
- ✓ Use of TCV in Africa – The Zimbabwe Experience
- ✓ RITAG Recommendations
- ✓ Typhoid as part of the larger agenda
- ✓ Next Steps



Estimated incidence of typhoid and paratyphoid fevers by country per 100,000 population, 2015.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6128367/>

# Why Typhoid Vaccination?

- Typhoid is a disease related to development and the vaccine can serve as a “bridge” as countries improve on development indicators
  - Improved WASH remains the mainstay for Typhoid prevention
  - Access to potable water, improved sanitation and sewage collection and treatment will take investments and time
  - Improved health systems and education will complement WASH improvements
- Antimicrobial Resistance
- Recurrent and seasonal outbreaks

The vaccine is a tool in the toolkit for typhoid control

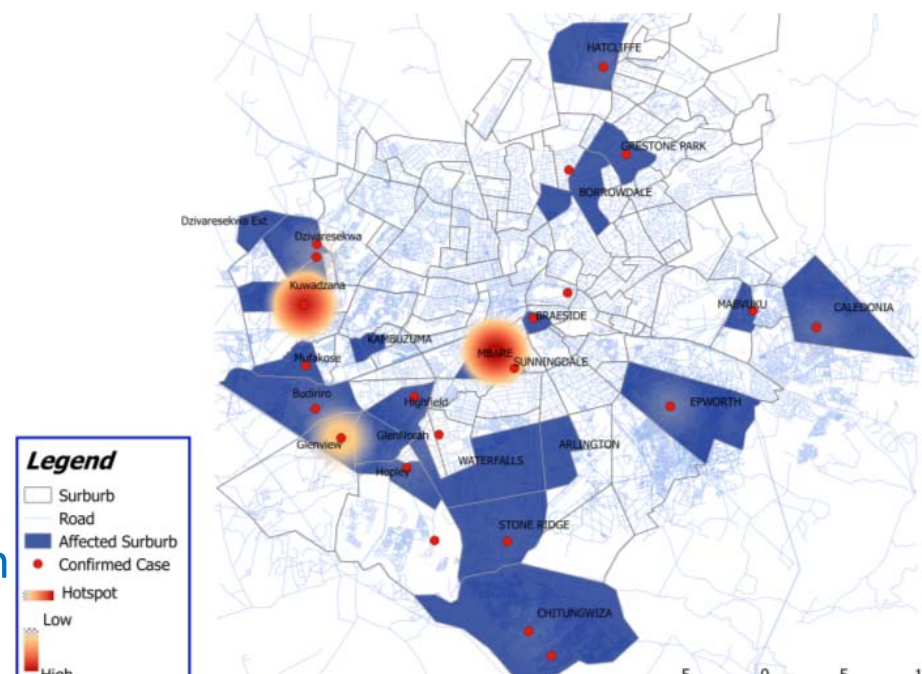


# Role of WHO

- Development of policies for TCV use (e.g. SAGE/RITAG recommendations)
- Development and supporting countries to use a Rapid Assessment Tool to assess burden (with CDC)
- Provide guidance on decision making for vaccine introduction either for response to outbreaks or into routine immunization
- Provide country focused TA for Gavi applications, preparation and implementation, monitoring and evaluation of TCV introduction (with TyVac)

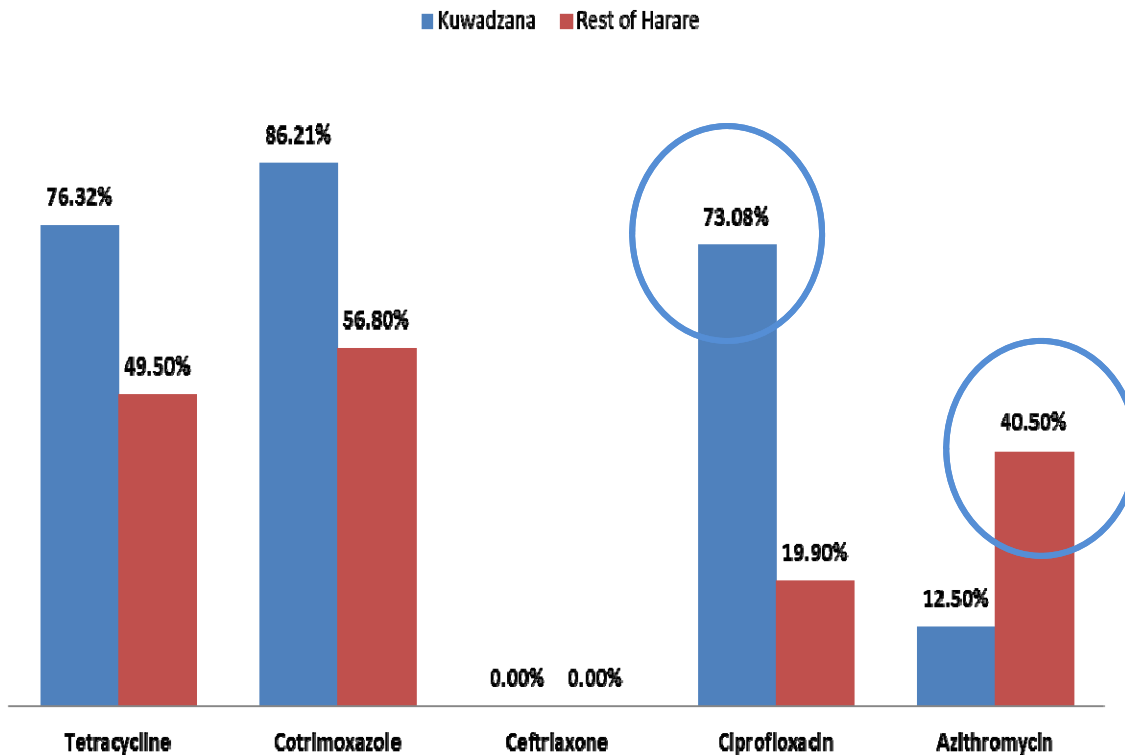
# Use of TCV in Africa – The Zimbabwe Experience

- Typhoid fever is endemic in Harare, with seasonal outbreaks every year since 2010 due to persistent poor WASH conditions in overcrowded suburbs ; not likely change in the near future
- 4 suburbs accounted for 79% of all suspected cases between 2016-2018, allowing targeted vaccination
- Amidst a cholera outbreak, Oct 2017 – Jan 2019, total of 6140 cases including 289 confirmed cases and 2 deaths



# High level of AMR S. Typhi in Harare

Antibiotic Resistance Pattern (%) among suspected Typhoid Patients' specimen sample as at 18-05-2018



=> WHO recommends the introduction of TCV to be prioritized in countries with the highest burden of typhoid disease or a **high burden of antimicrobial resistant S. Typhi.**

# Use of TCV in Africa – The Zimbabwe Experience

- Outbreak response - mass vaccination campaign with Typbar
- Optimal administrative coverage (85.4%) reached in 8 days
- TCV well accepted by communities
- No serious AEFIs reported
- School vaccination was effective in reaching 90% of 5 – 15 age group
- Wastage rate was minimal (<0.01%)
  - **Using available evidence, Zim-NITAG recommended the introduction of TCV into Routine Immunization.**
  - **NRA licensed its use in-country**



# Regional Immunization Technical Advisory Group Recommendations – June 2018

## WHO AFRO to:

- Prioritize development of a comprehensive multi-sectoral plan for control of typhoid and other water-borne/faeco-oral diseases
- Support countries with data generation (burden/AMR) for evidence based decision making to introduce TCV into routine immunization programmes
- Support the use of the WHO surveillance standards for typhoid fever and other invasive salmonella diseases for generation of better quality data
- In outbreak situations - countries to consider use of use vaccination as an extra tool in response to confirmed outbreaks of typhoid fever.

# Regional Immunization Technical Advisory Group Recommendations – June 2018

- Evidence gaps/Research: WHO AFRO to guide and support priority research on TCV to generate evidence of vaccine effectiveness, cost effectiveness analyses, safety and immunogenicity in special populations.
- In emergency situations - prioritize provision of safe water and promotion of improved hygiene and sanitation especially among food handlers. Typhoid vaccination may be considered within the framework of implementation research.



# Typhoid as Part of the Larger Agenda: Context

- Typhoid is one among the very many competing priorities in the region. VPD outbreaks:
  - Ebola
  - cVDPV
  - Rotavirus diarrhoea
  - Rubella
  - Pertussis
  - Measles
  - Yellow Fever
  - Meningitis
  - Cholera
  - Diphtheria
- New Vaccine Introductions in most countries (HPV, IPV, Rota, PCV, MR, MCV2, YF, Men, Malaria Vaccine, Hep B birth dose, Pentavalent booster, etc)
- Natural disasters and insecurity; cyclones, mud slides, flooding, IDPs
- Polio end game and transition
- Large number of unimmunized children
- Implementation of UHC
- Cyclone Idai, etc

# Next Steps in Prevention and Control of Typhoid

- Advocate for more funding to improve WASH
- Strengthen health systems to diagnose & treat typhoid
  - Includes appropriate antimicrobial treatment, identification of chronic carriers and antimicrobial susceptibility training
- Urgent need to develop a comprehensive multi-sectoral plan for control of typhoid and other water-borne/faeco-oral diseases
- Improve surveillance for typhoid fever - Evidence generation on disease burden/hotspots to support TCV introduction
- Consolidate partner efforts and funding towards Typhoid fever prevention and control
- For countries with high Typhoid burden and AMR, consider TCV introduction
- Confirm stock pile before enhancing advocacy efforts



Thank  
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