



Power of Genomic Surveillance **Zimbabwe Story**

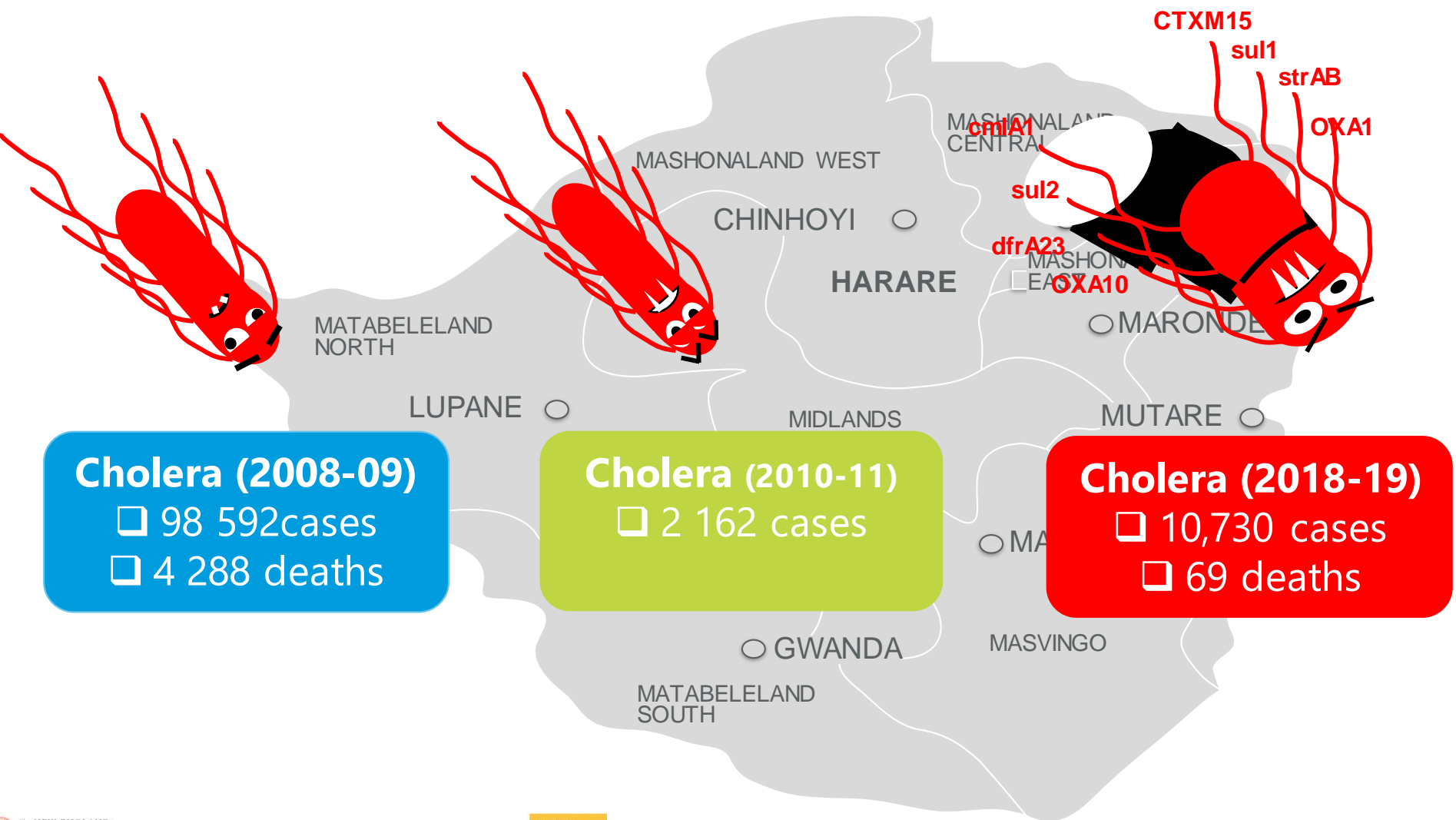


Tapfumanei Mashe

Introduction

- Cholera is traced as far back as the nineteenth century in the Ganges delta in India
- The current pandemic is the seventh which arrived in Africa in 1971
- The first reported cholera case in Zimbabwe occurred in 1972
- In January 2010 Zimbabwe witnessed a resurgence of typhoid fever in Mabvuku and Tafara suburbs of Harare

Cholera outbreaks (2008-2018)



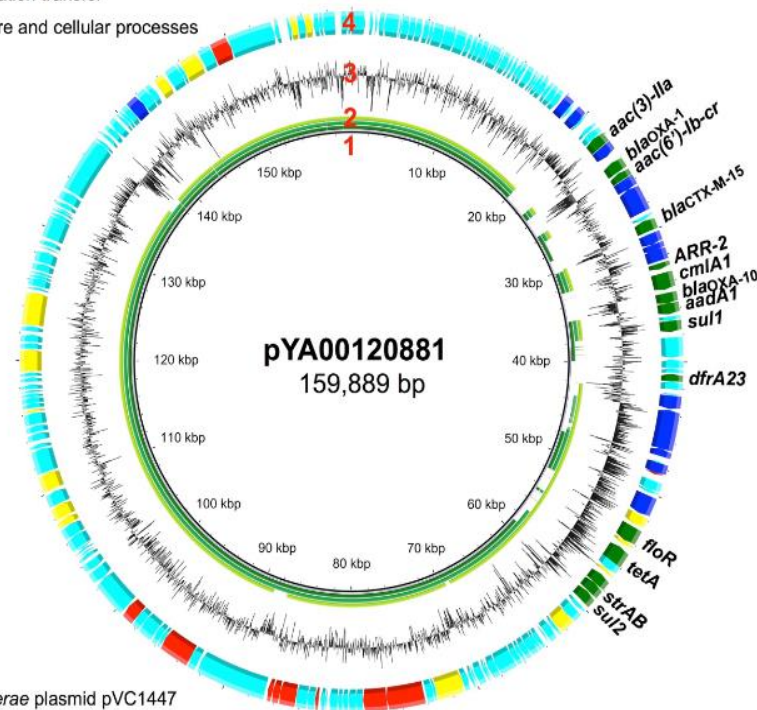
- ## Mitigation measures
- oral rehydration therapy and antimicrobials
 - WASH
 - Waste management
 - health education
 - **1.5 million people vaccinated**
 - in 17 urban suburbs

Highly Resistant Cholera Outbreak Strain in Zimbabwe

Multidrug-resistant pYA00120881 IncA/C plasmid

Circle 4

- Antimicrobial drug resistance
- Transposase and integrase
- Conjugation transfer
- Structure and cellular processes
- Other

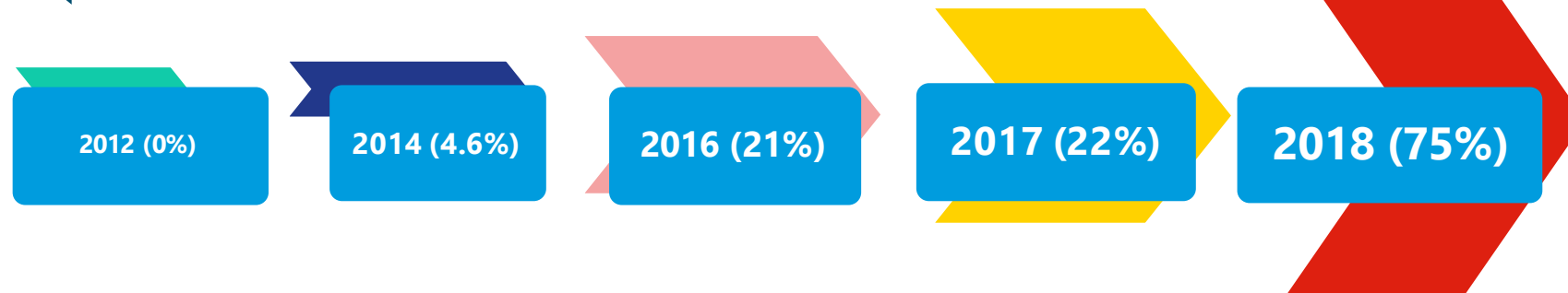


Circle 2

- *V. cholerae* plasmid pVC1447
- *Y. pestis* plasmid pIP1202
- *S. enterica* plasmid pSN254

Typhoid outbreaks in Zimbabwe

Ciprofloxacin resistance



Mitigation measures

- Antimicrobials
- WASH
- Waste management
- **Vaccination TCV**
 - **318,698 doses**
 - **6 months -15 years**
 - **9 suburbs in Harare**

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Laboratory characterisation of *Salmonella enterica* serotype Typhi isolates from Zimbabwe, 2009–2017

Tapfumanei Mashe , Muchaneta Gudza-Mugabe, Andrew Tarupiwa, Ellen Munemo, Sekesai Mtapuri-Zinyowera, Shannon L. Smouse, Arvinda Sooka, Babill Stray-Pedersen, Anthony M. Smith & Joshua Mbanga

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Salmonella enterica serovar Typhi H58 clone has been endemic in Zimbabwe from 2012 to 2019

Tapfumanei Mashe , Pimlapas Leekitcharoenphon, Sekesai Mtapuri-Zinyowera, Robert A Kingsley, V Robertson, Andrew Tarupiwa, Marleen M Kock, Evidence P Makombe, Blessmore V Chaibva, Portia Manangazira ... [Show more](#)

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The End



~Thank you

~Tatenda

~Siyabonga

~Merci