



The Government of Malawi Ministry of Health

OCV use in Malawi

GTFCC WG on OCV, Veyrier du Lac, France

5 December 2018

Mr Wiseman Chimwaza

Context

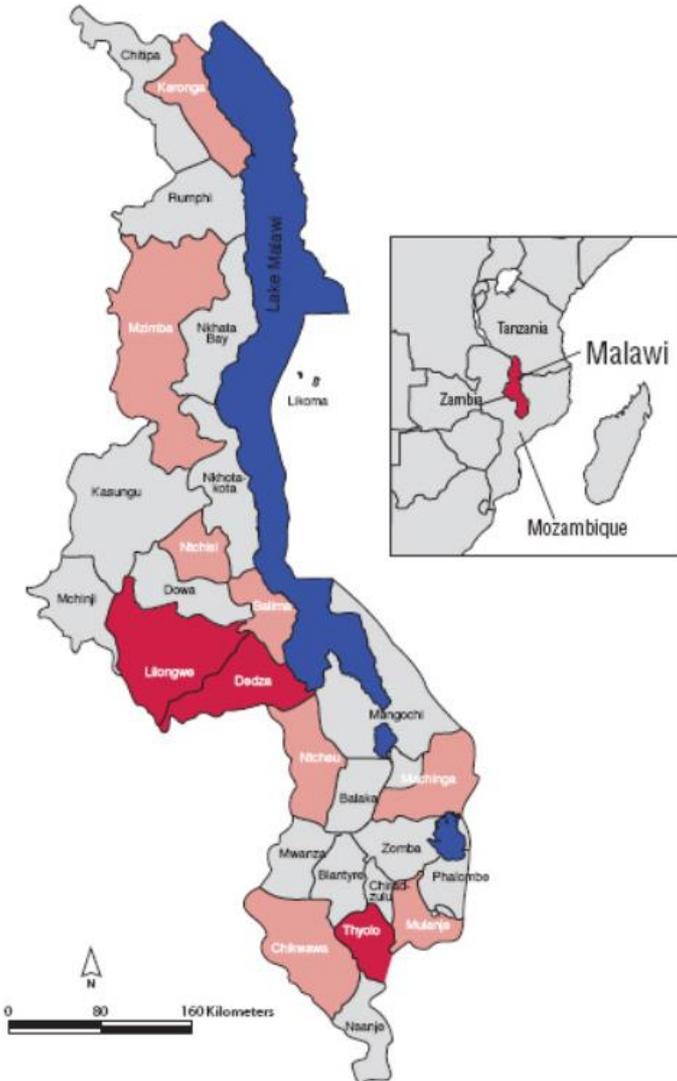
- Landlocked country in southeast Africa
- Bordered by Tanzania, Mozambique and Zambia (free movement of people)
- 28 districts
- 18.6 million people – 80% rural → economy predominately **agricultural**
- 20% of the country area is covered by water → **fishing** is a major activity
- Access to improved source of drinking water: 87% of households (98% in urban, 85% in rural) [WHO/unicef JMP 2017 & DHS 2015-16]
- Access to improved toilet facilities: 83% of households [WHO/unicef JMP 2017 & DHS 2015-16]
- Data from DHOs:

E.g. Nkhata Bay:

- Improved water Coverage: 75%
- Households with access to improved latrines is at 8% (↓)
- Households with Basic latrines is at 55% (↓)
- Households with access to hand washing facilities is at 23%

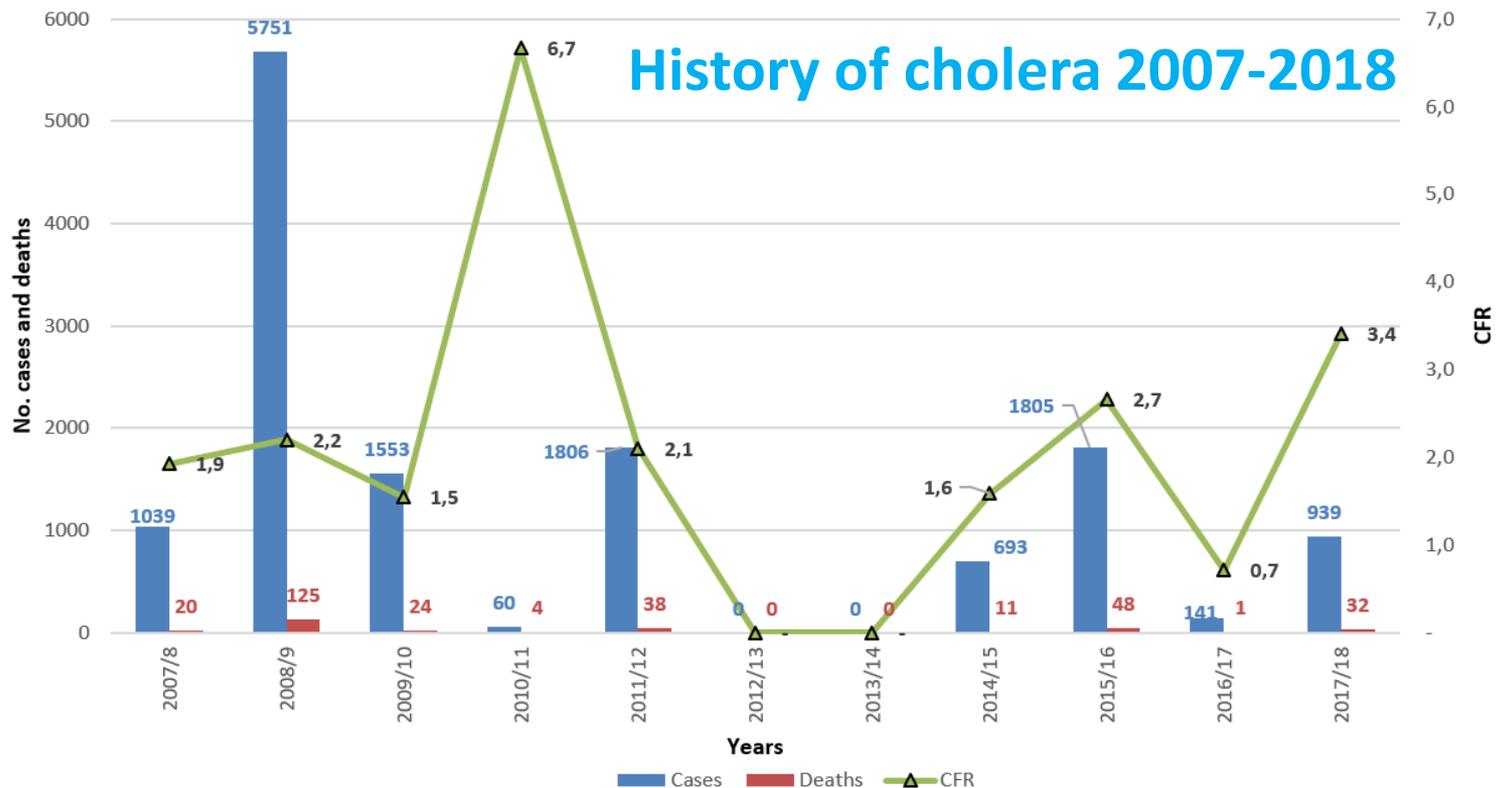
E.g. Balaka:

- Water Coverage: 76% but all the taps are not producing water due to drying up of water source



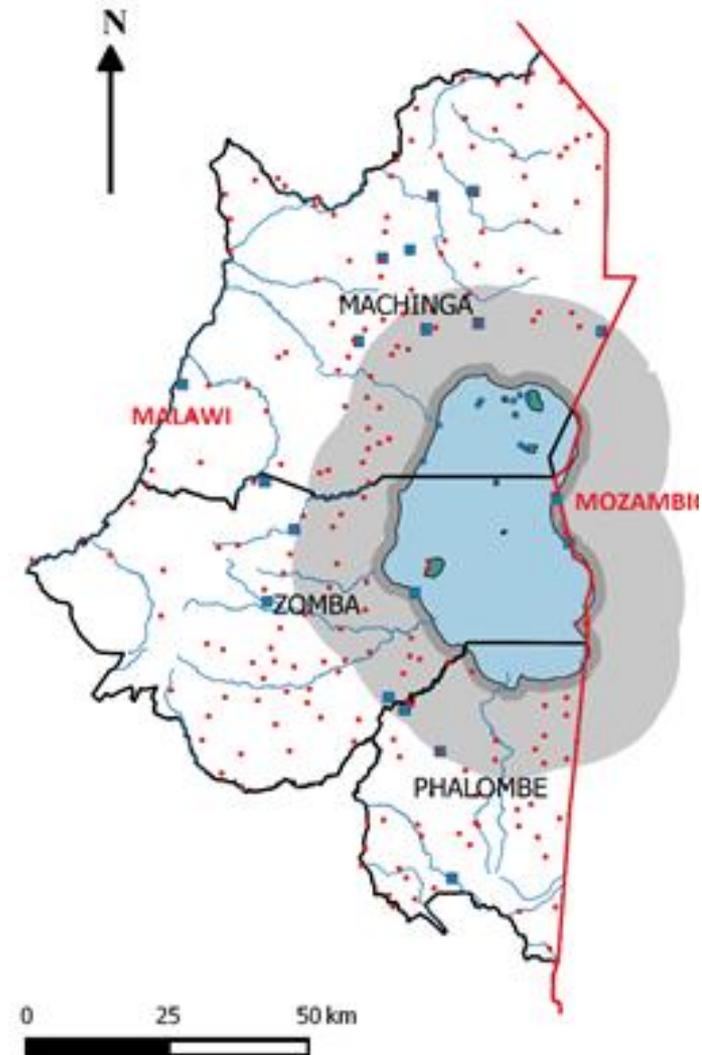
Cholera in Malawi

- Cholera in Malawi since 1973 (7th pandemic)
- Cholera epi surveillance calendar in Malawi: **1st Nov. - 30th Oct.**
- Outbreak almost every year, mostly during rainy season (exception for Southern districts, dry season) with major outbreaks in 1998/99 (25,000 cases, CFR=3.4%), 2001/02 (33,546 cases, CRF=2.3%), and 2008/09 (5,751 cases, CFR =2.2%)



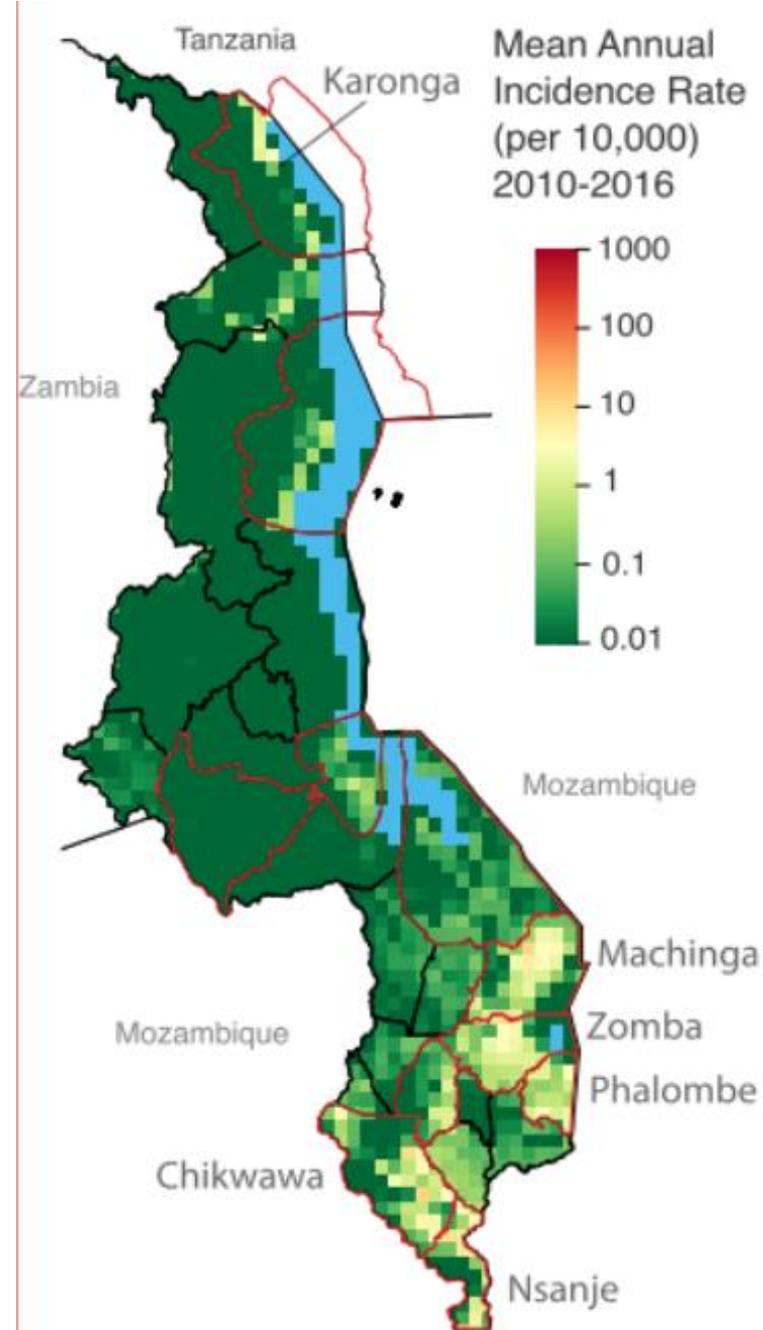
OCV use in Malawi (1/2)

- Mar – Apr. **2015**: first **reactive** OCV campaign in **Nsanje**, 148,000 people displaced due to floods into 19 refugee camps (poor WASH conditions) & **Chikwawa** – 12,000 people, Shanchol, pre-emptive
- **2016**: 2 OCV campaigns in **Lake Chilwa** area - **fishermen +++** (poor WASH conditions)
 - Feb. – Mar 2016: reactive, 90,000 people (islands, zimboweras, shore within 2km radius), Shanchol
 - Nov. – Dec 2016: pre-emptive, 90,000 people (islands, zimboweras, 25km radius from Lake), Euvichol
- **Q2 2016**: **Mwanza** - 10,000 people, Shanchol, pre-emptive, in refugee camp
- 2016: comprehensive national cholera **risk assessment and situation analysis** by MOH

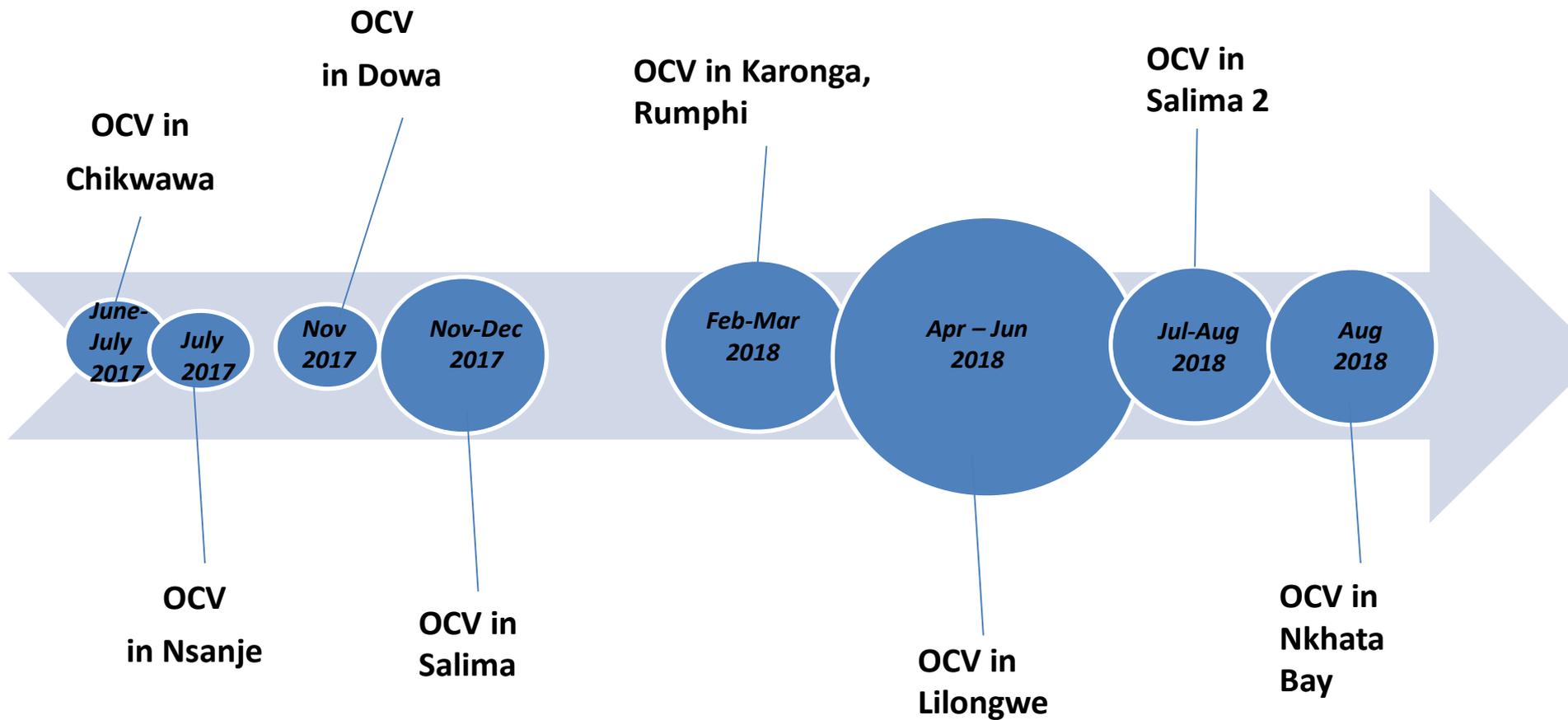


OCV use in Malawi (2/2)

- Using national cholera surveillance data (2010-2016), statistical modelling, input of district health teams and national and international experts → Feb. 2017: districts classified into ('hotspots'):
 - **High Risk** Districts – **Machinga, Zomba, Phalombe, Nsanje, Chickwawa**
 - **Moderate Risk** Districts – **Karonga, Lilongwe, Salima, Blantyre, Mangochi, Nkhata Bay, Dowa**
 - **Low Risk** Districts – all other districts
- Based on this classification: **stepwise OCV pre-emptive** campaigns in hotspots in **high and moderate risk districts** → > **3,2 million doses** requested in April 2017 (1,6 million people targeted, 12 districts)



OCV campaigns conducted so far in Malawi (Jun. 2017 – Nov. 2018) (1/2)



Planned OCV campaigns in Malawi – 2019

OCV in
Mangochi

*Dec 2018/Jan
2019
206,000 p.*

OCV
in Nsanje

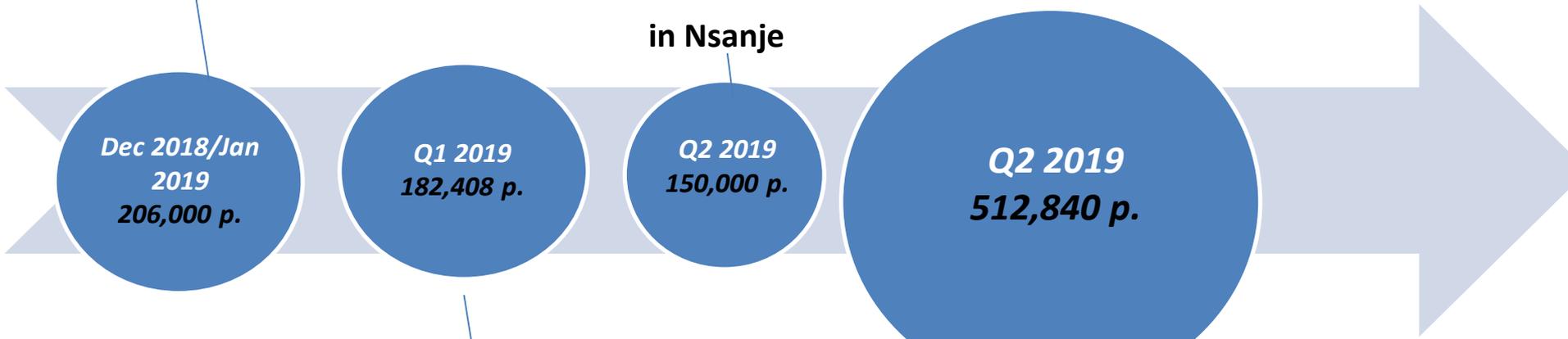
*Q2 2019
150,000 p.*

OCV in
Blantyre

*Q1 2019
182,408 p.*

OCV on Lake Chilwa
(Machinga, Zomba,
Phalombe)

*Q2 2019
512,840 p.*



Documenting the impact of OCV campaigns (1/3)

- **Surveillance strengthening**

- **Epidemiological surveillance**

- Training on IDSR (*ongoing*)
 - Health workers training on the revised cholera manual (cholera prevention, management and control) including Rapid Responses Teams
 - Revision of the line listing
 - ISDR coordinators training (*to be conducted*)
 - Training on RDT use in districts (*ongoing*)

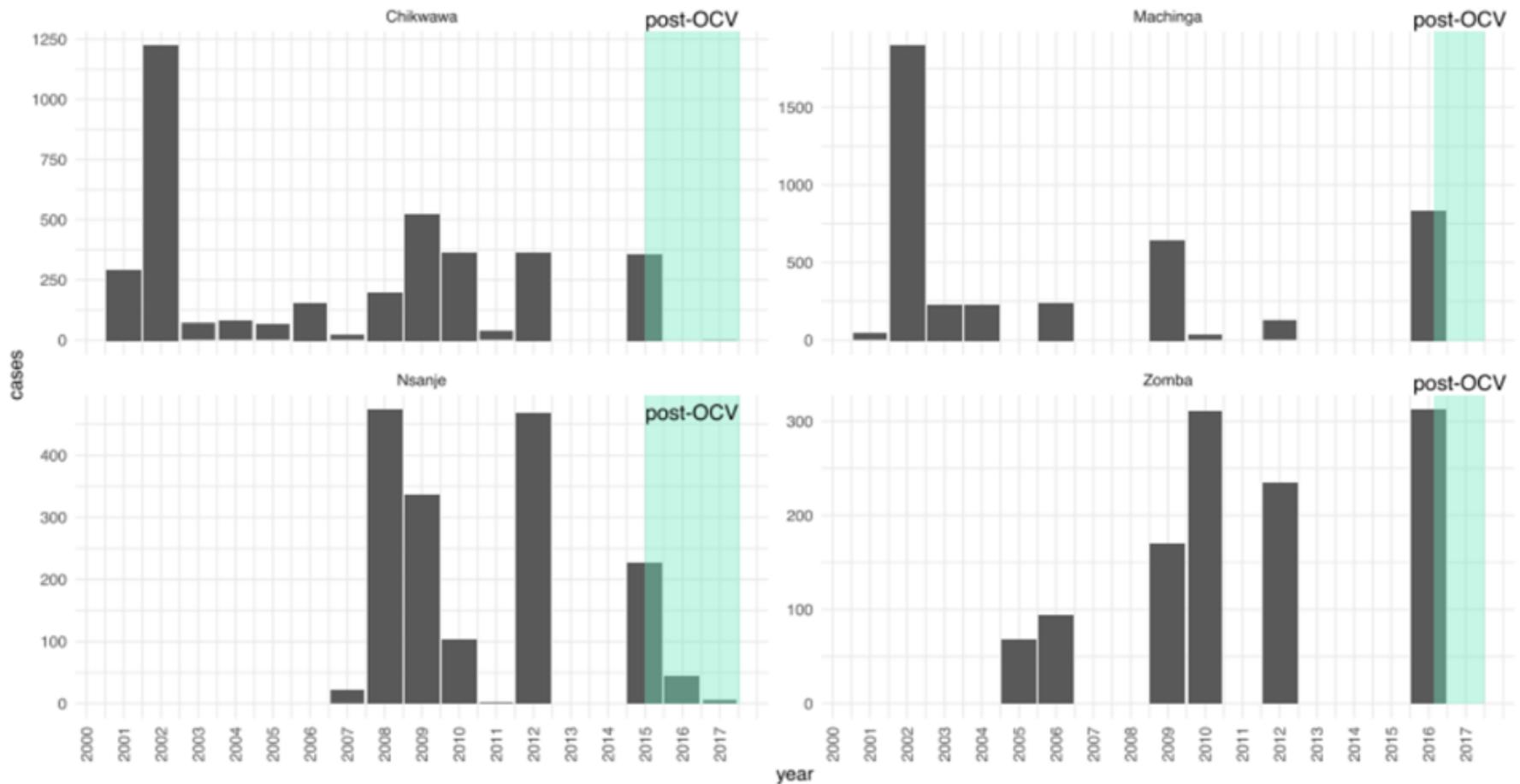
- ➔ Enhance **early, complete, timely detection and reporting** of cases

- **Laboratory capacity:**

- Capacity for cholera confirmation by culture at the National Public Health Reference Laboratory (PHL) and in 12 districts (but frequent lack of reagents and supplies)
 - PCR equipment at PHL (but lack of material)

Documenting the impact of OCV campaigns (2/3)

- Chikwawa, Nsanje and Lake Chilwa experience – Surveillance data



Documenting the impact of OCV campaigns (3/3)

- **Effectiveness study in Nsanje district – May 2016**

- Obj: To determine the 2-year protective effectiveness of OCV delivered through a reactive campaign in Nsanje District
- End: **2019**

- **Impact study in Lake Chilwa area – Nov 2016**

- Obj: To evaluate the impact of the 2 OCV campaigns conducted in Zomba and Machinga districts in 2016
- End: Nov. 2017

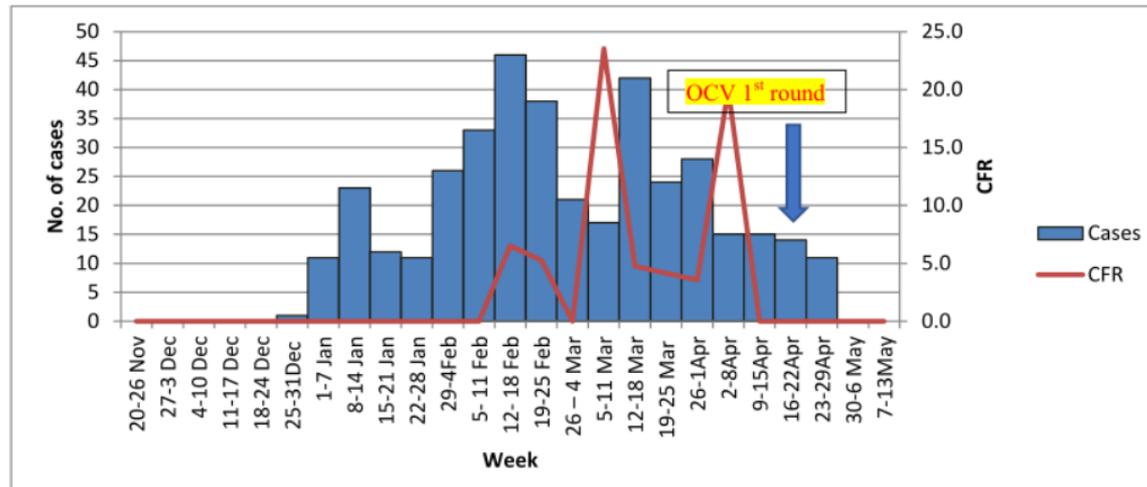
Lilongwe experience - Context

- April 2017 OCV request for ‘cholera hotspots’ vaccination in 12 districts: Lilongwe district - moderate risk district – **pre-emptive** - target pop: **114,000** – **8th planned campaign** (after Chikwawa, Nsanje, Dowa, Salima, Karonga, Nkhata Bay and Mangochi)
- **But** during 2017/18 cholera season, Lilongwe district was heavily hit with a high number of cases in February 2018 → Lilongwe was given a **first priority** over Nkhata Bay and Mangochi districts → a request for OCV was sent to target Lilongwe district **earlier** and **larger** than what was initially planned → **reactive** campaign **in emergency**, target pop: **500,600**

| NO | STEPS | Target population | 2018 MARCH | | | | 2018 APRIL | | | | 2018 MAY | | | | 2018 JUNE | | | |
|----|-------------------------------|-------------------|------------|-------------|---------|----|------------|-------|----|----|----------|----|----|------|-----------|----|-------|----|
| | | | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 | W1 | W2 | W3 | W4 |
| | | | 1 | OCV request | 500,600 | 1 | | | | | | | | | | | | |
| 2 | GTFCC approval | | 8 | | | | | | | | | | | | | | | |
| 3 | 1st dose arrival | | | | 16 | | | | | | | | | | | | | |
| 4 | OCV campaign 1st round | 378,333 | | | | | | 17-21 | | | | | | | | | | |
| 5 | OCV campaign 1st round mop-up | | | | | | | | | | 2-4 | | | | | | | |
| 6 | 2nd dose arrival | | | | | | | | | 4 | | | | | | | | |
| 7 | OCV campaign 2nd round | 378,333 | | | | | | | | | | | | 28-1 | | | | |
| 8 | OCV campaign 2nd round mop-up | | | | | | | | | | | | | | | | 11-13 | |

Lilongwe experience - Challenges

- Pre-emptive campaign turned into reactive campaign
- Change in target population
 - Pre-emptive: 114,000 → reactive: 500,600 → 378,333 (after verification of the figures)
 - Challenges, difficulties
 - Campaign in urban setting with selected targeted areas (social mob)
 - Reluctance of some people (men+++), wrong beliefs
 - Target population estimate always challenging especially in cities (mobility of people)
 - Official announcement of the end of the outbreak between the 2 rounds



Coordination with EPI routine activities

- OCV campaign **planning & organization** in relation with EPI activities
 - Epidemiology department (PHIM, MOH) works **hand in hand** with EPI Department for:
 - Organizing the campaign,
 - Collecting the vaccines from the airport,
 - Storing the vaccine (at EPI warehouse),
 - Transporting the vaccines from central level to the district of the targeted area by EPI,
 - EPI staff is part of training and supervision team
 - ➔ **EPI involved in OCV campaign +++**
- Impact of OCV campaigns on EPI?
 - Enough capacity to store the OCV vaccines without impacting EPI vaccines
 - No impact of OCV campaigns on EPI activities
 - OCV campaigns conducted in very selected areas
 - At dedicated immunization sites, independent from the health facility

Other prevention & control activities

- Routine households chlorination,
- Routine health promotion (WASH, knowledge...)
- 4 Open defecation free (ODF) districts (Kasungu, Dowa, Nchisi, Balaka)
- Joint Health and WASH cluster meetings
- Advocate for water testing including free residual chlorine testing
- Identification of partners to assist in provision of safe water (e.g. drilling boreholes)

Integrated and multi-sectoral approach in cholera control

- Feb 2017: National Cholera Prevention and Control Plan (integrating OCV)
- Nov 2018: Development of the National Cholera Epidemic Preparedness and Response Plan

Comprehensive, integrated and multi-sectoral approach with 11 strategic axes: Coordination, Surveillance, case definition and Rapid Response Teams, Laboratory and confirmation, Case management, Oral Cholera Vaccine, Water sanitation and hygiene, Operation support and Logistics, Resource mobilization, Social mobilization, risk and crisis communication, Monitoring and evaluation, Operational Research

- “Conduct OCV campaigns in cholera hotspots districts every 3 to 5 years until there is sustained improvement in WASH indicators (access to safe water and sanitation coverage is optimal for cholera prevention and control)” → Medium-term OCV Strategy: from 2019 onward: regular use of OCV every 3 to 5 years in hotspots + conducting reactive campaign as needed
- “Improve the access to safe drinking water, sanitation facilities and hygiene on the short and long-term”

Perspectives (1/3)

Implementation of a **multi-sector integrated action plan** in one cholera-prone district in alignment with the principles of the **Global Roadmap**

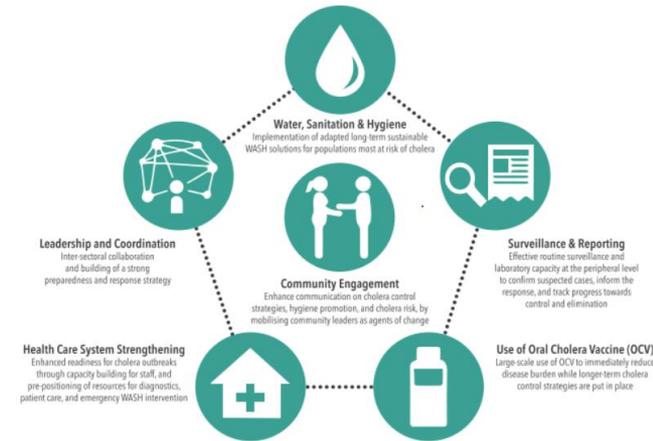
➔ **Target: Nsanje** (WASH situation, historical outbreaks, frequent floods, border with Mozambique)

Integrated multi-sectoral interventions plan:

- **Strengthening** epidemiological & lab **surveillance**
 - Implementation of adapted **long-term sustainable WASH** interventions to ensure use of safe water, basic sanitation, and good hygiene practices to populations most at risk of cholera
 - **Strengthening health care systems** for readiness for cholera outbreaks (capacity building/training for staff, material and supply prepositioning)
 - Large-scale use of **OCV**
 - Reinforcement of hygiene promotion, risk communication and social mobilization strategies for **strong community engagement**
 - Cross-border collaboration & a strong sub regional preparedness and response strategy.
 - Strong national and district **coordination** +++
- ➔ Involvement of different stakeholders and partners for every sector

Preliminary steps:

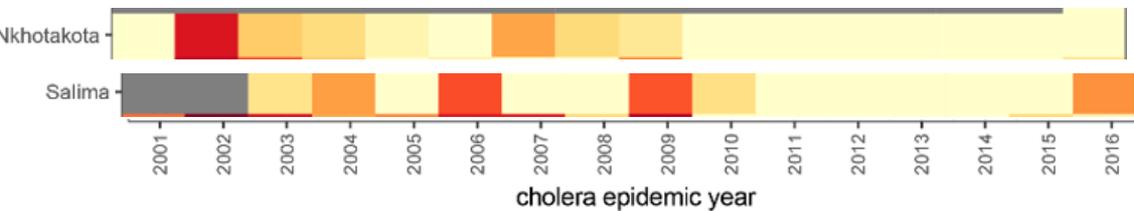
- 1) Technical evaluation/situation analysis + cost evaluation
- 2) Identify possible donors



Perspectives (2/3)

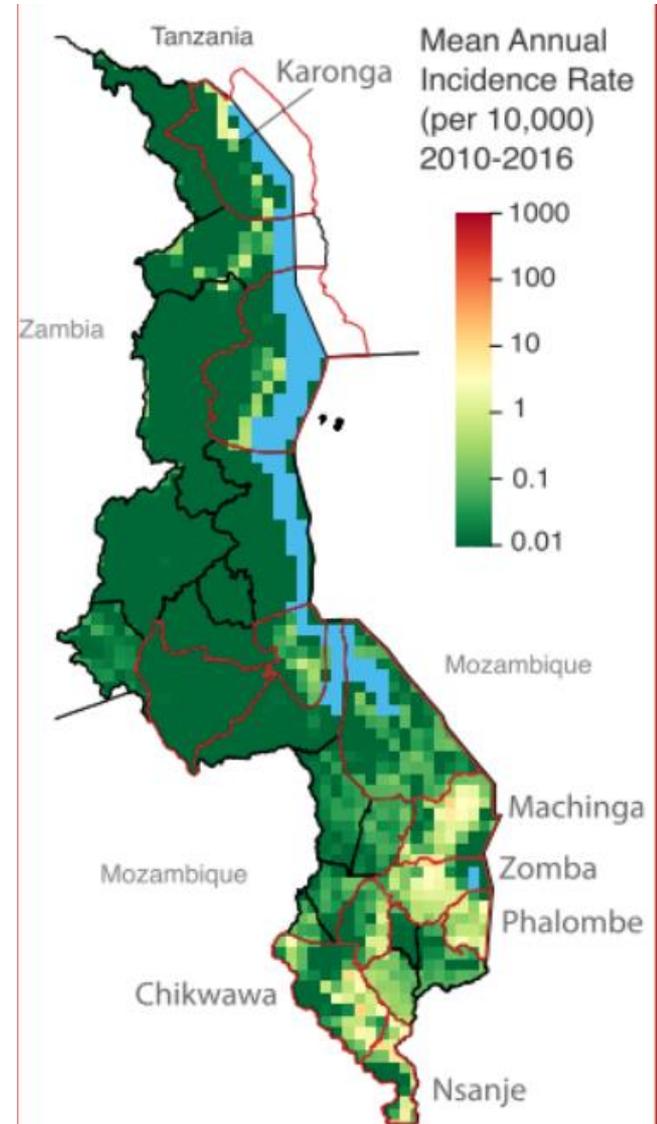
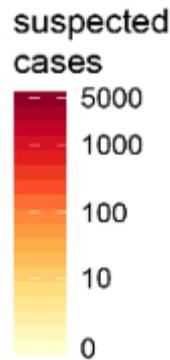
- Operational research project:
Comparing features of cholera in 2 districts in Malawi

– Rationale:



– 2017/2018:

- Salima: 99
- Nkhota Nkhota: 0



Perspectives (3/3)

- Operational research project - Comparing features of cholera in two districts in Malawi
 - Assessment and comparison of risk and vulnerability in apparently “comparable” areas (one hotspot vs one area not/less prone to cholera):
 - Collection of morbidity and mortality data
 - Identification of vulnerable populations & specific local risk factors
 - Mapping of existing safe water sources, sanitation systems, capacities for surveillance (including laboratory), existing isolation treatment facilities and quality of health service delivery and community engagement...
 - Documenting environmental factors