



Ministry of Health



# Cholera Outbreak RRT

# ZNPHI Strategic Pillars

## ZNPHI

### Surveillance & Disease Intelligence

- Routine
- Sentinel
- Event-based
- Facility-based
- Community-based
- Cross border
- eIDSR
- National data repository

### Emergency Preparedness & Response

- PHEOC
- Conform to IHR
- Coordinate EPRCs & RRTs

### Laboratory Systems & Network

- BSL4 Lab
  - Designate Ref labs
  - QMS
  - Capacity building
  - Courier system
- Biobank
- AMR

### Information Systems

- Integrated data platform (DHIS2)
- Information sharing platform
- ***The Health Press***
- M&E

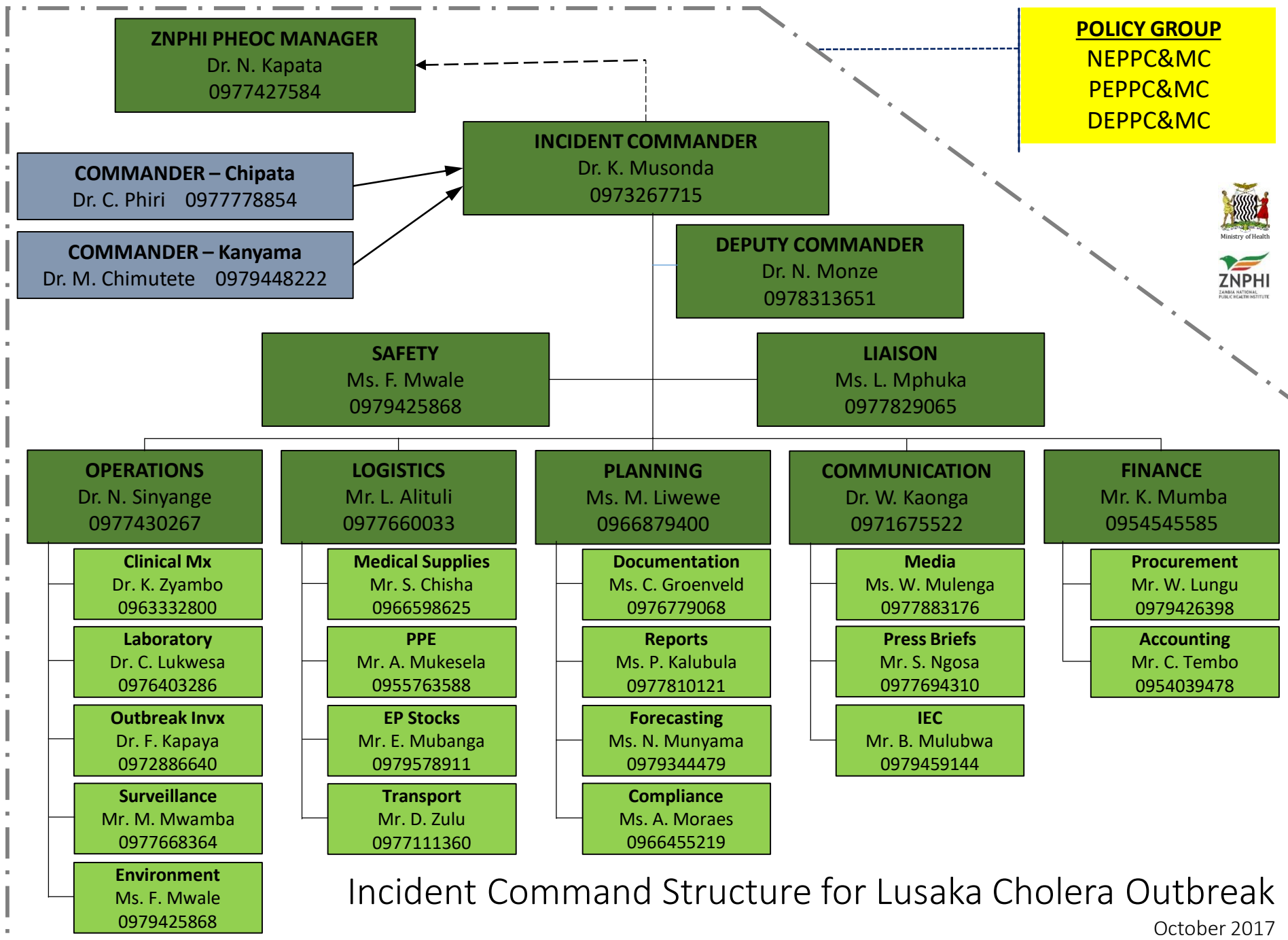
### Public Health Research

- Support NHRA
- Platform for dialogue
- Public health research
- Program evaluations

### Workforce Development

- FETP
- Training & Mentorship
- Exercises:
  - Table-top
  - Drills
  - Simulations

Finance, Leadership, Management, Workforce, Partnership, Innovation



Incident Command Structure for Lusaka Cholera Outbreak

# Laboratory Results: Clinical Samples

**Samples analysed = 2,085**

**Samples positive for *Vibrio cholerae* = 935 (44.8%)**

• *V. cholerae* O1 Ogawa = 929 (99.4%)

• *V. cholerae* O1 Inaba = 5 (0.5%)

[ Salmonella = 8 ; Shigella = 11 ]

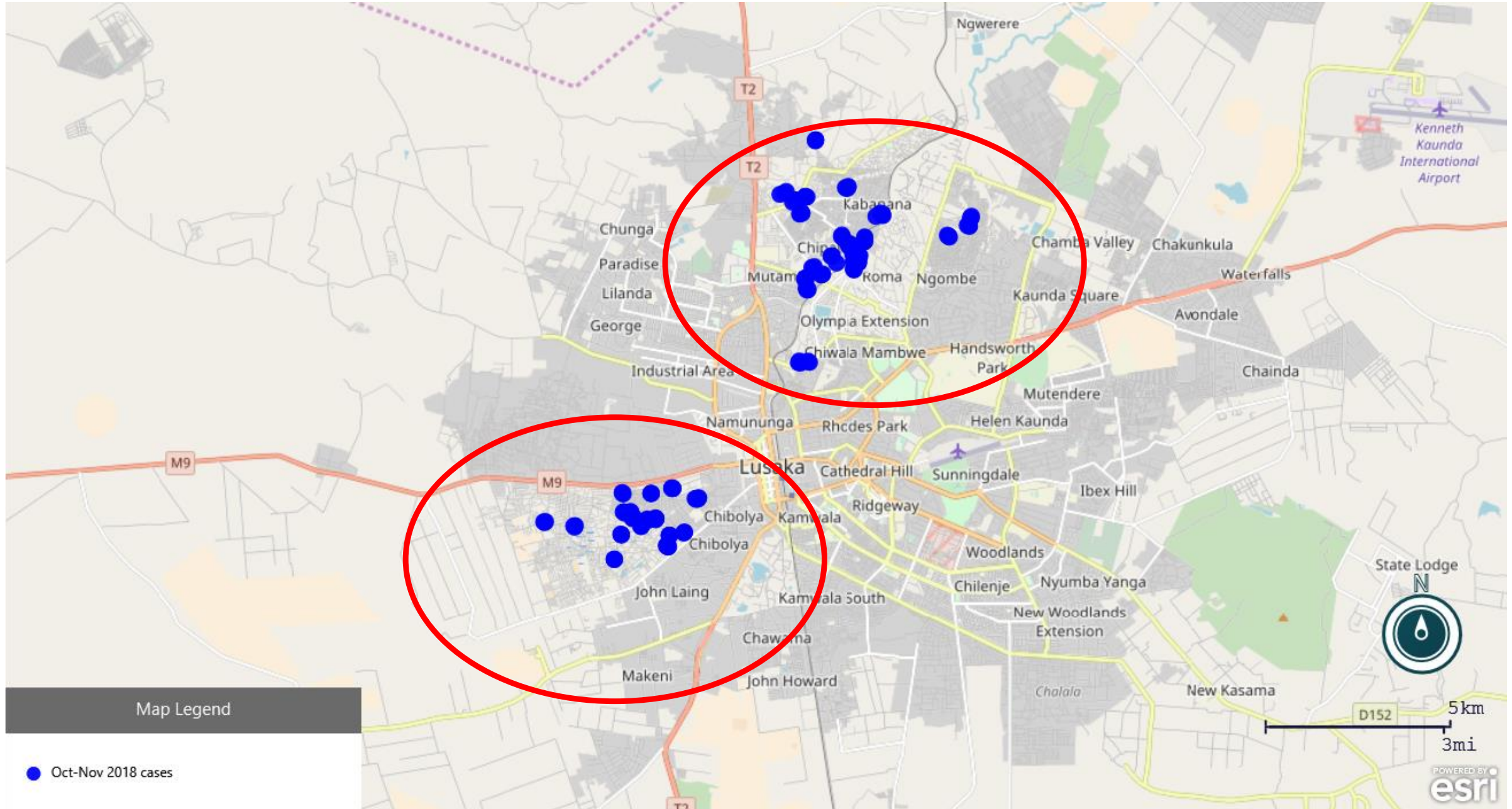
# Laboratory Results: Environmental samples

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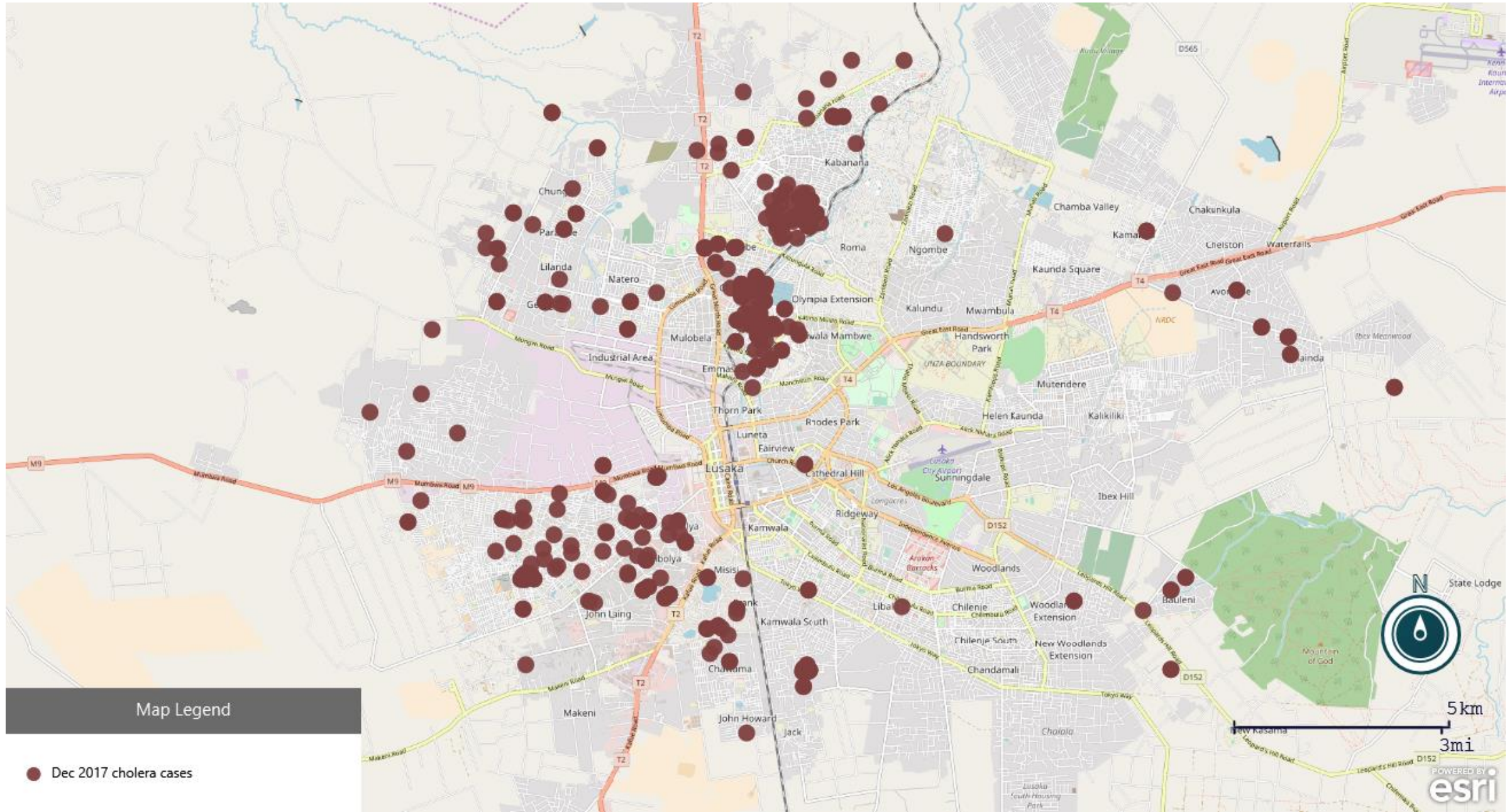
Type of specimen	Samples analyzed	Samples Contaminated with fecal coliforms (%)
Water	3606	1048 (29.1%)
Food	190	40 (21.1%)
Swabs	841	212 (25.2%)

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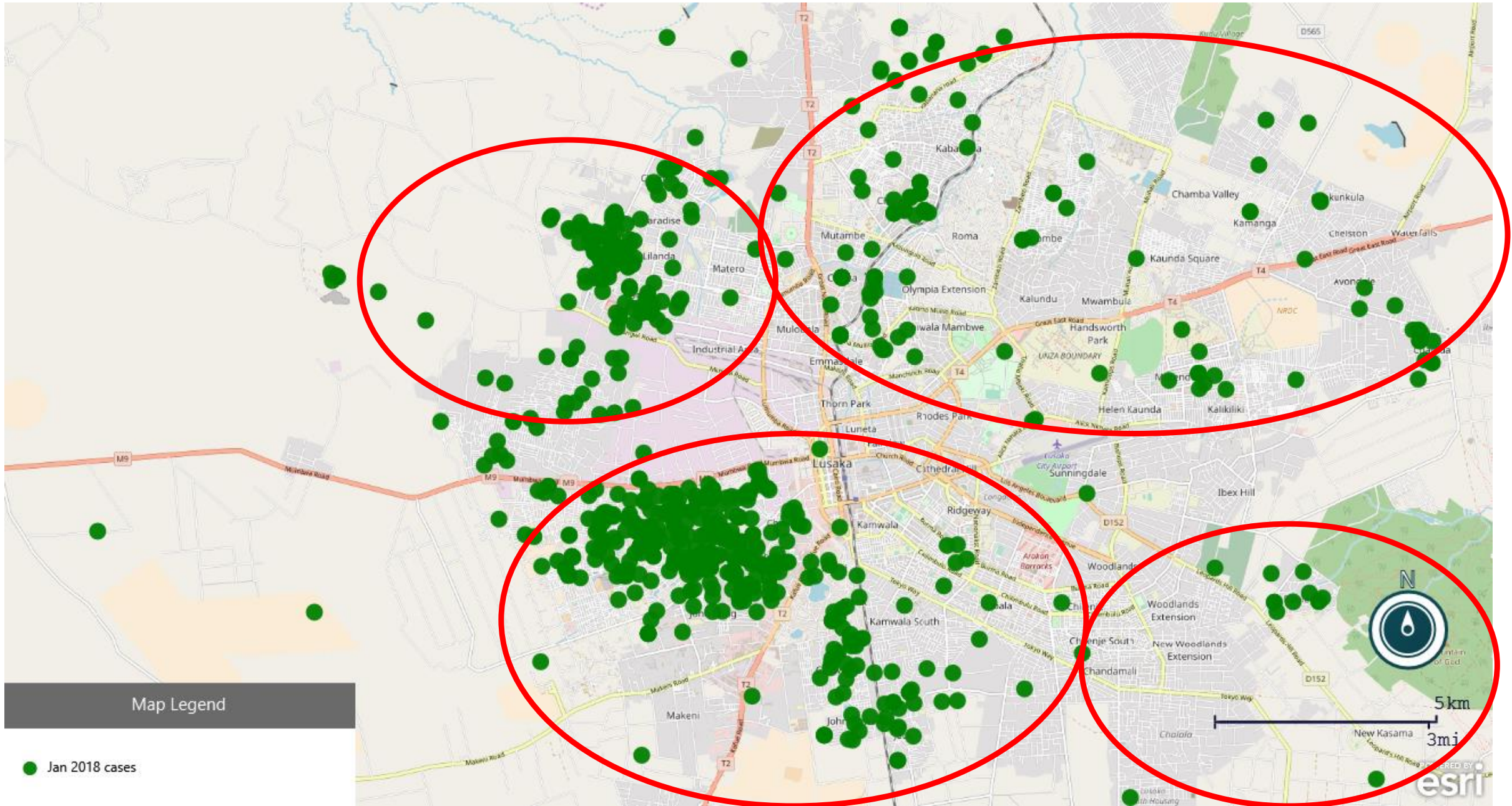
# October & November 2017 Cholera Cases: Lusaka (Initially localized)



# December 2017 Cholera Cases: Lusaka (spread)

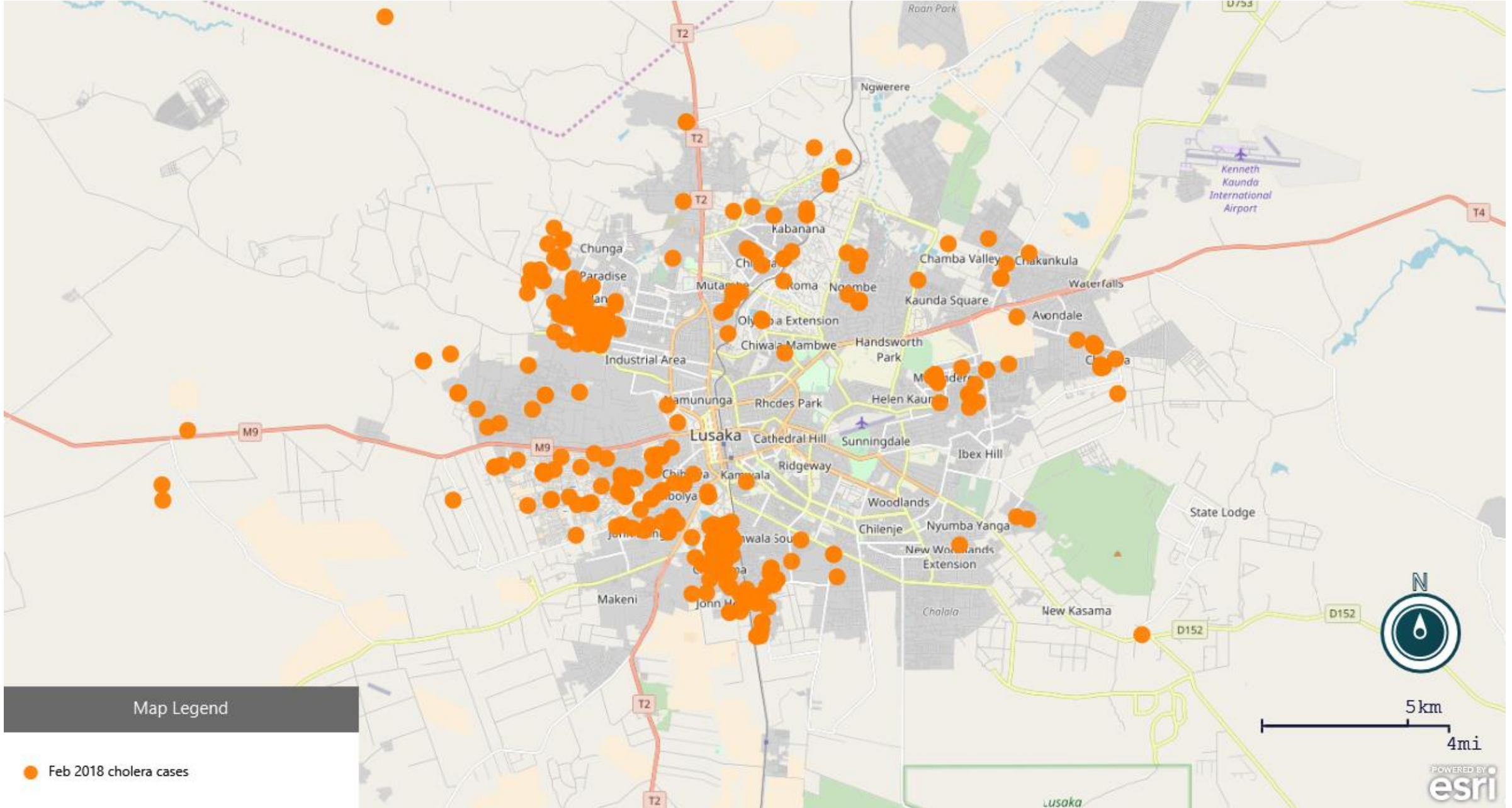


# January 2018 Cholera Cases: Lusaka (peak)

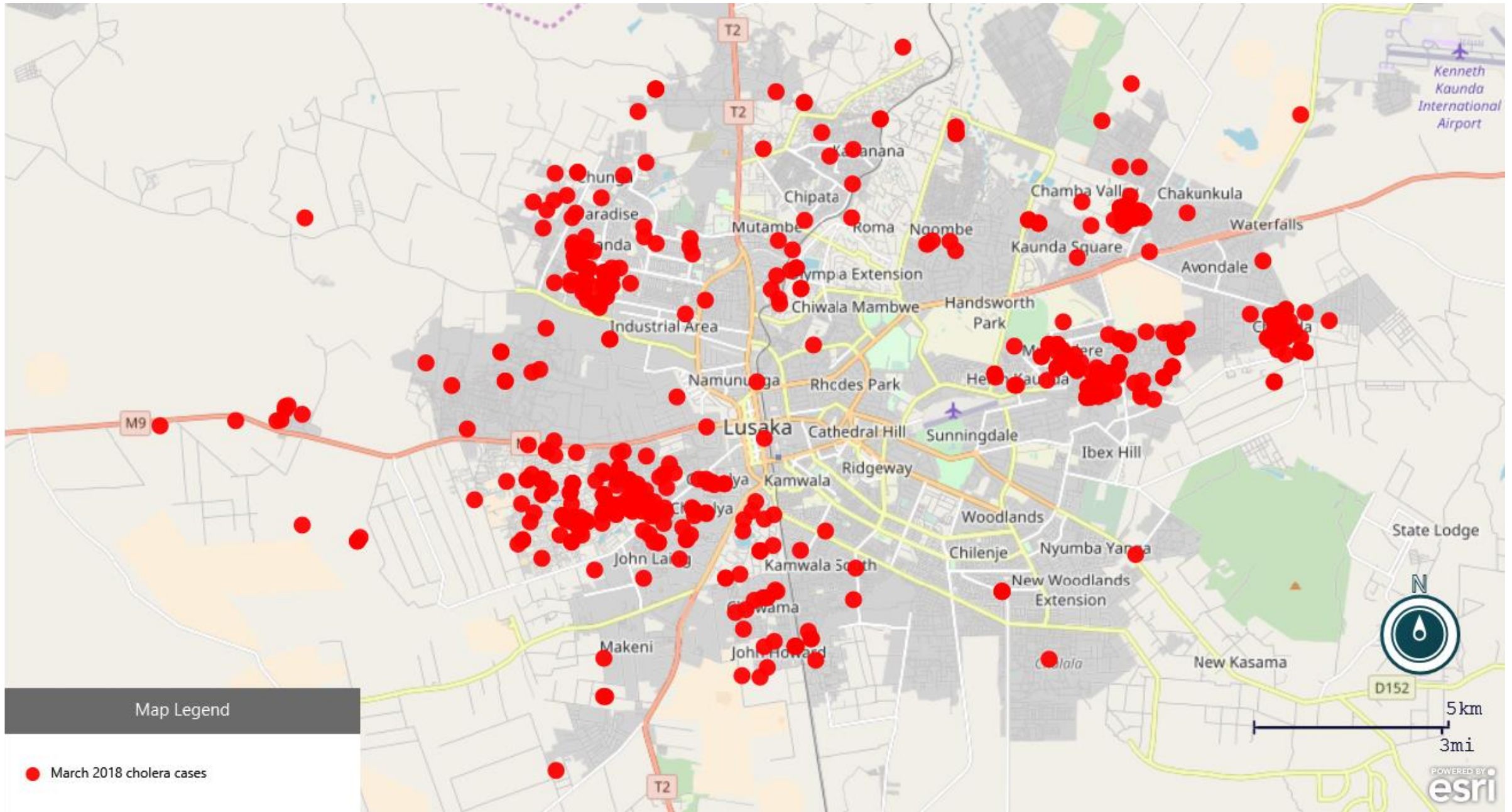




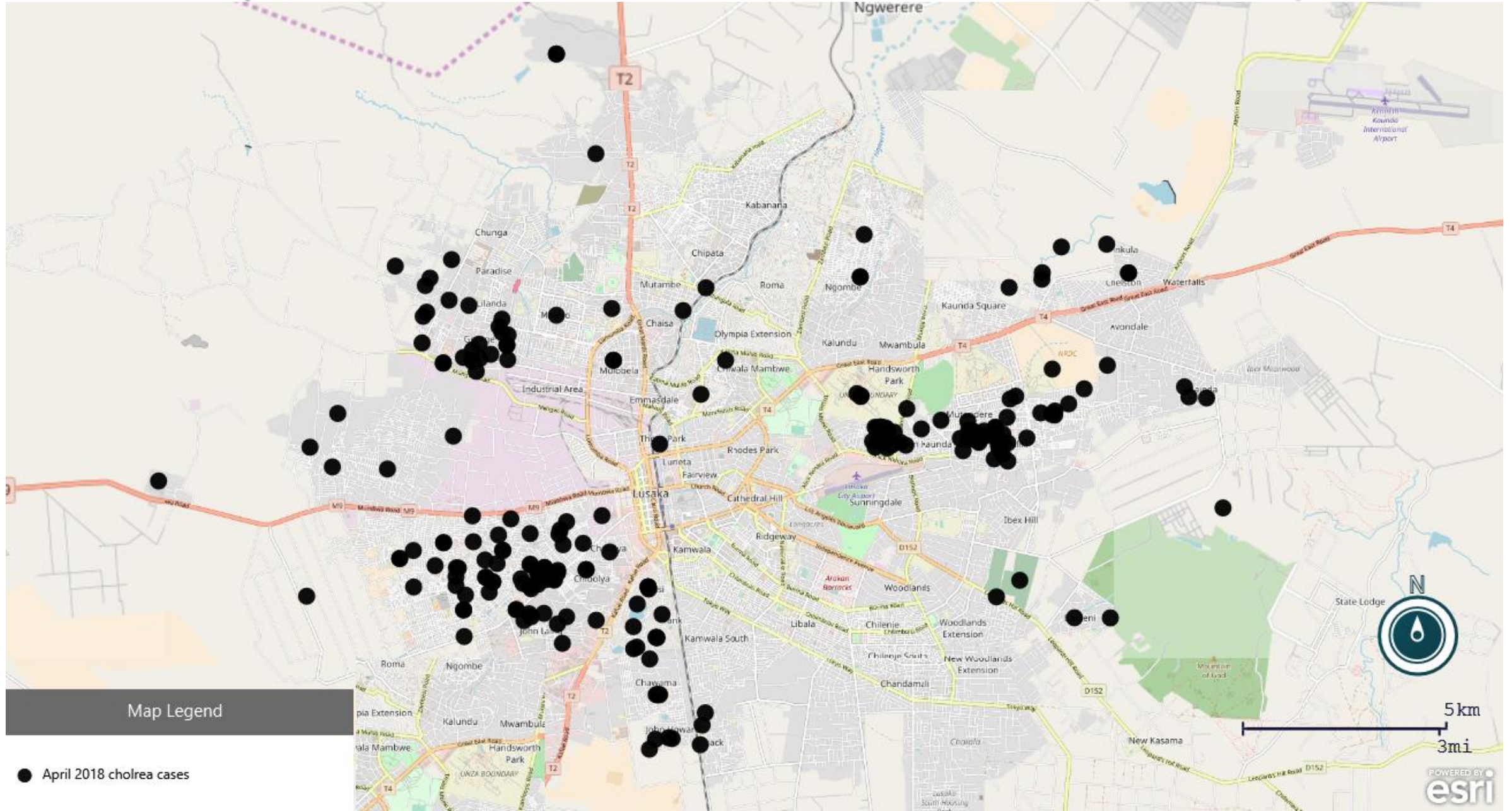
# February 2018 Cholera Cases: Lusaka (control)



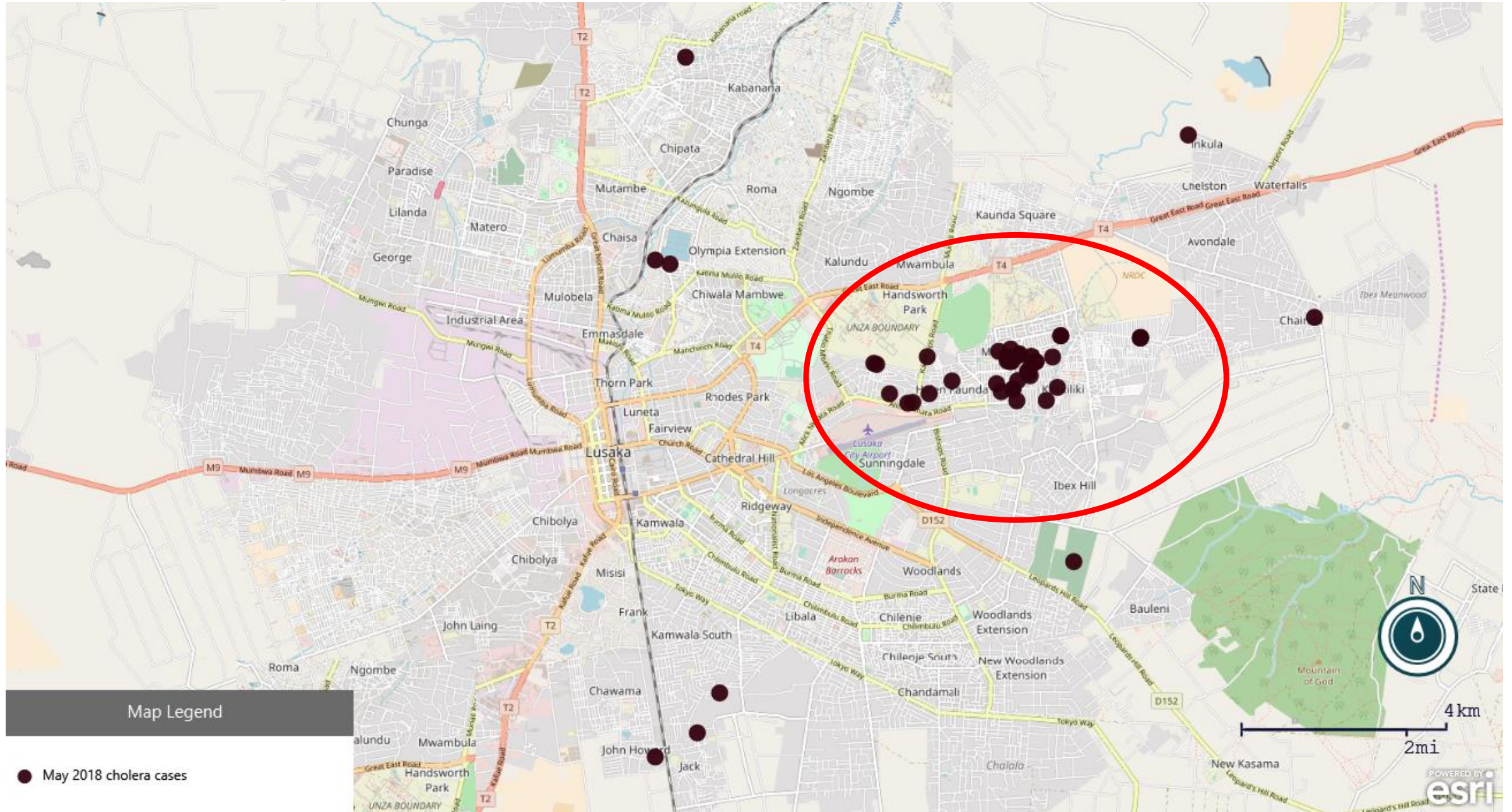
# March 2018 Cholera Cases: Lusaka (floods)



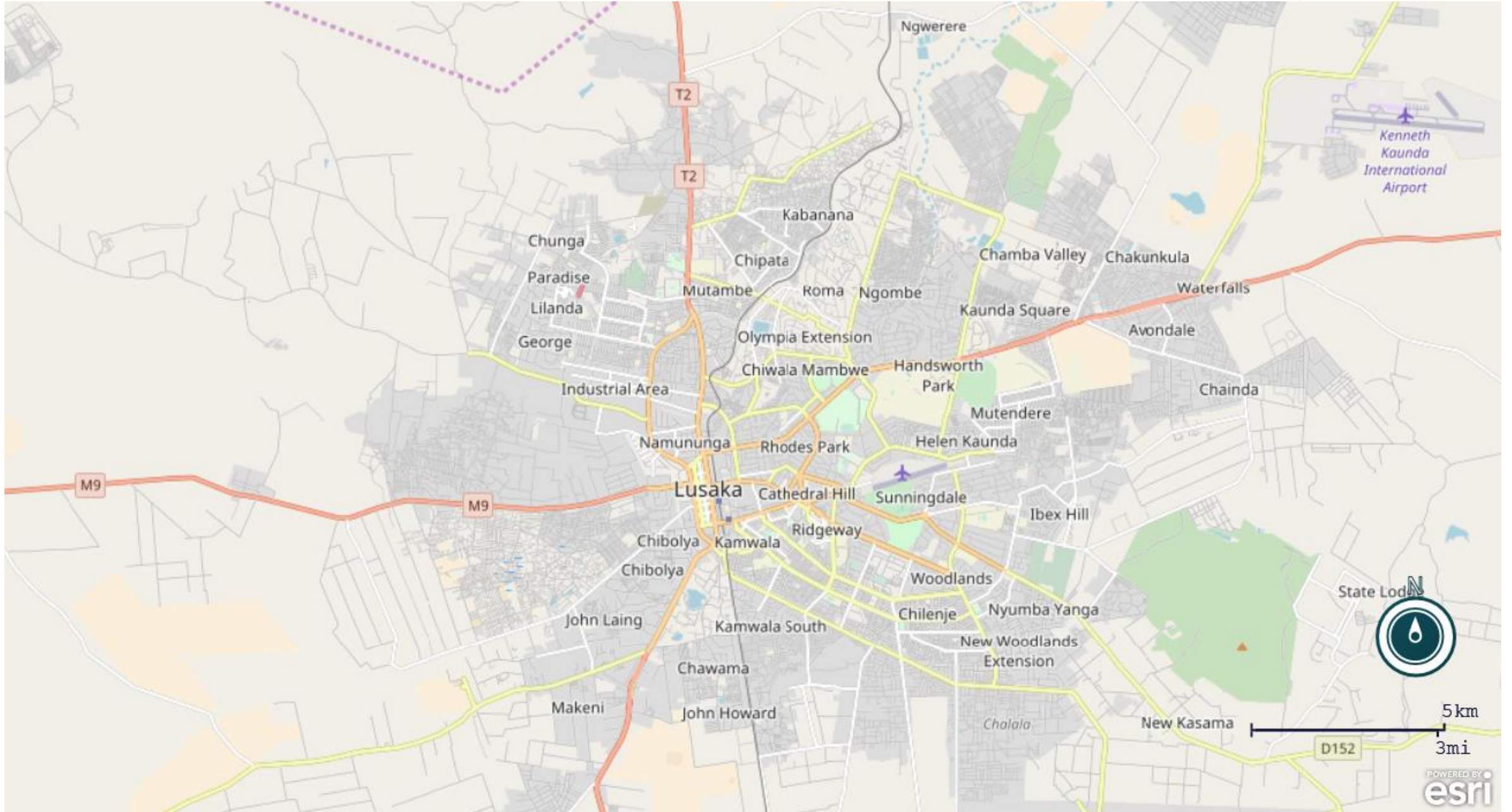
# April 2018 Cholera Cases: Lusaka (control)



# May 2018 Cholera Cases: Lusaka (localised)



# June 2018 Cholera Cases: Lusaka (cleared)



# Risk factors identified

- Inadequate access to clean and safe water
  - Erratic supply through water networks
  - Public in affected areas accessing water from shallow wells
- Poor sanitation in most households in cholera-affected areas
- Trading places with unsanitary conditions
- Contaminated food
- Poor hygiene practices
- Poor solid waste management

# Use of shallow wells



# Flooded Houses still occupied





# Trading in poor sanitary conditions



# Poor waste management



# FISHING CAMPS



# Interventions

- Increased access to clean and safe water
- Case Management – CTUs, Staff, Supplies
- Active case finding / contact tracing
- Chlorine distribution
- Burying shallow wells
- Latrine emptying
- Garbage collection & clean up
- Health Promotion & Education
- Heightened health inspections – WQM, food sampling
- Public Communication – Call center, Adverts
- Statutory Instrument **No.79 of 2017** issued
- Oral Cholera Vaccination (OCV)

# The Response

- Unprecedented high level leadership and commitment provided by H.E. the President Mr. Edgar Chagwa Lungu
- Committee of cabinet ministers established to provide oversight and policy direction
- Multisectoral technical response team coordinated by ZNPFI established. Incident Management System approach used
- Resource mobilisation
  - 90% of resources used were from GRZ; released by Treasury (K159,000,000)
  - Colossal support from partners, organisations and individuals

# HIGH LEVEL LEADERSHIP & POLITICAL WILL



# Multisectoral response



# The Response

- Legal framework
  - Statutory Instrument No. 79 of 2017, Public Health (Infected Areas) (Cholera) Regulations, 2017
  - Local Government Act, Cap. 288 of the Laws of Zambia, Statutory Instrument No. 10 of 2018, Local Government (Street Vending and Nuisances) (Amendment) Regulations 2018
  - gazette notice extending the fishing ban for the 2017/18 season
  - Postponement of schools opening guided by SI no. 79 of 2017 which restricted public gatherings
- Active case finding
- Localised case management
  - Cholera treatment units & centers established
  - Heroes stadium was turned into a CTC



# The Response: Provision of free access to clean and safe water



Installed water tank

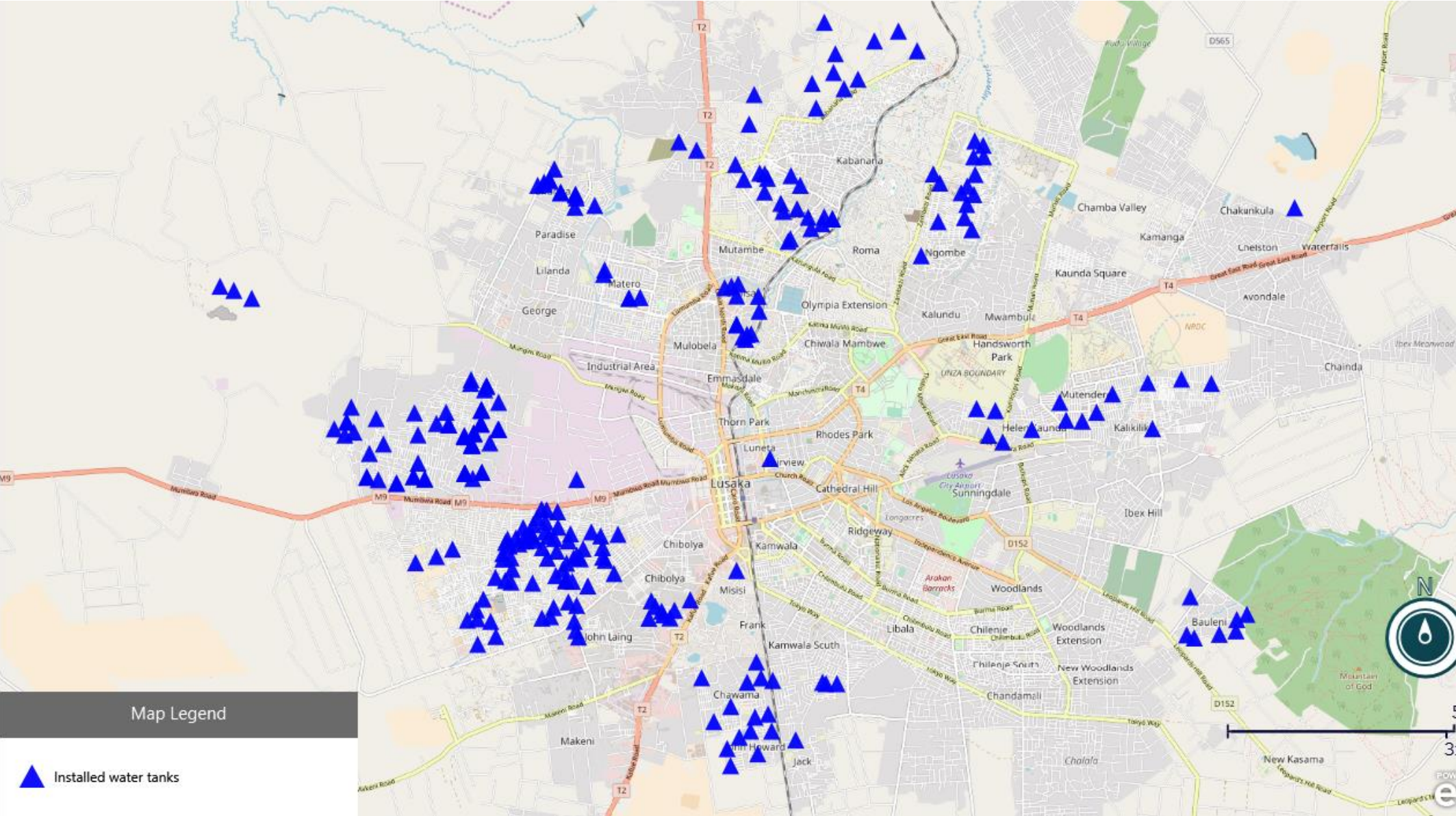


Water Quality  
Monitoring



Water delivery by bowsers

# The Response: >330 emergency water tanks set up in epi centres



# The Response

Escalated Solid waste management



# Stabilisation of road



# The Response

The cleaned up city



# The Response

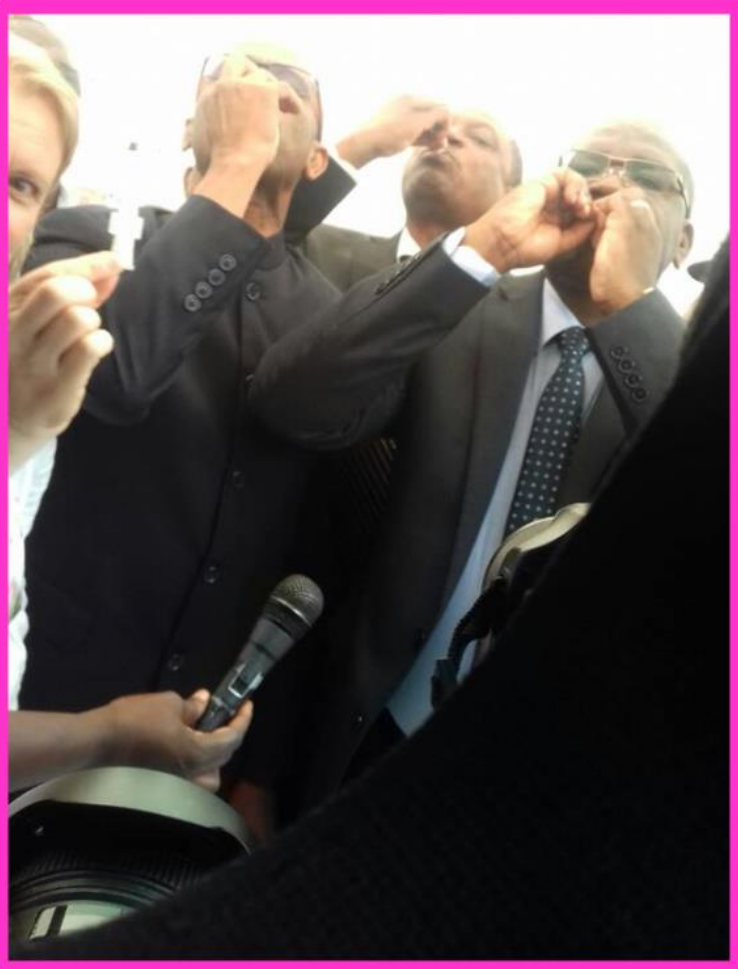
- Health Promotion & Risk communication



Distribution of Household chlorine

# The Response

## Oral cholera vaccination campaign



## Cholera Epidemic — Lusaka, Zambia, October 2017–May 2018

Weekly / May 18, 2018 / 67(19);556–559



Format:

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[View suggested citation](#)

On October 6, 2017, an outbreak of cholera was declared in Zambia after laboratory confirmation of *Vibrio cholerae* O1, biotype El Tor, serotype Ogawa, from stool specimens from two patients with acute watery diarrhea. The two patients had gone to a clinic in Lusaka, the capital city, on October 4. Cholera cases increased rapidly, from several hundred cases in early December 2017 to approximately 2,000 by early January 2018 ([Figure](#)). In collaboration with partners, the Zambia Ministry of Health (MoH) launched a multifaceted public health response that included

### Article Metrics

#### Altmetric:



Citations: 1

Views: 1,506

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[Metric Details](#)



# Studies

Study	Status
Vaccine effectiveness study	IRB approved
Vaccine coverage study	IRB approved
Cholera seroprevalance study	Draft protocol
Mortality case control study	Analysis
Cholera risk factors cases control study	Analysis
Descriptive study	Proposal
Cholera RDT evaluation	Draft protocol
Antibiotic sensitivity	Draft protocol

# National strategy vs Global Strategy

**Goal:**

**ELIMINATE cholera in Zambia  
by 2025**

***Global strategy: End Cholera by 2030***

# How?

1. Upgrading Slums and Peri-urban Areas
2. Strengthen Local Government
3. Enhance Capacity of the Water Utility Companies: Industrial bore holes (**short term**); Piped water and sewer system to all (**long term**)
4. 'Health in all' agenda
5. Escalate social mobilisation and risk communication to effect positive behavioral change
6. Reinforce surveillance, epidemic preparedness and response capacities
7. 'Keep Zambia Clean, Green and Healthy' campaign

At the 71<sup>st</sup> World Health Assembly  
21-26 May 2018

ZAMBIA LED A RESOLUTION TO  
END CHOLERA GLOBALLY

**The Resolution has been ADOPTED**

*Thank You*