



GLOBAL TASK FORCE ON  
**CHOLERA CONTROL**

**RESURGENCE OF CHOLERA IN HAITI  
NATIONAL PUBLIC HEALTH LABORATORY  
(LNSP): GAPS AND NEEDS**

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8<sup>th</sup> GTFCC Surveillance and Laboratory  
Meeting  
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# PLAN

- Context
- LNSP: Major accomplishments
- Challenges
- Needs
- Perspectives

# CONTEXT (1)

- October 2010, outbreak of the cholera epidemic in Haiti
- Until February 2019, more than 820,000 suspected cases and 10,000 deaths have been reported
- October 2022, resurgence of cholera in the country: a confirmed positive case for *Vibrio cholerae* O1, Ogawa in Savanne Pistache in the commune of Port au Prince
- Other cases have been confirmed in Cité Soleil and deaths have been reported
- MSPP commitment to contain the outbreak

## CONTEXT (2)

The Department of Epidemiology, Laboratories and Research (DELR), the entity responsible for the country's health security, must provide information to support the response:

- Establishment of coordination for the management of the epidemic
- Development of a response plan adapted to the current situation in order to reduce morbidity and mortality from cholera
- Implementation of a reporting system

# CONTEXT (3)

**Main objectives: To ensure control of outbreaks**

***Five Pillars:***

## **Case Management**

Alert management

Active contact tracing and other similar cases

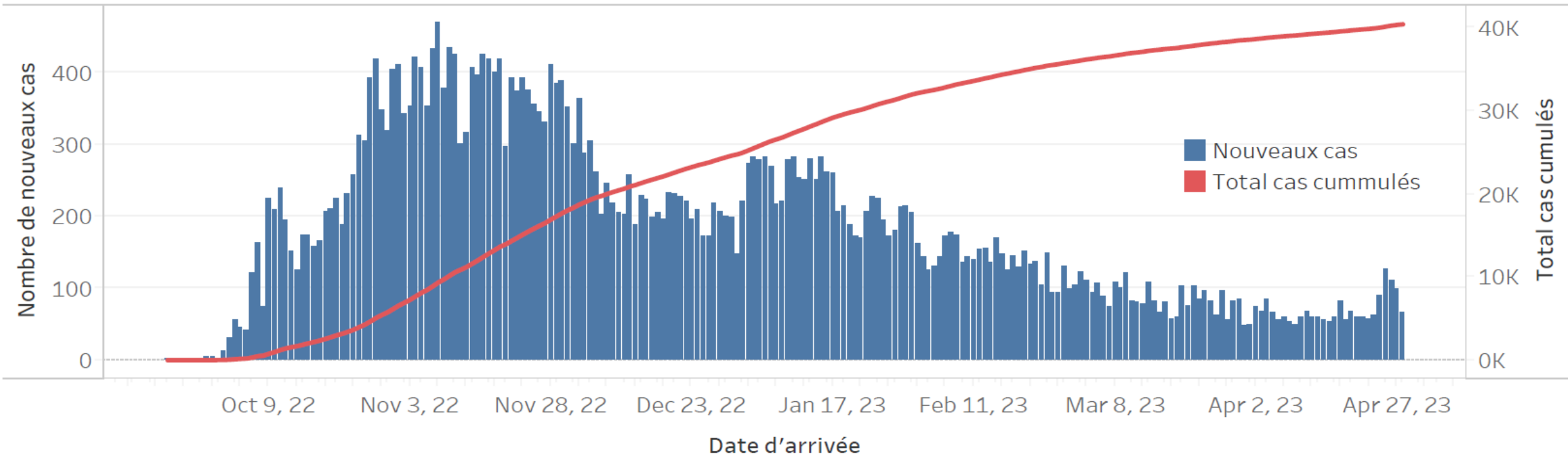
Epidemiological response

Health education

Monitoring and evaluation

# EVOLUTION OF CHOLERA IN HAITI, OCTOBER 2022- APRIL 2023

DISTRIBUTION DES CAS SUSPECTS PAR JOUR JUSQU'AU 28 AVRIL 2023, HAÏTI



**40,550 cas suspects, 2,678 cas confirmés, 37,057 cas hospitalisés, 672 décès (448 institutionnels et 224 communautaires)**



**7606**  
# D'ÉCHANTILLONS REÇUS

**7606**  
# DE TESTS RÉALISÉS

**35,20%**  
TAUX DE POSITIVITÉ



# Cartographie des cas confirmés de Choléra, de la 39SE 2022 à la 16-SE de 2023, Haïti

## Legende

▭ Limites départementales

▭ Limites communales

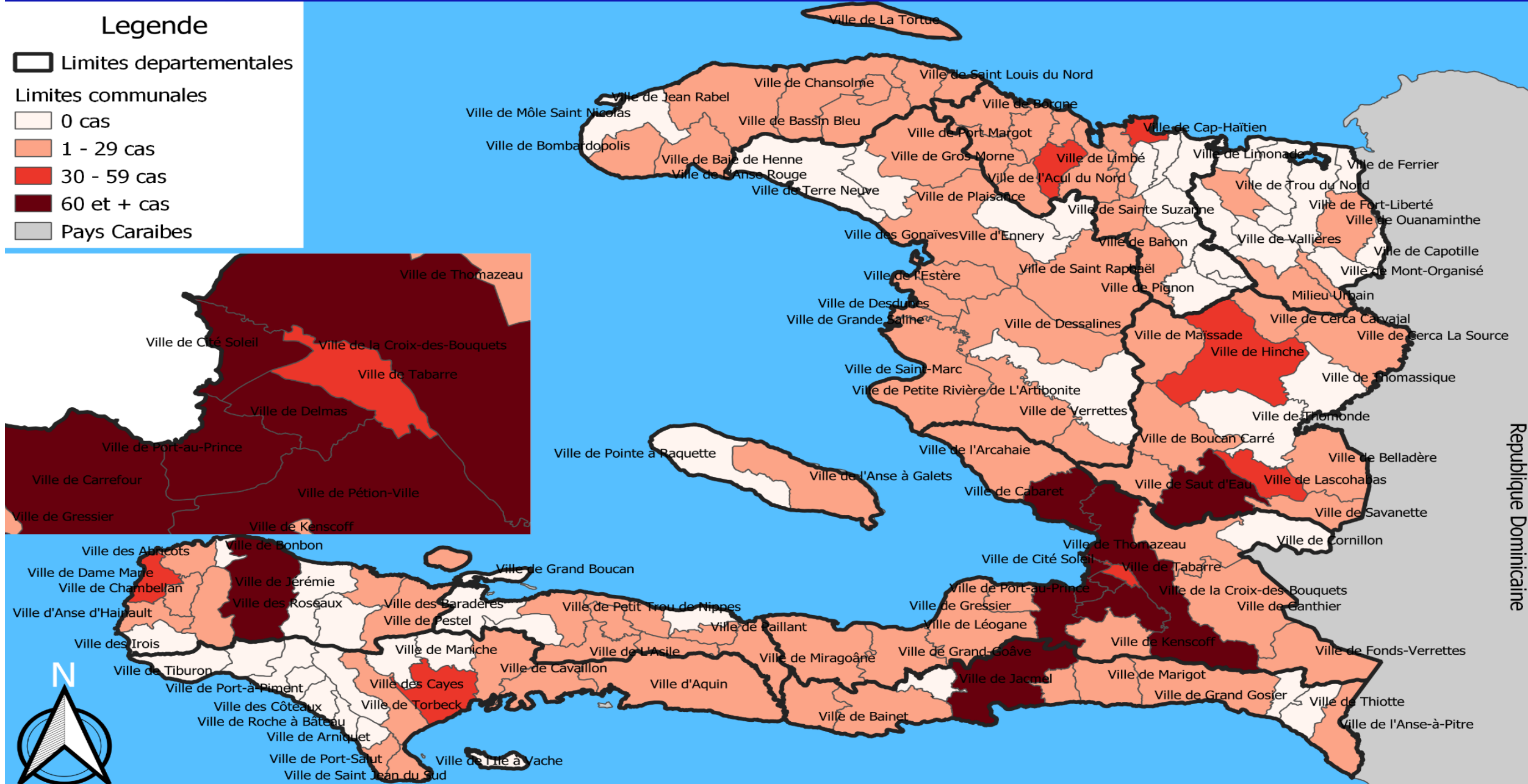
□ 0 cas

■ 1 - 29 cas

■ 30 - 59 cas

■ 60 et + cas

■ Pays Caraïbes



0 25 50 km

# CASE MANAGEMENT: MAJOR ACCOMPLISHMENTS (1)

- ❑ Reinforcing six regional laboratories' capacity for stool culture and AST
- ❑ Improve culture of stool specimens and the sensitivity of tests for *Vibrio cholerae* accomplished in the LNSP
- ❑ Procuring supplies centrally for culture diagnostic capacity of the 6 subnational laboratories
- ❑ More than 7000 specimens tested including 2600 positive for *Vibrio cholera*
- ❑ LNSP testing capacity using Vitek2: result in 2 hours



# CASE MANAGEMENT: MAJOR ACCOMPLISHMENTS (2)

- ❑ Develop LNSP capacity to detect Cholera Toxin by PCR
- ❑ Improve Capacity for Culture and AST at the regional laboratoires of HUM, HUI, HAS and HSB
- ❑ Develop EQA program nationally
- ❑ Build LNSP capacity for Genomic Sequencing in Haiti
  - Procured and installed Illumina MiSeq equipment

# CHALLENGES

- Socio-political situation
- Difficulties in transporting samples
- Fuel shortage
- Insecurity (departure of staff)

# NEEDS (1)

- Sampling materials (Cary Blair, PPE)
- Supervision meetings and trainings by the LNSP to subnational designated laboratories to enhance the decentralized culture capacity
- Laboratory reagents for antimicrobial sensitivity testing
- Renovation of the LNSP workspaces and 3 of the subnational laboratories
- Laboratory reagents for culture and small equipment needed for the 10 hubs performing culture testing for Cholera and enteric pathogens
- Support for national transportation (2 vehicles for transportation of specimens and air transportation)

# NEEDS (2)

- Resources to send samples to international reference laboratories
- Training and supervision for professionals responsible for collection of stool samples in the selected sentinel sites
- Identify and train 2 laboratory technicians to assist with bacteriological testing & Antimicrobial resistance in the LNSP and 2 laboratory technicians for each subnational laboratory
- Develop mentorship and training toolkits to assist with bacteriological testing & Antimicrobial resistance in the LNSP
- Increase human resources and build workforce capacity by adding 2 laboratory technicians at each subnational laboratory
- Support with development of external quality assurance program at the LNSP to monitor testing quality of the subnational laboratoires

# NEEDS (3)

- Develop environmental laboratory capacity at the National or selected regional laboratories to test water samples.
- Develop SOPs and guides for water testing
- Develop routine food hygiene and water quality surveillance.

# PERSPECTIVES

- ❖ Implement an external and internal quality control system within the national network of laboratories that have the capacity to test for cholera and other acute diarrhea pathogens
- ❖ Introduction of IT tools (software/hardware) in epidemiological surveillance at subnational laboratories
- ❖ Deploy LIS at the regional laboratories



# Thank you

Together we can  
**#endcholera**



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