

# **Epidemiological Surveillance System of Cholera in Haiti**

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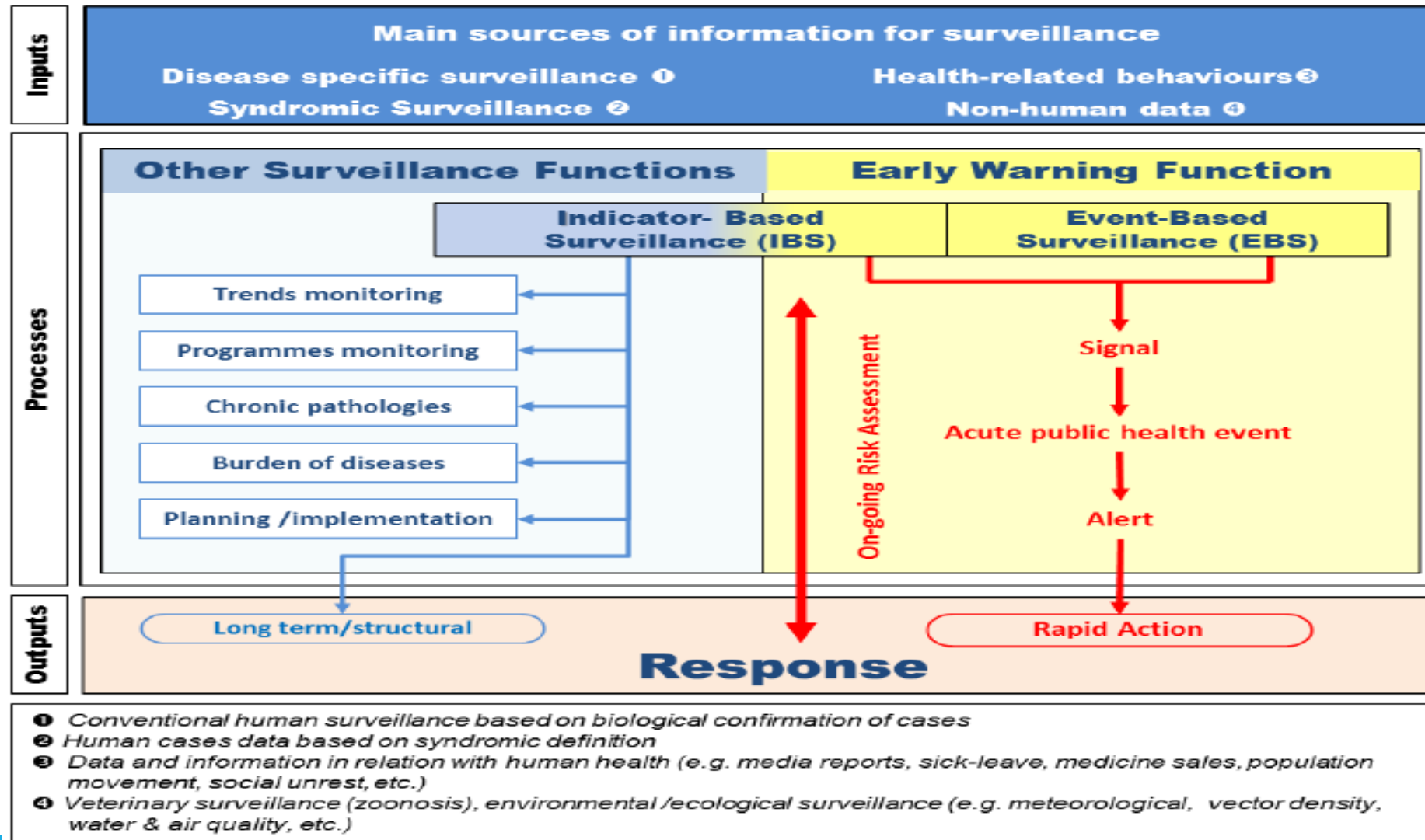
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# Context

- Before October 2010: no case of cholera in Haiti
- October 2010: introduction of *V. Cholerae* (**massive contamination of a river**)
  - *Vibrio Cholerae*, serogroup 01, Ogawa serotype, El Tor biotype (strain of the Indian subcontinent since 2007)
  - Explosive impact
  - Up to 4000 cases and more / week
  - Population never in contact with *Vibrio*.




# Surveillance



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2010- 2017



# Case Definitions

- **Suspected Case:** Any case of acute, profuse watery diarrhea with or without vomiting in a cholera-affected department
- **Inpatient Cases:** Any case who spent one night in a health facility regardless of the degree of dehydration or treatment received
- **Institutional death:** Case seen or hospitalized dies in a health institution

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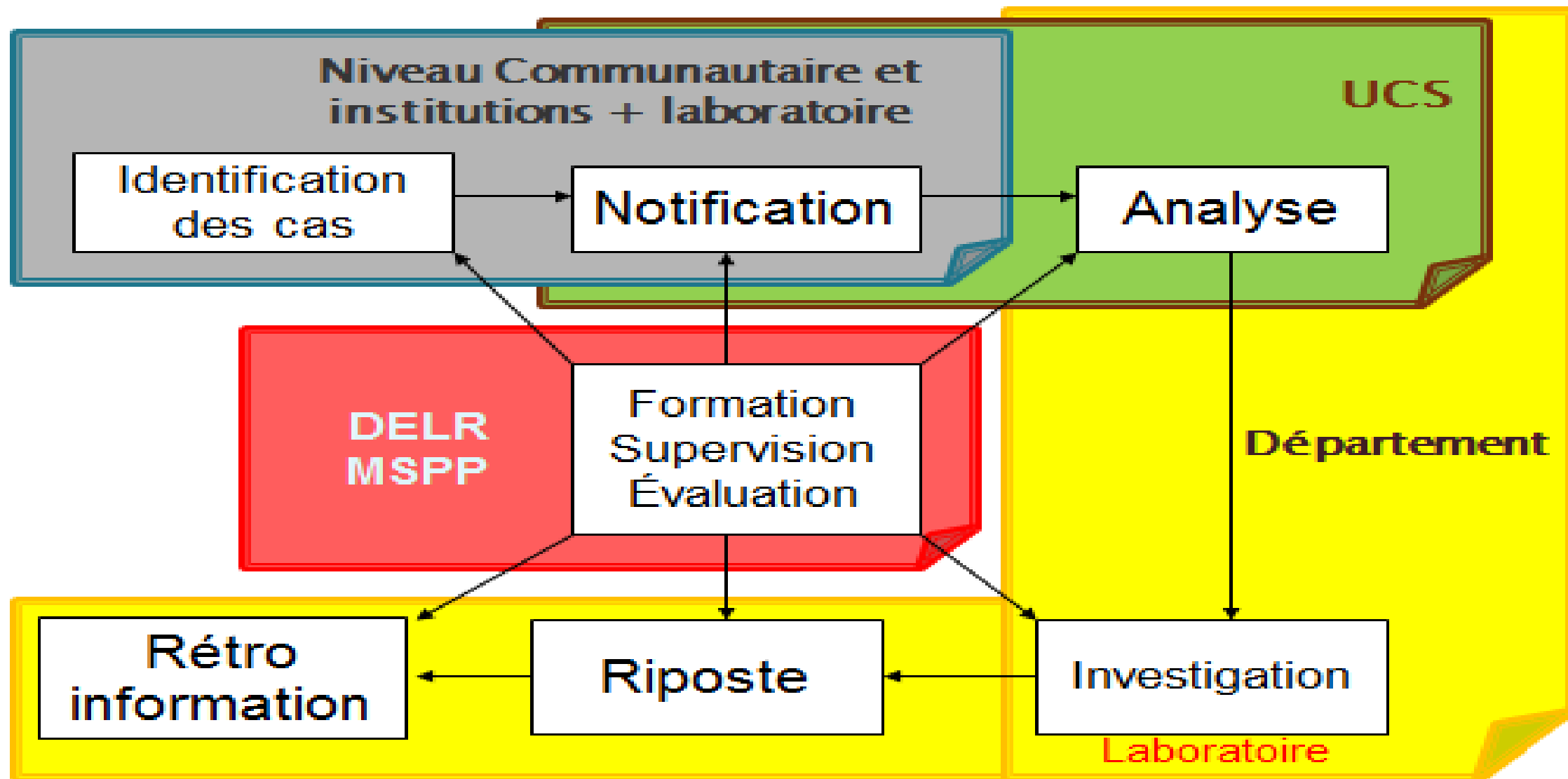
- **Community Death:** Anyone who meets the case definition who dies outside a health facility

Challenge: Very specific case definition

# Main Variables

1. Number of new cases per site CTDA (<5 years, 5 years and older)
  2. Number of new hospitalized cases (<5 years, 5 years and older)
  3. Number of new institutional deaths (<5 years, 5 years and older)
  4. Number of new community deaths (<5 years, 5 years and older)
  5. Origin of cases
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# Responsibility by Level



# Reporting Procedures

## **SITES RESPONSIBLE FOR REPORTING**

- ✓ Any health institution dealing with cholera cases and with or without Cholera Treatment Units (UTC)
- ✓ Cholera Treatment Centers (CTC)
- ✓ Acute Diarrhea Treatment Centers (CTDA)
- ✓ Oral rehydration sites (PRO, PRO +)



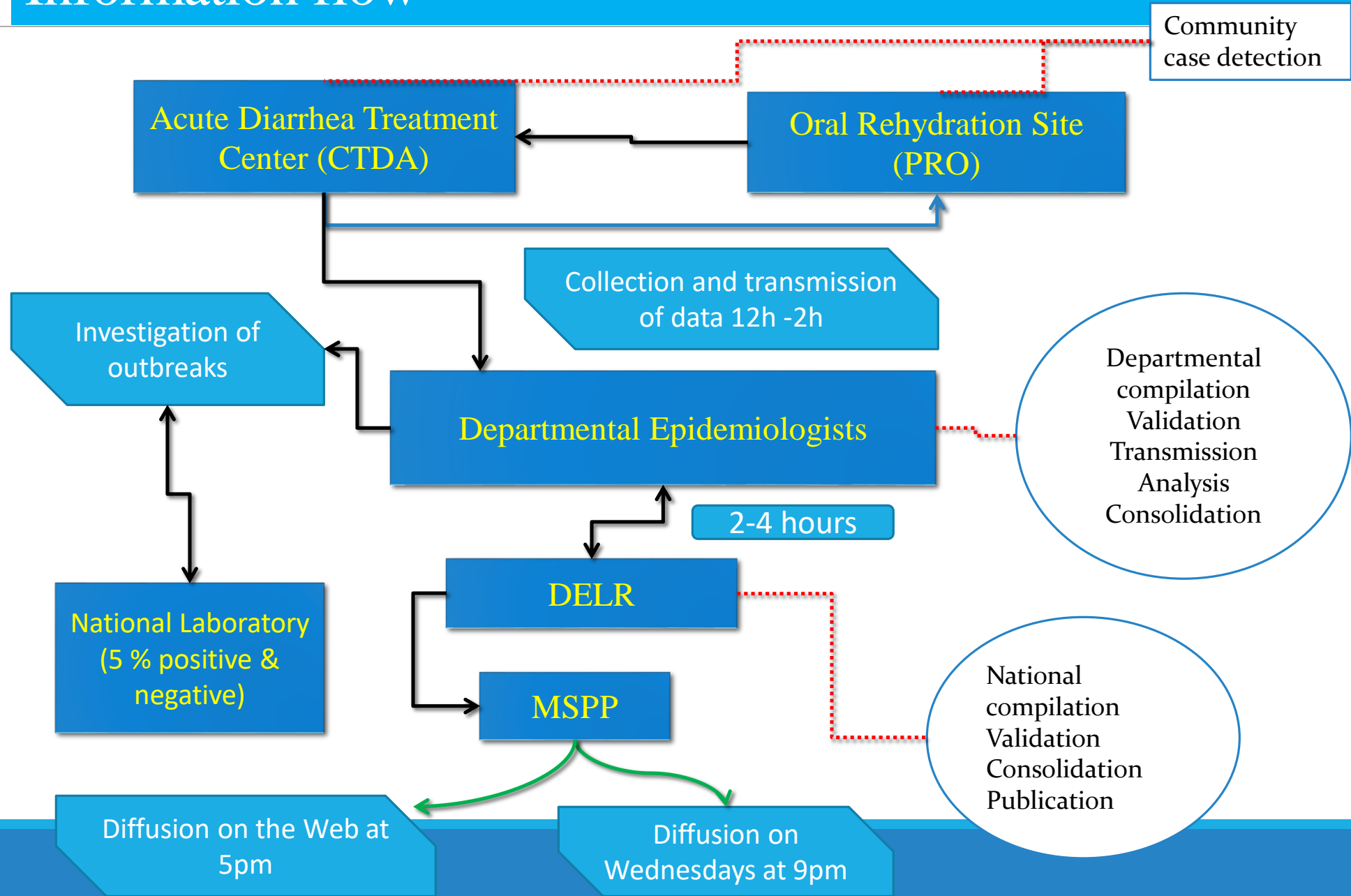
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# Information flow



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2017 to date



# New case definition (2017)

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**Suspected case:** Any patient with acute watery profuse diarrhea with dehydration

**Confirmed case:** Any suspicious case with *Vibrio cholerae* culture positive

**Excluded case:** Any suspicious case with *Vibrio cholerae* negative culture

**Institutional Death:** Any suspicious or confirmed case that dies in an institution of care

**Community Deaths:** Suspected cases that die outside a care institution

# Responsible Sites for Reporting

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With the integration of Cholera, only Acute Diarrhea Treatment Centers (CTDAs) treat and report suspected cases of cholera

100% of suspected cases are  
sampled and tested

# Indicator-based Surveillance

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## National Cholera Surveillance System

- Aggregated data
- Cases according to notification in CTDAAs
  - Place of residence unknown
- Implemented in all CTDAAs
- Updated more quickly
- Set up in an emergency context to quickly ascertain the number of cases

## Cholera Line Lists

- Individual-level data from cholera registries
  - More detailed information
  - i.e. place of residence, vaccination status, rehydration plan, etc.
- Implemented in most departments
  - Information is not updated frequently



## Labo-moto

- “Labo-moto” nurses visit CTDAAs regularly and collect info from cholera registries and merge it with lab test results

# Event-based Surveillance

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The implementation of an event-based surveillance system to monitor and verify informal and formal sources (rumors, media, social media) is in progress.

## **Challenges**

- Lack of an information system to collect and monitor rumors and media sources electronically
  - WhatsApp is a popular social media source in Haiti
- Financial and HR constraints

# Alerts

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Alerts are generated based on the criteria of the DELR analyzing data of the National Cholera Surveillance System

## Criteria for a **Red Alert** (at commune level)

- A death due to suspected cholera
- 10 suspected cholera cases or more
- Cluster of 5 suspected cholera cases residing in a locality
- At least one positive culture for *Vibrio cholerae*

## Challenges

- Use of data at the institutional level and not by place of residence
- Delay between notification of suspected cases and lab confirmation
- With decreasing cases, criteria needs to be revised (10 cases now too high of a threshold)



# Perspectives

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- Active research of *Vibrio Cholerae* in Acute Diarrhea cases
- To continue the surveillance in communes that have not notified cases for more than a year
- Systematic and strict investigation of any new suspected or confirmed cases and deaths

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