

# What is YAWS?

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Yaws Study Phase II



# YAWS

- **Yaws is a chronic disfiguring and debilitating childhood infectious disease**
- One of the first diseases targeted for eradication by WHO and UNICEF in the 1950s.
- WHO renewed global efforts to eradicate yaws in 2012.

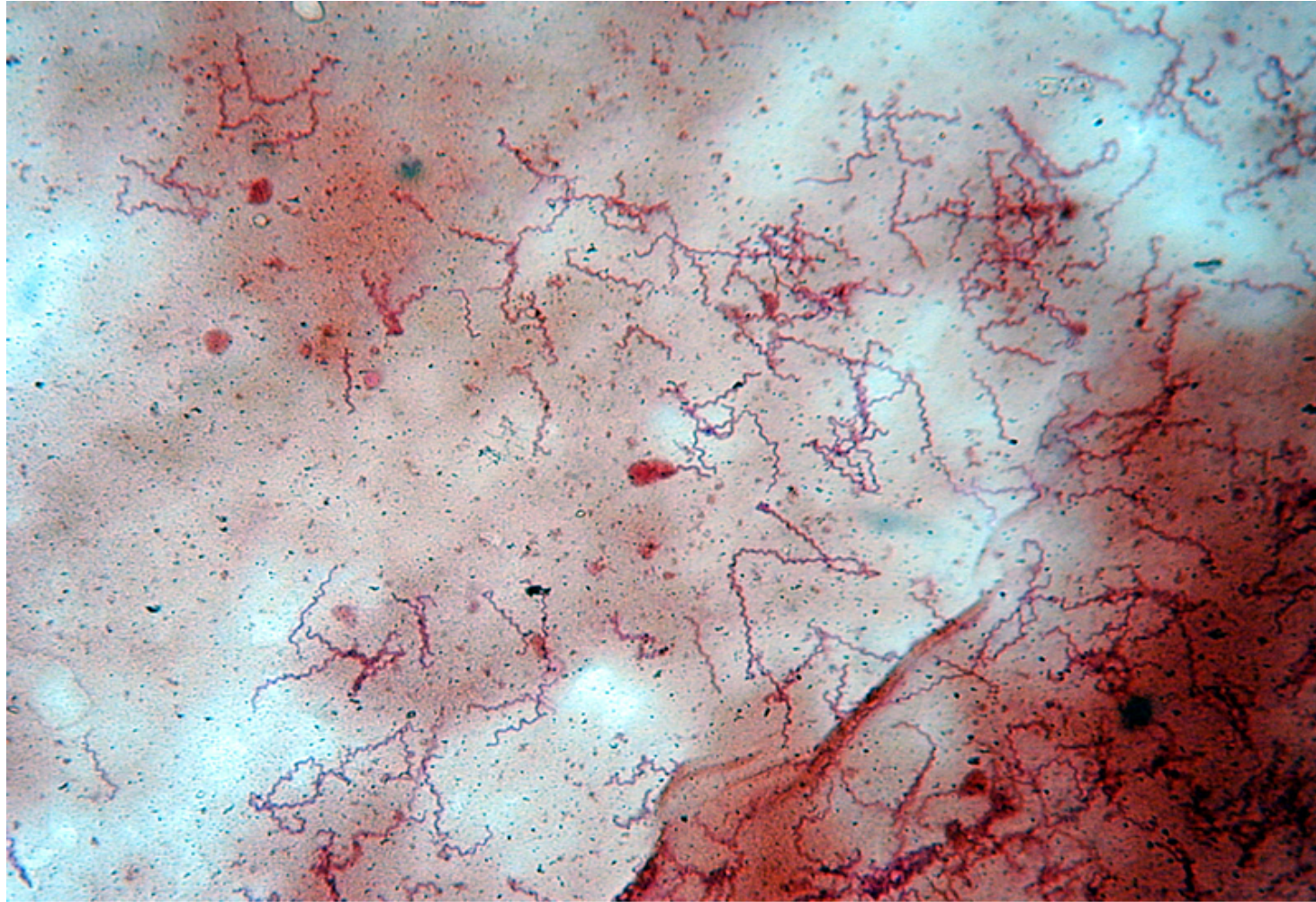
# YAWS

- Tropical, infectious disease that affects the skin and bones





# *Treponema pallidum* subspecie *pertenue*



*Treponema pallidum* (1000x)



# YAWS

- Not sexually transmitted but can be spread by direct contact with infected skin



# YAWS SKIN ULCERS

- Poor environmental and personal hygiene - predisposing factors to its spread



Yaws:  
Early  
stage/  
Primary  
Yaws



Photograph by Belen L Dofitas, MD





Secondary  
yaws

Moist, cauliflower-  
like nodules,  
plaques, and  
papules





Photograph by Belen L Dofitas, MD

# Tertiary yaws

Gummatous ulcer



Saber shin and gummas



- **Diagnosis of Yaws:** clinical features and serological (reactive non-treponemal and treponemal antibodies)
- **Treatment of Yaws:** single oral dose of azithromycin or injectable benzathine penicillin



# Rationale for Yaws follow-up study

- Supposedly eradicated in the country during the 1950s campaign
- Active yaws cases have been confirmed in Liguasan Marsh communities in Mindanao (Dofitas B 2017)
- The status of yaws in the other major regions of Luzon and Visayas remains unknown.
- A follow-up study of the first epidemiological study (Dofitas B, 2017) is necessary to establish the status of yaws in the rest of the country
- To guide health authorities in the establishment of an appropriate yaws control and eradication program



# NATIONWIDE YAWS ACTIVE SURVEILLANCE AND CASE DETECTION IN SELECTED AREAS OF LUZON AND VISAYAS REGIONS IN THE PHILIPPINES v3.4

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Project Leader

**Implementing agency**  
Philippine Leprosy Mission, Inc.

## **Cooperating agencies**

Department of Health-Philippines

- Infectious Diseases Office- Disease Prevention and Control Bureau
- Health Policy Development and Planning Bureau

**Sponsoring agency:** Philippine Council for Health Research and Development

- **Type of project:** Health policy; Epidemiological
- **Duration of project:** 12 months (July 2019- June 2020)



# Justification of study design

Public health surveillance (or epidemiological surveillance) : recommended method for detecting yaws in the Philippines.

Yaws has not been a reportable disease in the Philippines for several years:

- virtually forgotten by current health personnel
- existing health facility records are not likely to contain data on yaws

An active surveillance system is therefore recommended

- entails actively asking health care providers about the priority disease, or
- visits to health facilities, and
- review of medical records in order to identify a specific disease or condition.

# General Objectives:

- To determine if there is at least one active yaws case in each of the regions of Luzon or Visayas

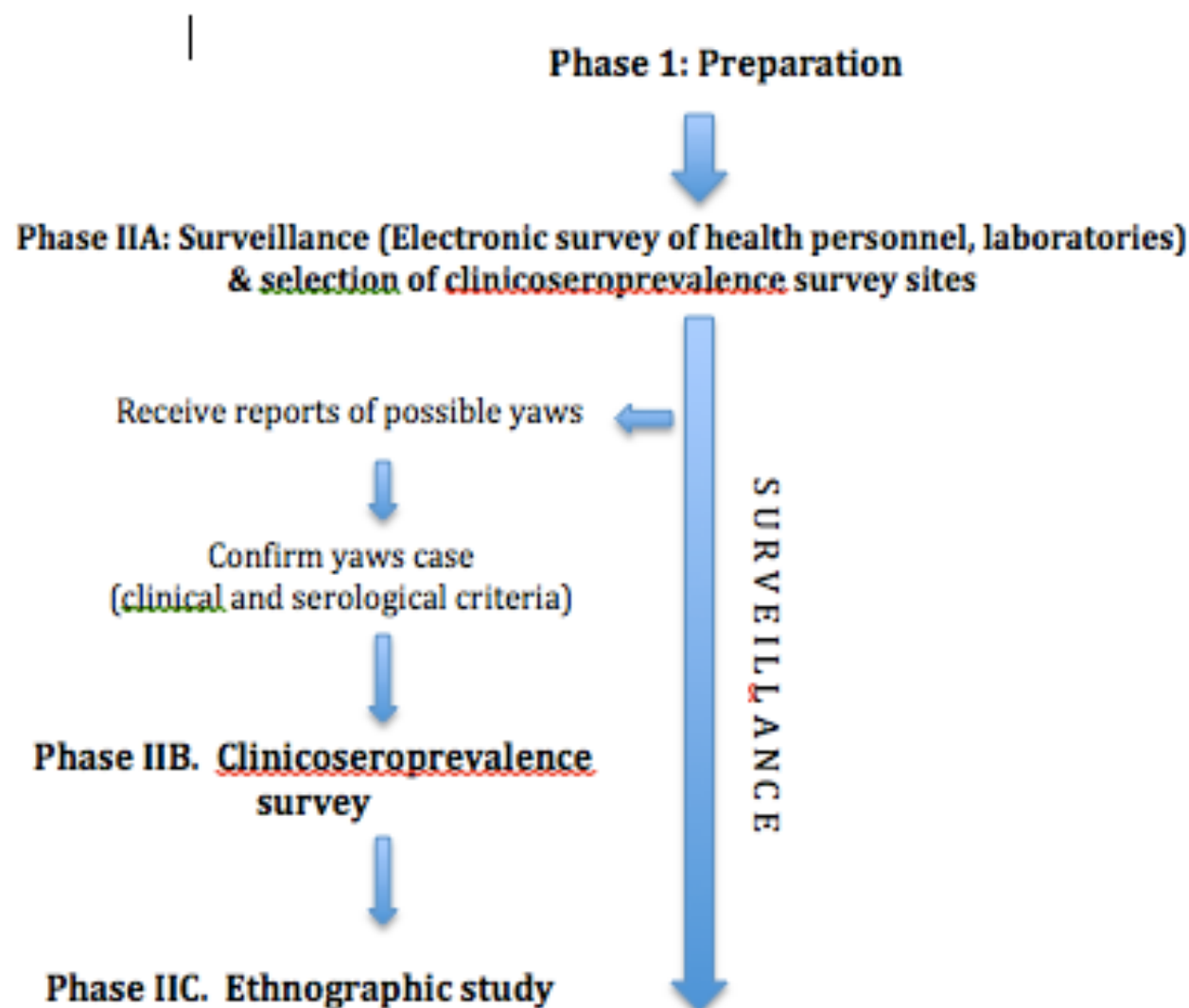
*Note: WHO Criterion for endemicity: one active yaws case*

# Specific objectives

1. To screen for the presence of possible or probable yaws cases in each of the regions of Luzon and of Visayas
2. To confirm the diagnosis of yaws cases in Luzon and Visayas region through clinical and serologic criteria
3. To determine the **number and proportion of yaws cases** among children 15 years old and younger and their obvious contacts whenever there is at least one confirmed case of yaws detected (i.e. active, latent) in the following areas:
  - 3.1 two high seroprevalence GIDA municipalities per major region (total 4 sites)
  - 3.2 one GIDA municipality with indigenous people per major region (total 2 sites)
4. To determine the socio-economic impact of yaws infection such as, but not limited to, health expenditure, behavior, and beliefs, on those infected with the disease and their household



## Flow diagram of Study Phases



# Methodology

*Objective 1: To screen for probable cases of yaws*

## PHASE II A: Nationwide Yaws Active Surveillance

Invitations, Yaws information kit,  
survey form sent to target  
respondents i.e. health  
personnel

Electronic survey/hard copy  
forms on past and present cases  
of Yaws accomplished and  
submitted

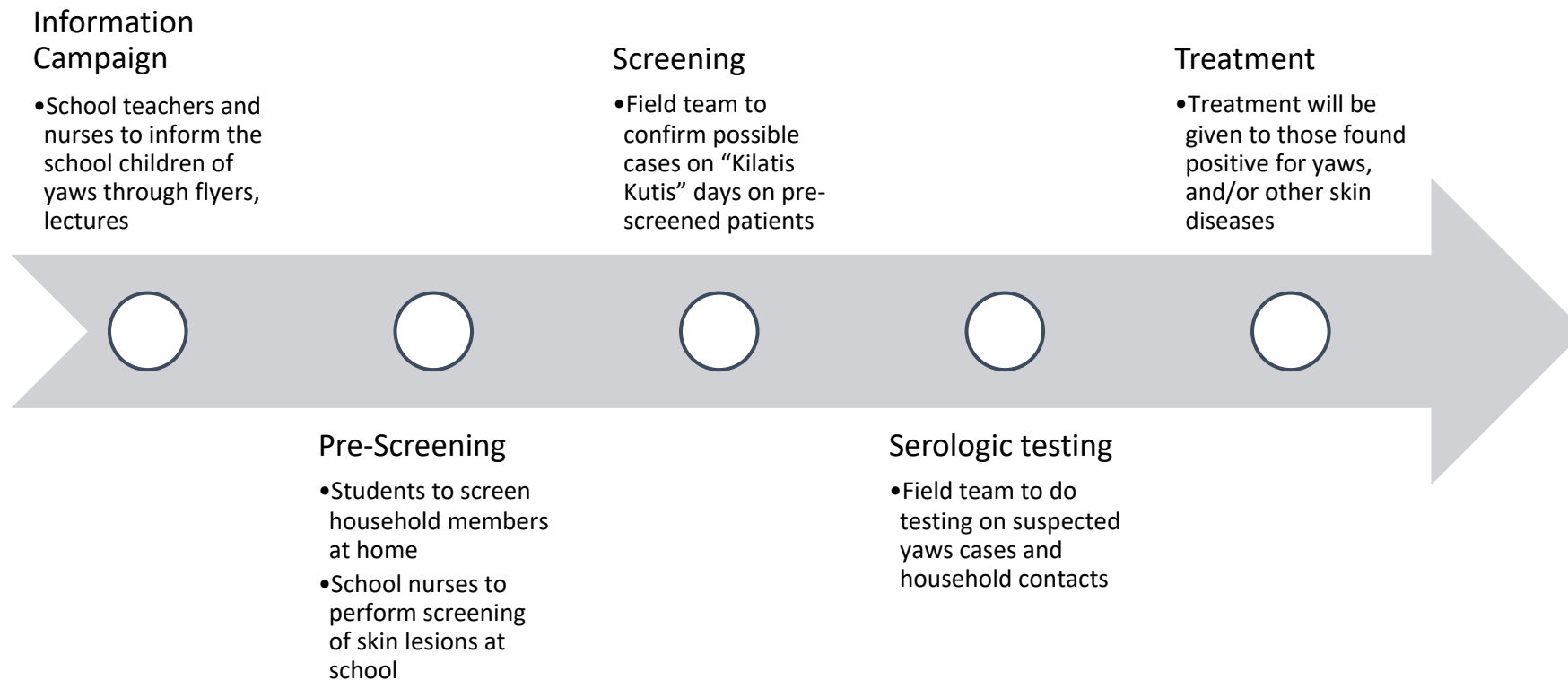
Active surveillance: Referral  
of yaws suspects through  
Teledermatology/direct  
mail - for confirmation by  
Investigator

# Methodology

*Objective 2: To confirm the diagnosis of yaws*

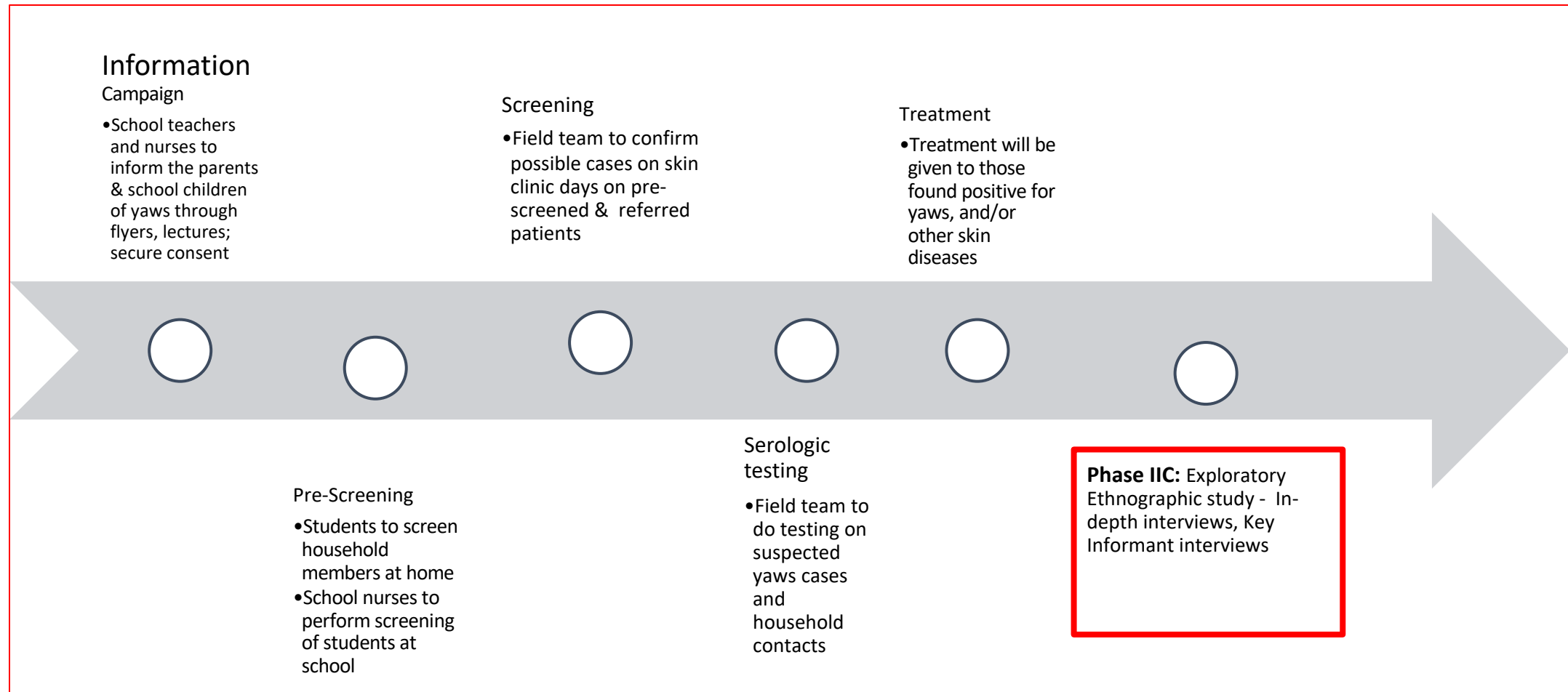
*Objective 3: To determine prevalence of yaws*

## PHASE II B: Case Detection in high-risk communities



# Phase IIB & Phase IIC

*Objective 4: To determine socio-economic impact of yaws*



# Phase IIA: Nationwide Active Surveillance

- 1. To screen for the presence of possible or probable yaws cases in each of the regions of Luzon and of Visayas**



# Study Population

## Phase IIA: Nationwide Yaws Surveillance

- Members of Association of Municipal Health Officers of the Philippines (AMHOP) or City Health Officers/Doctors to the Barrios: physicians assigned as medical officers in various municipalities/cities in Luzon and Visayas regions
- Health center staff: physicians, nurses, midwives
- Members of the Philippine Medical Association
- Members of the Philippine Dermatological Society
- Members of the Philippine Pediatric Society
- Department of Education physicians and nurses
- Epidemiology Bureau-Dept of Health

# Study sites Phase IIA Active surveillance

- 17 Administrative regions of the Philippines
- municipalities where there are public health officials and health center staff

# How to find a forgotten disease

The WHO recommends the following:

“If no confirmed cases have been detected, surveillance, basic public health activities and community awareness should be strengthened.”

1. Make health care providers aware of and recognize Yaws: Orient health care practitioners nationwide about yaws by supplying the Yaws Fact Sheet and Yaws Recognition Booklet via email.
2. Invite HCPs to participate in a short survey about their knowledge on yaws in their catchment areas  
**Any reports of yaws in your area?** YES → CONFIRM PRESENCE OF YAWS  
NO → PARTICIPATE IN THE SURVEILLANCE REPORTING FOR 10 months
3. Establish a simple surveillance and reporting system for yaws around the country by inviting health practitioners, both government and private, as well as government-run laboratories to report possible yaws cases throughout the study period.
  - Both electronic forms and mailed hard copies will be utilized
  - Electronic online form: Google Form
  - Requirement: contact information and email addresses of the target health personnel must be available and updated.

# Active surveillance: strategies

- Google Form electronic survey of physicians and
- online reporting of suspected yaws cases by medical practitioners and laboratories (Google Form)
- rumor registry and referrals from community members

**Please participate in the Yaws active surveillance !**

*Thank you!*