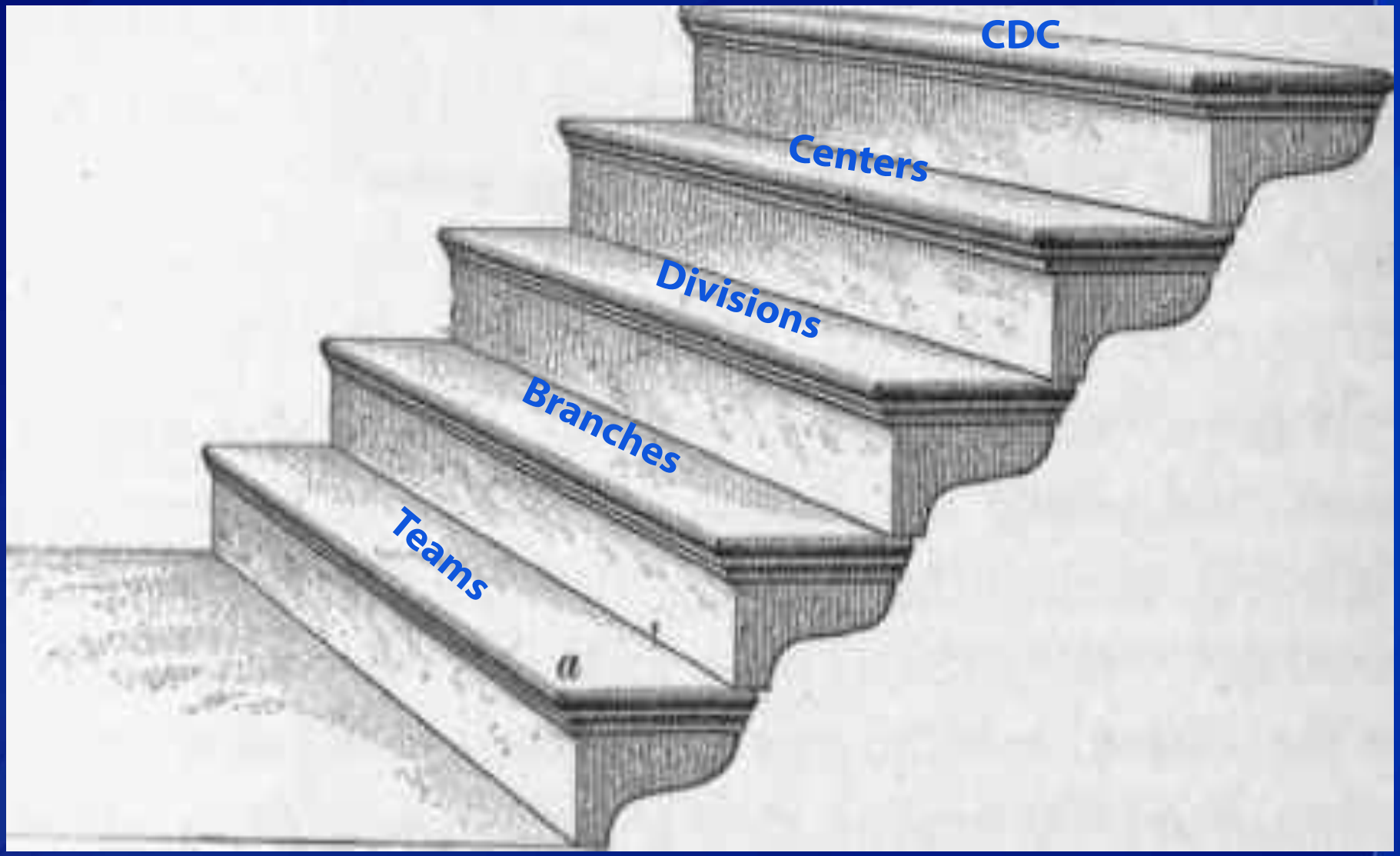
MY EXPERIENCE AFTER NKU

Dr. Kpandja Djawe, PhD
Epidemiologist at the Centers for Disease Control and Prevention (CDC)
Center for Global Health
Global Immunization Division
Polio Eradication Branch
Polio Afro Team

MY JOURNEY

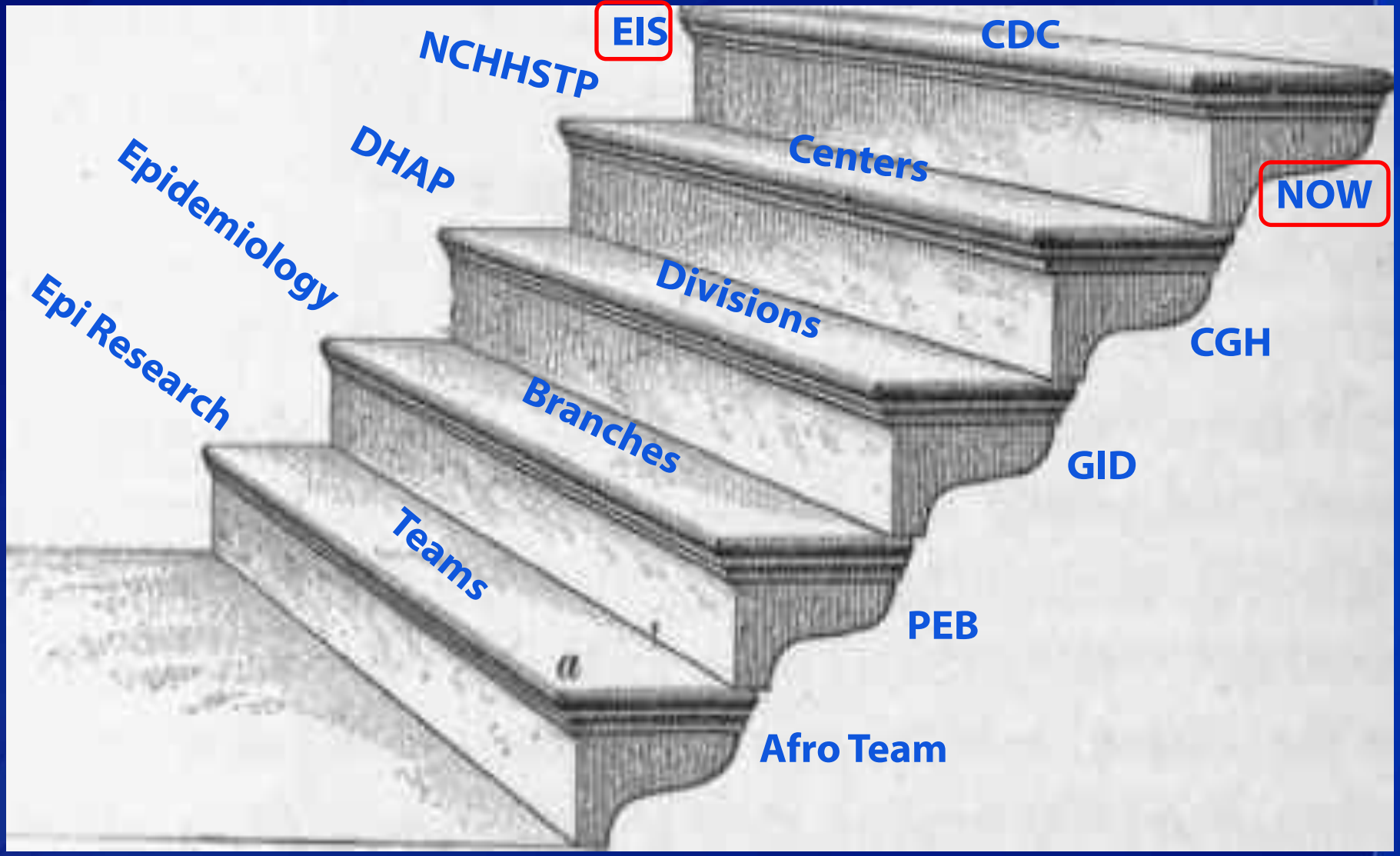
CDC STRUCTURE



HOW I JOINED CDC

- **Epidemic Intelligence Service (EIS)**
  - Two-year fellowship
  - Disease detectives
  - Commissioned Corps vs. Fellows

MY PAST AND CURRENT POSITIONS AT CDC



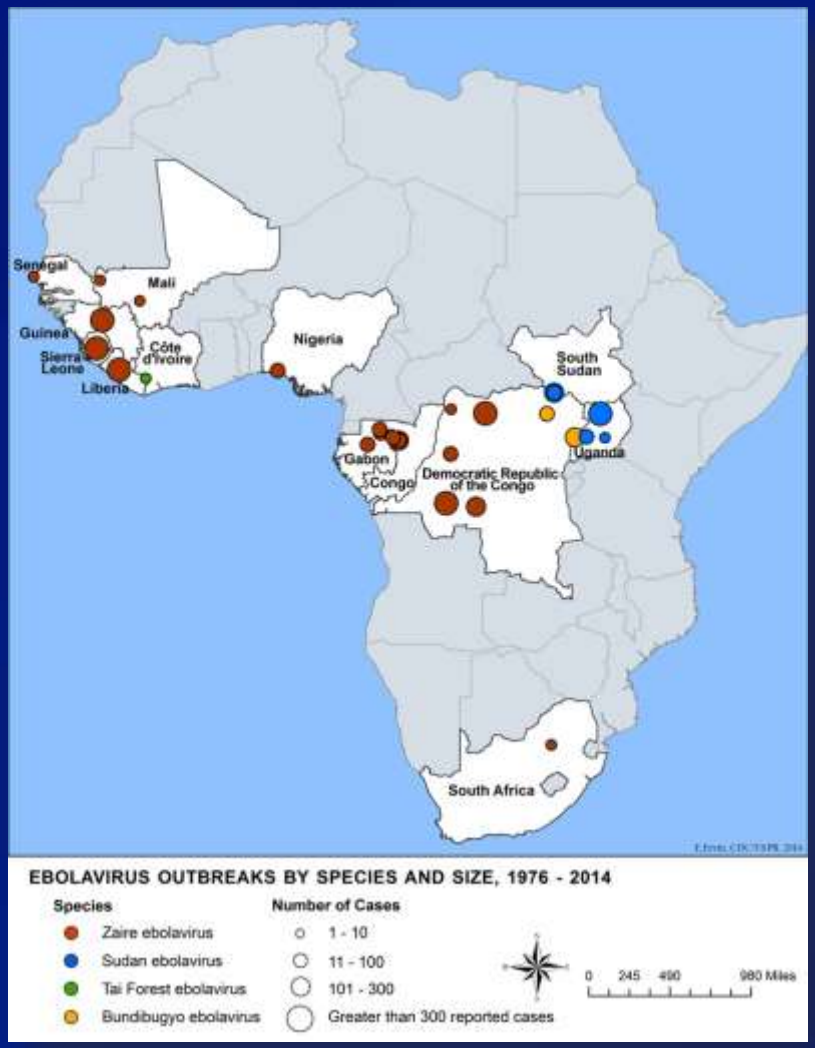
MY INTERNATIONAL MISSIONS

- Cholera surveillance evaluation in Haiti
- Guinea worm eradication in Niger
- Ebola outbreak response in Guinea
- Polio activities in Cameroon and Madagascar

BACKGROUND ON EBOLA

EBOLA BACKGROUND

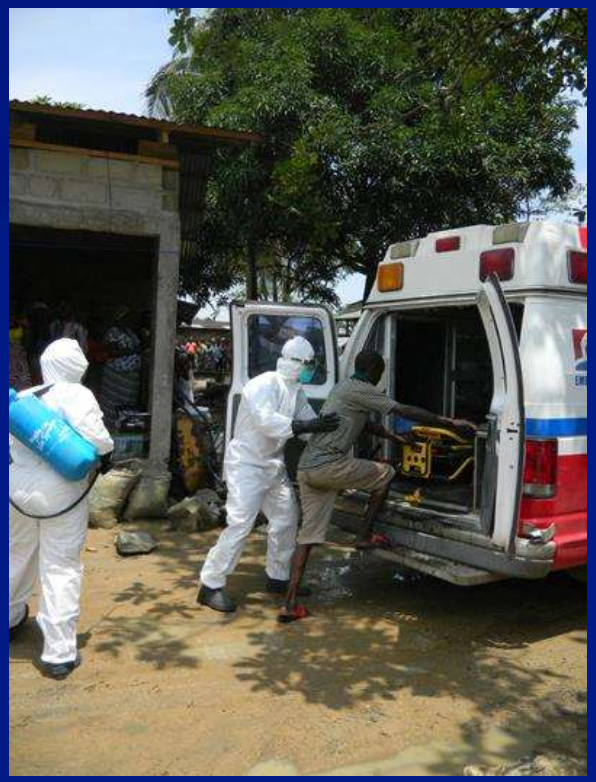
- First discovered in 1976 near the Ebola River in the Democratic Republic of the Congo
- Outbreaks occur sporadically in Africa
- Historically, death rates for Ebola range from 50%-90%



TRANSMISSION

- **Ebola virus is spread through direct contact (through broken skin or unprotected mucous membranes) with**
  - A sick person's blood or body fluids
  - Contaminated objects (like needles, syringes, clothes)
  - Infected fruit bats and primates (apes, monkeys)

SIGNS AND SYMPTOMS



- **Signs and symptoms of Ebola**
  - Fever
  - Severe headache
  - Fatigue
  - Muscle pain
  - Vomiting
  - Diarrhea
  - Abdominal pain
  - Unexplained hemorrhage
- **Incubation period, from exposure to when signs or symptoms appear, is 2 to 21 days, but average is 8 to 10 days**
  - A person infected with Ebola virus is not contagious until symptoms appear

PREVENTION

- **No FDA-approved vaccine for Ebola**
- **Practice careful hygiene**
  - Wash your hands with soap and water or an alcohol-based hand sanitizer
- **Avoid contact with blood and body fluids**
  - Like urine, saliva, sweat, feces, vomit, and semen
- **Do not handle items that may have come in contact with an infected person's blood or body fluids**
  - Like clothes, bedding, needles, or other medical equipment

TREATMENT

- No FDA-approved medicine for Ebola
- Symptoms of Ebola and complications are treated as they appear

EBOLA RESPONSE IN WEST AFRICA

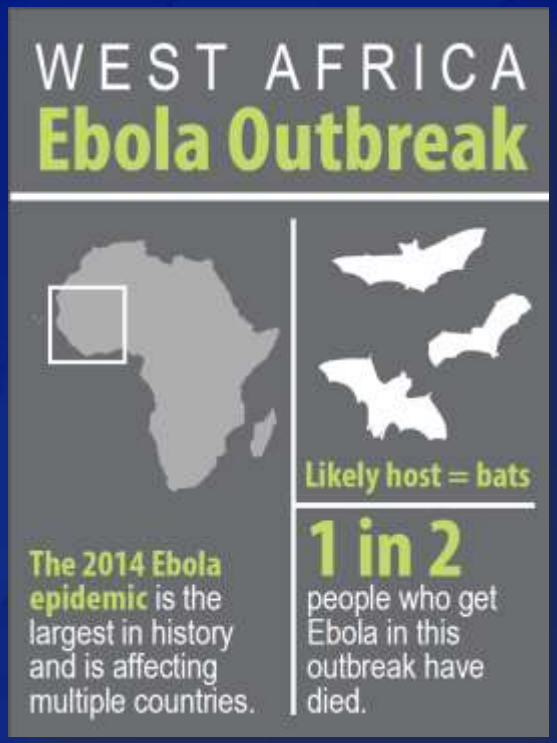
2014 EBOLA OUTBREAK

- Largest Ebola outbreak in history
- CDC's response to Ebola is largest international outbreak response in CDC's history

http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html

EBOLA OUTBREAK, WEST AFRICA

- **On August 8, the World Health Organization (WHO) declared the current Ebola outbreak is a Public Health Emergency of International Concern (PHEIC)**



- The PHEIC declaration underscores the need for a coordinated international response to contain the spread of Ebola

OUTBREAK CHALLENGES IN WEST AFRICA

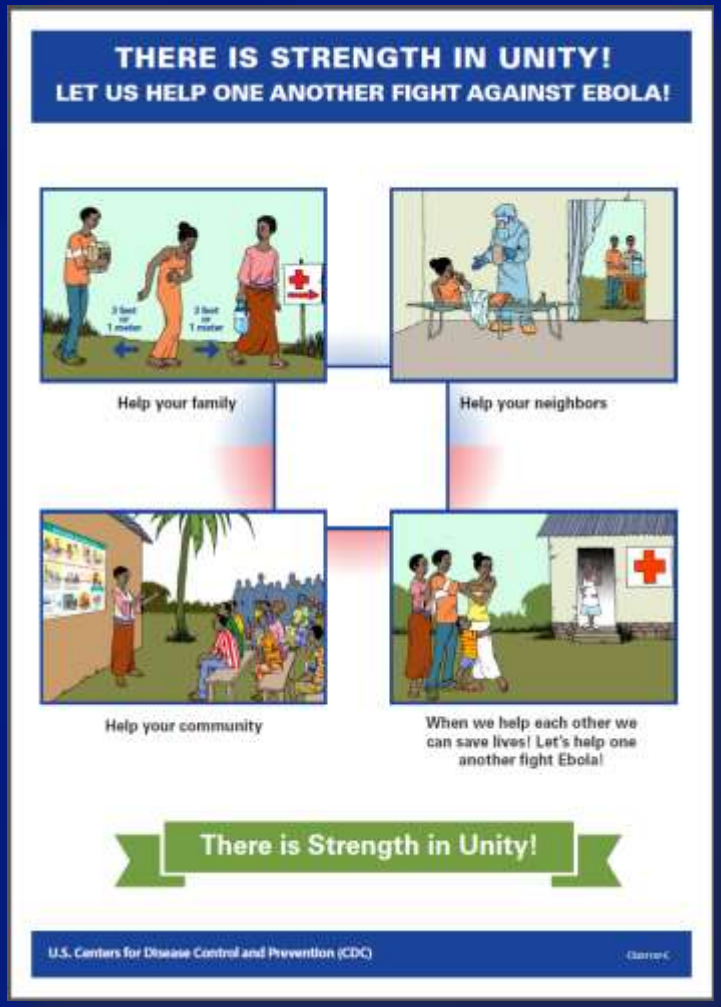
- Unpaid healthcare workers
- Insufficient treatment centers, beds, medical supplies, and personal protective equipment (PPE)

OUTBREAK CHALLENGES IN WEST AFRICA

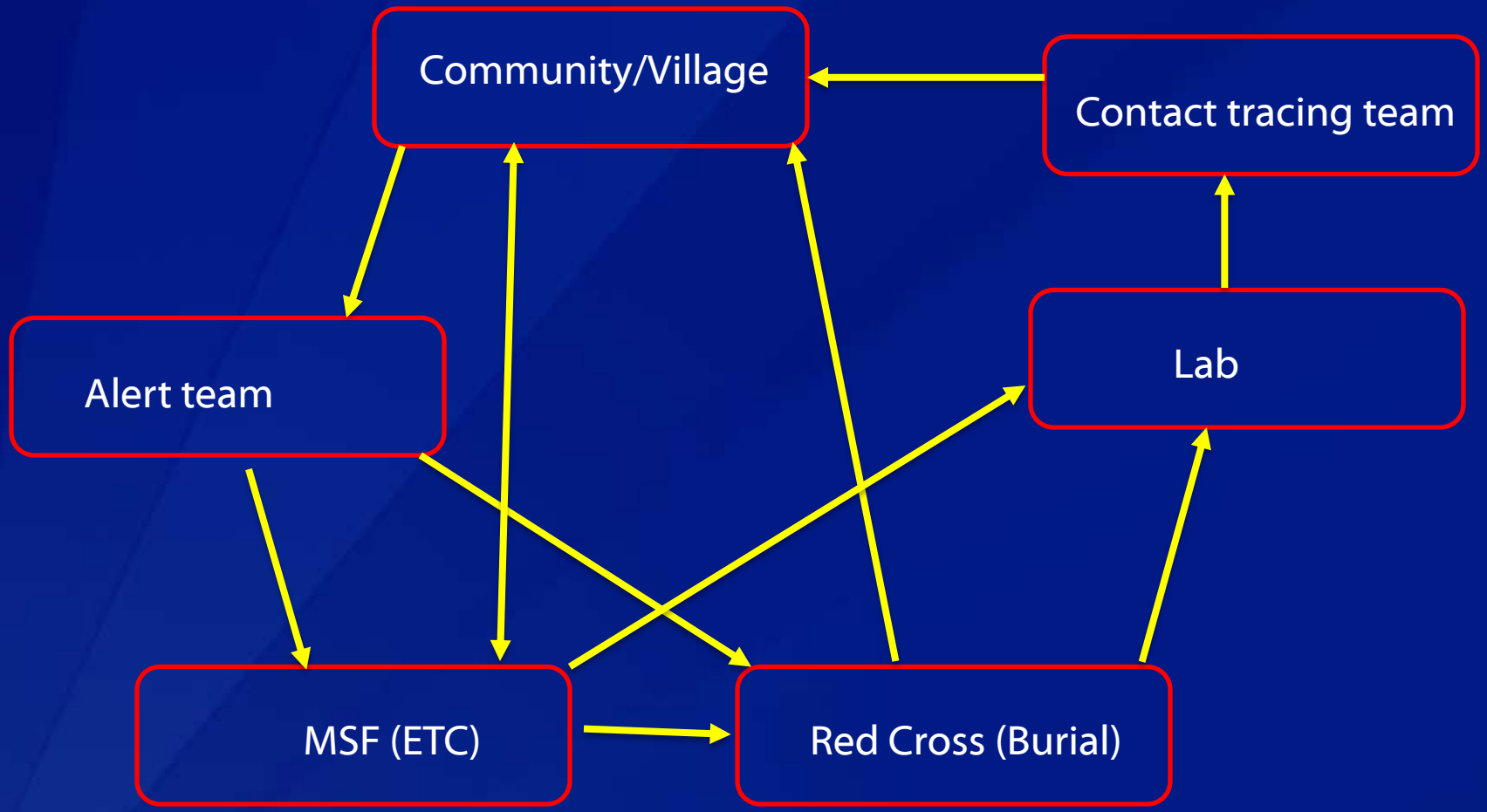
- Porous borders
- High population mobility
- Geographic scope

OUTBREAK CHALLENGES IN WEST AFRICA

- Not overcome by education
- Fear
- Stigma
- Distrust of outsiders
- Traditional beliefs

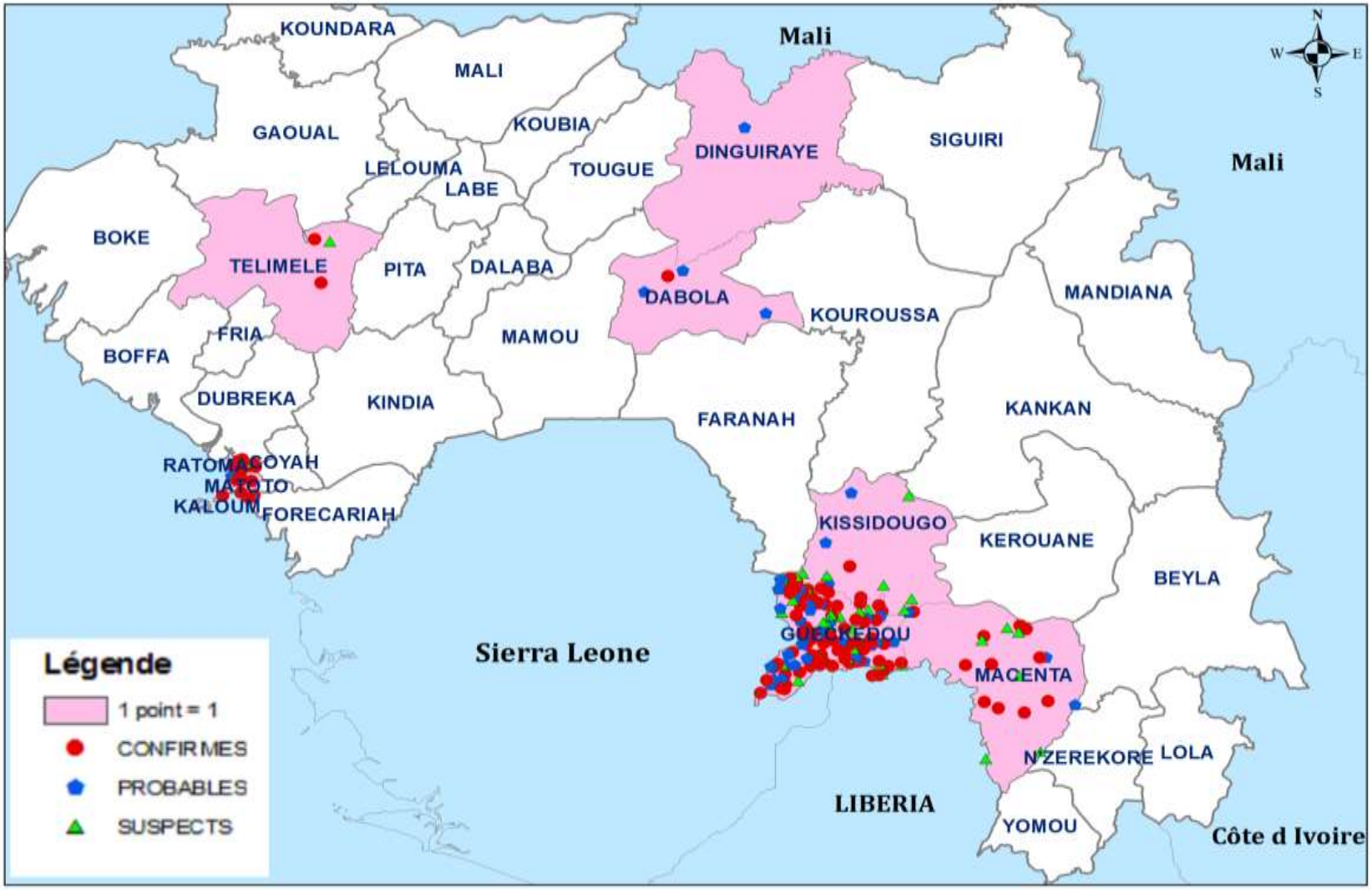


RESPONSE TO ALERTS



WHERE I WAS AND WHAT I DID

WHERE I WAS


KOUNDARA
MALI
Mali
GAOUAL
KOUBIA
LELOUMA
LABE
TOUGUE
DINGUIRAYE
SIGUIRI
Mali
BOKE
TELIMELE
PITA
DALABA
DABOLA
KOUROUSSA
MANDIANA
FRIA
MAMOU
BOFFA
DUBREKA
KINDIA
FARANAH
KANKAN
RATOMA
COYAH
MATOTO
KALOUM
FORECARIAH
KISSIDOUGO
KEROUANE
BEYLA
GUECKEDOU
Sierra Leone
MACENTA
N'ZEREKORE
LOLA
LIBERIA
YOMOU
Côte d Ivoire
N
W
E
S
Légende
1 point = 1
CONFIRMES
PROBABLES
SUSPECTS

WHAT I DID

- Contact tracing
- Active case search
- Coordination

CONTACT TRACING

- **Who is a contact?**
  - Any person who comes in contact with an Ebola patient, or person died of Ebola
- **Daily follow up for 21 days**
- **Monitor the symptoms**

WHY CONTACT TRACING

- Only way to break the chain of transmission
- Removal from the community of infectious patients
- Contacts are not infectious
- Huge manpower burden

ACTIVE CASE SEARCH

- Search for suspect cases in health centers and villages

COORDINATION

- Meetings, database, SITREP

CHALLENGES IN FIELD

- Risk of infection

CHALLENGES IN FIELD

- **Accessibility**

CHALLENGES IN FIELD

- Security

OPPORTUNITIES

- Networking

THANK YOU