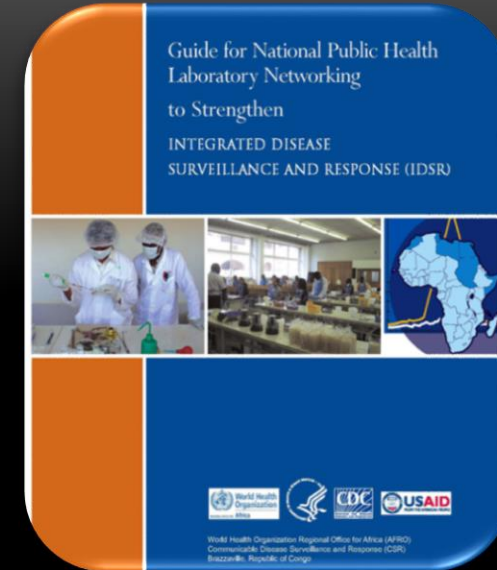
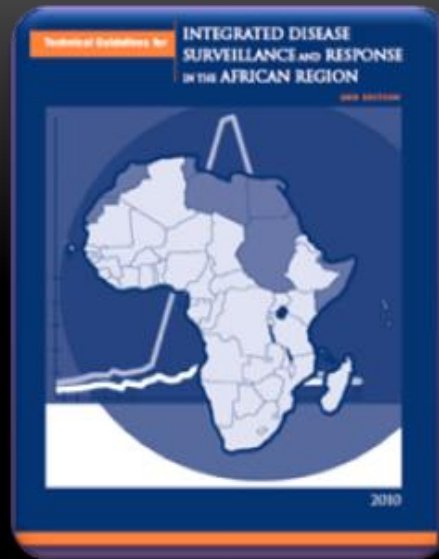


Workshop on Innovative Approaches to Establishing and Strengthening Regional Integrated Surveillance and Laboratory Networks for Disease Control, Prevention, and Clinical Care in Africa

March 27-29th, 2017 at Africa CDC, Addis Ababa, Ethiopia

Review of current surveillance and laboratory networks in WHO AFRO Region



Dr Ali Ahmed Yahaya

CPI ai/WHE/AFRO



1

To provide an overview of existing and new **frameworks** and **initiatives** to strengthen surveillance and response activities

2

To know the **current status** of laboratory networks in the WHO AFR Region

3

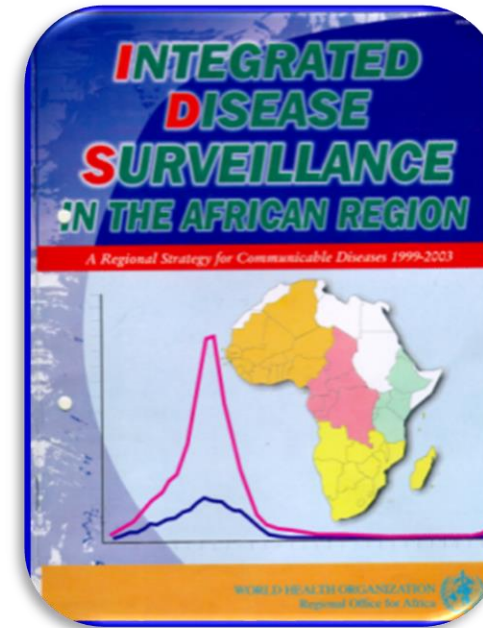
To sensitize participants on key **achievements** and **outcomes, challenges** and **lessons learned** in laboratory support to improve health security

4

To propose **way forward** for enhancing laboratory networks to support surveillance and response activities

IDSR

- Identify cases and events
- Report
- Analyze and interpret findings
- Investigate and confirm suspected cases, outbreaks or events
- Prepare
- Respond
- Provide feedback
- Evaluate and improve the system

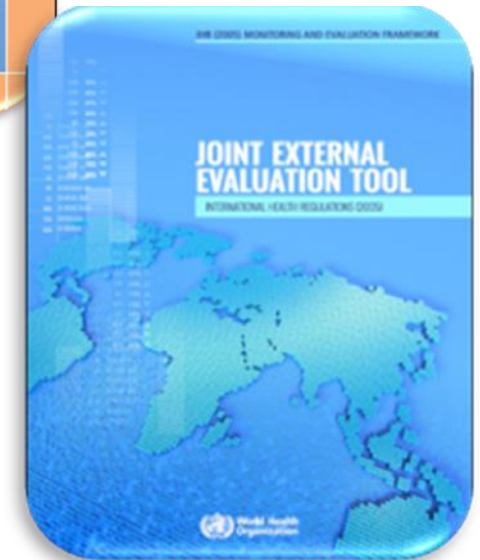
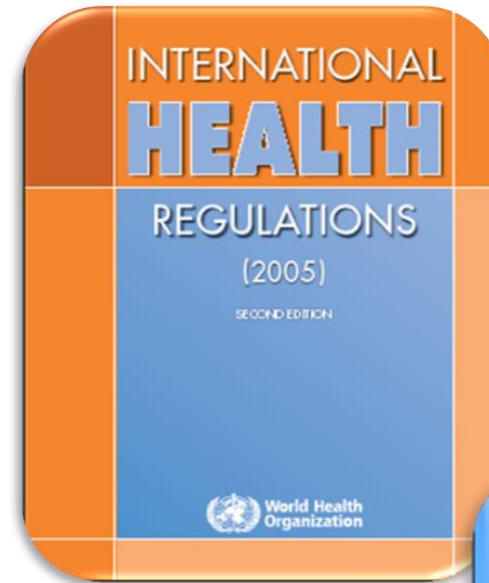


All levels of the health system involved in conducting surveillance activities for detecting and responding to priority diseases, conditions and events.

IHR

- Combined approach with 4 components
 - 1) Annual Reporting
 - 2) After Action Review (AAR)
 - 3) Exercises
 - 4) Joint External Evaluation (JEE)
 - 19 Technical Areas

Strong involvement of relevant partners who are also working toward global health security with One Health approach.



GHSA

Vision: *A world safe and secure from global health threats posed by infectious diseases.*

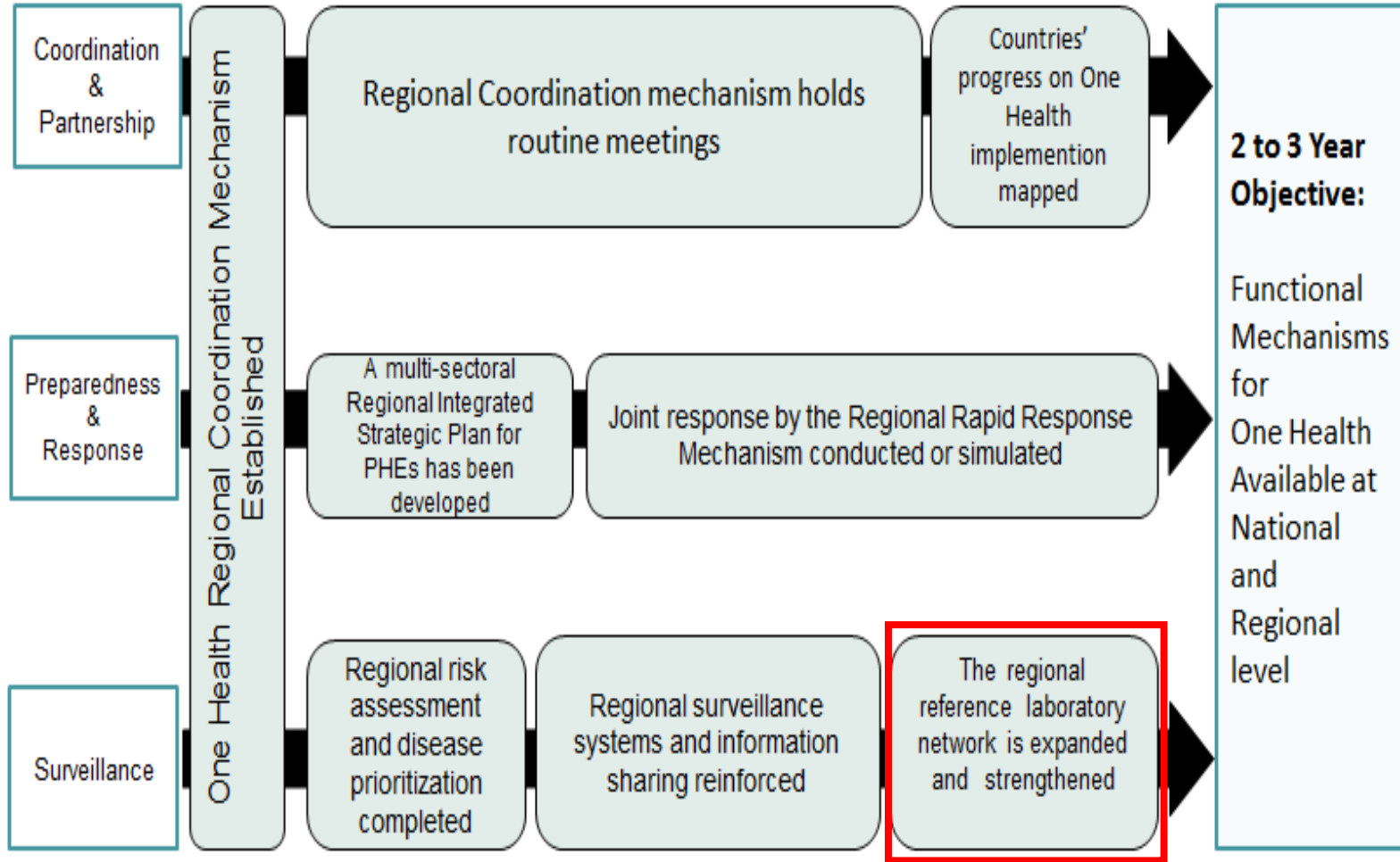
- February 2014: launched by leaders from 28 countries, WHO, OIE and FAO
- June 2015: G7 committed to assist the initiative
- September 2015: second GHSA Ministerial meeting held in Seoul, South Korea to support IHR, health system strengthening and PVS
- More than 50 countries now members of GHSA (14 countries from AFR)

3

GHSA helps countries to meet International Health Regulations (IHR) & Performance of Veterinary Services (PVS) Pathway commitments



One Health approach



REPORT ON ONE HEALTH TECHNICAL AND MINISTERIAL



Meeting to Address Zoonotic Diseases and Related Public Health Threats.

To strengthen prevention, detection and response to infectious disease threats, including zoonoses and AMR



World Health Organization

REGIONAL OFFICE FOR Africa

REGIONAL COMMITTEE FOR AFRICA

Sixty-sixth session

Addis Ababa, Federal Democratic Republic of Ethiopia, 19–23 August 2016

Provisional agenda item 8

REGIONAL STRATEGY FOR HEALTH SECURITY AND EMERGENCIES 2016–2020

AFR/RC66/6

13 June 2016

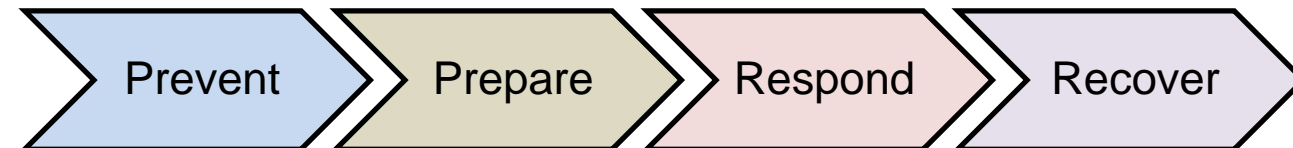
ORIGINAL: ENGLISH

Regional Strategy for Health Security and Emergencies
2016-2020



All-hazards approach

To strengthen and sustain the capacity of all the Member States



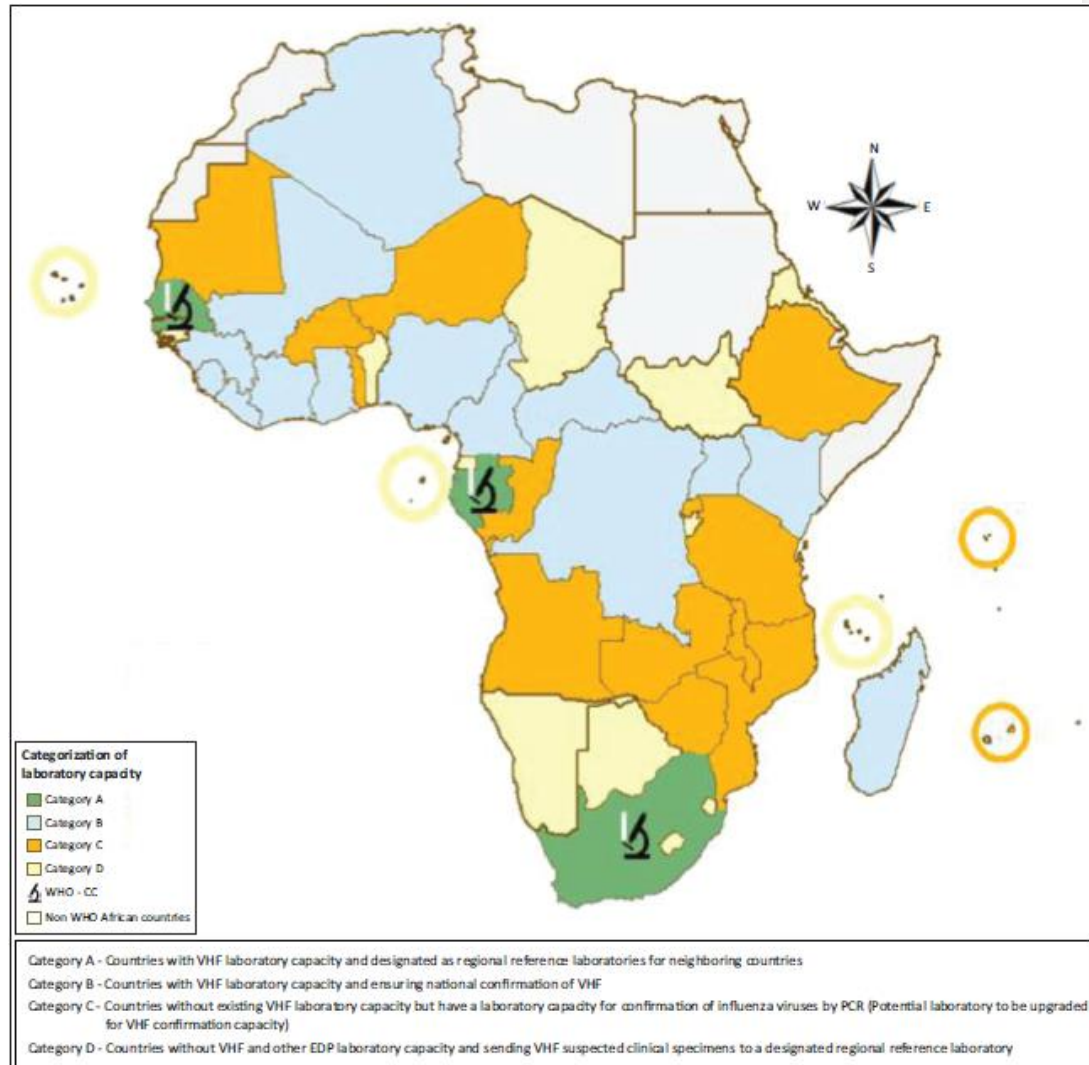


Emerging and Dangerous Pathogens Laboratory Network

WHO/AFRO oversees a number of networks of national reference laboratories

- Influenza Laboratory Network,
- Emerging and Dangerous Pathogens Laboratory Network (EDPLN),
- Polio Laboratory Network,
- Measles and Rubella Laboratory Network,
- Tuberculosis (TB) Laboratory Network,
- Rotavirus Laboratory Network,
- HIV Drug Resistance Laboratory Network,
- Pediatric Bacterial Meningitis (PBM) Laboratory Network

Building the capacity for functional regional laboratory networks to conduct timely, accurate and safe detection during public health emergencies +++





■ **46** MS*: culture, identification & AMR



■ **32** MS: PCR for influenza viruses



■ **13** MS: Functional BSL3 used for VHF



■ **40** MS:TB culture & confirmation of MDR/XDR



■ **17** MS: PCR for Ebola & other VHF

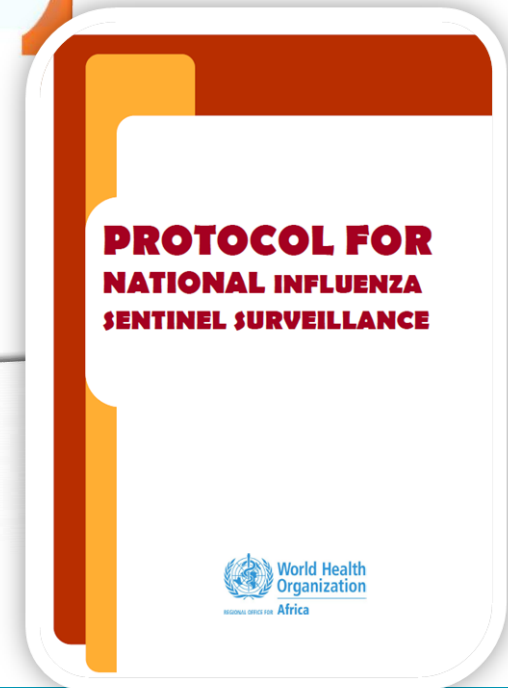
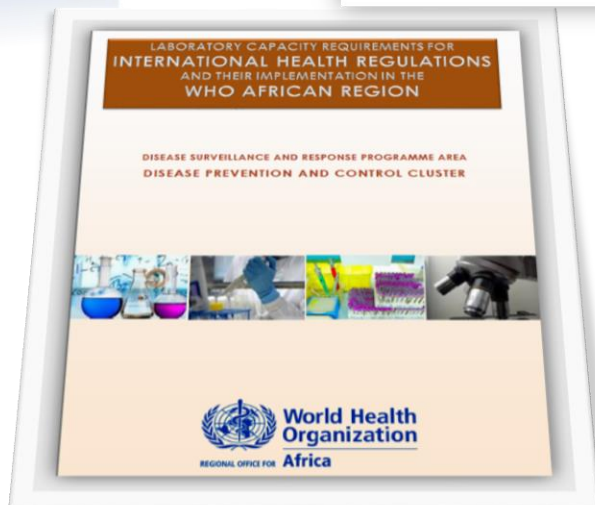
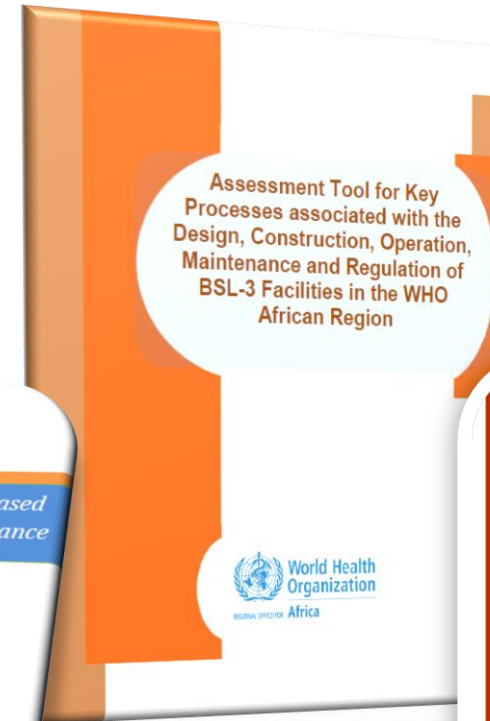
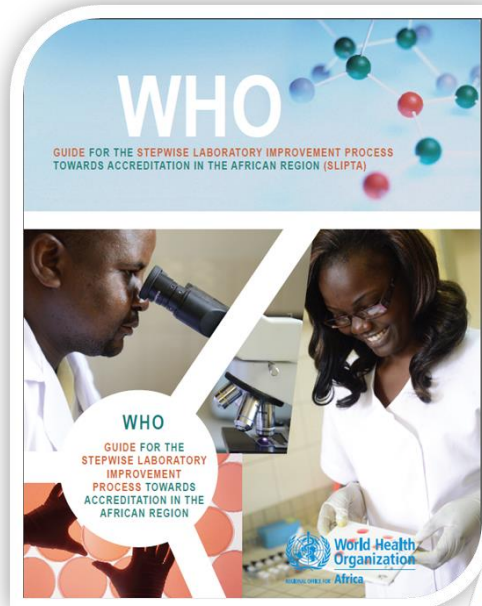
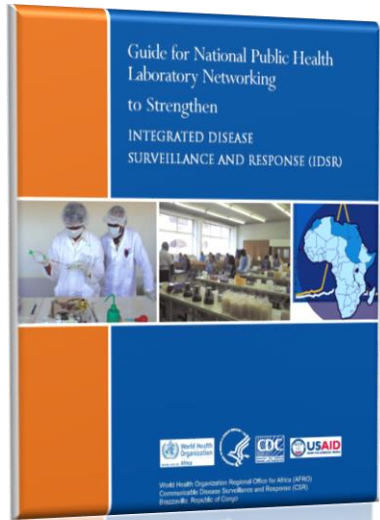


■ **20** MS: chemicals in soil, water and food

Lab diagnostic testing algorithms +++

* Member States

Guidelines for standardizing and strengthening laboratory activities

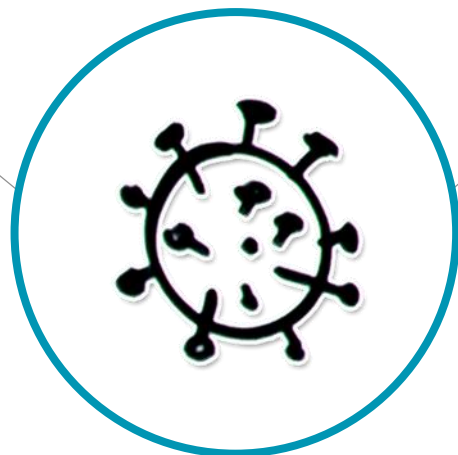


WHO support for strengthening laboratory capacity

Regional meetings



EDPLN
NIC

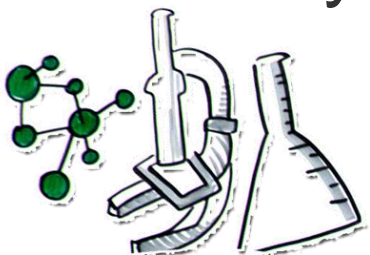


Training courses



VHFs
Influenza, MERS-CoV
ISST
LQMS
AMR PoA

Laboratory proficiency testing

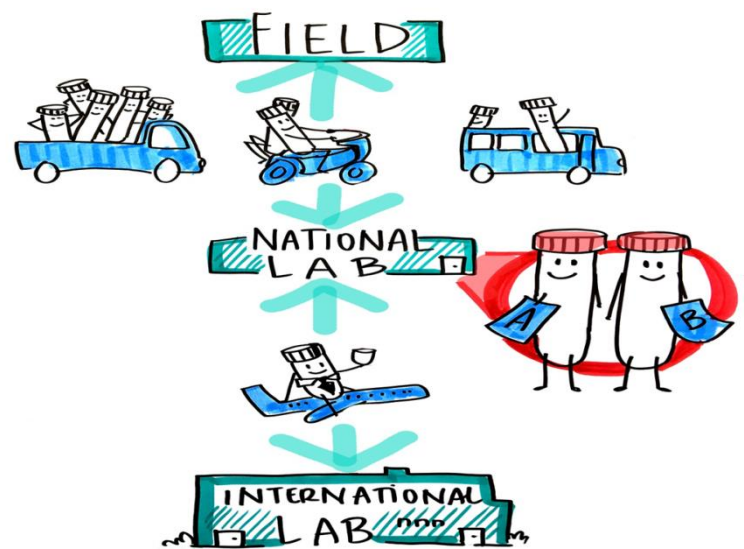


Bacteriology
Influenza
Arbovirus

Deployment of lab experts conducted in 11 countries in 2016

- Investigation of major outbreaks:
 - *Dengue,*
 - *Zika,*
 - *Lassa Fever,*
 - *Hepatitis E,*
 - *RVF,*
 - *YF*

- Involvement of the regional reference laboratories:
 - *PI Dakar,*
 - *NICD SA,*
 - *NMIM Ghana,*
 - *LUTH Nigeria*
 - *CPC Cameroon, etc*
- for investigation, confirmation and field response of major outbreaks

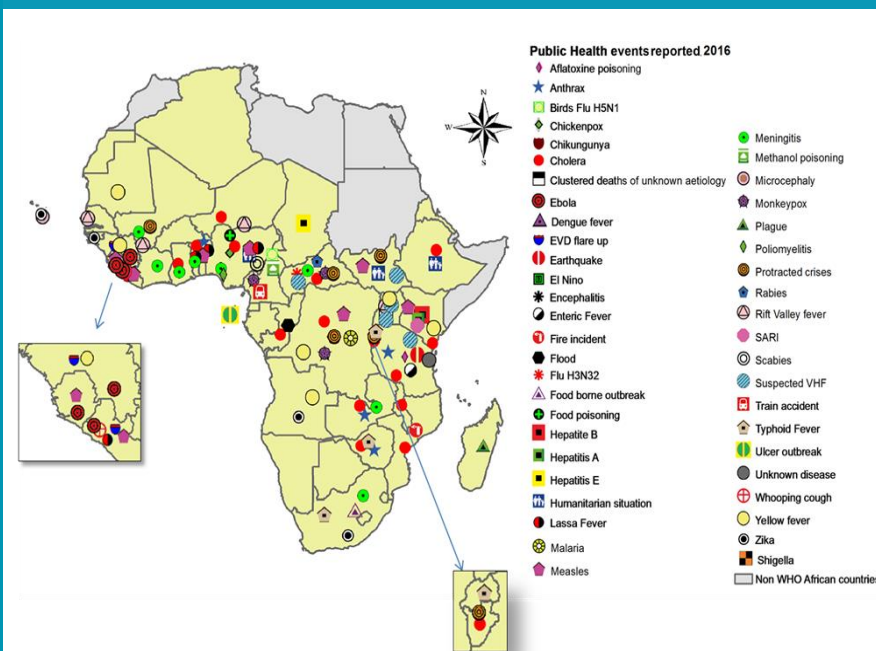


Monthly Outbreak bulletins

Member States report over 100 public health emergencies annually

- 105 PHEs in 2016
- Infectious diseases (80%), **confirmed by laboratory**
- Other aetiologies:
 - disasters,
 - chemical events,
 - etc

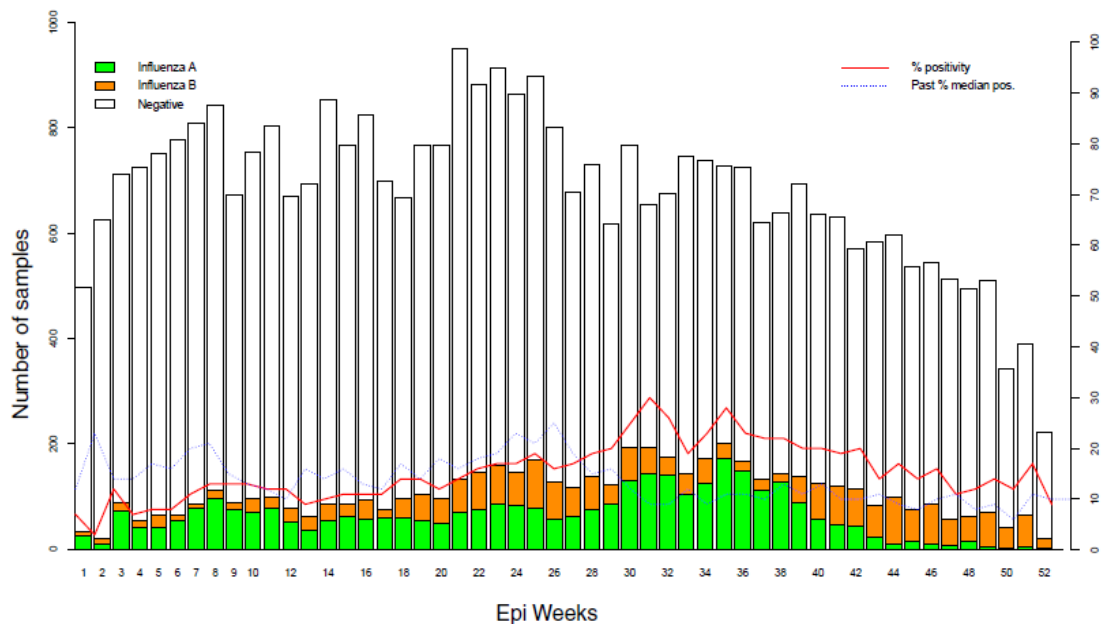
Public health events reported in 2016



- **All infectious diseases laboratory confirmed by PH Lab Networks**

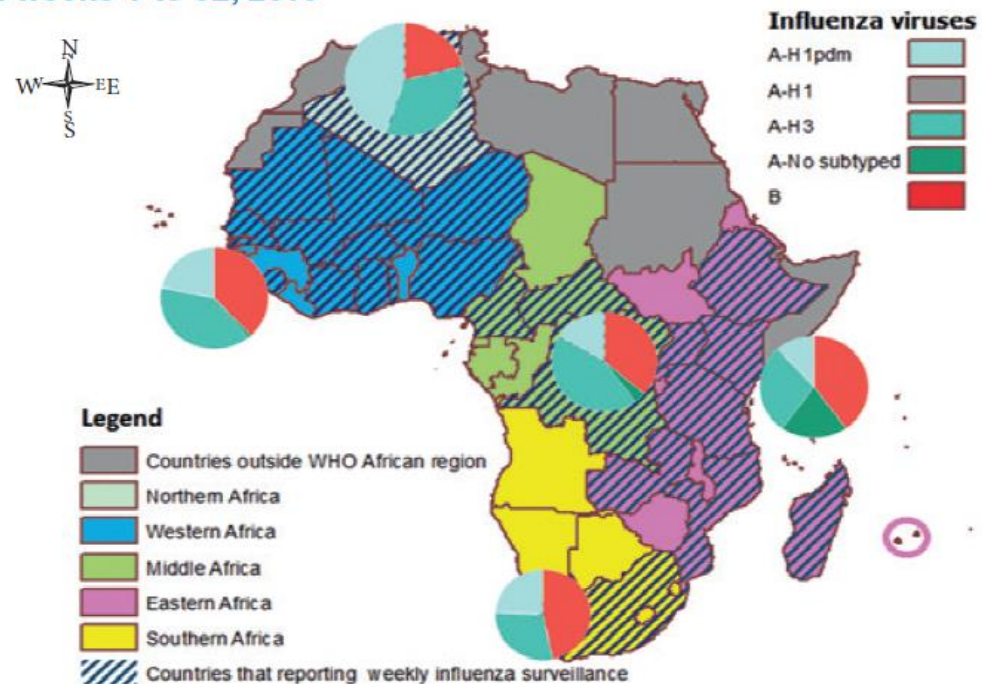
Weekly virological surveillance of influenza

Figure 1: Trend of influenza viruses reported in the WHO African Region, epi weeks 1 to 52, 2016



**34,553 specimens were tested
(16% positive for influenza virus)**

Figure 2 : Geographic distribution of influenza viruses circulating in the WHO African Region by zone of transmission, epi weeks 1 to 52, 2016



18 countries share influenza virological data

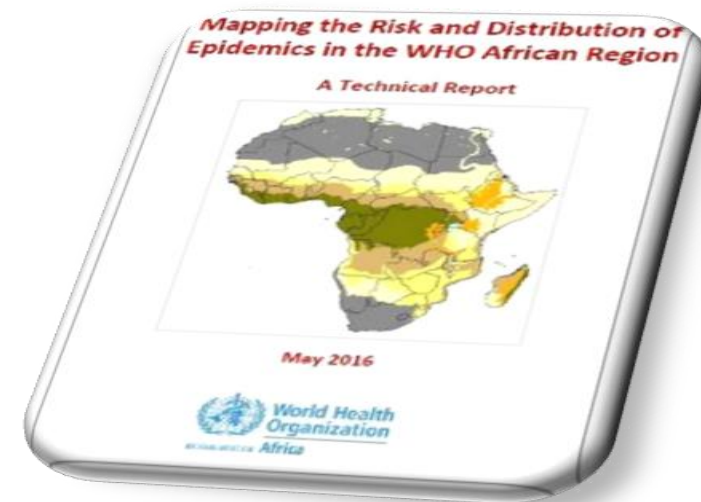
Timely virological data to better inform national prevention and control activities including immunization



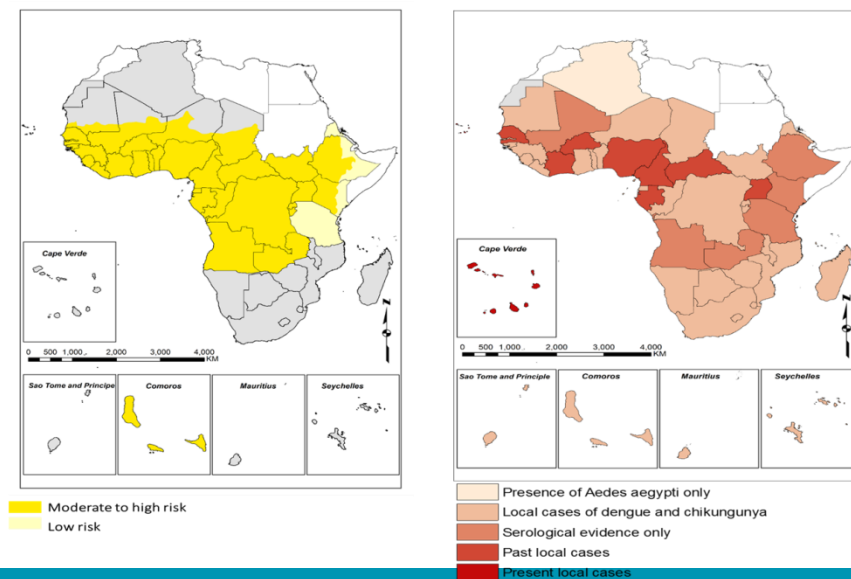
- Risk assessment conducted for all major acute public health events
- Regional epidemics risk mapping

Information for evidence-based National action planning for preparedness

Laboratory data is critical to conduct outbreak risk analysis



Yellow fever and Zika risk mapping



Timely



- Weak functioning public health laboratory systems and networking
- Inadequate international and national mechanisms for shipment of specimens

Accurate



- Weakness of health systems
- Old or inadequately serviced equipment
- Lack of essential reagents and consumables
- Insufficient LQMS

Safely



- Inadequate biosafety and biosecurity regulations & guidelines
- Weak laboratory infrastructure
- Lack of regular maintenance of BSC

Real-time bio-surveillance with a national laboratory system to ensure **timely, accurately** and **safely** detecting and characterizing pathogens causing epidemic diseases remain a major challenge.



- Innovative approaches for sustainability of PHL (**Clinical lab, training, research, PH activities**)



- Importance of standardized algorithms for diagnosis of viral outbreak prone pathogens (**yellow fever, etc**)



- Extension of laboratory capacity during outbreaks (**Cabo Verde/Zika, Niger/RVF, Benin/LV, Angola/YF, etc**)



- Twinning initiatives for extending the range of tests in reference laboratories (**S-S & N-S cooperation**)



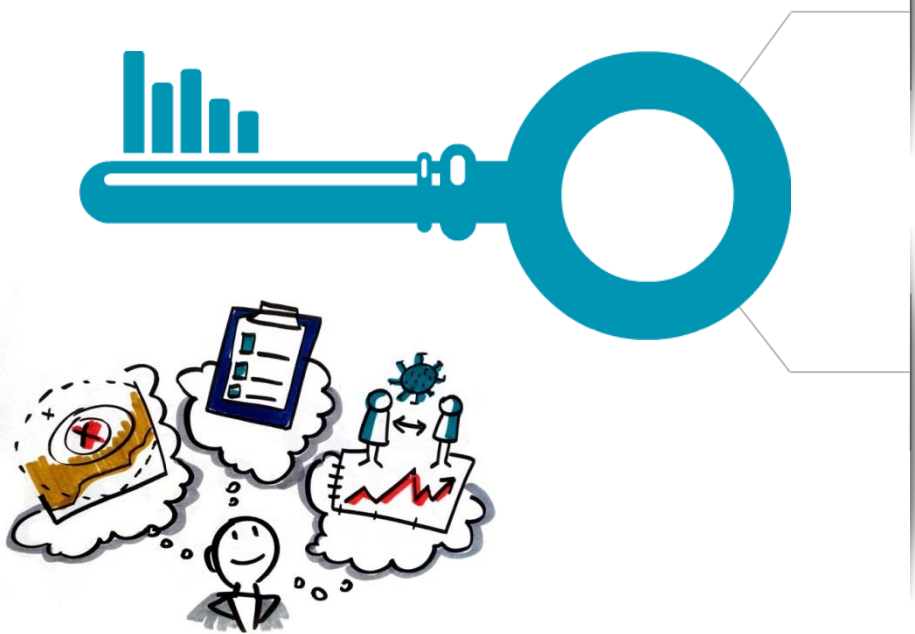
- Enhanced surge capacity during outbreak response (**human resource, reagents, etc**)



- Prioritization of laboratory activities using the new frameworks (**JEE/NAPS, GHSA, One Health, AMR**)

Important component of prevention, preparedness, response and early recovery

Regional strategy for health security and emergencies 2016–2020 (AFR/RC66/6, June 2016)



- A regional health workforce (**lab experts**) developed in collaboration with partners including the Africa CDC by 2017
- At least 80% of Member States have organized a joint external evaluation (JEE) of IHR core capacities by 2018 (**laboratory services, AMR, Biosecurity & Biosafety**)
- Over 90% of Member States are implementing IDSR including event-based surveillance systems with at least 90% country coverage by 2020 (**laboratory data**)
- At least 80% of Member States have a functional national laboratory system and network as described in the joint external evaluation (JEE) tool by 2020 (**laboratory networking, One Health approach**)

THANK YOU

