

Public health surveillance sensitization COVID 19

Overview of IDSR/IHR 2005

March 2020

Public Health Surveillance

Overview of Integrated Disease Surveillance and Response (IDSR) & International Health Regulations (2005)

Learning objectives

Participants will gain:

- Knowledge of the concept of public health surveillance
- Understanding on the IDSR strategy
- Knowledge of the IHR (2005)

What is Public Health Surveillance?

- Ongoing, systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control (WHO Definition)
- Regardless of the type of surveillance, remember that surveillance is data that is used for action!

Uses of Public Health Surveillance

- Detect sudden changes in disease occurrence and distribution**
- Monitor trends and patterns**
- Portray the natural history of a disease**
- Generate hypotheses, stimulate research**
- Monitor changes in infectious agents**
- Detect changes in health practices**
- Evaluate control measures**
- Facilitate planning**

Linking public health surveillance to action

- Outbreak investigation
- Disease control
 - Vaccination / prophylaxis
 - Elimination of cause
 - Interruption of transmission
- Development, targeting of programs (education, risk reduction, etc.)
- Development of policies, regulations

Types of surveillance methods

- Health facility-based surveillance or community-based surveillance
- Disease (indicator) based surveillance or event based surveillance
- Sentinel surveillance
- Laboratory surveillance
- Specific disease surveillance

Approaches to public health surveillance

- Active Vs Passive
 - (Health-agency solicited or Provider-initiated)
- Categorical / Integrated
 - (One disease or Many)
- Syndromic /Laboratory-based
 - (Case definition or laboratory confirmation)

Basic ingredients of public health surveillance

1. A good network of motivated people
2. Clear case definition and reporting mechanism
3. Efficient communication system
4. Basic but sound epidemiology
5. Laboratory support
6. Good feedback and rapid response

Surveillance is a backbone of disease control

Public health surveillance in Kenya

- Kenya conducts public health surveillance using the Integrated Disease Surveillance and Response (IDSR) strategy
- IDSR strategy is an indicator based surveillance which:
 - Integrates surveillance, laboratory and response activities at all levels
 - Tracks a list of priority diseases and conditions
 - Uses standard/lay case definitions for detection
 - Undertakes routine notifications – immediately, weekly, monthly
 - Links surveillance to action/response

List of IDSR Priority Diseases in Kenya

Epidemic prone diseases	Diseases targeted for eradication or elimination	Other major diseases, events or conditions of public health importance
<ol style="list-style-type: none"> 1. Anthrax 2. Brucellosis 3. Cholera 4. Diarrhea with blood (<i>Shigella</i>) 5. Dengue fever 6. Measles 7. Meningococcal meningitis 8. Plague 9. Rift Valley Fever 10. SARI** 11. Typhoid fever 12. Viral haemorrhagic fever syndrome* 13. Yellow fever <p>*Ebola, Marburg, Lassa, Crimean Congo, West Nile Fever</p> <p>**National programmes may wish to add Influenza-like illnesses to their priority disease list</p>	<ol style="list-style-type: none"> 1. Acute Flaccid Paralysis (Poliomyelitis)¹ 2. Guinea Worm Disease (Dracunculiasis) 3. Leprosy 4. Leishmaniasis 5. Neonatal tetanus <p>¹Disease specified by IHR (2005) for immediate notification</p>	<ol style="list-style-type: none"> 1. Acute Jaundice 2. Adverse events following immunization (AEFI) 3. Cancers (breast, cervix, oesophagus and prostate) 4. Diabetes mellitus 5. Diarrhoea with dehydration in children less than 5 years of age 6. HIV/AIDS (newly diagnosed cases) 7. Hypertension 8. Malaria 9. Malnutrition in children under 5 years of age 10. Maternal deaths 11. Neonatal deaths 12. Rabies (animal bites) 13. Road traffic Injuries and fatalities 14. Schistosomiasis 15. Severe pneumonia in children less than 5 years of age 16. Sexually Transmitted Infections 17. Trachoma 18. Tuberculosis (including MDR/XDR TB)

Public health surveillance challenges before IDSR

- **Failure to report diseases of epidemic potential**
- Incomplete and late reporting
- Inadequate data analysis and use
- **Inadequate involvement of the laboratory**
- **Inadequate involvement of the clinicians**
- Programmatic surveillance programs
- Poor feedback to health workers and community

What is IDSR?

- IDSR is a **strategy** of the WHO Afro Region for improving **public health surveillance and response**
- IDSR strategy **coordinates** and **integrates** surveillance, laboratory and response activities at all levels
- Scarce resources are combined to collect information from a single focal point at each level

Background of IDSR

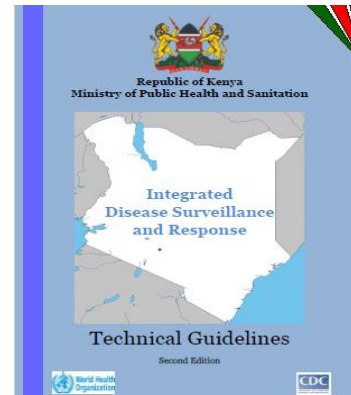
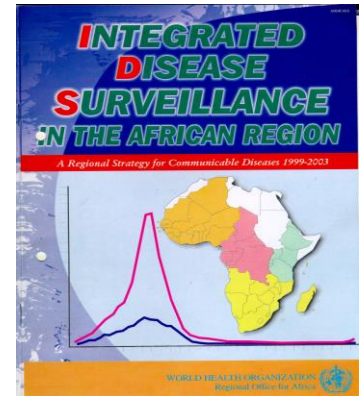
- IDSR strategy adopted by WHO Afro member states in 1998

- Goal

Improve the ability of all levels of the health system to detect and respond to diseases and hazards that cause high levels of death, illness and disability at district level by providing timely and reliable data for taking action

Background of IDSR

- Kenya developed IDSR Technical Guidelines in 2001
- Emphasis on:
 - Epidemic prone diseases
 - Diseases targeted for elimination and eradication
 - Diseases of public health importance
- Revised IDSR Technical Guidelines (2010) include :
 - Non communicable diseases
 - Zoonotic Diseases
 - Maternal and child health events
 - Public Health Emergencies of International Concern (IHR 2005)



Objectives of IDSR

1. Strengthen capacity for effective surveillance
2. Integrate disease surveillance systems for efficiency
3. Improve use of surveillance information for decision making
4. Improve laboratory involvement in epidemic detection and confirmation
5. Increase involvement of clinicians in surveillance

Objectives of IDSR -/2

6. Improve surveillance information flow in all levels of the health care system
7. Emphasize community participation in surveillance (detection and response)
8. Trigger epidemiological investigations in detection, investigation and reporting of public health problems, and in the implementation of effective public health interventions

Pillars of IDSR

1. Data Management
2. Coordination
3. Epidemic Response
4. Laboratory capacity
5. Support Functions
 - Communication
 - Training
 - Support Supervision
 - Resource mobilization and management

IDSR core functions

- Case detection
 - Standard/lay case definitions
 - Laboratory confirmation
- Case registration and reporting
 - Registers
 - Reporting tools MOH 502, MOH 503, MOH 504, MOH 505
- Data analysis and interpretation
- Response

One Health

- IDSR takes into account the ***One Health concept***
- Is a strategy that addresses events human, animal and environmental health interphase.
 - Evidence that 75% of emerging and re-emerging diseases affecting man are of animal origin
- Is an interdisciplinary, holistic and integrated approach to health problems
- Diseases and other threats resulting from climate change, food safety, and chemical hazards constitute a complex set of challenging events involving human, animal and environmental health

International Health Regulations (2005)

- In 2005, the resolutions WHA58.3 adopted IHR (2005)
- IHR (2005) entered into force on 15 June 2007 in accordance with Article 59, replacing IHR (1969)
- IHR (2005) is legally binding requirement for WHO 194 Member States
 - Includes all 46 WHO Member States in the African region

Purpose and Scope of IHR (2005)

- To prevent, protect against, control and provide public health response to the international spread of disease in ways commensurate with and restricted to public health risks
- Avoid unnecessary interference with international trade and traffic



Why IHR (2005) ?

Our world is changing as never before

- Populations grow, age, and move
- Diseases travel fast
- Microbes adapt
- Chemical, radiation, food risks increase
- Health security is at stake



IHR (2005) calls for:



- **Strengthened national capacity** for surveillance and control, including in travel and transport
- **Prevention, alert and response** to international public health emergencies
- **Global partnership** and international collaboration
- **Rights, obligations and procedures,** and progress monitoring

IHR (2005) Core Capacity Requirements

- **8 Core capacities**

- Legislation
- Policy and Coordination
- Surveillance
- Preparedness
- Response
- Risk Communications
- Laboratory
- Human Resources

- **3 levels**

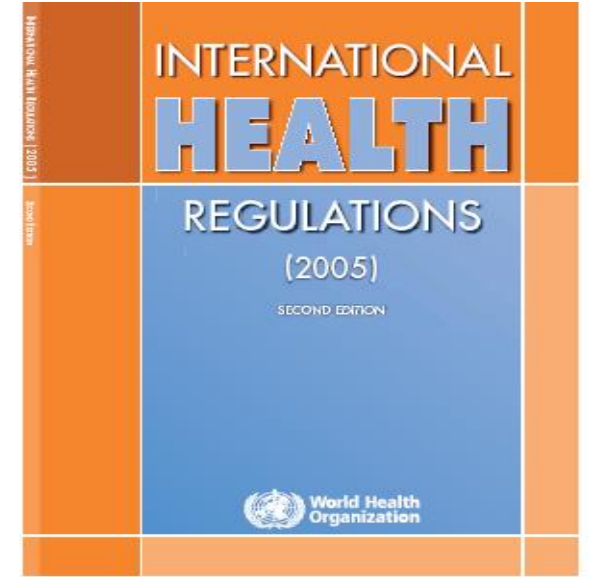
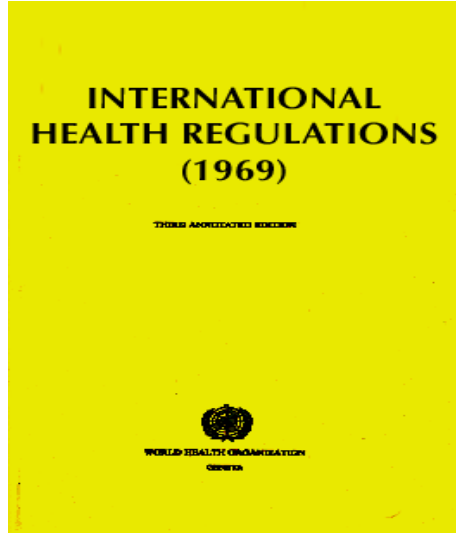
- National
- Intermediate
- Peripheral/Community

- **Potential Hazards**

- Infectious
- Zoonosis
- Food safety
- Chemical
- Radio nuclear

- **Points of Entry**

What's new in IHR (2005)?

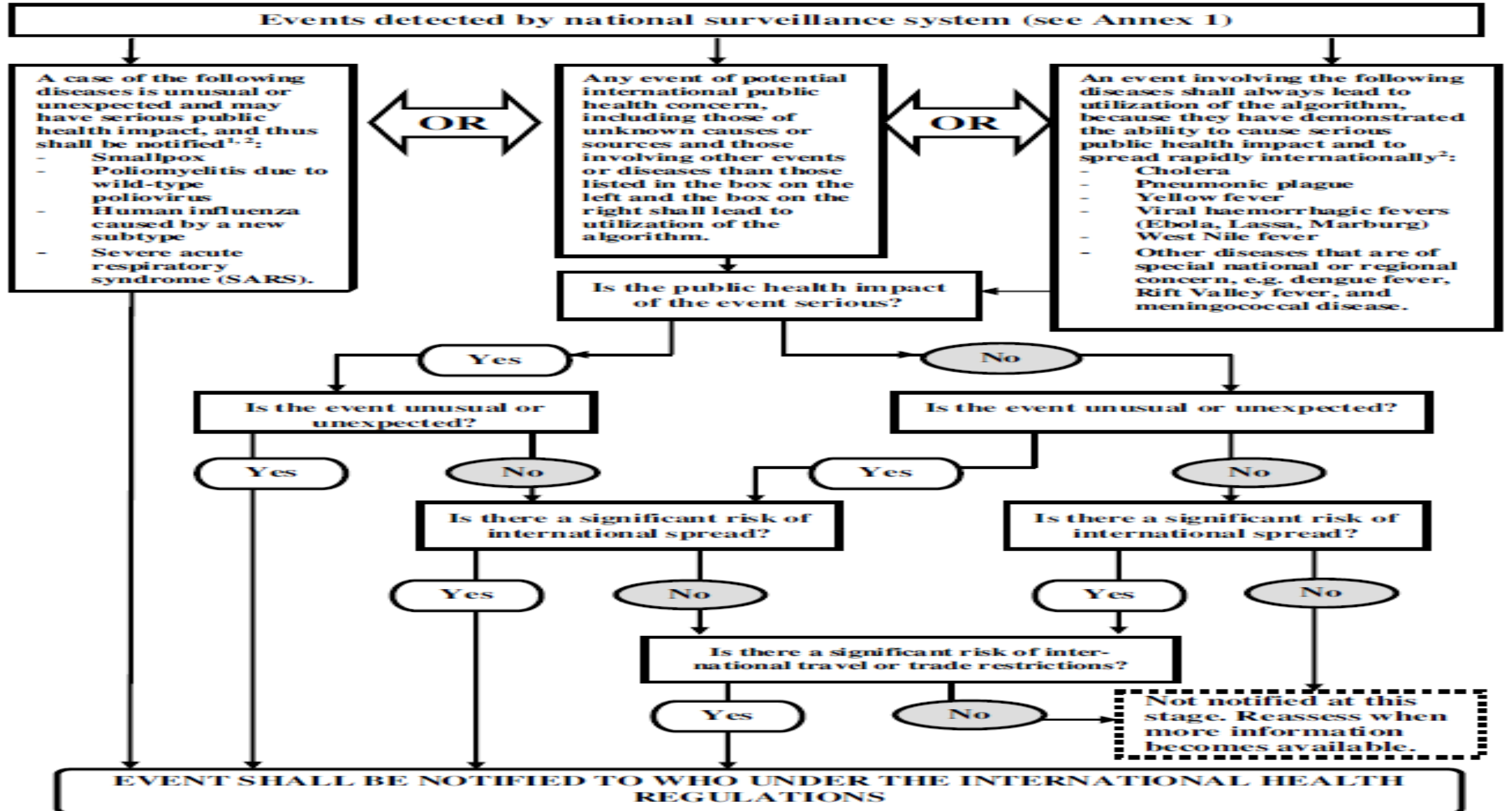


- From three diseases to all public health threats
- From preset measures to adapted response
- From control of borders to, also, containment at source

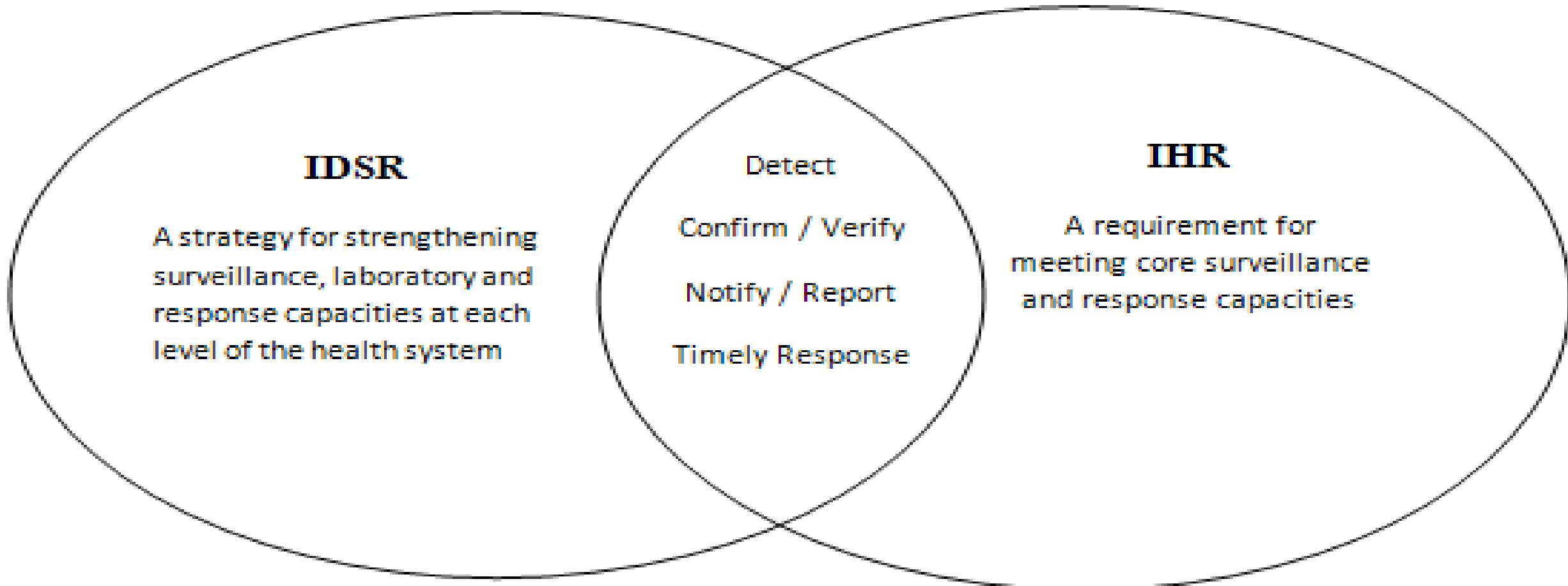
Reportable diseases, conditions & events under IHR 2005

- Four diseases require notification to WHO under all circumstances (IHR 2005):
 1. Human influenza caused by a new subtype
 2. Wild-type poliomyelitis
 3. SARS
 4. Smallpox
- Public Health Event of International Concern (PHEIC): Use of decision instrument in Annex 2

**ANNEX 2
DECISION INSTRUMENT FOR THE ASSESSMENT AND NOTIFICATION
OF EVENTS THAT MAY CONSTITUTE A PUBLIC HEALTH EMERGENCY
OF INTERNATIONAL CONCERN**



Implementing IHR through IDSR



Synergy between IDSR and IHR

IDSR will serve as a vehicle for IHR

Disease Surveillance and Outbreak Respo

IHR will serve as the engine for IDSR

Performance on IDSR indicators (as at week 39, 2019)

- A total of 291 out of 304 Sub Counties submitted weekly reports
- Completeness: Proportion of health facilities reporting weekly (Current 95.7%)
- Timeliness: Proportion of weekly reports received by Wednesday COB (Current 75%)
- Complete reports: Weekly/monthly report correctly and fully filled (Current at 100%)
- Surveillance Performance Index: Weighted average of timeliness, completeness and complete reports (Current 82%)

Thank you

Questions?