Disease Surveillance & Response in Kenya

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Outline

• Definition

• Surveillance systems in Kenya

• Existing capacities

• Areas proposed for Support
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

“Information for Action”
Some 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
Surveillance link 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 in Kenya (Human)

- Integrated Disease surveillance (IDSR) for 18 priority diseases/conditions (2003). The VPD surveillance is part of the IDSR (AFP, Measles, NNT)

- Sentinel Surveillance
  - Influenza sentinel surveillance in 26 sites.
  - Hepatitis B and Paediatric Bacterial Meningitis Surveillance (2 Sites)
  - Rotavirus Surveillance (2 sites)

- Population-based Surveillance (2 sites)
IDSR priority diseases (18) In Kenya

**Epidemic Prone Diseases**
- Cholera
- Dysentery
- Plague
- Yellow Fever
- Typhoid Fever
- Meningococcal Meningitis
- Measles
- Other VHF's

**Diseases earmarked for Eradication/elimination**
- Leprosy
- Dracunculiosus
- Poliomyelitis (AFP)
- Neonatal Tetanus

**Diseases of Public Health Importance**
- Malaria
- New AIDS Cases
- Tuberculosis
- Childhood Pneumonia
- Childhood Diarrhoea
- STIs

*Other emerging infections like Pandemic Influenza A H1N1, HPAI*

*Diseases appearing RED are reported on weekly basis*
Types of Surveillance in Kenya (Animal)

- **Active Surveillance**
  - Targeted surveillance
  - Live bird market

- **Passive Surveillance**
  - Reports from districts to epidemiology unit
Existing capacities

• Capacity building
  – IDSR Trained 93 districts (62.4%) of the initial 149 districts (DHMTs and over 6,000 Health Care Workers since 2005.

• Surveillance & Response Coordination framework in place (Multisectoral(Zoonotic) Task force, IDSR Secretariat & TWGs, focal officers at National, Provincial and District levels)

• Operational database at National level & Weekly feedbacks - Weekly Epidemiological bulletin

• Timely detection and response to outbreaks (>80%) in collaboration with partners (Multisectoral response teams)
Monitoring of Surveillance Indicators

A total of 124 districts of the initial 149 districts are submitting weekly reports to DDSR currently

• **Timeliness**: Proportion of weekly reports received by Wednesday (Current at 83%)

• **Completeness**: Proportion of health facilities in a district reporting timely (Current at 66%)

• **Complete report**: Weekly/monthly report correctly and fully filled (Current at 98%)

• **Surveillance Performance Index**: Weighted average of timeliness, completeness and complete reports (Current at 80%)
Diagnostic Capacity

• Diagnosis of some bacterial, parasitic and viral infections is done at district level e.g. Typhoid, cholera, Meningococcal meningitis, shigellosis, TB, HIV and Malaria.

• The country has National Public Health laboratories (NPHLS), Kenya Medical Research Institute (KEMRI)-Human, Kabete Vet labs-Animal which are reference laboratories.

• There are various centers dealing with specific pathogens e.g. CVR, CMR, NIC, National Polio and Measles laboratories & 5 Regional Veterinary labs.
Containments

• Procured and distributed PPEs to strategic regional points as buffer stocks

• Establishment of an isolation facility at Kenyatta National Hospital for MDR-TB & highly infectious agents
  – but limited capacity in other Health facilities

• We have reference laboratories at KEMRI & Kabete Vet labs at BSL 2 & BSL3 at CDC-KEMRI & ILRI.
Challenges / Constraints

- Surveillance linkage to action is weak at lower levels due to lack of capacity for data analysis.
- Weak Reporting & communication system from health facilities to districts/Central surveillance Unit.
- Weak Laboratory Capacity & Network
- Lack of quarantine & adequate isolation facilities
Challenges / Constraints

• Insufficient early warning systems for epidemic Preparedness & Response

• Little or Non-involvement of the communities in surveillance

• Limited financial resources to strengthen Surveillance & to Support epidemic response
Areas of support for capacity building

• Training of health personnel in surveillance data management including data quality, analysis, interpretation, use of information and feedback
• Improvement of data and information flow through innovative approaches in ICT such as phones for health & installation of relevant ICT systems.
• Strengthening of laboratory capacity (technical, human resources, equipment, reagents & supplies
Areas of support contnd…

- Development of more laboratories to BSL 2 and BSL 3.
- Provision of Infection Prevention & Control capacities, including isolation & quarantine facilities.
- Provision of support in implementation of international Health Regulations (2005)
- Support Mobilisation of finances to support rapid response teams with necessary logistics & supplies for effective surveillance & outbreak response
Asante Sana