Disease Surveillance & Strengthening Health data Reporting – Fiji Context

Sub Regional PHEMAP Training – Nov 2006

Presentation

- 1. Introduction & background
- 2. Disease Surveillance
- 3. Critical issues on Disease Surveillance
- 4. Health data reporting
- 5. Conclusions
- 6. Recommendation
1. Introduction & Background

The *Communicable Disease Surveillance and Outbreak Response Plan* to:

1. provide simple & clear strategies on the surveillance of notifiable diseases and those of public health importance and more importantly
2. the prevention and control of these comm. diseases particularly in outbreak situations.

**PRIORITY NOTIFIABLE CONDITIONS**

- CHOLERA
- DENGUE FEVER
- HIV & AIDS/STI
- INFLUENZAE
- LEPTOSPIROSIS
- MEASLES
- RUBELLA
- TYPHOID FEVER
- DIARRHOEA

- This plan should aid public health staff in notifying communicable diseases detected on surveillance, guidance on the response and management outbreaks. For each disease, a response protocol – specifying the minimum actions that should follow notification or reporting.
Private medical laboratories and government labs without a registered pathologist are required to report Notifiable Diseases on a weekly basis as soon as a clinical diagnosis is made. All Medical Officers of Health, (including all registered Private Doctors and Hospital Laboratory Pathologists) are required to report Notifiable Diseases on a weekly basis as soon as a clinical diagnosis is made. Private medical laboratories and government labs without a registered pathologist are required to report all pathogens listed under the Notifiable Disease Schedule. Public Health (District and Zone) Nurses are also required to report certain conditions on the basis of clinical presentation (syndromic case definition).

**2. DISEASE SURVEILL. PROCESS**

**PRE-OUTBREAK: PREPAREDNESS**
- Surveillance is the systematic collection, collation, analysis and interpretation of notifiable disease data for action. (Information for Action).

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  Surveillance data source & implementation point
  ↓
  Surveillance data collected
  ↓
  Surveillance data analysed
  ↓
  Interpretation of analysed data
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**“ACTION”**

**COLLECTION OF SURVEILLANCE DATA**
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**NOTIFICATION PROCESS**

- National Communicable Disease case definitions are to be used for case detection in the fields.
- The person who certifies the positive test is responsible for ensuring that notification is made via the notification process. Ensure that notification is done in a timely manner.
- If the superior officer (to whom notification is made to) cannot be reached, then report needs to be sent to the next higher ranking officer. For example, if the Sub divisional Medical Officer is not available, the Area Medical Officer should notify the Chief Medical Officer.
- Clinical Managers at the 3 divisional hospitals should report directly to the Chief Medical Officer Community Health and the Fiji Centre for Communicable Disease.
MODE OF NOTIFICATION

- Notification is to be made by:
  - telephone, mail, using specific notification forms, or electronic databases e.g. PATIS
  - Notification must not be made by facsimile unless patient confidentiality can be assured. Notifications should be made as soon as practical. However, it is important that some conditions are reported by telephone immediately when the diagnosis is made, since rapid public health action can prevent an outbreak spreading and can save lives.
- All the conditions are required to be notified urgently as outlined below.
- Urgent conditions should:
  - be reported from all health care providers in Fiji, including nurses.
  - be reported immediately telephone, radio telephone, fax# or the fastest means available
  - include (at least) date seen / admitted, name, age, sex, address, date of onset, and remarks on Form ND-1A.
- All notification should be made through to the Divisional Chief Medical Officer of Community Health who serves the area in which diagnosis was made. If the case is resident outside the area, the notification will be passed on to the relevant Divisional CMO.
INTEPRETATION OF SURVEILLANCE DATA

- Ensure that baseline information for the diseases under surveillance is available (for reference).
- Crude collation, analysis and interpretation of surveillance data should be done at the divisional level, with a copy forwarded to the Fiji Centre for Communicable Diseases.
- Ensure frequent feedback to data providers/users.

DISSEMINATION OF INFORMATION FOR ACTION

- Analyzed surveillance data at national (Fiji CDC & MOH Statistics Office) and divisional levels needs to be distributed to all reporting officers and key stakeholders.
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**STRENGTHEN SURVEILLANCE SYSTEM**

- Regularly review the notifiable disease system at divisional and national levels to strengthen identifiable gaps.
- Annual Communicable Disease Surveillance and Outbreak Response Training at divisional levels
- Annual divisional mock exercises based on training.

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**3. OUTBREAK RESPONSE**

**DEFINITION:** “An outbreak or epidemic limited to a localised increase in the incidence of a disease e.g. in a village, town, or closed institution”

**OBJECTIVE**

- The objective of the outbreak response plan is to define roles, strategize response, and allocate resources for the management of an outbreak.
- The goals of investigating an outbreak are as follows:
  - To halt outbreak and prevent further spread of illness
  - To prevent further outbreaks from this immediate source
  - To address public concerns
  - To reduce direct and indirect costs
  - To identify new mechanisms of transmission of known illness
  - To identify new and emerging disease agents
  - To meet and satisfy legal and international obligations
  - To help train public health staff
DETECTION OF AN OUTBREAK

- If an officer suspects the occurrence of an outbreak in their medical area, subdivision or division – they should immediately contact the Divisional Chief Medical Officer.
- Initial verification and confirmation needs to be conducted prior to activating the Sub divisional or Divisional Outbreak Response Team. Refer to annex for questions to ask prior to confirming an outbreak.
- Confirm that the diagnosis is correct
- Confirm that the increase in cases is real
- Confirm that the increase represents an outbreak
  - Outbreak Response Team to be activated upon confirmation of an outbreak
  - Implementation of relevant components of the communication strategies

HOW TO INVESTIGATE AN OUTBREAK?

Ten Steps of Outbreak Investigations:
1. Prepare field work
2. Establish existence of an outbreak
3. Verify diagnosis
4. Define and identify cases
   - establish a case definition
   - identify and count cases
5. Perform descriptive epidemiology
6. Develop hypothesis
7. Evaluate hypothesis
8. As necessary, reconsider/refine hypothesis and execute additional studies
   - additional epidemiologic studies
   - other types of studies - laboratory, environmental
9. Implement control and prevention measures
10. Communicate findings
So we need to:

- Confirm that the diagnosis is correct
- Confirm that the increase in cases is real
- Confirm that the increase represents an outbreak
- Decide what type of outbreak is occurring
- Review information: Make a decision on further investigation and control

OUTBREAK DESCRIPTION

- Compile information collected thus far
- Develop a case definition
- Find other potential cases
- Collect information about the cases
- Perform descriptive analysis of cases
- Draw an epidemic curve
- Calculate incubation period
- Review Information: Make a decision on further investigation and control
The DORT will be responsible for the planning, coordinating and carrying out the investigations. In most cases the members of this team will need to make outbreak investigations their highest priority at least in the initial phase. Chaired by the Divisional Director

- Public Health Nursing
- Clinicians
- Laboratory technicians
- Epidemiologist (co-opt)
- Media and Communications Expertise (co-opt)
- Environmental Health Officers
- Rural Health Authorities EHO
- Urban Health Authorities (Town & City Councils)
How often do ill persons seek medical care?

- Person becomes ill
- Person submits a specimen
- Laboratory tests for pathogen
- Laboratory-confirmed case
- Reported to surveillance

How often are specimens submitted (inpatients/outpatients)?

- Person seeks medical care
- Laboratory surveys

How often do laboratories test for a pathogen?

- Laboratory surveys

How sensitive are laboratory tests?

- Laboratory surveys

How often are laboratory-confirmed cases reported?

- Laboratory surveys

How many cases are reported to surveillance?

- Surveillance system
- Population surveys

S. Typhi and non-Typhi multipliers will be different
4. Critical Issues on Disease Surv

- Note Previous experience in 2005 with Lessons Learned – egs.
- Strengthen CD Notifiable reporting system
- Familiarize ourselves with the various procedures expected to be implemented in the pre CD outbreak, during CD outbreak and post CD status
- Importance of Collation, Analysis, Interpretation of CD Surv data at various source levels & utilizing existing system

5. Health Data Reporting

- Essential to report the various existing surveillance data: Hosp Based Surv System, notifiable diseases, CMR, PATIS, Laboratory Surveillance
- Above Data collation, Analysis, Interpretation and ACTION, first at Sub divisional level, then Div and then National levels
Thank you