FIELD WORK 2
-Expanded Surveillance Report-
-Case Investigation Report-

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County Surveillance Officer
Lofa County Health Team
Expanded Surveillance Report
Introduction

• Lofa County is located on the north of Liberia
• Internal borders: Bong, Gbapolu and Nimba Counties
• External borders: Guinea and Sierra Leone
• Population: 327,456
• 7 Administrative 6 health districts
• 59 Health Facilities (4 Hospitals, 3 Health Centers, 52 Clinics)
### Disease Summary 1/2

#### Summary of reported key notifiable diseases, Lofa County, 2015

<table>
<thead>
<tr>
<th>Disease</th>
<th>Cumulative Week 31 - 42</th>
<th>Cumulative (YTD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Acute Watery Diarrhea</td>
<td>170 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Acute Bloody Diarrhea (Shigella)</td>
<td>6 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Suspected AFP</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Meningitis</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Suspected EVD</td>
<td>419 (S)</td>
<td>130</td>
</tr>
<tr>
<td>Suspected Rabies (Dog Bite)</td>
<td>12 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Yellow Fever</td>
<td>1 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Lassa Fever</td>
<td>1 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Cholera</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>26 (S)</td>
<td>0</td>
</tr>
<tr>
<td>Maternal Death</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Neonatal Death</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

*C = Cases; D = Deaths; CFR = Case Fatality Rate; S = Suspected Case*
Disease Summary 2/2

• Other reported diseases
  • Buruli Ulcer (BU) 3(S), 0(C)

  – Lab results for suspected measles, LF, YF, and AFP cases are pending

  – 128 results of suspected EVD are pending due to shortage of reagents in Bong Laboratory
    • No confirmed case of EVD/VHF

  – Lab result for suspected BU are pending
Timeliness and completeness of reporting by districts, Lofa County, 2015

The graph shows the timeliness and completeness of reporting for different districts in Lofa County, Liberia. The y-axis represents the percentage, ranging from 0 to 100. The x-axis lists the districts: Foyah, Kolahun, Salayea, Vahun, Voinjama, and Zorzor. The bars indicate the percentage of timeliness and completeness for each district.
Trend of suspected Ebola Virus Disease, Lofa County, 2015

Graph showing the trend of suspected cases and suspected deaths associated with Ebola Virus Disease (EVD) in Lofa County, Liberia, over a period of 42 weeks in 2015. The graph indicates a significant increase in suspected cases and deaths during the later weeks of the study period.
Trend of suspected cases of measles, Lofa County, 2015

[Graph showing the trend of suspected cases of measles over Epi. Week 31 to 42]

Liberia Field Epidemiology Training Programme (LFETP)
Activities carried out between week 31-42

• Logged and responded to measles outbreak
• Trained 132 clinic staff in IDSR
• Recruitment and orientation 6 DSO
• Joint supervision of IDSR activities
• Analysis and dissemination of surveillance report
• Maternal Death Investigation
• Monitoring of border surveillance activities
Case Investigation Report

Maternal Death
Introduction 1/2

• Globally 289,000 maternal deaths occurred in 2013
• Sub-Saharan Africa alone accounted for 62%.
• Liberia recorded a total of 77/10000 livebirths in 2010
• Causes of maternal death in Liberia include;
  – Post-partum hemorrhage, Anemia in pregnancy, Eclampsia, Ruptured ectopic pregnancy

Liberia health demographic survey. 2010
Introduction 2/2

• A case of maternal death of a 12 year old from Borkeza community occurred in Curran Hospital on September 26, 2015

• A case investigation was conducted;
  – to establish cause of death
  – make recommendation for possible actions based on findings.
Methodology

• Review of medical records at Borkeza Clinic and Curran Hospital (Referral hospital)

• Interviewed family members, clinic staff and referral hospital staff

• Observational assessment of the facility was conducted.
Results 1/2

- Teenage pregnancy
- Gestational Age: 1 ½ months
- Positive Human Chorionic Gonadotropin (HCG)
- Served Depo Provera (medroxyprogesterone) at Borkeza clinic without ruling out pregnancy
- Vital signs after admission were not regularly recorded
- 3+ Red Blood Count (RBC) in Urine
Results 2/2

- Dyspnea
- No management given to case for respiratory distress
- Negative for malaria
- Last Menstrual Period (LMP) not asked for
- Admission and referral date: September 23, 2015
- Date of death: September 26, 2015
- Death reported: September 28, 2015
Discussion

• Possible cause of death
  – Raptured ectopic pregnancy
    • Low Blood Pressure (BP 80/50mmHq)
    • Increased pulse (157b/m)
    • ≥3+ Red blood cells in urine suggesting internal bleeding
  – Teenage Pregnancy
    • unwanted pregnancy
      – Age
      – Student
Recommendation

• LCHT should train staff on Family Planning services
• LCHT should increase number of staff to Bokeza Clinic to ease the workload
• Bokeza, DSOs should ensure timely referral of patients
• Teenage pregnancy awareness and sex education should increase in schools
Public Health Impact

• Improved skills of family planning service
• Improved patient vital signs recording and monitoring
• Improved quality of patient care and management
• Increased knowledge of patient management using vital signs
• Improved timeliness of reporting
Acknowledgement

• Ministry of Health, Liberia
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• Emory University
• Centers for Disease Control and Prevention
• World Health Organization
• Mentor – Stephen and Joseph
• Maternal Death Review Committee (Lofa)