**07.1 Ebola Virus Disease (EVD) contact tracing scenario: MOPONGO**

**Key challenges in contact tracing – Participant guide**

|  |  |
| --- | --- |
| TYPE OF ACTIVITY | Case-scenario |
| LEARNING OBJECTIVES | After completing this scenario, the participant should be able to:   * Identify the steps involved in planning and creating an EVD contact tracing team * Describe the implementation and management of contact tracing * Conduct systematic interviews with EVD cases to obtain a thorough listing of their potential contacts * Identify potential approaches to address various challenges that may arise during contact tracing. |
| SUGGESTED TIME | 2h15’ |
| SUPPLIES | * Pens / pencils * Sticky notes * Ebola Contact Listing form for Activity 2 – for Patients (pg. 14) * Ebola Contact Listing form for Activity 2 – for Investigation Team (pg. 15). |
| STEPS | * Case-scenario in 5 parts, including 3 group activities (A, B and C) * Activity A: 35’ (group work, reporting and discussion in plenary) * Activity B: 55’ (group work, reporting and discussion in plenary) * Activity C: 45’ (group work, reporting and discussion in plenary) * See details in appendices A, B and C |

|  |
| --- |
| *This scenario is based on the methodology of contact tracing recommended by the CDC applied to a fictitious West African country. This was developed as a training tool in response to the Ebola Virus Disease outbreak in West Africa in 2014.*    *This scenario was developed by Daniella Coker in 2014 for international workshops on contact tracing in countries not yet impacted by Ebola Viral Disease (EVD). We acknowledge the valuable input from Dr. Ashley Greiner MD, MPH, Dr. Tasha Stehling-Ariza PhD, Dr. Kristina Angelo DO, MPH-TM, Dr. Richard Dicker MD, and Dr. Benjamin Lopman PhD.* |

**Part I**

Mopongo is a small country on the coast of West Africa which neighbors Guinea, Sierra Leone, and Liberia, all of which are experiencing an epidemic of Ebola virus disease (EVD).  
  
The national government held a meeting to prepare the Incident Management Framework for an EVD response. It is as follows:

The lead epidemiologist, John Smith, has been asked to develop a team that will be responsible for contact tracing and he was encouraged to share his ideas at the meeting.

|  |
| --- |
| **Question 1:** How should the epidemiologist organize a contact tracing team within the Incident Management Framework? (*Hint: What personnel should be included? What should their roles and responsibilities be? Number of personnel?)*    What challenges could you face with the implementation of this Incident Management Framework in your country? What challenges do you forsee in trying to hire certain personnel? How could these issues be resolved? |

The national government of Mopongo has decided to develop a contact tracing team that is made of: 1 lead epidemiologist, 1 field supervisor, 2 rapid response team members, 2 investigation team members, and 4 tracers (for 2 tracer teams). Once the contact tracing team roles were developed, specific personnel were identified, hired, and trained. They decided to use EpiInfo as their database. Additionally, a laboratory to test specimens was identified and an Ebola treatment unit and isolation unit were constructed.

**Part II**

John Smith received a call from a community health center to report that a person with a sudden onset of high fever, a recent history of vomiting and diarrhea presented to a community health center. The person had just returned from Sierra Leone, an EVD-infected area, a few days prior.

John utilized the case definition of:

**Persons with symptoms of EVD illness with recent travel to or contact with persons in Liberia, Sierra Leone, and/or Guinea.**

|  |
| --- |
| **Question 2:** How would you classify this sick person using the 3 categories of EVD cases from the WHO and CDC Guidelines? What would your next immediate step be as the lead epidemiologist? |

**Part III**

As lead epidemiologist, John decides to send the rapid response team consisting of an epidemiologist and a psychosocial expert to visit the person with a suspected case of EVD at the community health center. He reminds the rapid response team to take the **Ebola Contact Listing form** among their list of supplies.

The rapid response team drives to the community health center and they are greeted by one of the nurses. She leads them to an isolation room, where the person with a suspected case of EVD (the case) is sitting down. The team remains at the doorway. The team members introduce themselves to the case and learn that he is a 33 year old male named Obasi Dimka. He developed symptoms of fever 4 days ago and began having vomiting, diarrhea, and abdominal pain 2 days ago.

The rapid response team members explain what EVD is, how it is spread, and they also explain how contacts are identified and how contact tracing works. Before the rapid response team begins the interview, the case (Obasi) asks, “Wait, you want to know everyone I’ve talked to for the past 4 days? You have to be kidding!”

|  |
| --- |
| **Question 3:** If you were on the rapid response team, how would you respond to the case’s question? How would you explain who is a contact and who is not a contact? |

|  |
| --- |
| **Question 4:** What questions would you ask the case in order to get a list of his contacts? |

|  |
| --- |
| **Question 5:**  What challenges do you foresee in…   1. …getting patients to name their contacts? 2. …trying to locate contacts? 3. …trying to enroll these contacts?   What are some suggestions for facing these challenges? |

|  |
| --- |
| **Question 6:** Do you think 8 contacts are enough for someone who has been sick for 4 days? |

**Part IV**

Now that the rapid response team has developed an initial list of contacts, their next mission is to visit the case’s house to inform the household members of their contact status and to physically locate all of the contacts to initiate the follow-up procedure.

The team drives for an hour until they reach Obasi’s home. His wife opens the door and greets them. The rapid response team informs her that her husband is suspected to have EVD and that he has been transported to an isolation unit where he will receive testing. The team explains to her signs and symptoms of EVD, how EVD is spread, preventative measures that can be taken, and give her the contact information for the tracer team, the field supervisor, and the local public health office to alert if she develops any symptoms. The rapid response team also explains to her the contact tracing process and schedules a place and time to meet her every day for the 21 days since the last time she interacted with her husband, Obasi. After the team asks her about additional contacts Obasi had since feeling sick, she gives the team the phone number for the village leader to help the team track down the remaining contacts.

With the help of the village leader, the rapid response team is able to track down and meet most of the contacts in the River Town village. However, two of the contacts were unable to be located.

That night, John Smith plans out which tracing teams should be assigned to which contacts and determines for how long each contact needs to be followed.

Three days have passed and the contract tracing has been running smoothly. Each tracing team was assigned to a set of the same contacts to follow up during the 21 day incubation period. They have been using the **Daily Contact Follow-Up Form** to monitor the contacts. At the end of each day, the tracers reported to their field supervisors on all the contacts that were found and any contacts that were not found. Field supervisors then recorded this information in the **Tracing Summary Form**, relayed it to the data manager, who then relayed it to the lead epidemiologist.

**Part V**

It is now day 4 of contact tracing and by the end of the day, several tracing teams have called their field supervisors with the following situations. For each mini scenario describe: *(a) What should the tracing team do, (b) What should the field supervisors do, and (c) What should other members of the team do (if applicable).*

|  |
| --- |
| **Mini Scenario 1:** The tracing team goes to visit their contacts, but one of the contacts tells the tracing team that “she doesn’t feel well today.” |

|  |
| --- |
| **Mini Scenario 2:** By midday the field supervisors get a call from one of their tracing teams. The tracing team explains that usually they would meet one of their contacts behind the pharmacy, but today the contact is 1 hour late. |

|  |
| --- |
| **Mini Scenario 3:** The same field supervisors get another call from a different contact tracing team. This tracing team says that they couldn’t find their contact yesterday and today. Today is supposed to be the contact’s 21st day of follow-up. |

|  |
| --- |
| **Mini Scenario 4:** A tracing team enters a new community to interview a new contact. As they drive the car into the community, they get a lot of stares from community members. Some of the community members begin to be hostile. |

|  |
| --- |
| **Mini Scenario 5:** At the end of the day, one of the tracing teams reports back to their field supervisor saying that they were able to visit 100% of all contacts and no new cases were found. The field supervisor checks her records and realizes that the same team has reported that they were able to visit 100% of all contacts and no new cases were found for the last 5 days. |

**Conclusion**

Following the introduction of the suspect case of EVD from the case Obasi Dimka, contact tracing was rapidly and efficiently initiated. This is attributed to the amount of preparation taken before the introduction of the case, in the form of planning, identifying, hiring, and training a contact tracing team. Coordination and communication was maintained between members of the contact tracing team as well as with other Ebola response teams (i.e.; disinfection, transport teams).

Once the suspect case was identified, a contact tracing rapid response team was able to efficiently and tactfully interview him about his contacts and transport him to an isolation unit for early testing. The team was able to utilize the expertise of local community leaders to help identify and locate remaining contacts.

Contact follow-up was conducted by community workers to foster trust between tracers and contacts. When difficult situations arose regarding contact follow-up, such as contacts going missing, field supervisors and tracers were able to work together to address those situations.

It has been 26 days since Obasi was found at the community health center. During the contact tracing process, all primary contacts (direct contacts of Obasi) were eventually identified and found.

It is important to note that there have been recent successes regarding contact tracing in the current EVD outbreak in West Africa. Nigeria and Senegal utilized effective and efficient contact tracing to ensure that the spread of EVD through their countries was minimized.

Early in the response, Nigerian contact tracing teams were utilized to identify, list, and document all contacts. Subsequently, all contacts were followed daily and were monitored for change in temperature and the presence of EVD signs and symptoms. Senegal shared similar successes with contact tracing, and followed all contacts of a single case for 21 days, with no secondary cases identified.

EVD spread can be effectively curtailed by efficient and prompt contact tracing.

**Thank you for participating in today’s Ebola Contact Tracing Scenario!**

**Ebola Contact Listing Form for Activity 2 – for Case**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case Information (Date: 10 Oct. 2014) | | | | | | | | |
| **Outbreak Case ID** | **Surname** | **Other Names** | **Head of Household** | **Address** | **Town/Village** | **District** | **Date of Symptom Onset** | **Location of Case Identified** |
| 001 | Dimka | Obasi | Obasi | Yellow house by the river | River Town | Bulundi | 06 Oct. 2014 | Border Crossing |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Contact Information | | | | | | | | | |
| **First Name, Surname** | **Type of Contact** | **Sex**  **(M/F)** | **Age**  **(yr)** | **Relation to Case** | **Date of Last Contact with Case (DD/MM/YY)** | **Address** | **Town/Village** | **Town/ Village Leader** | **Contact Phone Number** |
| **\*\*Adebayo, Dimka** | Lives in house | M | 37 | brother | 08 Oct. 2014 | Yellow house by the river | River Town | John “the leader” | ?? |
| Esther, Awolowo | Lives in house, shared meals | F | 22 | cousin | 08 Oct. 2014?? | Yellow house by the river | River Town | John “the leader” | ?? |
| **\*\*Malkia, Dimka** | Lives in house, sexual contact, shared meals | F | 34 | wife | 09 Oct. 2014 | Yellow house by the river | River Town | John “the leader” | 121-3445 |
| Friday, Uba | Came over to house to take patient’s temperature | F | 3? | friend, nurse | 09 Oct. 2014 | 3rd house on the right, Joji road | River Town? | John “the leader”? | ?? |
| Friday, ?? | Came over to house to share a cup of tea | F | ?? | neighbor | 08 or 09 Oct. 2014? | 1 st. North and 1 st. East from where the market used to be | River Town | John “the leader” | ?? |
| **\*\*Frances, “of the market”** | Touched hands | F | ?? | Traditional healer | 09 Oct. 2014 | ?? | ?? | ?? | ?? |
| **\*\*Monday, “the nice one”** | Came over to house for dinner, cleaned patient’s vomit and clothes | M | ?? | friend | 08 Oct. 2014 | Somewhere on Main Road? | River Town? Zafia? | ?? | ?? |
| Matthew, ?? | Talked to at church | M | ?? | friend | 06 Oct. 2014 | ?? | ?? | ?? | ?? |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**INSTRUCTIONS – for Case**

The purpose of the activity is for the contact tracing team to get a list of contacts from the case by asking the case questions regarding where they have been and with whom have they interacted with since showing symptoms.

**Your objective: To give the investigation team information on your form as they ask for it (and not before)!**

You are the case, Obasi Dimka.

You developed fever 4 days ago *(on the 6th of October, 2014) and starting vomiting, diarrhea, and abdominal pain 2 days ago (on the 8th of October, 2014)*

* **PLEASE READ:** Several of the contacts names on the **Ebola Contact Listing form for Activity 2 – Investigation Team** have been starred and bolded, meaning that they are **“resistance contacts.”** For instance, if the contact tracing team asks, “Have you interacted with a nurse?” and one of the “resistance contacts” on the sheet is a nurse, the patient should NOT SHARE information about that nurse contact right away, motivating the tracing team to ask follow-up questions.

**Ebola Contact Listing Form for Activity 2 – for Investigation Team**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case Information (Date: 10 Oct. 2014) | | | | | | | | |
| **Outbreak Case ID** | **Surname** | **Other Names** | **Head of Household** | **Address** | **Town/Village** | **District** | **Date of Symptom Onset** | **Location of Case Identified** |
| 001 | Dimka | Obasi | Obasi | Yellow house by the river | River Town | Bulundi | 06 Oct. 2014 | Border Crossing |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Contact Information | | | | | | | | | |
| **First Name, Surname** | **Type of Contact** | **Sex**  **(M/F)** | **Age**  **(yrs)** | **Relation to Case** | **Date of Last Contact with Case (DD/MM/YY)** | **Address** | **Town/Village** | **Town/ Village Leader** | **Contact Phone Number** |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**INSTRUCTIONS – for Investigation Team**

The purpose of the activity is for the investigation team to get a list of contacts from the case by asking the case questions regarding where they have been and with whom have they interacted with since showing symptoms.

**Your objective: To ask the case (Obasi) questions in order to fill out your contact listing form**

You are the investigation team.