

**Exercise B4.2**

**Making an epicurve**



**Instructor Guide**

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#### Topics

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### Session overview

#### Session objectives

Upon completion of this session, participants will be able to:

* Create an epidemic curve (epicurve) from outbreak investigation data.

#### Duration

This module is estimated to take 30 to 45 minutes.

#### At-a-glance

The table below provides a snapshot of topics covered, including timing and activities.

|  |  |  |
| --- | --- | --- |
| Topic | Timing | Activities |
| Welcome and objectives | 5’ | Instructor welcomes participants and explains objectives of the for the session |
| Group work | 20-30’ | Participants work in groups |
| Debriefing | 5-10’ | Instructor reviews group answers and provides corrective feedback using the PPT presentation. |
|  | **30-45’** |  |

### Preparing for delivery

#### Timing

The session is designed to provide 30-45 minutes of activities. However, the time required for respective steps may vary depending on class characteristics (e.g., the number of participants, amount of discussion, questions, etc.).

Please use your judgment and gauge yourself on what the proper timing should be based on how the content is progressing.

#### Preparation tips

Before facilitating this module, you should become familiar with all the materials and content. Use the tips below to help in your preparation:

* **Read** this entire Instructor Guide, including all speaker’s notes and any additional materials.
* **Add** your own notes. As you read this guide, use the white space to take any notes about the content.
* **Inject** your individuality. When reviewing the materials, think about where you can share your experience and add to the learning experience by bridging content to real experiences and stories.

Note: Please excuse minor discrepancies between the slides displayed in the Instructor Guide and the PPT slide deck that contains the most up-to-date version of the slides. In some instances, footers may not match. If content-specific discrepancies are noted, please provide feedback to Learning Solutions and Training Unit via email to [ihrhrt@who.int](mailto:ihrhrt@who.int)

#### Materials

The following is a list of all materials needed to conduct this session:

##### Equipment

* Projector to display PPT presentation
* Laptop
* PPT slide deck

##### Other supplies

* Flipchart stand, paper and markers

### Welcome and overview

#### Duration

This topic is estimated to take 30 minutes.

#### B4 . 1 Outbreak Investigation

Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Display** the title slide as participants come into the room.

**Welcome** each participant individually as they arrive.

**Begin** the session when all have arrived and/or it is time.

#### Introduction

Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Say:** This learning resource is part of the Rapid Response Team Advanced Training Programme (RRT ATP) especially geared to RRT members.

Based on an all-hazard approach, the programme aims to provide RRT members with the advanced knowledge, skills, attitudes (KSA) and tools needed to early detect and effectively respond to a public health event.

The RRT ATP is a component of the Rapid Response Teams Training Programme.

#### Learning objectives



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Say:** At the end of this activity, you should be able to:

Create an epidemic curve (epicurve) from outbreak investigation data.

#### Instruction



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Say:** Using graph paper, each group will create an epicurve based on the outbreak data (next slide).

Epicurves should include:

* Graph title.
* Titles for the x-axis (horizontal) and y-axis (vertical). Value labels for both axes.

Additional facilitator notes:

* Histogram (no space between adjacent columns)
* X-axis: Date of onset (by hour, day, week, month)
* Y-axis: Number of cases
* Can display columns or “stack of boxes”

#### Dates Onset of Disease X, District Y, October 2015



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Note to facilitator: You may replace “Disease X” and “District Y” with appropriate disease and location in the country.**

**Say:** You are expected to organize the cases by day (i.e., how many cases reported symptom onset on 1 October 2015?)

If this was the data you collected, what range for X-axis do you suggest? Remember the x-axis is time.

ANSWER: Recommend an approximate range of 1 October to 25 October 2015. Remember to add labels and an axis title for clarity.

What range for Y-axis do you suggest? Remember the Y-axis is number of cases.

ANSWER: Recommend an approximate range of 0-14 cases. Remember to add labels and an axis title for clarity.

Add the data.

TIP: Each box in the hard copy graph represents one case

Add a graph title including disease, time and location.

#### Debriefing: Organize cases



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Say:** Explain the content of the slide.

Participants can use their epicurves to determine the number of cases reporting symptom onset each day.

#### Debriefing: Create X-axis, Y-axis



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Say:** This is how you create X-axes and Y-axes.

#### Debriefing: Add data



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Say:** This is how you add data.

#### Debriefing: Add axis labels



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Say:** This is how you add axis labels.

#### Debriefing: Add graph title



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Say:** This is the completed Epidemic Curve  
(axes, data, labels, title)

#### References and guidelines



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Say:** This exercise was adapted from FETP Frontline training materials.

CDC Field Epidemiology Training Program- Frontline training slides, December 2015 & February 2016

Centers for Disease Control and Prevention (CDC). Introduction to Public Health. In: Public Health 101 Series. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2014. Available at:

<https://www.cdc.gov/publichealth101/epidemiology.html>

<https://www.cdc.gov/training/quicklearns/createepi>

### 

### Thank you!



Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Display slide and tell** participants the session is closing.

**Ask** for and address any outstanding questions or comments.

### Disclaimer

Your notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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