## **Teaching with Case Studies**

## Why should I use case studies for teaching epidemiology?

Using case studies as group exercises in the classroom can be a great way to engage learners in addressing a real-life problem. Case studies are designed to expose learners to actual problems and issues confronted in the practice environment. Learners are provided with the opportunity to practice their knowledge and skills in a protected environment, and usually under the supervision of an instructor, although case studies can also be self-study.

## What is the source of these case studies?

The case studies offered on this site were developed by the Centers for Disease Control (CDC) in collaboration with the original investigators and experts from CDC. The cases are based on actual outbreaks and public health problems and follow the usual progression from detection to investigation to the resultant control. Typically, you are provided with information about an outbreak, along a number of questions to which you should respond. The relevant Epidemiology Competencies for Public Health Workers are listed along with each of the case studies.

## Here are some tips for teaching with case studies:

- **Divide class into small groups**. A group of students should work through the case from beginning to end with guidance from a knowledgeable instructor. To increase participation, instructors may chose to divide the class into small teams, assisted by facilitators. The ideal number of students working on a case study is less than 20 per group, depending on the case study.
- **Pose thought-provoking questions**. Periodic open-ended questions are used to highlight important aspects of the investigation and provoke discussion and exchange of ideas among participants. The questions help students work through the problem and are trigger points for learning and discussion.
- **Reveal new information intermittently**. Each case study consists of limited information about the case and a series of questions or problems. Information about the problem is slowly revealed. Students must intermittently answer questions, do calculations, or make decisions for the case study to advance.
- **Customize the case depending on the time available**. The amount of time necessary to complete a case study is variable, but may be up to two hours. If you have less time than that, consider removing some of the sections or providing answers to some of the sections.
- Let the group struggle for a while, but not too long. Frustration can set in, particularly if the question appears to be of the "what am I thinking?" type. If a group appears to be stuck, it is better to provide the answer and move on rather than let frustration build up.
- **Co-teach with an experienced instructor**. If you don't have much experience leading a case study, try team-teaching with an instructor who is experienced with this method.