

### **Activity 5: Finding the Source of an Outbreak**

Community healthcare workers are often tasked with investigating the source of transmission. In this scenario, you will play the role of a local Health Department Investigator. A patient, named Kathy, recently checked into the hospital with a confirmed case of a new, epidemic disease. You need to attempt to find the source of the virus and determine who else may be impacted.

Using the Scenario Information on Page 14 and the community map on Page 5 of the Student Worksheet, investigate and chart the locations and people Kathy interacted with to **answer the questions on Page 4 of the Student Worksheet**.

**GUIDANCE:** Write each person's name on the map for each location they visited. Trace the infection from Kathy back through each location to identify potential sources. Consider the activities of each individual and their current health status to identify who may have been the original source. Then identify each person she may have interacted with, and consider whether or not they could have been infected or if they should be monitored for possible infection.

**Answer questions on Page 4 of the Student Worksheet.**

## Scenario Information

The below table describes each of the locations all individuals in the scenario have visited over the past several days. Additionally, the health status of each individual is listed. Only a single confirmed case exists, though others have expressed that they "feel unwell".

Individual	Health Status	Behaviors
Kathy	Confirmed Case	Lives in Kathy's House Works at Store Diagnosed at Hospital
Jill	Healthy	Recently traveled domestically (Airport) Stays inside all day at Apartment
Mary	Healthy	Lives in Nearby Town
Kyler	Feels Unwell	Lives in Kyler's House Recently traveled from overseas (Airport) Attended Concert
Sam	Has Lung Disease	Lives in Sam's House Works at Office
Scott	Healthy	Lives in Apartment Building Works as contractor in Lisa's House
Jack	Feels Unwell	Lives in Jack's House Works at Hospital
John	Has Heart Disease	Retired, stays at Apartment all day
Jane	Healthy	Retired, stays at Apartment all day Lives with John
Pete	Healthy	Lives in Pete's House Works at Office
Lisa	Healthy	Works at Office Lives in Lisa's House
Fran	Feels Unwell	Works at Store Lives in Fran's House
Jeff	Feels Unwell	Attended Concert Shops at Store Lives in Jeff & Megan's House
Megan	Healthy	Attended Concert Lives in Jeff & Megan's House
Anna	Feels Unwell	Attended Concert Lives in Nearby Town
Tammy	Healthy	Works at Hospital Lives in Tammy's House
Ted	Healthy	Works at Hospital Lives in Ted's House

## **Concept 2: Protecting Communities**

### **Activity 5: Finding the Source of an Outbreak**

**GUIDANCE:** The table on Page 14 of the Lab Manual provides the locations all individuals in the scenario have visited over the past several days. Additionally, the health status of individuals is listed. Only a single confirmed case exists though others have expressed that they “feel unwell”.

Write each person's name on the map for each location they visited. Trace the infection from Kathy back through each location to identify potential sources. Consider the activities of each individual and their current health status to identify who may have been the original source. Then identify each person she may have interacted with and consider whether or not they could have been infected or if they should be monitored for possible infection.

Answer the following questions based on your investigation of the scenario:

Who could've transmitted the virus to Kathy?

Who is the likely initial source of the virus? Why?

Who else was potentially exposed?

Could the virus have left the community? If so, to where?



## Community Map

**Store**

A large, empty rectangular frame with a black border, occupying most of the page.

## Nearby Town

Apartment Building			
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Ted's House
Jeff & Megan's House
Lisa's House
Fran's House
Tammy's House
Pete's House
Kyler's Home
Kathy's House
Jack's House
Sam's House