[Narrator} In this 35-minute activity and 10-minute class discussion, students create epi curves to visualize surveillance data collected by epidemiologists.

They learn to interpret four types of epi curve patterns, including a propagated outbreak pattern.

This activity uses data and concepts based on a novel emerging respiratory disease, or NERD. NERD is a fictional disease used for teaching purposes.

Start this jigsaw activity by dividing students into home groups of 4. Assign or have each group member choose one data table card on which to serve as a data expert. Also hand out a Visualizing Data worksheet to each student.

Have students break into data expert groups so that all students that have been assigned a specific data table are working together. Within their data expert group, each student should create an epi curve using their data set in the space provided in part 1 of the Visualizing Data worksheet. Make sure that students label the x-axis and y-axis of the epi curve. If necessary, help groups in creating the appropriate scale for their data set.

Have data expert groups interpret their epi curves to identify the pattern: point source, continuous common source, intermittent common source, or propagated.

Students will then return to their home groups with their Visualizing Data worksheets. Students should continue completing the parts of this worksheet, sharing what pattern they believe their epi curve represents and come to a consensus as a group on all four epi curve patterns.

Hand out a set of scenario cards to each home group and allow time for students in each group to match each scenario with the corresponding data and epi curves that were created. Have them update their epi curve titles in part 1 based on the scenario on which they best match.

Still in home groups, have students complete the remaining questions on the Visualizing Data worksheet.

Spend the last 10 minutes wrapping up and reviewing "How are public health data visualized?" Discussion prompts are provided in the lesson plan.