

Frequently Asked Questions about...

Surveillance in Assisted Living Facilities & Nursing Homes

Q. What is surveillance?

A. Surveillance is a systematic and ongoing approach to monitoring illness, allowing you to track the health status of your residents and staff. Routine surveillance gives a picture of what health problems are occurring in your facility so you are aware of the normal level of disease activity. Ongoing surveillance also helps to track changes over time and to quickly notice when disease activity is increasing. Early identification of health problems and increases of disease helps to ensure that infection control measures are put in place to prevent further illnesses.

Q. How should I conduct surveillance in my facility?

A. First, you should determine and define what types of illnesses or conditions you want to track in your facility. It is recommended to track priority illnesses, such as those that spread from person-to-person, rather than trying to track all possible diseases. Once you have this information defined, an easy way to conduct surveillance within your facility is to maintain illness logs. These quick reference logs are filled out by you and your staff every day there is illness among residents and reviewed on a weekly or monthly basis for any common trends. The log should include details about each case of illness, including the person's name, room number, date of onset, and symptoms. Other helpful information to include on your surveillance log is whether the ill person was sent to the hospital or died due to illness.

Each facility has different surveillance needs, so you will need to think about your facility's layout and resident population. Smaller facilities may only need one log, while larger facilities may require several logs for each building, wing, or floor. Depending on the physical structure of your facility and the distribution of your staff, you may need multiple logs for different illnesses, such as one log for diarrheal illnesses and another log for respiratory illnesses. It is also a good idea to maintain a log for staff illnesses. It may sound like a lot of logging, but once the surveillance system is in place, it becomes a part of the daily routine and should prove to be a very useful tool.

Q. What do I do with these logs?

A. By reviewing your surveillance logs each week, you will develop a sense of the normal levels of disease activity in your facility. Once you are familiar with your disease activity, you will be in a better position to notice when increases of disease occur. If you see increases in disease activity, look for factors that ill people have in common and for opportunities to prevent illness.

Q. What do I do if I see increases in disease?

A. If you see increases in disease, you may have an outbreak within your facility. An outbreak is more than the expected level of disease activity within a facility over a certain time period. There are steps you can take to determine if an outbreak is occurring. An outbreak must be reported to the local health department. Your health department is prepared to work with you to help assess the situation and to figure out steps that can be implemented to reduce disease risk.

Q. How can I determine if an outbreak is occurring?

A. If you get a sense that more illness is happening than usual, or if you see an increase in the number of cases on your logs, look more carefully at particular illnesses/symptoms on your log sheet, such as diarrhea, fever/cough, or jaundice. See if residents with particular illnesses have the same combinations of symptoms (e.g., just diarrhea vs. diarrhea with vomiting vs. diarrhea with fever). See if any explanations for the illnesses are available, such as a lab result or a doctor's diagnosis. If it looks like you have an increase in the same sort of illness and there is not an alternate diagnosis for the increase, your suspicion that an outbreak

may be occurring should be high. Of course, some outbreaks have an abrupt onset that is impossible to miss! If an outbreak is occurring, call your local health department.

Q. How else can I use these logs for surveillance?

A. A very important method of surveillance is to track your information by three key factors: person, place, and time.

Person means factors the ill persons have in common such as age, race/ethnicity, sex, and underlying medical conditions. There can be differences in age, even in facilities that only house adults. See if you can determine what personal characteristics the ill persons have in common (for example: all ill are diabetic or share the same resident care equipment).

Place can be defined as a building, floor, wing, or any other type of ‘place’ definition that makes sense for your facility. Determine if the illness is occurring throughout the facility or confined to certain areas. That will help you find ways to prevent spread from areas where people are ill to areas where that illness has not been seen.

Time can be defined as hour, day, week, or any other measure of time. Review your logs to look at changes over time. Note when the increase in illness started and continue to follow **counts** (number of people) by day or week until the outbreak is over.

Another important measure of surveillance is a **rate**. If you have areas of your facility that have more people than other areas, comparing numbers or **counts** of illnesses in different areas does not give you an accurate picture of what is going on. One area might have more illness just because more people live there.

Calculating a rate is a way to account for differences in illness levels that may be due to differences in population size. An easy rate to calculate is the **percentage of people who are ill**. To calculate this type of rate, count the number of people in the surveillance area who are ill and the total number of residents (if you are worried about illness in staff, include total number of staff as well) in that area. Then you divide the number ill by the size of the population and multiply by 100.

$$\text{Illness Rate: } \frac{\text{\# with the illness in the area in a time period}}{\text{\# residents (or \# residents and staff) in the area in that time period}} \times 100$$

(% Ill)

Then you can compare and track rates in the different areas using the best, most comparable information.

For example: Flu season has started and you want to track flu-like illness in your facility. Your facility has 40 residents and 20 staff members.

Last week: After reviewing your logs, you count 5 residents and 2 staff members with fever and cough or fever and sore throat.

$$\text{Flu-like illness rate: } \frac{5 \text{ (ill residents)} + 2 \text{ (ill staff)}}{40 \text{ (total residents)} + 20 \text{ (total staff)}} = \frac{7}{60} \times 100 = \mathbf{3\%}$$

This week: After reviewing your logs, you count 10 residents and 5 staff members with fever and cough or fever and sore throat.

$$\text{Flu-like illness rate: } \frac{10 \text{ (ill residents)} + 5 \text{ (ill staff)}}{40 \text{ (total residents)} + 20 \text{ (total staff)}} = \frac{15}{60} \times 100 = \mathbf{25\%}$$

By comparing last week’s rate (3%) to this week’s rate (25%), you can conclude that there is an increase in flu-like illness in your facility. A rate of 25% is quite high and more than what you would expect, even in flu season. This is an indication that your facility may be experiencing an outbreak.

Contact your local health department if you have additional questions about tracking infections or reporting outbreaks in your facility.