

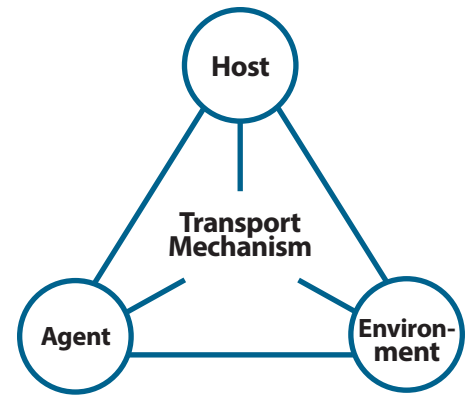
Healthy Homes Essentials for Environmental Professionals



Exercise 4: The Epidemiologic Triangle

The purpose of this exercise is to help you better understand the epidemiologic triangle and how it can be used for addressing healthy housing issues.

The Epidemiological Triangle can be used whether the disease or illness is acute (causes symptoms that are immediately recognizable) or chronic (symptoms develop over time and for that reason may not be readily identified with the exposure). The triangle can also be useful to understand the process involved with unhealthful conditions, such as those that cause physical injury.



Instructions

For each of the scenarios described below draw an epidemiological triangle. Identify the host (as well as any factors that make the host susceptible), environment, agent, and vector. Fill in the corners of the triangle.

Scenarios

1. Acute Disease

An adult visits the home of a friend and quickly develops a severe allergic reaction. The patient is allergic to animals, but the friend has never had a pet of any type in his home. However, the friend does state that he frequently has problems with mice in the home.

2. Chronic Disease

While her parents are finishing remodeling their 1950's home, a young child falls and incurs severe trauma on her arm. An x-ray is taken at the hospital and while no breaks have occurred, the doctor sees strong lines on the x-ray outlining the bones. This can be an indication the child has been exposed to the metal lead.

3. Physical Condition

In a newly opened senior high rise living facility, there are reports of an alarming number of falls. Concerned that something in the construction of the apartments may be causing or contributing to the falls, the manager visits the residents to ask for details concerning the circumstances of each fall. The conditions in common are as follows: all the falls occurred at night or in the late afternoon after sundown; all apartments are fully carpeted except for the kitchen and bathroom; there is a raised marble threshold at the entrance to the kitchen and bathroom that separates the ceramic tiles of these two rooms from the carpeting on the other side of the threshold; and the majority of the falls occurred when entering or leaving either or both of these rooms.

Healthy Homes Essentials for Environmental Professionals



Exercise 4: The Epidemiologic Triangle (continued)

Scenario	Host	Agent	Environment	Transport Mechanism
1. Acute Disease				
2. Chronic Disease				
3. Physical Condition				