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**Epidemiology**

**Answer for Q1:**

Human diseases are caused by different factors including behavioral and genetic changes and also influenced by various environmental factors. There are different types of agents and organism which cause specific diseases. Therefore, knowing the type of agents or organisms make it easier to identify the disease. Moreover, within a particular environment, the transmission of agents take place, and they enter into the body of a subject. When the agent and the specific situation is identified, it will help to know how to prevent them. There is a proper transmission cycle of each pathogen (Agents), understanding the cycle guides to determine a cure for the disease.

**Answer for Q2:**

 Risk factors are those factors which increase the chances of getting a disease. However, risk factors are divided into two forms; modifiable risk factors and non-modifiable risk factors. Modifiable factors can be controlled, or these are preventable. On the other side, non-modifiable factors cannot be changed by individuals. For instance, Tuberculosis is a respiratory disease that is caused by a Mycobacterium, and it can damage the lungs of an infected person. The two factors identified for this disease are smoking and increasing age. Out of the two risk factors, smoking is a modifiable risk factor because it is preventable and can be controlled through a proper mechanism. On the other hand, increasing age in non-modifiable because no one can control aging.

**Answer for Q 3:**

The experiments like the ones performed by James Lind and Edward Jenner will not be approved by the current ethical standards specified for medical researches. There are policies designed for misconduct in researches like having a human subject or animal for the experiments. These policies ensure the protection of human subjects and animal care. Therefore, it will not allow to directly involve the human subjects in their experiments without knowing the results.