

Unit 16. Disease and Epidemics

Health professionals today face a daunting array of diseases that continue to threaten people on a massive scale. Knowledge of the critical epidemics of the last century as well as the diseases that are ravaging the planet today is essential in understanding the future of these problems. Unchecked, they could develop into the types of massive epidemics that have killed or infected millions in the past.

There were three major epidemics that preyed upon people in the twentieth century. In 1918, in the midst of World War I, much of the world found itself at the mercy of an extensive influenza epidemic. Influenza is a communicable disease, meaning that it is easily spread. The first outbreaks appeared in Spain and spread so rapidly that the virus killed between ten and twenty million people within one year. This flu, called the Spanish Flu, is estimated to have killed more people than all the wars of the twentieth century combined; yet the devastating strain mysteriously disappeared in April of 1919—vanishing as quickly as it appeared.

Another of the major epidemics of the 1900s was malaria. Malaria is typically spread through contact with infected mosquitoes and is particularly prevalent in tropical and humid regions. Common symptoms include high fever, chills, cough, fatigue, and vomiting. Malaria is caused by four kinds of parasites that feed on the blood and has been a particularly dangerous disease throughout its existence. It is estimated that even in the late 1900s, it was still killing nearly two million people per year.

Malaria's deadliness is exceeded by Acquired Immune Deficiency Syndrome, more commonly known as AIDS. AIDS originally surfaced in the early 1970s, and by the end of the century, it was killing an estimated four million people worldwide per year. AIDS is a sexually transmitted disease. It is caused by the Human Immunodeficiency Virus (HIV), but the origin of HIV is still unknown.

Aside from these epidemic illnesses, there are diseases that are certainly detrimental to public health but are not considered epidemics, in that they are not infectious. Cerebrovascular disease, also called a stroke, afflicts countless people each year, killing five million globally and disabling millions more. Strokes occur when the blood vessels in the brain are damaged or when a clot forms. Its primary risk factors are age and gender. Compounding its devastating

effects, there is a high instance of reoccurrence. Nearly fifteen percent of those who have a stroke suffer a second one within a few years.

Another common killer, cancer, is on the rise throughout the world, with the most significant increase appearing in developed countries. Responsible for around thirteen percent of all adult deaths by the end of the 1900s, cancer—mutation, division, and growth of cells—results in the formation of malignant tumors that invade other types of tissues or organs. It can be treated with chemotherapy, radiation therapy, surgery, and medication. Sadly, the most common cause of cancer, smoking, is entirely preventable.

Heart cardiovascular disease is considered to be the number one killer in developed countries, with a rough guess that it is responsible for around thirty percent of adult deaths. The most common kind of cardiovascular disease is coronary artery disease, which involves the blockage of the major arteries of the heart. Major risk factors for heart disease include high blood pressure, high cholesterol, diabetes, obesity, smoking, and genetics.

Despite these continuing threats to public health, there were several important achievements in the fight against disease in the twentieth century. Polio, a childhood disease caused by a strong virus, was virtually eradicated by the end of the 1900s. Another triumph in the field of medicine was the creation of the smallpox vaccine, which has managed to make that disease extremely rare. Scientists also began researching genetics and have isolated many genes that may cause disease. Also, the treatments of diseases have become more widely available and are much more effective. Today, scientists have a more comprehensive understanding of a wide variety of diseases. Despite this progress, however, researchers still face a huge challenge in developing the cures, vaccines, and preventative measures that are needed to protect humans worldwide.

<Assignment>

1. 1910년대에 유행한 스페인 독감과 지금 유행하고 있는 코로나 바이러스의 공통점과 차이점이 무엇일지 각각 2개씩 쓰기.
2. (백신이 있는) 전염병을 예방하기 위한 방법을 일반대중, 의료진, 국가 입장에서 각각 1개씩 쓰기
3. 백신접종의 장점 2개 쓰기
4. 백신이 없는 전염병 유행초기와 말기에 할 수 있는 대처방안 각각 2개씩 쓰기