



75 percent of all new diseases that affect humans come from animals. Animal-borne diseases show no sign of abating this makes the involvement of veterinarians in public health crucial. Ever since Louis Pasteur first tested his rabies vaccine in 1885, scientists have worked to battle animal-borne diseases such as avian influenza, monkeypox and SARS. Vector-borne pathogens remain among the most important human and veterinary health problems both nationally and internationally.

Vector-borne diseases are infections transmitted by the bite of infected arthropod species, such as mosquitoes, ticks, triatomine bugs, sandflies, and blackflies. According to the World Health Organization, they account for more than 17% of all infectious diseases, causing more than 1 million deaths annually. The most common ones in Jamaica are transmitted by mosquitoes, ticks and rodents.

More than 2.5 billion people in over 100 countries are at risk of contracting dengue alone. Malaria causes more than 600 000 deaths every year globally, most of them children under 5 years of age. Other diseases such as Chagas disease, leishmaniasis and schistosomiasis affect hundreds of millions of people worldwide.

Distribution of these diseases is determined by a complex dynamic of environmental and social factors. These factors include globalization of travel and trade, unplanned settlements and environmental challenges such as climate change and these are having a significant impact on disease transmission. Jamaica continues to be at risk for the transmission of dengue because the vector is endemic and continues to be present in high numbers with the environmental factors supporting propagation. Of note is the recent emergence of Chikungunya in Jamaica.

Jamaica can be proud of its achievement to eradicate deadly malaria in the 1960's. However from time to time, we have imported cases of malaria that have to be monitored and treated effectively to prevent a resurgence of this disease.

Changes in agricultural practices due to variation in temperature and rainfall can affect the transmission of vector-borne diseases. Climate information can be used to monitor and predict distribution and longer-term trends to prevent and reduce their spread. Vector-borne diseases are preventable through informed protective measures aimed at controlling the vectors thereby protecting people against infection.

