Chapter 4
Global Spread of Disease

ABSTRACT

Chapter 4 reveals that current EHR systems are siloed and are not interoperable with external systems and information portals. However, many foreign health agencies express discontent with them and long for a robust, flexible EHR system that allows information-sharing across multiple systems. Chapter 4 also reveals that zoonotic diseases such as the bubonic plague migrated across national borders through global trade, supply chains, immigration, war, and travel during the 14th century.

Preventing multinational disease migration requires transnational strategies. Business and leisure travel, globalization, and increased trade agreements have also increased the threat of transnational disease migration (Carter, 2019). History has shown that viruses do not purchase airline tickets or book reservations on cruise ships but their carrier. Multinational EHR strategies will assist international and local healthcare providers in treating traveling patients and immigrants.

Social distancing, masking, and contact tracing are essential in preventing or limiting the spread of infections. However, they are reactive measures and are limited. Due to the ease in transmissibility of diseases between animals and humans and the increase in globalization, the spread of disease presents a significant danger to local and international healthcare systems, economies, and populations. Therefore, a proactive, multinational, integrated, and interoperable approach is needed to prevent the spread of contagion (Carter, 2019).

DOI: 10.4018/978-1-7998-8989-2.ch004

Traditional siloed health records management and disease surveillance methods are inefficient in combating the multinational threat of disease transmission. Many variables contribute to the spread of disease and make traditional health records systems, disease surveillance and tracking processes less effective (Carter, 2019). Global travel, logistics, multinational supply chain management, immigration, poverty, and war contribute to disease. However, a lack of global interoperable surveillance and transnational health record management systems creates an inability to track infection and prevent international transmission proactively.

The world is a network of passenger travel, logistics, military, and multinational trade systems that supports 8.3 billion global citizens. The international traveler on an airplane, a dock worker transloading a container, a cross-dock operation manager, a barista at an airport Starbucks, or a healthcare worker at a hospital has no idea if they are serving, speaking to, working with, or standing in line with has a life-threatening virus; or if the casual sneeze from someone nearby is hay fever or hemorrhagic fever. When the disease is transmitted, the infected person often displays no symptoms for several days. Without interoperable, globalized strategies, the spread of disease will continue to plague the international community. All these factors contribute to the global spread of disease; however, it is essential to understand the root cause and why multinational strategies to prevent the spread of infestation are critical.

Many diseases are vector-borne infections and originate in ticks, mosquitos, and fleas. The flea, tick, or mosquito gets infected when biting a larger infected animal. The infected mosquito, tick, or flea then bites a human and transfers the infection from the larger animal to the unsuspecting human, infecting the human with a Zoonotic disease.

ZOONOTIC DISEASE

Zoonotic diseases are infections that have a high rate of transmissibility between animals and humans. Most infectious diseases, 75%, are zoonotic. Zoonotic infections are quickly passed from animals to humans and, because of their lethality and ease of transmissibility, are a growing threat to the international community. Globalization creates variables such as increased international travel derived from business travel and global tourism, international trade and supply chain management, and exposure to Zoonosis diseases. The infected carrier then unknowingly infects others at a shipping port or an airport during