Chapter 7
Public Health Functions From a Multinational Perspective

ABSTRACT

This chapter, titled "Public Health Functions from a Multinational Perspective," maps core public health functions—surveillance, outbreak response, health promotion, and policy development—onto a multinational framework. It explores how interoperable EHR systems can enhance coordination across borders, especially during pandemics and humanitarian crises. Drawing on examples from regional blocs such as the African Union and ASEAN, the chapter identifies both technical and diplomatic challenges to multinational public health integration.

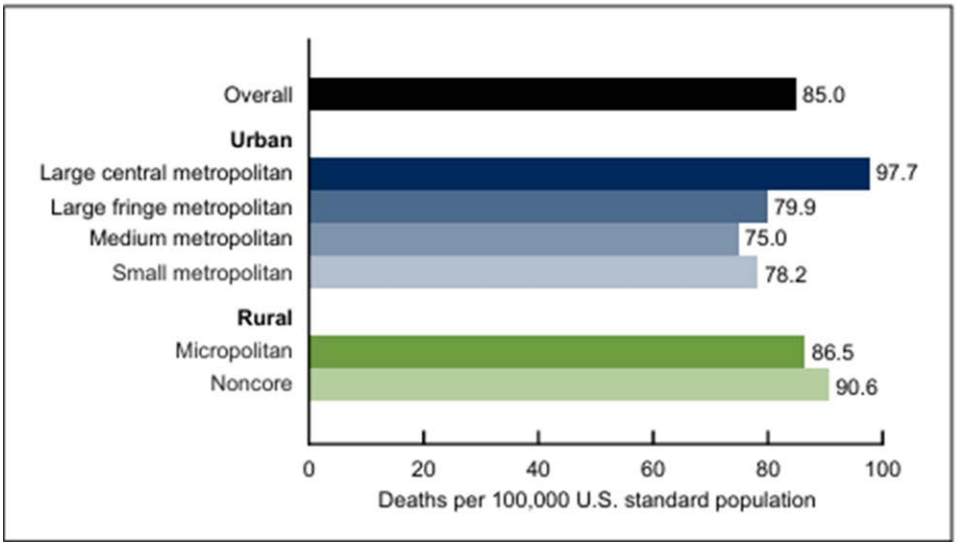
INTRODUCTION

The threat of disease outbreaks increasingly plagues international cities, endangering millions of lives and strangulating domestic and global economies and public health agency resources. The first U.S. travel-associated cases of Ebola in Dallas, TX, in 2014, and COVID-19 in Seattle, WA, in 2020 highlight the importance of epidemic preparedness in large urban settings. Although globally, the disease has taken more lives than all the world's wars combined (Norrie, 2016), large international cities are particularly vulnerable to outbreaks as they are essential to globalization and hubs to international trade with transcontinental logistics operations, business travelers, tourism, and immigration and asylum seekers, escaping poverty and seeking a better life (Carter, 2024). In 2020, during the COVID-19 pandemic, urban areas (large cities) experienced more loss of life, 97.7 per 100,00, as shown in Figure 1, than rural areas (Curtin & Heron, 2022). The earth consists of 8.2 billion

DOI: 10.4018/979-8-3693-2027-3.ch007

people within 195 countries, of which the United Nations recognize 193, sharing human and natural resources, goods, and services across 510 million kilometers (197 million miles) (Carter, 2024). Most of the world's population resides in urban areas, and large cities directly and indirectly impact human health (Kadakia & Galea, 2023). However, increased urbanization and the accompanying challenges are not a temporary trend; they will increase.

Figure 1. Age-adjusted COVID-19 death rates by urbanicity of county residence: United States 2020



In 2018, the global population was 4.2 billion, of which 55% lived in large cities. By 2050, 68% of the global population will live in densely populated metropolitan areas where infectious diseases originate or propagate (Lee et al., 2020). Globalization and its impact on large cities offer businesses in Low-to-Middle Income Countries (LMIC) access to international markets to share resources, goods, and services. Globalization and its impact on large cities also provide immense opportunities to those seeking better employment and escape poverty (Follett, 2023). There are, however, significant risks to increased human mobilization (Carter, 2024). Protecting large towns from the dangers of globalization, such as outbreaks, is essential to urban populations and those who travel to and from them. Although the Ebola outbreak and Covid-19 pandemic originated on foreign soil, they traveled to the United States, making global health a challenge to population health and public health systems.