

# Climate Change, Migration, and Health Disparities at and Beyond the US-Mexico Border

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In 2022, the United Nations High Commissioner for Refugees reported that weather-related events had displaced approximately 21.5 million people worldwide each year between 1999 and 2019, more than twice the number of people displaced by conflict and violence.<sup>1</sup> These extreme weather events affect the ability of low-income, rural, and Indigenous individuals to remain in their homes, which can compel them to migrate. Extreme weather events also damage ecological and social systems and affect water availability, food access, and rates of endemic diseases (such as acute respiratory tract infections, diarrhea, measles, and malaria) for people who do not migrate. The World Health Organization estimates that by 2050, global climate change will cause approximately 250 000 additional deaths per year due to malnutrition, heat-related illness, and malaria. It is anticipated that in underresourced countries, adequate health care and infrastructure will be most adversely affected.<sup>2</sup>

Migration to new destinations can occur as part of climate change adaptation. For example, following Hurricane Mitch in Honduras during October of 1998, the number of people who migrated out of Honduras increased from 347 000 in 1998 to 1 070 000 in 1999. In Honduras, government resources were insufficient to manage the damage from the hurricane. Homes and crops were destroyed and drinking water was contaminated. During this period, there was a large increase in undocumented border crossings at the US-Mexico border by people from Central America.<sup>3</sup> In 2020, Honduras was affected by Tropical Storm Eta on November 5 and by Hurricane Iota on November 18. The Honduran government was unable to adequately respond to the disaster, and violence ensued as drug cartels gained more power throughout the country. In response to these events, people left their homes and migrated away.<sup>4</sup> Climate change experts estimate that the number of people migrating will increase, as heatwaves, droughts, wildfires, and storms increase in frequency and severity.<sup>5-7</sup>

In 2021, the United Nations' International Organization for Migration referred to the US-Mexico border as the "most dangerous land crossing in the world." That year, the US Customs and Border Protection agency reported more than 700 migrant deaths at the US-Mexico border. The most common causes of fatality were heat stroke, starvation, or severe dehydration.<sup>8</sup> Undocumented people who migrate often traverse dangerous terrain, and risks are exacerbated by extreme weather events and more restrictive border deterrence-control strategies (ie, blocking common crossing sites) that require movement of people who are migrating into dangerous deserts and river crossings. The summer of 2023 was the Northern Hemisphere's hottest in recorded history, and places such as Texas had multiple days with temperatures above 38 °C (100 °F). The high temperatures were associated with more than 100 deaths among people migrating along the US-Mexico border. During a 1-week period in July 2023,

13 deaths and 226 rescues for dehydration and other heat-related medical problems occurred.<sup>9</sup>

People who migrate safely from Mexico into the US often encounter disproportionate climate change effects in their daily lives. For example, California, where many people who migrated from Mexico settled after coming to the US, has experienced a series of climate-induced disasters in the last several years. Wildfires, extreme heatwaves, poor air quality, drought, and flooding destroyed homes and businesses, displaced thousands of families, and negatively affected the health and economic well-being of communities.

Certain populations, such as undocumented Latinx and Indigenous people who migrate, are often more susceptible to the effects of climate-induced events because many work outdoors. Throughout the pandemic and during wildfire season, undocumented people who worked on farms labored in hazardous environments to maintain the country's food and beverage supply. Many of these people continued to harvest crops in extreme heat and in wildfires. Most worked without N95 respirator masks and other safeguards. Agricultural companies have been reported to prioritize crops over the health of their employees.<sup>9</sup>

In California, disaster resources have often not reached the populations most in need. Immigrant rights groups have few resources to provide essential services such as language access to emergency information in Spanish and Indigenous dialects, labor protections for farmworkers threatened by heavy smoke, and establishment of a disaster-relief fund for migrants ineligible for federal aid. Many undocumented individuals may avoid seeking emergency medical assistance during disasters due to fear of deportation.<sup>10</sup>

Worldwide, the consequences of climate change are often greatest for people and nations that have generated the least amount of carbon emissions.<sup>1</sup> Low-income, rural, and Indigenous individuals who migrate to the US may encounter other extreme weather events and inequities at their new destinations. An equitable approach to overcome climate change requires an understanding that the effects of climate change include issues related to global justice and human rights.

Clinicians often encounter the adverse consequences of climate change on human health. Communities frequently look to clinicians for trusted advice on health-related issues. Clinicians can be leaders in communicating about climate change inequities—just as they lead efforts to improve individual and social awareness about other health disparities. For example, physician groups have advocated effectively against gun violence by identifying it as a major public health problem.

The Medical Society Consortium on Climate and Health (which includes more than 100 medical societies and allied health groups) provides advice to clinicians on how they can lead and communicate information about climate change and health to the public and government officials while protecting the most vulnerable populations. Such campaigns should advocate for a cobenefits approach,



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which includes legislative policies and programs that improve public health while reducing carbon emissions. For example, reducing the burning of fossil fuels can also improve air quality and respiratory health. Health practitioners should educate policymakers and other relevant groups about the adverse consequences of climate

change that include displacement, migration, and increased health disparities. The extent to which access to affordable and quality health care is available for undocumented migrants is important for addressing the adverse effects of climate change on health in an effective and humane way.

#### ARTICLE INFORMATION

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