

The Effects of Climate Change on Human Health in Latin America:
Evidences, Exacerbating Factors, and Adaptation Strategies

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Latin America is highly vulnerable to multiple human health impacts from climate change and natural climate variability at different timescales. Among those impacts are illnesses due to heat waves and excessive heat, cold spells, vector- and water-borne diseases, the increased risks of diarrhoeal diseases, mainly among children, exacerbation of respiratory and cardiovascular diseases due to air quality and wind-borne dust, increased exposure to environmental toxins, and mental health stress. As a consequence of climate variability/climate change in Latin America many diseases have increased their morbidity, mortality, chronic consequences, and disabilities. This situation can be exacerbated due to multiple vulnerabilities of the population, associated with gender, age, ethnicity, minority groups, etc. Children, the elderly, and the poor are and will be disproportionately affected by climate change in the region. Children's health may suffer strong impacts from increased temperatures, increasing frequency and severity of weather extremes, and sea level rise. Human health problems caused by climate change can be exacerbated by the frailty and precariousness of health systems in Latin America, as well as by their intertwining with socio-economic factors, education level, poverty, unemployment, and violence, in addition to inadequate water and sanitation coverage, poor solid and liquid waste collection and treatment systems, air, soil and water pollution, lack of social participation and inadequate governance structures. Climate change may also increase mortality from malnutrition associated with crop failure and drought. In particular, countries with high levels of malnutrition, fragile health infrastructures and/or political instability will be the most vulnerable to climate change. Urban areas and megacities in Latin America are becoming more vulnerable due to migration from rural areas, associated with refugees who are fleeing conflicts and environmental degradation. Informal settlements are on the rise in Latin America, on land sites at high risk from extreme weather (storms, floods, landslides), whose inhabitants are more likely to experience disease, injury and premature death. The human health vulnerability of Latin America to climate variability/climate change is aggravated by the fact that many of climate-sensitive diseases are categorized as Neglected Tropical Diseases (NTD), highly endemic in rural and impoverished urban areas of low income countries and in conflict and post-conflict regions. The toll of NTD is particularly high in the region, causing 56.6 million disability-adjusted life years (DALYs). These figures add an extra-burden to the task of preventing, controlling, let alone eliminating diseases in the region. Some adaptation strategies to cope with the adverse effects of climate change on human health in Latin America are discussed.