

## Climate Change and Health Equity

### DEFINITIONS

#### Health Inequities

*The unfair and avoidable differences in health status seen within and between populations and places.*

#### Built Environment

*Environments in which people live, work, and play, including buildings, parks, transportation systems, and air and water quality.*

#### Mitigation

*As related to climate change: reducing greenhouse gas emissions to slow or lessen climate change.*

#### Readiness (also called Adaptation)

*As related to climate change: actions to increase readiness for the impacts of unavoidable climate change and to increase community resilience to confront these impacts.*

#### Senate Bill 375

*2008 California law requiring each region to prepare a Sustainable Communities Strategy to 1) reduce carbon dioxide (CO<sub>2</sub>) emissions from cars and light duty trucks, primarily by building more compact communities with better access to mass transit and other amenities; and 2) house 100% of the region's projected 25 year population growth.*

### Climate Change Will Not Affect All Communities in the Same Way

Whether through sea level rise, droughts, or heat waves, the populations most vulnerable to climate-related health impacts are the same communities that experience **health inequities**, the unjust and avoidable disparities in health outcomes. These include the elderly, children, communities of color, and those unable to afford food, quality shelter, fuels for cooling and transportation, or lacking alternatives to contaminated drinking water.<sup>i, ii</sup>

### Co-benefits of Mitigation Strategies Can Support Health Equity Efforts

Substantially reducing greenhouse gas (GHG) emissions is essential to reduce the impact of further climate change. Actions to mitigate further climate change can also help to reduce health inequities. More than 60% of adults do not achieve the recommended amount of regular physical activity. The highest rates of physical inactivity are seen among California's low-income households and communities of color that have the least access to safe places to exercise and play. Rates of associated chronic diseases such as diabetes and heart disease are also highest among these communities.<sup>iii</sup>

California's climate change **mitigation** law, **Senate Bill 375**, requires regional transportation, housing, and other land use planning to lower greenhouse gas emissions. As a result, regional agencies are planning for **built environments** that are more bikeable and walkable with jobs, affordable housing, schools, and basic services located close to one another and easily accessible by public transportation, thus encouraging residents to drive less. Placing jobs, enriched public schools, and neighborhood goods and services, such as grocery stores, with housing that is affordable for all income groups provides increased opportunities for physical activity and can help decrease health inequities.

### Spotlight on West Oakland

The community of West Oakland is challenged by neighborhood disinvestment, neglect of public services, and by pollution from the movement of goods through the Port of Oakland and surrounding freeways. Air pollution exposure can lead to asthma attacks, chronic bronchitis, reduced lung functioning, emphysema, heart attack, stroke, premature deaths, and abnormal lung development in children.<sup>iv</sup> Rising temperatures and other weather conditions that are associated with global warming increase smog formation and the likelihood of these serious health effects.

As extreme weather events become more common, West Oakland residents will also face increasing risks from floods and sea level rise<sup>v</sup> (Figure 1). Flooding is expected to occur throughout low-lying areas in the Bay Area, but for residents with fewer resources and affordable housing options and the daily stress of living with poverty and racism, this risk poses an even greater hazard.<sup>vi</sup>



Figure 1: Area projected to be Inundated by 100 Year Flood: 55 inch Sea Level Rise<sup>vii</sup>

## Proper Planning for Equitable Results: Mitigation and Readiness Planning

Without proper planning, the climate change mitigation efforts described in the previous page can worsen existing inequities. Unless affordable housing is provided in service-rich neighborhoods near transportation, low-income residents will likely be displaced to neighborhoods that have fewer health-enhancing amenities, which could lead to health inequities. By focusing mitigation efforts on existing low-income neighborhoods, we can reduce the health impacts of segregation, racism, and poverty that already exist.<sup>viii</sup> Other strategies that are proposed to encourage residents to lower their individual GHG contribution include investing in fuel-efficient car ownership. These strategies will do little to improve equity, since many low-income residents cannot afford to purchase and maintain these cars. Rather, public health practitioners need to encourage investments in the public transit system that low-income communities depend on, and in sidewalk and bicycle infrastructure so that all communities can be mobile and have access to jobs, schools, and health-supportive services.<sup>ix</sup>

## Readiness Planning

Despite the GHG reduction efforts that are underway, further changes in climate are unavoidable. In the United States and in California, we are already seeing the impacts of rising global temperatures, shifting patterns of precipitation, rising sea levels, and other climate changes that are affecting communities, livelihoods, and health. Readiness planning is necessary to prepare for ensuing weather changes, limit the damage caused by climate change, and reduce the costs of responding to climate-related damage. This planning needs to address the particular vulnerability of communities that experience health inequities.<sup>i</sup>

## Vulnerable Populations

Low-income and minority populations disproportionately live in neighborhoods with the worst air quality and housing conditions, unsafe streets, and least access to healthy food, good jobs and green spaces.<sup>x, xi</sup> Climate change is already exacerbating these inequities. For instance, low-income residents and many communities of color that are economically segregated in inner-city neighborhoods are particularly vulnerable to what is known as the “heat island effect”.<sup>xii</sup> Greater amounts of concrete, buildings, and less tree cover trap heat, causing urban regions to become warmer than rural areas. As a result, these communities are more vulnerable to increasing air conditioning costs, air pollution, heat-related illness and mortality, and poor water quality. Urban communities need increased trees for shade and green spaces in neighborhoods, building design requirements and investments that include improved weatherization and cool roofs, and street design that includes pavements that trap less heat. The public health sector has an important role to play in ensuring that strategies are put in place to reduce the health and equity impacts of climate change on the most vulnerable populations and that these communities are ready for the impacts of climate change.<sup>xiii</sup>

## Public Health as a Resource

Climate change reduction, readiness, and resilience efforts all offer important opportunities to ensure and promote community health and well-being. Public health agencies can be a valuable resource for engaging communities in climate change planning. Our long-standing relationships within low-income and ethnically diverse communities and our expertise in community engagement and education can be leveraged to achieve both health and climate change mitigation goals. Public health can bring this expertise to work across sectors to ensure that the result of these efforts produce positive health outcomes for all residents and do not increase health inequities.

*It is the mission of the Bay Area Regional Health Inequities Initiative to transform public health practice for the purpose of eliminating health inequities using a broad spectrum of approaches that create healthy communities.*

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