



California Pan-Ethnic Health Network

## **A Forecast for Equity: Climate Change and Health in California**

### **Introduction**

For decades, California has seen tremendous shifts in the makeup of our population. Since 2000, the majority of California's population has been communities of color, which now comprise roughly 60% of the state's 37 million residents.<sup>1</sup> This percentage is expected to grow: Latinos are 38% of the population today, but are expected to be 42% by 2025.<sup>2</sup> Latino children are already 52% of the population age 12 and younger.<sup>3</sup> Our state is also home to the largest Asian American and fifth largest African American populations in the nation.<sup>4</sup> By 2050, communities of color are expected to be 75% of California's population.<sup>5</sup>

As our state's population grows and diversifies, we cannot ignore the health disparities that communities of color face. Rates of asthma, obesity, diabetes, and certain cancers are much higher among communities of color compared to Whites. While many factors lead to these disparities, it is no coincidence that communities of color tend to reside in areas with greater environmental challenges. For example, Latinos make up 77% of Imperial County, 57% of Tulare County, and 45% of the Inland Empire, all of which face severe environmental challenges including poor air quality and lack of affordable, clean drinking water.<sup>6</sup>

Throughout our state, we are putting a greater strain on our environment. The ongoing drought in the state is but one example of how our environment impacts quality of life. This fact sheet examines the disproportionate impact that environmental developments, particularly climate change, have on the health of communities of color in California.

### **The Environment and Health**

Extensive research documents how our health is largely determined by the physical, social, and economic environments in which we live, work, and learn. These factors determine everything from the quality of our air and housing to our access to fresh healthy foods and safe parks. For example:

- Children living within 500 feet of busy roadways have increased risk of asthma and other respiratory problems.<sup>7</sup>
- Access and proximity to safe places for physical activity, including parks, are significant predictors of physical activity levels.<sup>8</sup>
- Accessible neighborhood grocery stores reduce diet-related diseases, and distance to a full service grocery store is related to body mass index.<sup>9</sup>
- Proximity to and mix of retail, quality destinations, and transportation mode choices are the most influential factors in people's decisions to walk.<sup>10</sup>

A specific example of social, economic, and environmental factors coinciding with significantly negative health impacts on low-income communities of color is air quality in the Central Valley. A report by the Center for Race, Poverty, and the Environment found that Central Valley residents breathe some of the dirtiest air in the nation. The asthma rate for the eight San Joaquin Valley counties (Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare, and Kern) is over 20% higher than the average for the state.<sup>11</sup> Residents of color in the Valley are also disproportionately exposed to facilities that are harmful to the environment and health. Two out of California's three toxic waste dumps are located in low-income, predominately Latino farm-worker communities.<sup>12</sup> Many communities in the Central Valley also lack access to safe, clean, and affordable drinking water, which has been exacerbated by the recent drought, and lack basic infrastructure, including sidewalks, curbs, sewer, and storm drains.<sup>13</sup>

## Climate Change and Health

Our changing climate, which is the result of global temperature increases, is the public health crisis of our time. To date, 97% of scientists studying climate change believe that it is caused by humans. A recent study of climate change's impact on health, published in *The Journal of the American Medical Association*, found that as the planet gets warmer, we will face serious health repercussions. These health impacts include a rise in heat-related disorders (heat stress), respiratory disorders (asthma), food insecurity, and mental health disorders (the result of post-traumatic stress after natural disasters).<sup>14</sup>

While climate change is far-reaching and will impact everyone, we must also acknowledge that some communities will be more adversely affected than others. For example, low-income communities and people of color are more likely to suffer impacts from climate change at higher rates and in greater ways than other communities.<sup>15</sup> For example:

- **Communities of color and low-income communities will pay an even higher proportion of their incomes on basic necessities due to climate change.** Currently, communities of color and low-income communities pay more for basic necessities including food, electricity, and water.<sup>16</sup> A study found that households in the lowest income bracket use more than twice the proportion of their total expenditures on electricity compared to households in the highest income brackets.<sup>17</sup> With climate change, the price of these necessities is projected to increase, and low-income people who already pay a larger share of their income on these items will most likely face disproportionately higher economic impacts.<sup>18</sup>
- **Communities of color and low-income communities will suffer more during extreme heat waves.** Research shows that communities of color and low-income populations more often live in areas with concrete and heat-trapping surfaces rather than areas with greater tree cover.<sup>19</sup> These types of physical environments create "heat islands," which exacerbate the levels of heat that low-income and communities of color experience during heat waves.<sup>20</sup> Low-income communities also tend to lack access to public transit or other means of transportation to escape the heat zones.<sup>21</sup> The impact of heat waves is also exacerbated by the higher rates of chronic condition faced by communities of color, including cardiovascular disease, diabetes, and obesity.<sup>22</sup> As a result of both the physical environment and higher rates of chronic health conditions, low-income communities of color and,

particularly, African Americans in Los Angeles and Latinos in agricultural settings, are more likely to die during a heat wave compared to others.<sup>23</sup>

- **Economic opportunities for low-income communities of color will disproportionately decrease due to climate change.** Communities of color and low-income communities will face employment ramifications with the onset of climate change. Research shows that continued climate change could produce dramatic shifts in the job sectors that employ many low-income communities, including agriculture and tourism. Latinos comprise 77% of the agricultural workforce in California. Studies suggest both the frequency and intensity of weather events could lead to revenue losses or expensive adaptation measures that could result in job loss.

Most often it is not just one of these factors but all of them combined that result in detrimental impacts on communities of color and low-income communities.

## Recommendations

We must act now to confront climate change and the disproportionate impact it has on our communities. The following recommendations can be used as a guide to advocate for improving the environmental conditions that lead to the marked health disparities we see throughout the state's low-income communities and communities of color.

1. **The increasing diversity of California's population should be better reflected in the state's planning and environmental goals.** Communities of color have represented a majority of California's population for over a decade. These communities also experience health and socioeconomic disparities at much higher rates. All planning decisions should emphasize the importance of the state's diversity and consider each community's needs, areas of opportunity, and unique challenges.
2. **Planning decisions should seek to measure the impacts on community health.** The policy decisions that influence land use, neighborhood, environmental, and transportation design have a profound and direct impact on our health. Therefore, policy proposals should identify the positive and negative health impacts of policy decisions and include health indicators to measure progress of policy decisions to ensure health disparities are not exacerbated.
3. **Environmental planning strategies need to highlight and address the disproportionate impact of climate change on communities of color.** Climate change has real and significant impacts on communities of color. Climate change policies must acknowledge and prioritize the needs of low-income communities and communities of color, who are the majority of Californians and will be the most negatively impacted.
4. **When planning our communities, equitable development must be a priority.** Communities burdened with unhealthy planning decisions incur a cost to the state in higher health care costs and lost days of work. Too many neighborhoods fail to provide the supports necessary to promote the health of all residents. Planning must emphasize equitable development and investments to revive distressed communities, increase mobility and access to jobs, and ensure that low-income residents can access economic, employment, and healthy opportunities.

5. **The communities most impacted by environmental policies, especially communities of color, must be part of the policymaking process.** The communities that are most impacted by environmental policies and climate change are and have been working to promote environmental change at the local and state levels, including communities of color. These community leaders have developed policy solutions and recommendations that should be included in the policymaking processes. Most importantly, communities of color should be actively engaged in the state's vision-setting process and included in implementation strategies.

## Conclusion

It is not too late to confront the factors that are creating climate change, but in order to do so we must act soon. Like our changing climate, health disparities in communities of color are unsustainable and require our immediate attention. By considering health in all climate decisions and acknowledging the disproportionate impact the environment has on wellbeing in communities of color, we can start to turn the tide. The recommendations in this brief are just the beginning, and with a concerted effort from advocates, policymakers, planners, and the public, progress is possible.

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<sup>1</sup> "2009 California Health Interview Survey." UCLA Center for Health Policy Research. March 19, 2012. <[www.chis.ucla.edu/mail/default.asp](http://www.chis.ucla.edu/mail/default.asp)>.

<sup>2</sup> "California's Future: Population." Public Policy Institute of California by Hans Johnson. January 2014. Accessed at: [http://www.ppic.org/content/pubs/report/R\\_114HJ3R.pdf](http://www.ppic.org/content/pubs/report/R_114HJ3R.pdf).

<sup>3</sup> Ibid.

<sup>4</sup> "California's New Majority." The Greenlining Institute. 2010. Available at: [www.greenlining.org](http://www.greenlining.org).

<sup>5</sup> "California's Tomorrow: Equity is the Superior Growth Model." PolicyLink and USC Program for Environmental and Regional Equity. Available at: [www.policylink.org](http://www.policylink.org)

<sup>6</sup> "California's New Majority." The Greenlining Institute. 2010.

<sup>7</sup> Kim, Smorodinsky, Lipsett, Singer, Hodgson, Ostro. "Traffic-Related Air Pollution and Respiratory Health: East Bay Children's Respiratory Health Study." 2004. *American Journal of Respiratory and Critical Care Medicine* 170:520-526.

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<sup>8</sup> Cohen DA, et. al., 2006. Public parks and physical activity among adolescent girls. *Pediatrics* 118:1381-1389. Humpel N, Owen N, Leslie E. 2002. Environmental factors associated with adults participation in physical activity: A review. *American Journal of Preventive Medicine* 22(3):188-199.

<sup>9</sup> Drewnowski, Darmon, Briend. "Replacing Fats and Sweets with Vegetables and Fruits – A Question of Cost." 2004. *American Journal of Public Health* 94(9):1555-1559.

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<sup>10</sup> Handy. "Understanding the Link Between Urban Form and Non-Work Traveling Behavior." 1996. *Journal of Planning Education and Research*. 15:183-98.

<sup>11</sup> California Pan-Ethnic Health Network. *The Landscape of Opportunity: Cultivating Health Equity in California*. June 2012. Available at [www.cpehn.org](http://www.cpehn.org).

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Patz, Frumkin, Holloway, Vimont, Haines. "Climate Change: Challenges and Opportunities for Global Health." *The Journal of the American Medical Association*. September 22, 2014. Accessed at: <http://jama.jamanetwork.com/article.aspx?articleid=1909928>

<sup>15</sup> Morello-Frosch, Pastor, Sadd, Shonkoff. "The Climate Gap: Inequalities in How Climate Change Hurts Americans and How to Close the Gap." May 2009. Accessed at: [http://dornsife.usc.edu/assets/sites/242/docs/The\\_Climate\\_Gap\\_Full\\_Report\\_FINAL.pdf](http://dornsife.usc.edu/assets/sites/242/docs/The_Climate_Gap_Full_Report_FINAL.pdf)

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.