



Urban Climate-Health Action

A New Approach
to Protecting
Health in the
Era of Climate
Change

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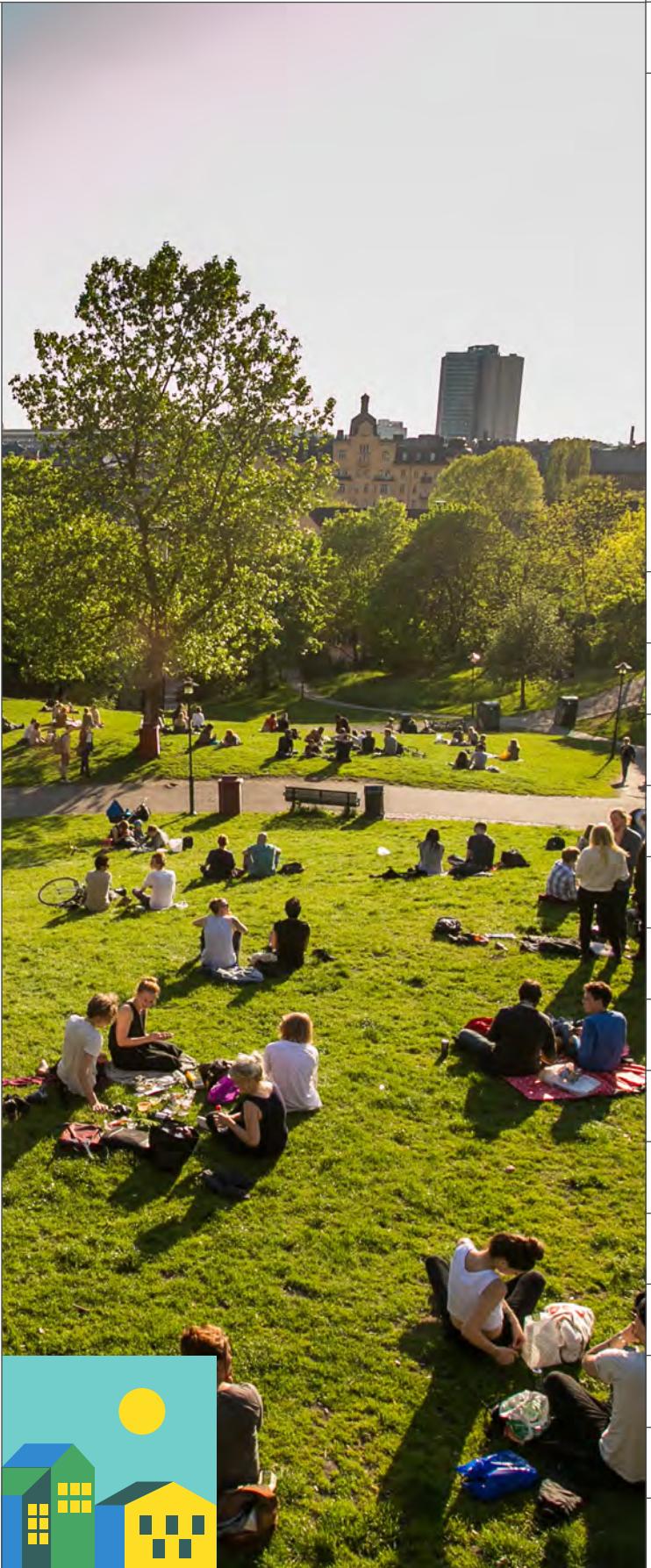
C40 Cities Climate Leadership Group

Yvonne Aki-Sawyerr & Sadiq Khan

As the mayors of Freetown and London, and as the co-chairs of C40 Cities – a global coalition of nearly 100 mayors united in action to overcome the climate crisis – we represent millions of people who are highly vulnerable to climate breakdown.

At C40, 75 per cent of our members are reducing per capita emissions faster than their respective countries, while 90 cities have Paris Agreement-compatible climate action plans being implemented today. We are a network of leaders and trailblazers. Our goal is to raise ambition by implementing groundbreaking climate policies. We are committed to ensuring the transition to net zero is just and inclusive, especially for those cities least responsible for, but most vulnerable to, the impacts of this emergency. We stand determined to marshal our resources to both mitigate the climate crisis and adapt to the changes that are already upon us.

Over half of the world's population live in urban areas, and over 75 per cent of energy-related emissions are generated by cities. Cities also represent the closest level of government to residents and are the first responders in emergencies. For us, the health and wellbeing of our citizens are essential for our success. The pandemic made clear that city governments have an important role in ensuring equitable health outcomes for our constituents. The same principle applies to the escalating threats that climate change is projected to have, including through the direct impacts of extreme weather on



people's physical and mental health, or the indirect effects such as disruption to essential infrastructure and services, food insecurity, inward migration, or the spread of infectious disease. Our cities were not planned for the scale and frequency of climate threats, nor exponential population growth.

For example, heatwaves are now far more common and severe than they were a decade ago in cities such as Buenos Aires, Karachi, and Lagos. Increasingly, temperatures in poorer and unplanned neighbourhoods are exceeding the city-wide average, due to corrugated roofs, large amounts of concrete and limited vegetation. Poorer residents are also far more likely to have jobs that expose them to unbearable heat, aggravating existing long-term health conditions and producing inequalities in health outcomes. Their capacities to adapt, respond, and recover are likely to be lower if they live further from life-saving care and can't afford to stop working when conditions are debilitating.

Given these challenges, cities must build strong, responsive systems that are able to plan ahead, predict when emergencies are likely to happen, respond effectively in real time, and implement long-term investments that prepare cities for tomorrow's climate. This report sets out a powerful model for how this can be achieved through local leadership supported by adaptive national and international infrastructure.

As mayors, we have taken decisive action in our cities. In London, our bold policies, including the Ultra Low Emission Zone, have almost halved roadside nitrogen dioxide concentrations between 2016 and 2023, allowing more Londoners to breathe cleaner air. In addition, we have planted over half a million trees, introduced more than 1,600 zero-emission buses, and installed more electric vehicle chargers than the rest of the United Kingdom combined. The London Climate Resilience Review – a pioneering report on the city's preparedness for climate threats – is reflective of our commitment to strengthening our urban resilience strategy.

In Freetown, we have planted over a million trees through #FreetowntheTreetown, a citizen engagement programme supported by the World Bank that restores lost trees from around the city and protects them for future generations. In doing so, the programme improves health and resilience to climate impacts such as heat and protects the city from floods and landslides. These actions demonstrate the power of setting bold ambitions and putting the health of residents at the heart of climate policy. With cities increasingly becoming key battlegrounds of climate polarisation, we know firsthand that we need to drive collaboration between all sections of society to mobilise public support and deliver improved, climate-resilient health outcomes.

Official powers over health and meteorological services, legal frameworks and financing often lie at national or state levels. But there is much that mayors can do, both by using the resources we control, and by convening, persuading and organising people and resources. Mayors have the platform and the mandate to champion the causes that are most important to the people they represent. And increasingly, the effects of heatwaves, floods, dengue outbreaks and other climate-related health threats are rising to the top of those concerns.

Working together through initiatives like the one outlined in this report, we can deliver for the people of our great cities and ensure they remain the most dynamic places in the world. Cities of every size, at every income level, are at the frontlines of the health threats caused by climate breakdown.

We must protect these economic and cultural engines of civilization, and that means protecting our people, as we strive for a fairer, safer, greener world for all.

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With the effects of climate change bearing down increasingly on the lives and livelihoods of people everywhere, the world is coming to the realization that the climate crisis is a health crisis.

Turning this realization into action requires a step change in the type and depth of collaboration between health, meteorology, and other relevant sectors to deliver coordinated and timely interventions that can save and improve lives, based on accurate information about weather, climate, pollution and other environmental factors. In short, it requires effective climate services for health.

This report celebrates pioneering efforts driven by local leadership and vision. We need to learn from them and build a global movement to advance sustainable, high-capacity collaboration that materially improves health outcomes.

That is why WHO and WMO established a Joint Office for Climate and Health in 2014, to ensure that as global normative bodies, we are intentionally driving collaboration across disciplines and geographies. Together, WHO and WMO experts have set out a global plan for fundamentally transforming the development and use of climate science and services for health. The Joint Office provides a gateway to technical resources through ClimaHealth.info, spearheads the Global Heat Health



Information Network, and supports partners and member states to develop good practices in using climate knowledge for health planning and programming.

Multilateral bodies are essential in developing coherent and robust foundations for global collaboration and coordination across member states. Unique partnerships like the Joint Office are exemplary models that support effective multi-disciplinary national, sub-national and local leadership and action.

That is why we are supportive of the approach outlined in this report, which would ensure climate and health action is informed by effective and useful climate science and services, while articulating pathways for multi-sectoral national and international partners to build meaningful partnerships.

This report is a valuable contribution to promoting and protecting the health of both people and the planet on which all life depends.

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Some contributors may differ with aspects of this report or have stressed other matters of primary focus. All have contributed with the greatest sense of shared purpose in addressing the global health emergency of climate change.

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01 Executive Summary

Climate change is making us sicker, and the world is not prepared to respond.

Historic rainfall is driving malaria, cholera, and dengue outbreaks and expanding the geographic reach of infectious diseases. Extreme heat kills almost half a million people each year. People all over the world are at higher risk of respiratory disease, cancer, and dementia simply because of the polluted air they breathe.

More frequent and intense climate disasters are pushing vulnerable communities—those who did the least to cause the climate crisis—past the breaking point.

The inextricable link between climate change and health is clear. Recently, the Ministerial Declaration on Climate and Health at COP28 in Dubai highlighted the threat to health that climate change poses, joining a growing chorus of organizations, reports, and forums dedicated to finding solutions to protect health in a warming climate. But the world still lacks effective systems to address the interconnected and complex nature of the climate-health crisis.

Climate change is global, but its health implications are highly local—and cities are particularly vulnerable. By 2050, nearly 70% of the world's population is expected to live in cities, each with a unique risk profile. The features that define cities—dense populations, abundant concrete, proximity to water, limited greenspace—make the air hotter and dirtier and offer more opportunities for the spread of disease. Some cities, like Delhi and Ouagadougou, are experiencing unprecedented heatwaves. Others, like Dhaka, Miami, and Dubai, have seen a rise in the frequency and severity of extreme flooding. Elsewhere, cities like Rio



de Janeiro and Ho Chi Minh City have seen significant growth in cases of dengue fever driven by a changing climate.

Yet survey data released in September 2024 from Resilient Cities Network and Yale University finds that less than one-fourth of cities are prepared with emergency protocols that integrate health into climate disaster plans. Today, too many cities are flying blind to the impact climate change is having on human health, and people are needlessly dying as a result. The Rockefeller Foundation, alongside

leading city networks such as C40 Cities Climate Leadership Group and Resilient Cities Network (R-Cities), is working to change that, and calling for urgent, local action.

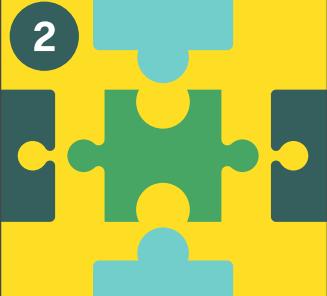
Decisive leadership from mayors and city leaders can unlock stronger partnerships with climate agencies, more accurate assessments of local health risks, and more flexible financing to warn vulnerable populations and deploy life-saving resources.

Integrating expertise from city leaders, climate experts, and finance partners, this report calls on cities to protect health by:



1

Advocating for collaboration between health and meteorological agencies to gather data and forecast the impact of climate change on the health of vulnerable populations;



2

Building local coordination for early action with leaders and experts across climate, health, urban planning, transportation, education, and civil society who apply climate insights to local prevention and response plans;



3

Preparing for future climate-related health threats by ensuring timely, effective communications reach those most at risk.