

## DID YOU KNOW? ... BY TAKING ACTION ON CLIMATE CHANGE YOU CAN STRENGTHEN PUBLIC HEALTH

**WHO message to local authorities:** *By placing health and climate change considerations at the centre of urban policies and design, we can create safer, fairer, and more prosperous communities.*

### Why should local authorities care about the impact of climate change?

- 1. Cities and settlements are vulnerable to the adverse health effects of climate change.** The impact of climate change on human health in cities and settlements is a complicated mechanism that involves the interaction of physical attributes of the city or settlements and precursors (e.g., social determinants) for direct effects of heat stress, vector-borne diseases such as malaria, and enteric diseases such as cholera. The populations at greatest risk are those living in small island developing states, mountainous regions, water-stressed areas, megacities and coastal areas in developing countries (particularly the large urban agglomerations in delta regions in Asia) and also poor people and those unprotected by health services. Threats include extreme weather conditions and rising sea levels, with heatwaves, severe storms, wildfires, floods and droughts, and consequent disruptions in water, air and food supplies. Impact on these basic determinants of health could lead to widening of health insecurity and inequalities, with worsening of undernutrition, water shortages, loss of homes and livelihoods, mass migration and potential conflict. Changes in patterns of infectious diseases will lead to more exposures and deaths from malaria, dengue, diarrhoeal illnesses and other big killers, particularly in developing countries, and from heat stress in more developed urban cities.
- 2. Cities are already facing the negative health consequences of climate change.** Heatwaves associated with climate change have caused some of their earliest negative effects in cities, e.g. in Europe in 2003, with the deaths of more than 70 000 people. Urban heat island effects are already exacerbating this threat. In addition to this, cities are hot-spots for emissions of carbon dioxide and other climate pollutants, which drive climate change and pollute the air. In fact, only 12% of cities worldwide meet the WHO air pollution guidelines, with many urban centres suffering from levels as much as 10 times more damaging than recommended. This results in serious cardiovascular and respiratory illness for people living in these cities, reducing economic productivity and driving up healthcare costs.
- 3. Action now can make a difference.** There is good evidence that mortality and suffering can be reduced by strengthening and implementing early warning systems, strengthening health system preparedness and response and improving the planning of cities and housing. Networks around the world such as the C40 Cities Climate Leadership Group, and ICLEI (the Local Governments for Sustainability coalition) now exist to help promote shared learning and best practice in adaptation and mitigation interventions for local authorities.

4. **Reducing greenhouse gases can be good for health, the environment and the economy.** While specific actions will depend on where you live, reducing the production of greenhouse gases like carbon dioxide (CO<sub>2</sub>) can have enormous benefits to the health, environment and economy of cities and settlements. In countries where cars are the predominant means of transport, shifting to more walking and cycling will lower carbon emissions, increase physical activity (which will reduce obesity, heart disease and cancer), reduce traffic-related injuries and deaths and result in less pollution and noise. In countries where solid fuels are the predominant form of household heating and cooking energy, changing to cleaner fuels and more efficient stoves will lead to cleaner air, fewer indoor pollution-related illnesses and deaths. Money saved from not having to cover the health-care costs of climate change problems (e.g. respiratory difficulties caused by air pollution) and lost work time often matches or exceeds the costs of tackling the hazard itself.<sup>3</sup>

### What can local authorities do about it?

1. **Break down the barriers — establish links across sectors and departments.**

Addressing the health impacts of climate change provides an opportunity for the integration of public health and climate change knowledge. Integration requires reciprocal understanding of terminology, goals and methods. Beyond this, it requires working together to achieve the goal of reducing deaths, disease and disabilities. The WHO is working on forums to bring together health, environmental and developmental decision makers.

2. **Develop city-based climate change adaptation plans.** In both developed and developing cities and settlements, policy options include early warning systems, health system preparedness and response, urban/settlement planning and housing improvements. A comprehensive early warning system should involve multiple agencies, such as city management, public health and social services and emergency medical services (or their rural equivalents). If the threat is a heatwave, hospitals, schools, primary care clinics and nursing homes should all be prepared. Actions could include education of doctors, nurses and other staff to identify and treat heat problems; and a personnel plan that ensures extra staff are in place if needed. Communications should be developed to advise people of appropriate behaviour during hot weather. Air pollution reduction measures might need to be taken during heatwaves. If the threat is contaminated water after a flood, a similar set of steps could be taken to alert and prepare officials, practitioners and the public about the dangers related to climate change and ways of coping with them.

3. **Link health to carbon reduction plans.** For high carbon emitter cities and settlements, conduct a baseline health and emissions inventory, adopt an emissions reduction target, develop and implement local action plans. Such plans might include energy efficiency improvements to municipal buildings and water treatment facilities, streetlight retrofits, public transit improvements, installation of renewable power applications, and methane recovery from waste management. Future climate forecasts should be taken into account in the construction of new buildings and planning of new parts of cities in order to provide as much thermal comfort and protection against extreme events as possible. Efforts should also be made to address indoor air pollution within cities, with new WHO guidelines for indoor air quality and household fuel combustion now available to help guide such interventions. Monitor progress and report results; for example, install roadside pollution meters and announce the readings to the public on a daily basis. These recommendations would need to be adapted for low carbon emitting environments.

**4. Use your legislative powers.** As policy-makers, you can use your powers to institutionalize the changes discussed above. You can insist that all new housing meets minimum environmental standards and that all transport meets certain standards that protect health and the environment. You could introduce traffic-reducing measures such as congestion charges (toll fees for entering central city areas), bicycle lanes and park-and-ride to limit CO<sub>2</sub> emissions. You can also ensure that jobs and shops and other services are close enough to housing that people do not have to use their cars. You can create and maintain green spaces.

**5. Enhance local authority advocacy leadership.** Local authorities can use their knowledge and experience to inform and influence action in key national and international processes that guide policy and resources for work on climate change.

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