



## Health and Wellbeing in a Sustainable Development Goal for Cities

Science Committee of the International Council for Science (ICSU) Global Programme on Health and Wellbeing in the Changing Urban Environment

### Preamble

This document has been drafted on behalf of the Scientific Committee for the *ICSU-IAMP programme on Health and Wellbeing in the Changing Urban Environment – A Systems Analysis Approach* and addresses issues raised in the TST issues briefs for the 7<sup>th</sup> Session of the Open Working Group (OWG) on Sustainable Development Goals (SDGs) scheduled for 6-10 January 2014.<sup>1</sup> The Scientific Committee **is supportive of the core messages in the TST issues briefs** and offers these comments to highlight connections between human health and wellbeing and sustainable development at the city scale, giving specific attention to potential indicators and data on health and wellbeing.

### The case for embracing health and wellbeing in an urban SDG

As cities have encompassed an ever-growing proportion of the total human population, so they have become the predominant influence on health and wellbeing. During the next 20-30 years it is estimated that global urban populations will grow by 2-3 billion people – more than 1 million every week – while rural populations level off and decline. This extraordinary transition provides a compelling rationale for an SDG for cities, with health and wellbeing as critical concerns in the formulation its targets and indicators.

Urban environments affect health through such factors as exposure to pollutants, safety, crowding, shelter and sanitation, levels of physical activity, food choices, and social connection and participation. These factors are determinants of common, contemporary health problems such as injuries, respiratory diseases, heart disease, diabetes, cancers and mental disorders, as well as an array of infectious diseases. Cities are also powerful drivers of population mobility, which can affect regional or global communicable disease risks, particularly as disease vectors interact with urban conditions and there is greater global connectivity between cities. The ways people live in and choose to structure cities also affect the environment, through loss of biodiversity, changes to ecosystems, local atmospheric perturbations, greenhouse gas emissions and the production of other pollutants. These environmental changes, in turn, have feedback impacts on health and wellbeing.

Within cities, inequity in access to infrastructure and other resources – transport, education, nutritious food, employment, public spaces – creates barriers to good health. Health care access

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<sup>1</sup> The 7<sup>th</sup> OWG Session in New York will focus on the following themes: Sustainable cities and human settlements; Sustainable transport; Sustainable consumption and production, including chemicals and waste; Climate change and disaster risk reduction.

is important but achieving health and wellbeing in cities cannot be reduced to universal access to health care. A dedicated urban SDG should acknowledge health and wellbeing as a cross-sectoral issue that is critically influenced by multiple aspects of urban planning and design.

*There should be a more central focus on building healthier, as well as more sustainable, cities. It is important to take into account the potential contribution of readily accessible health data in the framing of specific targets for an urban SDG.*

### **Sustainable cities, transport and human activity patterns**

In many regions of the world, the growth of cities is characterised by urban sprawl that is inefficient from land-use, energy and resource perspectives and associated with sedentary ways of living. Sedentarism is recognised as a major determinant of global epidemics of non-communicable diseases. Ambitious targets for more compact forms of urban development offer potential to increase levels of incidental physical activity through active modes of urban transport – walking, cycling and mass transit. There is value in improved recognition of these linkages in the targets and indicators for an SDG for cities.

Recent research<sup>2</sup> has highlighted potential co-benefits from transitions to sustainable ways of living in cities. For example, both physical and mental health, stand to benefit from low-carbon urban transport systems. Promoting mobility by encouraging walking, cycling and mass transit use in cities can reduce energy use and greenhouse gas emissions from urban transport and – at the same time – increase incidental physical activity, which improves cardiovascular fitness and improves mental wellbeing. Yet, such benefits are not inevitable and need to be integrated into urban planning. For example, a city where electric motor cars are the dominant mode of transport may have a low-carbon transport system but its residents will not necessarily enjoy the health co-benefits from an ‘active’ low-carbon transport system – where walking, cycling and mass transit are promoted.

*Proposals for targets for air quality, road safety and mass transit are strongly supported. Because of the harmful health impacts of sedentary ways of living, there is a compelling health and wellbeing argument for a specific target addressing the proportion of trips made by active modes – walking, cycling and mass transit.*

Urban form and the location of housing, jobs, shops, education, health facilities and other services directly affect the amount of time residents spend traversing the city each day. Time spent commuting between home, work and school is time that is not available to use in other ways such as learning, earning and connecting with others. Similarly, the time required to take care of the sick, overcome disability, and access health facilities or healthy food options can strongly influence quality of life for urban residents. Time and/or proximity can be a useful metric for the sustainability of cities and these values can be embedded in planning practice.

*As part of a wider aim to build the planning capacity of local authorities around health and wellbeing objectives, consideration should be given to targets for reducing commuting time and other barriers to access to essential services and healthy choices for urban residents.*

### **Sustainable consumption and production**

Cities, the sites of most human habitation and loci of most economic activity, drive global consumption and production patterns, with far-reaching consequences for health. City form and

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<sup>2</sup> Haines A et al. Aligning climate change and public health policies. *Lancet* 2009; 374:2035-8.

function is the result of a reciprocal tension between the social and economic desires of residents and choices made by commercial suppliers of services, city planners and other policy-makers. The decisions we make during the current urban transition, about city compactness versus sprawl, about energy provision and efficiency, about transport, housing design, diversification of neighborhood uses, and a host of other factors, will have direct and indirect consequences for both health and sustainability. Moreover, they will, to a large degree, shape global consumption and production. For example, there are potential health co-benefits from low-carbon housing design and construction. Housing that is solar-oriented, well-insulated and naturally ventilated is energy efficient and protects and promotes the health and wellbeing of occupants. Renewable energy generation has the additional benefit of reduced health harms from the toxic emissions produced by combustion of fossil fuels.

*Health and Wellbeing outcomes should be explicitly considered in targets for a transition to more sustainable urban consumption and production across many sectors.*

*From the perspective of the health and wellbeing of urban residents, the emphasis in an SDG urban energy target should be on universal access and affordability as much as on renewable sources of energy.*

Current sewerage systems rely on large amounts of potable water to move waste from toilets to sewerage treatment plants. Clearly this is not a good use of potable water and, importantly, the nutrients in urine and feces are not retained locally where they could be used in food production. In essence, conventional approaches to sanitation for health protection do not account for broader water-nutrient-food-nutrition cycles in a holistic way. Composting sanitation systems offer potential for safe sanitation and re-use of waste nutrients in local food production.

*Mindful of the centrality of water-borne disease in cities for individual and collective health, any target for sanitation should be framed in a way that accounts for broader water-nutrient-food systems perspectives.*

### **Sustainable urban development, climate change and risk reduction**

Planning for sustainable urban futures requires taking into account the potential effects of climate change on health. These include consequences from increased severity of extreme weather events, sea level rise, increased rural-urban migration, reduced food security, and, in some contexts, increased exposure to disease itself. Long-term strategies for risk management, prevention, mitigation and response in urban settings need to be as much about improving health and wellbeing as they are about the construction -- or reconstruction -- of the built environment.

*SDG targets on climate change and disaster risk reduction must, in addressing potential threats to cities, embrace both human health and wellbeing and the physical aspects of mitigation and adaptation.*

### **Potential unintended negative consequences from SDG goals and targets**

While the intended consequences of interventions may occur, unintended consequences will definitely occur. In particular, some urban sustainability policies may have unintended negative consequences for health and wellbeing. One example is the increasing use of household water tanks to collect rainwater in urban areas – for human consumption and other purposes. If not well managed, these water tanks can become breeding sites for mosquitoes capable of transmitting dengue virus and other pathogens. Another example is the potential for allergy (i.e., asthma and other atopic reactions) to some species of flowering trees and plants using in urban greening campaigns. There is a need for careful species selection in such programmes. Systems

perspectives, in tandem with effective data-gathering, can help identify and mitigate such unintended consequences.

*In framing potential sustainable development goals and specific targets – whether for sustainable cities or in other contexts – it is essential that care is taken to account for potential unintended negative consequences for health and wellbeing. Effective health surveillance systems for monitoring and evaluation are essential to ensure attention to potential unintended consequences.*

**Key messages:**

1. The global urban transition provides an unprecedented – and time-bounded – opportunity to improve the sustainability of human settlement and thereby protect and promote the health and wellbeing of all urban dwellers. This constitutes a persuasive argument for an SDG for sustainable cities.
2. There should be a more central focus on building ‘healthier’, as well as more sustainable, cities. It is important to take into account the potential contribution of readily accessible health data in the framing of specific targets for an urban SDG.
3. As part of a wider aim to build the planning capacity of local authorities around health and wellbeing objectives, consideration should be given to targets for reduced commuting time and ease of access to essential services and healthy choices for urban residents.
4. Because of the harmful health impacts of sedentary ways of living, there is a compelling health and wellbeing argument for a specific target addressing the proportion of trips made by ‘active’ modes – walking, cycling and mass transit.
5. As part of a wider target to build the planning capacity of local authorities around health and wellbeing objectives, consideration should be given to targets for reducing commuting time and other barriers to access to essential services and healthy choices for urban residents.
6. Health and wellbeing outcomes should be explicitly considered in targets for a transition to more sustainable consumption and production across many urban sectors.
7. From the perspective of the health and wellbeing of urban residents, the emphasis in an SDG urban energy target should be on universal access and affordability as much as on renewable sources of energy.
8. Any target for sanitation should be framed in a way that accounts for broader water-nutrient-food systems perspectives
9. SDG targets on climate change and disaster risk reduction must, in addressing potential threats to cities, embrace both human health and wellbeing and the physical aspects of mitigation and adaptation.
10. In framing potential sustainable development goals and specific targets, it is essential to be alert for potential unintended negative consequences for health and wellbeing. Effective health surveillance systems for monitoring and evaluation are essential.