Policy Brief
Urban Health
This policy brief highlights the opportunities and challenges for human health in cities worldwide and formulates corresponding recommendations for action. Key messages are:

1. Health promotion must be prioritised in urban planning and urban development,

2. Each city must set its own priorities for improving urban health on the basis of a “city diagnosis”,

3. Cities need an integrated health management oriented towards the guiding principle of structural prevention.

The Hub Community “Global Urban Health” of the Global Health Hub Germany has identified “opportunity spaces” and developed recommendations for action for city administrations, civil society, business, national governments, international organisations and research funders.
Cities make you healthy – cities make you sick!

The first cities were formed as shelters from serfdom, foreign armies and a perceived hostile natural environment. Quickly, however, cramped living conditions, high population density and a lack of drinking water and sanitation infrastructure facilitated the spread of infectious diseases in cities. Since industrialisation, the changing social structures and specific urban lifestyles produced an increasing burden of mental illnesses in the rapidly growing cities. In Prussia, the number of city dwellers almost quadrupled between 1855 (4.9 million) and 1910 (19 million)\(^1\). At the same time, infant mortality was significantly higher in cities than in rural areas\(^2\).

Similar patterns can be observed today in the rapidly growing cities and metropolises of the Global South, especially in Africa and Asia. It is estimated that the urban population will grow by 2.5 billion people between 2018 and 2050, with about 90% concentrated in Asia\(^3\).

Overcrowding, noise and pollutants in urban environments are making people sick all over the world. Due to Delhi’s air pollution, the city’s inhabitants ingest pollutants equivalent to smoking 15 cigarettes a day. In winter, when the smog is particularly heavy, the concentration increases to the equivalent of 40 cigarettes\(^4\). Worldwide, urban environments also make people sick – physically and mentally – due to isolation, urban anonymity, lack of access to healthy food, noise and stress.

Cities are often unhealthy places – which they do not necessarily have to be. They develop dynamically and therefore always offer opportunity spaces for different futures – ideally, for healthy individual lifestyles and health equity.

Cities offer opportunities for health promotion such as the efficient development of hygiene standards and the introduction of comprehensive water supply and sanitation. In modern times, cities have become centres of medical knowledge. People throughout the world can find hospitals, specialists, and other health-promoting services in cities. A number of initiatives have developed holistic concepts to transform cities into healthy places, among them WHO’s “Healthy Cities” programme. However, an overarching concept or model has not yet emerged from this.

The members of the Hub Community have three messages or core demands to actors worldwide. These are translated into actor-specific recommendations for action at the end of this policy paper.

The first key message is that individual city diagnoses are necessary to understand which

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health advantages and disadvantages each individual city has to offer. The proposed city diagnosis tool draws on earlier ideas from the WHO’s Healthy Cities Programme. A city diagnosis is an inventory of key health challenges and opportunities at the municipal level. This is initiated by local authorities but conducted in a participatory, cross-sectoral process involving various municipal authorities, civil society and the health sector. The goal of a city diagnosis is to create a shared vision for the future through jointly developed measures.

The second key message is that cities need an integrated urban health management approach. This must include regular monitoring and a health-promoting design of urban landscapes. Urban landscapes, i.e. the built but also the natural environments of urban areas, are constantly changing, for example through the creation of housing, road infrastructure or industrial areas, often at the expense of open, green spaces. In the megacities of the Global South, such changes sometimes occur chaotically and abruptly, for example through the demolition of informal settlements (“slums”) – with far-reaching health consequences for the displaced. When urban spaces are redeveloped, health impacts are usually only marginally considered, while political and economic interests or concerns of individual groups receive more attention.

At the same time, cities are influenced by global transformation processes, including climate change, demographic ageing and globalisation, with urban development embedded in larger policy frameworks, such as national planning regulations (cf. Fig. p. 7). An integrated urban health management approach takes these external conditions into account when responding to specific local challenges.

The third key message is that cities can become spaces of opportunity that enable healthy lifestyles and health equity, through health-promoting urban development. A transdisciplinary approach, with knowledge sharing between science, administrations and civil society is essential for the creation of healthy living spaces in cities. However, health promotion must not be reduced to disease prevention, but should create the framework conditions for healthy lifestyles, high quality of life and well-being for all urban residents (structural prevention).

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5 https://www.who.int/europe/groups/who-european-healthy-cities-network
Urban health as a transdisciplinary field

In recent years, urban health has emerged as a new research field. Against the backdrop of challenges and characteristics of urban health outlined below, it is important to understand urban health as an inter- and transdisciplinary field. Practitioners and scientists must work together towards maximising the positive and minimising negative health impacts of cities. Joint research and extensive knowledge sharing are required to better understand the effects of the urban living environment on health, and how cities can transform into health-promoting places for all residents.

Throughout the process, the different economic, social and ecological concerns of the various urban sectors and departments must be balanced against each other and evaluated across sectoral boundaries. In urban health, different and sometimes contradictory factors act together, for example, high population density facilitates the development of a differentiated health system, at the same time, this density contributes to mental stress and illness. Urban health is therefore a highly complex field characterised by interconnectedness and huge disparities.

Urban health

Urban health is concerned with the effects of urban environments on human health. It studies the social, natural and built environment, with a particular focus on the complex interactions between the individual factors, e.g. the connection between social inequality and access to green spaces. Research on urban health is explicitly inter- and transdisciplinary: to understand the interactions between different influencing factors, it is necessary to draw on the knowledge of different disciplines, e.g. medicine, urban planning, geography, ecology, environmental sciences, ethnology and economics. Developing and implementing robust solutions for sustainable urban health requires close cooperation between science and practice. The exchange is not one-sided and hierarchical, but two-sided and equal.

The inequitable distribution of health in cities

The WHO Commission on Social Determinants of Health identifies the reduction of health inequalities as an ethical imperative. Cities are a primary field of action because both the healthiest and unhealthiest population groups of a country are often found in cities. This underlines the urgency of addressing urban health.

Differences in health status are produced by fixed factors, e.g. age, as well as alterable factors such as poverty or discrimination. Health differences that can be attributed to changeable influences are inequitable and are termed health disparities.

Access to health services is distributed unequally. In neighbourhoods with poorer populations, fewer and less well-trained doctors are found across the globe. In addition, it is more difficult for poorer people to navigate the often overly complex health systems. As a result, people seeking help often find it difficult to access health care providers who can provide them with adequate care.

For migrants, navigating health systems can be difficult, for example due to language barriers. At the same time, they often have a lower socio-economic status and are therefore more likely to be exposed to unhealthy living and working conditions.

Mental illness is observed more frequently in cities than in rural areas. People who have lower access to resources to strengthen their mental health, e.g. via social networks in their neighbourhood or local associations, are particularly affected. In general, people are especially vulnerable when multiple dimensions of marginalisation overlap (intersectionality).

The concentration of marginalised population groups (social, demographic, ethnic, religious) in certain areas is a well-known phenomenon that affects all cities. Despite numerous strategies to increase social mixing, most cities are characterised by increasing segregation: urban renewal and re-densification processes often create housing for poorer people in

unfavourable locations, e.g. along busy roads. High exposure to noise and pollutants permanently affect health negatively in such areas. This is even more pronounced in cities of the Global South, where the poor often live in informal settlements ("slums"), characterised by unhealthy living conditions, such as lack of access to water and sanitation infrastructure; lack of protection from heat, cold and precipitation; as well as increased stress due to lack of security and risk of eviction and confinement.

Many of these intra-urban health disparities have been analysed in individual case studies, however, there is a lack of comprehensive data with high spatial and temporal resolution for a continuous analysis of urban health. This makes it difficult to take targeted actions. Another difficulty is the complex and sometimes contradictory factors that influence urban health (see Fig. below). These affect different groups and individuals differently depending on their individual circumstances – gender, age, pre-existing conditions, income, social networks, etc.14

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The above-mentioned inequitable distribution of health in cities is a fundamental challenge for urban health. The challenges outlined below have the potential to further exacerbate these inequities. The interdisciplinary Hub Community has identified the following areas where major challenges to human health are to be expected:

- **Forecasts on urbanisation are highly uncertain:** a two- to six-fold increase of urban areas is expected by 2100\(^{15}\). As a result, urban green and blue spaces that help protect human health, are competing with other land-uses. This means a loss of quality of life, biodiversity and, in many places, a deterioration of microclimatic conditions.

- **Climate change** will lead to an increase of the urban heat island effect. In addition, it is expected that the transmission routes and spatial patterns of infectious diseases will change. An increasing burden of disease and more frequent natural disasters, such as heavy rainfall, also place strain on mental health\(^{16}\). Population groups with lower socio-economic status are particularly vulnerable.

- **Demographic ageing** is resulting in a rapidly increasing elderly population in cities worldwide. This means that more frail people will live in cities in the future. For people with physical disabilities, the urban built environment is often a challenge\(^{17}\). Designing a safe and barrier-free urban environment for these groups is of vital importance\(^{18}\) to allow them to lead independent, self-determined lives.

- **Cities are places of arrival for migrants.** They often perform stressful and low-paid jobs, bring their own ideas about health and illness, have particular needs and require special services. At the same time, their access to health services is often limited due to various barriers – knowledge, language, discrimination. Within this group, refugees occupy a special position, as they often arrive with unique physical and mental health burdens. Worldwide, more than 60% of refugees and 80% of internally displaced persons live in cities\(^{19}\).

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17 https://extranet.who.int/agefriendlyworld/age-friendly-cities-framework/
19 UNHCR 2017 (Regina Winter: full source?)
• In cities, **mobility** represents both a resource and a threat. While in the Global North soil sealing, exhaust emissions and noise pollution are the main negative factors for human health resulting from mobility, in the Global South a lack of road safety also leads to frequent injuries and deaths. Poorer people are more exposed to these negative impacts – both in the Global North and the Global South.

• **Informality** is a particular challenge for cities in the Global South. Informality is not to be equated with illegality, the term refers to processes and structures that exist outside of formal regulations. These include unplanned informal settlements ("slums"), which often lack adequate sanitation and health infrastructure, as well as informal businesses where environmental and occupational health and safety laws cannot be enforced. Less attention is paid to informal practices of the wealthier strata of society, who, for example, also take possession of land without a legal basis and often destroy biotopes in the process.

• Municipalities often lack the **financial resources** to fulfil the tasks assigned to them. In almost all countries, municipal public health services are underfunded, as the COVID-19 pandemic has illustrated.

• Urban lifestyles and environments can cause psychological stress and affect **mental health**. In many cases, however, cities lack sufficient, low-threshold services for people with mental health problems. For health-oriented urban development, mental health is an essential component of health projects and health strategies.

• The COVID-19 pandemic has exposed many problems of our cities— with vastly different weaknesses across different countries. Healthy cities are more resilient to the effects of future **pandemics**. It is important to reflect on the lessons learnt from the pandemic.

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20 https://www.who.int/health-topics/road-safety#tab=tab_1
Opportunity spaces for strengthening human health in cities

The health of urban populations can be improved through targeted action at the local level. The following opportunity spaces provide room for health improvements by pursuing sometimes even very small changes. At the same time, poor planning and foresight in the same fields can have severe negative consequences for health and exacerbate health disparities:

• **Health system**
  Worldwide, the highest quality treatment centres, higher densities of doctors and a more diversified range of medical services are found in cities. Urban health must make these available services accessible to all, e.g. through smart financing mechanisms (insurance or similar) that facilitate access. It is essential to regulate the diverse medical services by sanctioning harmful or unethical practices, which are more prevalent where economic incentives are evident or effective stewardship is lacking. The diversity of services can be difficult to navigate, especially in cities of the Global South, where traditional and alternative providers often operate informally. Here it is necessary to develop low-threshold advisory services that help people navigate the system, for example digital services could provide support. Overall, it is important to improve knowledge and awareness of the urban health system structure.

• **Transport/Mobility**
  Urban mobility limited to motorised traffic does not only cause illnesses due to air pollution and noise, but the ensuing lack of movement also contributes to “civilisation diseases”, such as cardiovascular diseases, obesity and spinal problems. The goal of urban planning must therefore not only be to reduce emissions (noise, exhaust gases) but also to promote active mobility (walking, cycling) through appropriate infrastructure and incentive systems. The necessary transportation transformation provides opportunities to create a more active and ecologically friendly urban mobility, thus benefiting health and the environment. Bicycle “highways” are an example for promoting active mobility.

• **Urban green/urban blue**
  Urban green and blue spaces provide an important escape from the hustle and bustle of cities. They offer lower noise and heat pollution, with space for relaxation, physical activities and social interactions. They have an important function for air quality and the cooling of cities, as well as for the promotion of urban biodiversity. Thus, preserving and expanding urban green spaces is vital for urban health, as is ensuring accessibility for all residents. However, urban green and blue spaces can also pose health risks when they become habitats for ticks, mosquitoes and other disease vectors, therefore, their monitoring and control is necessary.

26 https://www.radschnellwege.nrw/
• **Water supply and sanitation infrastructure** *(Water, Sanitation, Hygiene – WASH)*
The lack of access to clean drinking water, sanitation and hygiene is responsible for a significant disease burden globally. Infants and children in particular suffer from easily preventable diseases that are frequently life-threatening for them. In the Global South the development of adequate infrastructure often cannot keep pace with urbanisation. Municipalities are best suited to plan and allocate basic services, which has been one of their key tasks since ancient times. It is important to give cities, particularly in the Global South, the financial means to fulfil this task. In addition, it is essential to develop novel approaches for providing WASH services in rapidly growing metropolises.

• **Living space/housing**
Pathogens, poor indoor climate, building toxins, lack of light or noise can make people sick in their living space. Access to healthy, affordable, high-quality housing in safe neighbourhoods is a utopian dream, particularly for socio-economically disadvantaged groups. They also have limited access to essential services, education and recreational opportunities. The creation of decent housing is fundamental for urban health. Urban regeneration projects in particular offer the opportunity to create inclusive housing and counteract gentrification processes.

• **Food systems**
Direct lack of food availability and accessibility and resulting hunger mainly affects countries in the Global South. To date, less attention has been paid to the so-called “food deserts” existing in almost all cities, where access to healthy food at affordable prices is unavailable. Consequences of this limited supply can be poor diets, malnutrition and obesity with its associated diseases. Against this backdrop, food systems need to be reinvented at the city level.

• **Animals in the urban space**
Interactions between humans and animals also take place in cities. Dengue-transmitting mosquitoes find optimal living conditions in cities, which is the reason for the growing dengue fever disease burden in cities and urban peripheral areas of the tropics and subtropics. Due to climate change, the vector ranges for different vectors are shifting to previously unaffected areas in higher altitudes and latitudes. In cities of the Global South, the burden of rabies also represents a significant problem, where street dogs and bats are important vectors. It is therefore important to also apply the...
One Health approach in the urban context\textsuperscript{33}, by considering the interactions between human, animal and environmental health.

- **City diagnosis**
  To improve urban health, it is first necessary to know the most pressing problems of a particular city. Health reporting, based on comprehensive data on the health situation of the population (burden of disease, risk factors, protective factors), provides a methodological starting point. Taking evidence-based actions requires adequate data, which must be collected on a small scale, e.g. for individual city districts, and at different points in time. Only in this way can a "city diagnosis" help to apply resources in the right places and monitor progress.

- **Safety**
  Feeling safe is extremely important for mental health. Safety affects various areas of life: not being able to keep one’s property safe is a particular burden for residents of informal settlements. Safety in public spaces is a prerequisite for social encounters to take place, and the safety of green spaces and water bodies is the precondition for their use. Strengthening social networks at neighbourhood level and promoting civic engagement can help to achieve this goal.

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**Focus on health promotion**

The WHO advocates a "Health in All Policies" approach\textsuperscript{*}. Public health care is defined as an intersectoral task of social, educational, economic and urban development policies. Health promotion includes both physical and mental health. At the same time, a focus on health promotion means turning away from the focus on treatment. This goes hand in hand with a changed understanding of health and disease. In the biopsychosocial understanding of health, the absence of measurable disease in a body is no longer the only decisive factor. Rather, health is understood as the result of interactions across different dimensions – from the microbial level to planetary ecology. In addition, social factors are considered and the concept of health is expanded to include well-being. This places the context in which people live into focus: social networks, living and working conditions, socio-economic, cultural and environmental conditions. Prevention is not understood as individual avoidance of disease risks (behavioural prevention), but rather as a proactive promotion of healthy living environments and health equity (structural prevention).

\textsuperscript{*} [https://www.who.int/activities/promoting-health-in-all-policies-and-intersectoral-action-capacities](https://www.who.int/activities/promoting-health-in-all-policies-and-intersectoral-action-capacities)

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Actor-specific recommendations for action

Due to global urbanisation, an increasing percentage of human health will be synonymous with urban health. Simultaneously, there are certain challenges – and windows of opportunity – in every city at any given time. Improving health in cities by means of preventive measures is a task that can only be accomplished through the interaction of different groups of actors. Different but complementary recommendations for action are addressed to each of them:

Municipal Authorities

- Health must become an **intersectoral issue** within a framework of **integrated urban health management**. Municipal measures require a “health impact assessment” – in the areas of urban development planning, transport planning, construction, open space planning and social planning in cooperation with the municipal health offices. **Proposed projects** must be reviewed in terms of their impact on human health.

- The establishment of municipal health reporting is of fundamental importance. Municipal “city diagnoses” – involving different groups of actors – can identify the **existing negative influences** on human health of an individual city and help combat these systematically.

- Improving **health opportunities** of disadvantaged population groups is of vital importance. Health promotion measures should be organised through active neighbourhood management (upgrading of living spaces, access to green spaces, counselling services, etc.) with the aim of creating **healthy living environments**.

- Municipal authorities in the Global South should give greater priority to providing **Water Sanitation Hygiene (WASH) services** to the population in informal settlements – despite all known hurdles.

- In the Global South, structural improvements of the local health system can be achieved by **regulating** health service providers at the local level. Informal health care providers deliver services to large parts of the poor without oversight, and private health care providers often put profit above the well-being of their (wealthy) patients. In both cases, local regulators need to counteract harmful practices.

- In cities with a high percentage of migrants, guiding systems are needed across the globe to ensure low-threshold **access to health services**.
Civil society

• Many civil society organisations are already providing important functions in health promotion. Vital social networks, sports clubs and other activities keep people healthy and are often created and sustained by volunteer work. This must be recognised and promoted. Public authorities can simplify the administrative burden for volunteers, employers can grant time-off for volunteering, and planning authorities should involve civil society organisations in planning processes.

• Civil society organisations establish places where health-promoting social networks can develop. People spend their free time in sports clubs and volunteer organisations, where they meet people who also influence their health behaviour (nutrition, exercise, etc.). These organisations are therefore important partners in the implementation of prevention measures.

• Religious, spiritual, artistic and cultural activities can promote mental health. These providers should therefore be considered as partners for health promotion.

• Civil society organisations can be contact persons to inform politicians and administrators of local health problems.

Economy

• Companies must provide a healthy work environment. They are also responsible for promoting health in their local environments.

• Corporations must actively contribute to transforming cities into healthy places by reducing environmental pollution. This includes not only particulates and exhaust gases, but also noise emissions and traffic congestion. Businesses should participate in the preparation of city diagnoses and contribute to the implementation of the resulting recommended actions.

• The property sector has a significant influence on the design of healthy and inclusive living environments. It needs to be their mandate to create healthy and liveable housing for all segments of the population.

National governments

• Federal legislation must ensure that municipal governments are given the necessary authority and funding to transform their cities into healthy places.

• Health systems legislation must allow governance and regulation at the local level. This is the only way to achieve equitable and adequate access to health services within cities.
• Health must become a cross-sectoral issue. State investments, subsidies and support instruments must be checked for their health impacts.

• Health must become a cross-sectoral issue in research and teaching of urban disciplines (urban planning, architecture, open space planning, transport planning). In addition to including health in curricula, this also involves methodological training in inter- and transdisciplinary approaches.

International organisations

• WHO and UN-Habitat should expand their cooperation in the field of urban health. Together they can formulate standards and guidelines for municipal health reporting and accompany their implementation in pilot projects.

• Many of the Sustainable Development Goals (SDGs) of the 2030 Agenda are directly or indirectly related to urban health, and SDG 11 deals specifically with cities. Urban health must become a priority in the implementation of the 2030 Agenda and beyond. International organisations, national governments and local governments can work together to make cities healthy places.

• Urban health must become a focus of development cooperation. In the countries of the Global South, the quality urban spaces that are developing now will be of fundamental importance for the health of future generations.

Research funders

• Urban health is an interdisciplinary and transdisciplinary field of research that analyses the complex relationships between human health and the urban environment. Calls for proposals from the major research funders (national and international) must develop this field by providing interdisciplinary and transdisciplinary consortia with funds for the necessary basic research and for applied research in specific implementation contexts.

• Research funders should increasingly promote international consortia. This is the only way to enable partnership-based research on urban health in the Global South.

• Due to the importance of the topic and to bundle resources, an inter- and transdisciplinary research centre on urban health needs to be established. As a Centre of Excellence, it would coordinate research activities and provide a platform for scientists to exchange ideas and network. Implementation of research results in pilot projects, utilising intervention research designs for example, should be a central component of the work of such a Centre of Excellence.
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