Taking a strategic approach to urban health

A guide for decision-makers

World Health Organization

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Crosswalk on Santa Monica Boulevard. Santa Monica, United States of America: 2018. © Unsplash / Jack Finnigan.

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Foreword

With most of humanity now living in cities, urban systems and environments are driving the world's most pressing health challenges, from climate change to resource scarcity to growing inequality.

Of course, cities and towns can also have an array of benefits for health. If well managed, they can generate the goods and services, institutions, relationships and opportunities needed to protect and promote health and well-being. These include clean, sustainable environments; health-supporting services and infrastructure; and forward-looking, coherent policies. These can help urban decision-makers to reduce the risk of disease, protect vulnerable groups, and support citizens to participate fully in urban economies and societies – creating positive loops that further reinforce health. Far from incubating disease and deepening inequity, cities can nurture health for all.

The significance of urban areas for safeguarding health was never more apparent than during the COVID-19 pandemic, which laid bare the interconnected nature of societal challenges, the health impacts of urban inequities and the need for a forward-looking, innovative approach to urban health. It made clear beyond doubt that health-oriented, sustainable urban development is not a choice, but a necessity.

To achieve the best outcomes, we must approach urban health strategically, grappling with the full complexity of urban environments; making visible the policy linkages between health, sustainable development, inequality, and other challenges; and strengthening the mechanisms that make integrated action possible.

Taking a strategic approach to urban health describes such an approach, drawing on evidence-based research from WHO and others. It lays a broad foundation for effectively applying WHO's comprehensive guidance on specific urban health issues, and for unlocking co-benefits for other societal priorities as part of an integrated urban health strategy.

I invite practitioners and policy-makers to use this document as a springboard, tailoring its strategic recommendations to their own contexts. Through a coherent, intersectoral policy approach, urban areas can become a powerful force for health and well-being, laying the foundation for stronger, more resilient societies.

Dr Tedros Adhanom Ghebreyesus
Director-General
World Health Organization

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Abbreviations and acronyms

AI	artificial intelligence
DEGURBA	Degree of Urbanization
GDP	gross domestic product
HEAT	Health Economic Assessment Tool
HAUS	Health Appraisal for Urban Systems tool
LEZ	low emission zone
ICT	information and communications technologies
NCD	noncommunicable disease
NGO	non-governmental organization
SDGs	Sustainable Development Goals
UGHW	Urban Governance for Health and Well-being initiative
Urban HEART	Urban Health Equity Assessment and Response Tool
WASH	Water, sanitation and hygiene

People play street cricket (gully cricket) on the streets of Ballard Estate, Fort, Mumbai on a Sunday afternoon. India: 2025.

Glossary

Age-friendly environment: An environment (such as the home or community) that fosters healthy, active ageing by building and maintaining intrinsic capacity throughout the life-course and enabling greater functional ability in someone with a given level of capacity *(WHO 2023f)*.

City: A major population centre providing a range of urban services within the municipal boundaries and sometimes to the suburban fringe. Definition in terms of population varies widely among countries *(UN-Habitat 1992)*.

Commercial determinants of health: Activities of the private sector – including strategies and approaches used to promote products and choices – that affect the health of populations *(WHO 2021c)*.

Community engagement: A process of developing relationships that enable stakeholders to work together to address health-related issues and promote well-being to achieve positive health impact and outcomes *(WHO 2020a)*.

Health: A state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity *(WHO 1948)*.

Health equity: The absence of unfair, avoidable or remediable differences in health status among population groups defined socially, economically, demographically or geographically *(WHO 2021c)*.

Health in all policies: An approach to public policy development across sectors which systematically takes into account the health implications of decisions, seeks synergies and avoids harmful health impacts in order to improve population health and health equity *(WHO 2021c)*.

Health promotion: The process of enabling people to increase control over and to improve their health *(WHO 2021c)*.

Healthy ageing: Developing and maintaining the functional ability that enables well-being in older age *(WHO 2023f)*.

Healthy city: A city that is continually creating, expanding and improving the physical and social environments and community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential *(WHO 2021c)*.

Informal settlement: A residential area where 1) inhabitants have no security of tenure vis-à-vis the land or dwellings they inhabit, with modalities ranging from squatting to informal rental housing 2) neighbourhoods usually lack, or are cut off from, basic services and city infrastructure, and 3) housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas *(UN-Habitat 2015b)*.

Innovation: The process by which new ideas, methods or technologies are generated, evaluated and applied to existing and emerging problems *(WHO 2024d)*.

Nature-based solutions: Actions to address societal challenges through the protection, sustainable management and restoration of ecosystems, benefiting both biodiversity and human well-being *(IUCN 2020)*.

Resilience: 1. The capability of a person, structure or system to withstand shocks or stressors while maintaining or recovering function and continuing to adapt and improve *(Siri et al. 2022)*. 2. Processes

and skills that result in good individual and community health outcomes in the face of negative events, serious threats and hazards *(WHO 2021c)*.

Setting for health: The place or social context where people engage in daily activities, in which environmental, organizational and personal factors interact to affect health and well-being *(WHO 2021c)*.

Slum: The most deprived and excluded form of informal settlement, characterized by poverty and large agglomerations of dilapidated housing, often located in the most hazardous urban land. In addition to tenure insecurity, slum dwellers lack formal supply of basic infrastructure and services, public space and green areas, and are constantly exposed to eviction, disease and violence *(UN-Habitat 2015b)*.

Social determinants of health: The social, cultural, political, economic and environmental conditions in which people are born, grow up, live, work and age, and their access to power, decision-making, money and resources that give rise to these conditions of daily life *(WHO 2021c)*.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs *(World Commission on Environment and Development 1987)*.

Urban area: Area in which land-use densities and socioeconomic characteristics are predominantly urban. May include suburbs as well as cities and towns. An area within city limits or closely linked to a city by common use of public services *(UN-Habitat 1992)*.

Urban health authority: An individual or body that has been assigned formal institutional authority for achieving urban health goals *(Siri et al. 2025)*.

Urban dwellers: Those whose primary residence is in urban areas or whose temporary presence in such areas exposes them to urban determinants of health *(Siri et al. 2025)*.

Urban health: 1. The art and science of improving health and health equity in urban areas, including by securing the resilience and sustainability of health-supporting natural and human systems; more than the sum of its parts, it ensures that people, institutions and environments interact to create healthy situations and that every person has the chance to thrive, now and into the future. 2. A measure of the health of urban dwellers, as continually created by their complex interactions with urban physical and social environments, and by the decisions and institutions at all scales that shape these interactions *(Siri et al. 2025)*.

Urbanization: The process by which a population becomes concentrated in urban areas, or the increase in proportion of people residing in urban areas due to movement of populations from rural to urban areas or to an increase in land area occupied by urban settlements. A social, demographic, economic and physical phenomenon characterized by the concentration and convergence of a country's population into its major cities and towns *(UN-Habitat 1992)*.

WHO Healthy Cities programme: A long-term development initiative that seeks to place health and health equity on the agenda of cities around the world, and to build a constituency of support for public health at the local level *(WHO 2021c)*.

WHO Global Network for Age-friendly Cities and Communities: A network established in 2010 by WHO with the goal of helping cities and communities to support and maintain health in older age, including by providing evidence, connecting cities and communities, and facilitating exchange *(WHO 2018)*.

Executive summary

Street mural in Santiago: “Thank you for the art of healing”. Chile: 2022. © Unsplash / Ignacio Amenábar.

A growing majority of people live in urban areas, making urban health a compelling priority for governments at all scales. Urban areas shape risks and opportunities: they can foster health and well-being, or concentrate hazards, deepen inequities and amplify vulnerabilities. Concerted action has dramatically improved urban health, yet significant problems remain. Urban areas feature stark inequities and health-harming exposures, and new challenges emerge constantly. For example, COVID-19 highlighted the role urban areas play in transmission and emergency response; such areas are equally critical to evolving issues like climate-health impacts and noncommunicable diseases.

In part, these challenges persist because urban health is approached in simplifying ways that do not account for urban complexity, e.g. targeting single interventions, issues, sectors or groups. Avoiding the pitfalls of fragmented responses and unlocking the vast potential of cities for health and health equity depends on approaching urban health strategically, as an integrated, long-term societal project, rather than a collection of isolated initiatives.

The future will bring new challenges: continued urbanization and massive infrastructure demands, shifting demographics and more informality, against a backdrop of climate change, resource constraints and other global pressures. All these trends reinforce the need for strategic action.

Purpose and scope of the Guide

This Guide has five objectives:

1. to provide conceptual clarity, defining urban health and its scope
2. to make a compelling case for strategic action
3. to offer broad practical recommendations for those looking to take a strategic approach
4. to suggest a roadmap for implementing this guidance
5. to illustrate strategic action through concrete examples.

The Guide targets public-sector policy-makers and practitioners at national and subnational scales – but its insights are relevant to all urban health stakeholders. Building on prior WHO work, it profiles the political and policy context for urban health, explicitly emphasizes complexity science, highlights enabling frameworks for sectoral action, and proposes unified urban health strategies.

The strategic approach to urban health

While health has always informed urban design, planning and management, urban health is becoming more important as urban populations and expanses grow and their influence on environments and societies expands. The thinking behind urban health has also matured, drawing on human-rights based legal frameworks, better awareness of the determinants of health, and stronger understanding of systemic complexity.

Although sectors like transport and housing have well-recognized connections to urban health, every urban sector and stakeholder influences health. Urban health emerges from their complex interactions with each other and with urban environments and processes. The scope of potential urban health activities ranges broadly, from direct health interventions to indirect actions addressing cross-sectoral or upstream determinants. It can therefore be difficult to situate institutional responsibility, an essential step in ensuring accountability and achieving the best outcomes. The limits of urban health authority need to be defined clearly and include the most impactful actions. Urban health should involve stakeholders who affect health directly or with the greatest impacts; influence those whose actions have indirect or smaller impacts; and inform all stakeholders about urban health determinants, actions and outcomes. The focus on urban health research and practical guidance has often skewed toward wealthier societies and megacities, but should encompass all urban dwellers, especially marginalized or otherwise excluded groups, and all urban geographies.

A strategic approach aligns actions toward the overarching goal of improving urban health. More than a portfolio of beneficial standalone activities, it accounts for system-wide and cross-sectoral effects, interactions, stakeholder responses and emergent outcomes. A strategic approach is integrative, contextualized, complexity-informed, equity-oriented, continuously improving, efficient, sufficient and forward-looking. These elements make strategic action more coherent, resilient and deliberate, leading to better health outcomes and co-benefits. Strategic thinking can improve individual interventions, but its fullest expression is in unified strategies that provide the authorities, mechanisms and resources needed for sustained impact.

The case for urban health

Despite its urgency, urban health often lacks political traction. Strengthening the case for urban health and positioning it as a powerful lever for achieving broader societal goals can help overcome barriers, mobilize political will, reinforce advocacy, spark innovation, and encourage cooperation across sectors and levels of government.

Different perspectives offer important arguments for strategic approaches to urban health:

- **Epidemiology:** Urban dwellers bear a high burden of disease and account for a substantial proportion of ill health. Urban areas feature stark health inequalities, with slum residents facing especially high risks. Many health challenges are linked to urban living, but rapid change in some contexts shows the significant potential impact of effective, cross-cutting interventions.

- **Economics:** Ill health imposes heavy financial costs and is a major expenditure for most governments. Health investments offer strong returns across a range of methods and contexts. Urban productivity and logistical and administrative advantages can make urban health interventions especially feasible and cost-effective. Strategic approaches can maximize benefits, favoring efficiency, situational awareness, coordination and coherence.

- **Equity:** Because urban areas often encompass the worst health disparities, urban health action can greatly improve equity, while boosting people's participation in other desirable societal processes like civic action and labor participation. This benefits society, and can break cycles of disadvantage.

- **Sustainability:** Urban processes drive most sustainability challenges, and strategic urban health action can provide important co-benefits for sustainability and resilience. Health framing can also motivate action on wider sustainability agendas, like the SDGs.

Strategic urban health action demands integration across government and with diverse partners, covering many issues. Approaches need to resonate with the priorities driving decision-making in any given context. Urban health actors can create opportunities for strategic action by understanding and engaging with policy and political processes beyond the health sphere and at different scales. Understanding the issues that drive agendas, and how they evolve with changing incentives, current events and public opinion, can help decision makers frame strategic action on urban health; clarify opportunities for interventions in other sectors; position urban health interventions as beneficial for other agendas; identify key partners and champions; recognize and act on policy windows; and establish important cross-sectoral relationships.

Urban health has strong links to most cross-cutting issues that drive decisions in cities and countries around the world. These include issues like demographic and climate change, migration, health emergencies, food systems, biodiversity and digital transformation. Familiarity with trends and policy challenges around these and other issues can facilitate strategic urban health action.

A strategic approach to urban health

The Guide presents three overarching ways that governments can act more strategically for urban health.

Recognizing and managing complexity

Urban complexity reflects interactions among individuals, institutions and environments, and shapes health outcomes and governance processes, giving rise to challenging, unexpected or unpredictable outcomes. Urban health authorities constantly deal with complexity, yet formal insights about how complex systems work and what to expect are rarely incorporated into urban health policy and practice. Doing so can facilitate interpretation of results, identification of leverage points, and design of interventions and strategies.

RECOMMENDATIONS

- Train urban health practitioners and policy-makers at all levels to understand and manage the impacts of complexity on urban health.
- Extend monitoring and evaluation processes to capture unanticipated results of urban health policy and practice.
- Anticipate intended and unintended results using scenario-based modelling.
- Design decision-making and implementation processes to operate more effectively in the face of complexity.
- Adopt adaptive governance and build adaptation into interventions, policies and strategies.

Leveraging entry points

Understanding where an initial effort can catalyze broader action can be a critical step in establishing a strategic approach. An entry point requires interests, resources and institutions to align to create an opening for targeted action. Entry points are often temporary; acting on them requires familiarity with local agendas and a readiness to act, based on prior development of relationships, information channels, capacities and resources. Developing an entry point often involves linking urban health to issues with higher political salience. Where cross-cutting programmes and policies already exist, they can be highly effective entry points, creating many of the assets needed to promote urban health.

RECOMMENDATIONS

- Build and maintain awareness of the landscape of political, policy and public opinion at city, national and global scales.
- Document and track local cross-cutting initiatives relevant to urban health at project, programme and policy scales.
- Prepare for the emergence of entry points by scoping and planning urban health strategy in anticipation of opportunities for implementation.
- Ensure that entry points are a stepping stone for broader action.

Strengthening the means of implementation

Urban health action depends on an effective enabling framework, including mechanisms, or means of implementation, to foster situational awareness, decision-making, adaptation, coordination and communication, including in the following categories:

Governance

Governance covers functions from goal-setting to rulemaking and enforcement, and must coordinate action across sectors, scales and domains. Designing urban health governance requires considering tradeoffs among potential arrangements and recognizing how existing structures will resist change.

RECOMMENDATIONS

- Establish a whole-of-government political mandate for urban health.
- Define urban health responsibilities clearly and create accountability.
- Establish or strengthen coordination mechanisms.

Financing

Urban health funding often derives from different sources, but is rarely suited to complex, cross-cutting issues. Effective financing leverages capacities, processes and institutions to overcome administrative and expectational barriers, and integrate funding across sectors and scales. Governments need reliable information about the implications of different funding decisions; diversified and expanded sources of funding; and mechanisms to develop stakeholder financial capacities.

RECOMMENDATIONS

- Expand assessment of the costs and benefits of urban health action.
- Restructure financial mechanisms to support strategic urban health policy and practice.
- Increase the scope, resilience and sustainability of urban health financing.

Human, institutional and systemic capacity

Urban health demands not only capacities related to specific sectors and issues, but the connective capacities at individual, institutional and systemic levels that underpin integrated practice and policy-making. Capacity strengths or deficits are often self-perpetuating, and strategic action must both provide for capacity strengthening and find ways to mitigate capacity gaps – for example, by recruiting partners with the requisite skills.

RECOMMENDATIONS

- Conduct iterative assessment of capacities and capacity needs.
- Integrate capacity development as a standard component of urban health practice.
- Account for capacity assets, deficits and needs in designing urban health policy and practice.

Data generation and management

Authorities need comprehensive insights into population health and well-being, including data on cross-sector and upstream determinants; economic valuations and health and environmental impact assessments; disaggregated data; and data on implementation, governance and policy processes. Data must be easily discoverable, accessible and useable, and protected by privacy and ethical safeguards. The rapidly evolving

modern information environment demands that governments regularly update the architecture for urban health data generation and management.

RECOMMENDATIONS

- Strengthen urban health data systems by expanding data coverage, types and sources.
- Adopt best practices for managing urban health data.
- Adopt a high-value set of urban health indicators.

Evidence-based decision support

Good data must be translated into useful information, recommendations and knowledge for decision-making. Achieving urban health goals requires integrating insights from many disciplines and understanding complex dynamics. Authorities should become familiar with the wide range of tools, methodologies and analytic approaches available for urban health data analysis, and develop partnerships as needed to support decision-making.

RECOMMENDATIONS

- Institutionalize evidence-based policy and practice in urban health.
- Support the application of interdisciplinary and transdisciplinary insights to decision-making.
- Increase local capacity and external links for evidence-based decision-making.
- Implement a robust monitoring and evaluation system.

Innovation

Innovation – including through local experimentation – is crucial for tackling the evolving challenges inherent in urban health, and essential to resilience and efficient resource use. Governments can support innovation by removing barriers and fostering an enabling environment; guiding it toward important challenges or vulnerable groups; and supporting specific efforts. Because innovation inherently involves uncertainty and potential risks, safeguarding health is always an important consideration.

RECOMMENDATIONS

- Cultivate an innovation ecosystem for urban health.
- Create dedicated spaces for urban health experimentation.
- Develop processes to identify and scale up promising novel solutions.

Partnerships

Partnerships that engage a diversity of stakeholders, sectors and domains play an important role in urban health, bringing together critical resources. Well-designed and managed partnerships can outperform efforts in any one domain or sector, offering common purpose, legitimacy, transparency and equitable opportunities. Urban health partnerships must be tailored to context and rooted in co-creation, managing stakeholder differences and expectations. Governments play an essential role, through direct involvement or support for partnerships, and by promoting collaboration more widely.

RECOMMENDATIONS

- Where appropriate, adopt a partnership model to deliver urban health needs.
- Foster an environment that encourages collaboration.
- Provide resources to support effective urban health partnerships.

Participation

Active, legitimate, transparent participation by urban dwellers and other stakeholders is critical for urban health. It can improve representation, link stakeholder expertise and information to decision-making, address power imbalances and health disparities, create relationships and improve the uptake of interventions. Participation requires careful preparation, but can benefit any phase of action for urban health. Governments can act both internally and externally to foster participation, instilling it as a core expectation, raising awareness, and building stakeholder trust and ownership.

RECOMMENDATIONS

- Institutionalize participation as a key value and component of public-sector action for urban health.
- Improve communication around urban health.
- Encourage nongovernmental actors to participate in urban health.

Developing comprehensive strategies

The culmination of the strategic approach is a comprehensive strategy that elevates urban health as a societal goal and provides the authorities, mechanisms and resources needed to attain and sustain it. Depending on context, such a strategy can take many forms; there are also many potential pathways from an intent to act strategically, to strategic improvement of individual activities, to a fully developed strategy. While rapid gains are possible, this is a long-term effort unfolding over years and requiring continuous adaptation. Regardless of context, initiating a strategic approach requires commitment-building, situational analysis, definition of strategic priorities, a framework for implementation, and arrangements for monitoring and evaluation.

With deliberate, strategic action at all scales, governments can replace siloed, short-term thinking with interconnected, systemic approaches that turn cities into dynamic engines for improving health, reducing inequity, and fostering sustainability and other goals. Adapted to individual contexts, the structured approach to strategic action presented in this Guide supports authorities in tackling urban health challenges creatively and effectively. The greatest gains are likely where cities and national governments work together with stakeholders and communities to co-design and coordinate multilevel strategies. Progress is unlikely to be linear – continuous monitoring, learning and adaptation are essential, and insights, innovation and best practices must be shared. There is still much to learn. Yet as urban health comes to be recognized as a foundational goal for society and a shared responsibility, strategic approaches will help people thrive today and long into the future.

CHAPTER 1

Setting the scene for urban health

Children playing outside in Dangriga, in southern Belize. 2024. © UNICEF/UNI594412/Dejongh.

1.1 Background

Urban environments, institutions and processes profoundly affect health and health equity – urbanization is a defining trend of the modern era and a key determinant of global health. In 2020, about 4.4 billion people lived in urban areas *(UN DESA, Population Division 2018)* – close to three people in five, by standard estimates *(Ritchie et al. 2024)*.[1] By 2050, urban populations are expected to increase by around 50%, with urban slum dwellers worldwide tripling from approximately 1 to 3 billion *(UN DESA, Population Division 2018; United Nations 2023b)*. Addressing urban health[2] needs is already a central challenge for governments at all scales, and will become more important as urban populations continue to grow.

Urban health also affects other societal goals, through its interactions with other sectors and systems, such as transport, housing and land use; its relevance to challenges like climate change, pollution, sustainable development, resilience and justice; and through the cascading social and economic consequences of ill health. The dynamism and diversity of urban areas create unique opportunities and challenges for health. Well designed and managed, urban areas can improve and sustain health and health equity, enhance economic and cultural production, and generate many other societal goods. Poorly designed and managed, they can damage health and the systems it depends on, generating inequities and other social, economic and environmental harms.

Over the past century, various trends have dramatically raised the importance of urban health, including the tenfold increase in urban populations *(Ritchie et al. 2024)*; expanding urban boundaries that have created social and environmental challenges; the growth and visibility of slums and informal settlements; the growing political, economic, and cultural power of megacities[3] and city networks; a shift in development financing from rural to urban; and emerging data and data sources that have created opportunities for action and drawn attention to inequities.

Urban health has greatly improved, even as urban areas have rapidly expanded. On average, urban dwellers today have better health outcomes than rural residents. Recognition of the social determinants of health has widened awareness of the sources and solutions for ill health, and a growing body of evidence informs approaches to urban health challenges *(WHO and UN-Habitat 2016)*. Conceptual approaches like health in all policies, and global policy frameworks like the Sustainable Development Goals (SDGs) *(United Nations 2015b)* and the New Urban Agenda *(United Nations 2016)* have articulated the vital case for intersectoral action *(Ramirez-Rubio et al. 2019)*.

Place-based methods and settings-based approaches *(WHO 2025b)* have rooted urban health practice in local context, and opportunities for stakeholders and communities to participate in decision-making have multiplied, allowing urban dwellers to shape their environments in healthy ways. Thousands of cities have joined collective movements to improve their residents' health and the settings in which people live, work and

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[1] If the DEGURBA measure of urbanization is used (see Example, on page 9), including towns and semi-dense communities under a universal definition of urban, the number of urban dwellers rises to three in four globally *(Dijkstra et al. 2021)*.

[2] See definition on page xii.

[3] Megacities are cities with a population of greater than 10 million.

play, making political commitments to changes in governance, cycles of careful assessment and planning, and innovations in policies and programmes *(de Leeuw and Simos 2020)*.

As urban areas have grown more important, national governments have complemented local urban health action, including by financing urban improvements (e.g. basic infrastructure or slum upgrading), shaping the collection of urban data (e.g. through censuses), mandating healthier urban environments (e.g. through clean air and water policies), setting standards for health-harming industries (e.g. through advertising restrictions or labelling requirements), and coordinating on health-related transboundary issues (e.g. disease surveillance, pharmaceutical trade or watershed management).

FURTHER DETAIL

WHO has initiated and guided many collective, city-level efforts for urban health, including the global Healthy Cities movement and its regional counterparts, e.g. the WHO European Healthy Cities Network; the Pan American Health Organization's Healthy Municipalities, Cities, and Communities Movement of the Americas; the Regional Healthy City Network of the Eastern Mediterranean Region; and the WHO Regional Healthy Cities Network for South-East Asia. Other WHO-supported initiatives include the Alliance for Healthy Cities and the Partnership for Healthy Cities, and thematic programmes like the WHO Global Network for Age-friendly Cities and Communities, which represents more than 1700 members in 60 countries.[4]

4 See: *de Leeuw and Simos 2020*; *WHO 2020c; WHO Regional Office for Europe 2025; PAHO/WHO 2024; Elfeky et al. 2019; UGHW 2022; AFHC 2007; Vital Strategies 2023* and *WHO 2007, 2023f*.

Continuing challenges for urban health

Yet even where there has been progress in urban health, significant challenges remain. Urban dwellers universally face health-harming situations. For example, almost all are exposed to air pollution levels that exceed WHO's health-based air quality guidelines *(WHO 2023h)*. Gains have not been universal, especially in low-income settings, and urban areas still feature the worst health inequities, with residents of slums and informal settlements – one in four urban dwellers – experiencing the poorest outcomes *(United Nations 2023b)*. These inequities often reflect the inequitable distribution of the determinants of health, such as inadequate water, sanitation and hygiene (WASH), poor housing infrastructure or overcrowding.

Cities everywhere face rising threats from acute events like the COVID-19 pandemic and climate-related disasters. Planetary-scale environmental and social issues – from climate change and biodiversity loss to geopolitical conflict and

digital transformation – are imposing greater uncertainty and new constraints on decision-makers. Over longer timeframes, the urban burden of noncommunicable diseases continues to grow, and changing socio-environmental dynamics favour newly emerging or resurgent communicable diseases, such as dengue.

Over the coming decades, urban contexts and population distribution will change, with more megacities in poorer countries, and growth centred on smaller, less-resourced cities of the developing world. Urban demographics will shift; for example, in lower-income countries – especially in sub-Saharan Africa – youthful populations are driving urban growth, and urban spaces will need to meet their needs *(UN-Habitat 2013)*. Yet ageing is also a significant and growing challenge everywhere *(UN DESA 2023)*.

Vast new urban populations with diversifying needs require massive investments in urban infrastructure and services. Up to three quarters of the infrastructure needed to accommodate future urban populations by mid-century has yet to be built *(GIB Foundation 2014; UNFCCC 2021; United Nations 2021)*. This expansion will occur against a backdrop of accelerating environmental change and tightening resource constraints. In this context, ensuring that new urban landscapes promote health – while sustaining the natural and human systems on which it depends – will be an even greater task.

Overcoming barriers to urban health

Urban health challenges persist, in part, because, despite advances in knowledge, urban health is still often approached in narrow terms that bypass its complexity. Urban health policies and interventions tend to target individual outcomes, sectors, places or population groups based on current needs, without necessarily addressing their interdependencies or long-term consequences. Often, such efforts are led by authorities siloed from one another, with little coordination across activities, sectors or scales, and weak alignment with other societal priorities. Urban stakeholders' activities introduce additional challenges. Although all urban health authorities deal regularly – and often in sophisticated ways – with such multilayered issues, understanding and addressing complexity itself is rarely an explicit element in urban health planning. As such, while there are many notable local instances of integrated, multistakeholder action for better health and well-being *(De Leeuw and Simos 2017)*, more universal, intentional engagement with complexity is an essential lever for transformative progress.[5]

A more strategic approach to urban health is needed, to unlock the multifaceted advantages urban areas can offer. The roots of this transformation already exist, with many of the key requirements – such as integrated practice – long articulated in the work of WHO and others, e.g. on health in all policies, the social determinants of health, healthy and age-friendly cities *(Marmot et al. 2008; WHO and Government of South Australia 2019; de Leeuw and Simos 2020; WHO 2023f)*.

[5] See Section 3.1 on how to structure urban health action to address complexity.

1.2 Guide objectives and structure

Taking a strategic approach to urban health: a guide for decision-makers[6] seeks to motivate and equip urban health policy-makers and practitioners to take a more strategic approach to urban health, to better meet the present and future needs of urban dwellers – including by developing and implementing formal, comprehensive urban health strategies. It is designed for decision-makers at national and subnational levels and their technical staff in the public sector, recognizing their primary responsibility for conceiving and implementing urban health policy and practice. It is also relevant for other urban health stakeholders, including those representing communities, civil society, the private sector and academia. The active participation of all these groups is critical to achieving the highest levels of urban health.

The Guide's five core objectives are to provide:

- clarity about what urban health is and how it relates to other important issues
- a compelling rationale for strategic urban health action
- direction on how to implement strategic urban health action
- a roadmap to translating this direction into local urban health strategy
- concrete examples of how decision-makers are already acting strategically for urban health.

The Guide reinforces or extends prior work on urban health by WHO and others in several ways:

- **It emphasizes the need to understand the overarching political, policy and programmatic context.** No action takes place in a vacuum, and connecting urban health to other societal priorities and strategies is critical to securing the political will to act, and to maximizing efficiency. Highlighting these connections can also make it easier to identify situations where an initial investment of effort and resources can enable more comprehensive, strategic action.[7] This broader policy focus is consistent with the call for integration around the SDGs and other pillars of the 2030 Agenda for Sustainable Development.

- **It explicitly addresses the role of complexity.** Unmanaged, complex urban dynamics can present obstacles to achieving the highest levels of urban health, affecting both the pathways to health outcomes and the performance of systems to secure health. Yet formal tools to understand and address complexity are still novel in the urban health space. Practitioners and policy-makers can design more effective interventions and achieve better outcomes by becoming familiar with such tools and with the real-world patterns that characterize complex systems. While complexity cannot be eliminated, a well-structured urban health strategy can ensure that policies and programmes reinforce, rather than undermine, one another.

[6] Hereinafter, "the Guide".

[7] See Section 3.2 on entry points.

- **It promotes development of enabling frameworks to complement and amplify the impacts of sectoral interventions.** The enabling framework for urban health encompasses cross-cutting issues like governance, financing, data and partnerships – here collectively referred to as the "means of implementation".[8] Together, these factors make urban health policy and practice possible, determining what actions can and will be taken, whether the best available options will be identified, and whether they will be implemented efficiently and effectively.
- **It recommends consolidating urban health action under an overarching strategy.** Urban health policy and practice can be made more strategic by seeking coherence among urban health interventions and alignment with other societal priorities, and by considering how complexity affects observed patterns of health. However, the best outcomes result from a strategy embraced by all relevant stakeholders that transparently articulates goals, roles and resources, and creates common ground for action. Comprehensive, formal urban health strategies are currently rare, but are becoming more prevalent, and are valuable at any scale of decision-making.

1.3 What is urban health?

Health has always informed urban design, planning and management, dating back to ancient times and covering issues including disaster risk reduction, environmental management, public safety and health systems. Systematic professionalization of public health in cities began in earnest in the 19th century, amplified by concerns about ill health in the context of burgeoning urban conglomerations and environmental challenges.

NOTE

"Cities" and "urban areas" are sometimes used interchangeably but mean different things. Cities are political or administrative units governed by local authorities, with the power to create, manage and enforce rules. Urban areas are geographical units defined by the presence of typical urban characteristics (e.g. density). Cities and urban areas do not necessarily align, with some urban areas transcending city boundaries or touching multiple jurisdictions *(Duminy et al. 2023)*.

[8] See Section 3.3 on means of implementation.

Today, ideas about what urban health means and how it should be managed have evolved *(Grant et al. 2024)*. The emergence of a universal, human rights-based legal framework for health, as articulated in the WHO Constitution *(WHO 1948)*, shifted expectations and created a legal recourse for demands, leading to a greater focus on health equity. Conceptual work on the social determinants of health decisively highlighted the structural factors that define healthy lives. Recognition of the cross-cutting basis of health determinants – and of the holistic nature of health itself, encompassing physical, mental, social and spiritual aspects – made clear that health could not be achieved solely through the health sector. This spurred calls for a more eco-social, integrated approach, to replace siloed efforts rooted in a biomedical perspective. Complexity science drove greater recognition of the role of complex systems in urban health actions and outcomes. Meanwhile, where cities were once perceived as potentially problematic for society and human development, they are now widely embraced as sources of solutions.

This modern perspective makes clear that reaching the highest levels of urban health depends on coordinating the activities of many different stakeholders – yet varying backgrounds, ways of working and objectives guarantee that they will approach these issues in quite different ways. Thus, developing shared understanding is a critical part of achieving urban health goals, and terminology adopted by all stakeholders underpins effective coordination, communication, negotiation, shared goal setting, collective monitoring and other activities. The Guide adopts the following definition of urban health *(Siri et al. 2025)*:

> **Urban health n. 1** the art and science of improving health and health equity in urban areas, including by securing the resilience and sustainability of health-supporting natural and human systems; more than the sum of its parts, it ensures that people, institutions, and environments interact to create healthy situations and that every person has the chance to thrive, now and into the future. **2** a measure of the health of urban dwellers as continually created by their complex interactions with urban physical and social environments, and by the decisions and institutions at all scales that shape these interactions.

This definition has important implications for who urban health seeks to benefit (its subjects), who is responsible for undertaking urban health action (its agents), what kinds of activities it encompasses (its scope), and how it relates to other fields.

1.3.1 The subjects of urban health

Urban health supports the well-being of urban dwellers, and of visitors such as circular migrants,[9] commuters and tourists who are exposed to urban determinants of health *(Siri et al. 2025)*.

NOTE

Actions in and around urban areas affect those beyond their boundaries in many ways *(Siri et al. 2025)*, which may be important to consider in wider health planning. These include:

- spread of environmental pollutants (e.g. air pollution)
- intensified transmission of infectious diseases (e.g. COVID-19)
- economic and social processes in urban hinterlands (e.g. health impacts of agriculture to support urban consumption)
- inter-urban exchanges of goods and knowledge (e.g. trade, culture, innovation and policies)
- urban influences on planetary systems (e.g. biodiversity, climate)
- urban exposures among temporary visitors (e.g. circular migrants, commuters).

Local definitions of "urban" may affect who is covered by urban health action. There is no universally accepted definition; built-up land and dense concentrations of people, institutions, goods and services are widely recognized features of urban areas, but local definitions vary in terms of what they prioritize (e.g. population size or residents' typical employment) and what thresholds are considered urban *(Ritchie et al. 2024)*. In some cases (e.g. where comparisons are needed), it makes sense to rely on classifications based on universal data, such as gridded population data.

[9] Circular migrants move temporarily and usually repeatedly between their home and host areas, typically for employment purposes.

EXAMPLE

The Degree of Urbanization (DEGURBA) offers a global definition of urban areas based on universal gridded density and population thresholds. Because it recognizes towns and semi-dense areas, urban population estimates under DEGURBA are substantially higher than those using national definitions, especially in Africa and Asia *(Dijkstra et al. 2021)*. For example, DEGURBA estimated a global urban population share of 74% in 2015, compared with an estimated 54% using national definitions; in most parts of Africa and Asia, the difference was even higher *(Dijkstra et al. 2021)*. DEGURBA has been ratified by the UN Statistical Commission *(UN Statistical Commission 2020)* and adopted by various UN bodies and other stakeholders.

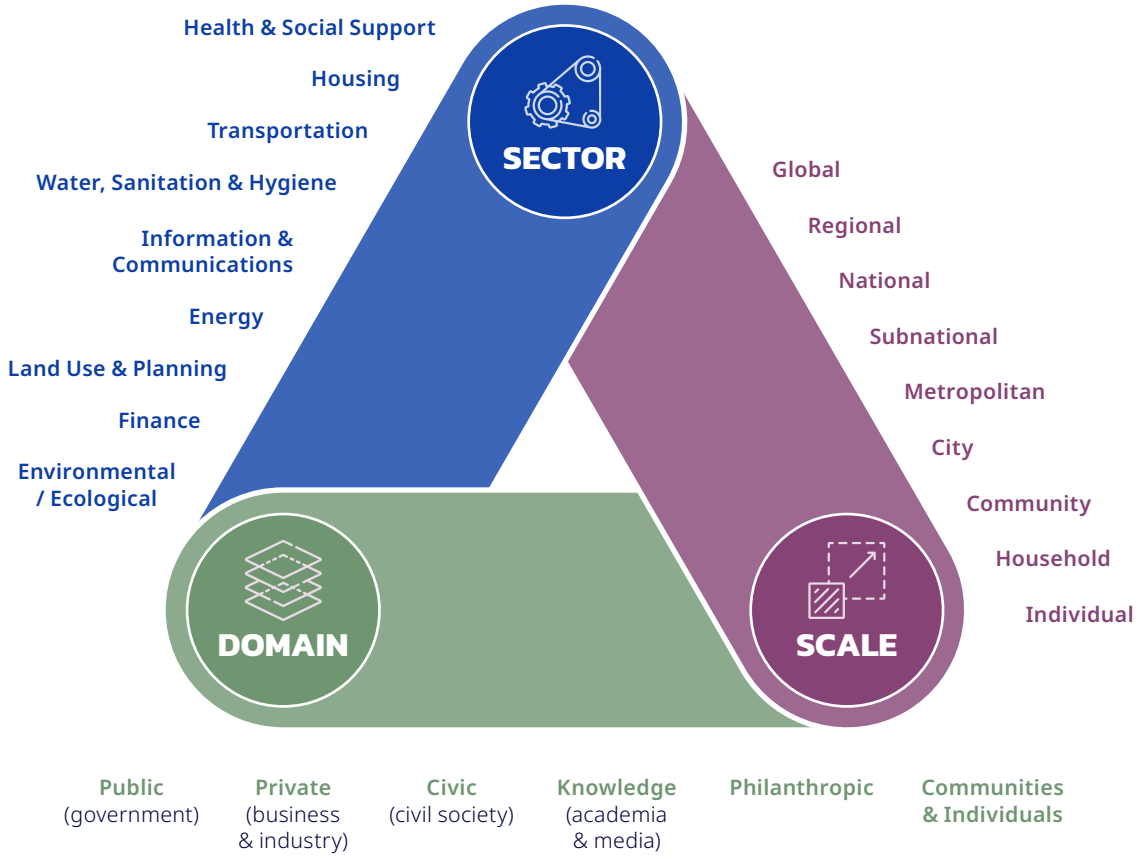
Urban health embraces all urban dwellers, but persistent inequities are a strong argument for targeting disadvantaged populations, including by focusing on inequitable patterns of the social, environmental, economic and commercial determinants of health and their impacts *(Marmot et al. 2008; Lee K et al. 2022; Lee H et al. 2023)*. Greater or dedicated resources and an explicit focus on excluded or otherwise disadvantaged populations are often needed to ensure that benefits reach all urban dwellers, especially in slums and informal settlements, where the greatest inequities exist. Because such groups typically bear the brunt of other societal ills, action on health inequities can also benefit other societal goals.

Urban health also encompasses people across all regions and types of urban area. Wealthier, larger cities in high-income countries are overrepresented in urban health research and innovative practice *(Taylor et al. 2018; Mesa-Vieira et al. 2023)*. Urban dwellers in secondary cities and lower-income contexts can therefore gain much from a broader knowledge base that fosters contextually relevant approaches to urban health challenges.

1.3.2 The agents of urban health

Because every element of the urban milieu influences health, all urban stakeholders' actions have health consequences (see Fig. 1).

Fig. 1
The multifaceted nature of urban health challenges and solutions.



Urban health arises from the interacting dynamics of actions taken by individuals and institutions representing many different sectors, scales and domains. These actions mutually influence one another and interact with the social and physical features of the urban fabric to generate health outcomes. Here, "sector" indicates thematic focus, whereas "domain" indicates individual or institutional actors' societal category. The listed sectors, scales and domains are not intended to be exhaustive.

Source: *(Siri et al. 2025).* CC BY 4.0.

Some sectors have especially well-recognized roles in urban health. At both national and local scales, the health sector promotes health, implements prevention and treatment, and illuminates causal pathways, making other stakeholders aware of their health impacts, and presenting evidence and arguments for action. Other urban sectors with significant health impacts include housing, transport, land use/parks, water, sanitation, food, energy, education, environmental management and emergency preparedness. The private sector and civil society also contribute strongly to health outcomes. This breadth of influences means that urban health action must transcend health systems; effective solutions necessarily depend on managing the inputs of a variety of stakeholders.

Depending on local context, institutional responsibility for urban health may best lie with the health sector, or with other sectors or cross-sectoral bodies. Such responsibility includes the authority to set agendas and make rules, evaluate and respond to perceived challenges, and coordinate different actors. Authority must span multiple scales: national-level policies, development plans, budgets and political priorities shape cities and create an overarching framework for health *(Marchal et al. 2023)*, whereas local action (e.g. city-level or participatory) is more directly tied to prevailing conditions, priorities, resources and opportunities in specific urban areas, and is often more directly related to outcomes. No single authority structure is ideal for urban health everywhere, but deciding how best to govern urban health is essential anywhere *(Siri et al. 2025)*.

1.3.3 The scope of urban health

Because virtually any action relevant to urban areas will have health impacts, it can be challenging to define the scope and limits of formal responsibility for urban health. Meeting urban health needs requires not only health-sector action, but activities across transport, housing, urban planning and many other sectors *(UN-Habitat and WHO 2020)*. Deciding what falls under the direct remit of urban health authorities – as opposed to activities which should be shared more widely across government or where urban health authorities play only an advisory role – is important for functions including coordinating across government entities, navigating political processes, estimating potential costs and benefits, allocating adequate resources, and implementing the most health-positive programmes and policies.

The scope of formal urban health authority varies with context and may, in practice, be defined by resources; the importance assigned to health relative to other priorities; perceptions about the causes of ill health, or political factors. Those with institutional responsibility for urban health are often formally restricted in the actions they take. For example, upstream interventions that extend broadly beyond the health sector (e.g. 15-minute city plans) are sometimes seen as outside the remit of urban health, even where they have profound health impacts. Yet a narrow focus on determinants with the most direct health impacts may undervalue opportunities to address upstream factors with greater influence.

Governments laying the institutional groundwork for urban health authority should therefore provide not only for activities like reducing air pollution that directly affect health outcomes, but for upstream actions with indirect impacts, such as increasing the supply of affordable housing; policies like universal health coverage that affect urban health at broader (supra-urban) scales than

individual cities; and interventions related to other stakeholders that influence urban health, such as regulating commercial marketing practices.

While attempting to manage all urban issues under the rubric of urban health would not be efficient or effective, urban health policy and practice should:

- involve stakeholders whose actions influence health outcomes most directly or with the greatest impact
- influence stakeholders whose actions are further upstream of health outcomes or have lesser direct impact
- inform all urban stakeholders about health determinants and outcomes, and the form and likely impact of actions *(Siri et al. 2025)*.

While local arrangements will vary with context and should draw on careful situational analyses, decision-makers should ensure that the mandates, powers and resources available to those assigned institutional responsibility for urban health are consistent with these goals.

NOTE

Urban health and public health are closely related but understood in different ways.

Conceptually, urban health applies public health approaches to benefit urban dwellers. The definition of urban health adopted above draws directly on widely accepted definitions of public health *(Siri et al. 2025)*.

Institutionally, public health is often interpreted narrowly as a responsibility of the health sector (e.g. of the Ministry of Health at national scale, or of a city-level public health department), whereas urban health demands integrated governance across sectors and scales, and systemic engagement with a broad range of determinants, activities and actors. Traditional public health interventions designed for universal application (or conceived in non-urban contexts) may underperform or fail in urban areas.

Stakeholders – including those defining the scope of authorities and those taking decisions in health and other sectors that impact urban health – may perceive that urban health is simply "public health in cities", but this belief can constrain needed action. Well-managed urban health strategy can be, and often is, led by the public health sector – yet there is value in framing these concepts as distinct areas with complementary strategies.

NOTE

Urban health is different from Healthy Cities: the latter is a programmatic approach to the practice of urban health that strives for a higher state of urban health.[10] Rooted in health promotion, it focuses on city-level action on the social determinants of health. In contrast, urban health encompasses a wider set of models for policy and practice. Whereas Healthy Cities is city-focused – deriving authority and acting primarily through the processes and institutions of city governance – urban health addresses the extensive set of actors and processes that influence urban areas and the health of urban dwellers, including in non-governmental domains and at supra-urban scales. The Healthy Cities movement spans many networks, thousands of individual cities and a host of activities, but much urban health work happens outside its umbrella. These constructs are highly complementary: for example, Healthy Cities programmes can provide useful entry points for urban health action.[11] Conversely, broadening the scope of Healthy Cities work to consider action at higher levels of governance and through non-governmental stakeholders can provide new insights and opportunities.

[10] Related city networks like the Partnership for Healthy Cities (oriented towards noncommunicable diseases) and the Global Network for Age-Friendly Cities and Communities *(WHO 2018)* share similar functions, though focused on different objectives in different contexts.

[11] See Section 3.2 on entry points.

International organizations like WHO play a crucial role in providing guidance, tools and frameworks to support national and local urban health action (see Box 1).

Recreational spaces in Andalucía. Spain: 2025. © Thomas Dorgler.

Box 1

WHO's role in urban health

For decades, WHO has acted to advance urban health, driving conceptual and institutional innovation, providing technical guidance and support, and helping set the action agenda. Among other activities, WHO has:

- fostered an aspirational framework for urban health – for example, through global resolutions on urban health development, air pollution and health emergency preparedness;[12]
- provided thought leadership, including through the WHO Centre for Health Development (Kobe Centre), which drew global attention to urban health inequities *(WHO and UN-Habitat 2010)*, and the cross-cutting Urban Health unit established under WHO's Thirteenth General Programme of Work 2019-25 *(World Health Assembly 2018)*;
- fostered city-level action and inter-city knowledge exchange and support networks, including through regional guidance on Healthy Cities *(e.g. WHO EMRO 2010; WHO WPRO 2016; WHO European Healthy Cities Network 2022; PAHO/WHO 2024)* and the WHO Global Network for Age-friendly Cities and Communities *(WHO 2018)*;
- worked directly with Member States and cities to assess and address urban health needs – for example, through the WHO Urban Health Initiative *(WHO 2025e)* and the Initiative on Urban Governance for Health and Well-being *(WHO 2025c)*;[13]
- developed policy guidance for emerging urban health challenges – for example, through the Framework for Strengthening Health Emergency Preparedness in Cities and Urban Areas *(WHO 2021b)*, which responded to the COVID-19 pandemic's impacts on urban areas;
- mobilized targeted advocacy on behalf of specific urban health issues – for example, the Breathelife campaign on air pollution *(CCAC 2023)*;
- assessed the state of knowledge and defined global research priorities through the urban health research agenda *(Roebbel et al. 2022)*; and
- developed tools to support urban health action, including in sectors like transport (e.g. the Health Economic Assessment Tool (HEAT) for walking and cycling) *(WHO Regional Office for Europe 2023)* or green space (e.g. the GreenUR tool, which measures green

[12] See, respectively, WHA44.27 *(World Health Assembly 1991)*; WHA68.8 *(World Health Assembly 2015)* and WHA75/7 *(World Health Assembly 2022)*.

[13] See Box 3 on page 90.

space availability and accessibility) *(WHO 2025a)*, and on cross-cutting issues like health equity, e.g. through the Urban Health Equity Assessment and Response Tool (Urban HEART) *(WHO Centre for Health Development 2010)*.

One important channel of work has involved longstanding direct collaboration with the United Nations Human Settlements Programme (UN-Habitat). WHO and UN-Habitat are, respectively, the primary global agencies dealing with health and human settlements, including urban areas. This collaboration has resulted in landmark publications on urban health, including:

- Hidden Cities: Unmasking and Overcoming Health Inequities in Urban Settings *(WHO and UN-Habitat 2010)*
- Global Report on Urban Health: Equitable Healthier Cities for Sustainable Development *(WHO and UN-Habitat 2016)*
- Integrating Health in Urban Territoral Planning a Sourcebook *(UN-Habitat and WHO 2020)*.

1.4 What is a "strategic" approach to urban health?

The Guide advocates for a strategic approach to urban health *(WHO 2024f)*. A strategy is a plan of action or policy designed to achieve a major or overall aim; strategic action relates to identifying long-term or overall aims and interests and the means to achieve them. A strategic approach implies a comprehensive plan and the corresponding set of policies, processes and resources needed to attain and sustain the highest possible level of health for urban dwellers. It accounts for the diverse determinants of urban health, and for how actions taken for urban health and other societal goals interact with one another, with urban stakeholders and with the urban milieu itself over different time scales.

This contrasts with a more basic approach in which urban health actions are designed individually to meet specified health needs, without necessarily considering interactions, broader alternatives or long-term consequences. An action can benefit urban health and still not be strategic. Among other things, it might preclude another action that would have a greater impact, or it might trade short-term gains for long-term risks. For example, promoting a switch from internal combustion to electric vehicles could yield health gains from reduced air pollution and, over the longer term, from lower climate impacts, but would miss out on the potentially far greater health, environmental and economic benefits of shifting to public and active transport.

Strategic action is more concerned with the combined effect of suites of actions than with individual actions. For example, providing green space is an important urban health intervention, but without also rerouting public transport to make it accessible, and taking steps to ensure it is perceived as safe, it may never achieve its potential for improving health *(Hartig et al. 2014)*. A strategic approach provides the means for urban health authorities to understand and account for these relationships. Strategic action also focuses not only on what is implemented (the intervention), but on the factors that allow it to be implemented (the enabling framework), recognizing that urban health needs and opportunities are constantly changing. This Guide does not present recommendations for sectoral interventions, which are well-developed in many contexts, but focuses on how to support an enabling environment for strategic action.

What is strategic varies according to place and time. Local context – including the physical, social and institutional environment; stakeholders; history; and culture – will determine what specific actions are most likely to achieve the goals of urban health. While the form of strategic action, including the actions taken and how they are managed, is determined by context, a series of elements is essential to a strategic approach anywhere *(WHO 2024f)*. Strategic action should be:

1. **Integrative:** Encompassing, involving and empowering all stakeholders whose actions contribute to urban health; raising collective awareness of risks and opportunities; creating a shared vision prioritizing collaboration toward unified goals; supporting intersectoral connections and joint work; fostering coherence in action, diversity in ideas and grassroots ownership.

2. **Contextualized:** Tailoring solutions to local conditions, culture and values; recognizing that social, environmental, economic and commercial determinants of health vary widely, as do stakeholders and their needs, priorities, capabilities, norms and resources; using place-based mechanisms to involve local actors in urban health planning, policy and practice.

3. **Complexity-informed:** Acknowledging the dynamic complexity of cities and their relationships to broader interdependent systems (e.g. climate, global trade); recognizing feedback among social, environmental, economic and commercial determinants of health and health outcomes; avoiding unintended consequences, managing systemic conflicts and capitalizing on synergies.

4. **Equity-oriented:** Recognizing that populations in situations of vulnerability face heightened health risks, that exclusion exacerbates health inequities, and that these are intersectional and compounding; devoting the effort and resources to rectify injustice and counter the self-perpetuating nature of inequities; leveraging urban health decision-making to prevent and reduce inequities among cities, citizens, neighbourhoods and population subgroups.

5. **Continuously improving:** Regularly updating situational awareness through formal and informal mapping, assessment, monitoring and evaluation; always seeking a higher level of health based on best information about present conditions and likely futures; swiftly reacting to changing circumstances; constantly learning from local experience, accumulated evidence, and engagement with peers and other stakeholders.

6. **Efficient:** Taking advantage of cross-sector and cross-scale synergies and avoiding incoherence; pursuing integrated decision-making where appropriate; repurposing

existing assets, resources and mechanisms to mitigate the administrative and financial costs of new policies or structures; improving returns on investment where feasible.

7. **Sufficient:** Developing and assigning the financial and human resources needed to effectively anticipate, plan for, respond to and overcome urban health challenges; allocating resources according to needs; investing in capacity building to meet current and future requirements.

8. **Forward-looking:** Ensuring that short- and medium-term actions address immediate needs, yield tangible results and demonstrate progress, while emphasizing long-term planning to lay strong foundations and sustainable mechanisms for healthy futures; recognizing the impact of current actions on future options (e.g. via path dependency and lock-in).

By improving alignment, addressing conflicting goals, fostering integration and accounting for complexity, a strategic approach allows for better health outcomes; mobilization and more efficient use of limited resources; and support for other societal goals. It also fosters resilience – essential for sustainably achieving high levels of urban health – allowing decision-makers to respond flexibly to dynamic urban health challenges.

Simply incorporating strategic thinking can improve most urban health policy and practice at community, city or national scales. At a more sophisticated level, intermediate plans may foster integrative, strategic action for a subset of systems that determine urban health outcomes – for example, an individual sector like transport or a specific challenge like urban heat. Such plans can become entry points for broader action.[14] The strategic approach culminates in a unifying strategy that aligns all individual urban health actions toward a common vision, and provides the authority structures, mechanisms and resources needed to achieve and sustain it.

The Guide's push for strategic action is simply an appeal for approaches that match the modern understanding of urban health. The elements are familiar from prior work on health in all policies, health promotion, settings-based approaches and the social determinants of health. In many ways and in many contexts, the strategic approach has begun to emerge already. For example, through Healthy Cities networks, cities target governance reforms and create broad City Health Plans under the control of intersectoral leadership entities. Age-friendly cities integrate community members into priority-setting and decision-making to foster strategic action for healthy ageing. Complex challenges like climate adaptation, heat-health risks and emergency management are sparking cross-sectoral integration at city and national levels. Many of these examples offer entry points for a long-term, comprehensive urban health strategy.

Urban areas present unparalleled opportunities for improving health and well-being, but can also exacerbate risks and inequities. The interactions between urban environments, people and institutions demand an approach that transcends isolated interventions, aligning efforts across sectors, institutions and policies. Such approaches can minimize risks and help decision-makers take efficient action to achieve and sustain urban health goals.

[14] See Section 3.2 on entry points.

Photo credit (next page): Elderly people playing table tennis for exercise China, 2019. © WHO.

CHAPTER 2

The multifaceted case for urban health

Playing table tennis in Sun Park. Beijing, China: 2019. © WHO.

Despite growing recognition of the challenges facing urban health, it remains undervalued, lagging in visibility in policy and politics *(Shawar and Crane 2017)*. Compared to more prominent discourses on issues such as sustainability, health care, climate action and economic development, urban health may be downplayed or perceived as a niche issue, for several reasons:

- **Conceptual fragmentation within the field leads to inconsistent messaging.** Distinct urban health paradigms emphasize different scopes of action, priorities and recommendations *(Kim et al. 2022)*. The lack of coherence makes it difficult for the urban health community to establish a unified agenda or advocate convincingly for urban health policy and practice *(Shawar and Crane 2017)*.

- **The cross-cutting nature of urban health challenges creates a collective action problem.**[15] Traditional framing leads important stakeholders in other sectors to see urban health as a health-sector responsibility, disregarding the potential impacts of their own actions. But health agencies rarely have the authority, resources, information or knowledge to address broader determinants originating in other sectors – and may not recognize their own role or mandate in this broader space. This lack of clarity reduces the political viability urban health.

- **The complexity of urban systems makes attribution and prediction difficult.** Pinpointing causes and assessing the potential or actual impacts of interventions is challenging in complex systems. While advances in epidemiological methods and computational modelling have enhanced predictive capacities, data limitations and the challenges of fully mapping such systems hinder the formulation of evidence-based best practices – and thus effective advocacy for urban health.

- **Differing incentives lead to resistance or conflict.** Addressing urban health inequities implies redistributions of power and resources, often prompting resistance from entrenched interest groups *(Yerramilli et al. 2024)*. Some actors – for example, some commercial entities – may oppose urban health priorities due to conflicting interests and incentives, contributing to delays, political opposition and potentially health-harming practices.

Better articulating what different stakeholder groups, government entities, advocates for other objectives, and society itself stand to gain from urban health action offers multiple benefits, including:

- convincing more decision-makers to act to improve urban health
- arming receptive decision-makers with convincing arguments for action and investment
- influencing and equipping interest groups and advocates to demand urban health action and investment
- mobilizing the private sector and civil society to seek innovative solutions – and the public to adopt them
- motivating sectoral actors, communities and other stakeholders to cooperate and participate in improving urban health.

[15] A collective action problem is a "problem… posed by disincentives that tend to discourage joint action by individuals in the pursuit of a common goal" *(Dowding 2013)*.

FURTHER DETAIL

WHO recently commissioned a series of issue papers *(F1000 Research 2025)* to better understand the rationale for urban health action and its relationship to other issues driving decision-making at city and national levels. These papers cover many of the issues in this section in greater depth.

By strengthening advocacy and making the case for urban health more compelling, stakeholders can overcome existing barriers, mobilize action and drive meaningful improvements in health and health equity among urban dwellers, along with a range of co-benefits for other goals and sectors.

2.1 Key perspectives on the value of urban health

2.1.1 The epidemiologic case for urban health

Urban dwellers account for a significant burden of global disease. While rigorous estimates are not yet available, a crude extrapolation based on mortality figures suggests that 30–35 million deaths per year occur in urban areas – more than half of all deaths, in line with the proportion of urban population *(Garber et al. 2024)*. Efforts are underway to produce more detailed estimates for specific regions *(Matkovic et al. 2023)*. The fraction of global health represented by urban areas will increase with ongoing urbanization.

Urban dwelling is linked to a range of important health challenges. For example, air pollution causes nearly 7 million deaths a year *(WHO 2021f)*; while not all air pollution sources or risks are urban, nearly every urban dweller breathes polluted air.[16] In developed-world contexts, urban living has been associated with higher levels of mood and anxiety disorders *(Peen et al. 2010)*. Suboptimal urban design has been associated with substantial health impacts from road transport injuries *(Thompson et al. 2020)*. Transport decisions play a significant role in health through their impacts on, for example, physical activity, environmental pollution and exposures, and green space *(Khreis et al. 2016; WHO 2025d)*. They also influence access to essential services,

[16] According to WHO, over 99% of the global population breathes air that does not meet its air quality guidelines *(WHO 2022a)*.

education and employment opportunities, and other social determinants of health. Urban areas are highly exposed to a range of climate risks *(Filho et al. 2019)*. Heat-island effects make cities uniquely susceptible to heat-health risks, and because cities often arise near coastlines or rivers, many face storms and flooding *(McBean et al. 2017)*. Urban areas are prone to health-harming noise pollution *(APHA 2021)*. High density and mobility make urban areas hotspots and drivers for infectious disease outbreaks, including COVID-19 *(Sharifi and Khavarian-Garmsir 2020)*, and urbanization can create favourable conditions for vector-borne diseases like dengue, chikungunya and Zika *(Kolimenakis et al. 2021)*. Through impacts on obesity *(Malik et al. 2013)*, physical activity, nutrition and exposure to harmful substances like environmental pollution or tobacco smoke, urbanization is also driving the global epidemic of noncommunicable diseases *(UN Interagency Task Force on NCDs 2016)*.

Slum dwellers face particularly high health risks and poor outcomes. The most significant urban health challenges are found in slums and informal settlements, which house approximately 1.1 billion people today, and are likely to triple in scale by 2050 *(United Nations 2023b)*. Residents face elevated exposures to many hazards; decreased access to basic services, and a lack of health-promoting opportunities. Because they are unplanned, slums are often in environmentally risky areas – like floodplains and slopes – which would otherwise be off-limits *(UN-Habitat 2024)*. High population density and gaps in sanitation, waste management and clean water provision increase infectious disease risk. Because they tend to lack public or green spaces, slums offer few opportunities for healthy recreation, socialization or play. Residents often have limited access to safe, nutritious food. The combined effects of these overlapping factors lead to elevated risks for ill-health outcomes *(Ezeh et al. 2017)*. Health outcomes in slums and informal settlements are often even worse than in rural areas *(Mberu et al. 2016)*.[17]

Urban areas often feature stark spatial and social gradients in health determinants and outcomes, and may experience rapid improvements or declines. Substantial differences in health outcomes within and between cities reflect the impacts of inequitable variation in the social determinants of health, and the policies and practices affecting health. Inequities surface in cities of all types in all regions, often tied to economic inequality or to historical or current discrimination. These differences suggest that strategic urban health action to address the needs of specific communities or population groups can deliver important improvements *(Lee et al. 2023)*.

[17] It is worth noting that, nevertheless, slums often feature exceptional resilience, innovation and creativity in tackling health challenges *(Nsoesie and Mberu 2025)*.

EXAMPLE

A study in 363 cities across nine Latin American countries observed major differences in life expectancy (8 years for women and 14 for men) between the highest- and lowest-performing cities, as well as substantial heterogeneity in the causes of death *(Bilal et al. 2021)*. Within six major cities, the same study documented large spatial differences in life expectancy – as high as 17.7 years when comparing women at the 90th and 10th percentiles within the boundaries of Santiago, Chile *(Bilal et al. 2019)*.

In addition, the general improvement in health over time in cities everywhere shows that urban health action can be highly impactful, particularly in cities with lower base levels of health. Although many health impacts appear only over the long term, good policy and practice can still produce rapid improvements in health, while poor approaches can lead to rapid deterioration.

There are many effective, cross-cutting urban health interventions. The tools and knowledge to significantly improve urban health are widely available. Examples abound of effective policy and practice, both historically and today. For example, during the Industrial Revolution, the rollout of modern water and sanitation infrastructure dramatically reduced urban illness and mortality *(Harris and Helgertz 2019)*, helping reverse the so-called "urban penalty" of ill health. Today, effective, cross-cutting urban health interventions include, among others, low emissions zones to reduce air pollution *(Chamberlain et al. 2023)*, open streets programmes (or *ciclovías*) to increase physical activity and safety *(Velázquez-Cortés et al. 2023)*, urban heat strategies to cool cities and improve responses to heat emergencies *(Jay et al. 2021)*, public smoking bans to protect lung health *(Meyers et al. 2009)*, and food marketing restrictions to moderate health-harming commercial practices *(Boyland et al. 2022)*.

Most urban health issues are complex and depend on action across sectors and scales. For example, efforts to protect urban dwellers from heat may incorporate inputs from areas including architecture, urban planning, materials science, green and public space management, energy, safety and security, water and community mobilization. Slum upgrading requires inputs from legal authorities, utilities, land developers and communities. Tackling air pollution may involve the transport and energy sectors and fiscal authorities – e.g. in designing low-emission zone charges – but also the implementation of nature-based solutions, health communications campaigns, household-level energy interventions (such as clean cookstoves), and other measures. These issues tend not to respond well to single, simple interventions, making their complexity a powerful epidemiological argument for strategic action.

Given that health is a human right, a basic objective for all governments and a foundational goal of development, there is a strong epidemiological case for a more comprehensive and more strategic approach to urban health.

2.1.2 The economic case for urban health

There is substantial economic justification for acting on urban health, and good reason to favour strategic approaches. Urban health issues give rise to significant costs; investing in health can reduce those costs, offer substantial co-benefits, and generate significant economic gains at individual, national and global scales.

The global costs of ill health are large and rising. Health is one of the most significant expenditures for governments, especially in highly developed countries – which are also generally more urbanized. Global spending on health in 2021 was estimated at US$ 9.8 trillion, or 10.3% of the world's GDP *(WHO 2023d)*.[18] In many contexts, health costs are rising, for reasons including population ageing, more expensive treatment measures and increasing climate impacts. Reducing significant and growing health expenditures represents a promising opportunity for government savings.

The costs of urban health challenges are also high. For example, economic impacts from heat-related mortality due to urban heat-island effects in European cities have been estimated to be similar to those from air pollution,[19] and comparable in order of magnitude to the costs of transport and rent – key factors influencing urban planning *(Huang et al. 2023)*. In India, the health-related costs of inadequate sanitation were estimated at US$ 35 billion per year, with the highest per capita impacts in urban areas *(WSP 2011); (Van Minh and Nguyen-Viet 2011)*. In Barcelona, Spain, the costs of road traffic crashes were estimated conservatively at €367 million – approximately 20% of the city budget, though this proportion reached over 40% under less conservative assumptions *(García-Altés and Pérez 2007)*.[20] Urban health costs face the same upward pressures as those affecting global health generally. A study in Quebec, Canada, estimated that total heat-related health costs – including for direct care, indirect impacts on productivity, and intangible costs – would increase three- to fivefold by 2050, depending on the warming scenario *(Boudreault et al. 2025)*. Population ageing is also associated with increased medical costs, particularly for long-term care; this reflects not only changing health needs, but the fragmentation and inadequacy of care systems unable to keep up with these shifts *(de Meijer et al. 2013; WHO 2020b)*. The combination of urbanizing populations, higher urban health costs and growing risks means that urban health is set to account for more global health spending in coming decades.

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[18] In 2019, the last pre-pandemic year, global health spending was estimated at US$ 9.2 trillion *(Global Burden of Disease 2021, Health Financing Collaborator Network 2023)*.

[19] "On an annual basis, the median economic impact of UHI heat-related mortality is around one-fifth that of PM2.5-related mortality and ~1.2 times that of ozone-related mortality" *(Huang et al. 2023)*.

[20] Globally, road traffic crashes may cost most countries 3% of their gross domestic product *(WHO 2023g)*.

FURTHER DETAIL

The WHO Health Economic Assessment Tool (HEAT) *(WHO Regional Office for Europe 2023)* supports assessments of the health and economic impacts of walking and cycling, and of how shifts between active and motorized travel modes affect carbon emissions. It is a user-friendly, web-based tool to assess the implications of current levels of active travel and the potential health and economic benefits or harms of policies, strategies and projects that shift travel behaviour.

Investing in health has broad economic benefits for individuals and states. Robust evidence shows the economic benefits of investing in health. At the individual level, good health boosts labour productivity, school attendance and cognitive capacity, savings and investment, and access to resources, and improves the ratio of workers to dependents *(Ruger et al. 2012)*. At the national level, it provides similar benefits. A major review found that reductions in mortality accounted for 11% of recent economic growth in low- and middle-income countries – returns from health improvements were even higher when considering the value of life years gained, accounting for 24% of full income growth.[21] Improving mortality rates in low- and middle-income countries to those seen in the highest performing middle-income countries – a feasible objective – would exceed the costs of needed investments by a factor of 9–20 *(Jamison et al. 2013)*. Similar evidence has been developed for more specific interventions: for example, for every US$ 1 invested in key risk reduction strategies for noncommunicable diseases – such as tobacco control or promoting physical activity – countries can expect a return of US$ 7 from reduced health costs and improved productivity *(WHO 2021d)*.

There are good reasons to expect urban health interventions to yield higher economic benefits and to be more feasible than equivalent rural or broad-based interventions. Because urban areas are highly productive, generating over 80% of global GDP *(McKinsey Global Institute 2011)*, poor urban health outcomes impose greater economic costs in lost productivity than equivalent outcomes in rural areas. Urban areas also feature higher health care costs than rural areas, largely due to utilization of expensive treatments. Urban health interventions should therefore offer proportionally higher economic benefits. Cities also have more resources and more sophisticated management and control systems, along with the many benefits that accrue from agglomeration. For example, co-location of people facilitates knowledge exchange and encourages the development of social capital; clustering commercial firms (and co-locating them with consumers) makes production more efficient. These factors make complex urban health interventions more feasible.

[21] Full income growth is the sum of the income growth measured in national income accounts and the value of additional life-years gained in a given period *(Jamison et al. 2013)*.

Economic evaluation of urban health interventions presents challenges, but most studies indicate strong value for money. A variety of factors complicate economic evaluation of urban health interventions, including attribution of effects and costs in complex urban systems, a lack of data – especially for disaggregated impacts – and a proliferation of methodologies that are inconsistently applied and can lead to different interpretations. Reviews emphasize the need for more – and more methodologically consistent – economic evaluation of urban health interventions – for example, regarding green and blue space *(Raza et al. 2024; Tate et al. 2024)*, integrated vector management *(Marcos-Marcos et al. 2018)*, community-based health promotion *(Weber et al. 2024),* active transport *(Brown et al. 2016; Bland et al. 2024)* and housing *(Mason and Brown 2010; Fenwick et al. 2013)*. However, many examples exist of good-value urban health interventions. For instance:

- In a review of 17 economic evaluations of large-scale active transport infrastructure implementation, costing over US$ 3 million, all studies demonstrated positive value *(Bland et al. 2024)*.
- A review of 104 economic evaluations of the health benefits of air pollution control found that around 70% of studies reported that economic benefits outweighed relative costs *(Wang et al. 2024)*.
- A review of evaluations of health-focused housing interventions in the USA or Canada found that the eight studies that quantified economic benefits reported positive returns on investment *(Davison et al. 2020)*.

Strategic action should yield greater economic benefits. Maximizing economic returns from urban health action requires adopting the most cost-effective interventions, applied in contexts where their impacts will be greatest (such as among the most vulnerable populations), with efficient implementation that addresses potential systemic obstacles and synergies. The strategic approach described in this Guide will help policy-makers and practitioners gain situational awareness about urban health, understand the dynamics of urban systems, predict their impacts on implementation and outcomes, and create effective cross-sectoral, cross-scale and cross-domain mechanisms to address them. Increased information, coordination and efficiency can further amplify economic benefits.

Case Study 1

Economic evaluation of urban environment interventions in the United Kingdom: The Health Appraisal of Urban Systems (HAUS) Model

Policy-makers and private-sector actors are increasingly aware of the complex nature of urban health challenges and the value of capturing the costs and potential economic benefits of interventions in this space.

In the United Kingdom, the Tackling Root Causes Upstream of Unhealthy Development (TRUUD) project seeks to generate these kinds of insights. TRUUD's Health Appraisal for Urban Systems (HAUS) tool is an innovative, systems-based approach to the economic evaluation of interventions in the urban environment *(Eaton et al. 2023)*. HAUS has three main features:

- synthesis of quantifiable evidence on health impacts associated with the urban environment
- estimation of health impacts from specific urban development interventions
- assessment of the economic costs and benefits of these health impacts, including unit costs for more than 70 health outcomes.

Focusing on upstream urban development processes, the tool provides valuable information for urban health policy-makers and private-sector actors, facilitating rapid decisions and scenario comparisons in a fast-moving policy environment.

A view of Bristol's floating harbour. United Kingdom: 2020. © Unsplash / Andy Newton.

TRUUD has applied the HAUS tool with partners at various scales to support strategic action for urban health.

- The United Kingdom's Ministry for Housing, Communities and Local Government is assessing how HAUS might be integrated within its appraisal processes for urban development, including in making business cases to the Treasury and allocating funding to local authorities.
- In the cities of Manchester, Birmingham and Bristol, TRUUD academics are applying HAUS to estimate the costs of real estate investment decisions in relation to noncommunicable diseases, in close partnership with private-sector developers whose actions shape the urban environment.
- In Bristol, HAUS is informing the redevelopment of the Frome Gateway, an urban regeneration project in a deprived area near the city centre. Modelling suggests that a systemic, integrated approach to redevelopment could yield £80 million to £100 million in health economic benefits compared with a piecemeal approach, including through impacts on chronic long-term illnesses like diabetes and asthma; mental health, injuries and premature deaths.

Achieving the full potential of insights from the HAUS tool depends on transparent communication of results, limitations and use cases, as well as open engagement with the actors who shape urban development decisions in any context. Innovative arrangements like researchers-in-residence within development projects and direct partnerships with real estate investment managers have made it easier for TRUUD to bridge the varied needs, remits, approaches and interpretations of the many stakeholders involved.

2.1.3 The equity case for urban health

Health equity is a human right, achieved when everyone can attain their full potential for health and well-being. Health inequalities between countries have narrowed with rising development, but often persist or are increasing within countries and in urban areas, reflecting substantial spatial and group-based differences in the social, environmental, economic and commercial determinants of health. These differences may reflect contemporary or historic factors, including group-related differences in socioeconomic position, health-harming exposures or discrimination (as for apartheid in South Africa or so-called redlining in the USA[22]). Addressing avoidable disparities in health determinants is an ethical imperative, essential to achieving the best health for urban dwellers. Equity-focused urban health action can generate efficiencies and broader societal benefits, both because vulnerable groups stand to gain the most and because remediating inequities can position more people to participate in and contribute to society – further undermining inequities.

Health inequities are self-perpetuating and can interact to amplify existing health risks. For example, individuals who habitually experience common urban stressors such as poverty, discrimination and housing instability can become more susceptible to a range of poor health outcomes, including immune dysregulation and cardiovascular risks *(Corburn 2017)*. Stigma and discrimination (e.g. against slum dwellers) can limit access to health and social care and impose mental health burdens. Sick people may become unable to manage their own health, leading to prolonged illness and limiting their capacity to build social, political, economic or human capital – e.g. through recreation, organizing, labour or education. This further diminishes their status and exposes them to avoidable health risks. Dormant inequities can quickly become critical in the face of health challenges – for example, a lack of access to social care may not affect a healthy person, but an acute health event can make it salient, causing a downward spiral. Health events can become poverty traps, where the cost of treatment diminishes individual or household resources to the extent that improving the situation becomes difficult or impossible – exposing them to even greater health risks. In these perverse cycles, existing health inequities cause greater future deficits. Although not unique to urban areas, negative cycles can be stronger and more likely in cities, due to significant urban inequality and hazards.

Reducing health inequities can facilitate progress toward many societal goals. Individuals in poor health are likely to contribute less to economic and cultural production, social capital formation, labour and civic participation, innovation and other desirable processes. They may also require support from healthy individuals, limiting caregivers' opportunities and amplifying effects on society. Equity-focused urban health action can free more people to contribute to other societal goods. This is consistent with the 2030 Agenda for Sustainable Development, which envisages "a world… of equal opportunity permitting the full realization of human potential…" *(United Nations 2015b)*.

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[22] Redlining was "the system of discrimination against Black individuals that the [United States] federal government and banks used when providing housing loans in the 1930s and 1940s…". This system excluded Black individuals from homeownership, creating financial disadvantages which, nearly a century later, are associated with adverse health outcomes, including increased cardiovascular disease, higher rates of preterm births, increased cancer incidence, reduced survival time after breast cancer diagnosis, and increased incidence of firearm injuries *(Kraus et al. 2024)*.

Urban health action that addresses the needs of all, including vulnerable or disadvantaged populations, can reduce health inequities. For example, systemic interventions that comprehensively increase the overall quality and suitability of housing and neighbourhoods can improve health equity while offering co-benefits for climate and other issues *(Howden-Chapman et al. 2023)*. Where urban health action does not account for underlying inequities, it can have pernicious consequences – for example, ultra-low emissions zones that do not consider equity are likely to impose more significant economic burdens on low-income groups unable to upgrade or replace polluting vehicles *(Shi 2024)*, diminishing their resources for health. A more strategic approach might provide financial support to such groups or facilitate their access to public and active transport, to ensure policy effectiveness while avoiding cascading health harms.

Because addressing equity requires addressing complexity, strategic approaches offer more promise. Targeted interventions are important for addressing inequities, but solutions must also account for complexity, as is clear from many familiar issues that urban authorities face. For example, gentrification occurs when a local improvement – even one explicitly designed to improve health – boosts land values, pricing the ostensible beneficiaries out and displacing them to areas with greater health risks. Complexity is also at work in the self-perpetuating cycles described above.[23] Strategic approaches to urban health explicitly seek to characterize and manage these processes, emphasizing health equity as a central goal.

2.1.4 The sustainability case for urban health

A focus on urban health is likely to yield gains for sustainability, given their deep interconnections.

Most sustainability challenges arise from urban areas or resource demands. Cities are responsible for 70% of global carbon emissions associated with energy consumption *(Seto et al. 2014)* and use over 75% of the planet's material resources *(IRP et al. 2018)*. Urban processes affect land use and land cover (e.g. through deforestation and the expansion of agricultural land), hydrological systems, ecological and biogeochemical cycles, weather and climate *(Grimm et al. 2008; Zipperer et al. 2022)*. Habitat fragmentation, contamination and loss arising from these impacts affects aquatic and land-based biodiversity, ecosystem functioning, and the size and distribution of living populations. The quality and availability of water, soils and other resources are also profoundly influenced by urban systems. Rapid urbanization will continue to increase the scope and magnitude of these impacts *(IRP et al. 2018)*.

Urban health action can provide co-benefits for sustainability and vice versa. For example, the sources of health-harming air pollution are often the same as the sources of climate-altering greenhouse gas emissions; air quality improvements targeting health can also benefit

[23] See Section 3.1 on complexity.

climate mitigation *(WHO 2024b)*. Similarly, nature-based solutions like green roofs can provide local cooling, reducing demand for and emissions from air conditioning, while also lowering the risks of extreme heat *(Mihalakakou et al. 2023)*. While many health and sustainability goals align, co-benefits are not automatic and require careful policy design. For instance, some high-efficiency buildings minimize energy use, but reduce natural ventilation, potentially worsening indoor air quality and increasing exposure to pollutants *(Gillingham et al. 2021)*. Nevertheless, actions with health-sustainability co-benefits have been catalogued across a range of sectors.

FURTHER DETAIL

Further detail: WHO's Health in the Green Economy series reviewed evidence about the potential health impacts of greenhouse gas mitigation strategies across key urban economic sectors, including:

- transport, e.g. shifts to active transport, compact land use *(WHO 2012b)*
- housing, e.g. ventilation, insulation, passive cooling *(WHO 2011a)*
- household energy, e.g. clean cookstoves *(WHO 2010)*
- occupational health, e.g. cleaner production methods, green chemistry *(WHO 2011b)*
- health care, e.g. clean onsite energy, medical waste management *(WHO 2012a)*.

Urban health action can improve resilience – a key element of sustainability – and vice versa. Resilience is a prerequisite for sustainability. Systems that cannot weather shocks and rebound will not last – "resilience becomes more critical [to sustainability] as the frequency and severity of challenges increases" *(Siri et al. 2022)*. Urban health contributes to resilience; healthier people are more resilient individually and more likely to be able to cope before, during and after shocks, contributing to systemic resilience. Likewise, resilient cities and urban infrastructure contribute to individual health, reducing the impact and duration of risks from shocks. The strategic mechanisms for good urban health resemble those that support resilience. For example, both depend on establishing effective channels of communication and authority, and fostering participation by diverse stakeholders.

Urban health advocacy can generate momentum for sustainability. Urban health is closely linked to the SDGs *(Ramirez-Rubio et al. 2019)*, raising the relevance of urban health arguments (see Fig. 2). Reframing sustainability interventions through an urban health lens offers a broader range of political and policy opportunities than addressing either alone. For example, framing climate policies around air pollution reduction can generate broader political support, given the immediate, tangible public health benefits. The potential for health

arguments to drive sustainability action is underutilized. For instance, the health co-benefits of climate mitigation are rarely considered in city-level climate action plans *(Johnson et al. 2022)*

A comprehensive approach to urban health that considers these relationships offers substantial benefits for sustainability.

Fig. 2
Conceptual framework: urban health-related SDGs within a health in all policies approach.

Source: *(Ramirez-Rubio et al. 2019)*. CC BY 4.0.

2.2 Urban health and other critical policy areas

Implementing a strategic approach depends on action across government and with diverse partners. Comprehensive urban health strategies are necessarily wide-ranging, requiring buy-in – and often resourcing – from a variety of constituencies. Such strategies must therefore resonate with the political and policy priorities that drive local decision-making, at national or subnational scale. Yet urban health authorities and advocates do not always engage fully or fruitfully with broader political discourses, limiting their effectiveness in securing the resources and mandate to act strategically. Likewise, city-level actors do not always take full advantage of potential national-level resources, and national-level actors may fail to engage with or be poorly placed to grasp the nuances of local politics.

Better understanding of the issues driving local policy and political agendas, and their relation to urban health, can help urban actors to:

- pinpoint ways to frame and introduce strategic action for urban health to increase uptake
- clarify opportunities in health-adjacent spaces to implement interventions or innovations that advance urban health outcomes
- position urban health interventions as contributors to other societal goals, emphasizing co-benefits to make them more attractive to key partners
- identify key partners and champions who can contribute to urban health successes
- recognize and act on policy windows when strategic action is more likely to be adopted and adequately resourced, building on existing momentum.

Leveraging these opportunities can also help establish important cross-sectoral relationships between urban health authorities and advocates, and those in other fields.

Urban health is related to almost all important, systemic policy issues, including demographic change, climate change, migration and displacement, health emergencies and disaster risk, sustainable development, food systems and food security, biodiversity and ecosystem services, and digital transformation. Local political or policy discourse around each issue will vary substantially, and several major policy challenges arise for each.[24] Understanding the surrounding debates, priorities and potential solutions can help urban health authorities and advocates achieve their own goals and broader societal gains.

These issues are broadly cross-cutting, driving debate and decision-making at city and national levels around the world, but they are not an exhaustive list. Rather, they illustrate that urban health can be linked to almost any other significant societal challenge. Practitioners and policy-makers should consider which cross-cutting issues are politically salient in their own contexts, thus representing opportunities for urban health.

[24] Many of these challenges are not urban-specific, but represent key interests for stakeholders invested in these areas; connections to urban health can nevertheless be readily identified.

2.2.1 Demographic change

Demography is a fundamental determinant of urban health needs and opportunities. Variables like population size, age structure, household and family structure, and spatial and social distribution all affect urban health, as does change in any of these factors *(Duminy et al. 2023)*. Strategic urban health action can help cities enhance the positive and alleviate the negative effects of demographic change. For instance, age-friendly built and social urban environments can reduce older persons' contact with health systems, and the associated strains on human and financial resources; they also allow societies to harvest the immense potential of additional years spent in good health. Conversely, where populations are younger, investing in the health of youth can position economies to fully leverage the demographic dividend. Urban health can likewise influence demographic variables, including decisions about family size and structure, the timing of children, and the spatial and social arrangements among urban dwellers.

Key trends with implications for urban health

Overall, and in many specific countries, urban populations are growing rapidly, straining health-supporting services and infrastructure, especially in unplanned areas like slums and informal settlements. This growth requires a dramatic expansion of urban extents *(Seto et al. 2012)*. How new urban areas are designed, built and managed will significantly affect urban health.

Sharing an evening meal. Hong Kong SAR (China): 2020. © Unsplash / Felix Lannoo.

EXAMPLE

Africa's population is projected to double by 2050, with two thirds of the increase in cities – nearly a billion new urban dwellers *(OECD 2020b)*. This urban growth is increasingly youth-led, with younger people making up the fastest-growing demographic in urban areas. The transition is taking place at unprecedented pace and will transform urban health vulnerabilities, needs and opportunities across the continent *(Banks et al. 2022)*.

In contrast, some urban populations are shrinking, due, for example, to low birth rates, migration or loss of economic opportunities *(Capacci and Rinesi 2017; Zhang and Ochiai 2024; Davies and Buseong 2025)*. Such situations threaten urban social cohesion and can reduce public fiscal resources, posing challenges for the provision of basic services and health needs.

Demographics can drive changes in urban density, which has multifaceted linkages to health. An increase in density can drive better access to goods and services – but can also increase exposure to crowding, pollution and other hazards. Urban sprawl can be associated with poorer air quality, greater heat-island effects, longer commutes and other harms – but lower density can also allow for more green and public spaces. Understanding the local context is key to evaluating the health impacts of urban density.

Changes in population age structure have profound urban health implications, transforming population health needs and the resources available to meet them. Failure to meet these needs opens gaps between human potential and the opportunities available to people. For example, population ageing is a significant challenge in many contexts worldwide, requiring cross-cutting, strategic action to meet the dynamically changing needs of people across the life course *(WHO 2015b)*.

Major policy issues

Demographic changes and their relationships to urban health vary widely, as do corresponding policy debates. Demographic forces shift not only urban health needs, but also political dynamics – such as who votes and which groups hold power; economic development – for example, through the ratio between the working-age and non-working populations; and fiscal realities – like the scale of the tax base. Policy discourses around demography often centre on:

- whether and how to manage demographic change – e.g. through policies regulating fertility, population distribution or family structure;
- how to anticipate and meet the needs of changing populations – e.g. by updating urban infrastructure and services;
- how to manage the economic, social, political and environmental implications of changing demographics.

A strategic approach anticipates the policy opportunities implicit in demographic change. An intergenerational and life-course view of the changing demographic basis for urban health can help suggest avenues for engagement with relevant policy discourses.

2.2.2 Climate change

Urban areas are deeply impacted by climate factors, and urban populations are often highly vulnerable to climate variability and extremes *(Dodman et al. 2022)*. Climate affects urban health directly (e.g. via heatwaves, storms, wildfires, droughts and flooding)[25] and indirectly (e.g. through impacts on ecological or agricultural systems, behaviours, or cultural, social, economic or political factors). Climate processes are implicated in a range of health impacts, including infectious diseases; respiratory, cardiovascular and neurological issues; mental health challenges; nutritional impacts; skin diseases and allergies; occupational health and injuries; and others *(Rocque et al. 2021; WHO 2024b)*. Within urban areas, vulnerable populations may experience higher climate risks due to location (e.g. urban heat islands, lack of green space), features of the built environment (e.g. sub-optimal housing, lack of cooling or ventilation systems), a lack of economic or social capital, or other factors. Climate adaptation and mitigation[26] action can improve health through co-benefits. For example, reducing greenhouse gas emissions from vehicles or energy generation can also improve air quality, reducing cardiovascular and respiratory risks,

[25] See Section 2.2.4 below: Urban health and... health emergencies and disaster risk.

[26] In human systems, climate adaptation is "the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities", while climate mitigation refers to "human intervention to reduce emissions or enhance the sinks of greenhouse gases" *(IPCC 2018)*.

Navigating the impacts of climate change. Kolkata, India: 2020. © Unsplash / Dibakar Roy.

among others. But it can damage health without careful consideration of unintended consequences for health and health equity – e.g. promoting electric vehicles rather than active transport can leave in place harms from road traffic accidents, congestion and decreased physical activity *(Cheng and Berry 2013; Fagliano and Roux 2018; Longden et al. 2022)*.

FURTHER DETAIL

A series of WHO Health and Climate Change Urban Profiles *(WHO 2022b)* in six pilot cities, developed in collaboration with local governments, key stakeholders and international partners, presents a snapshot of climate change hazards and related health risks – and the potential local health benefits of adaptation and mitigation policies. The cities profiled span a range of geographies and city types: Accra, Ghana; Glasgow, United Kingdom; Indianapolis, United States of America; Kisumu, Kenya; Quito, Ecuador; Washington (DC), USA.

Key trends with implications for urban health

Urban climate impacts, both direct and indirect, will increase significantly in coming years. Heat is rising everywhere – intensified in urban areas by factors like concrete surfaces and emissions from vehicles and air conditioning. Many urban areas will experience greater flooding and worse storms, especially those close to the sea. Impacts mediated through human systems, such as food and labour markets, and ecological systems, such as biodiversity or disease ecology, are also increasing. For example, some models predict that climate change-driven expansion of Aedes mosquito ranges could expose up to a billion more people to viral diseases like dengue, chikungunya and Zika *(Ryan et al. 2019)*. The scale of climate impacts on macro-level trends like migration *(Huang 2023)* and geopolitical conflict is uncertain, but likely to be significant. Most of these impacts will be more severe in lower-income countries and among lower-income urban populations everywhere.

Major policy issues

Climate policy discourses vary significantly by setting and level of action, and encompass both adaptation and mitigation. At international and national levels, key issues include how to:

- allocate responsibility for climate change mitigation and adaptation;
- monitor compliance and progress on climate commitments;
- fund climate action in low-income countries that face the most significant impacts;
- deal with transboundary issues such as migration or air pollution.

In lower-income settings, city-level discussions often focus on how to:

- balance climate action with the need to provide basic services, promote development, manage growth, address informality, and navigate economic, agricultural, dietary, epidemiologic and demographic transitions;
- prioritize among potential climate actions in the context of limited data, resources and capacities.

In higher-income contexts, policy tends to focus on how to:

- foster, design and manage integrated action – e.g. heat action plans;
- address and remedy environmental or spatial injustice and climate-related health inequities;
- overcome or reverse unsustainable and unhealthy consumption patterns;
- reshape and retrofit established urban areas to reduce climate impacts.

Many cities are linking climate action to health benefits in areas like air pollution reduction, transit-friendly urban planning, energy-efficient housing and nature-based solutions. City- and country-level climate policies offer opportunities to advance urban health, e.g. via improved housing and active/public transport systems; increased green space, healthier diets, and more resilient and sustainable health systems. Public and political interest in climate action can be effective pathways for strengthening urban health engagement.

Case Study 2

Addressing demographic and climate change in Sharjah, United Arab Emirates

The overlapping challenges faced by urban areas create both demand and opportunities for strategic action. In Sharjah, the third largest city of the United Arab Emirates, demographic issues and climate concerns have given rise to innovative programming for urban health.

Sharjah faces demographic challenges familiar to cities around the world. As of 2015, nearly a quarter of its rapidly growing population consisted of children and teenagers, while the elderly population, though relatively small, was projected to double over the next 17 years – and to continue to grow over time *(Executive Office of Sharjah Age-Friendly City Program, 2018)*. To meet the very different needs of these important groups, Sharjah is taking a leading regional and global role in its approach to service delivery over the life course.

Quiet benches at the Sharjah Heritage Museum. United Arab Emirates: 2024. © Unsplash / Miguel Joya.

Sharjah's Child-friendly, Baby and Family-friendly, and Age-friendly programmes take a holistic view of urban health determinants and well-being, encompassing issues such as infrastructure and services, clean and healthy environments, social inclusion and opportunities, political and legal representation, and respect and equal treatment. Each programme plays a coordinating role among other city-level sectoral authorities and is structured to meet the needs of its constituents. For example, integrated housing solutions and retrofits under the Age-friendly Programme are tailored to the social and mobility needs of the elderly. In the same way, the Child-friendly Office considers how public spaces can be improved to foster opportunities for play and learning.

For example, a 2019–2020 project reconceptualized and redeveloped public spaces in a child-friendly way in relation to climate action. Extreme heat is an ever-present concern in urban areas of the Middle East, amplifying a range of health risks and

limiting outdoor opportunities – impacts likely to increase. The project conducted a city-wide public-space inventory and assessment focusing on children's needs, and a site-specific assessment of a local government-designated area *(Sharjah Child Friendly Office 2022b)*. In parallel, a participatory design and community engagement workshop gathered children's ideas about public space, using the Minecraft computer gaming environment as a tool for engagement and ideation around urban planning. These activities revealed challenges and opportunities for child-friendly, climate-aware public spaces in Sharjah. Key recommendations included shaded play structures, cooling water elements and green spaces to improve air quality, provide relief from heat, encourage pedestrian movement, and support cognitive, social and motor skills in children by facilitating play. The outputs of this project informed the development of the Sharjah Planning Principles Guidance for Child-Friendly Open Public Spaces *(Sharjah Child Friendly Office 2022a)*, which provide detailed guidance for a range of urban stakeholders in designing and creating such spaces.

The Sharjah example illustrates how political and policy concerns related to cross-cutting issues like demography and climate can be leveraged to initiate broad-based intersectoral action for urban health.

2.2.3 Migration and displacement

Colours along the border. Tijuana, Mexico: 2019. © Unsplash / Barbara Zandoval.

Migration and displacement – both internal and international – affect the demography, spatial distribution, resources and cultural makeup of urban populations, all with strong implications for urban health. Migrants experience health challenges both through direct exposure to risks during the process of migration or at their destinations, and as mediated through social systems such as access to health care, sanitation, healthy food, or other goods or services *(WHO 2022e)*. The diverse behaviours, resources and capacities of migrants affect the economic and social functioning of urban areas and societies in both origins and destinations – for example, through impacts on labour forces, brain drain, family structures, remittances or cultural factors – contributing to the complexity that underlies urban health outcomes for all urban dwellers.

Key trends with implications for urban health

Migration is increasing in absolute and relative terms and is a major driver of urban population growth, in some contexts contributing to the growth of slums and informal settlements *(WHO 2022e)*. Migration patterns have also become more complex, with more circular migration and higher numbers of people forcibly displaced as a result of conflict and humanitarian or climate-related disasters *(WHO 2022e)*. Growing migrant flows are putting increasing pressure on health systems and other services in many contexts. Global environmental change is likely to trigger further increased migration and displacement,

although significant uncertainties remain about the scale and nature of such movement *(Huang 2023)*. Remittance transfers by migrants have also been growing and represent an important economic flow. Totalling three times official development assistance globally, they provide a major source of income for many developing countries and cities *(Ratha 2023)*.

Major policy issues

Policy responses to migration are multifaceted. Migration requires multilevel, cross-border governance and interventions that span a wide range of intersecting systems – such as housing and employment – particularly in urban areas, where most migrants settle. Aside from challenges of policy coordination, migrants often fall outside pre-existing legal frameworks, creating jurisdictional challenges.

Policy discourses at the international level tend to focus on how to:

- manage or regulate migration flows;
- provide for the needs and rights of displaced people and refugees – for example, through international legal frameworks and agreements;
- reconcile international legal frameworks and agreements on migration with national-level legislation relevant to migrant rights.

Locally, but also increasingly at national level, policy discourses may focus on how to:

- meet migrants' basic needs across an array of social, economic and infrastructural areas;
- manage the social, economic and environmental impacts of migration in both origins and destinations;
- integrate migrants and displaced people into local cultural, social and economic systems.

All these discourses have urban health implications; they determine the level and form of resources available for migrant issues, and the extent to which such resources can be channelled into health-promoting action. Often, they are influenced by normative considerations that involve perceptions of migrants and displaced people, and the impacts of migration. Providing evidence on the relationships between migration, health and other societal goals – including how healthy migrants benefit economies and societies – can help link urban health authorities and advocates into this policy space.

2.2.4 Health emergencies and disaster risk

All people face risks related to acute health emergencies and disasters. These include "infectious disease outbreaks, natural hazards, conflicts, unsafe food and water, chemical and radiation incidents, building collapses, transport incidents, lack of water and power supply, air pollution, antimicrobial resistance, the effects of climate change, and other sources of risk" *(WHO 2019)*. Not only do cities often bear the brunt of health emergencies and feature at the forefront of response efforts, but people living or working in (or travelling through) cities and urban settings are at a greater risk for many hazards, because of the high population density and concentration of infrastructure *(WHO 2021b)*. For example, flows of people can amplify transmission of pathogens, and positioning on coastlines or floodplains can expose large populations to risks from storms and flooding. Unplanned or slum areas often experience especially high risks, due to elevated hazard profiles (e.g. construction in landslide-prone areas); inadequacies in service provision – including health and safety, sanitation, housing and transportation; lower reserves of critical resources; a lack of political authority, and other factors.

By strengthening health security, emergency preparedness and disaster risk management, authorities seek to minimize the health impacts of acute events across the emergency cycle. In particular, planning and preparedness play a major role in mitigating the severity of outcomes, including in cities. Effective preparedness depends not only on risk assessments and early warning systems, but also on ensuring that populations

Aftermath of the December 2004 tsunami. Banda Aceh, Indonesia: 2005. © WHO / Dermot Tatlow.

are healthy and resilient before crises occur – healthy populations weather shocks better and can contribute to post-crisis economic recovery. Addressing the underlying determinants of poor urban health is thus an essential input to urban health security, not merely an outcome *(Martinez et al. 2020)*. Given the importance of cities in preventing, preparing for, responding to and recovering from health emergencies, enhancing the focus on urban settings is also necessary for countries pursuing improved overall health security. As with a strategic approach to urban health, this requires actions by both national and local authorities, individually and in collaboration *(WHO 2022c)*. It also requires extensive cross-sectoral integration, as health emergency authorities interact with all other urban systems. One example of multisectoral collaboration in the context of urban emergency preparedness – encompassing public health, sanitation and environmental monitoring – is the emergence of wastewater-based epidemiology as an early warning tool for COVID-19 outbreaks *(WHO 2023c)*.

Key trends with implications for urban health

Disasters are increasing in frequency and intensity, reflecting both growing hazards (e.g. more floods and heat waves) and the greater exposures associated with expanding urban populations (e.g. more people exposed to climate risks, higher potential with urban expansion for zoonotic events, or greater transmission potential during pandemics). With changing perceptions of risks and appropriate responses, the landscape for action is shifting toward increased appreciation of proactivity and integrated efforts. This is especially true in the context of the COVID-19 pandemic, in which cities bore the brunt of cases and experienced transformational pressures related to labour, health care and the utilization of urban space, among other factors *(Landis 2023)*. Similar issues are at play with respect to the role of cities in safeguarding against other emergencies, including those related to climate change. In some contexts, misinformation and disinformation associated with novel information flows also have implications for action on health security *(WHO 2024c)*.

Major policy issues

In the wake of COVID-19, health security is high on global, national and local priorities. The pandemic transformed the policy landscape for health emergencies, creating new avenues for action (including city-led, integrated efforts) but also policy resistance in certain contexts. Meanwhile, growing risks associated with environmental change (e.g. extreme weather, biodiversity loss and pollution) are also generating policy interest at all scales.

Among important policy questions in this space are:

- how best to anticipate and prepare for health emergencies and disasters – including through effective risk assessment and early warning systems;
- how to better engage city authorities in health emergency preparedness and planning;
- how to ensure that the relevant capacities exist at city level for countries to effectively apply International Health Regulations;
- who should bear the economic responsibility for preparedness, response and recovery – especially relevant in international negotiations over financial costs of climate adaptation;
- how governance and authority for health security should be structured, and the many multisectoral actors involved best coordinated;

- how marginalized populations can be protected;
- how government and individual rights should be balanced;
- how the political salience of health security can be sustained between emergencies.

Considering urban health in decision-making around emergency preparedness and disaster risk management can create long-term benefits beyond emergency response, helping cities and countries prepare for and adapt to a rapidly changing risk landscape.

Case Study 3

Health security as a motivating factor for strategic action: Making the invisible visible in Kiamutisya, Kenya

Installing a physical addressing system in Kiamutisya, Kenya: 2022. © KYCTv / Peter Ndichu.

A major challenge to urban health in slums and informal settlements is their lack of visibility in official data systems, which hinders resource allocation, service provision, political participation and other activities. In Kiamutisya Village, part of the Mathare informal settlement in Nairobi, Kenya, residents led an effort to put their community on the map, facilitating access to numerous urban health benefits *(Wairutu et al. 2024)*.

Unplanned urban settlements face many obstacles to good health, not least the absence of formal physical addressing systems that are the basis for linkages to a wide range of societal goods and services. In Kiamutisya village, the COVID-19 pandemic drove home this disadvantage; governments were hampered in their efforts to identify and authenticate recipients of support, and lists of residents generated using ad hoc procedures were perceived as incomplete and inequitable *(Kimani et al. 2021)*.

In response, key partners – including community residents, nongovernmental organisations (NGOs), researchers and community health workers – came together to scope and implement a physical addressing system during 2020 and 2021, leveraging flexible seed funding from the ARISE consortium – a multicountry research programme to improve the health and well-being of marginalised populations in informal settlements in low- and middle-income countries. The project involved complete mapping and classification of all community structures; data collection; clarification of boundaries, and physical labelling of structures.

Consultations with communities were critical to overcoming initial concerns about data privacy and use, a process that built trust and social cohesion *(Kori et al. 2025)*. Government officials participated in consultations on intervention design, and local chiefs played an important facilitating role. The collaborative partnership benefited significantly from the technical

knowledge of the NGOs SDI-Kenya and Muungano wa Wanavijiji (the Kenyan Federation of Slum Dwellers) in the areas of slum mapping, enumeration and training of co-researchers, including community health workers and residents.

This effort has had far-reaching benefits that improve urban health:

- Community health workers and leaders can identify vulnerable individuals and provide social support – for example, linking absentee children with schools.
- State and non-state disaster management and response entities can plan more effectively and are better able to find at-risk households and distribute goods and services after a disaster.
- Community health promoters are better able to allocate goods and medical support services, and can more efficiently engage with households that need help; their regular data collection in the community feeds into Ministry of Health systems – a systematic improvement in basic data quality.
- Addresses have made it easier to organize efforts for community improvement – for example, youth groups have used the system to coordinate waste management, capturing data to inform government practice.

The intervention has linked the community to the local administration and key public-sector agencies effectively, making it easier to communicate problems and lobby for urban health needs. Implementation processes leveraged and strengthened local resilience and innovation, supporting community organization and action. The intervention provided training for participants and employment opportunities (e.g. through BuildHer, a technical training facility for women construction artisans, which was responsible for building and installing the system). This example has helped motivate other informal communities in Mathare, and is being scaled up elsewhere.

The Kiamutisya case illustrates how even simple improvements in data can yield dramatic dividends in urban health: – high-quality data are a critical enabling factor for strategic action. It also shows how challenging circumstances like COVID-19 can create opportunities for communities that are prepared to act.

2.2.5 Sustainable development

Sustainable development is "how we must live today if we want a better tomorrow, by meeting present needs without compromising the chances of future generations to meet their needs" *(United Nations 2023a)*. The global framework for sustainable development is embodied in the UN SDGs and the other parts of the 2030 Agenda, e.g. the Paris Climate Agreement *(UNFCCC 2015)*, the Sendai Framework for Disaster Risk Reduction *(UNISDR 2015)*, the New Urban Agenda *(United Nations 2016)* and the Addis Ababa Action Agenda *(United Nations 2015a)*. It has been upheld by cities, e.g. through the Shanghai Consensus on Healthy Cities, in which over 100 mayors from around the world committed to advancing health and sustainable development, recognizing that health and well-being are at the core of the 2030 Agenda and the SDGs *(WHO 2017a)*. Urban health has robust links to each of the SDGs, both in terms of the health implications of specific SDG targets and as an input to achieving other goals. Yet the SDGs omit important urban health concerns, such as physical activity, social capital and noise *(Ramirez-Rubio et al. 2019)*, and urban health is not fully or formally covered in the broader sustainable development framework.

Key trends with implications for urban health

In part due to the universal disruptions of the COVID-19 pandemic, progress on achieving sustainable development has slowed – for example,

A mother teaching her child how to plant a tree. Addis Ababa, Ethiopia. © Unsplash / Eyoel Abraham Kahssay.

only 16% of SDG targets are on track to be met globally by 2030, with performance varying widely across countries *(Sachs et al. 2024)*. Reform of the global financial architecture to support the provision of public goods and investing at scale by lower-income countries, as well as a greater commitment to multilateralism, have been identified as key remedies *(Sachs et al. 2024)*. "Localization" of the SDGs and other elements of the 2030 Agenda – translating their broad goals into local institutional mechanisms and actions that draw on and are coherent with higher-level strategies – is an ongoing challenge *(UN DESA 2024)*.

FURTHER DETAIL

The UN Secretary General has called on UN agencies to support the SDGs in local contexts. Localizing the SDGs is an international initiative, led by UN-Habitat, the United Nations Development Programme, and the Global Taskforce of Local and Regional Governments, that provides support for local progress on sustainable development priorities. Work under this initiative includes a knowledge platform, a roadmap *(Global Taskforce of Local and Regional Governments et al. 2016)*, case studies and information products *(UCLG 2015)*. It represents an additional mechanism to support the preparation of voluntary local reviews of local and regional SDG implementation. *(UN DESA 2020)*.

Major policy issues

Sustainable development is a national-level priority for virtually every country through their commitments to the 2030 Agenda. Cities also aim to develop and provide for the needs of their citizens, and the formalization of these processes in light of the 2030 Agenda is an increasingly important aspect of city-level policy and practice. Policy questions arise around how to:

- design, finance, manage and monitor activities across the breadth of sustainable development priorities;
- manage interactions (e.g. synergies or constraints) across the implementation of different SDGs *(ICSU 2017)*;
- foster local implementation of the SDGs and other elements of the 2030 Agenda;
- coordinate national- and city-level action.

The challenge of delivering sustainable development across multiple sectors and scales mirrors the challenge of securing urban health. SDG planning and monitoring can provide a useful framework for strategic urban health action, helping cities align health policies with broader sustainability goals.

2.2.6 Food systems and food security

Food systems affect whether people have enough to eat at all times (food security), whether what they eat is health-supporting (nutrition) and whether it is free from biological or chemical contamination (food safety). They also fulfil important social functions, shaping identity, interactions, cultural heritage and social capital among people and groups. Each of these factors has profound implications for urban health. Where healthy food options are lacking, urban dwellers may experience malnutrition – including undernutrition, micronutrient deficiencies, or overweight and obesity – and related physical and mental health burdens. Some populations face a "double burden" of malnutrition, through the coexistence of undernutrition or micronutrient deficiencies, and overweight or obesity. Infrastructural and hygiene gaps, e.g. from traditional markets and street food in some contexts, may elevate risks of infectious disease transmission. Lack of safe, nutritious food can also affect health in ways that impact education, labour or other day-to-day activities – e.g. through diminished energy or physical capacity, or illness-related absenteeism. This creates feedback cycles that reinforce poor health and limit participation in society. A lack of access to culturally relevant food can affect mental health and social cohesion.

Urban areas are unique food contexts, due to factors including their concentration of people, products, institutions and supply chains. Food systems are deeply interconnected to other urban systems, with food, urban planning and management, and urban health mutually influencing one another *(Lundberg et al. 2025)*. For example, food systems have powerful impacts on land use, labour, transportation, water and

Fruit on display in a market in Antigua, Guatemala. 2018. © Unsplash / Arturo Rivera.

sanitation, and other systems that affect health – and vice versa. Both in themselves and through their linkages to other areas, food systems can also have profound environmental impacts – for example, on pollution, hydrological cycles, and utilization of natural resources such as energy, water and land.

Key trends with implications for urban health

Global population growth continues to increase demand for food, with 70% of food destined for urban consumption. Meanwhile, growing environmental pressures from climate change create additional risks to food security, as do other factors like displacement of agricultural land by urban growth, and unsustainable management of inputs like fresh water, soil and fertilizers *(FAO 2015, 2022; HLPE 2024)*. Food production systems also contribute to health-harming trends – for example, agriculture has major impacts on greenhouse gas emissions, groundwater depletion, the release of toxic chemicals and the development of antibiotic resistance. Inefficient use of agricultural resources, including to produce animal products (especially beef) and biofuels, exacerbates these challenges.

Ongoing urbanization contributes to food-related health issues. Globally, diets are shifting in ways that can undermine health, including increased consumption of animal products and highly processed foods often high in unhealthy fats, sugars or sodium. Urban environments are particularly susceptible to these transitions, with key influencing factors converging in these settings – including the diversity of food options, convenience of unhealthy outlets, high exposure to marketing and promotional material, and limited local production. The urban built environment may limit possibilities for healthy eating (e.g. where small living spaces reduce options for cooking), especially when combined with urban retail forces – which in some contexts can create urban food deserts or food swamps.[27] Digital trends, including mobile ordering and targeted online marketing, are creating new health challenges for food workers and consumers alike, including exposure to road traffic for delivery workers, and easier access to preprepared or highly processed foods *(Lundberg et al. 2025)*.

Major policy issues

At the most basic level, food policy – including as related to urban areas – centres on how to ensure an adequate, stable supply of safe, nutritious, culturally appropriate food. Further issues arise around how to:

- reduce the environmental impacts of food production, distribution, processing and retail systems;
- manage the growing power of private-sector interests, including by limiting health-harming practices that result from the commercialization of the food environment;
- shape food environments and policies that support healthier dietary choices and equitable access to nutritious food.

Food system policies operate across multiple sectors and scales and have profound health impacts – presenting a natural opportunity for integrated action on urban health.

[27] Food deserts are areas where residents' access to food is restricted or non-existent due to the absence or low density of "food entry points" within a practical travelling distance. Food swamps are areas where there is an overabundance of "unhealthy" foods, but little access to "healthy" foods. FAO Terminology Portal *(FAO 2025)*.

Case Study 4

National-level multisectoral action for obesity in India: Let's Fix Our Food

Food shop in INA Market. New Delhi, India: 2021. © Unsplash / Ravi Sharma.

Local urban health action often depends on enabling frameworks set by national governments. In India, the national-level "Let's Fix Our Food" programme emerged from concern over rising obesity rates among adolescents. The programme's work has implications for local urban health action.

India's nutrition policy has traditionally focused on the health consequences of undernutrition. However, evidence is accumulating for the rising importance of obesity. In 2019, India's Comprehensive National Nutrition Survey found that while obesity rates remained below those for undernutrition, they exceeded 10% in adolescents in 12 Indian states and represented a "growing problem... still ignored in policy and programmes" *(Sethi et al. 2019)*. Research has shown that the urban food and media environments in India create challenges for children and adolescents in making healthy food choices *(Bassi et al. 2021a; 2021b)*.

In 2021, reacting to mounting evidence, the interministerial coordinating and advisory body of the Government of India[28] convened the National Convention on Prevention of Maternal, Adolescent and Childhood Obesity. Six national ministries, representing a range of thematic areas and constituencies, participated in this interministerial dialogue.[29] The convention identified the need for a whole-of-government, whole-of-society approach to the double burden of over- and undernutrition, and called for a multisectoral approach targeting

[28] National Institute for Transforming India (NITI Aayog).

[29] Ministry of AYUSH, Department of Youth Affairs, Ministry of Health & Family Welfare, Ministry of Women & Child Development, Ministry of Education, and Ministry of Information & Broadcasting.

adolescents. Key action areas emerging from the meeting included double duty actions;[30] taxation, and public and private advertising regulation of foods high in fat, sugar and salt; front-of-package labelling; and nutrition literacy for adolescents.

A key response to this call was the development of the Let's Fix Our Food consortium, a multidomain partnership which brought together implementing partners from government, research and civil society, along with enabling partners from the UN system and other knowledge partners.[31] Government representatives are also included in an advisory group that assesses progress and provides guidance on implementation.

Let's Fix Our Food has adopted a multipronged approach to combating childhood and adolescent obesity, discouraging consumption of unhealthy foods. This has included:

- engaging adolescents in media-based advocacy; training 50 urban-based adolescent champions for healthier foods, and gathering data via an online poll which surveyed over 140 000 individuals across the country;
- knowledge outputs, such as policy briefs on key themes identified during the government convention and in independent research;
- direct policy advocacy with government agencies;
- capacity-building webinars, training modules, and workshops for a variety of food stakeholders.

These activities can inform policies and practices that will have profound impacts at the urban scale. The programme is also contributing to the development of a forthcoming National Nutrition Strategy, expected to prominently recognize urban-specific challenges and issues around malnutrition, including obesity and underweight, shaping the enabling environment for India's urban health action for years to come.

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[30] Double duty actions are policies or programmes that address more than one form of malnutrition at the same time, such as through integrated delivery platforms or interventions that tackle common drivers of multiple forms of malnutrition *(WHO 2017b)*.

[31] Implementing partners: Public Health Foundation of India (PHFI), Indian Council of Medical Research National Institute of Nutrition (ICMR-NIN), Institute of Economic Growth (IEG); enabling partners: UNICEF, World Food Programme, WHO; knowledge partners: Deakin University, World Obesity Federation, Global Health Advocacy Incubator. This list of partners is not comprehensive.

2.2.7 Biodiversity and ecosystems services

Natural systems provide a host of ecosystem services, including provisioning (e.g. food), regulating (e.g. flood control), cultural (e.g. recreation) and supporting (e.g. underlying natural cycles) services. These constitute the natural foundation for human life and health, including in urban areas. Ecosystems also have specific health impacts in cities, through their influence on heat, flooding, air quality, food availability, the distribution of disease vectors and pathogens, and other factors. Nature in urban areas can also promote a range of healthy behaviours and contribute to cultural, spiritual and social goods, like greater ecological awareness *(WHO EURO 2017; (Guerry et al., 2021)*.

In turn, urban processes have significant impacts on natural systems, both within and beyond urban areas. Unmanaged or poorly managed, such processes can damage ecosystems, destroy habitats and deplete resources, both directly (e.g. through the release of toxic pollutants or the clearing of wild landscapes) and indirectly (e.g. through contributions to climate change) *(Elmqvist et al. 2013)*.

Waterfall and tropical garden, Changi Airport. Singapore: 2021. © Unsplash / Yen Le.

Key trends with implications for urban health

Ecosystems are at risk from climate change and wider environmental degradation, worsened by rapid urbanization. In the coming decades, dramatic reductions in global biodiversity are expected, continuing current trends *(IPBES 2019)*. Ecosystem degradation can have profound implications for human health, including in urban areas. For example, coral reef systems – many at risk of imminent failure – feed, protect and provide livelihoods for up to a billion people worldwide, including in many tropical cities *(Rivera et al. 2020)*. Similarly, loss of pollinator communities can have impacts on crop production (and thus nutrition), medicinal plants, and the quality of green spaces that support mental and other health benefits. In contrast, conservation of pollinators can have positive co-benefits for health related to reduced application of pesticides *(Garibaldi et al. 2022)*.

Some cities are now focused on going beyond minimizing impacts toward becoming restorative or regenerative of environmental and social systems *(Schurig and Turan 2022)*; this trend mirrors a longer-term focus on circular urban economies, which minimize resource consumption *(Ellen MacArthur Foundation 2025)*. Many cities have prioritized nature-based solutions to foster sustainability and resilience. Large-scale urban ecological projects can provide multiple benefits for human health and natural systems, reinforcing the case for integrated urban health strategies.

Major policy issues

Preserving natural systems and biodiversity has become an important policy issue at all levels of governance. In the urban context, ecological planning to strategically integrate conservation with urban planning *(Guerry et al., 2021)* generates policy questions that mirror those in urban health, such as how to:

- structure governance to foster cross-sectoral and cross-scale awareness of ecosystem health and responsibly manage negative externalities and unintended consequences;
- ensure that the benefits of ecosystems services are shared fairly and that nature-based solutions do not exacerbate inequalities;
- ensure that the economic and social value of ecosystems services are incorporated in broader decision-making processes.

A key framework shaping biodiversity policy is the Kunming-Montreal Global Biodiversity Framework of the Convention on Biological Diversity *(CBD 2022)*. Signed by 196 countries, it requires integrated action, including at the urban scale, creating a policy space where urban health can play a role.

2.2.8 Digital transformation

For urban dwellers, digital technology increasingly mediates access to economic opportunities, information – including health information – and goods and services, affecting whether people can stay healthy and improve their health. For example, individuals who lack the digital literacy to access and navigate online job sites, or to apply digital skills including artificial intelligence (AI) in the workplace, may be consigned to lower-paying employment, decreasing their resources for staying healthy. Lack of access to online or mobile financial services, education, health care, government benefits, or news sources can have similar consequences. Significant digital gaps exist within and between cities and countries, contributing to marked urban health inequities. Digital access influences and is influenced by the social determinants of health in self-perpetuating cycles *(Acuto et al. 2025)*.

Institutionally, digital technologies are increasingly applied to improve the design, effectiveness and efficiency of urban systems that affect health. Their uses include increasing the quantity and quality of information available to decision-makers (e.g. leveraging remote sensing/geographic information systems to highlight neighbourhood-level determinants of health); speeding up and improving the quality of communications and citizen engagement (e.g. through information and communications technology (ICT) and mobile health applications); and supporting analytic

Digital technology shapes everyday life. Lagos, Nigeria: 2019. © Unsplash / Olumide Bamgbelu.

decision-making (e.g. through the application of AI to health challenges). They also allow simulation of the impacts of urban decisions (e.g. through digital twinning, which involves the creation of simulated versions of real cities within which the implications of health policy scenarios can be explored). Through these and other emerging digital technologies, public actors can shape urban areas to support the health of urban dwellers.

EXAMPLE

In some contexts, digital technology is delivering health programming directly to urban residents. For example, in the Middle East and North African region, where outdoor activity is often limited by climate, municipalities have deployed digital health tools like smartphone apps, gamified step challenges and regular health messaging to promote physical activity indoors *(Tong et al. 2024)*.

Key trends with implications for urban health

Digital technology is in a state of rapid, multifaceted transformation. Urban health-relevant data are available from an exponentially increasing number of sensors and sources. Digital modelling technologies – including AI applications – are growing more accurate and powerful. A diversifying array of ICT applications is transforming work, medicine, finance, emergency management, media and other sectors. The expanding digitalization of urban populations is allowing greater access to a range of health resources.

However, digital trends can also create significant challenges, such as the radical expansion of misinformation and disinformation, including on health topics *(WHO 2024c)*. Increased data availability creates challenges for privacy, while the expansion of AI threatens to supplant workers in many industries, with potentially cascading health consequences. Most digital technologies carry the potential for adverse impacts if not well managed.

Major policy issues

Policy priorities differ widely across cities and countries, but may include how to:

- extend digital access and services to broader populations – e.g. to support governance, participation, communications, and access to services and opportunities;
- generate economic value from digital technologies – e.g. data generation and linkage, development of new applications and services – and regulate massive private-sector actors, such as big tech;
- improve the functioning of urban services and systems – e.g. through smart city approaches, digital twins, improved communications – during both regular operations and emergencies;

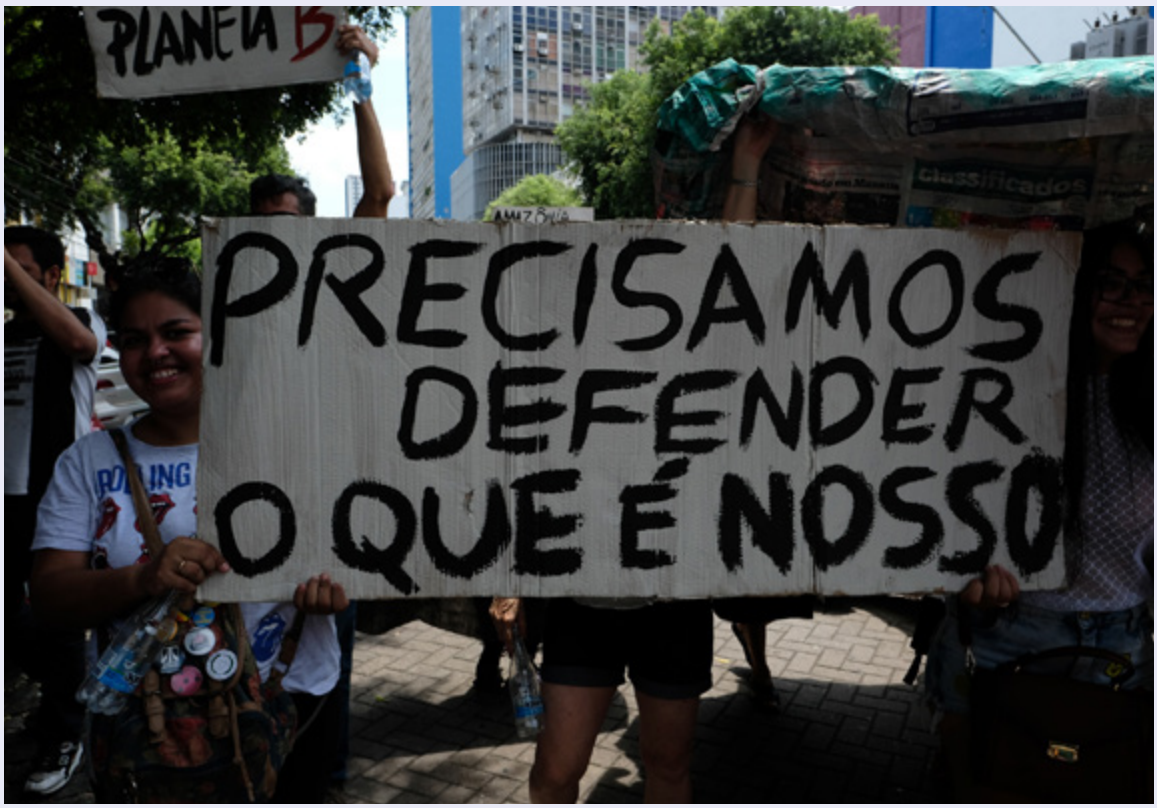
- manage security risks and other adverse issues arising from digital technologies – e.g. AI regulation, data security and cybercrime, privacy.

In urban environments, slums and informal settlements offer particularly challenging policy contexts for digital services, given, for example, deficits in physical infrastructure – including electrification, internet and housing; affordability issues; low digital literacy; and informality.

Increasingly, city and national governments are creating city- or national-level digital policy frameworks and strategies, which offer footholds for strategic urban health planning.

Box 2

Urban health and... **movements for social change**



Protest in defence of the Amazon. Manaus, Brazil: 2019. © Amazônia Real / Alberto César Araújo.

Just as urban health stakeholders can benefit from engaging with specific cross-cutting issues, understanding the evolving form of political processes is essential to identifying entry points for urban health action. For example, a range of social movements have played prominent roles in transforming policy discourses and politics in countries around the world over the past decade. These movements embrace diverse issues (e.g. women's

rights, minority rights, environmental stewardship), but share a focus on collective agency in shaping society, and have leveraged modern technologies and information environments to achieve notable change.

Movements for social change are the expression of a popular demand for agency and direct participation in shaping the environments and systems within which people live. In the urban context, they are concordant with the idea of the "right to the city", which articulates a primary role for urban dwellers in shaping and governing urban spaces and sharing in urban benefits, arguing for their collective empowerment and inclusion in decision-making *(Espey et al. 2023)*.[32]

Often arising from grassroots efforts, movements for social change can be anchored in a wide variety of issues, including equitable access to economic, social, legal and political opportunities; assurance of basic levels of essential goods and services (e.g. housing, transportation, utilities, education); or the alleviation of perceived injustices (or in some cases, restitution for past injustices), among others.

Virtually all such movements focus on issues with direct or indirect implications for health, and many or most are explicitly urban, drawing on the concentration of people and civic institutions in cities to foster collective mobilization. Although not all social movements are successful in achieving their goals, in many contexts they have influenced political discourse and led to significant urban-health relevant policy change *(Nathanson 1999)*. For example, in the USA, "public pressures created by the Earth Day movement… [contributed to] convinc[ing] Congress that national air quality standards were the only practical way to rectify the United States' air pollution problems" *(Rogers 1990)*. Political demands from social movements have been noted as an important enabler for other intersectoral issues like climate change *(Buse et al. 2022)*.

Key trends with implications for urban health

Movements for social change are not new: significant historical movements embraced abolition, universal suffrage, decolonization, civil rights, anti-war, anti-nuclear and environmental aims, among many others. However, modern social movements operate in a chaotic and evolving information environment, in which both information and disinformation spread much more rapidly; imagery can be easily shared and generate immediate impacts; and communication and collective organizing is simplified. The continuing evolution of the modern media environment (including social media) and ICT raises important, and as yet unresolved, questions about the form, efficacy and consequences – intended and unintended – of collective actio *(Young et al. 2019)*, and will have important implications for the ability of social movements to effect change in urban health outcomes and the determinants of health.

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[32] The right to the city paradigm, though contentious, was ultimately incorporated in the New Urban Agenda negotiated during the UN's Habitat III conference in 2016 *(Espey et al. 2023)*.

Major policy issues

Movements for social change take part in the policy discourses related to their specific objectives. Yet a number of policy issues often arise around social movements in general, including how to:

- protect and enforce the parameters and limits of acceptable discourse, including protest;
- provide legitimate opportunities for participation in policy processes and decision-making by urban dwellers and stakeholders – and determine the optimal form and extent of such opportunities;
- balance demands among movements that are competing for resources or in opposition;
- regulate information and communications environments.

Urban health authorities and advocates are well-positioned to develop evidence to assess and inform the policy demands of social movements. Fostering relationships with diverse social groups and creating linkages to health-positive movements can help advance long-term strategies for urban health.

Accepting the case for action on urban health and finding effective entry points are only the first steps in addressing key policy challenges: authorities must also translate intent and opportunity into effective urban health policy and practice. This requires more than isolated programmes or reactive interventions. It demands a comprehensive, systems-based approach, aligned with other societal priorities and integrated across sectors, levels of governance, and stakeholder groups – a strategic approach.

CHAPTER 3

A strategic approach to urban health

Children playing with dolls at home in Shahrak Jafaria, 13th district. Kabul, Afghanistan: 2024. © UNICEF/UNI671631/Neikrawa.

As part of taking a more strategic approach, the Guide urges urban health authorities to:

- account for complexity in urban health action;
- develop entry points by understanding and engaging with the overarching political, policy and programmatic context;
- create the necessary enabling frameworks to support strategic action;
- consolidate urban health action under an overarching strategy, where feasible.[33]

These recommendations can help policy-makers and practitioners improve existing urban health activities and increase the effectiveness and efficiency of future efforts.

3.1 Accounting for complexity in strategic action for urban health

Complexity is an intrinsic quality of urban areas and the main reason why urban health needs to be approached strategically. It has been suggested that "a city is essentially the problem of organized complexity..." *(Jacobs 1961)*. Such complexity reflects the abundance and variety of interactions – between individuals, institutions and environments – in urban areas *(Brelsford et al. 2024)*, which often give rise to challenging, unexpected or unpredictable outcomes. For instance:

- **Actions taken in one sector can have surprising and unanticipated impacts in others.** Not accounting for these impacts can lead to reduced effectiveness or adverse outcomes. For example, improving parks to foster physical and mental health may inadvertently raise property values, displacing poorer residents to places where they may face greater health risks – including due to longer commutes.
- **Small differences in the timing or scope of actions can lead to very different outcomes.** For example, delays of just days in identifying and responding to an infectious disease outbreak can dramatically affect its eventual size.
- **Decisions at one point in time limit the range of available decisions thereafter.** For example, the long lifespan of major urban infrastructure such as housing, road and utility systems, and the significant investment required, mean that decisions on its form can lock in the shape of the urban fabric for generations. Similarly, the perceived failure of a public health intervention, such as a violence prevention programme, can lead the public or policy-makers to resist related future interventions.

[33] See Annex 1 for an adaptable sample protocol for developing a preliminary strategy.

- **Promising interventions lose effectiveness over time**, even with increasing investment. For example, behaviour change campaigns, such as those around diet or exercise, can produce strong initial results, but become less effective as their novelty wears off; the elimination of diseases through vaccination can lead to vaccine hesitancy in individuals and populations that no longer perceive a threat.

- **"Solutions" worsen an existing problem.** For example, road capacity investments can initially alleviate traffic congestion, encouraging greater road use, so that the new system experiences even worse congestion *(Anupriya et al. 2023)*.

- **Competing actions or responses to interventions cancel out impacts.** For example, energy-efficient buildings that reduce energy bills may induce residents to increase their consumption of air conditioning; fuel-efficient car owners may drive more because it costs less *(Sorrell et al. 2009)*. Stakeholders may have conflicting interests that lead them to work in opposition to each other or to an intervention's desired impacts.

- **Emergent behaviour creates novel challenges.** Emergent behaviour refers to the properties of a system that cannot be observed in the properties of its parts. For example, traffic congestion can be thought of as an emergent property of the interactions among individual vehicles and with features of the road network *(Amézquita-López et al. 2021)*.

These unexpected outcomes are just some of the ways that complexity challenges urban health. Urban systems are able to self-organize and adapt to the efforts of decision-makers in surprising ways, causing the visible hallmarks of "systems problems" familiar to many urban health stakeholders *(ICSU 2011)*. Urban policy-makers, practitioners and other stakeholders deal with complexity all the time, even where it is not recognized or explicitly acknowledged. This complexity shapes not only the causal pathways that determine health outcomes, but also the functioning of governance systems.

NOTE

The unexpected patterns and outcomes described above arise from the interaction of characteristic features or "building blocks" of complexity as seen in urban areas. These include:

- the concentration of people, institutions, processes and infrastructure in urban areas or with urban impacts, which create complicated causal relationships;
- the high rate of change arising from these dense interactions, which means that conditions and solutions can shift rapidly;
- incomplete, inaccurate, biased or unusable information, which makes it harder to design evidence-based action;
- mismatches between the causes of ill health and the form of urban governance, which complicate recognizing and reacting to cross-sector or cross-scale health impacts;
- cascading chains of causes and effects that feed back on themselves, which can amplify or reduce effects and lead to unpredictable or counterintuitive results;
- accumulations of material or information, and the rates at which they change, which can shape the responsivity and ultimate behaviour of systems;
- delays in feedback, flows or information exchanges, which can create unexpected dynamics and impacts.

There are many opportunities or leverage points to intervene in complex systems like those that underpin urban health *(Sterman 2000; Meadows 2008; Stroh 2015)*.

Complex patterns of systemic behaviour in urban areas arise from how different urban elements, such as actors, relationships and information, interact. Many of these patterns have been classified and are well understood. Formal approaches to understanding complexity may appear unnecessarily complicated or even intimidating when unfamiliar. However, recognizing basic patterns and understanding their origins and implications are important skills that allow for more effective planning and better problem diagnosis *(Meadows 2008)*. Decision-makers should work to mainstream these concepts and methods, connecting them as straightforwardly as possible to urban health policy and practice – for example, using simple models *(Newell and Siri 2016)* or case studies *(Tan et al. 2019)* – and drawing on the relevant expertise of local partners (e.g. from academia).

Recommendations

Dealing effectively with complex systems affecting urban health requires:

- knowledge about their structure and functioning
- understanding of how different sets of actions will interact with them to produce likely outcomes
- knowhow to allow for careful design that avoids undesirable patterns
- the capacity to adapt rapidly to changing conditions.

To facilitate these goals, the responsible authorities should:

- **Train urban health practitioners and policy-makers at all levels to understand and manage the impacts of complexity.** Urban health authorities should receive basic training in complex systems and systems thinking – e.g. through group model-building exercises, system dynamics workshops, or more formal courses or certifications. They should understand typical patterns of systems behaviour and how resultant problems can be diagnosed and approached using systems thinking.[34] Strategic role-playing exercises or so-called serious games[35] that explore urban health issues can also increase awareness.

- **Extend monitoring and evaluation processes to capture unanticipated results of urban health policy and practice.** Beyond expected outcomes, urban health authorities should document how stakeholders across different sectors, scales and domains respond to policies and interventions, and how these responses affect implementation and broader impacts. For many urban health actions, monitoring associated changes in natural and built systems and how humans interact with them is also important. Monitoring systems should be designed to capture unanticipated results – for example, by incorporating multisectoral data collection to reveal cross-sectoral impacts, and inviting qualitative feedback from implementers and end-users. Routine, continuous monitoring of activities and processes, and episodic evaluation of interventions to provide in-depth analysis, are both essential.[36]

- **Anticipate intended and unintended results using scenario-based modelling.** Governments should apply scenario-based models to guide the planning and adoption of policies, decisions and interventions. This may imply the development of new, tailored models, but tools adaptable to local contexts are increasingly available – for example, the WHO HEAT tool for walking and cycling interventions *(WHO Regional Office for Europe 2023)* or the Health Appraisal for Urban Systems (HAUS) model[37] for health

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[34] A useful starting point is WHO's work on systems thinking for health systems strengthening *(de Savigny and Adam 2009)*, which explores these issues in an area of practice that will be familiar to many urban health authorities.

[35] Serious games are games that combine educational or communication or other "serious" objectives with entertainment. Typically computer-based simulations, they have been shown to hold promise for helping participants understand complex systems, increase social learning, and promote trust and collaboration, and to support learning and innovation in areas like water management and sanitation *(McConville et al. 2023)*.

[36] WHO's Urban HEART tool *(WHO Centre for Health Development 2010)* offers a set of indicators that can inform local monitoring.

[37] See Case Study 1 on page 27.

economic evaluation of urban environment interventions *(Eaton et al. 2023)*. Scenario-based models can leverage advances in computing power and be increasingly sophisticated, but even simple models can deepen understanding, as can exercises to design alternate scenarios *(Newell and Siri 2016)* or play-test scenario-based simulations.

- **Design decision-making and implementation processes to operate more effectively in the context of complexity.** For example, break down siloes, manage communication processes and information flows, incorporate multiple perspectives by fostering stakeholder participation and ownership, and make roles and responsibilities transparent. There are many ways to intervene in complex systems that differ in the strength of their likely impacts; similarly, decisions about system design can foster or decrease stability, efficiency, effectiveness and other desirable goals.[38]

- **Adopt adaptive governance and build adaptation into interventions, policies and strategies.** Incorporate contingency clauses or pre-agreed thresholds for foreseeable adverse circumstances, such as hazard levels or poor health outcomes, that automatically trigger implementation changes and formal policy reviews. These should be tied to monitoring systems. Adaptive policies can also be designed to come into force in the context of emerging opportunities, such as economic windfalls or favourable implementation conditions. Adopt regular review and reform processes with clear mandates for adapting existing procedures.

3.2 Entry points for urban health

Deciding where an initial effort is likely to provide a foundation for broader work is key to a strategic approach. Because urban health spans sectors, scales and domains, it may not be feasible to create a comprehensive strategy all at once. Often, decision-makers need to identify and develop entry points for strategic action.[39] An entry point combines two key elements:

- **a favourable situation**, where interests, resources and institutions align to create an opening for action;
- **the implementation of initiatives** that foster and lay a foundation for a broader strategic approach.

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[38] For more detailed guidance on effective management of complex systems, see, for example, *(Sterman 2000; Meadows 2008; Stroh 2015)*.

[39] The idea of entry points is not new; for example, they are discussed extensively in the context of WHO's work on integrating health into urban and territorial planning *(UN-Habitat and WHO 2020)*, where a good entry point is described as one that a) resonates with all actors and decision-makers, b) results in co-benefits across the widest range of SDGs, and c) provides access to a range of different types of interventions. Though the emphasis is slightly different, this description is consistent with this discussion on entry points for urban health.

Both these elements rely on informed judgement and analytic tools. The experience and intuition of local actors in identifying promising situations can be supported by concrete mechanisms to track discourse and evaluate potential actions.

Similarly, effective implementation requires both subjective recognition of what might work in a local context, and technical knowhow in designing strategic action.

EXAMPLE

In many cities and countries around the world, the COVID-19 pandemic was an entry point for innovative cross-scale and cross-sectoral action on urban health. It raised the importance of health on political and policy agendas, and vividly highlighted links between health and other sectors like housing, transport and green space, creating openings for action. At the pandemic's height, cities rapidly implemented cross-cutting interventions reimagining the use of public space, promoting walking and cycling, and advancing digital approaches to health, education and work, all with implications for urban health. While many pandemic-era emergency measures have been discontinued, others have evolved into fundamental changes, such as the broader adoption of cycling infrastructure in Paris, France. In many contexts, the entry points created by the pandemic led to a higher prioritization of urban health and new thinking on its determinants and solutions.

Entry points vary with local context across the broad scope of societal goals. They are inevitably temporary, shifting with political and public interest. Developing an entry point depends on situational awareness, and on preparedness. Where key actors have conducted preliminary planning, resources can be mobilized quickly within the window for action. Thinking politically about facilitators and barriers is critical for intersectoral action on issues that, like urban health, involve complex dynamics – climate change is a key example *(Buse et al. 2022)*.

Entry points may not, in themselves, foster sustainability, but they can be stepping stones to broader urban health strategies. Longer-term sustainability and resilience to changes in political and public interest depend on establishing a collective mandate; demonstrating ongoing value; linking into stable policy frameworks; and securing institutional commitments and long-term funding.

The most straightforward type of entry point is where urban health itself – or a particular health issue – is already a local priority. Here, the central objective is to lay the programmatic groundwork for a comprehensive strategy. This may involve adapting existing structures, such as national- or city-level health plans, or creating new ones from the ground up.

EXAMPLE

Focused on reducing deaths and diseases caused by air pollution and lack of clean energy access in cities, the WHO Urban Health Initiative *(WHO 2025e)* incorporates stakeholder mapping and processes to improve communication, bridge sectoral decision-making silos, and enhance intersectoral cooperation in its engagement with governments and partners. This makes it a promising entry point for a longer-term strategy that encompasses other aspects of urban health.

Where urban health is of low political salience, entry points can be developed by linking it to issues with higher priority – and, where feasible, by incorporating it into existing cross-cutting efforts. This depends on:

- understanding which issues are driving political agendas or emerging as future concerns;
- identifying influential actors or groups invested in these issues,
- building mutual understanding and alliances;
- understanding which potential or existing programmes or policies might feasibly incorporate urban health priorities;
- identifying where urban health can be incorporated into existing efforts in ways that benefit partners, and acting together to implement them.

High-priority issues typically relate to overarching societal interests, or align with the objectives of influential interest groups. Entry points can be linked to persistent or emerging challenges or perceived policy failures; acute events like disasters or news items that attract significant attention; major planned events like elections, international political summits – or even major sporting events *(WHO 2024a)*; or circumstances that lead specific settings such as schools or public spaces to become priorities for national or local governments.[40] In general, high-priority, cross-cutting issues that require multisectoral, multiscale action and have clear health linkages[41] represent useful entry points for urban health. Making connections to such issues also makes it likely that new work in those spaces will naturally incorporate urban health.

Developing entry points related to non-health issues rests on identifying and building relationships with influential actors. In prioritizing partners, it is important to consider capacities for advocacy, communication, organization and leadership, as well as power structures and how they are likely to shift, e.g. with demographic, economic or technological trends. Building relationships requires understanding how different actors respond to different channels for information and engagement, and how they engage with political, policy and public discourse.

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[40] Substantial prior work by WHO and others on settings-based approaches can inform entry point development *(WHO 2025b)*.

[41] See Section 2.2, which reviews how urban health relates to some of the key issues driving political and policy agendas in cities and countries worldwide.

A perception among influential actors that they share mutual interests with urban health can create opportunities for strategic action.[42]

It may in some situations be possible to embed urban health priorities within existing cross-cutting projects, programmes or policies. These should be stable and resilient to political or policy changes, and should feature coordination, communication, data, financing, governance and other structures that foster cross-sector, cross-scale integration. Such efforts allow urban health to leverage existing assets such as relationships among key actors, experience in and capacities for dealing with conflicts and identifying synergies, and tested ways of working. Leveraging these inherent co-benefits can represent a more cost-effective, efficient, and politically and publicly attractive option than creating new institutions or programmes from scratch.

For example, a comprehensive city-level heat or air quality management strategy will require mapping stakeholders, developing coordination mechanisms, allocating resources and designating authorities. Suitably managed and adapted, this work can support a wide range of other urban health aims, as can adapted emergency response plans or economic development strategies. Table 1 suggests existing programmes or policies that could provide the basis for an expanded focus on urban health.

[42] Relationship-building in the context of developing entry points is consistent with the tradition of assets-based approaches in community development, which emphasizes a community or locality's assets (e.g. people, places and processes) alongside unmet needs. The identification of existing assets that can play a role in improving health is a first step in integrating priorities and practice across different groups *(UN-Habitat and WHO 2020)*. Developing entry points involves highlighting the close linkages between health and other issues, and showing how existing work in other areas can bolster urban health and vice versa.

Table 1
Examples of potential national- and city-level entry points

Issue	Sample national-level entry points	Sample city-level entry points
Urban health	National Urban Policies (NUPs) are "coherent set[s] of decisions through a deliberate government-led process of coordinating and rallying various actors towards a common vision and goal that will promote more transformative, productive, inclusive and resilient urban development for the long term" *(UN-Habitat and Cities Alliance 2014)*.	Healthy City plans mandate a city-level political commitment to urban health and require arrangements for intersectoral leadership.
Demographic change	National demographic or population policies aim to influence a country's population growth, structure and distribution.	City plans under the WHO Age-friendly Cities framework present an integrated approach to improving the well-being of older people *(WHO 2007; van Hoof and Marston 2021)*.
Climate change	Nationally-determined contributions (NDCs) explain how countries intend to reduce greenhouse gas emissions to meet global climate goals *(United Nations 2024)* – 91% of NDCs now include health considerations *(WHO 2023a)*. National Adaptation Plans lay out how countries will identify and address medium- and long-term priorities for adapting to climate change *(Hammill et al. 2020; NAP Global Network 2023; UNFCCC 2024)*.	City Climate Action Plans "aim to help cities reduce greenhouse emissions and adopt low emission development trajectories, as well as adapt to the impacts of climate change and build local climate resilience" *(UN-Habitat 2015a)*. WHO's Health and Climate Change urban profiles *(WHO 2022b)* describe how some cities are rising to the challenge of climate change; they paint a picture of cross-cutting initiatives that can support broader urban health strategies.
Migration and displacement	National migration strategies provide clarity on a government's vision, principles and goals, establishing priorities and areas for action *(IOM 2024)*.	City-level migration strategies may involve centralized institutions (e.g. offices of immigrant affairs) or more diffuse programmes, aiming at workforce integration, legal protection, housing and other cross-cutting needs.
Health emergencies and disaster risk	National Disaster Risk Reduction (DRR) strategies offer a society-wide prescription for mitigating or avoiding the impacts of health emergencies, and often embrace cross-sectoral and cross-scale policy coherence and attention to multiple timescales *(UNDRR 2019)*.	The Sendai Declaration of Local and Subnational Governments recognized the role of local governments as the primary responsible authority in disasters, committing them to adopting local DRR strategies *(ICLEI and UCLG 2015)*. The WHO Framework for Strengthening Health Emergency Preparedness in Cities and Urban Settings offers cross-cutting recommendations *(WHO 2021b)*.
Sustainable development	Voluntary National Reviews measure national-level progress on achieving the goals of the 2030 Agenda, which has wide-ranging connections to urban health *(Ramirez-Rubio et al. 2019)*.	Voluntary Local Reviews measure city-level progress on achieving the goals of the 2030 Agenda.

Food systems and food security	National food policies or strategies address food-related issues at the national level, potentially including trade, marketing, labelling, nutrition, procurement, fiscal measures, food safety and other issues *(WHO 2021a, 2022d)*.	Under the Milan Urban Food Policy Pact, 300 cities worldwide have signed on to tackle food system issues at the urban level, committing to "developing sustainable food systems that are inclusive, resilient, safe, and diverse, that provide healthy and affordable food to all people in a human rights-based framework, that minimise waste and conserve biodiversity while adapting to and mitigating impacts of climate change" *(Municipality of Milan 2015)*.
Biodiversity and ecosystems services	The Kunming-Montreal Global Biodiversity Framework of the Convention on Biological Diversity, adopted by 196 countries in 2022, sets out a path to halt and reverse biodiversity loss by 2030; it includes short- and long-term goals and requires integrated action, including at urban scale.	City-level masterplans increasingly incorporate nature-based solutions to advance resilience and other climate goals *(World Bank 2021)* and to improve health.
Digital transformation	National Digital Strategies establish objectives and policy priorities, and outline necessary actions for implementation of digital transformation *(Priharsari et al. 2023)*.	Smart-city plans aim to implement a comprehensive framework for digital technologies to improve the efficiency of their systems and the lives of their residents; such plans can be aligned with the principles and priorities of urban health *(Jeong and Chung 2024)*.

Useful entry points for urban health can arise at any scale, and from a variety of issues (see Case Studies 5 and 6 below).

Recommendations

Urban health authorities and advocates should:

- **Build and maintain awareness of the landscape of political, policy and public opinion at city, national and global scales.** This includes tracking issues and interest groups relevant to urban health; understanding the mechanisms, timing, opportunities and constraints of local political and policy processes, and horizon-scanning for potential windows of opportunity. It may involve formal policy and stakeholder mapping, or less formal information gathering and relationship building.

- **Document and track local cross-cutting initiatives relevant to urban health at project, programme and policy scales.** This should encompass work initiated in non-health sectors with clear links to urban health, such as housing, WASH, air quality, transport, urban planning or climate action. It should track budget cycles and prospects for renewal or expansion of successful work.

- **Prepare for the emergence of entry points by scoping and planning urban health strategy in anticipation of opportunities for implementation.** Strategic planning can be time-intensive and contentious, but anticipatory exploration can help urban health authorities identify potentially valuable entry points, and can spotlight situations where a broader strategy might build on existing policies or programmes.

- **Ensure that entry points are a stepping stone for broader action.** Initial activities should embrace a long-term horizon, articulate a timeframe for comprehensive action, and incorporate adaptive elements as needed to establish urban health policy and practice. An entry point involves a focused response to a favourable situation – failure to develop it into a sustainable strategy is a missed opportunity and may even bias future efforts against focusing on urban health.

Case Study 5

Strategic action at different scales

Community-level action: Multisectoral street activation in Dandora, Nairobi, Kenya

Dandora Model Street Initiative. Nairobi, Kenya: 2023. © UN-Habitat.

The Dandora neighbourhood of east Nairobi, Kenya, sits next to the largest informal landfill site in East Africa. Over time, this proximity and a lack of regulation contributed to a process of urban decay, exposing residents to crime-related safety issues, hazardous waste, flooding, pollution, poor living conditions and other health hazards.

In 2015, the Making Cities Together project, an NGO-led multistakeholder placemaking initiative, brought together design teams with local stakeholders to propose multisectoral strategies for improving some of Nairobi's most challenging public spaces. In a competitive process, the Dandora "Must Seed" strategy, which focuses on upgrading the community's inner courtyards and street network, was selected for further development. The strategy's first step was the creation of a "model street". To reimagine the space together, the Dandora Transformation League, a local youth-centred NGO devoted to community improvement, collaborated with UN-Habitat and other partners to implement Minecraft workshops with a diverse set of community members. The multifaceted intervention that emerged from this process included improved

lighting, road paving, better accessibility, a bicycle-sharing programme, opening drainage lines, painting building facades, clearing rubbish and installing bins, creating play areas, planting trees, installing roadside business kiosks and constructing new neighbourhood gates.

The key to this placemaking approach is its holistic, strategic perspective: different elements of the intervention reinforce one another to create better results. Improved safety allows for better economic opportunities; cleaner public spaces motivate home improvements; better streets foster play, improving social cohesion. The community-led intervention has contributed to improved cleanliness, reduced flooding, better employment, social bonding, opportunities for socialization, and improved safety, among other health benefits.

Dandora's Model Street Initiative has also been a seed for wider action. Adjacent communities are implementing similar improvements, and the collaborative process is being scaled up to foster placemaking initiatives across Nairobi.

City-level action: The Healthy Urban Living team, Utrecht, the Netherlands

In the Netherlands, the city of Utrecht has integrated health into urban planning activities, as part of its broader commitment to strategic planning for urban health. In 2015, facing evolving challenges from climate change and expanding urban development, Utrecht reorganized its public health institutions, taking over responsibilities from the regional public health service and creating the Healthy Urban Living planning team, which is unique in the Netherlands.

Newly built neighbourhood of Nieuwe Defensie. Utrecht, Netherlands: 2025. © Miriam Weber.

The team consists of a panel of five professionals who provide health advice on all aspects of planning, policies and projects related to spatial development. It aims to improve health and tackle inequalities by fostering measures to reduce adverse environmental exposures and promote healthy lifestyles. Members contribute to multidisciplinary discussions across all neighbourhoods of the city, occasionally joining project teams for urban developments with significant health implications and for policies that influence environmental determinants of health. All formal documents requiring approval by the city council – including vision statements, design documents and permits – must include text summarizing advice on healthy urban living.

Beyond the team's impacts across the city, the decision to mandate greater integration between health and planning has contributed internally to better mutual understanding and more fluid working practices across departments. The new organizational structure and formal policies created a mandate and incentives that were key to successful integration. More broadly, the team has facilitated the adoption of a health in all policies approach across local government.

The Healthy Urban Living team now has over a decade of practice, with its activities, ambitions and budget reaffirmed in successive four-year public health policy plans, signalling the expansive, long-term vision the city has adopted for urban health. The team represents one element in a broader programme of activities, including strategic ambitions for multiple cross-cutting issues *(Gemeente Utrecht 2025)* and the development of a spatial strategy for 2040 that envisions long-term implementation of these ambitions *(Gemeente Utrecht 2021)*. Through these efforts, the city exemplifies a strategic approach to urban health.

Country-level action: the Philippines' Healthy Community Strategy

Although most urban health activity takes place at city level, national-level processes also play a significant role. An effective national strategy for urban health can transform local actors' ability to act strategically.

In 2019, the Philippine Universal Health Care Act required local government units – including cities – to implement policies and programmes to address a range of health issues, including communicable and noncommunicable diseases and their risk factors, and mental health. This set the stage for a broader approach to health promotion, and in 2021, the Department of Health and the Department of the Interior and Local Government formulated a Joint Administrative Order establishing the "National Policy Framework on the Promotion and Recognition of Healthy Communities".

The Healthy Communities Framework is operationalized and guided by a Technical Working Group with representatives from 19 national government agencies and organizations. The framework encourages local government units to foster healthy environments in 12 domains of action. It provides guidance, for example, through 13 Health Promotion Playbooks on

themes like active transport, healthy food systems, hand hygiene and mental health. Each playbook offers evidence-based, contextualized guidance, including evidence summaries, policy templates, implementation plans, resource needs, capacity-building modules, communication strategies and monitoring plans.

The Health Promotion Bureau of the Department of Health works with local counterparts to implement the framework. Health Promotion Units have been established at regional, city and *barangay* (neighbourhood) levels. Local government units are guaranteed financial assistance and provided with incentives, which foster the institutionalization of guidance and improve its scalability. Units that integrate promotive and protective elements into their environments and health care systems receive formal recognition as Healthy Communities.

A local park and playground in Bohol Province. Philippines: 2022. © MDV Edwards.

These efforts have transformed the Philippines' approach to health promotion, signalling a shift from tackling diseases to tackling the underlying determinants of ill health. The promulgation of a national-level strategy radically increases the likelihood that individual cities will take up strategic action for urban health; the extensive guidance provided makes it more likely they will do so successfully.

Case Study 6

Strategic action in different sectors

Strategic action ideally encompasses the broad range of sectors, stakeholders and determinants that influence urban health. Yet sectoral activities can also be strategic where they account for complexity, adopt a forward-looking perspective, and take on other elements of strategic action. Activities focused on an individual sector can be a natural entry point for a broader urban health strategy.

Addressing air quality in Warsaw, Poland

Over 99% of people worldwide breathe air that does not meet WHO air quality standards, making it a near-universal threat to urban health. Polish cities are among those experiencing the most significant air quality challenges in Europe – and transport-related emissions are among the most important local factors. In Warsaw, a concerted, collaborative effort to highlight the magnitude of the problem helped overcome political challenges, leading to the establishment of a low-emission zone (LEZ) in 2024.

Pedestrian crossing in Warsaw, Poland. 2023. © Shutterstock / Margy Crane.

Due largely to imported second-hand vehicles from Western Europe, Poland has one of the oldest, most polluting vehicle fleets on the continent. Car ownership is high – as of 2022, Warsaw had more registered cars than city residents – and foreign cars, which make up one third of the total fleet, tend to be significantly older and more polluting than domestic ones. To address this source of ill health, advocates called for the introduction of an LEZ, which has proven effective for reducing pollution in other cities around the world *(Clean Air Fund 2025)*.

However, the context was challenging: a pilot LEZ introduced in Krakow in 2019 was discontinued after only nine months, due to a lack of detailed data on the key sources of transport-related pollution, a weak legal framework, and public unfamiliarity with the project – as well as design deficiencies *(Clean Air Fund 2025)*.

Drawing on lessons from this pilot, a coalition of actors worked to improve the evidence base and make a stronger case for LEZs in Poland:

- In 2020, The Real Urban Emissions (TRUE) Initiative obtained a grant from the Clean Air Fund to conduct a large-scale remote sensing emissions monitoring project in Warsaw. TRUE modelling estimated that an LEZ could reduce emissions of nitrogen oxide by 30% and particulate matter by 57%. The oldest cars were found to contribute inordinately to these emissions: TRUE's data showed that "actions ... target[ing] the oldest and highest-emitting vehicle groups can have a disproportionate positive impact... while affecting only a small portion of the Warsaw fleet" *(TRUE Initiative 2023)*.
- A global environmental consultancy estimated that the LEZ "could deliver an annual net benefit to Warsaw society valued at €665 million (2.9 billion zloty): 12% of the city's annual budget" *(Ricardo 2024)*.
- Profeina, a Warsaw-based PR agency carried out a public awareness campaign to inform residents about the potential benefits of LEZs and dispel misinformation.
- Learning from the Krakow experience was applied to amend the Electromobility and Alternative Fuels Act, which serves as the legal basis for LEZs in Poland.

Warsaw' city leadership collaborated closely with these efforts, and in 2023, armed with new evidence, announced its intention to introduce an LEZ *(TRUE Initiative 2023)*. The city held a draft consultation on the proposed zone for three months – substantially longer than the standard 21-day period – to foster public buy-in; a survey of city residents eventually found 70% support for the initiative *(Peck 2023)*.

This success was not guaranteed: it depended on strategic action by a coalition of partners. Now, Krakow – also informed by a dedicated analysis of local emissions – is back on track to reinstitute an LEZ.

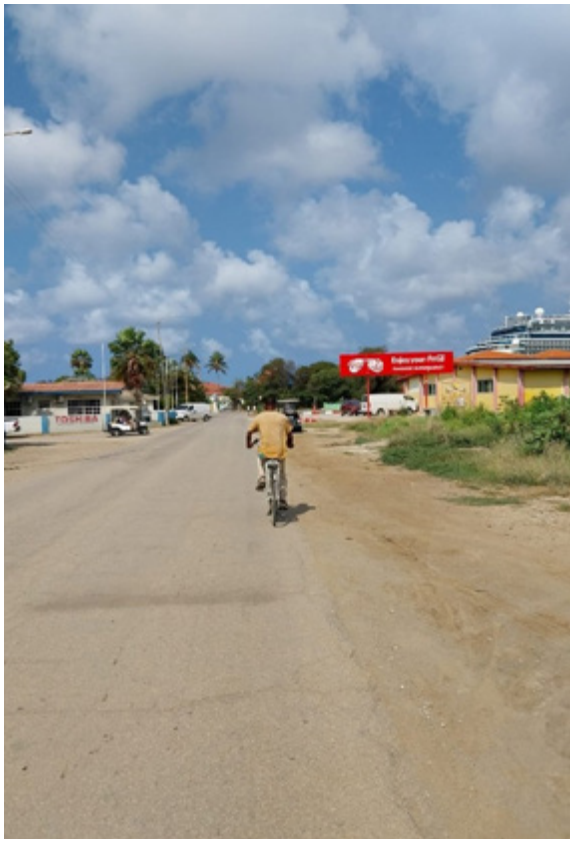
Improving active mobility in Bonaire, Kingdom of the Netherlands

The transportation sector has close ties to urban health, both due to its direct impacts on areas such as physical activity, road traffic and mental health, and because transport options deeply affect how urban dwellers interact with other urban features and services.

In the Caribbean Dutch municipality of Bonaire, an action research project is seeking to transform mobility to improve health and health equity, motivated by high levels of overweight and obesity (around 60%) and other preventable health conditions among the island's 25 000 residents. Supported by the Ministry for Health, Welfare and Sport, the Urban Cycling Institute is spearheading a four-year project from 2024 to 2027, in collaboration with Baislife Bonaire,[43] to co-develop and implement a set of evidence-based policy recommendations for active transportation.

The project incorporates a range of strategic elements, including:

- broad situational analysis drawing on multiple lines of evidence, including policy analysis, literature review, stakeholder mapping and consultation, surveys, remote sensing analysis and direct observation;
- participatory engagement bringing together urban stakeholders, government actors and community members to explore solutions, with recognition of the importance of translation to foster broader input;
- an emphasis on cross-sectoral collaboration – e.g. with stakeholders from sports, tourism, housing and land-use planning (a lack of effective cross-sectoral collaboration has been seen by stakeholders as an impediment to achieving broader impacts on the island);
- a longer-term project architecture designed to foster robust evidentiary processes, demonstrate stability, encourage collaborative relationships, permit course correction, and counter perceptions that short timelines (e.g. less than a year) hampered previous projects.



Practicing active mobility in Bonaire. The Netherlands (Kingdom of): 2024. © Dylan Power.

[43] A local platform that promotes cycling *(Bais Life Bonaire 2025)*.

Among key insights so far is that although many policies and strategies relevant to mobility already exist on Bonaire (e.g. for climate, the environment, economic development, education, infrastructure or tourism), a dearth of evidence on implementation or evaluation limits learning and the ability to build on prior results. As the project moves into the design phase, establishing links to other sectors and existing strategies will be key to successful implementation of healthy mobility. Although transport-focused, the project therefore has potential to catalyze broader inquiry into strategic urban health action.

Strengthening health systems in Dhaka, Bangladesh and Pokhara, Nepal

The dynamic complexity of urban areas means that health systems in these contexts deal with the same challenges that apply to broader action on urban health. For example, multiple authorities operating in different areas or at different scales create silos which may struggle to coordinate, and data may be fragmentary or absent, especially in informal settlements. Under these circumstances, it is difficult to ensure that urban dwellers have access to the best care.

Discussing NCD prevention practices in a private pharmacy. Pokhara Metropolitan City, Nepal: 2024. © HERD International / Raju Raman Neupane.

The Community-Led Responsive and Effective Urban Health Systems (CHORUS) consortium brings together health researchers from Africa, South Asia and the United Kingdom to "help build responsive, resilient and equitable urban health systems *(CHORUS 2024)*. Its work focuses on linking providers, fostering multisectoral collaboration, responding to noncommunicable and communicable diseases, and engaging the urban poor. In Dhaka, Bangladesh, and Pokhara, Nepal, two CHORUS efforts have taken strategic action to address health system challenges in the context of noncommunicable diseases (NCDs).

In Dhaka's pluralistic urban primary health care system, facilities are managed by a range of government authorities.[44] Many lack NCD-specific recording and reporting systems, meaning that government data repositories often do not reflect up-to-date NCD status from urban areas. This issue is compounded by absence of spaces dedicated and staffed to handle NCD cases, and by irregular access to NCD-specific medicines and testing facilities. Following consultations with a range of governmental and nongovernmental stakeholders, the CHORUS consortium – represented locally by the ARK Foundation – addressed this challenge by implementing the Simple App in primary health care facilities in Dhaka. This user-friendly digital application, originally used in rural areas, collects relevant NCD data, facilitating the monitoring of NCD status at patient and population levels. It improves consistency and accuracy in data reporting, updates and analysis, and feeds directly into Bangladesh's unified health information platform, facilitating access by local government and health decision-makers to urban NCD evidence.

In Pokhara, Nepal, the health system is similarly complex, with multiple public and private providers operating overlapping systems of varying quality, poor coordination across tiers of government and systems, unclear roles and limited regulation – all in a context of limited municipal capacity. This makes it difficult to pursue evidence-based policy, planning and budgeting, or to provide optimal care – especially for the poor and those in informal settlements, where data are least available. Representing CHORUS, HERD International carried out an in-depth mapping exercise characterizing health facilities and their services across Pokhara Metropolitan city. This uncovered important patterns, such as the predominant use of private pharmacies by patients as a source for medication. The metropolitan city has used census results to inform local health service policy and budgeting, and to formulate new guidelines to regulate quality of services. For example, a co-creation process brought together private pharmacists with the public health system to customize a package of essential NCD interventions for primary health care;[45] this process built trust across systems and has contributed to closing significant gaps in evidence and care.

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[44] Including the Ministry of Health and Family Welfare; the Ministry of Local Government, Rural Development and Cooperatives; or various city corporations.

[45] Also known as a PEN protocol. See, for example, WHO *(2020d)*.

3.3 Means of implementation for a strategic approach

Achieving the highest levels of urban health depends on establishing an enabling framework for strategic action. This includes mechanisms to understand the situation on the ground, make and carry out decisions, adapt to changing circumstances, and coordinate and communicate among multiple stakeholders. These mechanisms reinforce one another and make up the means of implementation for urban health.

FURTHER DETAIL

Means of implementation are familiar from the 2030 Agenda for Sustainable Development and other development frameworks. They are defined in the Addis Ababa Action Agenda on Financing for Development as "the interdependent mix of financial resources, technology development and transfer, capacity-building, inclusive and equitable globalization and trade, regional integration, and the enabling environment required to implement the 2030 Agenda" *(United Nations 2015a)*. This section reviews the application of this concept to urban health.

Well-designed, well-functioning means of implementation make it more likely that governments will achieve their urban health goals. They create a cross-cutting, forward-looking mandate, binding important actors behind common objectives and aligning urban health with other societal priorities. They account for complexity; improve communication and coordination; reduce potential cross-sectoral conflict, and strengthen the efficacy, efficiency, flexibility and sustainability of urban health policy and practice.

A focus on the means of implementation is longstanding in prior work by WHO and others on health promotion and sustainable development. For example, The Second Adelaide Statement on Health Promotion asserts that "[health in all policies] works best when a combination of factors are in place: good governance; development of strong and sound partnerships based on co-design, co-delivery and co-benefits; dedicated capacity and resources; and the use of evidence and evaluation" *(WHO and Government of South Australia 2019)*. Good governance has also been a key point of emphasis, for example, in the Healthy Cities movement. This Guide reviews the means of implementation in the context of urban health, outlining eight important elements:

- Governance
- Financing
- Institutional and human capacity development
- Data generation and infrastructure

- Evidence-based decision support
- Innovation
- Partnerships
- Participation.

Prescribed activities in these areas will vary with local context, but all are critical to achieving the highest levels of urban health.

FURTHER DETAIL

In 2023, WHO implemented a series of participatory policy consultations on the means of implementation for urban health. The consultations aimed to gather and distil state-of-the-art practical knowledge to support a strategic approach. Participants represented multiple domains (academia, civil society, government, multilateral organizations and the private sector), and were geographically and contextually diverse. For more information, see the WHO Policy Briefs for a strategic approach to urban health *(WHO 2024f)*.

3.3.1 Governance

Urban health governance is the framework through which decisions affecting the health of urban dwellers are made, delivered and accounted for. Components of this framework include the institutions, rules, processes and criteria used to deliver governance functions.[46]

[46] In other work, WHO emphasizes participatory elements of urban governance for health, particularly with respect to interaction and consensus-building among state agencies and society. In this Guide, Box 3 on page 90 describes the WHO Urban Governance for Health and Well-being project and several of its initiatives *(WHO 2025c)*. Section 3.3.1 focuses on the aspects of governance within the ambit of the public sector. However, participation and partnership are essential to the broader shaping of decisions that affect urban health. This is recognized both in the elements of the strategic approach described in Section 1.3 and in dedicated sections below.

NOTE

Governance involves many different functions, including:

- decision-making (e.g. strategy development, planning, agenda-setting)
- rulemaking (e.g. legislation, regulation, policy development)
- implementation (e.g. service delivery, programme management)
- oversight (e.g. monitoring and evaluation, coordination, rule enforcement)
- conflict resolution (e.g. mediation, negotiation, adjudication)
- representation (e.g. participatory practices, stewardship of group interests)
- economic and resource management (e.g. budgeting, taxation, fiscal transfers)
- information management (e.g. communication, education).

The cross-cutting nature of urban health poses distinctive challenges for governance. Because health outcomes depend on a multitude of sectors, the health sector alone cannot adequately address needs – as long emphasized by the health in all policies framework *(WHO and Finland. Ministry of Social Affairs and Health. 2014; WHO 2015a; Amri 2022)*. For example, reducing the burden of cardiovascular diseases depends on actions and complementary governance structures in sectors including food, transport, urban planning, green space and the environment. Likewise, approaching urban health solely from the city level will not address important national-level determinants – city governments are best placed to understand urban health challenges, primarily responsible for implementing measures, and more directly accountable to stakeholders than national governments. However, national governments can also shape the enabling environment – for example, through legal, regulatory, financial and resource policies, and large-scale infrastructural and economic initiatives. A governance framework should also include civic and private actors and communities, which can offer important evidence, knowhow and buy-in for urban health initiatives.[47]

Urban health governance must coordinate action across sectors, scales and domains. Where interventions are not related by strong systemic linkages, parallel efforts toward a common goal can produce good results. However, situations continually arise in urban health that demand complementary or integrated action. Governance frameworks to account for these factors are different from the typical specialized structures used to deliver sectoral initiatives such as roads, education or health services. They require overarching mechanisms to align objectives, allocate responsibilities and coordinate actions across disparate actors.

47 Inclusivity has limits, as governments must be able to deliver on urban health objectives despite potential conflicts or disagreements among stakeholders about decision-making. There are also situations where stakeholders with vested interests or those promoting health-harming practices should be excluded from participation.

To structure governance systems effectively to achieve urban health goals, governments must consider trade-offs among different potential arrangements of authorities and institutions – e.g. a single locus of authority versus a decentralized model with stronger coordinating mechanisms – bearing in mind that existing governance structures, often siloed, may resist change. There is no single governance arrangement that works in all contexts, and decisions about policy-level interventions and integrated action must often be taken without hard evidence *(Mesa-Vieira et al. 2023)*. Decision-makers will need to rely on practical experience in managing complex urban challenges to assess what governance structures are likely to work in a given context.

Recommendations

Establish a whole-of-government political mandate for urban health, including formal policy commitments that embed health as a core, integrative governance priority. These may involve dedicated instruments, like a national- or city-level urban health strategy, or be embedded in other vehicles, such as strategies or policies for health, economic planning, infrastructure development or other goals. Beyond top-down commitments, authorities should raise awareness and build consensus by making strong internal and public cases for broad-based strategic action on urban health.[48] An alignment of interests can create a time-limited entry point. The crucial next step is to ensure that a mandate will outlast changes in political discourse or government priorities – for example, by tying it to stable institutional mechanisms or allocating long-term funding.

Define urban health responsibilities clearly and create accountability. For policy-makers and practitioners across government to pursue a common mandate and collaborate effectively with urban health stakeholders, their roles and responsibilities must be well-defined and transparent. Pertinent frameworks of legislation, regulation or policy that define urban health authorities should clarify leadership and reporting structures for urban health, and confirm that all actors have the jurisdiction and powers necessary to their roles. No single arrangement will be suitable everywhere; urban health authority may rest with the health sector or other sectors, in new or established institutions, and can be centralized or dispersed. Performance indicators and incentives for individuals and institutions – including in sectors beyond health – should reflect these arrangements and favour collaboration over competition *(Bennett et al. 2018)*. Transparency should be held up as a core value to foster social accountability *(WHO 2017c)*. Cross-cutting institutional mechanisms such as interdepartmental bodies can support accountability and help clarify responsibility. All these arrangements require periodic review to ensure ongoing relevance.

Establish or strengthen coordination mechanisms. Dedicated mechanisms for information-sharing, constructive debate, collective decision-making, community engagement and joint implementation are essential not only to coordinating differentiated responsibilities – such as those between national- and city-level governments and with other partners – but to carrying out integrated

[48] This can involve illustrating the costs and potential benefits of urban health action per se, or showing how urban health links to other issues (see Chapter 2 on the case for urban health).

interventions. These mechanisms may include institutions (e.g. urban health steering committees); incentive structures (e.g. designated funding for intersectoral innovation); information channels or products (e.g. reporting tools, public dashboards or community feedback mechanisms); or rules (e.g. making multilateral consultation mandatory in policy formulation). They should account for coordination across sectors, scales and domains – collectively catalysing coherence in urban health practice and policy-making, aligning them with other societal priorities, and establishing cross-cutting collaboration as a guiding principle.

3.3.2 Financing

Financing includes the capacities, processes and institutions involved in procuring, allocating and disbursing funding *(WHO 2023e)*. Sources of funding for urban health include intergovernmental transfers, pooled funding mechanisms, taxation and external borrowing.

Traditional sector-based funding is rarely fit-for-purpose for complex, cross-sectoral urban health issues *(WHO 2023e)*. Diverse, complementary financing is essential for addressing related cross-cutting issues like urban climate action *(UN-Habitat 2024)*. Yet integrating funding from different sources and across government entities is politically and administratively challenging; sectors have their own budgeting processes, performance indicators and constraints. Overlapping authorities can create bottlenecks, delays and inefficient bureaucratic processes, such as excessive reporting requirements, that discourage joint working.

Equivalent challenges apply across scales. Higher-level governments, facing different political and policy pressures and with less direct connection to ground-level facts, may allocate funds in ways that constrain local governments from taking the most effective action. Similarly, private and international donors often prioritize project-level work rather than more strategic systemic interventions that could drive lasting improvements.

Competing interests in the crowded urban institutional environment mean that funding is often scarce. The scale, complexity, upstream nature and long-term horizon of many impactful urban health interventions can make it politically and logistically challenging for local governments to fund them, especially without robust evidence on their effects. Evidence gaps – related both to complex interventions and specific contexts, such as informal settlements – make it unlikely that funds will be optimally allocated *(Friel et al. 2011)*. Extensive bureaucratic red tape can discourage local actors from exploring promising interventions, and some may lack the financial knowhow to maximize funding opportunities.

To finance urban health effectively, governments require information about the health and economic implications of different funding decisions; funding modalities to support strategic action – including integrated policy and practice, or activities with a long-term horizon; mechanisms to maximize available funds, and ways to develop stakeholder capacity to take advantage of financial opportunities.

Recommendations

Expand assessment of the costs and benefits of urban health action. To rationally allocate resources, authorities must understand the health impacts and economic implications of potential policies and practices, and their alternatives – including those in non-health sectors or which span sectors or scales. Governments at all scales should require health and health equity impact assessments for significant urban policies and interventions – particularly for vulnerable populations and underrepresented urban contexts. Economic evaluation should be widely applied to proposed interventions to estimate the potential cost savings from averted ill health and economic gains from improved health – e.g. as a result of higher labour productivity and lower school absenteeism.[49] Assessments should consider not only simple, sectoral interventions, but complex, multisectoral projects, e.g. slum upgrading or transit-oriented development schemes, as well as upstream policies and regulation, e.g. migration policy or zoning rules. Budgets should be regularly reviewed in light of findings.

Restructure financial mechanisms to support strategic urban health policy and practice. Governments need to ensure that resources for urban health authorities are well-aligned with needs; that financial processes facilitate spending on the most beneficial activities, and that the public institutions involved are motivated to collaborate. To improve alignment with needs, they should seek better information on costs and benefits, foster coherence via effective communication across sectors and scales, and allocate spending decisions to local actors with the closest view of problems. To facilitate spending on complex interventions, budgetary frameworks should incorporate mandates and mechanisms for joint working, such as pooled funding, and rules to foster cross-accountability. To improve motivation, governments should clarify authority structures and responsibilities, reduce bureaucratic inefficiencies and regulatory burdens like onerous review processes, and provide relevant incentives, such as performance-based budgeting.

Increase the scope, resilience and sustainability of urban health financing. Developing innovative revenue streams like land-value capture, congestion pricing, or social or health impact bonds can increase funds available for investing in urban health. Engagement with private-sector and international donors can also be useful – with due consideration for potential conflicts of interest. Resilience can be enhanced through adaptive financing models that allow for funds to be reallocated with changing conditions, and contingency funds for unexpected urban health challenges. Building city-level and public-sector capacities for financial planning and management is critical for developing new financing channels and institutions, and ensuring their resilience and sustainability.

[49] See Case Study 1 on page 27.

Case Study 7

Building a mandate for urban health: Cape Town's integrated urban health plan

Cape Town City Council chamber. South Africa. © City of Cape Town.

Establishing a mandate for urban health across government is one of the key steps toward implementing strategic action. Ideally, a cross-cutting mandate aligns internal expectations and objectives across departments and staff, reducing friction and lowering resistance to exploring new norms and collaboration frameworks. Externally, it creates a mechanism for accountability, while encouraging other urban stakeholders to think in integrative ways about health.

In Cape Town, South Africa, an opportunity to establish a cross-cutting mandate arose in the aftermath of COVID-19. The pandemic pushed the city government into unfamiliar new measures to meet residents' urgent needs, including a variety of cross-cutting coordination structures. For example, hotspot technical coordinating committees brought together city and provincial health departments, with sectoral representatives from safety, security and

communication to augment primary care services and adjust preventative measures. A separate multisectoral coordinating structure was established to facilitate service delivery and health interventions in under-serviced informal settlements.

The pandemic exposed less visible aspects of urban vulnerability – for example, the ways in which underlying comorbidities and poverty increased risk. It highlighted the need for multisectoral policies and activities to address the upstream and wider determinants of health; for urgently improving the agility of service provision, and for upgrading data capture and visualization to meet emerging challenges. Overall, the pandemic reinforced the idea that compared with the social determinants of health, "healthcare itself plays a relatively small role in overall health" *(Berkowitz et al. 2021)*.

In Cape Town, the end of the pandemic coincided with a political transition, and the new city government's Integrated Development Plan was created in full sight of lessons from COVID-19. The plan committed for the first time to implementation of an integrated Urban Health Programme, under which a comprehensive conceptual framework was developed to guide urban health action. The framework offered "a multi-level, integrated view of health determinants in urban settings, emphasizing a spectrum from immediate, individual factors to broader, systemic issues, and the dynamic interplay between these elements in the context of health outcomes" *(City of Cape Town 2024)*. It also outlined a set of indicators to inform monitoring, encompassing priority determinants and health outcomes.

The framework was developed through a consultative process involving sectoral departments relevant to urban health, including urban planning, water, sanitation, energy, housing, health, transport and resilience. This methodology built common purpose and understanding. The framework makes clear how health outcomes link to mandated city functions, while the chosen indicator set draws on existing city performance indicators, where feasible – simplifying the rationale for city workers in other sectors to participate in urban health, and reducing the burden of their doing so. While barriers remain, creating valid, rational arguments for including health outcome measures in strategic planning has created new opportunities to collaborate, as different units across government see the value in this approach.

The conceptual framework outlined a five-year plan toward the establishment of an Urban Health Unit – currently in Year 3. Future elements may include the development of an Urban Health Strategy to guide the adoption of a more comprehensive approach. In the meantime, the mandate already established increases the likelihood that Cape Town will be able to tackle the complex urban health challenges it faces.

Box 3

WHO Urban Governance for Health and Well-being initiative (2020–2028)

City governance influences the determinants of health, well-being and equity by shaping the conditions, policies and partnerships that impact urban populations. COVID-19 exposed vulnerabilities in city governance and public health systems, and highlighted weaknesses in their resilience to complex social, economic and environmental threats.

Strengthening urban governance is crucial for cities to better anticipate public health challenges and promote health, well-being and equity. Empowering people to increase control over their health, and enhancing social participation and societal dialogues, are also key to resilience and cohesion. Cities that incorporate a health promotion approach and an equity lens into their governance systems are more likely to be able to effectively address the complex challenges of the 21st century and contribute to achieving the Sustainable Development Goals (SDGs).

In 2020, WHO, with the support of the Swiss Agency for Cooperation and Development, launched the Urban Governance for Health and Well-being initiative, anticipated to run until 2028 *(WHO 2025c)*. With its major focus on transforming governance, the Initiative aims to accelerate actions that advance multiple SDGs, especially SDG 3 (Ensure healthy lives and promote well-being for all, at all ages) and SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable).

Grounded in the WHO Healthy Cities approach, the Initiative aims to develop and strengthen participatory, multisectoral and multilevel urban governance, centralizing health and well-being in urban decision-making processes; empowering and involving individuals and communities in decision-making; engaging sectoral actors to positively influence the determinants of health, and promoting effective multilevel governance.

It supports local governments to achieve their health and well-being goals through 1) institutional and policy frameworks for participatory and multisectoral urban governance for health and well-being, 2) capabilities building, operational research, and knowledge generation for urban health governance, and 3) governance and social innovations to promote participatory approaches and co-design of interventions for health and well-being by local government and communities.

The initiative works directly with cities, mayors, local and national governments, urban community representatives, civil society organizations and international academic partners.

It is being implemented in six cities: Khulna (Bangladesh), Bogota (Colombia), Douala (Cameroon), Mexico City (Mexico), Pasig City, Metro Manila (the Philippines) and Tunis (Tunisia). It is also strengthening regional Healthy Cities networks and advocacy efforts to place health high on the political agenda of engaged mayors.

In its first phase (2020–2024), cities identified a range of priority issues related to informal settlements, basic public services and social cohesion. These issues, of concern for the city and local communities, served as entry points to strengthen urban governance for health and well-being, and improve the means of implementation. Academic partners and international health promotion experts offered guidance and mentored local decision-makers, public-sector officials and community representatives in establishing a whole-of-government political mandate; developing or strengthening mechanisms and processes for multisectoral collaboration and civic engagement; and mobilizing resources. This complex intervention aimed to improve governance functions such as representation, decision- and rulemaking, service delivery, oversight, negotiation, mediation, and resource and information management, thereby creating an enabling environment for embedding health and health equity in urban planning and development.

Urban Governance for Health and Well-being in Douala, Cameroon

Douala, composed of six districts, is the largest city in Cameroon, with 20% of the country's urban population. The city is subject to various sources of pollution, as waste collection is hampered by the lack of motorized roads in disadvantaged neighbourhoods. Public services are insufficient, often located at the city centre, and provided by the private sector. Access to safe water remains a problem in many areas.

Street life in Bessengue, Douala. Cameroon, 2020. © Unsplash / Edouard Tambe.

Under the leadership of the mayor, a multisectoral coordination committee was established to implement and monitor the City Action Plan 2023–2025; the plan was developed through a participatory and iterative process as a first step in operationalizing the initiative. At the same time, to accelerate local action, a group of urban champions appointed by the mayor participated in the WHO Urbanlead programme. They identified access to safe, high-quality water as a key entry point for addressing health determinants such as cholera. Working in collaboration with the municipality, traditional leaders, civil society, community members and the private sector, the group helped establish an intersectoral community water management committee, formally created through a municipal decree. This led to improved waterpoint management, the drilling of new boreholes, and strengthened community leadership in WASH and health promotion. The success of this model inspired other districts to adopt participatory, multisectoral governance approaches – particularly to address public health challenges in traditional food markets – with similar municipal actions expected to follow. In the second phase of the initiative, efforts will focus on strengthening multisectoral and inter-municipal collaboration, empowering communities to participate more actively in decision-making, enhancing leadership and management of community projects, and creating healthier environments with improved access to essential services.

Urban Governance for Health and Well-being in Tunis, Tunisia

Tunis, the capital and most populous city of Tunisia, faces deep socio-economic inequalities, despite advances in health care and service access. The January 2014 Constitution opened new horizons by promoting a governance model that addresses long-standing marginalization and supports decentralization, participation and equity.

To operationalize this vision and as part of the Urban Governance for Health and Well-being initiative, Tunis established a multisectoral committee, initially chaired by the mayor, to promote cross-sectoral collaboration and citizen engagement. Hay Hilel, a densely populated neighbourhood marked by health inequities, was selected as a priority site. A multidisciplinary team, trained through WHO's Urbanlead programme, identified youth well-being and access to green space as key entry points for intervention.

Historic Rue de la Kasbah in the old medina. Tunis, Tunisia: 2023. © Unsplash / Hammami Ghazi.

In December 2023, five participatory workshops were held at the local youth centre, bringing together young residents, the Ministry of Youth and Sports, and WHO. The workshops identified addiction, mental health, violence and pollution as key concerns, and culminated in a youth-driven strategic plan. Participants also advocated for the construction of a football field and the revitalization of the youth centre.

This bottom-up, multisectoral approach demonstrated how empowered youth can shape healthier, more inclusive urban environments. Moving into Phase 2, the initiative will focus on institutionalizing multisectoral collaboration, scaling capacity building through a second Urbanlead cohort, and deepening community participation – especially among women, youth and marginalized groups – to further strengthen urban governance for health and well-being citywide.

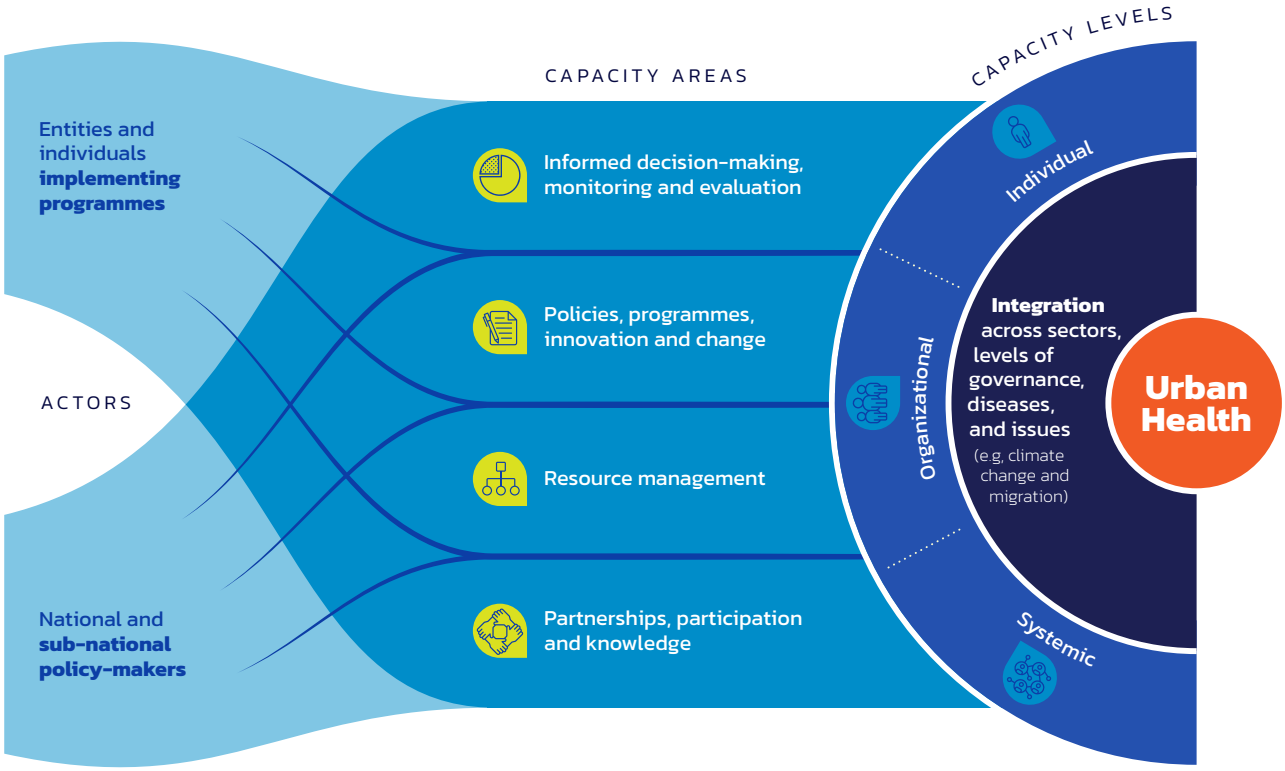
3.3.3 Human, institutional and systemic capacity development

To achieve urban health goals, governments must bring together the requisite capacities: knowledge, skills, abilities, processes and resources. Yet the structures of traditional governance, generally framed within sectoral institutions and focused on specific issues, tend to overlook or underestimate many of the capacities needed to achieve the highest levels of urban health.

Governments need sector-based, issue-based and connective capacities to achieve urban health goals. For example, practical experience with public transport engineering (i.e. sector-based capacities) and expertise about how climate impacts transport behaviour (i.e. issue-based capacities) are both critical to implementing sustainable, healthy mobility in cities. However, so are the connective capacities that foster integration and coordination, and bring together sector-specific knowledge, skills and abilities toward policy and practice objectives. This includes more upstream factors which might otherwise be considered in isolation – e.g. educational systems play a role in consolidating knowledge and skills around mobility and help shape behaviour. Connective capacities are particularly important for strategic action on urban health.

Connective capacities are needed across individual, institutional and systemic levels. Not only do individuals need appropriate knowledge, skills and abilities to foster integrated, strategic action, but the institutions within which they work must be equipped to support and guide them successfully toward the right goals. Similarly, systemic connective capacities determine the enabling environment within which individuals and institutions operate, fostering and regulating connections between institutions and individuals. Ideally, urban health authorities should be empowered by governments to influence all these levels (see Fig. 3); however, even where local constraints mean that institutional and systemic capacities are beyond their direct control, proactively understanding capacity needs and the implications of capacity assets and deficits can help guide the implementation of local- and national-level urban health strategies.

Fig. 3
Connective capacities help achieve urban health goals that involve holistic work across urban sectors, issues and levels of governance.



Source: *(WHO 2024h)*

Connective capacities span the means of implementation for health initiatives. For example, implementing effective financing for urban health requires knowledge about potential multisectoral funding mechanisms – an individual-level capacity; bodies with expertise in their implementation – an institutional-level capacity; and a funding environment that generates opportunities and resources for multisectoral action – a systemic capacity. Similar considerations apply for governance, innovation, data generation and the other means of implementation.

Developing capacities is critical to all phases of urban health action, including problem diagnosis, goal setting, strategy development, implementation, and monitoring and evaluation.

As with many other urban processes, capacity strengths or deficits can lead to cascading consequences and can be self-perpetuating. For example, good connective capacities related to diagnosing an urban health problem (e.g. capacities related to data generation and interpretation across sectors) make it more likely that a local government will then act to improve its capacities to address that problem. In contrast, not having the right capacities in place can lead to misdiagnosis, a lack of awareness, and deficits in skills and resources. Because capacity development is a long-term proposition, achieving short-term goals often depends on finding ways to mitigate capacity gaps – e.g. by bringing in supplemental expertise or resources.

FURTHER DETAIL

WHO has developed a resource kit to support urban health authorities in assessing and developing their capacities, focusing on four areas which parallel the means of implementation presented here:

- Informed decision-making, monitoring and evaluation
- Policies, programmes, innovation and change
- Resource management
- Partnerships, participation and knowledge.

The resource kit consists of an informational Primer *(WHO 2024h)*, an Action Guide *(WHO 2024g)*, a series of training videos, and a set of city examples *(WHO 2024i)*. It helps teams understand their capacity needs for achieving urban health goals and how to respond, by leveraging capacity assets and mitigating or eliminating deficits.

Recommendations

Conduct iterative assessment of capacities and capacity needs. Governments need to understand both what capacities are required to achieve defined objectives, and which are already available. Assessment should be dynamic and repeated: assets change over time with experience and individual and institutional turnover, and systemic rearrangements can change resource availability, relationships between actors, or other factors. Needs likewise change with new urban health goals and evolving risks. Assessment should encompass sector- and issue-based capacities and connective capacities at individual, institutional and systemic levels. It should be applied both to specific urban health priorities and to broader urban health strategies – the latter is more challenging but can yield important insights, such as which capacities to strengthen over the long run in the face of resource constraints.

Integrate capacity development as a standard component of urban health practice. While iterative assessment provides a basis for understanding capacity needs, urban health authorities still need to put these insights into action. This entails standardized processes and designated resources for planning and implementing capacity development, and for monitoring and evaluating their effectiveness. Systemic connective capacities may require regular mechanisms for communicating and reviewing capacity needs across sectors, scales and domains. Capacity development can take a long time – often significantly longer than electoral cycles – and mechanisms should be planned with stability and sustainability in mind.

Account for capacity assets and needs in designing urban health policy and practice. Understanding existing capacities and needs is important for assessing the achievability of

specific goals; prioritizing resources, making best use of assets, and avoiding unintended harms that might result from capacity deficits. Sometimes capacity gaps can be mitigated, or existing capacities leveraged in new ways to help achieve short-term goals. Urban health policy-makers and practitioners should incorporate capacity assessment into planning, monitoring and evaluation processes, and adjust their objectives and implementation plans accordingly.

3.3.4 Data generation and management

Urban health policy-makers and practitioners need comprehensive insights into the health and well-being of their populations, encompassing health outcomes and risks, and their multifaceted determinants. Yet given the complexity of urban health, good data means more than just information on simple causal relationships. Authorities need information on cross-sectoral processes and upstream factors; economic and environmental impacts; disaggregated social and spatial data, to provide fine-scale insights for vulnerable or excluded areas or groups; and evidence on policy impacts and programme implementation. They also need to understand how the structure, development and coordination of urban health governance, policies and programmes impact success or failure, and how the actions of other stakeholders affect these outcomes.

Yet significant data gaps continue to pose challenges for urban health – for example, in tracking health inequities and evaluating the impacts of policies, programmes and modes of governance *(Friel et al. 2011)*. Data resources are often incomplete or absent, and where data do exist, changes in the scope or methods of data collection over time can reduce their value. A lack of information on urban health may diminish its prioritization among other issues – for example, only a third of the world's largest cities have a top official responsible for health *(Ungerman et al. 2024)*, much less the more comprehensive governance structures needed to support strategic action.

To be useful to urban health policy-makers and practitioners, data must also be well managed – easily discoverable, accessible, in standardized formats and compatible with modern analytic tools. Strong privacy safeguards must also be in place to protect individuals. The modern information environment is rapidly evolving. A wide range of new data sources and tools, and the greater power and availability of computing resources, offer new possibilities for urban health. But they also create new challenges with respect to data use. Decision-makers should therefore rethink the architecture for data generation and management.

FURTHER DETAIL

Complying with widely accepted standards for data management enhances the utility of data for evidence-based policy and cross-contextual comparisons. Important data management guidelines and standards relevant to urban health include:

- Data Documentation Initiative *(DDI Alliance 2023)*
- FAIR[50] guiding principles for scientific data management *(Wilkinson et al. 2016)*
- Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) *(Stevens et al. 2016)*
- CARE[51] principles for indigenous data governance *(Carroll et al. 2020)*
- Fundamental Principles of Official Statistics *(United Nations Statistics Division 2014)*.

50 "FAIR" stands for: Findable, Accessible, Interoperable, and Reusable

51 "CARE" stands for: Collective Benefit, Authority to Control, Responsibility, and Ethics

Strong indicators are an invaluable data resource for urban health *(WHO 2014; Pineo et al. 2018)*. Ideally, indicators offer a valid representation of the state of urban health, including health equity, and a basis for action. Urban health indicators should be comprehensive yet concise, avoiding redundant information. They should include variables with high information value – e.g. relating to multiple outcomes or processes – and high decision-making value – e.g. relating in a timely way to specific interventions or strategic objectives. Variables should be consistently measurable, scalable across levels of government, and reasonable to collect in terms of time, cost and effort. They may include diverse types and sources of data, as well as variables that predict future health needs, track the performance of past interventions and reveal current health status (i.e. leading, lagging and coincident indicators). While indicator sets may evolve over time with needs, variables that can benchmark progress should be included. The WHO Urban Health Index *(WHO 2014)* and Urban HEART tool *(WHO Centre for Health Development 2010)* can support the selection of urban health indicators. WHO also has topic-specific indicators which support policy monitoring, such as city-level indicators for noncommunicable diseases and injuries *(WHO 2023b)*, and regional indicators for Healthy Cities.

Good data support priority-setting, investment decisions, monitoring and course correction, and novel insights about challenges and solutions. Transparency in data generation and management supports accountability and stakeholder engagement. Accordingly, investing in data is one of the most impactful actions an urban health authority can take.

Recommendations

Strengthen urban health data systems by expanding data coverage, types and sources. Governments should ensure that urban health data are spatially and socially comprehensive – e.g. that they fully cover slums and informal settlements, and vulnerable groups – and can be disaggregated for fine-scale analysis. Traditional data on health outcomes and determinants should be supplemented with data on stakeholders and the functioning of policies, programmes and integrative mechanisms. Where appropriate, data generation should incorporate novel data sources such as remote sensing, mobile phones and social media, and engage responsibly with partners such as businesses or communities who can access or generate data that would be otherwise hard to obtain. These goals may involve expanding the mandate of routine data collection systems such as censuses or vital statistics registries, as well as targeted efforts, like surveys, impact assessments or research.

Adopt best practices for managing urban health data. Governments should clarify who is responsible for collecting, documenting, processing, maintaining and sharing urban health data, and provide resources – including infrastructure, expertise and funding – and authorities adequate to these tasks. Data management protocols should provide for full documentation, safe hosting and easy use of data, and should adopt ethical standards that safeguard the concerns and privacy of those represented, minimize conflicts of interest, and protect data from co-option by health-harming commercial practices, goods and services. Where possible, widely accepted international standards should guide data management.

Adopt a high-value set of urban health indicators. Governments should develop and regularly review a succinct set of indicators for the state of urban health and health equity and the coherent functioning of urban health policy and practice. Indicators should be chosen collaboratively, incorporating key stakeholders from outside government, e.g. private and civic actors, and across sectors and scales, and should emphasize feasibly collected variables with high informational and decision-making value. While different localities may prioritize different indicators according to need, local indicators should be consistent with national-level frameworks. Decision-makers should consider choosing indicators aligned with well-established frameworks in peer states or cities, or those developed by UN agencies.

3.3.5 Evidence-based decision support

Having valid, complete, accessible data is necessary but not sufficient for effective action on urban health. Urban health authorities also need to be able to translate data efficiently into useful information products, evidence-based recommendations, and knowledge to guide decision-making. Evidence-based decision support is a critical facet of the means of implementation for urban health.

Achieving the highest levels of urban health requires insights from multiple disciplines, including biomedicine, epidemiology and public health, but also engineering, architecture, urban planning, economics, environmental science, political science, psychology, sociology and law. It also requires dedicated effort and expertise to align the disparate perspectives, ways of working and terminology from these different fields.

Healthy Cities and other urban health frameworks have long promoted intersectoral integration. Transdisciplinary efforts – which build bridges between interdisciplinary scientific research and other stakeholder domains – are also recognized as critical to achieving urban health and other complex societal challenges *(Lawrence and Gatzweiler 2017; OECD 2020a)*.

Many tools and methodologies are available to support urban data analysis, both for specific sectors or issues, and in cross-cutting applications. Analytic insights and evidence-based recommendations can be developed within the public sector or through external partners – collaboratively or through contracted services. Regardless of source, urban health authorities must be familiar with the uses, limitations and interpretation of various approaches. Health impact assessment and economic evaluation of health policies and interventions are particularly important tools. Likewise, increasingly sophisticated AI applications and simulation models, such as digital twins, are already becoming part of standard decision support for many urban contexts, and will continue to become more prevalent with growing computing power and accessibility.

Recommendations

Institutionalize evidence-based policy and practice in urban health. Governments should create mechanisms to ensure that urban health action is evidence-based – for example, by mandating health impact assessment and health-oriented economic valuation[52] before major policies, programmes or interventions are put in place. The health, economic and broader impacts of such activities – particularly of complex, cross-cutting interventions – should be measured (e.g. in partnership with research institutions) and transparently reported. The extent to which urban health authorities incorporate evidence-based input into decision-making, policy and practice should be a key measure of performance.

Support the application of interdisciplinary and transdisciplinary insights to decision-making. Urban health authorities should improve their internal capacity to manage and integrate evidence across sectors, disciplines and domains, including by retaining staff with experience across multiple spaces. Governments should "recognise and promote transdisciplinary research, as an essential complement to other more traditional research approaches, in addressing complex societal challenges" like urban health *(OECD 2020a)*.

Increase local capacity and external links for evidence-based decision-making. Urban health authorities should be trained to interpret urban health data and use analytic tools, including sector- and issue-based tools like WHO HEAT *(WHO Regional Office for Europe 2023)* and broader methodological approaches such as health impact assessment. They should also understand the applications and limitations of AI tools to urban health action. Policy-makers and practitioners should be trained to find, interpret and critique scientific and practical evidence. Governments should also establish formal and informal relationships with experts who can provide analytic services and insights, potentially including local universities or academic departments, and private- and civic-sector research organizations. Where feasible, urban health observatories, transdisciplinary research initiatives, knowledge translation hubs and contracted services can all play significant roles.

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[52] See Case Study 1 on page 27.

Implement a robust monitoring and evaluation system. Governments should establish a systematic process for tracking the progress, effectiveness and impacts of urban health programmes, policies and interventions, incorporating both continuous monitoring of urban health indicators and episodic evaluation to analyse the functioning and impacts of specific activities. Clear roles and responsibilities for monitoring and evaluation should be established, consistent with arrangements for standard data management.

Case Study 8

Amplifying evidence for urban health: the Belo Horizonte urban health observatory

One of the most effective ways for governments to build strong mechanisms for situational awareness and evidence-based practice is by establishing relationships with local academic partners. In some circumstances, formal urban health observatories can play important roles as nodes of engagement and exchange between government and research communities. For nearly a quarter of a century, the Belo Horizonte Observatory for Urban Health (OSUBH) in Belo Horizonte, Brazil, has served this function.

OSUBH's roots lie in Brazilian democratic reforms of the late 1980s, which emphasized social mobilization, participatory governance and universality. The creation of Brazil's Unified Health System in 1988 established health as a universal right and a duty of the state, stressing the importance of data to support public policies for health and health equity. This new system led to comprehensive reform, with a focus on decentralization, integration of health services, and community participation.

In the 1990s, drawing on this new mandate, the city of Belo Horizonte moved to establish health promotion and public policy integration as organizing principles for local health systems, with specific objectives related to slum upgrading, intersectoral urban health planning, and generation of effective urban health indicators – including through geographic information system approaches. Partnership between the Belo Horizonte Health Department and the Federal University of Minas Gerais School of Medicine began during this period, and was institutionalized with the establishment of OSUBH in 2002. The team was driven by a common interest in bridging the gaps between the science and the practice of urban health. In the intervening years, OSUBH has played an important role in urban health action at the local, national and even international levels. Within Belo Horizonte, it partners with the Health Department – and increasingly with other departments like urban planning – to provide evidence for action. This includes monitoring health and health equity, and their urban determinants; maintaining a data repository; evaluating the health impacts of specific urban interventions; and supporting reporting on health goals and planning for resource allocation. It

has sometimes led joint initiatives, such as COVID-OSUBH, which maps the spatial distribution of COVID-19 cases and deaths in the city. OSUBH also provides educational training, capacity-building services and policy-relevant communications, and engages with a wide range of local urban health stakeholders. At the national level, it is a collaborative centre for the Brazilian Ministry of Health, conducting impact evaluations for health-related projects. Internationally, OSUBH is a recognized centre for innovative urban health research.

The long-standing collaborations OSUBH maintains with government partners facilitate a continuous exchange of insights and data, and have been instrumental in embedding research findings into practical policy actions. Maintaining such relationships depends on effective mechanisms for communication and setting expectations, especially given that the demands of policy decision cycles do not match academic research timelines. A constant rebalancing of formal relationships is also key; closer ties can improve communications and yield greater influence, but can also foster political and financial dependency that can reduce the independence and reliability of evidentiary processes. Despite these requirements, OSUBH demonstrates the practical value for governments of strong partnerships with local knowledge producers in the context of strategic action.

Aerial view of Belo Horizonte. Brazil: 2020. © Unsplash / fpcamp.

3.3.6 Innovation

Innovation – the development, evaluation and application of new ideas, methods and technologies to existing and emerging problems – is crucial for tackling complex, evolving challenges in urban health *(WHO 2024d)*. Technological, social and institutional innovation are all important. For example, managing the health impacts of urban heat requires new approaches in architecture and materials science, effective programmes to induce behavioural change, and governmental structures to coordinate the multisectoral inputs and impacts of these interventions.

NOTE

Innovation can take many forms and act over different scales. What is innovative is contextually defined – the same solution will have different impacts in different contexts, depending on current practice, historical factors, and the state and distribution of the social, environmental, economic and commercial determinants of health.

In the constantly changing urban environment, innovation is also essential to making efficient use of resources and building resilience. A city or country capable of innovation is less likely to continue to rely on processes that have become inefficient, and more able to respond to shocks and evolving needs. Effective innovation can help anticipate and avert imminent health challenges and respond to emerging ones, while supporting societal prosperity and resilience.

Experimentation is vital to innovation. It tests new ideas, reveals unanticipated practical challenges – and suggests how to mitigate them – and refines existing approaches. It can offer insights into local circumstances, resources and solutions *(Rydin et al. 2012)*. Experimentation can also provide evidence to overcome scepticism and resistance to change, while helping to generate new ideas and hypotheses. Accumulated insights from repeated experiments are an important stimulus for ongoing innovation.

Governments can strengthen innovation for urban health in many ways. For example, they can foster an enabling environment in which collaboration and experimentation are encouraged; regulatory and other barriers to innovation are reduced; and potential innovators see opportunities for scaling promising solutions. They can guide the process of innovation toward the most pressing challenges and the most vulnerable groups – e.g. by providing dedicated funding. They can also support the scoping, development and scaling of specific innovative solutions, both through public-sector action and within private-sector or community-driven efforts.

Innovation inherently involves uncertainty and potential risks; it also often produces unequal benefits. In supporting innovation, governments must anticipate and manage any unintended consequences for health and health equity, especially for vulnerable or excluded groups. Risk mitigation strategies include mechanisms

for monitoring and redress of potential harms, as well as a culture of responsible risk-taking. By balancing risks and benefits, fostering inclusive participation, and ensuring strong safeguards, governments can create an innovation-friendly environment that advances urban health and other societal goals while maintaining ethical standards and public trust.

Recommendations

Cultivate an innovation ecosystem for urban health. Governments should adopt an urban innovation strategy consistent with broader urban health plans. This strategy should support the emergence of an innovation ecosystem by removing regulatory and bureaucratic barriers; supporting innovation-generating domains like science and entrepreneurship; making resources such as funding, infrastructure, venues, training, and technological and knowledge products available to potential innovators and pilot projects; and promoting broad exchange and collective exploration of ideas among urban health stakeholders.

Create dedicated spaces for urban health experimentation. Governments should support the development of innovative urban health solutions by creating experimentation spaces, including, as appropriate, physical spaces such as innovation hubs or districts that gather innovators and experiments in one place, and action spaces like innovation challenges or hackathons that focus innovation on a specific issue or problem. Such spaces should be focused on urban priorities, and should offer incentives to attract a range of participants, fostering co-creation and cross-fertilization across sectors, scales and domains. Experimentation spaces should reduce or remove regulatory and operational barriers, while also implementing dedicated systems to provide rigorous, timely monitoring and oversight to minimize risks and maintain ethical standards.

Develop processes to identify and scale up promising novel solutions. Governments should provide clear pathways for scaling up solutions that have demonstrated positive health impacts and the potential for significant value at scale, including from economic, environmental or other co-benefits. These pathways should include resources to support scaling; clear and accessible processes to access these resources; widespread communication to potential innovators; and mechanisms for oversight and learning from scaling efforts in practice.

Case Study 9

A nexus of innovation for urban health: environmental remediation in Baia Mare, Romania

Public space recovered and co-produced in Colonia Topitorilor. Baia Mare, Romania: 2023. © Amaia Celaya Alvarez.

Innovation underpins a multiplicity of benefits for urban health. Not only can it generate unexpected solutions to challenging problems and improvements to existing practice, but it also fosters resilience in dynamically changing urban environments. Innovation can be self-reinforcing, encouraging those it touches to expand their own thinking. In the municipality of Baia Mare, Romania, the Smart Post-Industrial Regenerative Ecosystem (SPIRE) project encompasses a nexus of innovative practices for urban health.

Baia Mare sits in a valley with a long history of metallurgical activities. The resulting heavy metal contamination of air, water and soils is a public health concern which challenges the municipality's transition to a more sustainable social, economic and environmental development model. The SPIRE project seeks to address this issue. Its core innovation is a natural process (phytoremediation) in which the uptake of heavy metals by certain plant species removes pollutants from the soil. Well-designed phytoremediation efforts can represent a cost-effective and ecologically sound alternative to physical remediation *(Celaya Alvarez 2021)*.

SPIRE's activities also encompass a range of other urban health priorities *(Celaya Alvarez 2022)*:

- In five project sites selected for remediation and development, a co-creation process involving surveys, workshops, consultations and public events engaged citizens in prioritizing health-promoting infrastructure. Participants expressed a desire for pedestrian and cycling paths, public spaces for socializing and events, and playgrounds, among other micro-interventions.

- In a dedicated SPIRE Hub, young entrepreneurs are encouraged to explore novel industrial and construction uses for excess biomass from the natural remediation process. This generates economic opportunities, capitalizes on underused local resources, and contributes to sustainable practice. The hub also provides mentorship and organizes community events like so-called plantathlons.

- A digital token system *(Pop et al. 2020)* has been established to reward civic environmental and healthy behaviours and eco-entrepreneurship. Residents can earn tokens by cycling or walking to work, for example, or participating in Hub events. The project seeks to raise awareness and promote environmental advocacy among stakeholders through the token system, public engagement and co-creation opportunities.

By pursuing this array of innovations *(Verga 2020)*, the SPIRE project has created emotional connections between Baia Mare residents and project sites, raised environmental awareness, and opened the door to participatory policy and practice. Many of the activities have direct benefits for health, and the core intervention is a long-term effort to reduce risk and reclaim land for safe activities. Through these steps, the city has started to move past a challenging environmental legacy toward a healthier future.

3.3.7 Partnerships

Addressing urban health challenges requires partnerships that engage a diverse range of stakeholders, spanning the public, private and civic sectors; knowledge producers, and the entire range of economic sectors relevant to the urban milieu *(WHO 2024e)*. Effective partnerships bring together critical expertise, information, resources and authority to address complex issues. By leveraging diverse strengths, partnerships can outperform efforts rooted in any one domain or sector. For example, the public sector provides political legitimacy and regulatory power; the private sector typically offers logistical and implementation expertise; civic organizations contribute grassroots knowledge and community mobilization; academia brings research capacity, and the media enhances public communication and engagement.[53] Similarly, partners from different sectoral backgrounds bring different technical perspectives, information and expertise to challenging cross-cutting problems.

Ideal partnerships are rooted in co-creation, ensuring that all stakeholders share a common purpose, have legitimate roles, contribute equitably to goal setting and decision-making, and operate within transparent, accountable frameworks – although partners contribute differently depending on needs, resources and norms. Through these collective arrangements, partnerships offer a wide range of benefits beyond direct substantive contributions to urban health goals – for example, they can improve communication among urban stakeholders, spark innovation by bringing people and ideas together, help manage conflicts and build social capital, and reinforce individual and community rights by providing opportunities for participation.

Urban health partnerships vary widely in form – formal or informal, short- or long-term, and involving few or many stakeholders, across multiple levels of governance. While public-private partnerships are among the most visible, many effective collaborations operate without government involvement. For example, community-based participatory research engages researchers, community members, advocates and philanthropic funders to study and address health disparities *(Minkler et al. 2003)*. Other models include multistakeholder partnerships that span multiple sectors or domains; community-organizational partnerships that strengthen local engagement; end-user-oriented partnerships designed to meet specific needs; and public-private-people partnerships that integrate a wide variety of voices *(Xue et al. 2020)*.

Initiating and maintaining partnerships for urban health can be challenging. Different stakeholders have different priorities, capacities, ways of working and understanding problems, and expectations. For complex challenges, important results may take time. Many urban health problems also have a significant political dimension, and solutions may create economic, social and political winners and losers – issues that need to be addressed transparently.

Governments play an essential role in partnerships for urban health, not only through the involvement of public-sector entities, but also by developing interest and capacity among other urban stakeholders to collaborate effectively on urban health issues, and by supporting highly effective multistakeholder partnerships to ensure their sustainability and ongoing impact.

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[53] These associations are indicative and not exclusive – actors from different domains can have any or all of these capacities.

Recommendations

Where appropriate, adopt a partnership model to deliver urban health needs. Many needs can be met most effectively through partnerships. For example, in large-scale urban land development projects that typically juxtapose significant private-sector investment and planning with complex regulatory requirements, direct public-private partnerships can offer efficiency gains. Governments should set up an active, influential and substantial high-level structure to identify which urban health needs can best be met through partnerships, facilitate the establishment of such partnerships and continuously seek to improve them. Public-sector actors should also be incentivized to explore useful partnerships, including through awareness-raising and partnership skills development, and the provision of dedicated funding.

Foster an environment that encourages collaboration. Governments should promote collaboration by mainstreaming a common vision for urban health among relevant stakeholders, and raising awareness of the interconnected nature of challenges. They should create opportunities for collaboration and partnership formation, reinforcing existing efforts, and develop and disseminate guidance on establishing, evolving and maintaining partnerships – and on protecting their work from vested or conflicting interests.

Provide resources to support effective urban health partnerships. Governments should actively fund and support urban health partnerships that provide significant value. This may include seed grants to encourage exploration and support the initiation of partnerships or, for established partnerships, funding support for core functions and capacity building. Authorities can also provide advisory services to help urban health partnerships to manage organizational and logistical issues, such as developing shared goals or managing conflicts, and to connect with external funding sources. They can also create opportunities for networking and exchange among partnerships, other stakeholders and funders.

Case Study 10

Delivering through partnership: the RISE water-sensitive slum upgrading project

Examining a local map at a community consultation. Suva, Fiji: 2020. © Revitalizing Informal Settlements and their Environments (RISE).

Because complex urban health challenges depend on coordinating inputs and actions across sectors and scales, partnership is essential to achieving the best outcomes. The Revitalising Informal Settlements and their Environments (RISE) programme has taken an innovative, strategic approach to partnership to deliver its multifaceted intervention.

RISE is a randomized controlled trial of a novel approach to upgrading informal settlements, involving sanitation, water and drainage improvements at neighbourhood scale. Since 2018, the RISE team has worked with 26 settlements in Suva, Fiji and Makassar, Indonesia – representing 1650 households and 8300 residents – to design and implement a complex water and sanitation intervention. The intervention is bespoke, co-designed with communities at each site to meet their unique needs, and blends decentralized sanitation systems consisting of nature-based treatment wetlands and internet-connected pressure sewer units with toilet renovations, rainwater tanks, flood mitigation, and drainage and access upgrades. While the central objective is to reduce child exposure to gastrointestinal pathogens, the intervention also reduces environmental waste and contamination; bolsters climate resilience and limits flooding, and provides safer spaces, while empowering community residents, who are among the poorest members of society. It also represents a much less costly and more practically feasible alternative to full-scale sewerage interventions.

At every step, RISE has had to navigate a dizzying array of partnerships, most importantly with communities, but also with researchers and local universities, private-sector contractors, city leaders, sectoral authorities at city and national scales, and national-level and multilateral financers. Every partner is convinced of the intervention's value, every partner contributes and every partner benefits. At the community level, RISE researchers have been embedded throughout the project, going beyond the intervention's tangible benefits to provide

support, upskilling, jobs and humanitarian relief during COVID. Local academic partners have benefited from infrastructure improvements and lab training. For sectoral authorities, the RISE intervention is an innovative way to overcome physical and bureaucratic constraints related to service provision – public-sector partners are also embedded in the project, gaining experience through the novel approach. For local government leaders, RISE represents a political opportunity to support informal community residents, offering dignity, better health and prosperity; it also represents a hook to bring cross-ministerial representatives together. National-level and multilateral partners see the potential for cost efficiencies in delivering on development priorities. The RISE approach addresses many diverse needs of informal settlements, including sanitation, water, living conditions and climate resilience, without requiring wholesale redevelopment, which would potentially entail social issues, tenure conflicts, relocation challenges and high costs, and would depend on municipal sanitation, which is not always available.

RISE has achieved its gains by emphasizing relationship building and maintenance and legitimate partnership from the start. Project management structures are designed to regularize engagement and foster effective communication with the different categories of partners; manage competing interests; and ensure that benefits are tangible and recognized. Co-design and flexibility are key elements of the approach.

RISE has demonstrated the feasibility of the intervention, overcoming numerous challenges related to co-design, land tenure, public-sector approvals, construction, transfer of infrastructure responsibility to local authorities, effective functioning, and community support. Because the intervention is designed to integrate with traditional water and sanitation systems, and offers significant economic gains and other co-benefits, it has the potential to scale rapidly. Through a strategic approach to partnerships, what began as a research project is poised to become a transformative approach to urban health.

3.3.8 Participation

Participation by a diversity of stakeholders is critical for attaining and maintaining the highest levels of urban health. Participation "empowers and mobilizes people as actors and overseers of their own development; it is one of the ends of development as well as one of the means" *(IDB 1997)*. Legitimate, transparent and active participation ensures fair representation; strengthens decision-making with diverse expertise and expanded information; addresses power imbalances and health disparities; and creates relationships that support communication and partnership. By familiarizing stakeholders and communities with interventions and the rationale behind them, authorities make it more likely they will be adopted. This also upholds the

ethical principle that people should have a say in improving their own health, and makes it more likely that they will take measures to do so.

Participatory processes can benefit any phase of urban health action, including problem diagnosis, goal setting, strategy development, implementation, and monitoring and evaluation. Optimizing the effectiveness of participation often depends on providing diverse modalities. These can include open forums such as citizens' assemblies and public hearings; consultation by invitation, e.g. policy dialogues or focus groups; deliberative engagement methods such as citizen panels or scenario workshops; or more formalized mechanisms with fixed seats for populations, communities or civil society, such as health councils, steering committees or citizen advisory groups *(WHO 2021e)*. Other participatory mechanisms build communities into the workings of governance: for example, participatory budgeting has been widely implemented to allow communities to select and design health-promoting infrastructure.

Especially at local levels, effective participation must go beyond passive consultation to active co-creation, where stakeholders have authentic influence on the processes of choosing, designing and implementing solutions, rather than just offering feedback. Direct co-creation with local stakeholders is especially feasible and useful within cities, given their proximity to communities. Participation should be culturally tailored to ensure that vulnerable and excluded groups are meaningfully involved, and should foster local ownership of health challenges and solutions. Community-led or citizen-science approaches have played significant roles in urban health – including in integrated vector management, waste management, slum mapping, community safety and social support. Participation can be bolstered by creating durable structures for engaging communities and individuals, such as community health boards or citizen observatories.

Mobilizing and sustaining participation requires governments to raise awareness about the potential impacts and benefits of urban health, and to make purposeful efforts to build trust, including through transparency, accountability and delivery on commitments. Often, awareness of the value of participatory processes also needs to be increased within government itself.

Recommendations

Institutionalize participation as a key value and component of public-sector action for urban health. Governments should formalize their commitment to stakeholder participation, and create rules and mechanisms to support it. Opportunities for participation vary across contexts, but may include joint decision-making bodies, participatory budgeting, feedback periods for proposed interventions, targeted community consultation or needs assessment, and expert input into proposed policy. Governments should assess and address barriers in existing mandates for participation in urban health-relevant governance, prioritizing vulnerable and excluded groups.

Improve communication around urban health. Transparent, comprehensive communication is critical to participation. Governments should supply up-to-date information on the status of urban health issues (e.g. through public-facing dashboards), proposed legislation and regulation, available funding and other opportunities for participation in all phases of urban health action. Communication should reflect the ways stakeholders consume

information, and be tailored to their capacities and needs, including by limiting jargon and offering translation in multilingual contexts.

Encourage nongovernmental actors to participate in urban health. Governments should actively support external stakeholders in engaging with urban health debates, governance and activities. This can involve direct engagement through one or more of the mechanisms described above; formal relationships with stakeholder institutions such as business councils (e.g. through memoranda of understanding); participatory governance models, like citizens' assemblies; shared funding decisions for local health initiatives; or dedicated structures and institutions. Engagement should be frequent, structured and meaningful, not just symbolic.

3.4 From strategic approaches to urban health strategy

There are many pathways by which governing authorities might move from the intent to act strategically – or from progressive improvement of the strategic value of individual urban health activities – to a fully developed and implementable strategy for urban health. This effort will vary with context, depending on entry points, authority structures, objectives and available resources. Given the scale and complexity of urban health challenges, implementing a comprehensive urban health strategy is a long-term effort, potentially unfolding over many years and requiring continuous adaptation to evolving trends – as with comprehensive action on climate, sustainable development or other major cross-cutting issues. The process of developing an urban health strategy is also necessarily intertwined with such broader societal strategies. Effective action requires co-design and coordination across national and subnational levels to align urban health objectives with each other and with wider policy frameworks.

While pathways vary with context, certain fundamental steps are essential to initiating and consolidating a strategic approach to urban health in any setting. These include:

- commitment-building
- situational analysis
- definition of strategic priorities
- development of an implementation framework
- monitoring and evaluation.

Annex 1 presents a sample protocol outlining how these elements can be embedded in a series of collaboratively developed outputs, offering a structured yet adaptable pathway for implementation.

Case Study 11

Developing a comprehensive municipal urban health strategy: Coimbra, Portugal

Vibrant streets in Coimbra. Portugal: 2023. @ Unsplash, Joao.

The culmination of the strategic approach to urban health is the development of a comprehensive urban health strategy which creates an effective enabling framework and, within that framework, provides for the actions needed to sustainably assure health and health equity in the face of urban complexity. In Coimbra, Portugal, a new municipal health strategy is fostering better health and inspiring broader strategic action across the region.

National legislation (Law 23/2019) devolving health competencies from national to local government – part of a broader, decades-long decentralization process – set the stage for the development of Coimbra's urban health strategy. This legal framework created a mandate for local governments, requiring the development of local health strategies and health councils. However, with little statutory guidance available, municipalities faced challenges in meeting these goals. In Coimbra, an academic partnership with the University of Coimbra was instrumental in filling this gap to create an evidence-based strategy. The strategy was developed in partnership with a broad group of local stakeholders, leveraging a range of participatory consultation and co-design mechanisms.

The process began with a multisource situational analysis to create a health profile for the city, encompassing disaggregated measures of health outcomes, determinants, perceptions, and aspects of the social, physical and built environment. A series of multisectoral participatory consultations involving stakeholders within and outside government, including health care professionals, local civil society organizations, community groups and city residents, drew on this health profile to establish priorities and objectives, and group them into domains of intervention. This process was informed by a literature review and best practices from other cities. The project team then consolidated these decisions, co-designing an action plan and a monitoring and evaluation framework, including a detailed multisectoral indicator framework.

The Coimbra municipal health strategy is rooted in the principles of health promotion, recognizing the interconnected nature of determinants, the need for health in all policies and intersectoral planning, and the value of placemaking and participatory methods in addressing complex health challenges. It encompasses 94 actions across six strategic multisectoral domains: a) Sustainable Mobility and Public Space, b) Affordable and Adequate Housing, c) Proximity to Primary Health Care, d) Social Cohesion and Public Participation, e) Education and Health Literacy, and f) Collaborative and Intersectoral Leadership (i.e. governance) *(Freitas and Santana 2022)*. The inclusion of a strategic domain and indicators on governance is particularly innovative, creating a mechanism for reflective self-awareness on siloes and barriers to integrated practice. The plan establishes a new multidisciplinary team to implement the strategy within the Department of Health and Education, and a Municipal Health Council representing diverse sectors to serve as a consultative body, fostering accountability and collective understanding. It also proposes a Municipal Health Observatory to collect and monitor health indicator trends over time and across communities, and to serve as a participatory platform for dialogue and collaboration among diverse stakeholders.

Coimbra's strategy was the first in Portugal to adopt a place-based, integrated approach focused on urban health determinants, and has inspired similar efforts by other local authorities. An intermunicipal health strategy for the Coimbra region is now in development, encompassing 19 municipalities.

CHAPTER 4

Conclusions

View of a park with sports facilities in downtown Dushanbe, Tajikistan. 2023. © WHO / Lindsay Mackenzie.

As urbanization accelerates, the health and well-being of urban populations are becoming more central not only to global health, but to sustainable development, economic prosperity and resilience, and social equity. Urban areas are hubs of opportunity, but also focal points for health risks and inequalities, and complex governance and coordination challenges. Without deliberate, strategic action, governments at all scales are unlikely to achieve the highest levels of urban health. In an increasingly challenging global context, urban health disparities may widen, systemic vulnerabilities may deepen, and shocks and changing circumstances are likely to reveal the fragility of siloed, short-term thinking. However, with the right approaches to managing and implementing urban health policy and practice, cities can serve as dynamic engines for improving health, reducing inequity, and fostering sustainability and other goals.

Due to the interconnected nature of urban health, no single sector, institution or policy at any scale can effectively address challenges in isolation. Urban health should be recognized as a primary concern for both municipalities and national governments; for health professionals and stakeholders across all sectors who engage with urban areas. Lasting achievement of urban health goals depends on motivating, designing and incorporating strategic thinking into urban health practice. A structured approach to strategic action invites policy-makers to address complexity, find useful entry points and strengthen the means of implementation, culminating in the adoption of adaptive, forward-thinking, integrative urban health strategies at both national and city scales. The place-based nature and uniqueness of individual urban contexts means that solutions will vary, drawing on local creativity and practical experience and insights shared across sectors, scales and domains. The complexity of urban health is not a barrier, but rather an opportunity to leverage solutions that generate efficiencies, remove obstacles and support broader societal goals – including economic prosperity, equity and sustainable development.

Moving forward, the need to find solutions to intractable urban health challenges will become increasingly urgent. While the recommendations and principles here serve as a guide, they must be adapted to local contexts, recognizing that the factors that affect urban health can take many different forms. Table 2 presents indicative actions at national and city levels for each recommendation, but it will be up to local authorities to tackle the challenges of urban health creatively. While strategic thinking is beneficial in any setting, the greatest gains are likely where cities and national governments can work together with urban stakeholders and communities to co-design and coordinate their efforts in coherent multilevel strategies.

Table 2
Recommendation categories and indicative actions

Area	Recommendation	Indicative national-level action	Indicative city-level action
Accounting for complexity	Train urban health practitioners and policy-makers at all levels to understand and manage the impacts of complexity on urban health	Fund a national-level systems leadership training programme, incorporating strategic role-playing exercises	Organize cross-sectoral group model-building workshops to explore urban health issues
		Develop national training standards on systems thinking for health	Partner with universities to develop short courses for practitioners
	Extend monitoring and evaluation processes to capture unanticipated results of urban health policy and practice	Fund long-term longitudinal studies of urban health interventions	Establish citizen feedback panels for urban health initiatives
		Establish an adverse events reporting system for urban health activities	Incorporate variables to identify cross-sectoral and downstream impacts in local monitoring and evaluation frameworks
	Anticipate intended and unintended results using scenario-based modelling	Provide standardized guidance developing city-based scenarios combining health with other societal priorities (e.g. climate)	Convene scenario planning workshops with multiple urban departments
		Create a modelling hub where cities can access national-level knowhow and computing power	Collaborate with local research institutes to develop and analyse scenario-based models
	Design decision-making and implementation processes to operate more effectively in the context of complexity	Create interministerial review bodies to assess urban health governance	Establish flexible cross-sector task forces for implementation of urban health initiatives
		Incentivize city-level integration with targeted funding streams	Map cross-sector communications channels to identify ways to improve information flows
			Foster ownership through co-creation activities with communities and other relevant stakeholders
	Adopt adaptive governance and build adaptation into interventions, policies and strategies	Embed adaptive clauses and establish mandatory triggers for formal review (based on specific events or indicators) in national urban health policy frameworks	Institutionalize after-action reviews and regular stocktaking in urban health programming

Area	Recommendation	Indicative national-level action	Indicative city-level action
		Convene city representatives to support peer-to-peer learning and knowledge exchange	Create a contingency funding mechanism (e.g. a reserve fund) for course adjustment within urban health plans
Entry points	Build and maintain awareness of the landscape of political, policy and public opinion at city, national and global scales	Integrate political analysis into national health strategy development	Develop a regular brief summarizing political and policy trends for urban health teams
		Commission landscape analyses of politics and narratives relevant to urban health	Designate public-sector staff to map policy processes and track shifts relevant to urban health
			Curate an up-to-date directory of stakeholders relevant to urban health
	Document and track local cross-cutting initiatives relevant to urban health at project, programme and policy scales	Fund state or provincial governments to document cross-cutting initiatives	Create a city-level database of multisector programmes and initiatives, including budget timelines
			Designate liaison officers to coordinate across departments on cross-cutting issues
			Convene regular multisector coordination meetings to report on existing and potential cross-cutting initiatives
	Prepare for the emergence of entry points by scoping and planning urban health strategy in anticipation of opportunities for implementation	Fund municipalities to undertake urban health capacity assessments and develop local action plans	Prepare a contingent local action plan and maintain readiness among key implementation partners
		Create a national-level liaison office to advise cities on preparing local action plans	Conduct policy tracking to anticipate the emergence of political or funding windows
	Ensure that entry points are a stepping-stone for broader action	Identify urban health linkages in national-level planning for other issues (e.g. climate, housing)	Leverage single-issue wins to advocate for and build broader urban health platforms
			Ensure that local action plans and other strategic reforms articulate a timeframe for taking more comprehensive action

Area	Recommendation	Indicative national-level action	Indicative city-level action
Governance	Establish a whole-of-government political mandate for urban health	Adopt a national-level Urban Health Strategy	Include urban health goals in city-level strategic plans, such as masterplans and economic development strategies
		Create a cabinet-level working group on urban health	Designate an urban health focal point in the mayor's office
		Pass legislation mandating consideration of health in all urban-related public policy	Create a multimedia series illustrating the value of urban health, with local examples
	Define urban health responsibilities clearly and create accountability	Require subnational authorities to report on urban health outcomes	Incorporate urban health metrics as key performance indicators for public-sector staff across multiple sectors
		Publish a standardized urban health accountability scorecard for cities	Publish a municipal accountability framework linking departments to health outcomes
			Use city-level dashboards to track departmental contributions to health and health equity
	Establish or strengthen coordination mechanisms	Create a multiscale urban health information forum that regularly connects public-sector stakeholders at national, state/provincial and city levels	Create an urban health steering committee with representatives from relevant sectors and stakeholder domains
		Require joint reporting on urban health policy and programming from relevant ministries	Develop pooled funding mechanisms to facilitate oversight and encourage cross-sector collaboration
Financing	Expand assessment of the costs and benefits of urban health action	Develop national guidelines for valuation of health in urban health policy-making	Commission regular health-based cost-benefit analysis of local infrastructure projects
		Fund research to quantify the long-term financial and health impacts of urban health investments	Require that significant urban planning proposals incorporate health impact assessment
		Create binding standards for the representation of vulnerable populations and underrepresented contexts in health impact assessment	Review budgets regularly based on assessed costs and benefits

Area	Recommendation	Indicative national-level action	Indicative city-level action
	Restructure financial mechanisms to support strategic urban health policy and practice	Reform intergovernmental transfers to incentivize multisectoral action at city scale, giving discretion on spending to local decision-makers	Create pooled funding for cross-departmental urban health action
		Create innovative financing instruments (e.g. urban health bonds)	Earmark taxes or other revenue streams for urban health programming
	Increase the scope, resilience and sustainability of urban health financing	Advocate for the mobilization of international development financing toward urban health priorities	Establish contingency funds for urban health emergencies
		Set up matching grant programmes for city-led health innovations	Engage private-sector funding for health-promoting infrastructure through public-private partnerships
			Incorporate adaptive financing mechanisms into city budgets that allow funds to be reallocated to meet evolving needs
			Develop land-value capture mechanisms to supplement urban health resources
Human, institutional and systemic capacity development	Conduct iterative assessment of capacities and capacity needs	Fund a national stock-take of the urban health workforce and institutional readiness	Conduct city-level self-assessment of urban health capacities at individual, organizational and systemic levels
			Engage communities and frontline workers in identifying capacity gaps and priorities
	Integrate capacity development as a standard component of urban health practice	Establish national-level technical assistance teams to support city-level capacity development	Earmark funding for public-sector staff training in project proposals and budgets
		Develop standardized urban health training curricula	Partner with local universities to develop online skills development programmes for public-sector staff
			Schedule regular review of existing capacity assessments at the city level

Area	Recommendation	Indicative national-level action	Indicative city-level action
	Account for capacity assets and needs in designing urban health policy and practice	Use data on capacity deficits to prioritize support to underequipped cities	Map capacity assets and gaps before launching new programmes
		Include capacity diagnostics in eligibility criteria for national-level urban health grants	Require urban health programmes and initiatives to articulate how they will mitigate observed capacity deficits
Data generation	Strengthen urban health data systems by expanding data coverage, types and sources	Mandate the collection of disaggregated urban data in national-level data processes	Partner with universities to collect geospatial and crowd-sourced data
		Partner with big technology companies to make novel data available to urban health practitioners and policy-makers in usable forms	Use citizen science initiatives to expand disaggregated data collection in underserved neighbourhoods
	Adopt best practices for managing urban health data	Adopt widely recognized international standards (e.g. FAIR) for data management at city and national scales	Implement frameworks for regular metadata and data quality checks in city systems
		Establish legislation to safeguard data privacy	Clarify roles and responsibilities for city-level data governance
	Adopt a high-value set of urban health indicators	Issue a national urban health indicator framework that specifies mandatory, preferred and optional indicators for cities	Validate potential indicators with sectoral partners and communities using participatory methods
		Align national urban health indicators with well-established global frameworks	Embed urban health indicators into city performance dashboards
		Provide standardized guidance on how to assess the informational and decision-making value of potential indicators	
Evidence-based decision-support	Institutionalize evidence-based policy and practice in urban health	Mandate health impact assessment and health-oriented economic valuation for major urban projects	Partner with local research institutions to design and implement health impact assessments
		Establish a working group to integrate urban health evidence into national policy frameworks and legislation	Create a municipal evidence unit to review and summarize relevant research for city departments

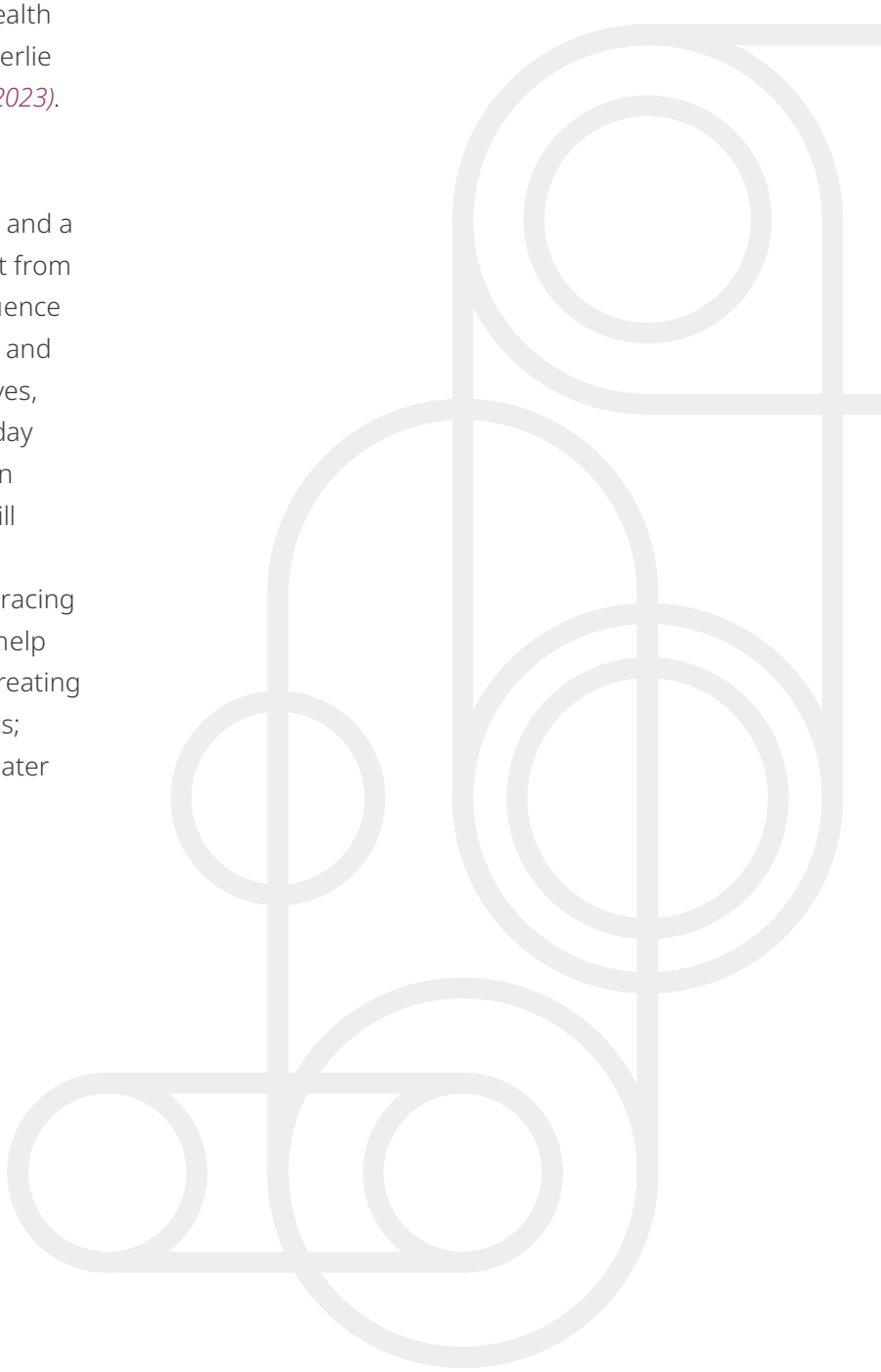
Area	Recommendation	Indicative national-level action	Indicative city-level action
			Join a relevant city network to exchange evidence on practical implementation challenges in urban health
	Support the application of interdisciplinary and transdisciplinary insights to decision-making	Establish a series of competitive transdisciplinary research grants in urban health	Hold a collaborative design challenge addressing a specific urban health problem with diverse stakeholders
		Create a national advisory committee for urban health to support technical analysis of inter- and transdisciplinary data	Mandate that significant urban infrastructure project advisory boards include public-sector representation
			Embed urban health researchers within city planning departments
	Increase local capacity and external links for evidence-based decision-making	Second national-level data specialists to support city health departments for fixed periods	Formalize a memorandum of understanding with a local research institution for ongoing data analytic support
		Create a training fellowship for municipal staff in data analysis and policy design for urban health	Prepare a fact sheet of existing tools to guide decision-making in particular sectors and for cross-cutting issues
	Implement a robust monitoring and evaluation system	Launch a national urban health monitoring platform with interactive dashboards	Produce an annual "state of urban health" report
		Building on a national indicator system, publish standardized data collection templates for cities to use	Support the establishment of community and external stakeholder monitoring committees to provide feedback outside standard processes
		Define standards for ongoing monitoring of indicators and episodic evaluation of specific activities	
Innovation	Cultivate an innovation ecosystem for urban health	Establish a working group to evaluate regulatory and bureaucratic barriers to innovation	Organize regular innovation roundtables with stakeholders from multiple domains (e.g. NGOs, the private sector, communities)
		Create a national urban health innovation fund to support city-level pilot projects	Initiate a small-grants programme to support community-led innovation

Area	Recommendation	Indicative national-level action	Indicative city-level action
		Host an annual forum to connect innovators, municipalities and funders	
	Create dedicated spaces for urban health experimentation	Fund a national network of "urban health labs" in key cities to experiment with new solutions	Designate a district as a testbed for innovative urban health projects
		Create a system of regulatory waivers for promising pilot projects	Convert underused municipal buildings into co-working and experimentation hubs
			Invite residents and communities to co-design and trial small-scale interventions in public spaces
	Develop processes to identify and scale up promising novel solutions	Provide matching scaling grants to support the replication of successful projects in new municipalities	Establish an office for urban health innovation to identify promising projects for expansion and rapidly make decisions on funding
		Publish guidance on scaling up promising urban health interventions	Work with entrepreneurship-focused NGOs, academic institutions and other relevant partners to disseminate opportunities for accessing scaling funding
Partnerships	Where appropriate, adopt a partnership model to deliver urban health needs	Include key professional associations in a national commission to provide guidance on establishing successful public-private partnerships for healthy large-scale urban development	Establish a review office to monitor and evaluate ongoing partnerships involving municipal government
			Create a cross-sectoral commission to evaluate the potential for improving municipal service provision through partnerships
	Foster an environment that encourages collaboration	Create an awards scheme to recognize influential partnerships	Create a city-wide training programme to educate public-sector workers about their impact on urban health
			Develop an online platform for matching entrepreneurs and funding opportunities
	Provide resources to support effective urban health partnerships	Create a grant programme to support urban health partnerships of demonstrated value in maintaining core functions	Develop training modules on managing common partnership challenges

Area	Recommendation	Indicative national-level action	Indicative city-level action
			Convene a learning and networking meeting series for representatives of diverse urban health partnerships and funders
Participation	Institutionalize participation as a key value and component of public-sector action for urban health	Create a legal framework guaranteeing public input into major projects with impacts on urban health	Build into city-level urban health and development plans a mandate for community participation
			Assess and report on barriers to participation for vulnerable and otherwise excluded groups
	Improve communication around urban health	Fund the translation of urban health guidance into all relevant languages	Create a public dashboard to supply up-to-date information on urban health issues, policies and opportunities
			Convene regular public briefings to inform and solicit feedback on urban health activities
			Use local radio, social media and community events to share updates
	Encourage nongovernmental actors to participate in urban health	Provide tax incentives for private-sector investment in urban health	Establish a citizens' assembly to provide feedback on urban health policy
			Implement participatory budgeting for community-level urban health interventions

Progress on strategic action for urban health is unlikely to be linear. Continuous learning, monitoring and adaptation are essential to refining strategies and ensuring long-term effectiveness in any setting. It is critical to share innovations and best practices among cities and nations – for example, through Healthy Cities or other city networks – where feasible leveraging the host of non-state actors that serve as knowledge brokers. This Guide highlights some of these best practices, yet there is still much to learn about effective mechanisms for strategic action, and about measuring the complex impacts of urban health strategies on the dynamic systems that underlie urban health challenges *(Hausmann-Muela 2023)*.

Above all, urban health must come to be recognized as a foundational goal of society and a shared responsibility, requiring commitment from the host of stakeholders whose actions influence and depend on urban health: policy-makers and practitioners, researchers and representatives, communities and citizens. Choices made today will shape the health and well-being of urban populations for generations to come, and will impact the array of other societal priorities intricately bound with urban health. By embracing strategic approaches, decision-makers can help people to thrive today and into the future, creating more liveable, equitable urban environments; more stable, innovative institutions, and greater resilience in an uncertain world.



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Annexes

Annex 1
A sample protocol for initiating a strategic approach to urban health

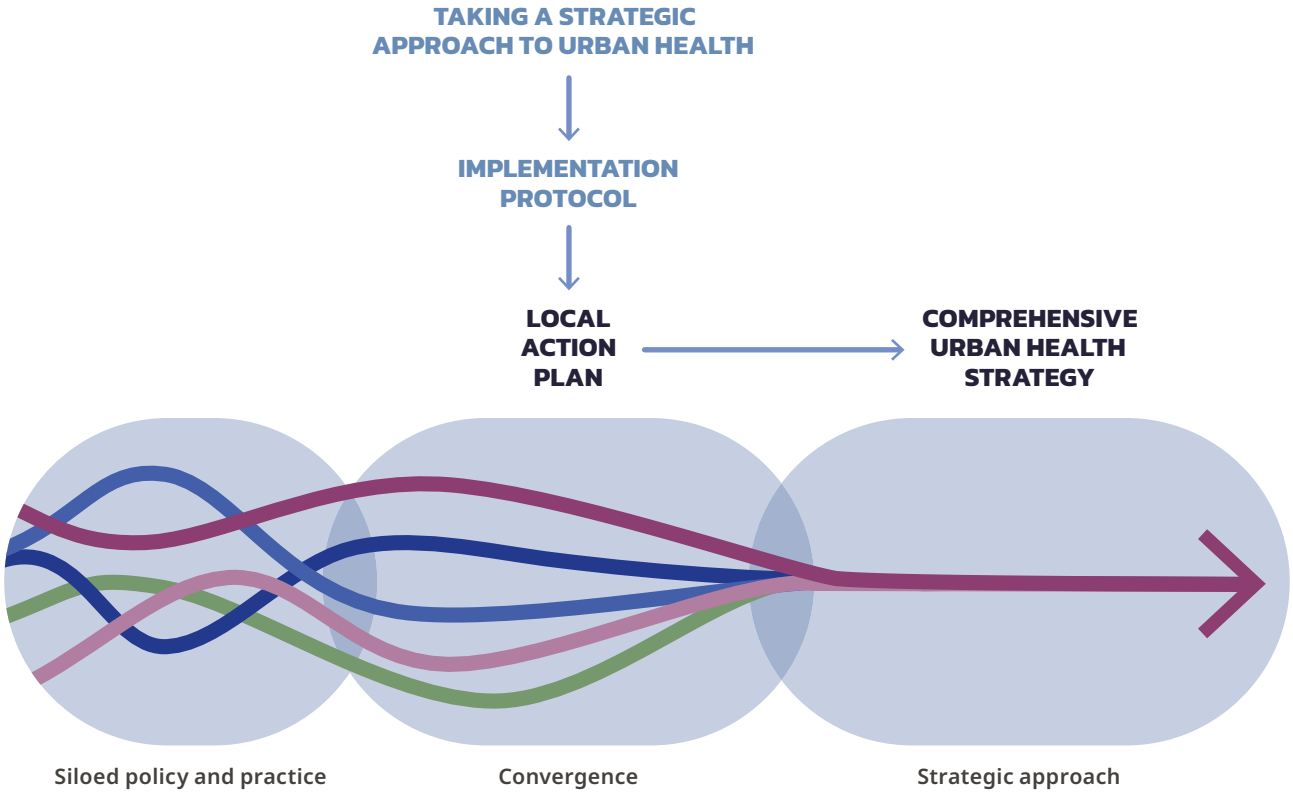
This sample protocol offers national and city-level governments a structured but adaptable implementation framework for initiating a strategic approach to urban health, reflecting the Guide's high-level recommendations. The protocol provides a suggested pathway – rather than a rigid template – for scoping and implementing a preliminary strategic plan, with the expectation that a comprehensive, context-specific urban health strategy will follow in time (see Fig. A1.1).

The protocol emphasizes four key outputs, developed in parallel, cross-fertilizing processes:

- a statement of commitment
- a situational analysis
- a local action plan
- a needs assessment.

The protocol can be adapted to national or subnational governments, including at city level, and "local" should be interpreted as applying to any of these contexts. However, the best results usually arise from efforts that combine key elements at all relevant scales.

Fig. A1.1
Converging siloed policy and practice on a strategic approach through a local action plan.



Implementation protocol

Foundations: Expression of interest and formation of an implementing body

A public authority, such as an elected leader, a ministry or another decision-making entity, issues an expression of interest to explore a strategic approach to urban health. An expression of interest should:

- convey an intention to complete the protocol;
- provide a rationale for pursuing a strategic approach;
- commit to involving key cross-sectoral, multilevel and extra-governmental stakeholders;
- affirm support for implementing and sustaining a strategic approach, conditional on identifying feasible, well-supported recommendations.[54]

The expression of interest may be more or less formal, but should be transparent and accessible to potential collaborating partners and other urban health stakeholders.

The initiating authority designates or establishes an implementing body to coordinate execution of the protocol, providing resources as needed. This body should have:

- familiarity with local urban health issues, power structures and policy context;
- cross-sectoral connections to key urban health stakeholders;
- capacity for policy analysis and strategy development;
- institutional authority to manage decision-making and partnerships;
- efficient, agile institutional functioning;
- capacity for coordinating partners swiftly and effectively.

Where relevant, the implementing body may engage supporting organizations, such as academic institutions or nongovernmental organizations, to provide technical expertise, practical facilitation and logistical support. In contexts where no potential implementing body with the requisite capacities exists locally, the initiating authority may engage with an external entity or consortium to manage this process, but local supporting organizations must be incorporated to supply critical context-specific knowledge.

The implementing body also identifies key local stakeholders to contribute important perspectives and knowledge, while helping to build support for strategic action. Where feasible, stakeholders should include those representing broader groups, like business councils or professional organizations These partners are recruited into a coalition to oversee and carry out the implementation protocol (See Fig. A1.2).

[54] This is important because failure to follow through on co-produced strategic action can erode trust among key stakeholders and diminish the likelihood of success for future efforts.

NOTE

Often, the implementation protocol will be executable in whole or in part through existing institutions and periodic processes, reducing logistical challenges and resource requirements, and making it easier to operationalize findings. Some examples of existing institutions or processes that can support the execution of the implementation protocol include:

- Healthy City, Age-Friendly City, smart city, or similar institutional and policy architectures;
- cross-sectoral health initiatives like heat-health or air quality management plans;
- bodies for emergency management or other cross-sectoral societal functions;
- regular development planning processes like economic plans or voluntary local reviews under the SDGs.

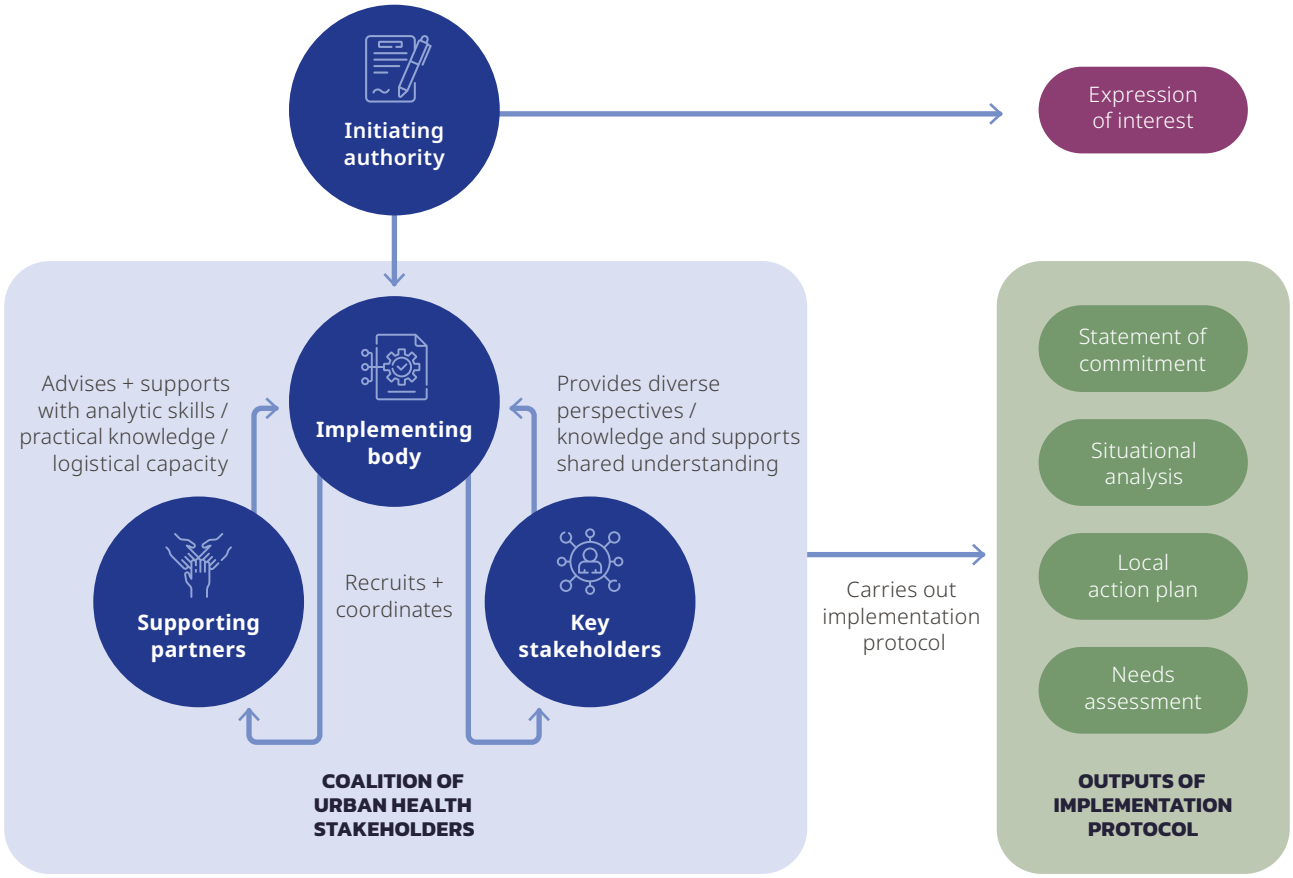
Care should be taken, where leveraging existing institutions or processes, that established priorities and ways of working do not unduly limit the scope of application or findings for the implementation protocol. Likewise, implementation should not threaten the well-defined functions and priorities of existing entities.

Output 1: Statement of commitment

The coalition collectively develops a statement of commitment to a strategic approach to urban health – e.g. a memorandum of understanding or a resolution with signatories. This is geared toward generating shared understanding of goals, a collective commitment to collaboration, and a public mandate for action. The statement enumerates specific commitments for different categories of actors, including:

- endorsement of the local action plan by all signatories;
- commitment by government authorities to carry out recommendations over a prescribed period, e.g. 3–5 years;
- commitment by nongovernment stakeholders to engage with the strategic process on an ongoing basis.

Fig. A1.2
Components of a sample implementation protocol.



Output 2: Situational analysis

The coalition conducts a concise but comprehensive analysis of the urban health landscape, focusing on:

- health outcomes, including key issues and trends, and the quality and availability of urban health data;
- health determinants, including social, environmental, economic and commercial factors and equity issues;
- stakeholders and institutions, mapping key actors and their priorities, capacities and relationships;
- programmes and policies, documenting existing urban health efforts and other relevant cross-sectoral initiatives;
- political and policy context, analysing the issues and actors driving local decision-making and identifying important political or policy events;
- fiscal context, including existing spending, funding sources and financial constraints, and local economic evaluation of health issues;
- complexity, including intractable health issues and unanticipated or unexplained outcomes.

This analysis should, as feasible, draw on a wide range of sources – including consultation with communities and other stakeholders – to help identify potential entry points for action and inform the design of a local action plan.

Output 3: Local action plan

Drawing on the situational analysis, a local action plan is developed to establish the scope, objectives, form, function and theory of change for a preliminary urban health strategy. The plan aims to establish the justification, core mechanisms and relationships needed for progress toward a more comprehensive long-term effort. It incorporates participatory consultation, to ensure diverse perspectives, and focuses on:

- entry points, identifying alignment with local agendas and showing how to build on local institutions, initiatives and decision-making;
- objectives, articulating short- and medium-term goals linked to a longer-term vision;
- leadership, clarifying which entities have responsibility for specific actions, and the scope of their authority;
- structures, defining or designating needed institutional mechanisms;
- funding, defining financial resources and processes, including concrete mechanisms for cross-sectoral financing and sustainability across budget cycles and political change;
- activities, including specific interventions, policies, engagement and institutional development;
- monitoring and review, including performance indicators, review timescales and criteria, and adaptive or corrective mechanisms.

This local action plan serves as a framework for short- to medium-term strategic action, and a basis for longer-term planning.

Output 4: Needs assessment

A structured needs assessment evaluates elements necessary to implement the local action plan. This covers:

- capacities, including sector- and issue-based and connective capacities at individual, institutional and systemic levels *(WHO 2024)*;
- resources, including the scale of human and financial needs;
- political and bureaucratic considerations, clarifying the processes needed to adopt and implement the local action plan, and anticipating any challenges.

For each of these elements, the needs assessment will articulate steps for addressing or mitigating deficits and challenges.

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Annex 2
Methodology

The methodology for this Guide was designed to leverage the expertise of WHO and the global urban health community, incorporating broad insights while ensuring adherence to ethical and quality standards.

Extensive consultative processes informed the Guide's development. In 2022, recognizing a need for advice on integrative, coordinated action in urban health to supplement sector-based tools and insights, the WHO Urban Health unit developed a proposed project framework. This was circulated to a group of internal and external experts for review and commentary. Internal experts included urban health focal points at WHO headquarters and in regional offices, and other staff with relevant expertise. External experts were identified on the basis of their global leadership in urban health, diversity of perspectives, and familiarity with WHO, taking gender and regional balance into consideration. WHO convened approximately 20 leading urban health stakeholders for a participatory virtual expert meeting to collect feedback, technical input and suggestions. Stakeholders representing a broader set of domains, such as UN and multilateral agencies, the private sector, professionals, city networks and civil society, were also consulted about the proposed framework in a series of collaborative discussions at the World Urban Forum in Katowice, Poland. All external experts who contributed substantively to the Guide declared any competing interests in accordance with the WHO declaration of interests policy for experts. No potential conflicts were identified.

Feedback and insights from these consultations led to further development and refining of the project framework. This framework defined three ancillary products as foundational inputs for the Guide: a collection of issue papers, a set of policy briefs and a series of case studies.

The issue paper collection (*Making the Case for Urban Health: Defining Value and Relevance to Contemporary Challenges*) was commissioned by WHO in 2023 in the peer-reviewed open access online journal F1000 Research *(F1000 Research 2025)*. The papers serve three purposes: to provide conceptual clarity on urban health; to explore the case for urban health action from multiple perspectives; and to articulate the relationship between urban health and other issues driving political and policy discourses. The WHO Urban Health unit assembled an initial list of potential authors, considering gender and regional representation, content expertise and recognized leadership in urban health. This list informed the identification of lead authors, in consultation, where relevant, with WHO teams with content expertise and geographical awareness. Recommendations for additional authors were provided to and discussed with lead authors, but the latter ultimately assembled their own teams to ensure smooth functioning and independence. All authors were required to declare competing interests during the publication process. WHO reviewed final manuscripts prior to submission.

The policy briefs were outputs from a series of participatory consultations on the means of implementation for urban health. In 2023, through a competitive bidding process, WHO commissioned BYCS, a civil society organization based in the Kingdom of the Netherlands, to design and coordinate these meetings. Each consultation convened WHO participants and 15–20 external participants from multiple sectors and domains to explore a strategic approach to urban health within a

defined thematic context. Participants were chosen to reflect diverse perspectives across geographies, sectors and gender, and represented a range of domains, including UN agencies, universities and research organizations, professional societies, civil society organizations, city governments and private-sector firms. All participants declared competing interests in accordance with the WHO declaration of interests policy for experts. No potential conflicts were identified. Each consultation consisted of three sequential meetings and was devoted to one of four thematic areas: Governance and Financing, Generating and Working with Evidence, Innovation, and Partnerships and Participation. The consultations sought to develop high-level recommendations for each thematic area, and to reflect on best practices for initiating and sustaining long-term strategies for urban health; health equity was explicitly considered in each consultation. The outputs of the consultations were four policy briefs, published in 2023–2024 *(WHO 2024)*.

The case studies were intended to illustrate concrete examples of strategic action on urban health. An open call was issued online in 2024, inviting submissions for urban health case studies fulfilling five criteria: a) having been active during the previous decade b) involving multiple stakeholders c) involving multiple sectors or disciplines d) being relevant to multiple urban health outcomes e) illustrating one or more of the elements of strategic action identified in the policy briefs. Each case study was assessed for eligibility by up to three reviewers, with identifying information redacted to eliminate bias. Cases judged eligible by two reviewers were accepted. Further information was sought for a small number of cases to determine eligibility. Reviewers included members of the WHO Urban Health team and the University of Buffalo WHO Collaborating Centre on Health in Housing. Cases were reviewed by WHO regional and country staff. Sixty-one accepted cases are being published in an online repository on the WHO website.

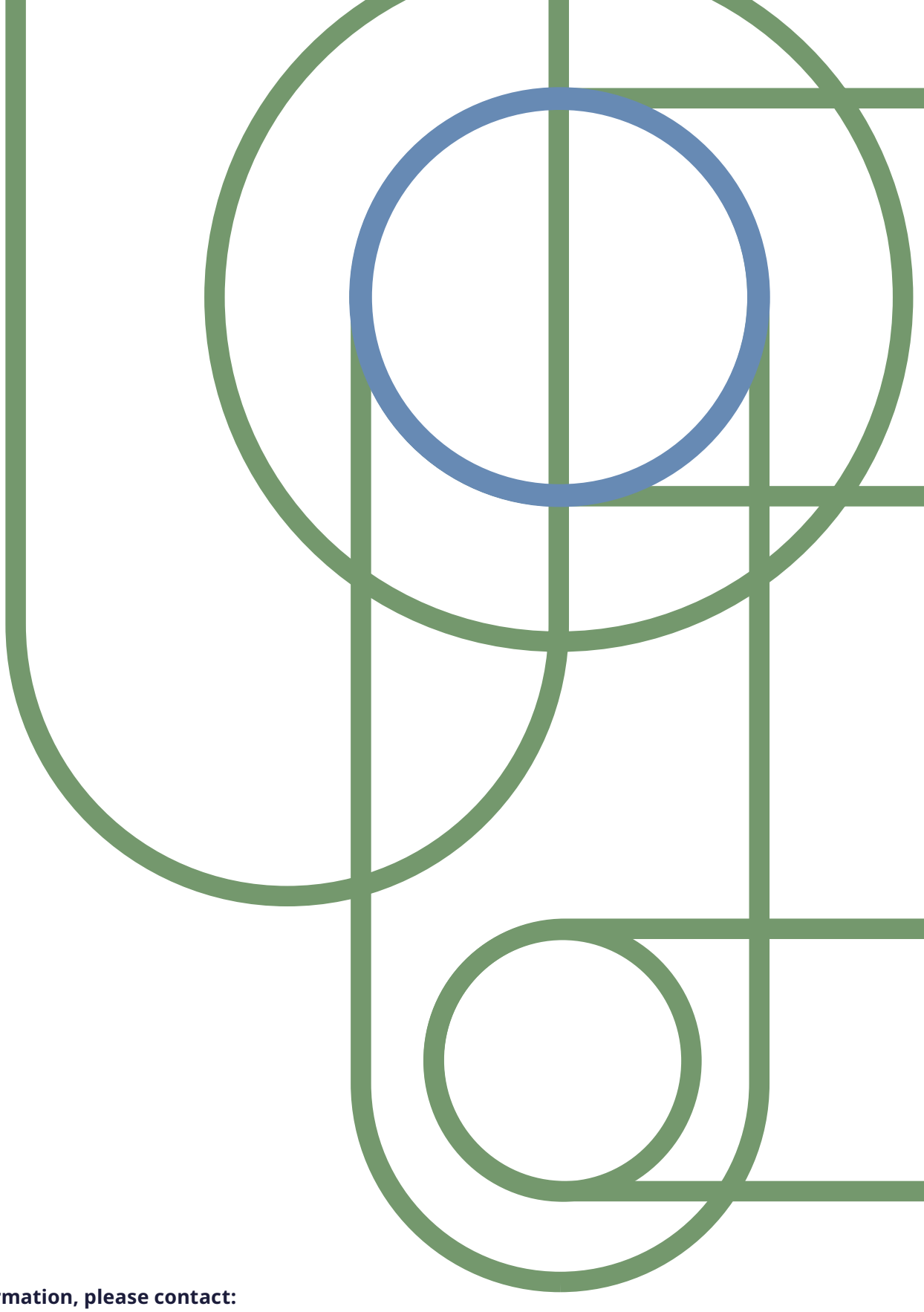
The text of the Guide draws extensively on these three sources. In particular, the issue papers informed and provided base material for Chapters 1 and 2 on conceptual issues, the case for urban health, and its relation to other critical policy areas. The policy briefs supplied the elements of the strategic approach reproduced in Chapter 1. High-level recommendations on entry points and means of implementation in Chapter 3 are also primarily derived from expert input to the policy consultations – save for capacity development, for which the WHO Capacity Assessment and Response Resource Kit is the primary source. The highlighted cases represent a subset of submitted case studies, chosen to illustrate specific aspects of the strategic approach and offer broad geographical representation. They were further developed by the Urban Health team in coordination with case submitters. Box 3 was provided by the WHO Health Promotion team. The implementation protocol in Annex 1 was developed by the WHO Urban Health team as a sample roadmap for moving from an intent to initiate strategic action to a credible initial plan; it is intended to be suggestive rather than prescriptive.

An extensive literature review informed all parts of the Guide, supplementing the primary sources above. In particular, an effort was made to reflect and incorporate prior WHO work relevant to urban health, along with similar thematic outputs from UN-Habitat and other UN agencies, multilateral financial institutions, significant NGOs and academic researchers. The emerging text was reviewed on multiple occasions by external experts, WHO urban health focal points, WHO regional office staff, and other staff with relevant expertise. Their feedback, technical comments and suggestions for additional literature review helped to identify gaps and confirm the validity, utility and relevance of the content. The Guide underwent final review for executive and quality clearance.

References

F1000 Research. Making the Case for Urban Health: Defining Value and Relevance to Contemporary Challenges [website]. 2025 (https://f1000research.com/collections/urbanhealth/about-this-collection, accessed 3 September 2025).

WHO. Policy briefs for a strategic approach to urban health [website]. 2024f (https://www.who.int/teams/social-determinants-of-health/urban-health/policy-briefs, accessed 22 October 2024).



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