World Health Organization

STRENGTHENING HEALTH EMERGENCY PREPAREDNESS IN CITIES AND URBAN SETTINGS: GUIDANCE FOR NATIONAL AND LOCAL AUTHORITIES

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Executive summary

The WHO guidance document ***Strengthening health emergency preparedness in cities and urban settings: guidance for national and local authorities*** has been developed by the Department of Health Security Preparedness of the WHO Health Emergencies Programme in WHO Headquarters. It is an **operational guidance document aimed at national and local authorities, to support member states in the area of urban health emergency preparedness.**

Cities and urban settings are crucial to preventing, preparing for, responding to, and recovering from health emergencies, and therefore enhancing the focus on urban settings is necessary for countries pursuing improved overall health security.

Urban areas, especially cities, have unique vulnerabilities that need to be addressed and accounted for in health emergency preparedness. An unprepared urban setting is more vulnerable to the catastrophic effects of health emergencies, and can exacerbate spread of diseases, whilst they are also very often the frontline for response efforts. This has been seen in past outbreaks and the COVID-19 pandemic. It is therefore crucial that health emergency preparedness in urban settings is addressed through policy development, capacity building, and concrete activities, undertaken at the national, subnational and city levels.

This guidance document **aims to support leaders, policy-makers and decision makers in both national and local authorities,** who work on strengthening health emergency preparedness in cities and urban settings.

Building on the key aspects that authorities should consider **it proposes possible actions and approaches,** that when adapted to different local contexts, will contribute to enhanced prevention, preparedness, and readiness for health emergencies in cities and urban settings for a robust response and eventual recovery.

It **supplements other existing WHO guidance and tools** on urban preparedness, in particular the WHO *Framework for Strengthening health emergency preparedness in cities and urban settings (hereafter WHO Urban Preparedness Framework) (1).*

It has been **developed as an outcome of the *Technical Working Group on Advancing Health Emergency Preparedness in Cities and Urban Settings during COVID-19 and Beyond,*** co-hosted by WHO and the Government of Singapore in early 2021 (2). It supports the implementation of WHA Resolution 73.8 on *Strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005) (3)* and builds on both the guidance *Strengthening Preparedness for COVID-19 in Cities and*

Urban Settings: Interim Guidance for Local Authorities, and the tool Practical actions in cities to strengthen preparedness for the COVID-19 pandemic and beyond: An interim checklist for local authorities developed and published by WHO during the COVID-19 pandemic.

The guidance is structured around **eight key areas** for health emergency preparedness in cities and urban settings, that were identified by the Technical Working Group:

- Governance and financing for health emergency preparedness
- Multisectoral coordination for preparedness
- High population density and movement
- Community engagement and risk and crisis communication
- Groups at risk of vulnerability
- Data, evidence and information
- Commerce, industry and business
- Organisation and delivery of health and other essential services

The guidance **identifies a number of key challenges in each area[1], and proposes various approaches and actions** that can be considered and adapted to the unique contexts in countries and their cities. These approaches are split across guidance for national authorities, for local authorities, and for both.

In order to maintain its practicality as a tool, it **only focuses on the key challenges identified by the working group.**

Due to the differences in governance that exist within different countries, and the delegation of competencies between different levels of governance (national and sub-national), the guidance is **not prescriptive,** as it will not be routinely applicable across all countries and cities. Rather, it intends to serve as a starting point for adaptation to different country context.

[1] The challenges, and related actions, were identified through deliberations of the aforementioned *Technical Working Group on Advancing Health Emergency Preparedness in Cities and Urban Settings during COVID-19 and Beyond,* as well as further expert consultation.

1. INTRODUCTION

Urbanization is one of four demographic mega-trends expected to continue[2]. By 2050, 68 per cent of the world's population are expected to live in urban areas. These, especially cities, have unique vulnerabilities that need to be addressed and accounted for in health emergency preparedness. An unprepared urban setting is more vulnerable to the catastrophic effects of health emergencies and can exacerbate spread and transmission of diseases, whilst they are also very often the frontline for response efforts. Both have been seen during the COVID-19 pandemic. In an age where regions, countries and cities are more interconnected than ever, cities share responsibility with national authorities for their residents, each other, and the wider world. It is therefore crucial that health emergency preparedness in urban settings is addressed through policy development and implementation, capacity building, with concrete steps, taken at both the national and city levels.

Given the importance of cities in preventing, preparing for, and responding to health emergencies, enhancing the focus on urban settings is necessary for countries to improve their overall health emergency preparedness. It thus is in the interest of national governments to prioritise and mainstream it through existing activities for health emergency preparedness. Enhancing health emergency preparedness in cities and urban settings also has significant co-benefits for other public health issues related to the urban environment that go beyond health emergency preparedness, such as water-borne diseases and maternal and child health, as well as non-communicable diseases. Furthermore, urban health is of critical importance to the broader global health agenda being realised at national and local levels, and thus globally.

Health emergency preparedness is multi-stakeholder and multisectoral by nature, as it extends far beyond health. Urban settings face additional unique dynamics, and therefore preparedness in this context adds complexity due to the extra layers of governance – with local authorities needing to work with, or complement, national authorities. This requires further coordination, collaboration, and the sharing of capacities, resources, data, and information. It impacts financing, service delivery, risk assessment, capacity building, sustainability of actions and the measurement of impact. These shape the ability of both national and local authorities to implement the necessary and appropriate measures in preparing for a public health emergency in a city or urban setting.

[2] The Commission on Population and Development addressed urbanization in its 51st session and took note of the report of the Secretary General on World Demographic Trends (E/CN/9/2018/5).

The *International Health Regulations (IHR) (2005) (4)* require states parties to strengthen their capacity for the detection, assessment of, and response to disease outbreaks and other public health emergencies at national, sub-national (e.g., state / metropolitan) and local (e.g., city) levels. Cities and urban settings are increasingly at the forefront of effectively operationalizing many of these requirements and are important elements of national plans and efforts towards IHR implementation. Therefore, strengthening health emergency preparedness in cities and urban settings is an important prerequisite for all countries to effectively strengthen capacities under their commitments to the IHR (2005). Furthermore, health authorities, including animal health or environment authorities are usually represented in cities, facilitating multisectoral prevention and control operations.

Health emergencies have a disproportionate impact on women. This is especially applicable in cities, where there is a concentration of 'frontline' workers – including the health and social care workforce, as well as in other sectors such as education - which are predominantly staffed by women *(5)*. Therefore, health emergency preparedness needs to be undertaken through a gendered lens, and with a focus on mitigating the disproportionate impact on women. It is important that the actions and approaches in this guidance are all considered and implemented with this understanding as a central tenet – they should be gender-aware, gender-informed, and gender-inclusive/reflective.

1.1 Target Audience and purpose

This guidance document aims to support leaders, policy-makers and decision makers in both national and local authorities, who work on strengthening health emergency preparedness in cities and urban settings. Whilst the definition of 'local authorities' differs in different governance structures – for example in a decentralized context it can relate to regions, provinces, metropolitan areas, wards, and other demarcations – in this context it refers to the relevant authorities who have responsibility for health emergency preparedness within a city or urban setting.

This guidance was developed based on discussions of the Working Group jointly co-hosted by WHO and the Government of the Republic of Singapore on *Advancing Health Emergency Preparedness in Cities and Urban Settings during COVID-19 and Beyond,* that met six times between February and April 2021 *(2)*. Beyond the working group, inputs were sought from WHO Headquarters and Regional Offices, as well as from cities that are part of the WHO Healthy Cities Networks. The full list of contributors can be found in the acknowledgements.

It supplements other existing WHO guidance and tools on urban preparedness, in particular the WHO *Framework for Strengthening health emergency preparedness in cities and urban settings* (hereafter *WHO Urban Preparedness Framework) (1)*. Building on the key aspects that authorities should consider, presented in the *WHO Urban Preparedness Framework*, it proposes possible actions and approaches, that when adapted to different local contexts, will contribute to enhanced prevention,

preparedness, and readiness for health emergencies in cities and urban settings for a robust response and eventual recovery.

This guidance is neither exhaustive nor prescriptive, taking into account the necessity of contextualisation that stems from the heterogenous nature of cities in implementation, both within and between countries.

Annex 1 of the document also presents some case studies to show illustrate how health emergency preparedness was implemented by some countries and their cities.

There are many variations in the term "urban setting". For the purposes of this document, and in line with the *WHO Urban Preparedness Framework,* it refers to areas with a large and dense population that may be within certain administrative or political boundaries *(6)*.

1.2 How to use this document

The guidance identifies a number of key challenges in eight key areas of health emergency preparedness in cities and urban settings[3], and proposes various approaches and actions that can be considered and adapted to the unique contexts in countries and their cities. These approaches are split across guidance for national authorities, for local authorities, and for both.

In order to maintain its practicality as a tool, it only focuses on the key challenges identified by the aforementioned *Technical Working Group on Advancing Health Emergency Preparedness in Cities and Urban Settings during COVID-19 and Beyond (2).*

Due to the differences in governance that exist within different countries, and the delegation of competencies between different levels of governance (national and sub-national), the guidance is not prescriptive, as it will not be routinely applicable across all countries and cities. This is particularly true given the varying levels of resources available to different cities. Whilst some actions outlined may be beyond what some cities can plan for, it intends to serve as a starting point for adaptation to different country contexts.

[3] These eight areas are borne out of previous discussions and consultations that led to the development and publication of the WHO guidance *Strengthening Preparedness for COVID-19 in Cities and Urban Settings: Interim Guidance for Local Authorities,* and the tool *Practical actions in cities to strengthen preparedness for the COVID-19 pandemic and beyond: An interim checklist for local authorities.* They were then refined through expert consultation and discussed further by the technical working group.

1.3 The unique nature of cities and urban settings in health emergency preparedness

[For more details, please refer to the WHO Urban Preparedness Framework (1)]

Cities and urban settings are highly complex settlements that are influenced by other cities, neighbouring towns and peri-urban areas, the urban rural fringe, rural areas, and other places, both regionally and globally. These linkages can be social, economic, physical, political, and cultural. The linkages and key support functions that cities often have with these surrounding areas make them important elements of a system and strategy needed for national preparedness and response efforts.

They are also complex and living systems in and of themselves, shifting and adapting to the context within which they operate. They often serve as subnational, national, and international hubs, with major points of entry (e.g., airports, seaports, ground crossings). These transport routes may serve as foci for transmission of diseases, making mobility dynamics an important consideration in urban preparedness. For example, cities can represent spaces of vulnerability where mobile populations interact with stationary local communities, which in some circumstances can create an environment conducive to communicable disease transmission. The response thus requires a detailed understanding of mobility pathways and associated health risks and vulnerabilities.

Given the high population density, the risk of spread of infectious and communicable diseases is often elevated, especially in congested areas (e.g., restaurants or similar settings, supermarkets, workplaces, and mass gatherings including cultural, political, sporting, and religious events), and their people often rely on extensive and crowded public transportation networks to get from one place to another. There are also often communities with overcrowded and substandard housing that has inadequate toilet facilities, and lacks access to safe water, sanitation and hygiene (WASH) facilities *(7)*. Overurbanization has led to the proliferation of informal settlements, such as slums, which require specific attention from a public health and preparedness perspective.

Unregulated urban expansion - both a cause and a consequence of high population density - also leaves many cities vulnerable to the impacts of the effects of climate change and environmental threats. Wildfires and droughts, environmental degradation and urban expansion encroaching on nature is a growing issue in increasing vulnerability to health emergencies. Unsustainable development and unregulated human environments may lead to increased risk of zoonosis, water insecurity, food security, and contribute to changing migration trends. City regulation to reduce detrimental human impacts are crucial to mitigate these risks, including the use of an all hazards approach, built upon the *WHO Health Emergency and Disaster Risk Management Framework (8).*

Urban areas have diverse subpopulations and neighbourhoods with different sociocultural needs, and often harbour the groups most at risk of vulnerability from public health emergencies. Rapid rural– urban migration in many parts of the world has resulted in unmanaged and unplanned urbanization, including the development and growth of informal settlements / slums. A substantial proportion of those living in such settlements are often vulnerable, unemployed or dependent on informal economies to survive, exacerbating vulnerabilities to diseases already existing from unhealthy living conditions. For example, migrants (who may be undocumented), refugees and internally displaced persons are often found in these informal settings, and the relationship between their mobility and health is both dynamic and complex. While migrants, refugees and displaced persons may not always be inherently more vulnerable to communicable diseases for example, their health may be affected by the circumstances and challenges of the migration process, interactions with communities throughout the mobility continuum, and a lack of access to health care alongside other social determinants of health.

The heterogenous populations in cities, with different languages, literacy/education levels, cultures, and customs also require community-specific risk communication. There can be a great variety of sources of information, spread by different means including social media and word-of-mouth, that lead to an increased risk of misinformation that can compound health emergency challenges in urban areas *(8).* These heterogenous populations have to be understood as communities that must be integrated into a contextualized strategy for emergency preparedness, and seen as partners – as 'local actors' in themselves. Meeting the needs of particular groups requires engaging them throughout processes from policy development through to implementation.

However, the extreme diversity of cities, both within and between countries, means that there is no one-size-fits all approach, even within a single country. Each has a different mix of the abovementioned characteristics and requires a carefully designed, fit-for-purpose approach by national and sub-national actors.

1.4 The wide range of stakeholders in urban preparedness

Although this guidance is primarily for national and local authorities, achieving strengthened health emergency preparedness requires the engagement of many more stakeholders. Health emergencies impact everyone, and all sectors. Preparing for them therefore requires the engagement of stakeholders across the whole-of-government and the whole-of-society, and any approaches should be inclusive and multi-stakeholder in nature. WHO has published the *Multisectoral Preparedness Coordination (MPC) Framework* which helps provide countries an overview of the key elements for overarching, all-hazard, multisectoral coordination for emergency preparedness and health security *(9).*

Furthermore, for successful implementation, urban health emergency preparedness requires an even broader range of actors to be engaged, as there are both additional and different actors at the local and city levels. It requires multi-lateral, multi-level systems and a gender equity approach for structured dialogue and decision making which also include the views of local governments and local actors.

Another crucial group of stakeholders for health emergency preparedness at the urban level are international organisations and other actors in the international system. It is the role of the international system, and organisations such as WHO, to support their Member States in aspects ranging from risk assessment and gap analysis to monitoring and evaluation and capacity building. It is also the responsibility of these actors to collaborate and ensure that international approaches and agendas are synergised and not overlapping and consequently burdening on countries. Furthermore, they can support global solutions for global challenges (e.g., on trade, transport, provision of medicine/drugs like vaccines on global level). As such, while the approaches and actions in this document are aimed at national and local authorities, international stakeholders will need to support countries in adaptation and implementation.

The most important stakeholders in health emergency preparedness in cities and urban settings, however, are people and communities themselves. Responses to the COVID-19 pandemic have highlighted that successful preparedness and response is that which meaningfully engages and involves communities – whilst mirroring their true diversity - from the outset and throughout. This requires engaging with people as partners and stakeholders in preparedness plans and including community-led approaches as key vehicles for their implementation.

There are many existing tools and resources that can be used in cities and urban settings to support risk assessment, gap analysis and capacity building exercises. Some of these are city specific, and others are national tools which can be adapted and applied at a more local level. A selection of these can be found in Annex 2.

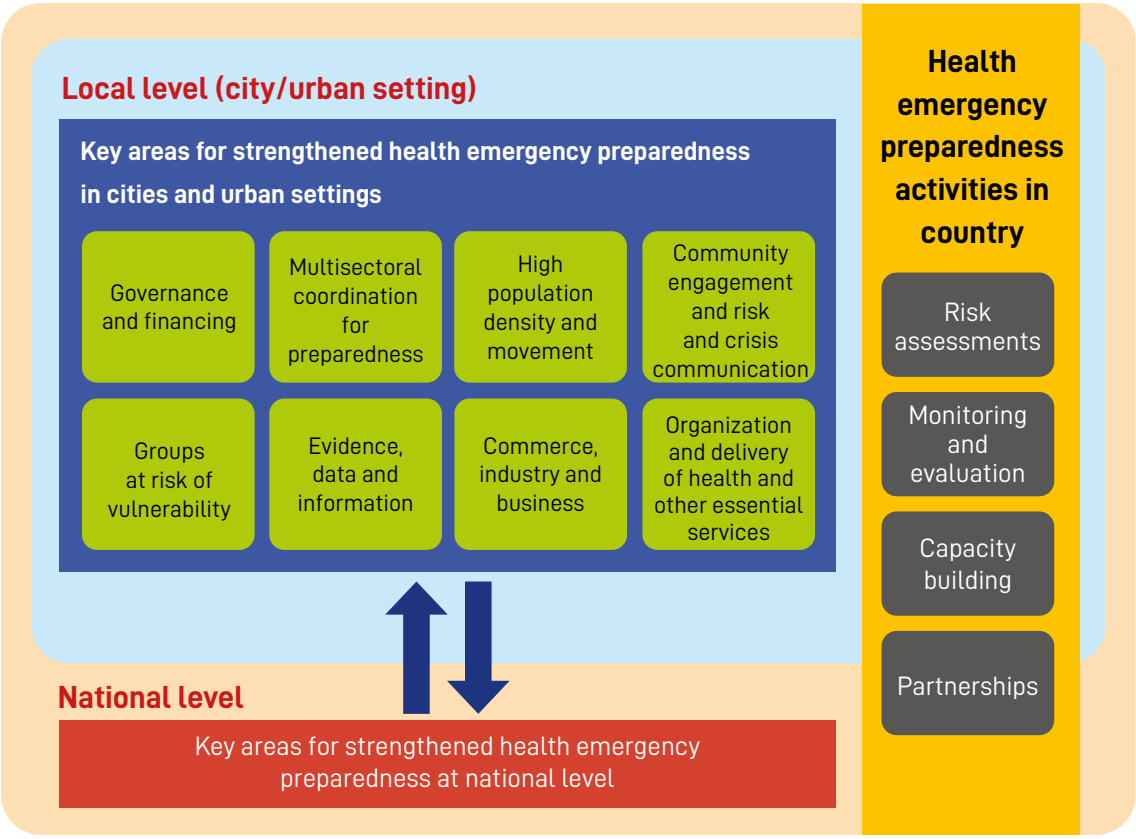
1.5 Taking an all-hazards approach

As different types of hazards are associated with comparable risks to health, and many emergency and disaster risk management functions are similar across hazards (e.g., planning, logistics, risk communications), it is neither efficient nor cost-effective to develop separate, stand-alone capacities or response mechanisms for each individual hazard. Health emergency management policies, strategies and related programmes should therefore be designed to address all hazards, using a foundation of common capacities that are then supplemented by risk-specific capacities (e.g. for pandemics) (8). This should be implemented by both national and local authorities, including at the urban level.

2 SUPPORTING THE WHO FRAMEWORK FOR STRENGTHENING HEALTH EMERGENCY PREPAREDNESS IN CITIES AND URBAN SETTINGS

Strengthening overall health emergency preparedness is dependent on activities such as risk assessments, surveillance, monitoring and evaluation, capacity building, and partnerships. Traditionally, these have tended to be informed or undertaken predominantly at the national level. By increasing the focus on urban preparedness, these country activities will become more comprehensive (covering national and to a better extent, sub-national), and a country will be better prepared for future health emergencies. This relationship can be visualised in Figure 1, from the WHO Urban Preparedness Framework *(1)*.

Figure 1. Strengthening health emergency preparedness – the role of cities and urban settings



The framework explores in greater depth the issue of health emergency preparedness in cities and urban settings. This operational guidance supplements it and supports its implementation through offering guidance on how to translate the framework into action.

3. APPROACHES AND ACTIONS FOR STRENGTHENING HEALTH EMERGENCY PREPAREDNESS IN CITIES AND URBAN SETTINGS

The following sections are structured along the key areas of focus described in the *WHO Urban Preparedness Framework* (see Figure 1). They identify a number of key challenges in each area[4], and propose various approaches and actions that can be considered and adapted to the unique contexts in countries and their cities. These are in turn split across guidance for national authorities, for local authorities, and for both. In some cases, and given the context, additional levels of governance will also need to be involved, such as regional, oblast, state, provincial or similar.

Both national and local authorities have key roles to play. In some instances, their respective roles may differ, whilst in other instances actions should be undertaken by or at both levels. This mainly depends on the governance context within different countries, and delegation of competencies between different levels of governance (national and sub-national). Therefore, the following actions are **not prescriptive,** as it will not be routinely applicable across all countries and cities.

3.1 Governance and financing for health emergency preparedness

Governance and financing are both key to effective health emergency preparedness. Focusing on preparedness at the sub-national level (such as the city/urban level) adds a layer of complexity from a governance perspective. It requires robust and effective mechanisms by which the different levels of government involved (e.g., national, regional, local) can coordinate, and a clear delineation of roles, responsibilities and accountabilities. Due to the nature of emergencies, these may differ from 'peacetime', and it is important that systems are ready to adapt for response when necessary. Any existing legislative gaps need to be identified and closed. The multiple layers of governance involved may also complicate financing, as budget lines, financing flows, and the distribution of funds may be different in an emergency. This is further complicated if there is a discrepancy between political agendas at different levels of governance. It is therefore important that mechanisms are in place to ensure funds can be released and redistributed as necessary in an emergency, without delays caused by the extra layers of governance involved.

[4] The challenges, and related actions, were identified through deliberations of the aforementioned Technical Working Group on Advancing Health Emergency Preparedness in Cities and Urban Settings during COVID-19 and Beyond, as well as further expert consultation.

Governance

Key Challenges

A **lack of political will** to strengthen preparedness in cities and urban settings because of political differences, competing interests and short-term prioritization.

Governance mechanisms often do not allow for, or facilitate, the meaningful engagement of all levels of government in emergency preparedness planning and response

Roles and responsibilities between national and local governments, as well as other stakeholders, are often not clearly defined in relation to preparedness for health emergencies.

Gaps tend to exist in the availability or **use of legislative and coordination mechanisms** for preparedness across different levels of government, with surrounding areas and with other cities.

National and Local Authorities

At both the national and local level:

- Authorities, within their legal frameworks, need to pursue a **paradigm shift** in relation to the engagement of subnational governments and other relevant actors in preparedness activities. This requires a change in the oft prevailing view that subnational governments are predominantly implementers of policy. Rather, they should be recognized as being important elements of the development of contextualised policy approaches. To this end, national and global institutions should facilitate local authorities' participation as political actors in joint discussions. When existing, this needs to be supported through funding and skilled staff.
- Authorities should **advocate for placing health and development at the centre** of public policy development (for example through the sustainable development goals (SDGs)), in order to reshape existing policy dialogues towards redistribution of governance and financing for development and preparedness. As part of this, health has to be framed comprehensively, including health promotion and prevention.
- Authorities should strive to maintain **two-way communication between the different levels of governance and facilitate this through integrated multisectoral mechanisms** to ensure coordination and alignment of priorities. This will help alleviate the challenges

stemming from competing priorities at different levels and differences in resource availability, autonomy, and independence.

- Authorities should clearly **articulate and agree on an accountability framework** for subnational and local authorities in preparedness. This should include clear differentiation, documentation and communication of roles and responsibilities from national to city / urban levels for emergency preparedness and response. It includes resolving overlapping responsibilities and is decision oriented.
- Authorities should **hold regular dialogue on realistic roles** that actors in urban settings can play in an emergency. This needs to go beyond theoretical concepts towards actionable items within clear accountability structures and ensure that adequate resourcing and investment is provided to allow for respective action at all levels.
- Authorities, where necessary, should **revise existing / establish new legal frameworks and governing policies** for emergencies that allow for flexibility (including access to preparedness and response funding), and new mechanisms for prompt decision-making for policy making and implementation at local levels. These should be both socially acceptable as well as evidence based. Some legislative structures adopted in specific emergency response contexts (e.g., for COVID-19) should also be extended to all-hazard preparedness.
- Authorities should **update contingency plans** to embed all sectors in a cross-sectoral command and coordination structure across all levels and at the same level (e.g. between cities). This will help with implementation of plans in an emergency. National and local authorities should also agree on a common set of definitions in emergencies, including types and thresholds for action.
- Authorities should seek to ensure the governance is in place to support **diversifying economic structures,** in order to build resilience by reducing the vulnerability of the health system to shocks. Whilst the structures would be put in place at the national level, at the city level it would require future city models to be developed based on the principles of sustainable development.

National Authorities

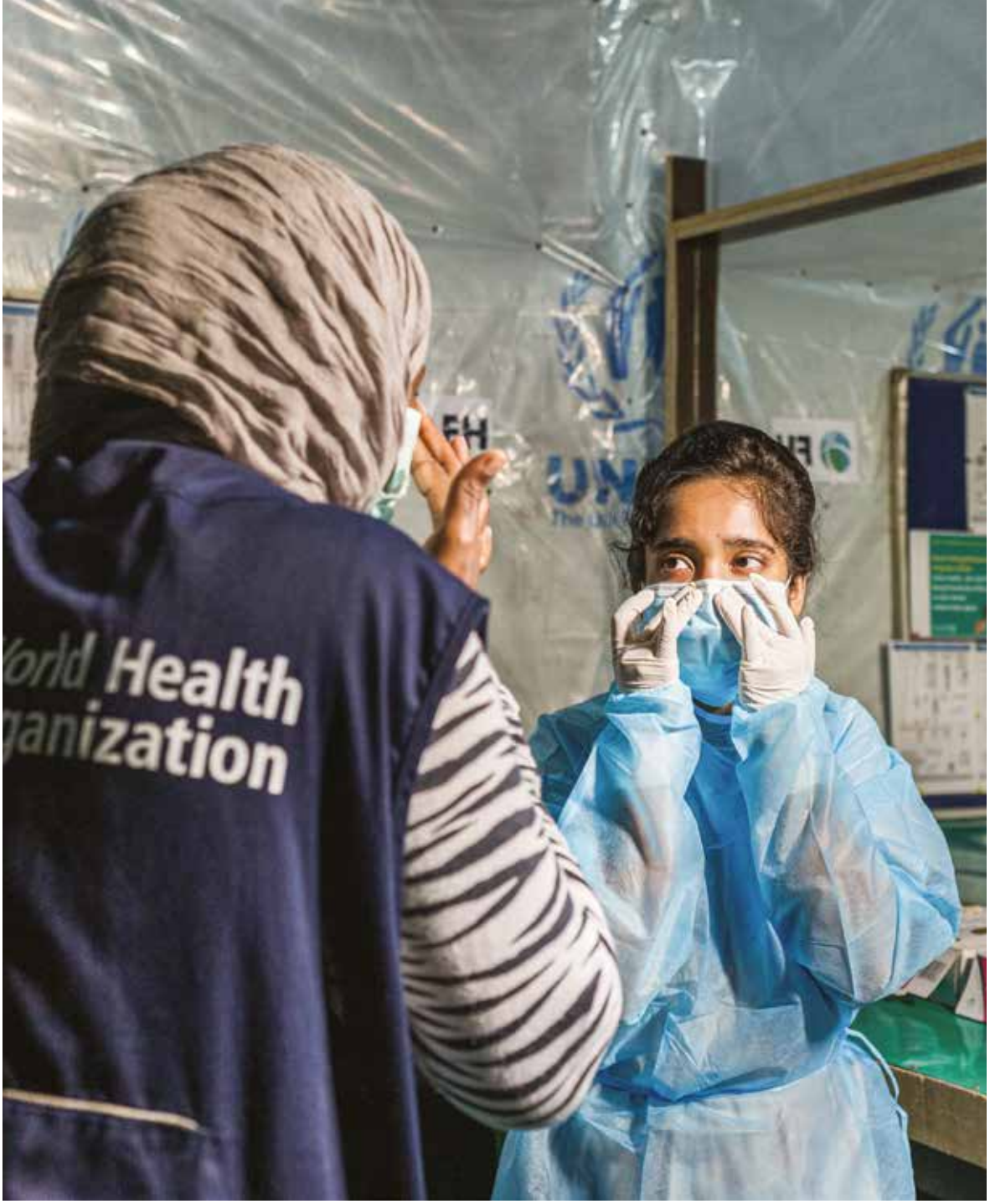
At the national level:

- The office of the head of state/ government – should set up **mechanisms to coordinate multi-lateral, multi-level approaches to policy formulation, decision making, and structured dialogue** for health emergency preparedness. These mechanisms must integrate local views in a meaningful manner and should be based on whole-of-government and whole-of-society approaches. They should comprise representatives of all relevant levels of government, as well as stakeholders in society (either standing members or ad-hoc). This could take the form of a committee, working group, coordination council, or similar. Collaborative agreements between different levels of government on multi/inter-sectoral collaboration, based on common interests and adapted to individual contexts and systems of governance, can complement these mechanisms.
- Governments, or the office of the head of state, should **support Ministries of Health in engaging Ministries of Interior** (or the equivalent line ministries that oversee urban affairs and local development) to facilitate engagement and collaboration, and to fund and capacitate local governments.
- Authorities should **coordinate line ministries and other key sectors, and local departments, to strengthen emergency management at lower levels of government,** including access to supplies, combined planning, regular training, and communication.
- Authorities should consider a **metropolitan-sensitive approach to legislation and coordination** – the mainstreaming of city considerations into policy-making processes. One consideration is legislation that covers multiple cities across different regions within countries, facilitating peer-to-peer support and engagement
- Authorities should **engage with educational institutions** in order to provide opportunities for capacity building within and across sectors. They should focus on an alignment of objectives between national and local agendas, as well as between health security and health systems objectives.

Local Authorities

At the local level:

- Leaders in local authorities (for example mayors, governors, councillors), should act as **strong advocates and political champions** for strengthening health emergency preparedness at the urban level. This advocacy should be aimed at all relevant levels of governance (national, regional if applicable, and other local authorities), as well as other key stakeholders within the urban setting, such as the private sector and third sector. Champions and advocates should be gender balanced and truly representative of target communities.
- Parliaments should use their oversight and accountability function to ensure that necessary **emergency management structures** are in place, ready to be convened and functional for an emergency.
- Authorities should **establish multisectoral emergency management units** in cities with permanent and/or easily mobilizable employees that can provide professional advice on preparing for and responding to an emergency. These units should use whole-of-society and all-hazard approaches as part of their modus operandi – engaging appropriately with local communities, NGOs, and the local private sector. Training of the staff should occur on a regular basis.
- Authorities should **build their knowledge and capacity to use by-laws and other existing legal mechanisms** to manage emergencies when needed – this could be achieved through ensuring an adequate number of legal officers are on staff, as well as with trainings, capacity building exercises, and staff development.
- Authorities should use networks and organisations for the **formal and informal sharing** of information, experiences, expertise, and resources. These can be city-specific organisations, or through the use of other existing fora or convening mechanisms that could be leveraged for this purpose. Access to diverse communities needs to be built up and fostered regularly to be ready to work in the case of a disaster.
- Authorities should **adjust and expand existing contingency plans and exercises** to cover different crises, using an all-hazards approach. Different approaches, sectors and actors are needed for different situations, but many foundations of emergency response and management remain constant and can be applied across all-hazards.



Financing

Key Challenges

Competing priorities for limited budgets lead to insufficient funds for city governments and local actors for preparedness activities.

Short-term thinking in funding allocation and distribution leads to prioritisation of 'quick-wins' as opposed to investment in longer-term, sustainable preparedness needs

Budgeting is predominantly at national levels and the **access to and release of** funds for cities for preparedness and response is slow.

National and Local Authorities

At both the national and the local level:

- Authorities should adopt a perspective and working culture of **solidarity across sectors** by synergizing budgets towards an overall better environment for crisis management.
- Authorities should complement a collaborative, multisectoral working culture with **dedicated enabling funding mechanisms and instruments** such as, delegated funding, joint or pooled budgets, direct investment, and external assistance.
- Authorities should adopt a l**ong term, sustainable, view to financing for preparedness,** considering the unpredictability of health emergencies, and the importance of being prepared

National Authorities

At the national level:

- Authorities should ensure **political commitment and appreciation of the importance** of financing health emergency preparedness is sustained, regardless of shifts in policy agendas. Securing the necessary funds, especially to address large-scale emergencies, requires the support of Heads of State and relevant line Ministries, including the use of economic investment cases.
- Authorities should ensure that **funding distributed to the local level is aligned with,** and adequate to meet, the needs and priorities identified at local level. This requires either undertaking local needs assessments and prioritization exercises with the respective local authorities, or matching funding to existing local level needs assessments, as well as working with local authorities to define priorities for preparedness.
- Authorities should **develop regulations and guidance** to help cities manage limited allocations and collaborate with NGOs / other partners using a whole-of-society approach at the city level.
- Ministries of Health and Interior should work with Ministries of Finance/ Economy to **develop fiscal policies in the context of emergencies** that allow for adaptive responses at city level for all-hazards. Policies should ensure stability and security of fiscal transfers / financing and improved direct access to funds for emergency preparedness needs. In the case of preparedness, other sectors' investments, (such as transport, housing etc) should be considered as public health interventions, and therefore adequately financed in view of taking into account their health emergencies and broader health impacts.

Local Authorities

At the local level:

- Authorities should push for **cost-sharing of preparedness across different departments,** which would be facilitated by the mainstreaming of all-hazards preparedness into the work of cities, supported by the requisite enabling legislation. In particular, parliamentarians should ensure **continued advocacy** sustained investments in emergency preparedness, and the building of city / community resilience.
- Authorities should, in order to manage limitations in budget:
  a. **Refocus and manage funding allocations** at local levels, including from local budgets and taxation revenue. Focus could be on divestment from health harming industries, including those that can increase the likelihood of health emergencies and disasters.
  b. Identify and close **system-level gaps in funding** (e.g., tax revenues low due to system inefficiencies).
  c. Explore ways to **generate their own revenues** to fund preparedness (e.g., bankable projects).
  d. Leverage opportunities and resources of **non-government stakeholders / partners** at local levels.

3.2 Multisectoral coordination for preparedness

Strengthening health emergency preparedness at the urban level requires the support of multiple sectors and partners beyond health at all levels – from global to national, subnational, and local levels, including within cities and urban settings. Coordination across sectors and partners is vital to ensure coherence in preparedness activities and increase resilience, and should include all actors, including the private sector and civil society. This requires the use of whole-of-government and whole-of-society approaches, with coordination often coming from the highest level of each government, including the offices of city leaders (e.g., Mayors and Governors), as well as potentially mainstreaming preparedness across departments at the operational level.

Key Challenges

There is often an **inadequate appreciation of the broad potential impacts** of health emergencies on other sectors, and an unwillingness of other sectors and stakeholders to be actively involved in preparedness

Stakeholders at the local and national level can often **work in siloes** and there is a lack of clarity on **who should lead** multisectoral coordination for health emergency preparedness at local levels.

A lack of mechanisms for **coordination and communication** between sectors and stakeholders for preparedness.

Sectors at the local level are often not adequately engaged in health emergency preparedness activities undertaken at, or coordinated by, national authorities

Capacities for multisectoral coordination are often lacking at both national and local levels, but in particular at the local/city level

National and Local Authorities

At both the national and the local level:

- Authorities **should identify co-benefits** in order to engage other sectors that are relevant to engage in preparedness activities. This requires an appreciation the potential benefits to the partner sector(s) of their engagement (as opposed to simply the benefit of the health sector), and their effective communication.
- Authorities should improve and sustain the **understanding of the broad systemic risks** of health emergencies (that an emergency's impact extends to other sectors). This requires communicating through existing documented examples, (i.e., from response to COVID-19 and other emergencies), in order to ensure the appreciation of this message.
- Authorities should collaborate to ensure that **national level disaster management and coordination structures and mechanisms** existing under the Ministry of Interior (e.g., Emergency Operations Centres, which determines roles of line ministries depending on the type of emergency) should be **translated to/mirrored at local levels.** It is important that for multisectoral coordination, these structures must exist at a high enough level (e.g., led by Governors'/ Mayors' offices in cities) and be closely aligned between national and local levels. The translation of these structures and mechanisms requires the engagement of both national and local authorities.

- Authorities should keep **learning and improving for future responses**. City-level simulation exercises should involve other sectors and stakeholders, and reviews of actual events (e.g., after- / intra-action reviews) conducted to reflect on challenges faced in coordination of stakeholders. National-level exercises and reviews should also involve city level stakeholders and participants.

National Authorities

At the national level:

- **Governance mechanisms for multisectoral coordination** should be established and strengthened, and cascade to the local level allowing for the systematic engagement of the multiple stakeholders necessary for preparedness activities in cities. These could be committees, task forces, working groups, or other types of platforms, and could either include permanent membership for the various sectors, or the ability to include them on an ad-hoc basis.
- Efforts should be made to promote a **working culture that breaks down silos** and encourages collaboration across sectors. This needs to include provision of the safe space, capacity, resourcing, and time to do so, as well as incentives. Opportunities for joint-financing or budgeting of activities should also be made available to encourage joint projects, with coherent objectives, across sectors.
- Political leaders who are involved in health emergency preparedness should act both as **advocates and political champions,** selling the 'win-wins' for multisectoral engagement to their counterparts in other sectors, and encouraging and facilitating collaboration.
- **Capacity building (such as trainings) and support (technical and financial)** should be provided to local authorities in order for the implementation of multisectoral coordination, and a whole-of-society approach at the local level.
- Ministries of health should remain **aware of, and where necessary, engaged in, ongoing multisectoral initiatives** in their countries, allowing them to support and leverage where needed in order to enhance preparedness activities at the city level. This requires **documenting successful approaches and use them as examples** in other cities in the country – potentially facilitating exchange of expertise and study visits to translate and adapt examples between different cities.

Local Authorities

At the local level:

- Authorities should **take ownership** of their local response and invest in **building the capacities** to coordinate it. This requires a decision by city / urban leaders to mainstream emergency preparedness across its work (i.e., adopting a "Health in all policies" approach at local levels), thus increasing cooperation and reducing siloes across different sectors and departments.
- Authorities should identify and map **ongoing activities / programmes and accompanied funding** of various cross-sectoral actors in cities. This can be done through city-level resource mapping exercises. This would allow them to engage with and support where appropriate and necessary, allowing them to leverage ongoing activities to close gaps relating to preparedness priorities.
- Authorities should establish a **platform for multisectoral dialogue with local actors** for preparedness and response. They should identify who needs to be involved at each stage of planning and implementation and ensure that they are engaged (9). These engagements should include joint activities such as simulation exercises, that can strengthen the understanding of the benefits of collaboration and strengthen the efficiency of collaboration across sectors in an emergency. Memoranda of Understanding (MoU), or similar instruments, can help formalize and facilitate collaborations between sectors.
- **Capacities should be built across departments / stakeholders of key sectors** for their roles in managing emergencies at city level. This can begin with local authorities conducting health risk assessments in the different sectors, showing stakeholders where to start. There should be a focus on risk assessment and building resilience, both in the health system and across wider society. Support should be provided by the national level for this capacity building.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3.3 High population density and movement

Cities and urban settings often contain large numbers of people, leading to high population densities and crowding where people live, play and work. This increases the chance of being in crowded situations and means that health emergencies can impact a larger number of people at once, especially when it involves infectious diseases. In epidemics, especially those spread by droplets or aerosols, this increases the risk of disease spread. This includes shared spaces and public areas with high human traffic or are frequently used, and public transportation. Crowded situations often found in cities and urban settings include mass gatherings such as religious events, concerts and sporting events, or poorly ventilated areas such as bars and nightclubs. Other locations such as nursing/care homes, dense forms of housing, refugee camps and commercial venues such as shopping centres may also pose risks, as well as mass gathering events, that often take place within cities. Further, overurbanization has also led to a proliferation of informal settlements / slums emerging, where population densities also tend to be higher, and they also rely on communal and often inadequate WASH facilities. Mobility between the mobile populations existing in these congregation points and local/fixed populations also risks the further spread of communicable diseases.

In addition, cities and urban settings often serve as major transportation hubs, with large airports, ports and ground crossings that connect populations across the globe, and which present specific risks and vulnerabilities when health emergencies occur, as they may lead to an accelerated importation or exportation of diseases. Nonetheless, these transportation hubs also offer strengths to the cities and urban settings where they are placed, as they act as entry points for emergency response personnel and medical countermeasures.

Key Challenges

National health emergency preparedness plans do not adequately account for the **unique nature and challenges of cities and urban settings** in implementation.

Insufficient incorporation of health emergency preparedness considerations in **urban planning, architecture, and design,** including the benefit of having healthy, open spaces accessible especially for vulnerable populations.

Reliance on **congested public transport systems** within cities may pose additional risks in health emergencies, especially during disease outbreaks, and such risks need to be mitigated.

Mass movement in and out of cities at points of entry facilitates the potential emergence and spread of infectious diseases and outbreaks, and is not often addressed through a mobility-sensitive lens. This includes high numbers of people, conveyance baggage, cargo, containers, and other goods.

Poorly planned/ unplanned mass gathering events increase the risk of transmission of infectious diseases, as well as ineffective new urban infrastructure.

National and Local Authorities

At both the national and the local level:

- Authorities **should commission further studies** by academia, research institutes and national/ regional public health institutes on issues related to high population density and movement. These include the effect of congestion on health emergencies, especially disease outbreaks, across different urban contexts, the impact of ventilation on public transport, including the identification of innovative options to reduce risk, and better understanding of the potential benefits and impacts of restricted movement. They should focus on gathering data from groups at risk of vulnerability as they are often underrepresented in studies. This requires fostering **collaboration with academia and research institutes** and is important for ensuring guidance produced (for both national and local levels) is evidence based.
- Health (including addressing health emergencies) should be **mainstreamed into urban planning and development,** working both prospectively and retrospectively (within existing environmental settings) with planning and housing departments to shape regulations. This includes improved ventilation, breading site control and other vector borne disease prevention, easily convertible public spaces, healthy and green spaces. There should be better integration with other public health and urban planning sectors through dialogue, training, and other capacity building exercises.
- Authorities should **translate and contextualize national plans** to local settings / needs. This requires alignment and adaptation exercises to take place, using national plans as foundations to contextualize to local and urban settings.
- **Urban planning departments should be guided by local hazard and risk assessments,** following an all-hazards approach. Urban planning departments should consider spatial planning, as well as the ability to implement flexible and transient measures to protect people's health in an emergency scenario (e.g., closing of streets to allow better physical distancing, converting spaces in an emergency, providing space for physical activity for all). These should be designed in an inclusive manner, considering the needs of all, including vulnerable groups.
- **Urban planning departments and regulations should consider the psychological and mental health impact** of urban planning and design on people and their behaviours. This requires mainstreaming such considerations into policy and regulatory planning and implementation. While this will help mitigate the negative impact that arise from living in a city during a health emergency (e.g., lack of

access to safe communal and green spaces), it will also help ensure that cities are health promoting places that are designed to reduce health inequities and foster empowered, resilient communities.

- **Regulations and planning/ building codes** at both national and local levels should consider and integrate elements necessary to mitigate the impact of health emergencies. This requires a standing assessment from a health emergency preparedness perspective for all regulation development. It also includes the reduction of base levels of pollution, that increases the vulnerability of people. These should consider and address the needs of all, specifically the most vulnerable.
- The transport sector, including service providers, should work with the health sector (national and city level) to develop **plans to ensure safe travel,** end-to-end / depot-to-depot. This includes the continuous strengthening of capacities and development of measures for different emergencies including the performance of risk assessments, the development and evaluation of all-hazards multisectoral contingency plans, the development of standards operating procedures and health protocols (e.g., use of masks, decontamination of surfaces, reduction of congestion during periods of increased disease transmission, production, and placement of risk communications materials, etc.)
- Authorities should **map and predict existing and anticipated movement patterns** (travel and trade) including connections to other cities and rural areas in preparing for an emergency. There should be a particular focus on suburban areas connected to metropolitan cities where many people live but commute into cities daily for work.
- Authorities should **identify and assess the risk and impact of events** that can lead to more transnational movement and influx of people in or out of cities (e.g., for mass gatherings, returning to hometowns during festivals or holidays), prepare for potential outbreaks (e.g., laboratories capacity for testing), and reduce risk such as by smoothening out the movement of people in and out of cities over time (e.g., phased reopening of industries over time before and after a festive period). They should work with the aviation sector to mitigate the risks posed by air travel.
- Authorities should **empower people and communities for safe movement.** This includes through improved communication of travel measures, making sure people know what the local rules and measures are when entering different cities, and the rationale behind them. Community leadership can also contribute, including helping identify / register new arrivals and reducing their movement in the first few days of an outbreak. It should consider who uses which means

of transport, and when, and ensure targeted approaches, including gendered approaches.

- Authorities should **leverage existing bilateral or regional agreements to facilitate the development and the implementation of the cross-border collaboration and coordination** for preparedness and response interventions. Furthermore, countries could go through the process of updating or the developing of Memorandum of Understanding to enhance cross border collaboration and coordination in the health sector.
- Authorities should support event organisers to work with public health authorities (national and city level) to develop **plans to ensure safe events.** This includes strengthening capacities and development of measures for different emergency scenarios including the performance of risk assessments and development of standards operating procedures and health protocols (e.g., transportation from/to the venues, crowd control, safe seating planning, etc.).
- The decision-making process related to holding or postponing a **mass gathering event** should be based on a **risk assessment approach** entailing three steps: risk evaluation (to identify and quantify risks), risk mitigation (to make the event safer through precautionary measures), and risk communication (to adequately inform all prospective participants in the event and ensure their compliance with adopted measures).

National Authorities

At the national level:

- Authorities should enhance their focus on **Points of Entry** (PoE), which are usually in urban settings with major international transit. This includes strengthening public health capacities for disease surveillance and response, including the availability of quarantine and isolation facilities, and building capacity of staff. Safeguards should be ready to reduce disruptions to intra- and trans-national movement of essential personnel and supplies in an emergency when needed. PoE capacities should be frequently assessed (for example through simulation exercises, intra- and after-action reviews), and appropriate follow up measures taken.
- Authorities should work with local authorities to **define essential travel and ways to reduce non-essential movement** between cities when and where necessary. This should be coordinated across line ministries and be well communicated to ensure that the general public understand and

are likely to show a high degree of compliance with recommendations. This should be looked at through a gendered lens, given the gendered role of women in society, who often undertake jobs impacted by definitions of essential travel, for example in farming, market trading, and caring duties (in paid and unpaid work). The social and economic disruption needs to be mitigated and offset by city leaders and decision makers to ensure that women are not disproportionately affected.

- Authorities should **work with local authorities to monitor public transport usage and trends.** It may be useful to consider establishing time-limited thresholds that allow local governments to take decisions on reducing congestion on public transport systems (e.g., reducing usage of all public transport nationally down to a lower capacity, but allowing final limit to be set by local authorities given their particular contexts). This requires supporting local authorities in monitoring transport systems in order to accurately predict and monitor usage and movement patterns, allowing for unique and contextualized transport policies within an emergency.
- Authorities and event organisers should work together towards the implementation of mass gathering events in urban settings that could lead to a **lasting legacy** in terms of:
  - Improved health systems (as a consequence of their involvement in ensuring safety of planned interventions).
  - Upgraded infrastructure (e.g., meeting venues, public transportation networks).
  - Enhanced behaviours and well-being (e.g., through health education messages, or by promoting fairness in the context of sports events, or by strengthening sense of community through religious events).
  - Overall advancements in terms of coordination, knowledge, experience, understanding, capacity, and capability for all those involvement in the organization and implementation of the event.
- Authorities should work on **strengthening the public health prevention and control measures** (such as health screening, hand hygiene, decontamination of conveyancers etc) at **points of entry,** ensuring that they are commensurate with, and restricted to, public health risks, and which avoid unnecessary interference with international traffic and trade. Adjacent communities to the point of entry should be made aware of the risk existing in their jurisdiction and supported to be prepared to respond promptly if a public health event occurs.

Local Authorities

At the local level:

- Authorities should conduct specific **local-level vulnerability and risk mapping** to guide preparedness planning for all hazards. This involves identifying common hazards, the heterogeneity / diversity of contexts and population groups within cities (including demographic and socio-economic differences), and the impacts of these hazards[5]. The results of these vulnerability and risk mapping should be **integrated into urban development concepts and planning, which sho uld be -people-centred.** It may lead to focused support of deprived most vulnerable communities.
- Authorities should **leverage the experiences of civil society and non-governmental organizations** (NGOs) and other service providers (e.g., hygiene promotion, vaccination teams) that have ground knowledge and access to different parts of the city, especially informal settlements / slums. As this local knowledge is invaluable in reaching all communities and corners of society, they should be engaged in public campaigns (for example in vaccination or health promotion).
- Authorities should have **spatial and land use plans** for the entirety of cities – not just the formal city (e.g., including informal settlements). Communities should be involved in the assessment and development processes of the plans, which should include the creation and expansion of multifunctional activity spaces, equitable access to green and blue spaces, decentralized service and infrastructure provision, and accessible and resilient mobility systems. Cities that are well urban planned will function better from an amenities and service delivery perspective, as all neighbourhoods will be covered by the formal service delivery structures, thereby increasing resilience to disasters and emergencies.
- Authorities should adopt **people-cantered sustainable urban planning** with the inclusion of, and planning for, communities and civil society, and future-proofed for longer-term needs. This helps foster community resilience, which is important for preparing for, responding to, and recovering from health emergencies. This includes empowerment of different communities.

[5] These should be in line with the common set of hazard definitions for monitoring and reviewing implementation in the UNDRR/ISC Sendai Hazard Definition and Classification Review Technical Report, and frameworks such as the WHO Emergency and Disaster Risk Management Framework. Available at https://www.undrr.org/publication/hazard-definition-and-classification-review and https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-management-framework-eng.pdf?ua=1#:~:text=The%20Health%20EDRM%20Framework%20provides,consequences%20of%20emergencies%20and%20disasters

- In relation to public transport in particular:
  - Authorities should explore **ways to reduce demand for transport** in an emergency. This includes phased working arrangements to spread out demands and temporary housing of essential workers closer to their workplace (e.g., in hotels or other appropriate temporary accommodation).
  - Authorities should prepare **alternate transport solutions to meet critical response needs** during emergencies that result in public transport service disruption (e.g., extreme weather / natural disasters).
  - Authorities should p**romote active mobility** in cities in urban planning and design. This includes incorporating bike lanes, wider pedestrian walkways and access to green and blue spaces joining different areas of the city. This will become important if public transport cannot be used in normal volume during a health emergency, or if physical distancing is required – meaning people will need to utilize alternative means of transport.

3.4 Community engagement and risk and crisis communication

As health threats emerge at local levels, communities play an important role in health emergency preparedness and risk reduction. Community members participating from the earliest stages of policy and programme formulation help clarify local priorities, challenges, and pathways for practical and sustainable action. This requires sustained and meaningful community involvement (beyond just engagement), such as through community led-approaches, participatory governance mechanisms, social participation methods, and the co-creation of solutions. Often, there is insufficient engagement, integration, and protection of communities in cities and urban settings in health emergency preparedness plans. Whilst engagement can be challenging for a variety of reasons, the perspectives which they offer enhance policy and programme development and ensure effective translation and implementation. Doing so also engenders trust in governments and public systems at all levels. Effective involvement and engagement of communities cannot be achieved without effective communication, tailored to the respective specific target audience.

Key Challenges

Insufficient **representation and involvement** of local governments and communities in health emergency preparedness policy development.

Ensuring better access to prompt, reliable and culturally appropriate avenues for **risk communication,** targeted specifically to different audiences.

Dealing with **'infodemics',** including in particular the management of **misinformation.**

A **lack of alignment** and complementarity between national and local public health communication.

National and Local Authorities

At both the national and the local level:

- **Existing fora for community engagement should be leveraged and strengthened** to also address health and emergency preparedness issues. National and local authorities should refine existing coordination structures and engagement mechanisms to ensure they reach out and empower communities and make them feel comfortable (rather than expecting them to approach authorities) and safeguard meaningful involvement. **Legal barriers, stigma, or exclusion/ lack of recognition** to engagement should be removed.
- Authorities should ensure that persons engaged during emergency preparedness policy development are **representative** of the actual communities and not biased by other interests. This requires the use of proactive and non-discriminatory social participation and participatory governance methods, that are based on methodologies designed to ensure meaningful representation is achieved.
- Authorities should commission academia and public health institutes to study **further the interactions between culture and health and the root causes of vulnerabilities** in cities and urban settings to health emergencies. This requires adopting an interdisciplinary approach to public health research, engaging social scientists including anthropologists and sociologists, in order to gain a more holistic understanding of vulnerabilities, and how they can be mitigated using a health emergency preparedness starting point.
- Authorities should further engage in and improve mechanisms to undertake **"social listening",** to understand the needs and concerns of different groups and their perception of risks, allowing for tailored, appropriate preparedness and response activities. This is important for building and fostering

trust and adherence to public health and social measures

- Authorities should explore the appropriateness and value of **using legislation to address misinformation** in both national and local contexts. This alone will not suffice, however, and must be part of a comprehensive and active public engagement plan to counter the spread and impact of misinformation, with targeted and tailored messaging towards particularly vulnerable groups in particular.
- Authorities should collaborate in order to ensure that risk and crisis communication and messaging is **aligned** overall, but contextualized where necessary.
- Authorities should **integrate GIS/ spatial data into data collection and risk assessment mechanisms** to identify communities impacted by environmental vulnerabilities, in addition to social and economic ones. This is especially crucial for cities that have high levels of environmental inequalities (e.g., places with flood risk, places with high air and water pollution, places susceptible to landslides), which can be exacerbated by health emergencies.
- Authorities at both levels should collaborate to ensure that **community/neighbourhood-led data is integrated into national and urban preparedness and response strategies.** Many local and vulnerable communities may already have generated maps of their own settings, identifying risks and hazards.

National Authorities

At the national level:

- Authorities should endeavour to ensure that **inclusion of community groups** in emergency preparedness policy development processes **is mainstreamed across all levels of government** in the country. This can be done through a variety of approaches including the development of guidelines for local authorities on community engagement; capacity building workshops on social participation and community engagement; and making funding available for community engagement.
- **Legislation to enable and enhance social participation for health** should be developed, in order to maximize the potential for engaging communities in preparedness policy development and activities. Examples include *(10)*:
  - Legal frameworks directly linked to participation – e.g., **Social participation laws.**
  - Legal frameworks indirectly linked to participation – e.g., **Decentralization & Freedom of information.**
  - Legal frameworks on health implying social participation

– e.g., **Health Acts & Right to health legislation.**

- Mechanisms to **address 'infodemics'** that allow for the early identification of rumours and misinformation should be established, **utilising the reach of centralised national crisis communication** to help disseminate messaging across the country. These include social and traditional media monitoring tools, regular cooperation and communication with the media to ensure accurate messaging, and plans that utilise all channels of communication to disseminate public messaging[6].
- Authorities must ensure that **national crisis communication messaging is both applicable and adaptable** for local authorities to contextualize and use in their own settings. This requires national risk communication plans to integrate the possibility for local adaptation, and identify the mechanisms needed to ensure that it occurs during an emergency.

Local Authorities

At the local level:

- The relationship between communities and local authorities (e.g., multi-stakeholder fora / discussions) should be formalized and seen as a positive extension of operations. Local authorities should go beyond just engagement (often mentioned in policy-making) and invest into **co-creation / involvement.** This includes through participatory governance, social participation, tailoring and validating of plans at communities, and social audits. It may also require supporting NGOs or community groups (for example with technical backstopping, or financing) where appropriate and necessary.
- Authorities should leverage the **collective efforts of communities,** supporting people coming together in groups to watch out for their own neighbourhoods, develop local solutions and community-led answers. This includes identifying and using local capacities such as community volunteers to help bridge formal and informal communications (e.g., digital participation and social media groups to push messages from governments to communities)
- Authorities should **map target audiences,** identify appropriate and innovative **means of communication** for each audience and have clear overriding **communication**

[6] One such example is the WHO Early AI-supported Response with Social Listening tool - a social listening platform that aims to show real time information about how people are talking about COVID-19 online, to aid management of the infodemic and pandemic as they evolve. Available at: https://whoinfodemic.citibeats.com/?cat=fYJ1oBNEUQtfbExrkGvsyr

objectives to shape strategies and address misinformation. This includes embracing the use of social media platforms and social networks to put forward reliable information, and translations into different languages.

- Authorities should work closely with the communications sector/ media and **build their capacities** in emergency risk and crisis communication.
- Authorities should identify and **work through trusted people/leaders** in communities, in order to build the trust and credibility in communities that is needed for effective communication. This includes using:
  - **City leaders** (e.g., Mayors/ Governors) and **influencers** popular among specific groups (e.g., youth, religious communities, faith-based organizations, employers) to share key messages.
  - **Community health workers,** who play an important role in building trust on an individual and community level in health systems and in authorities.
  - The **education sector,** which has a role in improving overall health literacy.
- Risk communication campaigns should **adapt aligned messaging** from national crisis communications to reach local communities, especially towards groups at risk of vulnerability.
- Local authorities should look to **invest in and build resilient cities.** This can be done through existing international and national initiatives that focus on building and fostering resilience and sharing experiences and practices between countries and cities.[7]

[7] One such example is the UNDRR Making Cities Resilient 2030 (MCR2030) initiative, led by the UN Office for Disaster Risk Reduction and its partners in order to support cities in taking action to reduce disaster risk in alignment with the Sendai Framework for Disaster Risk Reduction 2015-2030. Available at: https://mcr2030.undrr.org/

3.5 Groups at risk of vulnerability

Cities and urban settings are centres for inequalities and groups at risk of vulnerability. For instance, it is estimated that 70 percent of people displaced across or within national borders live in cities, and migrants are overrepresented among the urban poor *(6)*. Aside from vulnerabilities specific to certain diseases or emergencies (e.g., Zika virus and pregnancy, COVID-19, and persons with medical comorbidities), there are also persons that are generally vulnerable to the direct or indirect impacts of health emergencies. Given their proximity to people, city governance structures are often best placed to identify those at risk of vulnerability and those most in need of targeted preparedness efforts.

Preparedness for a health emergency in an urban setting includes anticipating and preparing for vulnerabilities linked to the direct or indirect impact of all-hazards. For example, restricted movements risk livelihoods of those dependent on the informal economy, as well as may hinder timely access to health services. Countries and their local communities are as strong as their weakest link, and preparedness and response plans will not be as effective if the needs of vulnerable populations are not looked after. This includes building community resilience to the impacts of health emergencies. In this regard, trusted community leaders and civil society organizations including those with established initiatives in working with and supporting vulnerable populations, may serve as an important resource.

Key Challenges

The needs of vulnerable persons and communities are **not as well understood and integrated** into preparedness plans and RCCE strategies and materials, and the capacities and capabilities of these groups can be maximized.

There tends to be i**nsufficient continuous engagement and protection** of vulnerable groups in cities before, during and after health emergencies.

There are often **difficulties in identifying and accurately mapping** the location of groups particularly at risk of vulnerability to health emergencies.

National and Local Authorities

At both the national and the local level:

- Authorities should ensure that **groups specifically at risk of vulnerability** in urban settings - including migrants, refugees and those living in urban informality – and their specific needs, are **explicitly considered in emergency preparedness plans.** This is important as these groups are disproportionately impacted by health emergencies, and for responses to health emergencies to be effective,

all groups should be included. It includes working to address issues that cause people to be vulnerable to health emergencies, such as homelessness, excessive drug and alcohol use, a lack of social protection, inadequate housing facilities, and others. It should be done in the context of improving procedural justice for, and empowerment of, these groups before, during, and in the aftermath of an emergency.

- Authorities should use a whole-of-society approach to **work with different organisations that work with vulnerable populations** – such as NGOs, CSOs, FBOs, humanitarian and development partners – in order to use them as conduits for ensuring communication with and access to different groups is maintained. This can be done through joint programmes/projects, formal agreements/collaborations such as Memoranda of Understanding, the use of platforms or other mechanisms for collaboration, or maintain routine contact for ad-hoc engagement.
- Authorities should work with relevant organisations in order to **accurately map the whereabouts** of groups at risk of vulnerability in health emergencies. This can be done through the use of technology (e.g., Geographic information systems (GIS)) and other forms of geo-data or spatial mapping. This will depend on national legislation, and should be done in a privacy conscious and non-stigmatizing manner.

National Authorities

At the national level:

- Authorities should **engage local authorities, making use of their unique localised knowledge and reach**, on the identification, locating of, and working with groups most at risk of vulnerability in a health emergency to guide national health emergency preparedness planning and the operationalisation of these plans.
- Health emergency preparedness and response **plans should include provisions for the timely identification** of groups at risk of vulnerability in a health emergency (both before and during, as knowledge improves over time in an emergency), **and subsequent integration of contextualised approaches** aimed at these groups in local implementation. These should be developed in collaboration with appropriate local level stakeholders such as local authorities, community groups and other CSO and NGOs.

Local Authorities

At the local level:

- Authorities should ensure a **clear and consistent understanding of "vulnerable populations",** which often combines too many different populations under an umbrella term, exists across sectors. Recognition that it extends beyond social and economic disadvantage but also often living in physically vulnerable environments (e.g., more prone to disasters), and the presence of "new" communities (e.g., online) is needed. Identifying those at greater risk, and who face barriers to accessing health systems may be an entry point.
- Authorities should focus on **community-led identification,** with the support of civil society, NGOs and other community partners can lead to better targeted support by governments and partners. This includes knowing who they are, where they are, where they are going to / coming from; as well as cultural, religious, education / literacy, and family / social support.
- Authorities should **accurately size informal settlements, economies, and their respective populations.** Their contributions to the overall economy and impact of disruption in an emergency need to be accounted for. Challenges in protecting themselves, ability to and impact of complying to recommended measures (e.g., access to WASH) should be accounted for in local preparedness plans, including the use of cash transfers when livelihoods are impacted.
- Authorities **should assess the impact of measures on vulnerable populations** before implementation and develop ways to mitigate the effects of these measures. This requires the use of vulnerability risk assessments integrated into preparedness planning, and includes better integration between coordinating bodies, health and social sectors at local levels.
- Authorities should better **understand, appreciate and leverage capacities** of groups at risk of vulnerability, such as existing informal community structures, systems, networks and ties, the ability to organize themselves, innovative approaches relevant to their settings, and resources at hand. NGOs and partners can also help with identifying these roles and capacities.
- Authorities should ensure unregistered persons, migrants, refugees, single parents, children and minors, those in detention and camp-like situations **receive social protection and have their rights respected.** There should be integration in service delivery (health, education, food and beyond) and clear ways to access national systems instead

of creating parallel systems. Risk and crisis communication, including conditions and ways to access systems, should be tailored to specific groups, including messaging in native or most appropriate languages or dialects. The role of international organizations, NGOs and community organizations should also be part of the integrated plan.

3.6 Evidence, data and information

Data represents a challenge to cities globally; sometimes it is missing or limited, or when available, fragmented, siloed, or outdated. However, local authorities of cities and urban settings often hold a wealth of data which should be used to strengthen health emergency preparedness and response. This includes but is not limited to, urban settlement data such as demographics, informal settlements and other vulnerable communities, housing and zoning, transport networks, public and private facilities and resources, emergency, disaster and risk management, for example evacuation routes, supply chains information on current and future hazards, vulnerabilities, capacities, and scenarios, and population demographics. Such information can help guide efforts to improve preparedness and build community resilience, including leveraging crowd sourced data or sentinel sites for surveillance and sense-making. Aside from event detection, it can help monitor impact and assess the uptake and effectiveness of response measures and recommendations. Further, health considerations, including needs for emergency preparedness and response, can be better integrated into designing and building sustainable cities for the future. Where possible, data should be disaggregated by sex.

Key Challenges

There are many available sources of urban data, but they need to be **prioritized, reshaped, integrated** and used for risk assessment and health emergency preparedness planning.

Available **data is often not routinely shared** between different levels of governance, in particular between national and local levels

There are specific concerns around **privacy and confidentiality** in the collection, sharing, and use of local level data often needed to improve health emergency preparedness.

Local governments of cities and urban settings are **not equipped** to conduct **data management and analysis.**

National and Local Authorities

At both the national and the local level:

- Authorities should **determine who is responsible for the overall coordination, collection and use of data** (end-to-end) based on national and local governance contexts. Having small scale data would help with local action and contribute to national understanding on where risks and vulnerabilities are. Data should be collected from an all-hazards perspective.
- Authorities should **formulate an approach to the collection of data** by being clear about:
  - what question needs to be solved, and what data is needed;
  - reviewing and mapping the extent of data that is available;
  - simplifying and prioritizing key sources (including integration of data sources in departments and organizations beyond health (e.g., flood, care homes, social media / networks)); and
  - identify data gaps that need to be closed.
- Authorities should c**reate contextualized systems to facilitate data collection,** as needs are influenced by how respective national and local governance systems are structured. Data should provide an accurate representation of reality, be fit for purpose, providing clarity for risk assessment (e.g., hazards, vulnerabilities and capacities / resources) and allow for better detection and response in an emergency. This requires investment in digital/technological systems, human resources, and scientific/analytical capacity.
- Authorities should **agree on the sharing and use of the data across levels of government,** including transparency on who owns and can use the data. Personal identification data must be safeguarded and carefully managed if shared across agencies. This includes establishing legal frameworks, partnership and data sharing agreements and protocols across levels of governments. These should be regularly reviewed to maintain trust.
- Authorities should work towards **fostering an understanding across sectors** (including the private sector), of the collective responsibility in analysing and using data for health emergency preparedness. This refers to the appreciation that data from sectors beyond health is important in preparedness activities, and therefore should be proactively shared. The mainstreaming of emergency preparedness considerations into ongoing analysis of data in sectors beyond health is also important as part of multisectoral coordination and a whole-of-government approach to preparedness.
- Authorities should establish and maintain **regular dialogue and collaboration with other levels of government** on adopting a cohesive approach to data, in order to prevent the misalignment of data collection and integration. This requires

establishing mechanisms to collaborate and coordinate and build working relationships to ensure regular engagement.

- Authorities should find ways to **close gaps in data arising from inequity.** This includes:
  - **Vulnerable populations** – Trust in communities would be foundational for understanding why they should provide data, especially if data is collected by communities / first administrative levels. Community leaders and NGOs / community organizations have good knowledge of the ground and local data can provide governments with information on where to direct assistance. Participatory data collection approaches are key in this field.
  - **Remote / less resourced cities** – National governments would need to provide more direct support and resources to local authorities in developing initiatives or tools to collect data.
- Authorities should work to **make the use of data sustainable,** by making data collection and use as simple as possible. The private sector and academia can be engaged to help amplify data collection and use, through the provision of additional scientific/analytical capacity.
- Authorities should **invest in the basic requisite digital and ICT infrastructure and technology** for data analysis. They should work with all levels of government, public health institutes, as well as academia and private sector, to co-develop end-to-end decision support systems that reach from national to local level. These should integrate different considerations and across different scenarios.
- Authorities should work to ensure that **open educational resources on data management** (e.g., by academia and international organizations such as WHO) are made available in order to empower and build the capacity of persons who work with urban data (at both national and local levels).

National Authorities

At the national level:

- Authorities **should share consolidated and analysed data with local authorities** for common situational awareness, collective benefit and feedback on the data gathered. International organizations can have a role in advocating for such an approach.
- Authorities should **invest in capacity building and the training of personnel** to be able to integrate and synergize different data from local governments for improved sense-making. They are also best placed to assess threats and emergencies that cross administrative boundaries, through their access to multiple data sources.

Local Authorities

At the local level:

- Authorities should **hire and embed public health professionals (i.e., epidemiologists)** into local authorities to a greater extent, and subsequently train them in the capacities and competencies needed to manage and analyse data for health emergency risk management. This includes providing them with the mandate to integrate priority data from across sectors and tap on external resources – including within regional / national governments (e.g., bureau of statistics), academia and public health institutes.
- Authorities should explore means by which they can leverage their unique knowledge on vulnerabilities within their jurisdictions, in order to **close existing data gaps on groups at risk of vulnerability, and health inequalities.** This requires engaging partners working at ground level with specific groups, and collaborating on data collection, use, and sharing.
- Authorities should ensure that there is a plan in place for **sustainability of support for data and analytic systems** established. This requires regular and systematic financial investment and the upskilling of systems and staff through trainings and professional qualifications.
- Authorities should consider carrying out **spatial mapping exercises with vulnerable communities** to better understand the different types of risks on the ground. This will also be helpful in developing health emergency preparedness strategies for at-risk communities in cities.

3.7 Commerce, industry, and business

Cities and urban settings are also centres for commerce and many industries, employing large numbers of individuals. They are also responsible for places where groups of people spend a substantial amount of time each day. In addition to this, many local businesses are community-centred with good networks, relationships and local knowledge. Therefore, businesses and corporations can serve as a partner and resource for national and local governments in preparing for health emergencies, in particularly when it comes to innovating in order to better prepare, detect and respond to novel and emerging challenges posed by future and ongoing health emergencies. This can cover a broad range of areas, including risk communication and risk management. Examples include occupational health and safety, including prevention of zoonosis, infection and contamination of food at live animal markets; instituting remote working arrangements where possible, and implementing public health measures to reduce the spread of infectious diseases at the workplace where remote working is not possible; providing resources in an emergency, such as the repurposing of manufacturing plants to producing personal protective equipment and the reorganization of commercial

spaces or services to accommodate public health measures; and supporting risk communication and public engagement, through both customers and employees, around public health measures. They are also important for maintaining logistics and supply chains for the continued provision of essential services, for example for food and medical supplies, or the repurposing of manufacturing plants and using hotel rooms for quarantine and temporary housing for the homeless. Furthermore, without engaging national and local private business and enterprises, it is not possible to achieve the adequate support to key workers, transport systems, reorganization of public spaces / business models that is needed in order to maintain business continuity and continue providing adapted business services to local communities during a health emergency.

Key Challenges

Insufficient trust and willingness of both national and local governments and commerce and industry stakeholders to work together for better preparedness, but COVID-19 has demonstrated the need to engage the broadest set of stakeholders and the opportunities in new partnerships.

A lack of **appropriate engagement and accountability mechanisms** with different types of businesses and industry stakeholders in cities and urban settings for preparedness.

National and Local Authorities

At both the national and local level:

- Authorities should work towards clearly defining **appropriate engagement of the private sector.** This includes supporting local authorities with expertise on process management and mechanisms for engagement when needed. It requires the development and testing of procurement systems and standard operating procedures (SOPs) to be used in an emergency, as well as the establishment of other platforms for engagement and collaboration. MoUs, specific Terms of Reference, or contracts (as well as other formal governance instruments) can be used to facilitate engagement. This needs to be done within rigorous accountability frameworks, to ensure that public-private cooperation is transparent and regulated.
- Authorities should **maintain dialogues and collaborations with the private sector that have materialized during the COVID-19 response,** in order to utilise their added value in the areas of preparedness, in particular in issues of logistics, manufacturing, supply but also of service delivery in cities and urban settings. This ranges from formalizing partnerships and collaborations

that have been adapted, to simply maintaining contact/ working relationships between authorities and private sector companies. They should leverage and build on the foundations and partnerships that have been formed during the pandemic, and ensure that they will be 'deployable' again in future emergencies will improve preparedness.

National Authorities

At the national level:

- Authorities should **legislate to ensure that there are platforms prepared for appropriate engagement with industry** in the event of a health emergency. It is important that the necessary oversight and accountability mechanisms are in place at the national level in order to ensure that engagement, procurement and contracting is fair and transparent, even when conducted at the local level. This should be sensitive to the heterogeneity of industry actors, the assets/resources and limitation of larger national operators, as well as the assets of local and community-based businesses.
- Authorities and/or committees within parliament, **should conduct a review of engagement with the private sector during the COVID-19 pandemic response,** and identify lessons learned, as well as what can be built upon with a view to improving preparedness for future pandemics.
- Authorities should **work with the private sector to document what has been observed in the COVID-19 pandemic response.** This is particularly important for public service providers, whether transport, utilities, or health / care services, and should identify the benefits in working together during an emergency (for example, during COVID-19, of vaccines development, production, and delivery). These would form the basis **for investment cases for preparedness.** Existing relationships and roles in response should be extended, institutionalized, and formalized in policies and plans for preparedness against future threats.
- Authorities should **define and communicate the role and importance** each type of business and industry stakeholder (including non-traditional actors) play in preparing and responding to emergencies, as well as the approach to collaboration. This would be for acute service providers and those in supporting roles. This includes business continuity, securing livelihoods, social protection and driving innovative approaches.

Local Authorities

At the local level:

- Authorities should **engage the private sector in a more coordinated and integrated manner.** Consequently, they should:
  - Seek to **improve understanding of different commerce and industry stakeholders' interests** through regular dialogue, including with chambers of commerce, before an emergency. This should be used to create 'win-win' scenarios that can help foster engagement and collaboration.
  - Provide insights on private sector engagement at the local level to national governments, in order to help them **shape national policies and approaches on private sector engagement.** This requires reviewing and assessing the added value in specific areas (e.g., service delivery, logistics); where and how further engagement would benefit preparedness; how engagement can be more efficient in the future; and challenges faced.
  - Develop, adopt, and publish **transparent engagement approaches with safeguards** to reduce the risk of conflicts of interest, contextualised to local settings of cities and urban setting but in accordance with the parameters at the national level.
- Authorities should **focus on opportunities for deeper dialogue and engagement of local businesses** at community levels. Solutions should be co-built from the ground up, focusing on how local businesses can support preparedness efforts and ensure that they are able to continue functioning in an emergency. This can also be through intersectoral mechanisms at city levels (e.g., municipal health conferences) that bring together different stakeholders for health agendas.

3.8 Organisation and delivery of health and other essential services

Health systems, in particular the delivery of health services, play a critical role in preparedness, response and recovery for all types of hazards. These range from primary and community care to tertiary level hospitals. For example, surveillance, detection and notification; vaccinations to prevent outbreaks, including prophylaxis of major zoonotic diseases in animals; infection prevention and control to prevent further spread of disease; and treatment to save lives are all dependent on the health system. Urban settings, especially major cities, tend to hold a full suite of services that can include academic hospitals with health specialists, advanced diagnostics, medical equipment, supplies, and intensive care units, all of which are crucial capacity in an emergency.

However, there can also be huge disparities and gaps in access to services in urban settings, especially by those of lower socio-economic status and hard-to-reach populations, leading to unequal health outcomes, delays in event reporting and contact tracing.

Beyond health facilities, cities and urban areas also often host other critical infrastructure that needs to remain operational regardless of the emergency situation (e.g., PoEs, power and freshwater plants, security & safety services, communication & ICT infrastructure, financial organizations, and others). Given the breadth and variety of services that exist in cities, it is important that the organisation of services is also organised around health security objectives. This requires collaboration across services, and a holistic and multisectoral approach to service delivery.

Key Challenges

Health and non-health essential services are not optimally organized or funded to support health emergency preparedness and response when needed.

Disruption to the delivery of essential services in cities during emergencies is frequent and needs to be minimized.

Urban health systems are often lacking the resilience needed in order to ensure continuity of services during and after an emergency.

National and Local Authorities

At both the national and the local level:

- Authorities should invest in **designing and implementing a primary health care approach** that can support preparedness (e.g., prevention and detection), meet the demands of an emergency (e.g., through load-rebalancing and strategic procurement) and maintain essential services. This contributes to consolidating and reducing fragmentation across health systems, reducing silos in local health systems, and closing the gap that often exists with preparedness / health security efforts.
- Authorities should **invest in fundamental components of health systems** such as governance, personnel, physical and digital infrastructure, information systems, and others. This would help strengthen health systems in cities and urban settings, as well as reduce health system fragility, and build resilience. Health facilities should be both systematically and infrastructurally sound to be resilient to, and manage the impact of, disasters.

- Authorities should ensure that they have the ability to **flexibly deploy staff and resources to areas of greatest need,** including **surging service delivery capacities** in affected cities and urban settings. This requires adequate human resources, training, and deployment systems in place, and regularly tested through simulation exercises.
- Authorities should be prepared to **requisition infrastructure (such as publicly owned and operated buildings and services) in order to repurpose to ensure continuity of service.** This could include the use of public infrastructure to provide temporary accommodation for essential workers, be repurposed for health system surge service delivery such as temporary hospitals, vaccination centres, or other relevant emergency health facilities such as morgues. This requires scoping and mapping potential spaces and assets/resources as part of preparedness activities.
- Authorities should seek **to formalize and institutionalize the relationship with sectors providing critical support services** (e.g., transport, commerce, interior) for in health emergency preparedness and response. This includes extending the scope of existing One Health or bi-sectoral / multisectoral platforms and arrangements. This alignment, coordination, de-duplication and synergising needs to take place at national government level (e.g., led by heads of government) and filter down to operational level in cities. It should include the private sector, many of which provide services in cities. Local planning then needs to be accompanied by the updating of policies, legal frameworks, and financial resources.
- Authorities should work with **humanitarian/development partners** to ensure that the necessary partners are identified and engaged in order to ensure the continuity of service delivery during an emergency. This requires knowledge of and relationships with key partners, and would be aided by collaborative agreements/ frameworks in place to facilitate engagement when an emergency arises.
- Authorities should emphasize **digital readiness, digital literacy and infrastructure** in urban preparedness frameworks and plans. Health emergency services and tools (e.g., contact tracing) need to be offered in both digital and offline formats to ensure pandemic response and recovery is inclusive. COVID-19 has revealed how the digital divide excludes key vulnerable groups in accessing vaccines and participating in contact tracing. Technological interventions must be combined with an ethical people-centred approach which focuses on educating citizens and enabling two-way communication between citizens and the government.

National Authorities

At the national level:

- Authorities should ensure that national emergency preparedness and response plans **provision for the re-organisation to meet of health system surge capacity** across different levels of government (national, regional, and local). This helps mitigate the likelihood of excess (and potentially catastrophic) impact if the health system in one city or urban setting becomes overwhelmed and needs to help of others. This requires provisions such as the necessary enabling bylaws to implement in a timely manner during an emergency.
- Ministries of Health and authorities should **prepare and plan for service continuity,** and therefore should **convene and coordinate other sectors to ensure the continuity of essential services** in the event of a health emergency. This requires coordination with multiple sectors including but not limited to social welfare, education, transport, environment, interior and finance. Health and well-being, especially mental health and well-being, is heavily dependent on other essential services that may be disrupted by primary impacts of a health emergency (e.g., loss of workforce), but also secondary impacts (e.g., school or service closures due to public health and social distancing measures).
- Authorities should have plans to **utilise the military to support the continuity of essential services** – for example to build or repurpose infrastructure for surge capacity service delivery during an emergency. This requires a clear framework of collaboration, and regular functional testing of collaboration, for example through simulation exercises and WHO After Action Reviews, as well as other methodologies.

Local Authorities

At the local level:

- Authorities **should improve access to essential services** before and during an emergency regardless of status (legal, socio-economic groups / ethnicity, gender etc), and as close to home as possible. This should be done using the approaches of universal health coverage and universal access to healthcare – both with respect to equitable access to services as well as protection from catastrophic health expenditures. Formalising this in legislation is important to ensure its sustainability.
- Authorities should **define essential services within their local context,** including services required to respond to the needs of an emergency (e.g., WASH for infection prevention and control) and those

that need to be maintained for health and societal needs (e.g., housing, education, burials, and social services). The organization and delivery of these essential services should then **be integrated into multisectoral preparedness coordination plans and activities.**

- Authorities should provide **overall coordination of key agencies and providers of essential services** (including the private sector) at city level. This includes integration of essential services into incident management systems.
- Authorities should ensure that all relevant **departments, agencies, and service providers that provide essential services in cities should integrate risk management** into service delivery models, plan for contingencies and business and operational / service continuity for all types of hazards. This includes access to additional staff (e.g., retirees, students) and supplies when needed, and testing novel service delivery models before an emergency happens (e.g., telemedicine and remote education).
- Authorities should **conduct joint exercises and reviews that involve different sectors** and stakeholders and test plans to ensure continuity of essential services. These could include simulation exercises, After Action Reviews, and other emergency preparedness activities.
- Authorities should **leverage the resources of local private providers** to supplement the provision of essential services by public providers in an emergency. This involves the integration into emergency preparedness and response plans, clarity on the physical infrastructure and resources in a city or urban area that may be repurposed in an emergency, involvement in functional testing, and consistent monitoring of capacity and ability to support in an emergency. Engagement with the private sector should be regulated and transparent.

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World Health Organization

ANNEX 1 – CASE STUDIES

The below are a selection of case studies received as part of the consultation held on the development of this guidance, intended to illustrate some urban preparedness approaches that have been taken in certain cities.

Multisectoral coordination for preparedness

Case Study: **Intersectoral Achievements in Emergency Preparedness**

Sharjah, United Arab Emirates (2021)

The Healthy Cities Program (HCP) in Sharjah, United Arab Emirates, is predicated on multisectoral collaboration and community engagement, and these qualities extend to the HCP's mandate for effective emergency preparedness and response mechanisms. The Sharjah Police General Headquarters is an official HCP subcommittee, and it works in tandem with other subcommittees and stakeholders outside the HCP to establish and reinforce capacities for emergency preparedness. During COVID-19, the Sharjah Police General Headquarters engaged in a collaborative initiative with the Department of Statistics and Community Development to map vulnerable populations in catchment areas that constitute the Emirate of Sharjah. As a result, first respondents and healthcare workers have access to an updated database of vulnerable groups who will require specialized services during an emergency event. Emergency preparedness efforts undertaken by the Sharjah Police during COVID-19 also include the supervision of sterilization of public spaces and the distribution of PPE, among others. COVID-19 has highlighted the importance of emergency preparedness to both government and non-governmental stakeholders and has therefore resulted in the conceptual space needed to plan and execute emergency preparedness schemes at local and national levels.

High population density and movement

Case Study: **'Traveller's Clinic' Initiative**

Al Qurayyat, Saudi Arabia (2021)

Al Qurayyat is a border city in Saudi Arabia that sees a considerable number of travellers passing through the city's airport. Due in large part to the health-driven measures that have been institutionalized in Saudi Arabia's governance frameworks, the requisite funds and resources were mobilized during the COVID-19 outbreak to screen travellers for symptoms of COVID-19 and provide them with general health education, as well as instructing them on infection control and how to protect themselves from COVID-19. Furthermore, hand sanitizers, gloves and masks were distributed to travellers. Roughly 1000 travellers benefitted from the initiative through the provision of PPE, and educational messages about appropriate health practises before, during and after travel.

Community engagement and risk and crisis communication

Case Study: **Participation: one of the core issues for confronting the consequences of the COVID-19 pandemic**

Agii Anargiri Kamatero, Greece (2021)

The Covid 19 pandemic created a new reality for everyone through rapid and pressing conditions that affected not only health but also society, especially at local level.

Therefore, in a short period of time social services were forced to create a protection net for all citizens, and to plan and implement projects of immediate response to multi-dimensional basic needs of citizens with the minimum financial means. The lack of personnel – due to health absences and obligatory absence status of employees that belong to vulnerable groups - weakened municipal services, while the remaining staff faced the challenge to cover the immediate and urgent demands.

In response, the City of Agii Anargiri Kamatero formed a crisis management group that has undertaken that task. The key priority was to immediately cover the residents' needs, utilizing every available resource (with the least financial cost), and highlighting participation as a key pillar of the SDGs: *a city secures the citizens' participation in the decisions that affect where and how people live and how common goods and services are provided.*

Moreover, the municipality's Social Policy Directorate created 4 strategic pillars of action:

1. Planning of new food programs and interventions of primary and secondary protection aiming at the reduction of special groups' vulnerabilities;
2. Utilizing the existing specialized personnel of the Home Aid Services and developing them aiming at providing personalized services to the general population of the city;
3. Activation of city volunteer networks as well as the development of cross-sectoral cooperation of the Municipal Directorates, with the active participation of citizens and employees;
4. Creation of educational tools for health with wide access: through the use of material and working groups, citizens are informed about the basic principles of prevention related to physical, social, and mental health.

The Social Service mobilized an extensive network of volunteers that operated directly and in combination with the municipal and regional services. City Councillors, Volunteers, the Church, the Primary Schools, the Associations of Parents', and Guardians of Primary Schools, and the Open Care Centres participated creatively in this network. Groups of volunteers contributed significantly in helping citizens with their daily needs (e.g., escorting them for their shopping). Finally, the networks that were created due to the pandemic are still active and contribute to the implementation of other actions such as the European Mobility week (in September 2021).

Added value

Through the above actions, the maximum results are achieved, evolving the processes through an holistic approach for the benefit of the citizens, because the interventions connect the political will, with the economic and societal dimension. In addition, participation, through cross-sectoral cooperation at multiple levels, ensures a sense of "belonging" to a unit with a common purpose, while developing a sense of identity and solidarity between both employees and citizens.

Moreover, nowadays the city keeps on planning and implementing actions to meet not only basic needs, but also psychosocial needs that appeared as a consequence of public health and social measures such as quarantine.

High population density and movement

Case Study: **COVID-19 and Refugee Populations' Initiative**

Yazd, Islamic Republic of Iran (2021)

According to the results of the 2016 Iranian Population and Housing Census, Islamic Republic of Iran's Yazd province is among the provinces with the highest concentrations of refugee populations. Through a joint initiative among the Yazd Health Center, Yazd General Directorate of Foreigners and Relief International (RI), 90 Afghani Voluntary Community Health Workers (VCHWs) were trained for 250 hours in areas related to personal health and public health. This paved the way for a similar initiative during the onset of COVID-19, which provided COVID-19 screening and preventative training in conjunction with Afghani volunteers. Refugees who have previously visited healthcare centers were subsequently documented and benefitted from the training program through visits from healthcare providers; however, a number of refugees face difficulties when accessing healthcare services due to their inability to register with health systems (because a significant proportion of refugees do not have a valid residence permit, it is not possible to register them in health systems, and it is difficult to provide active health services/follow-up visits to this group). Therefore, Afghani VCHWs were tasked with maintaining an active two-way channel with the latter group through which COVID-19 training could be provided. This enables the provision of health education to the refugee population through VCHWs, and the health status, concerns and health factors in this population are transferred to the health system through VCHWs in turn. The training modules primarily revolved around COVID-19 disease education, diagnosis, and treatment.

Organisation and delivery of health and other essential service

Case Study: **COVID-19 vaccination in Utrecht, The Netherlands**

Utrecht, The Netherlands (2021)

On a national level in The Netherlands, the Ministry of Health, Welfare and Sport (VWS) & RIVM (National Institute for Public Health and the Environment) set out the policy for COVID-19 vaccination. To execute this, they gave this assignment to the 25 regional public health services in the Netherlands. One of those is GGDrU (Regional Public Health Service of Utrecht). Working for 26 cities/communities in the centre of The Netherlands, amongst which the city of Utrecht (Designated Healthy City). Together, all cities in this region have a total population of 1.3 million inhabitants.

GGDrU had to execute this task in close cooperation with the 26 cities and medical stakeholders (e.g., general practitioners, healthcare institutions, mental health care). Challenges that are identified were to reach vulnerable subpopulations and ensure a vaccination location in the proximity of all inhabitants.

GGDrU aimed (starting in January 2021) to have vaccination locations in all 26 cities. To ensure inhabitants could get vaccinated in their own area. Due to vaccine conditions, we started first with 1 location, followed by 7 locations in April/May and 26 locations in June.

This all was funded by VWS. It was a coordinated approach where VWS and RIVM determined which part of the population could get vaccinated by which time. Currently, everyone aged 12 and over in the Netherlands got invited for a vaccination against COVID-19.

In addition, GGDrU started working on reaching out to vulnerable groups, such as homeless people, inhabitants with a migration background and inhabitants that live in critical areas. To work this out we have a close cooperation with local governments, key figures in urban areas and districts and health care institutions.

Monitoring for GGDrU contains the number of vaccinations (>1,5 million in the region at the moment) and also the vaccination coverage/rate in different parts of the region. In addition, we have a continuous Customer Satisfaction Research (current result is 8.7 out of 10[8]).

Already a large number of our inhabitants have been vaccinated in our work in order to control COVID-19.

In addition, as a regional public health service we were able to work on health promotion on all our vaccination locations, provide information to inhabitants that have questions and work on lasting partnerships with all stakeholders in order to prepare for future health emergencies. We set-up a special team to work with cities on prevention to encourage compliance with measures.

We aim to continue working on health promotion and risk and crisis communication to encourage compliance with measures (with the help of our prevention team). And we strive for saturation regarding COVID-19 vaccination, meaning that all inhabitants made an informed choice to either get vaccinated or not.

[8] As of 27 September 2021.

ANNEX 2 – SELECTION OF TOOLS AND RESOURCES ON RISK ASSESSMENT, GAP ANALYSIS AND CAPACITY BUILDING

This following list is based on the list compiled as part of the *Technical Working Group on Advancing Health Emergency Preparedness in Cities and Urban Settings in COVID-19 and Beyond.* It provides a snapshot of available resources for risk assessment, gap analysis and capacity building in cities and urban settings. **It is not exhaustive** and only covers "broad" resources (as such, it does not include tools for specific technical capacities, such as for strengthening community engagement or points of entry). Some of these are for use primarily at the national level and others are already tailored to cities.

Risk Assessment, Gap Analysis

1) **Disaster Resilience Scorecard for Cities: Public Health System Resilience – Addendum.** UN Office for Disaster Risk Reduction. 2021. https://www.unisdr.org/campaign/resilientcities/toolkit/article/public-health-system-resilience-scorecard

   Description: This scorecard aims to strengthen and integrate coverage of the many aspects of public health issues and consequences of disasters. The Addendum should be used in conjunction with the UNDRR Scorecard, and WHO's Health Emergency and Disaster Risk Management (Health EDRM) Framework.

2) **IHR Monitoring and Evaluation Framework.** World Health Organization. 2018. https://www.who.int/ihr/publications/WHO-WHE-CPI-2018.51/en/

   Description: The IHR-MEF aims to provide a comprehensive, accurate, country-level overview of the implementation of requirements under the IHR to develop and monitor capacities to detect, monitor and maintain public health capacities and functions. There are 4 components: mandatory annual reporting and three voluntary components, i.e., after action review, simulation exercise and voluntary external evaluation.

   a. **WHO Simulation Exercise Manual.** World Health Organization. 2017. https://www.who.int/ihr/publications/WHO-WHE-CPI-2017.10/en/

      Description: This manual provides an overview of the different simulation exercise tools and guidelines developed and used by WHO.

   b. **Guidance for after action reviews.** World Health Organization. 2019.

      Description: This guidance presents the methodology for planning and implementing a successful AAR to review actions taken in response to public health event, but also as a routine management tool for continuous learning and improvements.

3) **Joint Risk Assessment Operational Tool.** Food and Agriculture Organization of the United Nations; World Organization for Animal Health; World Health Organization. 2020. https://www.who.int/publications/i/item/joint-risk-assessment-operational-tool-(-jra-ot)

   Description: To support countries in applying a consistent and harmonized approach to assessing risks posed by zoonotic disease hazards. It offers decision-makers and technical experts a 10-step approach for conducting a structured joint qualitative risk assessments.

4) **Strategic Tool for Assessing Risks** (STAR). World Health Organization. To be published.

   Description: A comprehensive toolkit to enable countries and regions to conduct a strategic, rapid, and evidence-based assessment of public health risks for planning and prioritization of health emergency preparedness and disaster risk management activities.

Capacity Building

1) **Ensuring Access to Health Care:** Operational Guidance on Refugee Protection and Solutions in Urban Areas. United Nations High Commissioner for Refugees. 2011. https://www.unhcr.org/protection/health/4e26c9c69/ensuring-access-health-care-operational-guidance-refugee-protection-solutions.html

   Description: This guidance is for UNHCR country programmes to advocate for and facilitate access to (and when necessary provide and/or support) quality public health services for refugees equivalent to those available to the national population.

2) **Health in all Policies Training Manual.** World Health Organization. 2015. https://apps.who.int/iris/bitstream/handle/10665/151788/9789241507981_eng.pdf;sequence=1

   Description: Health in all policies is an initiative of the World Health Organization that seeks to ensure that the public decision-making process, regardless of the sector in which it takes place, improves health conditions and access to health services. This manual is a training resource to increase understanding of the importance of Health in All Policies among health and other professionals. The material will form the basis of 2- and 3-day workshops, which will:

   - build capacity to promote, implement and evaluate HiAP;
   - encourage engagement and collaboration across sectors;
   - facilitate the exchange of experiences and lessons learned;
   - promote regional and global collaboration on HiAP;
   - and promote dissemination of skills to develop training courses for trainers.

3) **Health systems for health security framework.** World Health Organization. 2021. https://extranet.who.int/sph/health-systems-for-health-security

   Description: a framework for developing capacities for International Health Regulations, and components in health systems and other sectors that work in synergy to meet the demands imposed by health emergencies. Provides local,

national and international authorities with guidance on how they can develop international health regulations (IHR) capacities and components in health systems and other sectors that work in synergy to meet the demands imposed by health emergencies while maintaining the continuity of essential health services throughout.

4) **IOM Toolkit for Development Partners:** Integrating Migration into COVID-19 Socio-economic Response on migration and COVID-19. 2020. https://eea.iom.int/publications/toolkit-development-partners-integrating-migration-COVID-19-socio-economic-response.

   Description: The aim of this Toolkit is to provide information and tools for development partners to integrate migration – in all its forms – into development-centred plans, programmes and projects linked to COVID-19 socio-economic response.

5) **Integrating Health in Urban and Territorial Planning:** A sourcebook for urban leaders, health and planning professionals. UN Habitat and World Health Organization. 2020. https://unhabitat.org/integrating-health-in-urban-and-territorial-planning-a-sourcebook-for-urban-leaders-health-and

   Description: This sourcebook provides the processes needed to harmonize urban and territorial planning with concern for human health and brings together these two vital professions. It also highlights additional tools, literature resources for decision-makers, urban leaders, planners and health professionals.

6) **National Action Plans for Health Security:** A country implementation guide for NAPHS. World Health Organization. 2019. https://www.who.int/ihr/publications/country_implementation_guide_for_naphs/en/

   Description: This guide provides an overview of the NAPHS framework, details about each step of the framework, and annexes with various templates, tools and additional guides that are required for the development and implementation of a NAPHS.

7) **Practical actions in cities to strengthen preparedness** for the COVID-19 pandemic and beyond. World Health Organization. 2020. https://www.who.int/publications/i/item/WHO-2019-nCoV-ActionsforPreparedness-Checklist-2020.1

   Description: Provides local authorities, leaders and policy-makers in cities with a checklist tool to ensure that key areas have been covered in preparing for COVID-19.

8) **WHO Benchmarks for International Health Regulations (IHR) capacities.** World Health Organization. 2019. https://www.who.int/ihr/publications/9789241515429/en/

   Description: A list of benchmarks and corresponding actions that can be applied to increase the performance of countries in emergency preparedness through the development and implementation of a National Action Plan for Health Security.

   a. *WHO and its partners have also developed an* **online platform** (https://rtsl-benchmarks-production.herokuapp.com/) *to support the implementation of the WHO Benchmarks for IHR (2005) Capacities and national reviews of capacity building activities including those related to JEE recommendations and National*

Action Plan for Health Security. The platform offers a digital database of specific and granular actions drawn from the WHO Benchmarks for IHR (2005) Capacities that countries can consider when strengthening, developing and implementing national plans.

b. *It also includes a digital* **'Benchmarks Reference Library'** (https://rtsl-benchmarks-production.herokuapp.com/reference-library) *that provides access to publicly available guidance, resources and materials that can be used to inform the implementation of capacity building activities contained in the benchmarks tool.*

Partnerships and Networks

1) **Making Cities Resilient 2030.** UN Office for Disaster Risk Reduction. https://mcr2030.undrr.org/

   Description: MCR2030 a unique cross-stakeholder initiative for improving local resilience through advocacy, sharing knowledge and experiences, establishing mutually reinforcing city-to-city learning networks, injecting technical expertise, connecting multiple layers of government and building partnerships.

2) **Mayors Migration Council.** https://www.mayorsmigrationcouncil.org/mmc-covid19

   Description: The Mayors Migration Council (MMC) empowers and enables cities with access, capacity, knowledge, and connections to engage in migration diplomacy and policy-making at the international, regional, and national level. The website tracks inspiring city actions during the pandemic.

3) **Multisectoral Preparedness Coordination Framework.** World Health Organization. 2020. https://www.who.int/publications-detail-redirect/9789240006232

   Description: Provides States Parties, ministries, and relevant sectors and stakeholders with an overview of the key elements for overarching, all-hazard, multisectoral coordination for emergency preparedness and health security, informed by best practices, country case studies and technical input from an expert group.

4) **Strategic Partnership for Health Security and Emergency Preparedness Portal.** World Health Organization. https://extranet.who.int/sph/

   Description: The SPH Portal is an interactive digital platform that facilitates the sharing and exchange of information on multisectoral health security investments, activities and capacities on a national, regional and global scale.

5) **UCLG Live Learning Experience Knowledge Hub.** United Cities and Local Governments. Metropolis. UN Habitat. https://www.beyondtheoutbreak.uclg.org/

   Description: A series of 17 sessions covering the different areas in which local and regional governments will have to work to guarantee the safety and well-being of all citizens, during the crisis and in its aftermath.

6) **Urban Resilience Hub.** UN Habitat. https://urbanresiliencehub.org/economicresilience/

Description: Provides a space for knowledge, best practice and innovation to flourish. It works along three complementary streams: i) Technical Cooperation with Cities: learn more about work with local governments through the City Resilience Profiling Programme and City Resilience Profiling Tool and the city profiles of partnering cities. ii) Knowledge & Library: view and contribute to the latest insights (link to insights) from the resilience field and library of resources around urban resilience. iii) Advocacy and Partnership: learn more about work with partners including donors, local governments and their networks, humanitarian organizations, UN agencies and academia.

7) **WHO Healthy Cities (networks in each region).** World Health Organization. https://www.who.int/healthy_settings/types/cities/en/

Description: The programme is a long-term international development initiative that aims to place health high on the agendas of decision makers and to promote comprehensive local strategies for health protection and sustainable development. Basic features include community participation and empowerment, intersectoral partnerships, and participant equity.

Additional Resources

1) **Actions for consideration in the care and protection of vulnerable population groups for COVID-19.** World Health Organization. 2020. https://apps.who.int/iris/handle/10665/333043

Description: In response to the COVID 19 outbreak, WHO has developed this guidance on how best to support vulnerable populations to prevent, prepare for and respond to possible community transmission of COVID-19. Vulnerable populations addressed include: people experiencing homelessness; people living in overcrowded housing, collective sites and slums; migrant workers; refugees; people with disabilities; people living in closed facilities; people living in remote locations; and people living in poverty and extreme poverty.

2) **Driving Migrant Inclusion through Social Innovation:** Lessons for cities in a pandemic. International Organization for Migration; Migration Policy Institute Europe; 2020. https://admin4all.eu/wp-content/uploads/2020/09/Driving-Migrant-Inclusion-through-Social-Innovation.pdf

Description: This MPI Europe-International Organization for Migration (IOM) report explores key lessons cities can draw from the social innovation that accompanied the 2015–16 arrivals to help them weather the challenges brought by the pandemic.

3) **GFMD Mayors Mechanism Update on COVID-19.** GFMD Mayors Mechanism, United Cities and Local Governments, International Organization for Migration, Mayors Migration Council. 2020. https://www.gfmd.org/gfmd-mayors-mechanismupdate-covid-19april

Description: The document includes mayors mechanism and activities on COVID-19, recent tools for local authorities, important contact details and key advocacy on the role of local leaders to ensure migrant and refugee sensitive COVID-19 responses.

4) **Organisation for Economic Co-operation and Development.** Resilient Cities. https://www.oecd.org/regional/resilient-cities.htm

   Description: The report on the OECD Resilient Cities project is structured into 4 sections: i) *A framework for resilient cities; ii) The indicators of resilience; iii) The policy actions taken by city governments, as well as their collaboration with national governments; and iv) Experiences of case studies of cities in building their resilience.*

5) **Health, Border and Mobility Management:** A framework to empower governments and communities to prevent, detect and respond to health threats along the mobility continuum. https://www.iom.int/sites/default/files/our_work/DMM/Migration-Health/mhd_infosheet_hbmm_01.06.2021_en.pdf

   Description: A framework to empower governments and communities to prevent, detect and respond to health threats along the mobility continuum.

6) **UNHCR Policy on refugee protection and solutions in urban areas.** United Nations High Commissioner for Refugees 2009. https://www.unhcr.org/protection/hcdialogue%20/4ab356ab6/unhcr-policy-refugee-protection-solutions-urban-areas.html

   Description: UNHCR policy document on refugee protection and solutions in urban areas

7) **WHO EARS Tool – Early AI-supported Response with Social Listening.** World Health Organization. 2020. https://www.who-ears.com/

   Description: Listening to people's questions and concerns is an important way for health authorities to learn about what matters to communities in response to COVID-19. This social listening platform aims to show real time information about how people are talking about COVID-19 online, so we can better manage as the infodemic and pandemic evolve.

8) **WHO Interim Guidance on the role of community engagement in situations of extensive community transmission of COVID-19.** World Health Organization. 2020. https://apps.who.int/iris/handle/10665/332172

   Description: This interim guidance provides suggestions to WHO country offices and health ministries so that they can quickly and effectively mobilize and empower communities to engage, reverse and mitigate the impact of COVID-19 through non-pharmaceutical public health measures. By engaging communities in the preparedness and response of COVID-19, the health sector can avoid the emergence of cases that would worsen the pandemic. It can also give the health sector more time to prepare to respond in realistic, relevant and appropriate ways to the needs and challenges of every population group.

9) **WHO Technical Guidance Notes on Sendai Framework Reporting for Ministries of Health.** World Health Organization. 2020. https://apps.who.int/iris/handle/10665/336262

Description: To guide the health sector, in particular ministries of health, on their role in collecting and reporting data that are relevant for the Sendai Framework targets and other related frameworks, such as the Sustainable Development Goals (SDGs).

World Health Organization