



ADVANCING HEALTH EMERGENCY PREPAREDNESS IN CITIES AND URBAN SETTINGS IN COVID-19 AND BEYOND

Report on a series of global technical working group meetings

February-April 2021





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Executive Summary

The COVID-19 (Coronavirus disease 2019) pandemic (caused by the Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2) has highlighted the need for cities and urban settings to be better prepared to respond to future health emergencies. The World Health Organization (WHO) and the Government of the Republic of Singapore co-hosted a virtual technical working group from February to April 2021 to advance this topic. The working group comprised Member State representatives from across all WHO regions, partners, city networks and international organizations. Members shared their experiences of preparing for and responding to COVID-19 in cities, discussed challenges faced in urban preparedness, explored potential solutions and approaches, the roles of key stakeholders, and the tools and resources necessary for risk assessment, gap analysis and capacity building. WHO will develop a framework and guidance on strengthening health emergency preparedness in cities and urban settings for national and local governments based on the working group's inputs and proposed ways forward to be published in the third quarter of 2021.

Overall Key Messages from the Working Group

- 1) Preparedness for health emergencies in cities and urban settings must be a priority at the highest level of government in all Member States. In an increasingly urbanized world, the status quo is not fit for purpose – health emergency preparedness is underfunded and focused predominantly at the national level. In the COVID-19 pandemic, cities were epicentres of transmission and at the forefront of the response but found themselves inadequately prepared. The global community cannot afford to repeat this. It requires a political and technical shift in how we approach and implement the all-hazards approach to health emergency preparedness at the local, urban level. Past operating models need to be reviewed and revised, including mandates, financing, and the interface between national policy and local service delivery. COVID-19 and the resultant increased political focus on urban preparedness presents an opportunity that must be taken now.
- Health emergency preparedness goes beyond the health sector, especially at the level of service delivery. The pandemic has shown that

it involves actors across government and across society. Different sectors, including the private sector and communities, have roles and resources that contribute to effective preparedness and response to health emergencies. This includes strengthening health systems and ensuring the continuity of health and non-health essential services. This requires 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.

- 3) Strengthened urban preparedness requires investment. Urban preparedness suffers from a prolonged lack of both awareness and investment. Greater investment in health emergency preparedness at the city and urban level is needed and must be realised by national levels, local levels and international organisations. Investment needs include financial support as well as resourcing and capacity building (e.g. manpower, equipment and infrastructure).
- 4) It is critical to ensure that urban / city level governments and communities are involved in national emergency preparedness planning and activities. 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. A multi-level, multi-sectoral, multi-stakeholder approach must be adopted and implemented, led by national governments, involving the highest political level.
- 5) Developing urban and city specific approaches to health emergency preparedness are paramount. Preparedness at local and city levels demand a higher level of granularity than the national level. Cities even within the same country - are particularly heterogeneous in their governance, spatial and demographic composition. Furthermore, risks need to be assessed at these levels using existing information on hazard exposure, vulnerabilities and capacity. National level blanket approaches will not be effective nor achieve the desired outcomes although they can facilitate common preparedness planning in between cities and urban areas in the country.
- 6) Working with urban communities and their groups most at risk of vulnerability – is key to increased resilience and successful responses to health emergencies. As seen in COVID-19, the most successful responses to health emergencies start with community mobilisation and organization. This is especially important in cities where there may be large numbers of migrants, refugees, internally displaced persons

and people living in informal settlements or dependent on the informal economy for survival. Preparedness planning should consider that vulnerabilities of these groups would be present before and during an emergency but could also be exacerbated by the measurements implemented during an emergency. Social participation, participatory governance methods, and community engagement and involvement strategies must be utilised to a greater extent, with a specific focus on those most at risk of vulnerability. Urban communities should be seen as potential resources, leveraging on their capacities to organize themselves and actively contribute to resilience and preparedness.

- 7) Local level data for action may be limited, but their improved use can help cities be better prepared. Data represents a challenge to cities globally; often it is missing or limited, or when available, fragmented and siloed. A focus on identifying key information required, filling data gaps, analysing data, and using it to guide decision-making and preparedness policies should be a priority for countries and cities moving forward. This includes providing adequate financing for human resources, training and equipment. National governments have a role in pulling together data on hazards and emergencies that cut across many regions and cities, but also need to share processed data with city and local authorities for improved local sense-making that will allow for prompt responses.
- 8) Global solidarity is key to effective health emergency preparedness, even at the local, urban level. Epidemics and pandemics do not respect national, regional or city borders. Travel and trade hubs have made cities and urban centres more connected than ever before. Therefore, urban preparedness efforts must be coordinated at the global level too. It must follow the principle of global solidarity – as called for by the UN Secretary-General and WHO Director-General.
- 9) There are many relevant city-level tools available, but local governments need specific and targeted health emergency preparedness tools. Furthermore, existing national level tools for preparedness do not adequately cover the local or city dimension, are often complex and the capacity to apply them is limited. Despite their importance in preparedness planning, existing tools often focus predominantly or solely on the national level. Inclusion of a specific local/ city level element in future iterations of national tools, the adaptation of elements of existing tools for specific urban / city level application (if necessary), and increased participation of urban / city governments in existing risk assessment, gap analysis and capacity building processes, are all possible means to resolve this.

10) Support to countries from the international system can be better consolidated and aligned. An increased focus on cities and urban preparedness at the international level, as well as the increasing importance of cities within national political systems, has led to a proliferation of activity at the international level intended to support cities. This includes the exponential development of tools and resources, with varying degrees of relevance to health emergency preparedness. This can be overwhelming for cities, which often operate within limited capacities and resources. Converging efforts across different international actors can help provide more manageable and streamlined support, ensuring that local authorities have their health emergency preparedness needs met.

Proposed Ways Forward by the Working Group

- WHO Member States present and support a World Health Assembly (WHA) Resolution on Urban Preparedness in 2022 in order to formalise the increased interest and engagement in the topic as a result of COVID-19. This should lead to high-level meetings and a United Nations General Assembly (UNGA) Resolution, in order to ensure that the issue is placed and maintained on political agendas at the highest level of governments.
- 2) National governments, supported by WHO and partners, explore and pilot approaches and activities in urban preparedness using multi-level, whole-of-government, and whole-of-society approaches, engaging all relevant stakeholders across different levels of government, and society. This includes conducting multi-sectoral simulation exercises within cities and urban settings; and/or from national to city levels. It also includes appropriate modes of engagement with commerce and industry stakeholders.
- 3) National governments, supported by WHO and partners, explore and pilot approaches and activities to increase investment in risk assessment and capacity building for an all-hazards health emergency preparedness at the urban / city level. There should be focus on data collection and analysis, key preparedness capacities at local levels (e.g. disease surveillance, risk communication), health system strengthening and resilience and risk management. It includes working with academia and public health institutes, among others.
- 4) **Local and city governments** continue to share experiences and good practices and engage in peer-to-peer learning, at both the national and

international levels, through platforms such as networks, meetings, study visits and exchanges, publications, and events. This should be supported and facilitated by international organizations, including WHO, UN Habitat, UNDRR, and others.

- 5) Local and city governments focus on working specifically with communities, and groups most at risk of vulnerability, such as migrants, refugees, those living in informal settlements and dependent on the informal economy, through an increased use of social participation methods and participatory governance mechanisms, in order to build community resilience and ensure their cities are better prepared for future emergencies. This can be supported by non-governmental and community organizations that are able to provide representative views.
- 6) WHO increases its technical capacity to support urban preparedness, including the development of a structured workplan that includes short, medium, and long-term objectives to take forward work in the area of urban preparedness. This will require the support and collaboration of Member States, the UN system and other international organizations, donors and partners, in particular those with experience of working in and with urban settings.
- 7) WHO continues to explore the demand, use, need for revision / adaptation, implementation, and (if necessary) development of tools and resources for risk assessment, gap identification, and capacity building for urban preparedness in Member States and their cities. This includes but is not limited to, local risk and needs assessments, simulation exercises, trainings, policy dialogues, and networks.
- 8) WHO and partner international organisations advocate for increased and sustained attention and funding in urban health emergency preparedness with heads of state, national and local governments, international organisations, development funds, and other partners.
- 9) WHO and partner international organisations increase formal collaboration in the area of urban health emergency preparedness, for example on the development and implementation of associated tools and resources, data gathering and analysis, research, guideline development, logistics, risk assessment and capacity building, in order to ensure that international efforts moving forward are complementary and coordinated. This includes linkages to the WHO Healthy Cities networks, UN New Urban Agenda, UNDRR Resilient Cities, the UN Sustainable Development Goals, the International Health Regulations, and the Sendai Framework on Disaster Risk Reduction.

INTRODUCTION

COVID-19 and Cities

The COVID-19 (Coronavirus disease 2019) pandemic (caused by the Severe Acute Respiratory Syndrome Coronavirus 2 or SARS-CoV-2) has highlighted the vulnerabilities and important roles that cities and other urban settings play in health emergencies. The density of urban settings is such that these settings have been heavily affected throughout the pandemic; the United Nations (UN) Secretary General's Policy Brief on COVID-19 in an Urban World stated that cities were epicentres of the pandemic¹. The crisis has led to increased attention on the unique dynamics of health emergencies in these areas, especially the introduction and spread of infectious diseases.

The International Health Regulations (IHR 2005)² require member states to strengthen their capacity for detection, assessment of, and response to, disease outbreaks and other public health emergencies at national, subnational (e.g. regional / metropolitan) and local (e.g. city) levels. Cities and urban settings are increasingly at the forefront of effectively operationalizing many of these requirements. In this pandemic, congested spaces due to high population densities and their role as travel hubs with extensive connections, has led to rapid importation and exponential growth of cases. Furthermore, implementation of public health and social measures has been challenging in places such as informal settlements. However, cities have also been centres of innovation and opportunity, showcasing novel approaches including leveraging the untapped capacities of communities and the private sector.

Progress on Urban Preparedness

On 3-4 December 2018, the World Health Organization (WHO), supported by the Government of France, organized a high-level conference on "Preparing for public health emergencies: challenges and opportunities in urban areas"³. It concluded that in today's largely urban and interconnected world, health emergencies posed a real threat to large cities. However, with a good understanding of the specific issues posed by these urban settings, and appropriate preparation by municipal and national stakeholders, such threats can be mitigated.

At the end of 2019, the Global Preparedness Monitoring Board (GPMB) commissioned the Norwegian Institute of Public Health (NIPH) to develop a report to accompany its

¹ https://unhabitat.org/sites/default/files/2020/07/sg_policy_brief_covid_urban_world_july_2020_final.pdf

² https://www.who.int/publications/i/item/9789241580496

³ https://www.who.int/docs/default-source/documents/who-emergencies-in-urban-areas-web. pdf?sfvrsn=d4857c2d_2

2020 Annual Report, titled "Urbanization and preparedness for outbreaks with highimpact respiratory pathogens"⁴. This report delved into trends in urbanization, urban vulnerabilities and preparedness in the context of high-impact respiratory pathogen outbreaks, modelling and monitoring considerations. One of its key recommendations was for the WHO to develop recommendations for urban preparedness, including specific tools and guidelines.

When COVID-19 hit, to address immediate needs of the pandemic, WHO published an interim guidance for local authorities of cities and other urban settings on strengthening preparedness for COVID-19⁵, a tool on practical actions in cities for the COVID-19 pandemic and beyond⁶, and a simulation exercise package to test and refine local preparedness and response plans⁷.

Subsequently, at the resumed 73rd World Health Assembly in November 2020, Member States adopting the resolution on "Strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005)", which called on Member States, regional economic integration organizations, international, regional and national partners, donors and partners to "assess the vulnerabilities of cities and human settlements to health emergencies, paying particular attention to communicable disease outbreaks, and to enhance preparedness by integrating policies, plans and exercises across health, urban planning, water and sanitation, environmental protection and other relevant sectors, to ensure local leadership and community involvement."⁸

Urban health emergency preparedness is multifaceted and has linkages with the ongoing work of other UN agencies, international organizations and city networks. For example, within the UN system, it contributes to the UN Office for Disaster Risk Reduction's (UNDRR) efforts to increase cities' resilience to disasters⁹, UN Human Settlement Programme's (UN-Habitat) efforts to build a better urban future¹⁰, and the International Organization for Migration (IOM) and UN High Commissioner for Refugees (UNHCR) work on migrants' and refugees' health in cities.

Report and Target Audience

This report documents the proceedings and outcomes of meetings by a technical working group on "*Advancing health emergency preparedness in cities and urban settings in COVID-19 and beyond*". It aims to inform leaders and policymakers of national and local governments, as well as donors, partners and other stakeholders that are involved in the strengthening and maintaining of health emergency preparedness in cities and urban settings.

⁴ https://apps.who.int/gpmb/assets/thematic_papers_2020/tp_2020_4.pdf

⁵ https://www.who.int/publications-detail/strengthening-preparedness-for-covid-19-in-cities-and-urbansettings

⁶ https://www.who.int/publications/i/item/WHO-2019-nCoV-ActionsforPreparedness-Checklist-2020.1

⁷ https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/simulation-exercise

⁸ https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R8-en.pdf

⁹ https://mcr2030.undrr.org/

¹⁰ https://habitat3.org/the-new-urban-agenda/

OVERVIEW OF THE WORKING GROUP

Unfortunately, the COVID-19 pandemic will not be the world's last health emergency and many countries and their cities are already facing concurrent threats. Building on previous work, WHO and the Government of the Republic of Singapore established and co-hosted a technical working group to advance this topic. The working group comprised representatives from Member States at national (including sectors such as health, interior and foreign affairs) and local governments, partners, city networks and UN agencies. The full list of members and participants can be found in Annex 1.

Objectives and Outcomes

The objectives of the working group were to:

- **Discuss unique considerations** in cities and urban settings that influence health emergency preparedness planning and implementation;
- Share cities', countries' and regions' experiences and best practices showcasing the role that cities and urban settings play in health emergency preparedness and different approaches that have been taken to improve preparedness;
- **Discuss how the approach to preparedness** in cities and urban settings will evolve given the response to the COVID-19 outbreak;
- **Determine and discuss key areas of focus and approaches** to preparing cities and urban centres for future health emergencies moving forward; and
- **Develop clear roles and actions** for leaders, policymakers, communities and other stakeholders and partners in cities and urban settings in strengthening preparedness by adopting a whole-of-society approach.

Content from these discussions would feed into the development of a technical guidance for national and local authorities on strengthening urban health emergency preparedness in cities and urban settings to be published in the third quarter of 2021.

PROCEEDINGS

The working group had six meeting sessions, between February and April 2021, with each building on previous discussions. Given the global epidemiologic situation, these were held virtually, with three of the six sessions spread over two or more time slots to accommodate different time zones. Sessions were co-moderated by the Secretariat (comprising staff from WHO and Singapore) and technical staff from WHO headquarters and regional offices.

Materials and references were circulated ahead of each meeting. At the meeting, members could provide their inputs verbally, using the chat box function on the online platform, or through a separate question and answer / polling platform. After the meeting, members were invited to provide further inputs by email to the secretariat.

The final key messages and proposed way forward by the working group (which can be found in the Executive Summary of this report) were circulated to members for inputs and concurrence ahead of the closing session.

Figure 1. Inaugural meeting of the Urban Preparedness Working Group, 8 February 2021, Virtual



OPENING REMARKS

The first meeting began with welcome addresses by Executive Director of the WHO Health Emergencies Programme, **Dr Michael Ryan**, and Deputy Secretary of the Ministry of Health of Singapore, **Dr Benjamin Koh**.

Dr Ryan noted that no countries and cities were fully prepared for the pandemic. This could have been because the world had *"focused a little too much on static measures of preparedness rather than fully understanding the dynamic nature of disease and the human population."* As the engines of economic growth, cities have attracted vast numbers of migrants, leading to high population density in these areas. Such risks would have to be addressed as part of responsible urban management. However, cities also had advantages, such as being agile by their very nature, which could help in effectively responding to and containing local outbreaks.

Echoing this, Dr Koh highlighted the public health measures that densely populated Singapore had taken to keep the pandemic under control, such as mandatory mask wearing and social distancing. However, the country found that controlling transmission in worker dormitories was more challenging. He noted that *"intellectual capital and data inherent in cities means that we can make sense of the outbreak early, if we deploy resources correctly".*

Session 1: LESSONS ON URBAN PREPAREDNESS FROM COVID-19

About the session

The session comprised opening presentations by WHO to introduce a conceptual frame and topics to be worked on in future meetings (Figure 2); and by Norway, on the commissioned report by the Global Preparedness Monitoring Board. This was followed by short presentations by members sharing initial thoughts, experiences and lessons from COVID-19, as well as a discussion on the working group's approach moving forward. The session was closed by Assistant Director-General for Emergency Preparedness, WHO, **Dr Jaouad Mahjour**.

Moderators:	 Associate Professor Vernon Lee; Director, Communicable Diseases, Ministry of Health, Singapore Dr Marc Ho; Secretariat, WHO HQ Mr Ludy Suryantoro; Unit Head, Multisectoral Engagement for Health Security, WHO HQ
Opening Presentations	 Dr Stella Chungong; Director, Health Security Preparedness, WHO HQ Dr Siri Helene Hauge; Special Advisor, Department of Public Health, Ministry of Health, Norway
Presenters:	 Ms Emilia Saiz; Secretary-General, United Cities and Local Governments Dr Suharti; Deputy Governor for Population Settlement Management, Jakarta, Indonesia Professor Heike Köckler; Professor of Social Space and Health, Hochschule für Gesundheit, Germany Dr Shamsa Majid Lootah; Public Health Specialist, International Health Regulations Office, Ministry of Health and Prevention, United Arab Emirates Associate Professor Vernon Lee; Director, Communicable Diseases, Ministry of Health, Singapore Dr Paolo Parente; Local Health Authority, ASL Roma 1, Italy Ms Jacqueline Weekers; Director, Migration Health, International Organization for Migration
Closing remarks	• Dr Jaouad Mahjour ; Assistant Director-General, Emergency Preparedness, WHO HQ
Reactions	Verbal interventions and chat-box

Key Messages

Urbanisation presents unique challenges for emergency preparedness, but also opportunities. The spread and impact of infectious diseases such as COVID-19 are driven by the unique characteristics of urban spaces. Their high population density, coupled with their role as transport hubs, increase the risk of disease importation and promote rapid national and global spread. However, through cities we can also most effectively prevent, detect, respond and mitigate such risks.

.....

"A unique characteristic of Dhaka is the changes in daytime population, [e.g.] sudden fluctuations of labor force - construction labor, garments workers... Millions of trips taken by workers on public transport in a single day can be very challenging." – **Syed Ashraf ul Islam**, Bangladesh

The national level must effectively engage with and enhance capacities of local and regional governments. The COVID-19 pandemic has shown that local and regional governments play an important role in effectively operationalising national policies and plans. This required close coordination across all levels of government. United Cities and Local Governments highlighted that many cities have been traditionally excluded from pandemic planning. They have also been poorly resourced, lacking critical equipment such as personal protective equipment, even as they had to discharge essential duties.

"Trust between the two levels has to be built. Neither national nor local governments can walk alone... It might be essential to give space for local government to have different initiatives to have a different approach in emergency situations, but surely it has to be in line with the common goals, both of the central and local government... Openness from both central and local government is also mandatory." – **Dr Suharti**, Indonesia

Coordination and collaboration between stakeholders and actors are crucial. The current crisis has also shown that an efficient and effective response to health emergencies require close coordination and collaboration amongst different stakeholders at local, regional, national and global levels. This must be done through a multi-sectoral, whole-of-society approach. For example, in Indonesia, it was through close collaboration and coordination with the central government and sister cities from across the world that Jakarta was able to learn best practices, make informed decisions and even receive reverse transcription–polymerase chain reaction (RT–PCR) machines for COVID-19 testing.

"We have to understand that actors in international air, maritime and ground travel, world tourism, global public health and veterinary public health have a shared responsibility to jointly mitigate the international spread of diseases, and reduce the disruption of international and tourism". – **Dr Shamsa Majid Lootah**, United Arab Emirates

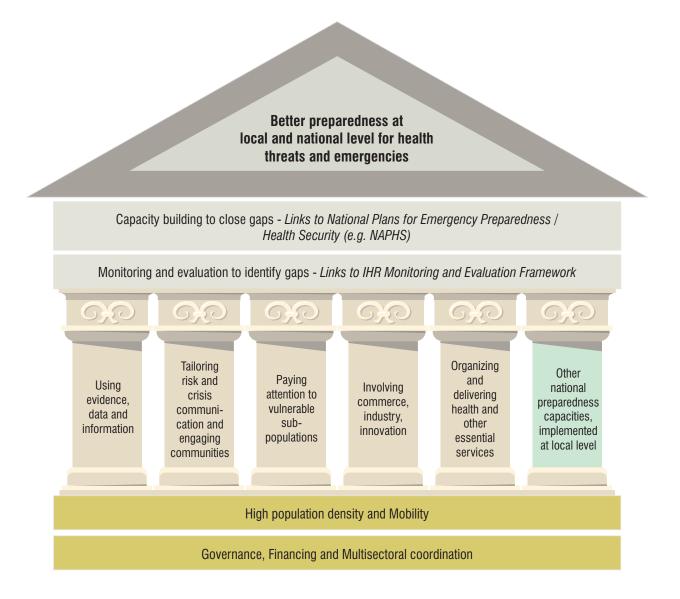
Community engagement is key; it requires building trust, and the use of data and technology. A whole-of-society approach is dependent on trust that governments need to establish, foster, and sustain with all people in their country, especially through clear communications. For example, Local Health Authority ASL Roma 1 of Italy shared how they had conducted a stakeholder analysis to inform its communication strategies with different constituents. The European Centre for Disease Prevention and Control (ECDC) also worked on behavioural sciences and insights to more effectively deploy pandemic strategies. One other advantage of cities when dealing with health emergencies is the high prevalence of data, information and technology, which could aid in prediction, prevention and mitigation strategies. Many speakers shared how information systems and websites had facilitated decision making and communication and Singapore had used technology to speed up their contact tracing processes, thereby reducing further spread.

"We [the city of Rome] started to have meetings with all communities. We started to have the first meetings with schools... Regione Lazio, which is the region that Rome is in, drafted an emergency preparedness plan. We started with a population analysis at epidemiologic level to understand how we could carry on tailored activities, because the city center of Rome is very different from the peripheral neighbourhoods". – **Dr Paolo Parente**, Italy

A focus on vulnerable groups is paramount. As economic engines of growth, cities and urban settings have attracted diverse groups of people, many of whom tend to be more vulnerable to the impact of emergencies. These include migrants, refugees, internally displaced persons and those living and working in informal situations. For example, late identification of COVID-19 led to spread among immigrants in Oslo, Norway, as did a surge of cases among migrant workers residing in communal living spaces in Singapore. It is important that cities account for the needs of vulnerable groups. One key area is environmental injustices and the need for governments to develop urban areas with sufficient green and open space safeguarded by minimum standards. Space constraints could be addressed by having multifunctional activity spaces which would provide flexibility. For example, in Berlin, Germany, streets were changed to pop-up zones for physical activity. "Migrants, both in irregular and regular situations, can be more vulnerable to COVID-19 transmission and less able to reduce transmission risks due to multiple factors... Meanwhile migrants play an essential role in our societies and are therefore critical to recovery and preparedness efforts. This has been very clearly shown during the COVID-19 response through migrants' contributions as migrant health workers and essential workers across all sectors." – **Ms Jacqueline Weekers**, IOM

The Technical Working Group is timely and important in advancing the global agenda. There is a political and policy opportunity in the wake of COVID-19 to advance the global urban preparedness agenda – a priority mentioned by the UN Secretary General Antonio Gutteres and by Member States through a resolution at the recent World Health Assembly in 2020.

Figure 2. Conceptual Framework for the Urban Preparedness Working Group



Session 2: KEY CHALLENGES IN URBAN PREPAREDNESS

About the session

The same content was discussed over two different time slots, allowing participation from across time zones. Discussions were focused on current observations and challenges faced by national and local governments in urban health emergency preparedness. These were grouped into three overarching areas:

- Governance, multisectoral coordination, and financing
- Density and mobility; Community-led approaches and Vulnerable groups
- Evidence, data and information; Commerce, industry and innovation; Organization and delivery of health and other essential services

Moderators:	• Dr Marc Ho; Secretariat, WHO HQ		
	• Dr Graham Alabaster; Chief, Geneva Office, UN-Habitat		
	• Ms Monika Kosinska ; Technical Officer, Economic Determinants of Health, WHO HQ		
Presentations:	• Secretariat		
Reactions	Verbal interventions, chat-box and through Q&A / polling platform		

The working group identified 23 key challenges, summarised in Table 1.

Key Messages

Effective systems of governance and engaging the highest political levels are of critical importance. Challenges including having appropriate and adequate mandates, capacities, and resources for emergency preparedness and response activities. Political differences between levels of government may potentially complicate collaboration. Often, a lack of political will was a common barrier to strengthening urban preparedness. Shorter term priorities for funding tend to be favoured over preparedness, which is often seen as a long-term, high expense and low output area. The increased political attention on urban preparedness arising from COVID-19 is an opportunity to secure political backing at the local, national, and global levels.

"Benefits of spending on health emergency preparedness are not salient. [They are] seen as an expenditure with no 'returns'. This viewpoint needs to change due to the consequences of NOT spending on health emergency preparedness. It is akin to health insurance - one spends money on it and hopes not to ever have to 'use' it. But when the day comes, one is thankful that insurance had been purchased" – **Anonymous**, polling platform

Local and city governments are often not adequately included in policy processes and formulation. This presents a key challenge for all levels of government, as without the relevant stakeholders involved, effective solutions cannot be formalised and operationalised. Furthermore, **communities, especially vulnerable groups, can be better engaged and involved**. This includes improving access to appropriate avenues for risk communication, including the management of misinformation. There is insufficient engagement, integration and protection of vulnerable groups in cities and urban settings in preparedness plans.

"There is also a flow of content that interferes with the government's communication strategy, and there are many sources that provides such adverse content, especially on social networks, which allow for anonymous participation. Mexico City is part of a large metropolitan area / megalopolis from which the communication challenge is even greater to ensure that vulnerable groups are specifically considered in national and local health emergency preparedness plans and response". – **Mr Marco Palet**, Mexico

Next, **data is a key challenge for local and municipal governments**. There are often many siloed data sources, but cities and local governments lack useful, merged data at hand to plan and prepare effectively for emergencies. This is also exacerbated by a lack of capacity – either to collect data, analyse and/or disseminate and use data effectively. **Emergency preparedness considerations can be better incorporated into urban planning and design**. This extends to being able to adjust urban spaces to meet the needs of a health emergency. Mobility patterns can be better understood and anticipated ahead of time.

"COVID-19 is an opportunity to reconsider emergency preparedness and for it to be better incorporated into urban planning and design. We need to adjust urban spaces to meet the needs of the health emergency and mobility patterns... Qatar has started a healthy city project under the leadership of the Ministry of Public Health and in collaboration with other ministries, NGOs and the private sector. It adopted the "Strengthening preparedness for COVID-19 in cities and urban settings" internal guidance for local authorities, developed by WHO". – **Dr Sadriya Mohammed Al-Kohji**, Qatar A lack of trust, willingness and engagement mechanisms between local governments and commerce and industry stakeholders had previously hampered the role of the private sector in cities and urban settings in health emergency preparedness, but COVID-19 provides fresh opportunities. Finally, **Universal health** coverage and the continuation of essential services are at risk when cities and urban areas are under prepared. These require a strong health system, a peoplecentred primary health care approach, and resilient systems, societies and communities.

"Private sector service providers are often left out of the broader use of data. In many countries they still constitute a bigger proportion of service provision, so unless there is a harmonized and integrated way to get information and data, particularly for public health surveillance, we have long way to go." - **Anonymous**, polling platform

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Table 1.Key challenges in cities and urban settings

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- A lack of political will to strengthen preparedness in cities and urban settings because of political differences, competing interests and shortterm prioritization.
- 2) A need to clearly define roles and responsibilities between national and local governments in preparedness for health emergencies.
- Gaps in the availability or use of legislative levers and coordination mechanisms for preparedness across different levels of government, with surrounding areas and with other cities.
- A risk of returning to poor appreciation of the wide impacts of health emergencies and an unwillingness of other sectors and stakeholders to be actively involved in preparedness.
- 5) Local stakeholders work in siloes and there is a lack of clarity on who should lead multisectoral coordination for health emergency preparedness at local levels.
- 6) A lack of mechanisms for communication and coordination between sectors and stakeholders for preparedness.
- 7) Competing priorities for limited budgets lead to insufficient funds for city governments and local actors for preparedness activities.
- 8) Budgeting is at national levels and access and release of funds to cities for preparedness and response is slow.

- 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 and design, including the benefit of having healthy, open spaces.
- 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.
- 12) Movement in and out of cities may facilitate the spread of infectious diseases and outbreaks.
- 13) Insufficient representation and involvement of local governments and communities in health emergency preparedness policy development.
- A need for better access to prompt, reliable and culturally appropriate avenues for risk communication, including the management of misinformation.
- 15) The needs of vulnerable persons especially migrants, refugees and those living in urban informality - can be better understood and integrated into preparedness plans, and the capacities of these groups can be maximized.
- 16) Insufficient continuous engagement and protection of vulnerable groups in cities before, during and after health emergencies.
- 17) 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.
- Local governments of cities and urban settings are not equipped to conduct data management and analysis.
- 19) Concerns of privacy and confidentiality in the use of local level data for health emergency preparedness.
- 20) Insufficient trust and willingness of local governments and commerce and industry stakeholders to work together for better preparedness, but COVID-19 offers fresh opportunity.
- 21) A lack of appropriate engagement mechanisms with different types of business and industry stakeholders in cities and urban settings for preparedness.
- 22) Health and non-health essential services need to be organized such that they can support health emergency preparedness and response when needed.
- 23) Disruption to the delivery of essential services in cities during emergencies needs to be minimized.

Report on a Series of Global Technical Working Group Meetings

Session 3:

POSSIBLE APPROACHES AND SOLUTIONS

About the session

Discussions were split across three time slots for different time zones and focused on potential solutions and approaches for the way forward. Members were divided into three sub-groups by time zone and expertise. Topics followed the three big areas delineated in session 2.

Moderators:	• Dr Masaya Kato ; Programme Area Manager, Country Preparedness and IHR, WHO Regional Office for South-East Asia		
	• Dr Teresa Zakaria ; Health Emergency Officer, Humanitarian Intervention, Health Emergency Interventions, WHO HQ		
	• Dr Gerry Eijkemans ; Unit Chief, Social Determinants of Health, Pan American Health Organization / WHO Regional Office for the Americas		
Presentations:	• Secretariat populated presentation slides to capture discussions		
Reactions	Verbal interventions and chat-box		

The working group identified 96 key solutions, and these would be adapted into technical guidance for national and local governments of cities and urban settings.

Key Messages

Governance remains crucial to improving how prepared cities and urban areas are for health emergencies. This requires: i) **Political will** to strengthen preparedness in cities and urban settings, overcoming competing interests and taking a long-term view; ii) **Clearly defined roles, responsibilities and accountability lines** between national and local governments in preparedness for health emergencies; and iii) **Closing legislative gaps** in preparedness across different levels of government, with surrounding areas and with other cities. To strengthen urban preparedness, there must be **multisectoral and multilevel coordination**. Coordination mechanisms must be improved to routinely include all levels of government, relevant actors and stakeholders as far as possible. Such a whole-of-government approach includes involving sectors not traditionally associated with health emergency preparedness. "Having a whole-of-government and whole-of-society approach is extremely critical, and it will be of particular importance to share this view also with cities and local governments. The reality is that within our constituencies there is not always a very close reflection or link with health matters, and the competencies around healthcare are not usually in the hands of local and regional governments... Basic service provision that they provide are extremely relevant for healthcare but are usually looked at as an afterthought, also in emergency situations. The pandemic has shown us, however, that they are very much at the forefront of the fight for recovery." – **Ms Emilia Saiz**, United Cities and Local Governments

National level assessments, plans and strategies should also place a greater emphasis on cities, as this is where the greatest threats and opportunities are. This will help account for contextualities between cities within countries. There should also be adequate representation and involvement of local governments and communities in health emergency preparedness policy development. This must focus on involving (not just engaging) communities, especially those at greatest risk, such as through participatory governance. This needs to be accompanied by increased levels of investment into city-level preparedness activities. At the same time, at city level, there should be a perspective of solidarity / cost-sharing across sectors and departments, and ways to manage limited budgets including reviewing funding allocations, generating revenues and leveraging urban partners.

"[ECDC is] developing a wide range of projects looking into community preparedness best practices for linking with specific communities and actually engaging and creating a co-production type of approach to preparedness strategies with local communities. This is because we are aware that the strategies will be more effective if they're developed in collaboration and with the engagement of these communities, and I think that's very applicable to urban settings as well." – **Dr Jonathan Suk**, ECDC

Successful urban preparedness **starts with the communities, and involves all actors within society, including the private sector**. All stakeholders and parts of society must be engaged, and greater engagement with the private sector should be pursued. Leveraging the experience in COVID-19, the latter can actively contribute to contingency and preparedness plans, logistics for responses, risk reduction strategies, and increasing capacities for service delivery where necessary. Cities should find ways to better engage and involve their groups at risk of vulnerability. Vulnerable groups themselves have capacities (e.g. organizing themselves) which can be better leveraged. To support these efforts, there is a need for the use of prompt, reliable and culturally appropriate avenues for risk communication, including the management of misinformation. "We should follow a principle called the 'vulnerability of population' principle, because we have a lot of instruments that are quite good, but they do not generally consider vulnerability of populations enough... Therefore, taking concepts like environmental justice or others into account, we have to care for the reduction of vulnerability of people by having healthy urban cities." – **Professor Heike Köckler**, Germany

Finally, there needs to be **a focus on the use of data** – answering questions on what is available, what needs to be collected, who needs access to it, how it is analysed and how results are disseminated for action are critical. There are many available sources of urban data, but they should be prioritized, reshaped, integrated and used for risk assessment and health emergency preparedness planning.

"We [Nigeria] have a platform called the Surveillance Outbreak Response Management and Analysis System that helps us to manage data and response activities... Managing data is very important for us to ensure actions are evidence based. Cities as a part of the national surveillance... we will need to also look at those cities, specifically and see how we can work with them in preparedness in terms of bringing in all the stakeholders." – **Mrs Elsie Ilori**, Nigeria

Session 4: THE ROLES OF KEY STAKEHOLDERS

About the session

Members came together to refine proposed solutions and discuss roles of key stakeholders in urban health emergency preparedness. Topics were regrouped, based on themes arising from solutions and approaches, into five overarching areas.

- Governance across levels of government; Financing preparedness in cities
- Multisectoral coordination; Engaging commerce, industry and innovation; and Organization and delivery of services
- Addressing density and congestion; and Mobility
- Community-led approaches; and Vulnerable populations
- Use of urban data and information

Moderator:	 Dr Ihor Perehinets; Acting Programme Area Manager, Country Preparedness and IHR, WHO Regional Office for Europe
Presentations:	Secretariat summarized proposed solutions from Session 3
Reactions	• Verbal interventions, chat-box and through Q&A / polling platform

Key Messages

The working group concluded that achieving these solutions requires the engagement of many stakeholders – with each challenge requiring a different and unique configuration. A clear and formalised delineation of roles and responsibilities is important for cities to be prepared to respond to health emergencies. This includes clear accountability lines, and a distribution of tasks between the national and local levels of government. This should be **coordinated by government bodies leading preparedness and response, either at national or local leve**l (e.g. Ministry of Health, Ministry of Interior, National Disaster Management Agency).

"We [Singapore] have a whole-of-government approach, coordinated by a multiministry taskforce which was set up prior to the discovery of our first case of infection in Singapore. This is a multi-ministry representation mechanism and enables us to coordinate a whole-of-government response, together with the population." – **Associate Professor Vernon Lee**, Singapore In this regard, **national governments should work towards strengthening multilateral, multi-level systems** for structured dialogue and decision making which would include local views. This includes collaborative agreements between different levels of government on working together towards common interests. A whole-ofgovernment, whole-of-society approach should be used to engage all stakeholders across government (at all levels). This could be facilitated and coordinated by national and local governments, and **could sit within a political leader's office (e.g. Governor or Mayor's office).**

"We are all very familiar with the idea that these problems need a multi sectoral approach, but it's nowhere more important than at a city level where multisectoral approaches come to life. Understanding how, along with a mayor of a city and a leader of a city, we can work with them to develop this multisectoral approach, and bring it from the inter-ministerial level down to the level of the city is important". – **Dr Graham Alabaster**, UN Habitat

"National health departments do not always involve aviation authorities when they make decisions in terms of national policies, and that has a big effect on aviation. They would like to be more involved from the other side as well" – **Dr Ansa Jordaan**, International Civil Aviation Organization

Furthermore, **capacity building activities and exercises** (e.g. simulation exercises) help ensure a broad range of stakeholders and actors know their roles and are best placed to respond. Vulnerable groups should be involved in preparedness activities and policy processes that affect them, under a 'nothing about me without me' principle. This can be through **social participation methods by policymakers at national or local levels, civil society organizations, or other stakeholders** engaged in any stage of the policy / guidance development process. COVID-19 has also provided an opportunity for reformulated engagement with the private sector. This goes beyond just service delivery, towards partnerships in preparedness, readiness, and response activities. **The private sector and governments at the national and local level should maintain dialogues and collaborations** that have materialized during the COVID-19 response.

"[We should] Keep private sector as part of the conversation and look to where we can get efficiencies.... There is always a need for additional funding, but there is also expertise that we can call on and leverage. If we look at some of the work going on in the private sector, there has been a lot of resources in manufacturing, in logistics and technology and data management, and that has helped to build societies and support governments" – **Ms Ashling Mulvaney**, Private Sector Round Table on Global Health Security' Finally, **WHO and other international organizations have key roles in strengthening urban preparedness**. This includes supporting governments and cities in capacity building, advocating for preparedness at highest political levels, and using their convening function to bring together different levels of government and stakeholders through policy dialogues, trainings, simulations and assessments.

"WHO plays a very important role in forging the links between the health focal points and the Sendai focal points that coordinate disaster risk reduction work. Often these two work in silos and they don't meet and talk so there is a great opportunity, especially in the post COVID-19 scenario in bringing these two groups together." – **Mr Sanjaya Bhatia**, UNDRR

"Access to public services in urban settings may be a challenge for refugees at times. UNHCR's protection mandate advocates for refugees to have access, on similar footing as nationals. It advocates on behalf of refugees and other persons of concern to ensure that the authorities make public services such as health care, nutrition programmes, and water and sanitation services available to these populations at low or no cost. UNHCR supports urban refugees and other persons of concern by integrating them into the existing public services and by augmenting the capacity of these systems" – **Dr Nasur Muwonge**, UNHCR

Figure 3. Word cloud for the question on "Who needs to be involved in governance and financing of preparedness in cities and urban settings?"



Session 5: TOOLS FOR RISK ASSESSMENT, GAP ANALYSIS AND CAPACITY BUILDING

About the session

The same content was discussed over two time slots. It explored how existing national level tools and resources could potentially be adapted or better used to also support cities and urban preparedness. The discussion also looked at priority areas in capacity building and risk assessment.

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Moderators:	• Dr Mary Stephen ; Technical Officer, Country Preparedness and IHR, WHO Regional Office for Africa	
	• Dr Alex Camacho; Advisor, Health Emergencies Disaster Risk	
	Management, Pan American Health Organization / WHO Regional Office	
	for the Americas	
Presentations:	• Dr Rajesh Sreedharan , Team Lead, Country Assessments and Planning, WHO HQ	
	• Dr Liviu Vedrasco and Mr Fred Copper , Unit Head and Technical Officer, Country Simulation Exercises and Reviews, WHO HQ	
	• Dr Qudsia Huda , Unit Head, Disaster Risk Management and Resilience, WHO HQ	
	• Dr Stephane de la Rocque, Unit Head, Human-Animal Interface, WHO HQ	
	Mr Sanjaya Bhatia, Head, Office for Northeast Asia and Global	
	Education and Training Institute, UNDRR	
	• Dr Graham Alabaster, Geneva Office, UN Habitat	
	• Mr Esteban Leon , Head, City Resilience Global Programme, UN Habitat	
	• Dr Nirmal Kandel , Evidence and Analytics for Health Security, WHO HQ	
	• Mr Adam Tiliouine , Consultant, Urban Health Emergency Preparedness, WHO HQ	
	• Mr Ludy Suryantoro , Unit Head, Multisectoral Engagement for Health Security, WHO HQ	
Reactions	Reactions • Verbal interventions, chat-box and through Q&A / polling platform	

Tools and resources presented were the State Party Self-Assessment Annual Reporting (SPAR); Joint External Evaluation (JEE); Simulation Exercises (SimEx), Strategic Tool for Assessment of Risks (STAR); Joint Risk Assessment Operational Tool (of the Tripartite Zoonosis Guide, JRT OT); Making Cities Resilient 2030 (MCR 2030); Public Health System Resilience Scorecard (addendum to the Disaster Resilience Scorecard for Cities); WHO Benchmarks for IHR and Reference Library; Practical Actions in Cities to Strengthen Preparedness for COVID-19 and Beyond; and the Global Cities Network for Emergency Preparedness and Health Security (GCN) as part of the WHO Global Strategic Preparedness Network (GSPN).

Key messages

An overwhelming number of tools and resources exist and these need to be mapped or reviewed. These include those that are specifically for, or applicable to, cities and urban areas. The importance of cities to health and well-being in general – and health emergencies in particular – coupled with increased political attention in COVID-19, has led to intensified tool development. **Quality over quantity must guide next steps** regarding tool development. Cities often lack the capacity to implement numerous tools and resources – therefore there is a need for a simple but effective "blunt tool" to guide city-level, multi-sectoral interventions. There is a need to better integrate subnational considerations, including at city/ municipal levels, into existing tools for emergency preparedness. Many existing national level tools and resources for preparedness do not do this, despite their importance in preparedness. Overarching frameworks such as the WHO Health Emergency Disaster Risk Management Framework provide an opportunity for stronger sub-national integration, including adopting an all-hazards lens.

"The WHO Health Emergency and Disaster Risk Management Framework, which includes the whole-of-society and the whole-of-government, would work particularly well at the local level by, or continuing support to, guiding health emergency preparedness in cities and urban settings in COVID-19 and beyond." – **Professor Virginia Murray**, United Kingdom

In particular, **local / city specific risk management approaches can be a starting point**. The local level differs from the national level; and cities, even within a country, are heterogenous. All-hazard risks need to be assessed at the urban level using existing information and capacity available at city level. **City level simulation exercises (SimExs) can be important tools in being better prepared**. Many cities were caught underprepared for COVID-19 for a variety of reasons – city simulation exercises improve coordination across sectors and actors, allow for the heterogeneity of cities, and are most relevant given their focus on operations and actual functionality of existing capacities.

"There have been many mixed messages from different countries on how the pandemic needs to be handled. Economy was given priority over health in many of the cities initially. No foundation or preset guidelines of working together with different sectors during emergencies. Even if it existed, it was never simulated practically as a drill therefore everyone including the governments were at a loss. Many just tried to copy what others were doing." – **Anonymous**, polling platform

Furthermore, **networks have a key role in the sharing of lessons learnt, best practices and resources**. This includes the WHO Global Cities Network for Health Emergency Preparedness, the WHO Healthy Cities Networks, the UNDRR Making Cities Resilient 2030 Campaign, and initiatives by United Cities and Local Governments (UCLG) to name a few.

There is a policy window which we must act upon. COVID-19 has led to increased focus on urban preparedness. This needs to be translated into political commitment at the highest level and funding for capacity building. Existing global policy frameworks present an opportunity to ensure urban preparedness is embedded at the highest political levels. High level policy agendas include the International Health Regulations (IHR 2005), the Sendai Framework for Disaster Risk Reduction 2015-2030, and the UN2030 Agenda and 17 SDGs. The next steps require **increased cooperation between international organisations**. It is important that increased focus in urban preparedness does not simply manifest in more tools and resources, but rather leads to a considered, unified approach at the level of international organisations to develop resources that fill existing gaps.

"It is important to build the case on why countries should focus on urban preparedness, and even though we have all seen during this pandemic that cities are vulnerable places, I think it is important to gather data and build up the knowledge on why... so that countries have a clear motivation on why they should improve their urban preparedness." – **Dr Siri Helene Hauge**, Norway

Session 6: The way forward

About the session

In the final session, the working group reflected on WHO's support to Member States and the continued engagement of technical experts moving forward. This was followed by a recap of 10 key outcomes and 9 proposed ways forward by the working group (see Executive Summary) and closing remarks

Moderators:	• Dr Dalia Samhouri ; Programme Area Manager, Country Preparedness and IHR, WHO Regional Office for the Eastern Mediterranean
Closing Remarks:	• Dr Suharti ; Deputy Governor for Population and Settlement Control, Jakarta, Indonesia
	• Dr Sadriya Mohammed Al-Kohji ; National Lead, Health Activity Policy Planning Department, Ministry of Public Health, Qatar
	• Professor Heike Köckler ; Professor of Place and Health; Department of Community Health; Hochschule für Gesundheit; Bochum, Germany
	Dr Papa Seck; Technical Advisor of Animal Health, Livestock and Fisheries, Presidency of the Republic of Senegal, Senegal
	• Dr Jose Fernandez ; Deputy Director, Pandemics and Emerging Threats, United States Department of Health and Human Services, United States of America
	Mrs Elsie Ilori; Head of Department, Disease Surveillance and Epidemiology, Nigeria Center for Disease Control, Nigeria
	 Professor Virginia Murray; Head, Global Disaster Risk Reduction, Public Health England, United Kingdom
	Mr Marco Palet; Deputy Director, Specialized Clinical Prevention, Mexico City, Mexico
	• Ms Emilia Saiz; Secretary General, United Cities and Local Governments
	Mr Kendra Hirata; Director of Programmes, CITYNET Yokohama
	Mr Ping Yean Cheah; Senior Strategy Officer, Asian Infrastructure Investment Bank
	 Mr Sanjaya Bhatia; Head, Office for Northeast Asia and Global Education and Training Institute, UNDRR
	• Dr Graham Alabaster; Chief, Geneva Office, UN Habitat
	• Ms Ashling Mulvaney ; Co-Chair, Private Sector Round Table for Global Health Security
Reactions	Verbal interventions and chat-box

Key Messages

There is a need to increase governments' understanding of urban health emergency preparedness. The multifaceted issues around urbanisation would benefit from a harmonized and coherent approach to the issue, and it was important to continue building the investment case on why countries should focus on urban preparedness (e.g. highlighting the economic impact of outbreaks). This could be **supported by synthesized, granular data** to better understand the situation and circumstances that cities and urban settings find themselves in. Furthermore, given the importance of digital platforms, it would no longer be sufficient to focus solely on traditional infrastructure, but also on **social and technology driven infrastructure**.

"As a multilateral development bank, we will be moving into funding social infrastructure, we have learned that focusing on the traditional infrastructure is not enough... We are moving into new spaces such as virtual infrastructure and also technology driven infrastructure moving forward." – **Mr Ping Yean Cheah**, Asian Infrastructure Development Bank

We need to press on with fostering a whole-of-government, whole-of-society approach. This includes the benefit of integration with other preparedness frameworks such as the IHR (2005)¹¹ and the WHO Health Emergency Disaster Risk Management Framework¹². All levels of government in all parts of a country need to be involved in planning, **led by strong leadership, and a central coordinating body** to oversee the government's response and marshal resources. For instance, health and Sendai focal points in governments have often worked in siloes and links between them need to be strengthened. At the same time, for effective implementation, it is necessary to **empower cities, regional and local governments, alongside adequate financing**.

"It is better to know all the partners that are involved in something ahead of time, instead of exchanging business cards or meeting someone for the first time in the middle of the crisis." – **Dr Jose Fernandez**, United States of America

Urban preparedness extends beyond the health sector given the wide impact of emergencies. A proactive approach to engaging the private sector in areas such as logistics, technology and data management may help. Given the risk of zoonotic diseases in the existing ecosystem, **adopting a One Health approach**, such as with animal health and the environment is also important. There is also a need for greater

¹¹ https://www.who.int/publications/i/item/9789241580496

¹² https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-managementframework-eng.pdf?ua=1

international coordination, such as through **a platform for engagement between national and local governments**.

"The COVID-19 crisis is a systemic and polymorphic crisis... The One Health approach needs to be translated into reality at the national level and is key to success. WHO should organize international meetings on advancing health emergency preparedness in cities and other urban settings, which will gather national government and local governments in order for them to engage each other to support this effort" – **Dr Papa Seck**, Senegal

Cities and countries would benefit from clear guidance for effective

implementation. This can include guiding principles and may help in mobilizing resources. However, the different political and administrative contexts that cities operate in would require some room for **flexibility and customisation**, and pilot initiatives and mentorship programmes in cities could be further explored. Furthermore, there was also a need for WHO to assist in **prioritization of recommendations** as cities and local governments may find it difficult to do so themselves, especially given resource constraints faced by cities. **Progress should also be monitored** as a means to ensuring that things get done, alongside ways to report progress and capture lessons learnt. This could be under a broader mechanism such as the Sendai Framework Monitor.

"Implementation of the proposed technical guidance [on health emergency preparedness in cities and urban settings] may need customization of some components in order to fit the political and administrative context of the given city. Piloting programs in some cities, with the support of WHO in different global regions, may allow for a comparative analysis on the progress made, as well as challenges during the implementation phase, before the programs are widely disseminated for action". – **Mr Kendra Hirata**, CityNET Yokohama

CLOSING REMARKS

The meeting was closed by Assistant Director-General for Emergency Preparedness, **Dr Jaouad Mahjour** and Deputy Secretary for Health, **Dr Benjamin Koh**.

Dr Mahjour said that the world must *"strike while the iron is hot... past emergencies have shown that attention and funding quickly disappear once an acute crisis is over".* There was also need for global, regional and national coordination on this issue as we live in an increasingly urbanised and globalised world and can no longer ignore how interconnected we have become. Noting that several Member States, joined by the WHO Director General Dr Tedros and the European Commission President Charles Michel, had supported the idea of a pandemic treaty, Dr Mahjour said that for such discussions, it would be important that the context of cities and urban cities was adequately reflected and mapped. Dr Koh agreed that we should not let a good crisis go to waste, and in order to ensure that the proposed ways forward by the Working Group would be translated into concrete action, *"each one of us can a play a part to advocate...and lend our technical expertise to translate these recommendations into actionable strategies suited to our local context".*

CONCLUSION

The COVID-19 pandemic is a chance for countries and their cities to build back better and prevent a repeat of a crisis of this magnitude. Countries would need to pay adequate attention to the unique needs of their cities and other urban settings as part of investments in ensuring better national preparedness for future health emergencies. The working group deliberations, overall outcomes and proposed ways forward (see boxes in the executive summary) are an important first step in this direction. WHO will develop and publish a guidance for national and local governments based on the working group's inputs and proposed ways forward. By working together across different levels of government, including in our cities and urban settings, we can build a safer, healthier and more equitable future.



Figure 4. Closing meeting of the Urban Preparedness Working Group, 12 April 2021, Virtual

Annex 1: Agenda

Session 1: 8 February 2021, 1200H – 1500H	
Time	Agenda Item
Welcome addresses	
1200H – 1215H	Welcome addresses
	• Dr Michael Ryan, Executive Director, WHO Health Emergencies
	Programme
	Dr Benjamin Koh, Deputy Secretary for Health, Republic of Singapore
Overview and introd	uctory presentations
1215H – 1220H	Overview of the technical working group
	Meeting secretariat, Health Security Preparedness, WHO
1220H – 1245H	Presentation on "Building better: Urban preparedness in COVID-19 and beyond"
	 Dr Stella Chungong, Director, Health Security Preparedness, WHO HQ
1245H – 1300H	Presentation on <i>"Urbanization and preparedness for outbreaks with high-impact respiratory pathogens"</i> , a commissioned report by the GPMB
	Dr Siri Helene Hauge, Special advisor, Department of Public Health, Ministry of Health, Norway
COVID-19: Experience	es and lessons learnt
1300H - 1305H	Introduction to the session by the moderator
1305H - 1415H	Sharing of experiences
	 Presentations by United Cities and Local Governments, Indonesia, Germany, UAE, Singapore, ASL Roma 1, International Organization for Migration
	Sharing by other countries, cities and partners
Approach moving for	rward
1415H – 1420H	Introduction to the session by the moderator
1420H - 1455H	Responses from the floor
	 Initial thoughts on the proposed topics for discussion in subsequent meetings
1455H – 1500H	Summary and closing
	• Dr Jaouad Mahjour, Assistant Director-General for Emergency Preparedness, WHO

Session 2: 23 February 2021, 0900H – 1200H CET and 1500H – 1800H	
Time	Agenda Item
Section 1: Governance, Multisectoral coordination, and Financing	
0900H – 0910H / 1500H – 1510H	Overview of topic by Secretariat
0910H – 1000H / 1510H – 1600H	Views and discussions by the Working Group
Section 2: Density and mobility; Community-led approaches and Vulnerable groups	
1000H – 1010H / 1600H – 1610H	Overview of topic by Secretariat
1010H – 1100H / 1610H – 1700H	Views and discussions by the Working Group
Section 3: Evidence, data	and information; Commerce, industry and innovation;
Organization and delivery of health and other essential services	
1100H – 1110H / 1700H – 1710H	Overview of topic by Secretariat
1110H – 1200H / 1710H – 1800H	Views and discussions by the Working Group

Session 3: 3 March 2021, 0900H-1100H; 4 March 2021, 1000H-1200H; 5 March 2021, 1500H-1700H

Time	Agenda Item
Discussion of Solutions in Smaller Groups	
0900H – 1100H /	Discussions on possible solutions to key challenges
1000H – 1200H /	
1500H – 1700H	

Session 4: 11 March 2021, 1300H – 1500H		
Time	Agenda Item	
Section 1: Recap and Dis	Section 1: Recap and Discussion of Solutions from Small Group Discussions	
0900H – 1100H /	Discussions on possible solutions to key challenges	
1000H – 1200H /		
1500H – 1700H		
1300H – 1310H	Recap of Proposed Solutions by Group 1:	
	Governance; Multisectoral Coordination; Financing	
1310H - 1320H	Comments / Reactions by Members	
1320H – 1330H	Recap of Proposed Solutions by Group 2:	
	• Density and Mobility; Community-led Approaches; Vulnerable	
	Populations	
1330H – 1340H	Comments / Reactions by Members	
1340H – 1350H	Recap of Proposed Solutions by Group 3:	
	• Data and Information; Commerce, Industry and Innovation;	
	Organization and Delivery of Services	

Session 4: 11 March 2021, 1300H – 1500H	
Time	Agenda Item
1350H - 1400H	Comments / Reactions by Members
Section 2: Discussion on Roles of Major Stakeholders in Advancing Urban Preparedness	
1400H - 1405H	Introduction by Secretariat
1405H - 1415H	Governance; Financing
1415H - 1430H	Multisectoral coordination; Engaging commerce, industry and
	innovation; Organization and delivery of services
1430H - 1440H	Density and mobility
1440H - 1450H	Community-led approaches; Vulnerable populations
1450H – 1500H	Use of urban data and information

Session 5: 23 March 2021, 0900H -1100H and 1600H - 1800H	
Time	Agenda Item
Section 1: Risk Assessme	ent, Monitoring, Evaluation
0900H – 0910H / 1600H – 1610H	Reflections on the International Health Regulations (IHR) Monitoring and Evaluation Framework
	 Dr Rajesh Sreedharan, Team Lead, Country Assessments and Planning, WHO HQ
	 Dr Liviu Vedrasco / Mr Fred Copper, Unit Head and Technical Officer, Country Simulation Exercises and Review, WHO HQ
0910H – 0920H /	Reflections on Risk Assessment Tools
1610H – 1620H	 Dr Qudsia Huda, Unit Head, Disaster Risk Management & Resilience, WHO HQ
	 Dr Stephane de la Rocque, Unit Head, Human-Animal Interface, WHO HQ
0920H – 0930H / 1620H – 1630H	Discussion
0930H – 0940H / 1640H – 1640H	Reflections on Tools on Public Health and Building Resilient Cities
	 Mr Sanjaya Bhatia, Head, Global Education and Training Institute, UN Office for Disaster Risk Reduction
0940H – 0950H / 1640H – 1650H	Reflections on Tools around Emergency Preparedness in Urban Environments
	• Dr Graham Alabaster, Chief, Geneva Office, UN Habitat
	 Mr Esteban Leon, Head, City Resilience Global Programme, UN Habitat
0950H – 1000H / 1650H – 1700H	Discussion

Session 5: 23 March 2021, 0900H -1100H and 1600H - 1800H	
Time	Agenda Item
Section 2: Capacity Build	ing
1000H – 1010H / 1700H – 1710H	Reflections on Tools for Capacity Building in Emergency Preparedness
	 Dr Nirmal Kandel, Unit Head, Evidence and Analytics for Health Security, WHO HQ
	 Mr Adam Tiliouine, Consultant, Urban Health Emergency Preparedness, WHO HQ
1010H – 1020H / 1710H – 1720H	Discussion
1020H - 1025H /	Reflections on Networks for Emergency Preparedness
1720H – 1725H	 Mr Ludy Suryantoro, Unit Head, Multisectoral Engagement for Health Security, WHO HQ
1025H – 1035H /	Discussion
1725H – 1735H	
Section 3: Overall Discussions	
1035H – 1100H /	Discussion
1735H – 1800H	

Session 6: 12 April 2021, 1300H – 1500H	
Time	Agenda Item
Discussion on the W	ay Forward
1300H – 1305H	Opening presentation by Secretariat on "What Next?"
1305H – 1325H	Discussion on continued engagement and support beyond the Working Group
1325H – 1330H	Break
Summary of Meetings Outcomes	
1330H – 1335H	Introductory remarks by Dr Stella Chungong, Director, Health Security Preparedness, WHO HQ
1335H - 1345H	Presentation on meeting outcomes by the Secretariat
1345H – 1420H	 Responses by Member States By Indonesia, Qatar, Germany, Senegal, United States of America, Nigeria, United Kingdom
1420H – 1440H	 Responses by Partners By United Cities and Local Governments, CITYNET Yokohama, Asian Infrastructure Investment Bank, UN Office for Disaster Risk Reduction, UN Habitat
1440H - 1450H	Additional Responses by Members of the Working GroupBy Mexico and the Private Sector Round Table

Session 6: 12 April 2021, 1300H – 1500H	
Time	Agenda Item
Closing Remarks	
1450H – 1500H	Closing Remarks
	 Dr Benjamin Koh, Deputy Secretary for Health, Republic of Singapore
	 Dr Jaouad Mahjour, Assistant Director General for Emergency Preparedness, WHO

All times are in Central European Time (CET)

Annex 2:

MEMBERS AND PARTICIPANTS

Member States

Mrs Sayla Farjana

Joint Secretary, Local Government Division Ministry of Local Government and Rural Development, Bangladesh

Mr Abu Saleh Mohammad Ferdous Khan

Joint Secretary, Public Security Division Ministry of Home Affairs, Bangladesh

Prof Dr Tahmina Shirin

Director, Institute of Epidemiology, Disease Control and Research Directorate General of Health Services Mohakhali, Dhaka, Bangladesh

Syed Ashraf ul Islam

Communication Media Specialist, Department of Disaster Management Ministry of Disaster Management and Relief, Bangladesh

Mrs Coralie Giese

International Affairs and Health Security Advisor to the Director General of Health, France

Prof Dr Heike Köckler

Professor of Place and Health; Department of Community Health; Hochschule für Gesundheit; Bochum, Germany

Mr Jeffrey Fleischle

Policy Advisor Federal Ministry of Health, Germany

Dr Delmy Walesska Zeceña Alarcon

Head of Department, Regulation on People Care Programs Ministry of Public Health and Social Assistance, Guatemala

Lic Claudia Flores

Director of International Cooperation Ministry of Foreign Affairs, Guatemala

Lic Monica Escobar

Director of Multilateral Policies /Ministry of Foreign Affairs Ministry of Foreign Affairs, Guatemala

Lic Dennis Josue Mayen Gonzalez

Epidemiology Department Ministry of Public Health and Social Assistance, Guatemala

Ing Laura Melisa Lopez Bolaños

Emergency Response and Attention Municipality of Guatemala

Mr Khotso Mahomo

International Health Regulations Manager Ministry of Health and Social Welfare, Lesotho

Dr Suharti

Deputy Governor for Population and Settlement Control Provincial Government of Jakarta, Indonesia

Ms Maulidiah Ihsan

Health Epidemiologist, Directorate for Surveillance and Health Quarantine Ministry of Health, Indonesia

Dr Danang Insitra Putra

Head of disaster information Ministry of Home Affairs, Indonesia

Dr Lorina Agustina

Functional Sanitarian, Directorate of Environmental Health Ministry of Health, Indonesia

Dr Carolina Rusdy Akib

Functional Sanitarian, Directorate of Environmental Health Ministry of Health, Indonesia

Dr Endang Budi Hastuti

Coordinator for Health Epidemiologist, Directorate for Surveillance and Health Quarantine Ministry of Health, Indonesia **Dr Angelo Tanese** General Director ASL Roma 1, Rome, Italy

Dr Mauro Goletti Health Director ASL Roma 1, Rome, Italy

Dr Paolo Parente Medical Doctor, Strategic Health Directorate ASL Roma 1, Rome, Italy

Dr Oliva Lopez Arellano Secretary of Health Mexico City, Mexico

Dr Andrea Gonzalez Rodriguez Director, Center for HIV Prevention and Care Ministry of Health, Mexico City, Mexico

Mr Marco Palet Deputy Director, Specialized Clinical Prevention Mexico City, Mexico

Mr Oscar Zepeda Ramos Director General of Civil Protection National Coordination of Civil Protection, Mexico

Mr Hector Alonso Barrea Burrola

Deputy Director of the Social and International Sector, General Directorate of Civil Protection National Coordination of Civil Protection, Mexico

Dr Mohammed Youbi

Director of Epidemiology and Diseases Control Ministry of Health, Morocco

Dr Mark Van Passel

Senior Policy Advisor Global Health Security Ministry of Health, Welfare and Sport, Netherlands

Mrs Elsie Ilori Head of Department, Disease Surveillance and Epidemiology Nigeria Centre for Disease Control, Nigeria

Dr Siri Helene Hauge Special Advisor, Department of Public Health Ministry of Health and Care Services, Norway

Dr Hinta Meijerink Senior Advisor Norwegian Institute of Public Health, Norway **Dr Luis Rodriguez Benavides** General Director CDC Peru

Mr Carlos Enrique Changanaqui Reategui Unit Chief, Integral Health Care Office of the Directorate of Police Health, Peru

Dr Willington Mendoza Valladolid Deputy Executive National Health Disaster Risk Management and Defense, Peru

Dr Roberto Bertollini Senior Advisor, Minister of Public Health Office Ministry of Public Health, Qatar

Dr Sadriya Mohammed Al-Kohji National Lead, Health Activity Policy Planning Department Ministry of Public Health, Qatar

Dr Papa Serigne Seck Technical Advisor in charge of Animal Health, Livestock and Fisheries Presidency of the Republic of Senegal

Mr Wanchai Chongsuttanamanee Mayor Chiang Rai Municipality, Thailand

Ms Waritha Sanguansermsri Director, Policy and Planning bureau, Office

of the Permanent Secretary for Interior Ministry of Interior, Thailand

Ms Palin Phupat

Chief, Epidemiology Section, Communication Disease Control Division Health Department Bangkok Metropolitan Administration, Thailand

Dr Kamolthip Atsawawaranunt

Medical Officer, Institute for Urban Disease Control and Prevention Ministry of Public Health, Thailand

Mr Suksont Jittimanee

Public Health Technical Officer, Senior Professional Level, Institute for Urban Disease Control and Prevention Ministry of Public Health, Thailand

Dr Alisia Yanasan

Medical Officer, Division of Public Health Emergency Management, Office of the Permanent Secretary Ministry of Public Health, Thailand

H.E. Dr Hussain Mohd. Al Rand

Undersecretary Assistant, Focal point to WHO Ministry of Health and Prevention, United Arab Emirates

Dr Nada Hassan Al-Marzouqi

Director of Preventive Medicine Ministry of Health and Prevention, United Arab Emirates

Dr Laila Hussen Aljasmi

Head of Vaccination Ministry of Health and Prevention, United Arab Emirates

Dr Fatma Mahmood Al Attar

Director of International Health Regulations Ministry of Health and Prevention, United Arab Emirates

Dr Shamsa Majid Lootah

Public Health Specialist, International Health Regulations Office Ministry of Health and Prevention, United Arab Emirates

Dr Haifa Madi

Advisor Ministry of Health and Prevention, United Arab Emirates

Dr Maisoon Al Shaali

Head of environmental health Ministry of Health and Prevention, United Arab Emirates

Mr Paul Sutton

Director, Emergency Preparedness, Resilience and Response Public Health England, United Kingdom

Prof Virginia Murray

Head, Global Disaster Risk Reduction Public Health England, United Kingdom

Dr Lawrence Kerr

Director, Pandemics and Emerging Threats United States Department of Health and Human Services, United States of America

Dr Jose Fernandez

Deputy Director, Pandemics and Emerging Threats United States Department of Health and Human Services, United States of America

Additional partners

Mr Bin Wang Senior Officer, Strategy, Policy and Budget Department Asian Infrastructure Investment Bank

Mr Ping Yean Cheah Senior Strategy Officer Asian Infrastructure Investment Bank

Mr Kendra Hirata Director of Programs CITYNET Yokohama

Ms Yukiko Kudo Director of Administration CITYNET Yokohama

Atty Violeta Seva City Net Resilience Advisor CITYNET Yokohama

Dr Jonathan Suk

Principal Expert Emergency Preparedness and Response, Public Health Functions Unit European Centre for Disease Prevention and Control

Dr Emma Wiltshire

Expert Emergency Preparedness and Response, Public Health Functions Unit European Centre for Disease Prevention and Control

Dr Ansa Jordaan

Chief, Aviation Medicine Section International Civil Aviation Organization

Ms Jacqueline Weekers

Director, Migration Health Division International Organization for Migration

Mr Patrick Duigan

Senior Regional Migration Health Advisor, the Regional Office of Asia and Pacific International Organization for Migration

Ms Eliana Barragan

Migration Health Policy Support Officer International Organization for Migration

Ms Katharine Barwise

Migration and Sustainable Development Project Manager for the Regional Office of Europe

International Organization for Migration

Ms Ashling Mulvaney

Co-Chair, Private Sector Roundtable on Global Health Security Vice President for Sustainability, Access to Healthcare & Healthy Heart Africa, AstraZeneca

Ms Emilia Saiz

Secretary General United Cities and Local Governments

Mr Pablo Fernandez Marmissolle Chief of Staff, UCLG World Secretariat Barcelona United Cities and Local Governments

Dr Graham Alabaster Chief, Geneva Office

UN-Habitat

Mr Estaban Leon Head, City Resilience Global Programme UN-Habitat

Dr Nasur Muwonge Senior Public Health Officer UN High Commissioner for Refugees

Mr Sanjaya Bhatia

Head, UNDRR Office for Northeast Asia and Global Education and Training Institute UN Office for Disaster Risk Reduction

WHO Regional Offices

Dr Ambrose Otau Talisuna Advisor (Health Security), Emergency Preparedness WHO Regional Office for Africa

Dr Mary Stephen

Technical Officer (Risk Assessment), Emergency Preparedness WHO Regional Office for Africa

Dr Alex Camacho

Advisor, Emergency Preparedness and Disaster Reduction, Country Health Emergency Preparedness & IHR WHO Regional Office for the Americas

Ms Nicole Wynter

Advisor, Program Management and Administration WHO Regional Office for the Americas **Dra Gerry Eijkemans**

Chief, Social Determinants WHO Regional Office for the Americas

Dr Dalia Samhouri

Programme Area Manager, Country Preparedness and IHR WHO Regional Office for the Eastern Mediterranean

Dr Osman Elmahal Mohammed

Technical Officer, Country Preparedness and IHR WHO Regional Office for the Eastern Mediterranean

Dr Ihor Perehinets

Technical Advisor, Health systems and public health WHO Regional Office for Europe

Ms Adrienne Rashford

Team Leader, Country Health Emergency Preparedness & IHR WHO Regional Office for Europe

Ms Tanja Schmidt

Technical Officer, Country Health Emergency Preparedness & IHR WHO Regional Office for Europe

Dr Masaya Kato

Programme Area Manager, Country Preparedness and IHR WHO Regional Office for South-East Asia

Dr Maung Maung Htike

Technical Officer (Capacity Development), Country Health Emergency Preparedness & IHR WHO Regional Office for South-East Asia

Dr Tamano Matsui

Programme Area Manager, Health Emergency Information & Risk Assessment WHO Regional Office for the Western Pacific

Mr Jan-Erik Larsen

Technical Officer (Logistics), Emergency Operations WHO Regional Office for the Western Pacific

Dr Anthony Eshofonie Epidemiologist, Country Preparedness and IHR

WHO Regional Office for the Western Pacific

WHO Headquarters

Dr Nathalie Roebbel

Technical Officer, Urban Health, Social Determinants of Health World Health Organization HQ

Ms Tamitza Toroyan

Science Advisor, Director's Office, Social Determinants of Health World Health Organization HQ

Ms Monika Kosinska

Technical Officer, Economic Determinants of Health, Social Determinants of Health World Health Organization HQ

Dr Andre Griekspoor

Senior Policy Advisor, FCV Humanitarian Intervention, Health Emergency Intervention World Health Organization HQ

Dr Teresa Zakaria

Health Emergency Officer, FCV Humanitarian Intervention, Health Emergency Intervention World Health Organization HQ

Dr Ninglan Wang

Technical Officer, Border Health Risk Dissemination, Country Readiness Strengthening World Health Organization HQ

Dr Denis Porignon

Health Systems Advisor, Systems Governance and Policy World Health Organization HQ

Dr Hernan Montenegro von Muhlenbrock

Coordinator, Special Programme on Primary Health Care World Health Organization HQ

Dr Sohel Saikat

Technical Specialist, Integrated Health Services World Health Organization HQ

Ms Zandile Zibwowa

Consultant, Integrated Health Services World Health Organization HQ

Mr Tim Nguyen

Unit Head, High Impact Events Preparedness, Global Infectious Hazard Preparedness World Health Organization HQ

Mr Ludy Suryantoro

Unit Head, Multisectoral Engagement for Health Security, Health Security Preparedness World Health Organization HQ

Dr Qudsia Huda

Unit Head, Disaster Risk Reduction, Health Security Preparedness; Health Security Preparedness, World Health Organization HQ

Dr Xing Jun

Unit Head, Country Capacity for IHR, Health Security Preparedness; World Health Organization HQ

Dr Rajesh Sreedharan

Team Lead, Country Assessments and Planning, Health Security Preparedness; World Health Organization HQ

Dr Liviu Vedrasco

Unit Head, Country Simulation Exercises and Reviews, Health Security Preparedness; World Health Organization HQ

Mr Fred Copper

Technical Officer, Country Simulation Exercises and Reviews, Health Security Preparedness; World Health Organization HQ

Dr Stephane de la Rocque

Team Lead, Human-Animal Interface, Health Security Preparedness; World Health Organization HQ

Dr Nirmal Kandel

Unit Head, Evidence and Analytics for Health Security, Health Security Preparedness; World Health Organization HQ

Secretariat

Dr Stella Chungong Director, Health Security Preparedness World Health Organization HQ

Associate Professor Dr Vernon Lee Director, Communicable Diseases Ministry of Health, Singapore

Dr Lyn James Director, International Cooperation, Ministry of Health, Singapore

Ms Ching Ying Kong Deputy Director, International Cooperation Ministry of Health, Singapore

Mr Teo Junxiong Senior Assistant Director, International Cooperation Ministry of Health, Singapore **Ms Jolene Poon** Manager, International Cooperation Ministry of Health, Singapore

Dr Marc Ho Technical Officer, Urban Preparedness World Health Organization HQ

Mr Adam Tiliouine Consultant, Urban Preparedness World Health Organization HQ

Mrs Leslie Chretin Assistant, Health Security Preparedness World Health Organization HQ

Ms Jeruto Bargoria Assistant, Health Security Preparedness World Health Organization HQ



