URBAN RESILIENCE AND THE IMPORTANCE OF PRIMARY HEALTHCARE PANDEMIC PREPAREDNESS

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INTRODUCTION

The COVID-19 pandemic has brought into sharp focus the importance of urban resilience and the need for robust pandemic preparedness in primary healthcare systems. The aim of this article is to explore the relationship between urban resilience and primary healthcare pandemic preparedness, highlighting the importance of investing in infrastructure, training, and resources, as well as strengthening community engagement and participation. Its objectives are to:

1. Define urban resilience and primary healthcare pandemic preparedness
2. Examine the weaknesses in urban resilience and primary healthcare systems exposed by the COVID-19 pandemic
3. Identify strategies for building urban resilience and improving pandemic preparedness in primary healthcare systems
4. Introduce the Erasmus+ VET empowerment4pandemias project as an innovative initiative towards building pandemic resilience in the primary healthcare sector.

By achieving these objectives, this practitioner-orientated paper seeks to contribute to the ongoing conversation about how to build more resilient cities and primary healthcare systems in the face of public health emergencies

URBAN RESILIENCE AND PRIMARY HEALTHCARE PANDEMIC PREPAREDNESS

Urban resilience refers to the capacity of cities to absorb, recover, and prepare for future shocks, whether economic, social, or environmental. This concept is crucial in the context of growing urbanisation and the increasing frequency of climate-related events and other crises. Urban resilience encompasses multiple dimensions, including infrastructure robustness, social cohesion, economic stability, and institutional strength. A resilient city can maintain essential functions and structures during and after a disaster, minimising the impact on its residents and economy (UNDRR, n.d.).

One of the primary strategies to enhance urban resilience is through sustainable urban planning, which involves the integration of green spaces, resilient infrastructure, and inclusive policies that address the needs of all citizens, particularly the most vulnerable. Innovations in technology, such as smart city initiatives, also play a pivotal role by enhancing real-time data collection and resource management, thus improving response strategies during crises (World Bank Group, 2024).

Primary healthcare pandemic preparedness is essential to mitigate the impacts of global health crises, such as COVID-19. Robust primary healthcare systems are the first line of defence in detecting, managing, and preventing the spread of infectious diseases. These systems must be equipped with adequate resources, trained personnel, and effective communication strategies to respond swiftly to emerging health threats.

Key components of pandemic preparedness in primary healthcare include surveillance systems for early detection of outbreaks, stockpiling essential supplies, and ensuring the availability of personal protective equipment (PPE). Additionally, it is vital to have protocols in place for the triage and treatment of patients, which helps prevent healthcare facilities from becoming overwhelmed (Williams et al, 2023).

Community engagement and public health education are crucial elements of a pandemic response. Educating the public about hygiene practices, vaccination, and the importance of seeking early medical care can significantly reduce the transmission of diseases. Moreover, integrating primary healthcare with broader public health strategies ensures a coordinated response that maximises resources and minimises duplication of efforts (McGowan et al, 2022).

WEAKNESSES IN URBAN RESILIENCE AND PRIMARY HEALTHCARE SYSTEMS EXPOSED BY THE COVID-19 PANDEMIC

As Cheshmehzangi (2020) writes, the COVID-19 pandemic has exposed significant weaknesses in urban resilience and primary healthcare systems worldwide. Many cities have struggled to maintain essential services, including healthcare, during lockdowns and other disruptions caused by the pandemic. Urban areas, often characterized by high population densities and complex socio-economic dynamics, have faced enormous challenges in ensuring the continuity of public services and infrastructure. The strain on public transport, waste management, and emergency services has highlighted the need for more robust urban planning and crisis management strategies.

Primary healthcare systems have been particularly overwhelmed by the surge in COVID-19 cases, leading to critical shortages of healthcare workers, personal protective equipment (PPE), and medical supplies. Hospitals and clinics, especially those in underserved urban areas, have struggled to cope with the influx of patients. This has resulted in delayed treatments for non-COVID-19 illnesses, exacerbating overall health outcomes. The pandemic has underscored the necessity for resilient healthcare infrastructures that can adapt quickly to surging demands and unforeseen crises.

One of the key lessons from the pandemic is the importance of integrating urban resilience into public health strategies. Cities must invest in sustainable infrastructure and foster community resilience to better withstand such shocks. Additionally, strengthening primary healthcare systems by ensuring adequate funding, resources, and training for healthcare organisations and workers is crucial. This involves building robust supply chains for essential medical supplies and enhancing surveillance systems for early detection and response to health threats. Equally important are the development of leadership capacity and of organisational structures that enable adaptability, creativity, learning and innovation in the face of crises.

STRATEGIES FOR BUILDING URBAN RESILIENCE AND IMPROVING PANDEMIC PREPAREDNESS IN PRIMARY HEALTHCARE SYSTEMS

Organisations like the World Health Organisation (WHO) and the European Centre for Disease Control (ECDC, 2024) have provided guidelines on strengthening primary healthcare during pandemics, emphasizing the need for preparedness, efficient resource allocation, and community engagement.

An example is the WHO (2023) Preparedness and Resilience for Emerging Threats (PRET) Initiative that provides guidance on integrated planning for responding to respiratory pathogens. In the United Kingdom, the Comprehensive Hospital Agile Preparedness, or CHAPS, Tool was developed to assist with the identification of bottlenecks likely to occur during a pandemic. The model integrates workforce, infrastructure, supplies, and equipment planning, as well as service reconfiguration, data and information technology, and communication. It is aimed at ensuring service maintenance, responsiveness, and wellbeing throughout a pandemic response (Adelaja et al, 2020).

Building urban resilience and improving pandemic preparedness in primary healthcare systems require a multifaceted approach. A crucial step is to invest in infrastructure, training, and resources. This includes investing in healthcare infrastructure, such as hospitals, clinics, and laboratories, that can be rapidly repurposed during emergencies. Ongoing training for healthcare workers in infection prevention and control, emergency response, and other critical skills is essential. Furthermore, primary healthcare systems must have access to sufficient resources, including personal protective equipment, medical supplies, and vaccines, which should be stockpiled in advance of pandemics and distributed equitably to ensure that all communities have access to them (Naguib et al, 2020).

Strengthening community engagement and participation can be achieved through clear and transparent communication with the public about the risks of pandemics and the steps being taken to prevent and respond to them. Engaging with community leaders, faith-based organisations, and other stakeholders helps to ensure that pandemic preparedness and response efforts are culturally sensitive and responsive to the needs of different communities. Empowering individuals to take action to protect themselves and their communities during pandemics is essential, which can be achieved by providing access to necessary information and resources and by encouraging behaviours that reduce the spread of infectious diseases (McGowan et al, 2022).

To accelerate preparedness, key actions include updating preparedness plans to identify priority actions, taking into account lessons learned from past events. Primary healthcare organisations must engage in sustained investments, financing, and monitoring of pandemic preparedness with a particular focus on addressing the gaps identified during past pandemics and epidemics. Finally, increasing connectivity among stakeholders in pandemic preparedness planning through systematic coordination and cooperation is vital. This can be achieved through building equitable systems, conducting joint exercises, and sharing information on good practices, challenges, and opportunities (Berbés-Blázquez et al, 2022).

A STEPPING STONE TOWARDS PANDEMIC RESILIENCE: INTRODUCING THE EMPOWERMENT4PANDEMIAS FRAMEWORK

As a member of the ISRM Global Urban Resilience Steering Group and a project consortium representative, I am glad to have the opportunity to introduce the Erasmus+ VET empowerment4pandemias project within this context.

The project has delivered a research informed training solution for primary healthcare providers and their operational staff to build their pandemic resilience. Coordinated by the University of Health Sciences, Medical Informatics and Technology (UMIT) in Austria, it is implemented together with the Digital Business University (Germany), Eurac Research (Italy), Hafelekar Consulting (Austria), Immersive Lab (Portugal), and the University of Gloucestershire (UK).

The project is a multifaceted initiative designed to strengthen the resilience of primary healthcare providers and professionals in the face of pandemics. Building on the lessons learned from the COVID-19 pandemic, it aims to provide healthcare workers and organisations with the necessary skills, competencies, and strategies to navigate health crises effectively.

The objectives are twofold: first, to define the competencies required for pandemic resilience, and second, to operationalise them into innovative learning experiences that combine different learning environments. The empowerment4pandemias training solution is built on comprehensive literature reviews, a review of existing resilience standards and frameworks and in-depth interviews with healthcare professionals across five European countries. It is based on a blended learning approach that includes e-learning, in-person sessions, crisis scenario simulations, reflective and case-based learning.

The empowerment4pandemias toolbox consists of six foundational elements, including a competence model that articulates key capabilities that underpin pandemic resilience at both individual and organisational level, corresponding self-assessment tools, a blended learning programme, a training case study, and a knowledge transfer handbook. These tools are designed to increase awareness; equip professionals with effective planning, coping and recovery strategies; and foster a culture of preparedness, resilience and continuous learning within the healthcare sector.

The strength of the training solution lies in its European perspective. It incorporates experiences from healthcare workers across Austria, Germany, Italy, Portugal and the UK, and has been developed based on real-life experiences and learnings from healthcare workers and decision- makers.

By empowering healthcare professionals and organisations to respond effectively to pandemics, the empowerment4pandemias project contributes to building urban resilience through strengthening the capacity of healthcare systems to absorb, recover, and adapt to health crises. This, in turn, enhances the overall resilience of cities and communities, enabling them to better withstand and respond to pandemics and other health emergencies. By promoting a culture of resilience and preparedness, the project plays a critical role in building stronger, more resilient cities that are better equipped to protect the health and well-being of their citizens.

CONCLUSION

To summarise, the COVID-19 pandemic has exposed the weaknesses in urban resilience and primary healthcare systems worldwide. Building urban resilience and pandemic preparedness in primary healthcare systems requires a multifaceted and integrated approach. To build more resilient cities and healthcare systems, it is essential to invest in sustainable infrastructure, training, and resources. Strengthening community engagement and participation through clear communication, education, and empowerment of individuals to take action to protect themselves and their communities is vital, as is strengthening the pandemic resilience of primary healthcare organisations and of those working on the front line.

The empowerment4pandemias project is a crucial step towards building pandemic resilience in primary healthcare systems by equipping healthcare professionals and organisations with the necessary skills, competencies, and strategies to navigate health crises effectively. By fostering a long-term culture of resilience and preparedness within the healthcare sector, the project contributes to building stronger, more resilient cities that are better equipped to protect the health and well-being of their citizens.

Disclaimer: The empowerment4pandemias project has been funded by the European Union. The views and opinions presented in this article are however those of the author only and do not necessarily reflect those of the European Union or OeAD-GmbH. Neither the European Union nor the granting authority can be held responsible for them. To find out more, please visit www.empowerment4pandemias.eu.

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ABOUT THE ISRM GLOBAL URBAN RESILIENCE PROJECT

The ISRM Global Urban Resilience Project was developed out of a series of papers written together with the International Federation of the Red Cross / Red Crescent Societies, and more recently in partnership with the National Preparedness Commission.

It is designed to bring together academics, policy makers and practitioners from across the global urban resilience and major city management spectrum to facilitate action-oriented dialogue and interaction from multiple perspectives.

The launch of the ISRM Management Award in Global Urban Resilience and Major City Management in May 2024 set the foundation for the latest series of programmes, based on the 130 participants from over thirty countries who participated in the programme.

For more details on the Global Urban Resilience and Major City Management project, or to discuss how you can be involved, please contact

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