



ALLIANCE FOR SAFE, SUSTAINABLE
AND RESILIENT ENVIRONMENTS

Towards Green and Healthy Communities

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01

Context

Context

- The COVID-19 pandemic has triggered the worst health crisis in a century and heightened people's most pressing challenges
- It has spread to interconnected metropolises in many regions through the interrelationship between urban and rural areas
- As the entry points for the virus, cities constitute a critical line of defence and offer unique opportunities to respond, recover and build long-term resilience.



Context

This presentation focuses on the spatial implications of the pandemic, and recommends the necessary shifts in urban forms that can mitigate the spread of future contagions, reducing their adverse economic, social, and environmental impacts while making our cities greener and healthier.





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02

City Planning and the Pandemic

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Historically, the physical form of cities - street layout and design, sanitation systems, parks and open space - has repeatedly been transformed in the wake of health crises, drastically altering the way people inhabit and interact within them.



Although technological innovations and human ingenuity continue to modify the way cities look and function, there are serious challenges of our time that we need to overcome, including inadequate basic services, inequity, and climate change.

City Planning and the Pandemic



While the pandemic has transformed almost every aspects of city life, well-planned and contextually supported urban structure remains a precondition for cost-effective, environmentally sound service provision.



Urban planning principles that espouse sustainability and equitability are still relevant and critical for coping with the current pandemic and preparing for future health crises.



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03

Reconfiguring Regions

Reconfiguring Regions

- The pandemic has further exposed that climate change, habitat destruction, and our own travel and consumer behavior impact on both public health as well as environmental health
- Animal species and zoonotic diseases that might have been contained in a specific locality in the past have proven to leave no one untouched in today's globalized world.
- Many regions have been brought to a standstill with border closures and city lockdowns, exposing our extensive dependence on global supply-chains, from sourcing and manufacturing to production and consumption.



Reconfiguring Regions

- These linkages and movement patterns are critical to keep urban systems running as well as to support cities as centers of sustainable growth and new opportunities.
- Three of the most important considerations in city-regions that are both affected by and impacting on urban form are:
 1. Environmental systems
 2. Connectivity
 3. Agriculture and food systems



01 Environmental Systems: Challenges



- The spread of viruses and infections in the last few decades have been enhanced and accelerated by rapid and often chaotic urbanization, biodiversity loss, and increased human-wildlife contact.
- Long before the pandemic, studies already confirmed how land use change, extraction activities, and migration altered and fragmented natural habitats, broadening the interface between human and wildlife, and increasing the chances of novel infectious diseases.
- At the same time, global warming, pollution, intensive farming, and overexploitation of natural environments have impacted on public health.

01 Environmental Systems: Air Quality



Respiratory diseases caused by air pollution is a major risk factor and can worsen the course of COVID-19. Therefore, limiting air pollution should be part of the response that builds resilience to the pandemic, for example, through:

1. Transport emissions, waste burning and air-polluting farming practices and factories
2. Promoting a more compact urban form and improved mobility to decrease reliance on motorized transport
3. Actively incorporating nature-based solutions that integrate blue, green and gray infrastructure into regional open space and basic servicenetworks



01 Environmental Systems: Habitats & Water



Physical changes to the environment have profound impacts on how zoonotic diseases originate and proliferate. Infrastructure needs to be planned with minimal disturbance to natural habitats and ecosystems. To reduce contagion in the future, the following can be done:

- Ensure protection of natural conservation zones (Protected Areas)
- Promote compact urban development
- Condense the areas for cultivation and extraction
- Emphasize the preservation and restoration of blue-green networks in regional land use and environmental planning



02 Connectivity, Network of Cities/Towns



Cities are parts of larger networks that depend on resources of other cities, towns or rural areas that are transported through air, water, rail, and road transport infrastructure, power lines, and water and oil pipelines.



Because a city's economy is largely dependent on transactions involving imports and exports of goods and services, cities become critical nodes that contribute to the threat of cross-border infections.

02 Connectivity, Network of Cities/Towns



While cities serve as hubs for healthcare and emergency support, rural areas supply nearby cities with agricultural produce and natural resources, making them critical for food and water security.



Given the highly interdependent nature of the urban-rural interface, it is essential that the impacts, vulnerability and opportunities in urban and rural areas be considered together, especially during the emergency and recovery phase of the pandemic.

03 Agriculture and Food Systems



Lockdowns and closure of borders in cities have far-reaching impacts that affected entire regions, impairing mobility and the delivery of vital services and amenities, especially food.



To ensure that such systems are resilient and able to provide food and goods during crises, it is crucial to integrate logistics into urban land use and transport plans at both the city and regional scales.

03 Agriculture and Food Systems



Considering the mode of transport for delivering goods within cities, as well as the location of storage facilities, cities can help ensure efficiency within the design of urban logistics and freight system (for example, cargo bicycles for last-mile deliveries).



Cities and regions can become more resilient to shocks and stresses by investing in infrastructure and settlement types that support localization, economic diversification and enhance self-sufficiency.



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04

The Role of Cities

The Role of Cities



Throughout the pandemic, cities have played a leading role in the distribution and provision of medical and other essential services.

But the pandemic has also clearly made more visible the profound inequities in health, housing and income that divided many cities long before the pandemic. It has highlighted the urgent need for inclusive access to services and amenities for all.

The performance of individual cities in dealing with the pandemic has been varied given the many variables at play. However, access to urban services are intertwined with urban form and function, including issues of density, mobility, and connectivity.

01 Population Size



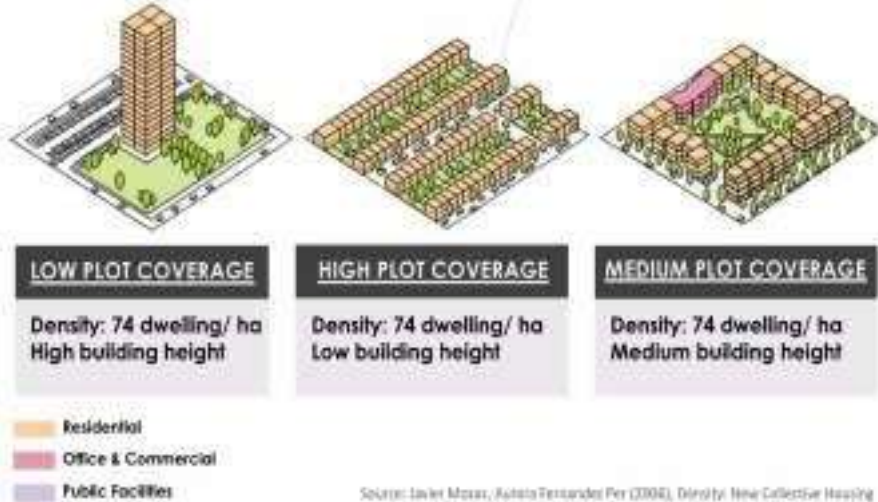
As the cases of COVID-19 rose globally, government officials targeted cities as hotspots for the spread of the virus. This is linked to city size, population, and connectivity because larger cities experienced higher initial growth rate of COVID-19.

The most vulnerable to the spreading of pandemic outbreaks are the large metropolitan areas with their higher number of component LGUs tightly linked together through economic, social and commuting relations.

The Role of Cities

02 Density

Density Configurations on One Hectare



Source: Javier Moser, Estela Ferrández Per (2004), Density: How Collective Housing

Although density per se is not a protective factor against the pandemic, the access to services and support structures that density provides has been essential in the response to COVID-19.

Well-managed density is very different to overcrowding which is a condition primarily connected to social exclusion that has indeed been correlated with increased rates of infection and mortality.



03 The Role of Cities Weak Spots

Urban ‘weak spots’ are parts of cities that have a harder time responding to shocks and stresses due to their physical form and availability of services. Their characteristics are:

Overcrowding - High population density is not matched by service delivery or adequate living or circulation space.

Poor connectivity - Homes and communities are cut off from neighboring parts of the city and their accompanying benefits by a lack of public transport or physical barriers.

Vulnerable locations - High-risk areas such as floodplains, riverbanks or garbage dumps pose a range of health and environmental hazards for residents living in them.

04 Urban Mobility



As the pandemic drastically reduced travel demand at the global, national, and city level in direct response to lockdowns and remote work arrangements, cities had an unprecedented increase in non-motorized travel such as walking and cycling, while public transport usage plummeted.

An integrated mobility network that provides safe and affordable public transport can generate a wide range of benefits, such as improved urban air quality, a reduction in the number of road accidents, and more equitable access to essential services and other opportunities.



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05

Rediscovering the Neighborhood

The Neighborhood

Social distancing rules, movement restrictions, lockdowns and the associated working from home during the pandemic have allowed the neighborhood to take on renewed importance in urban life.



In response to the pandemic, public spaces were repurposed for various uses which has led to a fresh appreciation of well-designed and compact local areas that contribute to the wellbeing of their residents.



It's necessary to retool the traditional top-down approaches that some cities historically have employed in their planning by investing in the knowledge and skills involved in neighborhood planning, as well as participatory platforms involving local stakeholders.

01 The Neighborhood Public Spaces

The pandemic has confirmed the integral role of public spaces in the emergency adaptation of urban functions and spatial structures to disasters (e.g., temporary hospitals, isolation sites, community health centers).

The importance of public spaces was also highlighted for community and social resilience, such as parks and playfields that allowed physical activity, fresh air and socializing at a distance.

Neighborhood design, including the strategic inclusion of public space, bicycle lanes, pedestrian-friendly streets, and continuous blue-green networks are central to providing a healthy environment.

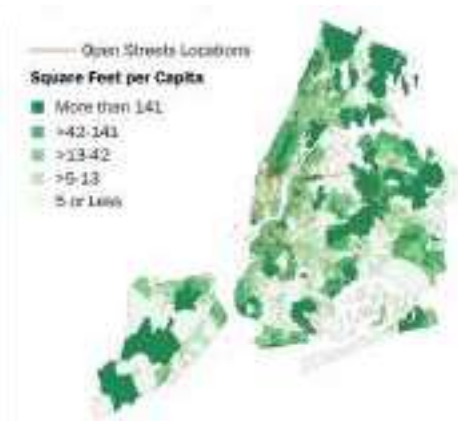


The Neighborhood 01 Public Spaces



The role of accessible public space is even more evident in marginalized areas characterized by informality, overcrowding and inadequate basic services. In places where urban livelihoods depend on the informal economy, public spaces often serve as market areas.

Instead of treating these public spaces and the activities that take place in them as a public health risk, LGUs can use these gathering points to raise health awareness, set up handwashing stations, and distribute emergency medical supplies.



02 Compact, mixed-use development



The idea of the “15-minute neighborhood” - characterized by compactness and the ability to meet daily needs such as shopping, healthcare, socializing and education within walking distance from home - is gaining support.



Initial evidence suggests that compact, mixed-use neighborhoods are beneficial for both city-wide resilience by containing the spread of the pandemic, as well as for personal safety by allowing urban residents to meet their needs locally and thereby reducing their interactions and exposure to the virus.

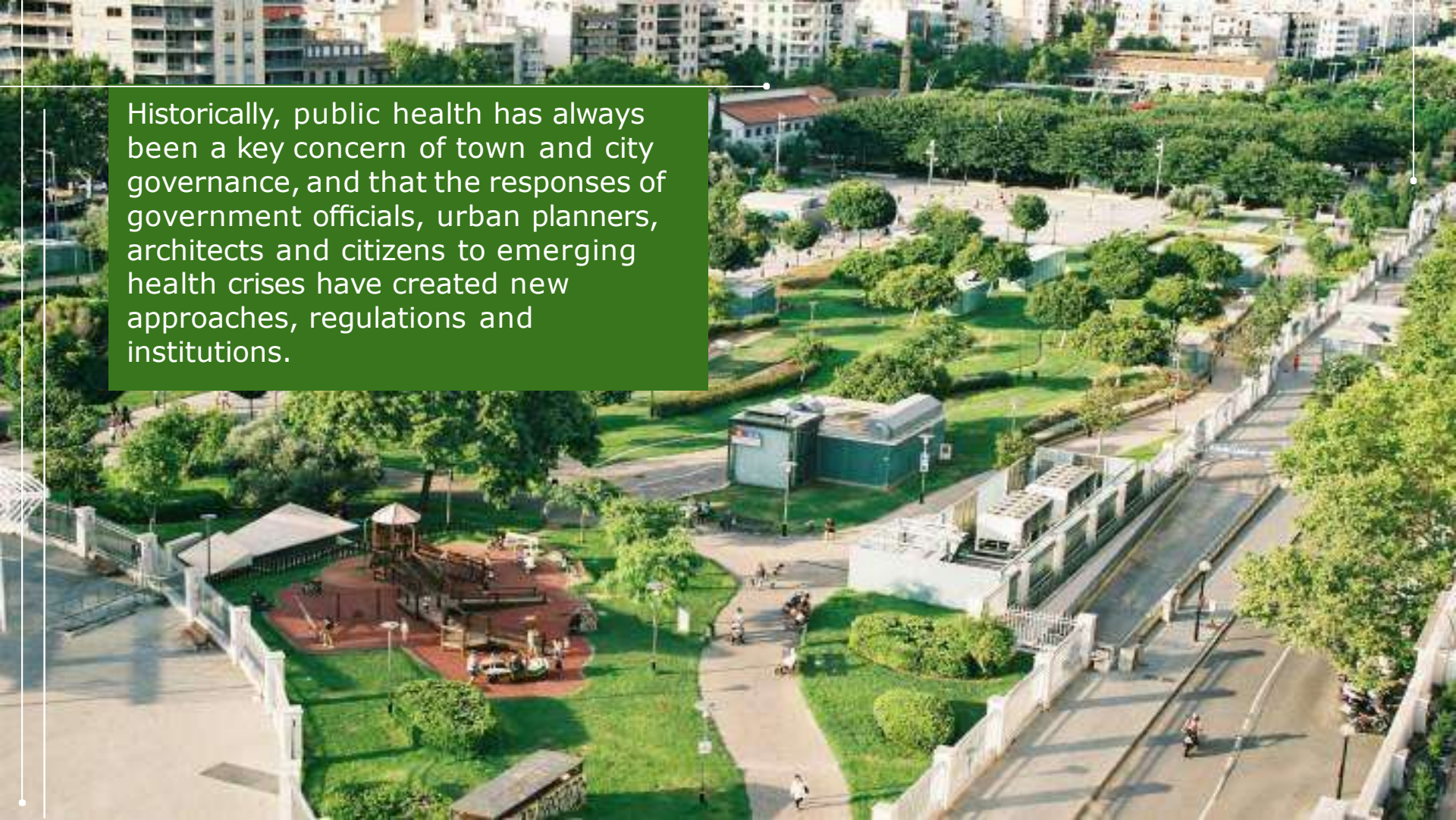



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06

Conclusion

Historically, public health has always been a key concern of town and city governance, and that the responses of government officials, urban planners, architects and citizens to emerging health crises have created new approaches, regulations and institutions.



A scenic view of a modern high-rise apartment building behind a lush green park with a pond and trees. The building is a multi-story structure with a curved facade and many windows. The park in the foreground is filled with green grass, trees, and a small pond that reflects the building and the sky. The sky is clear and blue.

Evidence from the pandemic suggests that cities with a more equitable and accessible distribution of basic services were able to better limit the number of vulnerable and high-risk communities at the outset.

All these emphasize that well-planned and spatially equitable cities are more resilient to health crises and other shocks and stresses.



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Thank you for your attention.

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