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The metropolitan scale of resilience
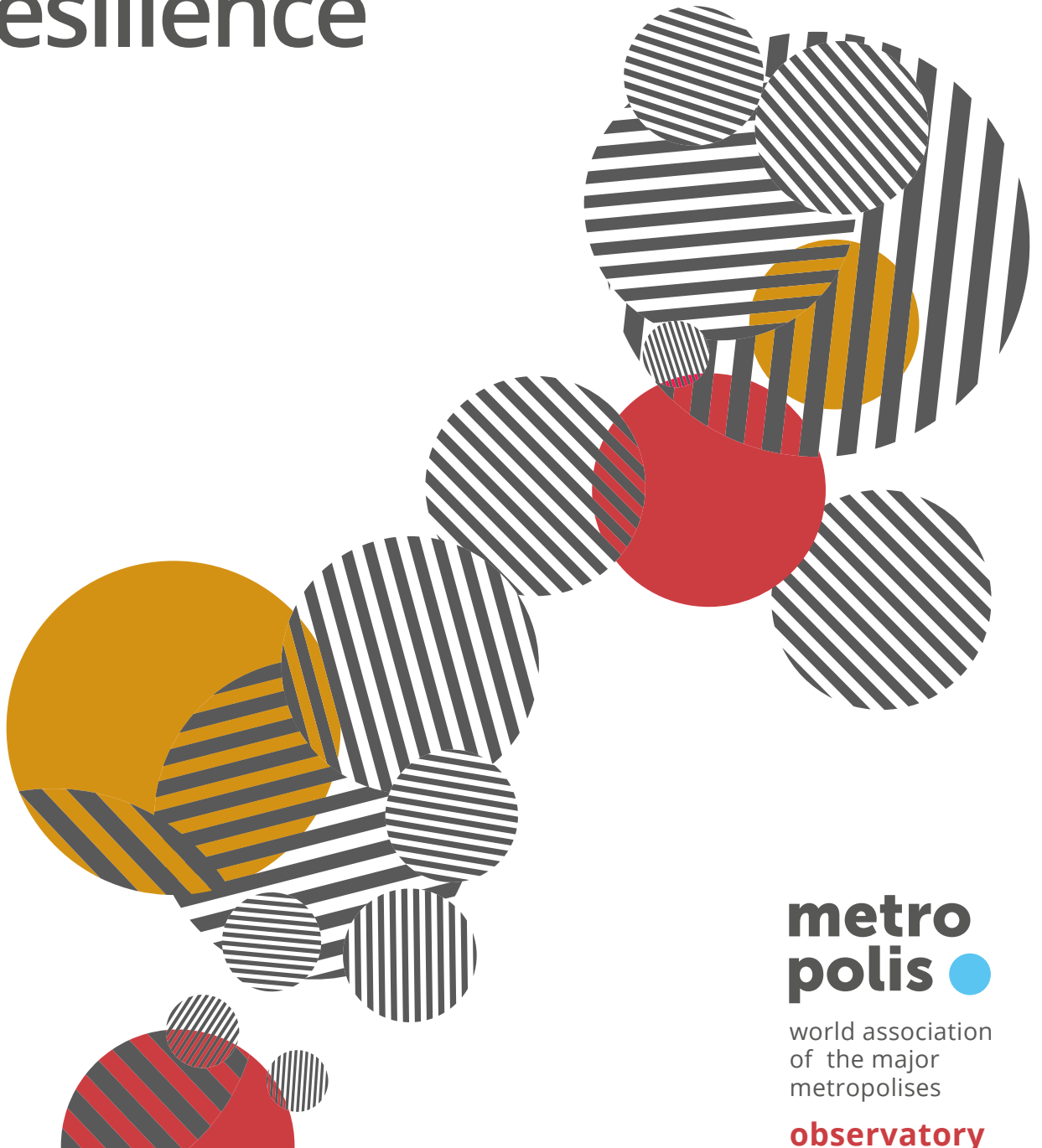
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Contents

Introduction

Cities stand at the intersection of the major challenges of the 21st century. Globalization, climate change, mass migration and rapid urbanization have converged to pose disproportionate pressures on urban centers. Over 55% of the world's population now lives in cities, a number due to rise to 70% by 2050. As today's cities adapt to these challenges, it is estimated that more than 60% of metropolitan regions that will exist in 2050 have yet to even form.

These global pressures affect individuals and systems on the local level, in the cities where they live. While presidents and prime ministers must slowly navigate national and international politics to reach a consensus on solutions, mayors and city leaders are already innovating and deploying new ideas, and making the investments that will provide tangible benefits for their citizens. With cities leading the conversation and driving the most impactful solutions, they must recognize the urgency of planning meaningfully now.

Often, a city's most intransigent shocks and stresses – including flooding, poor mobility, unaffordable and inadequate housing, and the consequences of climate change - transcend municipal boundaries and must be examined, explored and managed at the metropolitan level and through regional collaborations.

This is especially true with increasing metropolization, as growing cities evolve into major metropolitan regions. As cities continue their rapid urbanization, they are expanding, and growing even more interdependent with their surrounding municipalities, regions, and rural peripheries, further entrenching symbiotic relationships with them. Traditional boundaries are becoming less fixed and meaningful, and challenges more acute.

Addressing social division, economic inequity, and inadequate transportation, infrastructure, and service delivery systems is becoming even more urgent to ensure resilience amid the growing uncertainties of the 21st century.

Resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city and region to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience. Resilience requires cities and regions to take transformative actions that make them better, in both the short- and long-term, and allow them to not only endure, but thrive, in both good times and bad. These transformative actions can only arise when cities reframe their challenges and opportunities to reflect the dynamics of their entire urban ecosystems.

As cities design and implement resilience strategies, they increasingly understand this and the need to redefine previously established social, political, functional and geographical borders, as well as engage with partners and stakeholders that best align with the scope of the challenge.

Through case studies from the members that we share with the 100 Resilient Cities network, this paper seeks to analyze the challenges and opportunities of metropolitan-scale planning, and its role in catalyzing resilience objectives. These examples show how the governance structures and collaborations that arose across metropolitan areas tackle the shocks and stresses experienced by cities. We hope, therefore, to contribute to the understanding that all cities, big or small, have to look beyond their administrative borders when addressing their resilience challenges.

Octavi de la Varga
Metropolis Secretary General

Metropolitan lenses for resilience goals

Operating with metropolitan lenses favors the achievement of resilience goals and fosters sustainability, social cohesion and quality of life in the major metropolises

As cities define metropolitan-scale objectives to achieve their resilience goals, it is crucial they consider their specific conditions, and build on existing strengths and assets. Many different metropolitan governance models exist. While cities can and should take inspiration from one another, they must tailor lessons and best practices to their own concrete needs and capacities. Each city's particular context gives rise to conditions that shape what kind of metropolitan structure and stakeholder coordination can and should be sought.

As observed in the recent ARUP report on "Case Studies in Metropolitan Governance," what most new and more effective models do share is a more collaborative approach, concentrated in networks and entities, in contrast to an institutionalized hierarchy. Furthermore, according to the OECD, over the past thirty years there has been a shift from a hierarchy model to a more collaborative one. This allows for greater creativity and innovation, and the formation of strategies that may be more organically derived, with a greater chance for success.

Across the 100 Resilient Cities network, a core group of members is approaching resilience-building efforts through metropolitan institutions, and new collaborations with a variety of partners and stakeholders. From sectoral public authorities, to informal metropolitan cabinets, to voluntary associations, to newly-formed metropolitan planning bodies, to more integrated and fully-developed ones, their experiences prove a constructive guide to cities currently designing their resilience strategies, as well as those already beginning implementation.

Some challenges most clearly require action at the metropolitan scale: the impacts of climate change, inadequate transportation, and lack of affordable housing, not only transcend traditional municipal boundaries, but efforts to address them reverberate across municipal territories and affect shocks and stresses among neighboring municipalities. In other instances, shocks and stresses may not seem to trigger metropolitan scale solutions, but should. This is the case of public health management, and security and social cohesion concerns, which rely both on interventions that address underlying stresses and the operation of interrelated systems.

Building resilience requires an assessment of a city's systems and how shocks and stresses operate on and within them. To best address them, cities are creating new partnerships and collaborations. This includes a renewed appraisal of at what scale they should be addressed and with which partners. Some sectors and challenges more naturally require a metropolitan scale. Others may not seem to, but do as well. Below we describe some examples of how operating with metropolitan lenses can favor achieving resilience goals, while fostering sustainability, social cohesion and quality of life in the major urban agglomerations of the world.

Climate change adaptation

> **> Pollution exposes 70% of Parisians to poor air quality, causes 6,500 premature deaths in the great Paris metropolitan area, and costs up to 1.7 billion € each year to the capital city.**
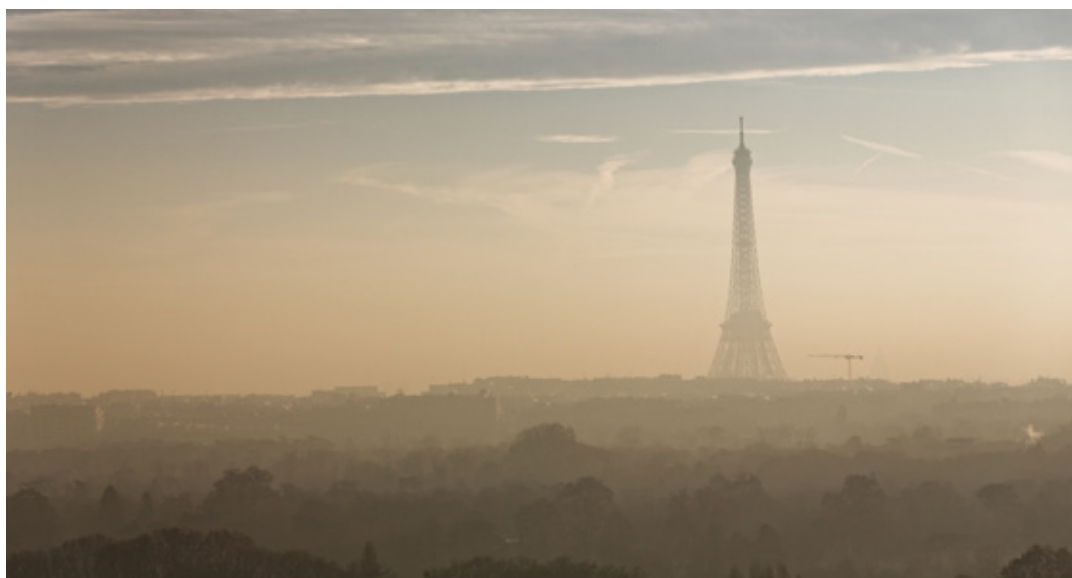
Ecosystems cross jurisdictional boundaries, and the individual actions of cities to combat the effects of climate change may also adversely affect the environment of their neighbors

Natural ecosystems rarely adhere to jurisdictional borders, and unless action is coordinated through a metropolitan vision, they can rarely be planned for. While this may seem clear now, for many years, climate change adaptation was seen as ideally addressed at the local level - a consensus on the need for a wider, metropolitan, scale is relatively new. In recent years this was most clearly seen in the New York metropolitan area after Hurricane Sandy, when three different states, dozens of cities, and several interrelated systems (electrical, transportation, waste management, housing and many others) were not prepared with a coordinated response and had not been developing their resilience objectives in collaboration to address joint regional concerns.

As Lina Shi writes in her dissertation, "A New Climate for Regionalism: Metropolitan Experiments in Climate Change Adaptation," "the local scale is increasingly seen as insufficient (to address climate change adaptation) because it lacks economics of scale, authority over regional infrastructure and ecological systems, and control over the design of fiscal and regulatory systems." With the increasing occurrence and severity of 100-year storms, as well as chronic stresses,

such as the urban heat island effect, and poor air quality, designing environmental interventions on the appropriate scale and with the appropriate actors becomes even more urgent for resilience building. And like other resilience-building interventions, which cut across sectors and systems, Shi writes that, "in order to make efficient investments that mitigate risk effectively and increase the resilience of a region, capital planning decisions must address shared local and regional goals, take into account interdependencies between human and natural systems, and result from a collaborative process."

Ecosystems most often cross jurisdictional boundaries, and the individual actions of cities, whether to combat the effects of climate change, or to manage other challenges, can also adversely affect the natural environment of their neighbors. Unless actions are complementary and coordinated, individual actions by parts of a regional whole may, at best, inefficiently catalyze change, and at worst, undermine it.

Many of the resilience challenges that **Paris** faces, for instance, require solutions that extend beyond its immediate administrative

> The Dakar municipality expressed great interest for the improvement of quality of life through the launching of programs such as the Environmental Action Plan (PACTE). It is a decision-making tool of good governance for integrating the environmental dimension in the design and implementation of projects and interventions in favor of sustainable development. The PACTE is part of the Dakar Agenda 21 and serves as a document of harmonization of the efforts of the city in favor of the environment.

borders. The city is one of smallest capitals in the world and the densest capital in Europe; it is the economic, political, and cultural center of the metropolitan area but does not have the jurisdiction to coordinate strategies that encompass this symbiotic relationship between the city and its surroundings.

Without coordination with adjoining municipalities, the city cannot effectively address shocks and stresses such as severe flooding, poor air quality, inadequate and unaffordable housing, social and economic inequity and other entrenched problems that defy administrative boundaries and require cross-jurisdictional solutions to achieve the systemic change resilience-building requires. In the case of poor air quality, much of it is caused by commuters driving in from the surrounding suburbs, thus, a plan addressing pollution then must consist of cross-jurisdiction metropolitan integration.

To begin to address the limits of these politically and historically-imposed boundaries, a new local authority – Métropole du Grand Paris was created in January 2016, consisting of Paris and 130 other municipalities. The new body makes resilience central to its development and to forming a link between its 12 territories (*Établissements Public*

Territoriaux, EPT). This past October, Paris released its resilience strategy, which elevates the new body and commits to metropolitan resilience objectives.

Importantly, upon the release, the City of Paris also signed a memorandum of understanding with the Métropole du Grand Paris and the Association of Rural Mayors, acknowledging that building resilience must be done at the territorial level. The three signatory parties state that they will work together, with the help of 100RC, to identify and define areas of collaboration along several thematic areas: sustainable food, food security, and resilient food systems; improving energy governance; mobility and co-working solutions; watershed management; and integrated economic planning (especially around local production and agribusiness). Their ultimate goals is to sign a formal cooperation agreement in Fall of 2018.

In addition, a few months after its creation in 2016, Métropole du Grand Paris was selected to participate in an European Union program regarding air quality, called "Life Project 2016: Greater Paris for Air". Led by the Métropole du Grand Paris, the project to mitigate air pollution aims to mobilize 131 mayors and is "an integrated project based on governance to enhance air quality, which is an opportunity to redefine governance and coordination of local authorities' actions to efficiently improve air quality, in synergy with other environmental policies, including those related to greenhouse gas reduction, noise pollution, and biodiversity preservation." The project presents an opportunity for the metro region to collaborate and overcome previous challenges that undermined efforts to address traffic congestion. Aiming at talking air pollution through governance is particularly relevant in the metropolitan context, because 131 different mayors and administrations, tens of thousands of private enterprises and seven million inhabitants have first to agree on a shared diagnosis, and then to build solutions together.

Sustainable mobility

Adequate urban mobility and transportation interventions have the potential to address several issues at once, including social cohesion, economic development, housing and public health

Mobility is an essential factor of quality of life, and urban mobility systems encompass several integrated metropolitan systems that trigger action on a metropolitan scale. If some municipalities within a region do not or cannot collaborate on an urban mobility system that cuts across metropolitan area borders, they can potentially undermine any effort to create meaningful urban resilience.

Adequate urban mobility and transportation interventions are key to resilience-building. They have the potential to address several issues at once, including social cohesion, housing, economic development and public health. Likewise, poor mobility options exacerbate a city's stresses, including entrenched poverty, geographic isolation, and often, racial inequity. For cities with transportation systems already planned at the metropolitan or regional scale they also offer opportunities for addressing other systems that must also be planned for on that scale. Transportation plans can integrate land use strategies and housing plans, and achieve economic and social cohesion objectives. Interventions that produce multiple benefits are fundamental to building resilience.

For these reasons, mobility systems have often served as "triggers" for metropolitan scale planning. Triggers are common entry points for new planning or governance reform. More than half of all metropolitan areas have dedicated transport authorities and are common even in cities and countries that have otherwise no tradition of sectoral authorities that cover the territory of several municipalities. Data provided by the OECD clearly confirms the importance of transportation as one of three policy fields for metropolitan governance (the other two being regional development and spatial planning). Several of our members have realized the need to plan for their urban mobility systems on an intermunicipal scale and the potential for resilience-building by doing so.

As in the case of **Santiago de Chile**, for instance, a highly fragmented metropolitan region has posed impossible obstacles to creating effective transportation systems, which in turn affect housing, economic development, and public health.The Metropolitan Region of Santiago has made metropolitan governance and a

> Santiago de Chile is implementing a system of public bicycles integrated within the transport system, which counts on a network of 400 km of pedestrian paths and bicycle lanes, as well as on public parking lots of long and short stay.

Source: 100 Resilient Cities

Source: 100 Resilient Cities

> Monorail feeders and light rail systems are to form an integral part of Bangkok's mass transit system. Both systems are expected to provide more residents with multiple mobility options, as well as greater connectivity and access to multiple linkage points, complementing the main mass transit systems. The construction of light rail monorail feeders will start upon the completion of a comprehensive program and budget for the system's operation.

metropolitan vision central to its resilience strategy, released in March of 2017. With 52 different municipalities, and a highly centralized national government, the metro area has suffered from acute fragmentation stemming from lack of planning best tailored for each region. The strategy highlights the importance of work that can bridge the urban and rural divide and fill the gap of urban policy as well as rural policy that was missing before at the national level.

One of the central pillars of the resilience strategy and its metropolitan vision is urban mobility and a connected Santiago. Without coordination between the different municipalities, and without providing better access to the urban core to those in the rural periphery, and within the urban sprawl, deep economic and social inequities will continue to undermine the region's resilience-building efforts.

To address this, the strategy provides for a comprehensive inter-municipal transport system between the 38 urban municipalities, Santiago's strategy provides for an integration plan for urban-rural mobility. Santiago's urban sprawl has grown without

a territorial planning process to accompany it. This has resulted in inadequate coverage and accessibility and lack of tariff integration which has led to high travel costs and poor user experience. With newly acquired political power devolved from the national government, Santiago plans to create territorially integrated plans to overcome these major stresses.

However, in lieu of this, Santiago has already begun metro-wide work on urban mobility. A current master plan for intermunicipal cycling paths that includes all 52 municipalities, began with local grassroots efforts on a single municipal scale. It then developed into a pilot project with seven municipalities, which involved more stakeholders, which in turn attracted even more partners and financing. Eventually the governor became involved and brought it to a regional scale and an engagement with Itaú Bank.

While Santiago awaits legislative reform required to achieve its metropolitan vision, the success of these programs illustrate the potential in building on conditions and strengths that may already be present.

Affordable & adequate housing

> One of the major accomplishments of the Montréal Metropolitan Community has been its comprehensive housing plan, which integrates 82 municipalities, 42 housing offices as well as provincial and regional representatives of partner organizations for affordable housing.

More than many other challenges to resilience-building, adequate and affordable housing is inextricably linked with the conditions of a city's surrounding suburbs and municipalities. Especially in metropolitan regions where commuting rates into one economic center are high, the effect on housing is direct and often presents one of the greatest pressures on other municipal and regional systems, including transportation, public health, and public service delivery. Unplanned urban sprawl, the proliferation of informal settlements, and significant increases in commuting times for those often least able to afford them, are only some of the stresses that can undermine a city's social cohesion, economic equity, economic development and most of the other systems of the city.

An example towards achieving this resilience goal is given by the Metropolitan Community of **Montréal** / *Communauté métropolitaine de Montréal* (CMM), comprised of Montréal and 15 independent municipalities, and off-island suburbs like Longueuil, Brossard, Saint-Lambert Boucherville and other smaller ones, including more semi-rural towns. CMM is in charge of planning, coordinating, and financing economic development, public transportation, and sanitation across the metropolitan region. The CMM represents 52% of the population of Québec and consists of a council with 28 members. It is presided over by a president, an executive committee, a commission on economic development and finance, a transport commission, management commission, committee on social housing, an environmental commission and an agricultural advisory committee.

One of the CMM's major accomplishments has been its comprehensive housing plan, entitled "The Metropolitan Action Plan for Social and Affordable Housing 2015-2020". The plan integrates 82 municipalities, 42 housing offices as well as provincial and regional representatives of partner organizations for affordable housing. It complements the Metropolitan Planning and Development Plan (*Plan Métropolitain d'Aménagement et de Développement*) and consists of several actions designed specifically for the maintenance and development of social housing in the TOD (Transit-Oriented Development) areas which account for 40% of household growth.

The Committee on Social Housing consists of eight members representing all geographic sectors of Montréal and presided over by the Mayor of Contrecoeur, Suzanne Dansereau. Envisaging affordable access to quality social housing for every household in the Montréal Metropolitan Community, the committee held a consultation with all municipalities in 2005, and identified three challenges:

> **In metropolises where commuting rates into one economic center are high, the effect on housing is direct and often presents one of the greatest pressures on the territory**

1. Ensure better coordination between policies from higher levels of government and the needs of the population of the metropolitan area of Montréal.

2. Strengthen cooperation of the 82 municipalities in the region.

3. Optimize the metropolitan financial framework in social and affordable housing.

The Metropolitan Action Plan for social and affordable housing, 2015-2020 is seen as the centerpiece of the development of Greater Montréal. Through 13 concrete actions, it aims to: provide funding for the development and sustainability of social and affordable housing; develop social and affordable housing as a main pillar of Greater Montréal's overall economic development; and achievement of sustainability goals; and foster greater social cohesion.

Building resilience requires these types of holistic interventions that work across several sectors with key stakeholders to achieve multiple benefits. With its metro-wide mandate, CMM's housing plan has the kind of vision and scope that can achieve this.

Public health

Source: GBCA

> Representatives of different levels of government (city, state and nation) presented together the emergency health care system of the metropolitan area of Buenos Aires.

Public health offers another example of a system that may not, at first blush, seem to need a metropolitan lens. However, in many metropolitan areas, access to primary care is uneven and as a result some areas and medical centers are overburdened, further exacerbating the pressures on public health service delivery. Furthermore, the underlying stresses that cause these disparities themselves cut across systems and sectors that may be best addressed at a broader scale. Poor community health is often correlated with economic and social inequity, access to education, and other equity indicators.

A common stress in cities is the lack of adequate health care options for those living in informal settlements, geographic isolation, without health insurance, or those with other reasons for lack of access to clinical care. Equity challenges and

policy gaps often lead to an overutilized emergency management system, accessed for non-emergency medical reasons, or an overburdened medical care system in those areas of the city and region that do offer it. Underlying stresses, thus, lead to public health stresses, and vice versa.

Focusing on public health as a natural convener for addressing other stresses, such as poverty, education, and cultural and geographical isolation offers great potential for a city's resilience-building efforts. Public health interventions can thus mitigate negative public health trends, lead to more efficient use of funding once used for unnecessary emergency care or care for those from other parts of the metropolis who have no other options. This can enable a city to better address other challenges, and, through creative interventions, it can also address several stresses at once.

Buenos Aires, the political, economic, and cultural capital of Argentina, provides an interesting example on this subject. Although itis not a fully integrated metropolitan structure, Gran Buenos Aires includes the city and surrounding districts (at present 24, with six to be more fully incorporated), and city and provincial leaders increasingly see the value of formalizing one. In December 2015, a new mayor and governor were elected, presenting a political alignment that has enabled the design and implementation of new metropolitan scale policy, including the creation of a Metropolitan Cabinet. The Metropolitan Cabinet is an informal structure. At the time of its formation, the government decided that they did not want to create a new layer of government but rather develop a high level but less formal arrangement. Despite its informal structure, the Cabinet has already enacted several concrete initiatives, including two major public health initiatives.

The first addresses the use of the city's medical systems by those living outside Buenos Aires. At present, 50-60% of those seeking treatment within the city are actually from surrounding communities. With money from the IDB, the Metropolitan Cabinet worked to create a system of electronic records to help empower primary care centers outside of the city. This will promote public health for individuals where they live and also allow medical institutions within the city to work more efficiently and optimize their own systems.

A second initiative, for the first time, provides Buenos Aires with an integrated city and province emergency management system. Much like the initial cycling programs in Santiago that became region-wide, this program began on a smaller scale and then expanded, though from a top-down governance process rather than a grassroots campaign. The SAME & SAME Provincial (Sistema de Atención Médica de Emergencias) began with 11 municipalities and now cover 20: Almirante Brown, Bahía Blanca, Berisso, Brandsen, Ensenada, Ezeiza, Florencio Varela, General Pueyrredón, General Rodríguez, José C. Paz, La Plata, Lanús, Lomas de Zamora, Morón, Pilar, Punta Indio, Quilmes, San Isidro, Tres de Febrero y Escobar). Some of the difficulties of integrating more municipalities had to do with the complexities of the current healthcare system.

While the Cabinet has achieved significant success in addressing challenges that required a metropolitan approach, the city and state have concluded that it needs a more formal structure to be able to truly scale initiatives. They are currently in the process of exploring how to achieve this.

The underlying stresses that cause disparities in the access to public health cut across systems and sectors that may be best addressed at a metropolitan scale

Security & social cohesion

A metropolitan vision enables intersystemic strategies to face the stresses that undermine social cohesion and lead to violence

Some of the most successful strategies for addressing urban violence have arisen from metropolitan scale interventions targeting social cohesion and infrastructure. Many cities struggle with the stresses caused by economic, racial and social inequity - which more often than not have geographic dimensions, with either economic or racial segregation patterns. A broader vision, connecting different communities to one another and to economic centers has shown to be an effective means of addressing these inequities and their consequences.

Like public health challenges, strategies to address social cohesion and its consequences for security do not immediately seem to invoke the metropolitan scale. The stresses that undermine social cohesion and can lead to violence are many and include economic and geographic isolation, rapid urbanization that leads to the proliferation of informal settlements, inequitable provision of public services, and lack of access to other fundamental aspects of civic life and individual quality of life. An integrated approach is required, one that addresses the intersystemic relationships of these stresses. A metropolitan vision can enable these types of intersystemic strategies that combine seemingly disparate sectors and functions in a city, giving rise to creative solutions.

Once described as "the most dangerous city in the world," by Time Magazine, **Medellín** now often symbolizes the power of integrated metropolitan planning in combating seemingly intransigent urban problems. Medellín had to contend with conditions currently common to many rapidly urbanizing metropolitan areas. Between 1951 and 1973, Medellín grew from just over 350,000 people to over one million, at a time of huge economic upheaval. Operating with diminished resources, the city could not keep pace with the rate of expansion and was unable

to maintain and improve the city's social services, housing and critical infrastructure. Informal settlements, far removed from the commercial hub at its center, left new arrivals disconnected from one another and from opportunity. The city became extremely vulnerable to the cartels and to petty crime.

After years of failed attempts at reform, the city adopted a more holistic view, making the interdependence of its systems and levels of government central to its success. One major factor in achieving this greater resilience was the introduction in 1980 of the Área Metropolitana del Valle de Aburrá (AMVA), a metro body consisting of ten municipalities. The AMVA has jurisdiction over planning and coordination between the different cities; the public transportation system; and environmental concerns. The AMVA played a major role in addressing some of the main issues contributing to urban violence: social and economic inequity. The communities living in the hillsides were not only disconnected from the economic opportunities found in the valley floor below, they also lived in isolation from one another. The AMVA made possible the famous MetroCable system that now links the barrios to each other and to the city center.

Other metropolitan-wide measures have built on this successful approach to social cohesion as a means to combat violence. In 2004, a strategy known as the "Medellín Model" was adopted by the city to further entrench this policy and the importance of the interdependence of social cohesion and physical infrastructure. Like previous efforts, the plan's implementation required the collaboration of the mayor, private sector, civic organizations and academia, with the mayor given a central role as the coordinator between the different actors and sectors. It also focused on: strengthening the central role of the Government Secretariat; a coordination between the different Secretariats,

Source: Metropolis Secretariat General

especially those involved with public space; strengthening the Company for Urban Safety (ESU), a decentralized agency for logistical support of public intervention; creation of local government committees to facilitate the construction of a local plan for security and peaceful coexistence of each commune. The strategy focuses on six areas of intervention: education; social planning, public space, and housing; inclusion and equity; arts & culture; security and coexistence; and competitiveness and a culture of entrepreneurship.

Medellín's experience illustrates not only the important role a metropolitan structure can play, but how it can do so through its integration with other resilience-building strategies, such as the inter-systemic approach the city was already pursuing to untangle the shocks and stresses plaguing it.

> One major factor in achieving greater resilience in Medellín was the introduction of the Metropolitan Area of Valle de Aburrá (AMVA), a metro body consisting of ten municipalities. The AMVA played a major role in addressing some of the main issues contributing to urban violence: social and economic inequity.

Recommendations

Developing resilience objectives

- When assessing the challenges of a city, determine which must be addressed on a metropolitan scale.
- Consider which systems in your city exceed jurisdictional boundaries.
- Decide which regional and metropolitan level stakeholders should participate in the resilience strategy development process, and when they should do so.
- Consider the inclusion of regional and metropolitan actors on the steering committee of a resilience strategy, including stakeholders from neighboring municipalities and different levels of government.
- Collaborate with other cities that face similar challenges and have found effective plans through metropolitan strategies.

Implementing resilience-building interventions

- Determine which other civic actors, including the private sector, NGOs, and academia, can help catalyze interventions required at the metropolitan scale.
- Consider your city's particular conditions when designing a metropolitan arrangement or structure that would best advance the city's resilience objectives.
- Develop a metropolitan arrangement with the best chance of forming a foundation for successful short- and long-term action.
- Focus on a governance reform process initially on items with high probability of success or topics with clear intermunicipal scope or spillover effects.
- Create reliable financing arrangements.

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About the Author

100 Resilient Cities (100RC) is a network pioneered by the Rockefeller Foundation which is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. Through 100 RC, city governments receive: financial and logistical guidance for establishing an innovative new position in city government, a Chief Resilience Officer (CRO), who leads the city's resilience efforts; technical support to develop a holistic resilience strategy that reflects each city's distinct needs; access to an innovative platform of private sector and NGO services to support strategy development and implementation; and inclusion in the 100 Resilient Cities Network to share knowledge and best practices with other member cities. 100RC has staff and offices in New York, London, Mexico City, and Singapore, who worked together to draft this issue paper for Metropolis.

Currently, Metropolis and 100RC have 22 members in common: Accra, Addis Ababa, Amman, Athens, Bangkok, Buenos Aires, Dakar, Durban, Guadalajara, Jakarta, Lisboa, Medellín, Mexico City, Montevideo, Montréal, Porto Alegre, Quito, Ramallah, Rio de Janeiro, Santiago de Chile, Seoul and Toronto.

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