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Embedding Care in Urban Institutional Response during Crises

Working Paper

Carlos José Celis, Aratrika Debnath, and Amogh Arakali.

Directed by Michael Cohen at the Observatory on Latin America (OLA) at The New School.

THE NEW SCHOOL Observatory on Latin America

UCLG United Cities and Local Governments

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New York City, February 2025.

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ABSTRACT

This paper explores the potential of embedding care within urban institutional responses during crises. By examining the intersection of care work, urban governance, and crisis management, we illuminate how cities can leverage care-centered approaches to enhance resilience, promote equity, and foster sustainable development. In this context, we are motivated by the following research question: How do cities integrate care into urban institutional responses to crises? Consequently, our research consolidates a lexicon (caregivers, care recipients, care logics, care topologies, care fluidity…) for local governments to adopt a care approach in crisis response. By compiling names, concepts, and cases, we contribute to the recognition of care within urban governance and crisis management discourses, and we hope this acknowledgment serves as a first step towards more transformative changes.

Summary policy recommendations:

i. **Including indirect caregivers as essential workers.**

ii. **Caring for caregivers.**

iii. **Adopting an equity approach for targeting crisis response beneficiaries.**

iv. **Strengthening the interconnectedness of care spaces.**

v. **Ensuring adaptability in care spaces.**

vi. **Enhancing local integration in global care networks.**

vii. **Defining crisis standard operation procedures (SOP).**

viii. **Leveraging on Behavioral Policies and citizens agency.**

ix. **Empowering individuals and communities on crisis governance.**

x. **Identifying care allocation disparities.**

xi. **Institutionalizing care metrics in crisis preparedness.**

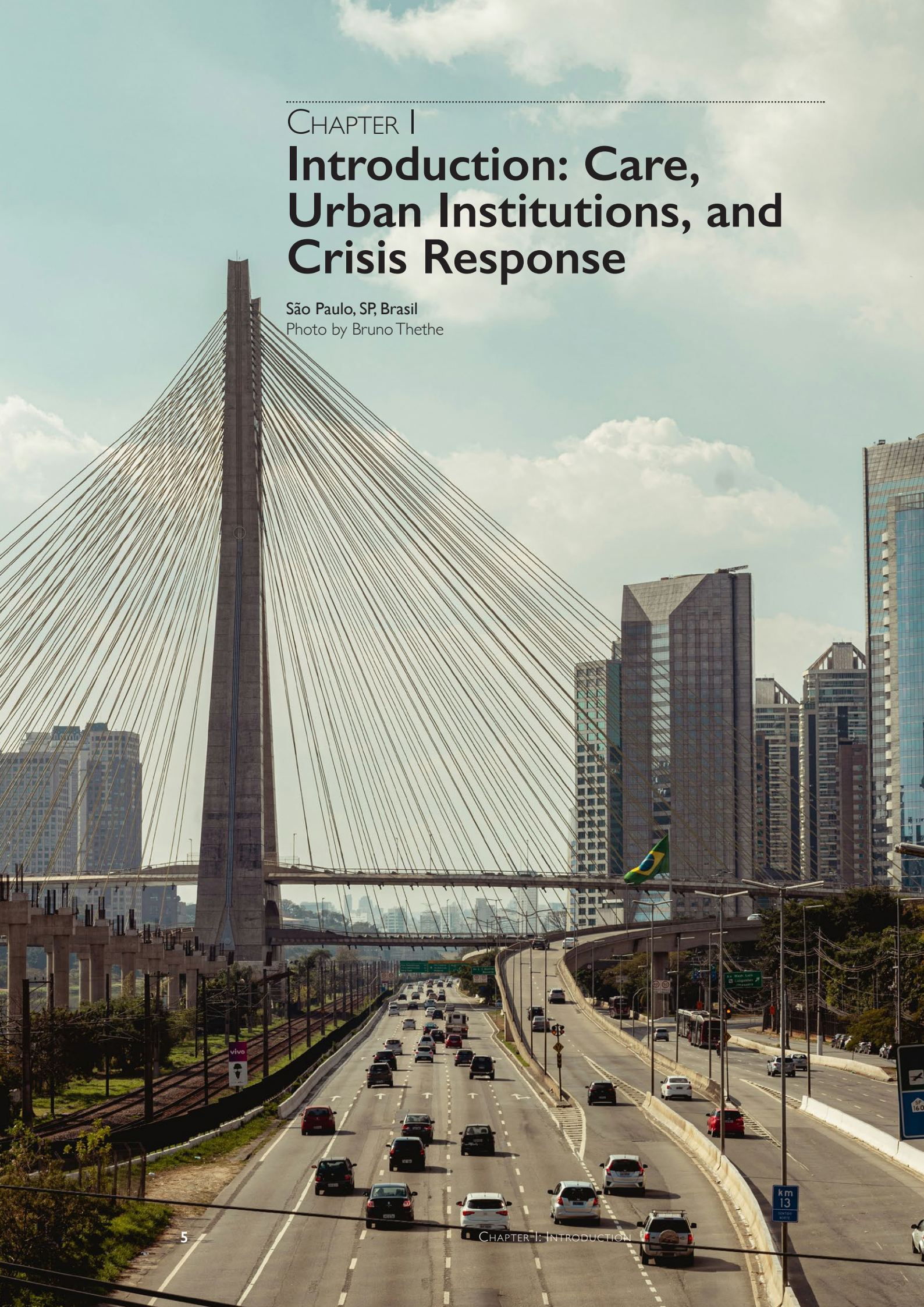
xii. **Enhancing data collection and ensuring public transparency.**

xiii. **Recognizing care labor in budget planning.**

xiv. **Integrating care metrics into crisis policy design.**

xv. **Enabling institutional architectures that can integrate formal and informal institutions.**

Chapter 1
Introduction: Care, Urban Institutions, and Crisis Response



São Paulo, SP, Brasil
Photo by Bruno Thethe

1. Context

1.1 Care

Care is a critical component of modern socioeconomic systems. Caregivers are crucial to the functioning of cities. They bring each generation of citizens into the world, raise them, educate workers, and provide care for the sick and hungry. Unsurprisingly, a significant portion of people's time is dedicated to caregiving tasks like cooking, cleaning, washing dishes, changing diapers, treating wounds, or helping with homework. For instance, in the U.S., women spend an average of 2.7 hours per day on unpaid caregiving or "household labor," compared to 2.1 hours for men.[1] The economic cost of this time has been estimated at 2.5-3.5 trillion dollars a year.[2]

Despite its vital role in our economies and societies, most caregiving remains unpaid or undervalued. Professional caregivers, such as teachers and nurses, earn less than workers in other non-care sectors, and unskilled caregivers often endure poor working conditions.[3] For example, 84% of paid domestic workers in the U.S. lack formal employment agreements.[4]

Moreover, caregiving is an area where various forms of inequality converge. Care is mainly assumed by women, reflecting gender inequality.[5] Informal caregiving roles, such as domestic work[6] and gardening,[7] are disproportionately filled by immigrants and racialized communities, highlighting racial and transnational disparities. And as mentioned, caregivers are often seen as unproductive workers, leading to widespread unpaid or underpaid care labor,[8] pointing to class inequality.

The economic impact of neglecting the care economy is substantial. It is estimated that the United States could lose approximately $290 billion annually in GDP by 2030 if critical issues in the care economy are not addressed.[9] There is an urgent need for urban institutions to prioritize and invest in care infrastructure and policies. Thus, the World Eco-

[1] U.S. Bureau of Labor Statistics, "American Time Use Survey Summary - 2023 A01 Results," Bureau of Labor Statistics, 2024, https://www.bls.gov/news.release/atus.nr0.htm.
[2] Emily Kos et al., "Solving the $290 Billion Care Crisis," BCG Global, November 10, 2022, https://www.bcg.com/publications/2022/solving-the-care-crisis.
[3] Nancy Folbre and Kristin Smith, "The Wages of Care: Bargaining Power, Earnings and Inequality," Washington Center for Equitable Growth and the Political Economy, 2017.
[4] National Domestic Workers Alliance, "Domestic Workers Bill of Rights Survey and Stories" (National Domestic Workers Alliance, 2021), https://www.domesticworkers.org/wp-content/uploads/2021/07/Domestic-Workers-Bill-of-Rights-Fact-Sheet-Survey-Data-2021.pdf.
[5] UN Women, "Promoting Women's Economic Empowerment: Recognizing and Investing in the Care Economy," 2018, https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2018/Issue-paper-Recognizing-and-investing-in-the-care-economy-en.pdf.
[6] Mary Romero, Maid in the U.S.A, 10. anniversary ed, Perspectives on Gender (New York, NY: Routledge, 2002).
[7] Pierrette Hondagneu-Sotelo, Paradise Transplanted: Migration and the Making of California Gardens (Berkeley: University of California Press, 2014).
[8] Nancy Folbre, "Informal and Formal, Unpaid and Underpaid: Theorizing the Care Penalty," Allied Social Science Association, 2015.
[9] Kos et al., "Solving the $290 Billion Care Crisis."

nomic Forum emphasizes the need for collaboration among government, businesses, and communities to build more equitable and sustainable care systems.[10] This includes addressing systemic inequities, adapting to changing employment trends, and investing in care as a key driver of prosperity.

1.2 Intersection of Care, Urban Institutions, and Crisis Response

The COVID-19 pandemic revealed the essential yet fragile and precariat relationship between urban care systems and crisis response. It exposed the overreliance on unpaid care work, with nearly two billion people worldwide working as full-time caregivers without compensation.[11] It underscored how care systems are interconnected across geographies and sectors in conflicting dynamics. We observed a global race among countries to access vaccines (a care technology), resulting in clear winners and losers.[12] The pandemic also exacerbated gender disparities and pushed many women out of the workforce to assume caregiving responsibilities.[13]

Furthermore, the relationship between urban care systems and crisis response is more critical at a local scale. Urban governance and institutional responses to crises vary significantly depending on the nature of the crisis (e.g., disasters, economic shocks, pandemics) and the scale of institutions involved, from local to regional to global and multilateral.[14, 15] However, local governments are typically the first responders in crises, playing a crucial role in immediate action and coordination of hospitals, fire departments, social services, and so on. While regional, national, and global institutions contribute to crisis management, focusing on city-regions' capacities is increasingly important.[16]

For instance, during the COVID-19 pandemic, cities with stronger governance capacities characterized by effective coordination between different departments, timely decision-making, robust emergency response systems, community engagement, and the ability to adapt policies quickly to address crises, were generally more resilient, regardless of size.[17]

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[10] World Economic Forum, "The Future of the Care Economy 2024," World Economic Forum, 2024, https://www.weforum.org/publications/the-future-of-the-care-economy/.
[11] World Economic Forum.
[12] Manjari Mahajan, "Vaccine Chimeras," India China Institute (blog), December 14, 2020, https://www.indiachinainstitute.org/2020/12/13/vaccine-chimeras/.
[13] Piaget, "The Future of the Care Economy Relies on Collaboration and a 'Care Mindset,'" World Economic Forum, March 27, 2024, https://www.weforum.org/stories/2024/03/future-of-care-economy-key-themes/.
[14] Andreas Hagedorn Krogh and Asbjørn Røiseland, "Urban Governance of Disaster Response Capacity: Institutional Models of Local Scalability," Journal of Homeland Security and Emergency Management 21, no. 1 (January 1, 2024): 27–47, https://doi.org/10.1515/jhsem-2022-0005.
[15] Angela van der Berg and Marius Pieterse, "Governing Urban Crisis Through Adaptive Urban Law: Lessons from City Responses to COVID-19 in the Netherlands and South Africa," Utrecht Law Review 20, no. 1 (May 31, 2024), https://doi.org/10.36633/ulr.906.
[16] Margot Bracke et al., "Evaluation Study of the Urban Governance of the COVID-19 Crisis in the City of Antwerp," BMC Public Health 24, no. 1 (August 5, 2024): 2117, https://doi.org/10.1186/s12889-024-19569-5.
[17] Zhen Chu, Mingwang Cheng, and Malin Song, "What Determines Urban Resilience against COVID-19: City Size or Governance Capacity?," Sustainable Cities and Society 75 (December 1, 2021): 103304.

The intersection of care, urban institutions, and crisis response represents a scope of shift in how cities approach governance and community well-being. This holistic approach encompasses multiple sectors, including urban planning, public health, social services, and economic development. In urban planning, care-centered design prioritizes inclusive spaces that cater to diverse needs, such as accessible public areas, age-friendly infrastructure, and "complete neighborhoods" that offer a mix of services within walking distance.[18] Public health systems are reimagined to focus on preventative care and community-centered approaches, addressing social determinants of health through neighborhood hubs and integrated service models. Similarly, social services are being redesigned to provide personalized and continuous support through coordinated agency efforts. And economic development strategies are evolving to prioritize the care economy's growth, recognize caregivers' work, and incentivize businesses that contribute to community well-being through fair wages and family-friendly policies.

In times of crisis, cities with strong care systems may be better equipped to respond effectively, leveraging existing community networks and support systems. This multifaceted approach to integrating care into urban institutions and crisis response strategies holds significant potential for enhancing community resilience, equity, and overall well-being, making it a crucial area for continued exploration and implementation in urban governance.

However, as mentioned above, care is a complex construct, and care systems have urgent needs to consider. For instance, Dolors Comas-d'Argemir points out the importance of asking men to get involved in care duties and attending to the care needs derived from aging.[19] Charlene Galarneau calls for centering and recognizing the roles played by communities in health care and addressing the inequities they face.[20] Sophie Bowlby argues that care experiences are affected by the timescales of the human life course and generational exchanges of care; thus, she calls for framing care as a social process and tackling its unique spatial and temporal dimensions—what she coined as the caringscapes/carescapes framework.[21]

Recognizing care infrastructures and technologies (e.g., parks, community gardens, daycare centers, soup kitchens, and laundromats) as essential to the functioning of cities demands new practices within urban

[18] Andrew Binet et al., "The Urban Infrastructure of Care: Planning for Equitable Social Reproduction," Journal of the American Planning Association 89, no. 3 (July 3, 2023): 282–94, https://doi.org/10.1080/01944363.2022.2099955.
[19] Dolors Comas-d'Argemir and Montserrat Soronellas, "Men as Carers in Long-Term Caring: Doing Gender and Doing Kinship," Journal of Family Issues 40, no. 3 (February 2019): 315–39, https://doi.org/10.1177/0192513X18813185.
[20] Charlene Galarneau, Communities of Health Care Justice, Critical Issues in Health and Medicine (New Brunswick, New Jersey: Rutgers University Press, 2016).
[21] Sophie Bowlby, "Recognising the Time—Space Dimensions of Care: Caringscapes and Carescapes," Environment and Planning A: Economy and Space 44, no. 9 (September 2012): 2101–18.

governance dynamics: (i) other metrics to account for often-invisible care labor, (ii) new budget priorities to channel adequate funding to support community care capacities, and (iii) new networks (at different scales) to establish systems of resources, actors, institutions, spaces that can support and enhance care priorities and capacities.

Embedding care also requires cultural specificity, which challenges urban governments to develop flexible, context-sensitive policies that accommodate diverse care practices. Integrating these insights into urban recovery strategies not only addresses immediate care needs during crises but also lays the groundwork for more resilient, equitable urban systems. In other words, this approach aligns with the concept of "building back better," positioning the care economy as a cornerstone of long-term urban resilience and social cohesion.[22]

In summary, on the one hand, embracing care in urban institutional responses during crises is essential for several reasons: it recognizes the diverse needs of different populations within a city; it ensures that institutional responses are sensitive to vulnerabilities and inequalities that may be exacerbated during emergencies;[23] it strengthens social bonds and community resilience;[24] and it improves communication, coordination, and responsiveness of urban institutions leading to more effective crisis management and resource allocation.[25] On the other hand, doing it (embedding care in the urban institutional response to crisis) is complex: it depends on cultural specificities; it requires addressing existing inequities; and mainly, it demands local governments to act differently. We aim to tackle this latter requirment by providing a lexicon and a framework for local governments to see care, to speak about care, and most importantly, to act and care during a crisis.

2. Problematizing Care & Crisis

There are no straightforward definitions for care or crisis. Both concepts encompass a wide range of situations. On the one hand, care is a doctor practicing surgery, a nurse healing a wound, a schoolteacher preparing class, a mother changing a diaper, or a son taking care of his older adult

[22] Blanca A. Deusdad, Dolors Comas-d'Argemir, and Sophia F. Dziegielewski, "Restructuring Long-Term Care in Spain: The Impact of The Economic Crisis on Social Policies and Social Work Practice," Journal of Social Service Research 42, no. 2 (March 14, 2016): 246–62, https://doi.org/10.1080/01488376.2015.1129013.
[23] Beth Greenhough, Gail Davies, and Sophie Bowlby, "Why 'Cultures of Care'?," Social & Cultural Geography 24, no. 1 (January 2, 2023): 1–10.
[24] Greenhough, Davies, and Bowlby.
[25] Bracke et al., "Evaluation Study of the Urban Governance of the COVID-19 Crisis in the City of Antwerp."
[26] Ingrid Robeyns, "The Capability Approach," in The Routledge Handbook of Feminist Economics, ed. Günseli Berik and Ebru Kongar, Routledge International Handbooks (London New York: Routledge, Taylor & Francis Group, 2021), 91.

mother. Furthermore, care has "a mixed and ambiguous status":[26] it could be something positive. For instance, cooking for someone one loves is enjoyable. However, when it is not an option but an imposition, caregiving might also be valued as something negative. For example, women worldwide perform unpaid care duties (cooking, cleaning, dishwashing…) within the household, almost full-time, leaving them practically no free time for paid labor or leisure.[27]

On the other hand, crisis is also a polysemic construct. The 2008 global economic recession was a financial crisis; the COVID-19 pandemic was a health crisis; and the almost half a million people crossing the Darien Gap in the Panamanian Jungle during 2023,[28] including thousands of children alone, have become a refugee crisis. Thus, crises must be "analyzed within economic, political and social contexts, and also from the generational and gender points of view."[29]

Despite their complexities, both concepts have a commonsensical character. We do not need to give many explanations or arguments to justify why COVID-19 was a crisis or why a mother changing a diaper is care. However, this commonsensical character might act as a veil obscuring the politics of care and crisis, making it challenging for them to be operable. Thus, we define those concepts in the following paragraphs and illustrate their relationship.

Joan Tronto defines care as "everything we do to maintain, continue, and repair our world so that we may live in it as well as possible. That world includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web."[30] Nancy Fraser proposes care as a "set of social capacities: those available for birthing and raising children, caring for friends and family members, maintaining households and broader communities, and sustaining connections more generally."[31] And Nancy Folbre & Kirstin Smith outline care as a human interaction determined by the "care provider's concern for the well-being of the care recipient."[32] In summary, the literature coincides with framing care as a human practice (what we do or our social capacities) that is oriented to reproducing (or maintaining, continuing, or sustaining) life and not any life but a good one–hence, the emphasis on "well-being."

In contrast, a crisis is not a practice but a situation, a life-threatening situation. The word's origins come from the medical context and refer to the exact moment when a patient, in the course of an illness, is

[27] International Labour Organization, The Impact of Care Responsibilities on Women's Labour Force Participation (Geneva: ILO, 2024), https://doi.org/10.54394/LPTT5569.
[28] Diana Roy, "Crossing the Darién Gap: Migrants Risk Death on the Journey to the U.S.," Council for Foreign Relations, 2024, https://www.cfr.org/article/crossing-darien-gap-migrants-risk-death-journey-us.
[29] Michele Filippini, "5 The Crisis," in *Using Gramsci: A New Approach* (London: Pluto press, 2017), 88.
[30] Joan C. Tronto, *Who Cares? How to Reshape a Democratic Politics* (Ithaca: Cornell Selects, an imprint of Cornell University Press, 2015), 3.
[31] Nancy Fraser, "Contradictions of Capital and Care," New Left Review, no. 100 (2016): 99.
[32] Folbre and Smith, "The Wages of Care: Bargaining Power, Earnings and Inequality," 13.

"dived between life and death."[33] A crisis is the decisive moment when life continues or ends, depending on the courses of action or how the illness is treated. By etymological definition, a crisis is a moment that demands decisions to be taken. Crisis comes from the Greek root krinos, meaning "separate, chose, decide, and judge."[34] Moreover, in 'Governing Complex Emergencies at a Local Level,' similar words to crisis, such as hazard, risk, disaster, emergency, and complex emergency, also converge in being defined as an "event," "a process," "a disruption," "a situation," "which threatens serious damage to human welfare" or with a "potential loss of life."[35]

In summary, care and crisis are intrinsically interconnected: a crisis is a life-threatening situation that demands care or actions that repair, continue, and sustain life and well-being. Therefore, the following sections are dedicated to exploring the relationship and tensions between these two concepts from a local government perspective.

3. Methods and Framework

To tackle the research question (How do cities embed care in urban institutional responses to crises?), this paper relies on a qualitative systematic review methodology "for integrating or comparing the findings from qualitative studies. It looks for 'themes' or 'constructs' that lie in or across individual qualitative studies."[36] We analyzed over 100 documents (see references section) on care and crisis response, including peer-reviewed papers, essays, case studies, and reports from scholars, multilateral organizations, and local governments.

Out of the systematic literature review, we identified five areas or themes in which care is embedded (or could be embedded) in the urban institutional response to the crisis: actors, spaces, logics, metrics, institutions, and economics. Hence, the paper is broken into five sections: (i) Actors: Defining Caregivers and Care Recipients; (ii) Spaces: Respatializing Care and Geographies of Crisis; (iii) Logics: Care Centered Decision-Making During Crisis; (iv) Metrics: Making Care Legible; and (v) Institutions: Post Pandemic Care Governance.

[33] James Dodd, Crisis and Reflection: An Essay on Husserl's Crisis of the European Sciences, Phaenomenologica 174 (Dordrecht: Springer Netherlands, 2004), 44, https://doi.org/10.1007/1-4020-2175-5. As cited in Wang (2014).
[34] Wang Tangjia, "A Philosophical Analysis of the Concept of Crisis," Frontiers of Philosophy in China 9, no. 2 (2014): 256.
[35] Philipp Rode et al., "Governing Complex Emergencies at the Local Level" (United Cities and Local Governments, Metropolis & LSE Cities, 2024), 3.
[36] Maria J. Grant and Andrew Booth, "A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodologies," Health Information & Libraries Journal 26, no. 2 (June 2009): 94, https://doi.org/10.1111/j.1471-1842.2009.00848.x.

Each section is broken into two parts. The first one, "definitions," is a theoretical description of the area of interest (actors, spaces, logics, metrics, and institutions). The second, "case study," is a city or local government project that briefly presents a crisis, illustrates the area of interest, and describes the institutional response. In the last section of the paper, we consolidate "policy recommendations," which focus on advocacy on how cities can leverage care-centered approaches to overcome crises while promoting equity, sustainability, and other key values for the city.◆

Chapter II
Care Lexicon

Photo by Sai Abhinivesh Burla

4. Actors: Defining Caregivers and Care Recipients

4.1 Definitions: Caregivers and Care Recipients

Care is a complex concept, as are the terms "caregivers" and "care recipients." Joan Tronto explains that English phrasal verbs—a combination of a verb and a preposition—highlight the different ways of providing care. Tronto argues that "care for," "care by," "care about," and "care with" are similar but distinct.[37] "Care for" and "care by" involve the physical acts of caring for someone, such as healing a wound, feeding a baby, or preparing a meal. In contrast, "caring about" refers to recognizing care needs or the ability to see care demands without necessarily acting on them; for example, one might "care about" global warming yet fail to take action. Finally, "caring with" emphasizes the connections within an ecosystem, team, or group of care actors.

In this sense, local governments may ask different questions during a crisis: Who do we care about? This means looking for the care recipients. Who cares for the most vulnerable? This involves identifying care institutions and caregivers. Who do we care with? This means mapping the relationships between all the actors involved. All these questions revolve around identifying care needs (care recipients or care demand) and addressing them (through caregivers or care supply). Thus, the first task for a local government that aims to embed care in crisis response is to assess the previous questions. However, as we will show below, these are not straightforward calculations.

"Crisis" typically refers to an increase in the demand for care or a rise in the number of care recipients. For example, during COVID-19, millions of individuals needed medical care for respiratory issues caused by the virus. Therefore, a key action was swiftly identifying the care recipients or patients. The initial figure in the 'Strategic Preparedness, Readiness and Response Plan to End the Global COVID-19 Emergency in 2022'[38] document from the World Health Organization (WHO) was a world map that pinpointed the locations of reported COVID-19 cases as of March 29, 2022. In other words, the WHO's first step was to assess the demand for care by mapping where COVID-19 patients were located.

However, COVID-19 patients were not the only people requiring care during the pandemic. The closure of schools due to lockdowns left millions of children without caregivers. As a result, millions of parents suddenly had to take on the caregiving responsibilities previously held by teachers, which became a burden for families.[39] In other words, during

[37] Tronto, Who Cares?
[38] World Health Organization, "Strategic Preparedness, Readiness and Response Plan to End the Global COVID-19 Emergency in 2022," 2022, https://www.who.int/publications/i/item/WHO-WHE-SPP-2022.1.
[39] Sarah Bruhn, "'Me Cuesta Mucho': Latina Immigrant Mothers Navigating Remote Learning and Caregiving during COVID-19," Journal of Social Issues 79, no. 3 (September 2023): 1035–56.

the pandemic, care recipients included those infected by the virus, those impacted by the lockdowns, the children whose schools were closed, the parents taking on additional work, and more. Crises require broader definitions of care. Sometimes, caregivers, who are expected to supply care, also demand care because of the challenges of their work; other times, care recipients, who are supposed to require care, play a crucial role in providing emotional support to their caregivers. Therefore, Robeyns argues that care "may be confusing to scholars who are trained to value parsimony in their modeling and theorizing."[40]

Despite the complexity of estimating the care demand and supply during the crisis, there are some recommended entry points. When considering care demand and identifying care recipients in a crisis, Sarah DeYoung argues that "groups more likely to experience adverse outcomes in disasters include: ethnic and racial minoritized persons, people considered to be low caste, women, children, infants, sexual minorities, religious minorities, elders, and immigrants and refugees."[41] In other words, those already facing inequities or needing care are more vulnerable during emergencies. DeYoung further notes that the context of the crisis is also crucial for understanding who the most vulnerable populations are. Therefore, she suggests paying attention to the nature of the crisis (What type of crisis is it?) and its geography (Where is it occurring?).

Concerning the care supply and identifying the caregivers, Nancy Folbre and Kristin Smith propose distinguishing between direct and indirect caregivers. "Direct care jobs have been defined more specifically as jobs in which the quality of the service provided is likely to be affected by the care provider's concern for the well-being of the care recipient. Indirect care jobs entail provision of services necessary for direct care."[42] For instance, in a school, the direct caregivers are the teachers caring for the children, while the indirect caregivers are the cleaning staff who prepare and maintain the classrooms.

All these definitions seem commonsensical. However, not all governments and markets have internalized these concepts. As Folbre argues, care workers are greatly undervalued,[43] and consequently, care has become invisible. There is a lack of clarity regarding who the care recipients and caregivers are, along with their roles and needs. Table 1 summarizes the definitions above and provides some examples.

[40] Robeyns, "The Capability Approach," 75.
[41] Sarah E. DeYoung, "Vulnerable Groups During Crisis," in Oxford Research Encyclopedia of Politics, by Sarah E. DeYoung (Oxford University Press, 2021), https://doi.org/10.1093/acrefore/9780190228637.013.1565.
[42] Folbre and Smith, "The Wages of Care: Bargaining Power, Earnings and Inequality," 13.
[43] Folbre, "Informal and Formal, Unpaid and Underpaid: Theorizing the Care Penalty."

Table 1. Care Actors

	Caregivers *Those who care for the care recipients*	**Care Recipients** *Those cared by the caregivers*
Definitions	Caregivers are those who "maintain, continue, and repair our world so that we may live in it as well as possible…"[44] Care workers are usually in the service provision category of the economy. Direct caregivers are those who directly interact with the care recipients, for instance: ***teachers, day care service workers, social workers, nurses, doctors, physiotherapists, psychologists, family caregivers (parents, siblings…), hair dress and nail salon workers, veterinarians, gardeners…*** Indirect caregivers are those "entail provision of services necessary for direct care." For instance: ***cooks, waitresses, cleaning staff, hotel workers, delivery workers, needle work and dress making services workers, laundry services workers, domestic services workers…***	Those who directly benefit from care services. Care recipients are "our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life-sustaining web."[45] We are all care recipients; we all benefit daily from care services. Care recipients also include other forms of life beyond humans, thus Tronto includes in its definition the "environment." In summary, care recipients are: ***humans, animals, and plants.***
Crisis considerations	DeYoung argues that emergencies responses are context-dependent,[46] in that sense, some relevant questions a local government should respond are: Who are the caregivers' experts in the nature of the crisis (also more likely to get burden for overwork)? Who are the caregivers located in the epicenter of the crisis? and Who are direct caregivers of the most vulnerable populations? ***Intervention opportunity: How might the city or local government support those caregivers?***	Who are those directly affected by the crisis? How are the "ethnic and racial minoritized persons, people considered to be low caste, women, children, infants, sexual minorities, religious minorities, elders, and immigrants and refugees"[47] doing during the crisis? What other populations are likely to be indirectly affected by the crisis? How likely are the caregivers' experts in the crisis to become care recipients due to extra care labor? ***Intervention opportunity: How might the city or local government care about, for, and with them? How might the city or local government prevent those caregivers to become care recipient due crisis overwork?***

[44] Tronto, Who Cares?, 3.
[45] Tronto, 3.
[46] DeYoung, "Vulnerable Groups During Crisis."
[47] DeYoung.

4.2 Case Study: Forest Preschools in Kuopio, Finland

Climate change has highlighted the interconnectedness of human health and environmental health. Global warming simultaneously impacts human settlements in hurricane-prone areas, corals sensitive to changes in water temperature, forests vulnerable to wildfires, and more. In this context, One Health is defined as a "collaborative, multisectoral, and transdisciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment."[48]

The City of Kuopio in Finland has half of its area covered by a forest, while one-fourth consists of the surface of Kallavesi Lake.[49] Conscious of the close relationship between environmental health and human health, Kuopio participated in the One Health for Cities Project (ONCE).[50, 51] The project called for a political and administrative integration of Human Health, Animal Health, and Environmental Health Services. ONCE began its implementation in June 2023, with the first action being the signing of the political statement of the WHO European Healthy Cities Network, which proposed local-level policy recommendations[52] for operationalizing the One Health approach.

An example of how ONCE materialized in Kuopio is the city's four "forest preschools," where children participate in daily outdoor activities and interact (play, learn, and care) with the forest ecosystem.

[48] CDC, "About One Health," One Health, November 21, 2024, https://www.cdc.gov/one-health/about/index.html.
[49] UrbAct, "The Vision of the City of Kuopio – to Become a Capital of Good Life Where One Health Approach Is Adapted in All Policies and among All Citizens," 2024, https://urbact.eu/articles/vision-city-kuopio-become-capital-good-life-where-one-health-approach-adapted-all-policies.
[50] Kuopio, "One Health For Cities Network," Kuopio, 2024, https://www.kuopio.fi/en/one-health-for-cities-network/.
[51] UrbAct, "One Health 4 Cities," accessed January 7, 2025, https://urbact.eu/networks/one-health-4-cities.
[52] WHO European Region, "Local-Level Policy Recommendations: Operationalizing a One Health Approach" (WHO, 2022), https://iris.who.int/bitstream/handle/10665/366322/WHO-EURO-2023-7060-46826-68259-eng.pdf?sequence=1.

> Children at the forest pre-school become very active, imaginative, and independent, and they learn to enjoy the outdoors in nature. At the same time, their immune system benefits from interacting with rich forest microbiota, as Finnish medical scientists have indicated in several studies.[53]

The forest preschools in Kuopio are a compelling example of how a local government reacts to a crisis (climate change) to map a comprehensive system of caregivers and care recipients (humans, plants, and animals) and operationalize it through its existing public services (preschools).

5. Spaces: Respatializing Care and Geographies of Crisis

5.1 Definitions: Care Topology, Fluidity, And Chains

In a crisis, not only people face danger, but also infrastructures, places, and spaces. During COVID-19, schools worldwide were closed; after Hurricane Katrina, 80% of the spaces and places in New Orleans were flooded;[54] and during the war in Gaza (2023-2024), over 150,000 houses were destroyed.[55] Therefore, discussing the care spaces during crises requires exploring and understanding how they change or how some spaces disappear while others emerge. Precisely, after the COVID-19 pandemic, Marvin et al. argued that a new lexicon for urban spaces, including those dedicated to care, was necessary. They proposed terms such as "acceleration/deceleration, platforming, density, techno-solutionism, dwelling, crowds, spatialization, reconcentration, care, improvisation, and atmosphere."[56]

In the reviewed literature, we identified three concepts of geographies of care that may assist local governments in navigating care spaces during crises: care topology, care fluidity, and care chains (see Table 2).

Hanrahan & Smith posit that in topological spaces, such as care ones, "multiple places, times, people, and objects are brought together in the actions of a moment and in the perceptions of care that are provided and perceived as such."[57] For example, care spaces for children ages five to six include not only kindergarten but also the school buses they ride daily, their bedrooms where they do homework, the parks where they play with

[53] UrbAct, "The Vision of the City of Kuopio – to Become a Capital of Good Life Where One Health Approach Is Adapted in All Policies and among All Citizens."
[54] NASA Earth Observatory, "Hurricane Katrina Floods New Orleans," Text.Article (NASA Earth Observatory, 2005), https://earthobservatory.nasa.gov/images/15445/hurricane-katrina-floods-new-orleans.
[55] Sana Noor Haq et al., "Flattened in a Year: How Israeli Bombardment Reduced Most of Gaza to Rubble," CNN, accessed January 13, 2025, https://www.cnn.com/interactive/2024/10/world/gaza-homes-destroyed-war-one-year-dg/.
[56] Simon Marvin et al., "Post-pandemic Cities: An Urban Lexicon of Accelerations/Decelerations," Transactions of the Institute of British Geographers 48, no. 3 (September 2023): 4, https://doi.org/10.1111/tran.12607.
[57] Kelsey B. Hanrahan and Christine E. Smith, "Interstices of Care: Re-Imagining the Geographies of Care," Area 52, no. 2 (June 2020): 231, https://doi.org/10.1111/area.12502.

their classmates, and more. A topological approach to care spaces asks the government to leave stereotypical notions of care spaces "to attend ever more carefully to the dynamics of our various relationships, learning to prioritize some over others, and lead us to new political possibilities."[58]

Mol and Law propose the concept of fluid spaces, viewing spaces as not fixed but ever-changing.[59] Hence, the authors argue that, similar to fluids, social scientists (and urban planners) should focus not only on definitive forms or volumes but also on dynamics. In this sense, the concern shifts from (i) What is the care space? (which is difficult to define, especially during a crisis) to (ii) How is the space changing? What is the care space's capacity for change? For instance, hospitals may expand their care spaces through community health initiatives for health promotion and illness prevention, such as vaccination campaigns in parking lots during the pandemic.

Lastly, care chains are "transnational chains shaped with the objective of the sustainment of daily life in which households transfer [worldwide] care load for each other based on power dynamics, mostly based on gender, ethnicity, class, and nationality."[60] For example, in the United States, 68% of domestic workers are immigrants, and 65% are Hispanic. This indicates that most of the demand for domestic care in the U.S. relies on global care chains, primarily supplied by Latin Americans.[61]

In summary, care dynamics and crises push local governments to consider spaces, places, and infrastructures as overlayed, dynamic, and interconnected rather than single, monolithic units.

Table 2. Care Spaces

	Care topology	Care fluidity	Care chains
Definitions	Approach that allows to identify and understand the multiple layers that constitute a care space. *For example, a school (care space) is constituted by the classroom, the school bus, the household, the neighborhood*	Approach that focuses on describing and understanding the ways in which spaces change and their ability for transformation. *For example, a school (care space) mostly concentrates in the classroom, but*	Inspired in "value chains" in economic studies, this approach seeks to understand the multiple spaces that participate in care provision, how they are connected, and their sequences of action. *For example, a school (care space) must*

[58] Hanrahan and Smith, 233.
[59] Annemarie Mol and John Law, "Regions, Networks and Fluids: Anaemia and Social Topology," Social Studies of Science 24, no. 4 (1994): 641–71, https://doi.org/doi-org.libproxy.newschool.edu/10.1177/030631279402400402.
[60] Amaia Orozco, "Cadenas Globales de Cuidado: ¿Qué Derechos Para Un Regimen Global de Cuidados Justo?" (ONU Mujeres, 2010), 9. Translated by the authors.
[61] Sophia M Mitchell, "Domestic Workers in the United States" (U.S. Department of Labor, 2024).

	community center, the parks in the community…	*sometimes for sports moves to parks, and, during the weekends, for homework's, the school moves to the households. In this sense, the school fluidity depends on their effective communication between teachers, parks administrators, and parents.*	*consider that some of the students, workers, and other member of the scholar community are immigrants. In that sense various languages, cultures, and citizenship status shape and define the care dynamics of the school. Furthermore, some of the technologies that the school depends on are made in other countries.*
Crisis considerations	Considering a care space, what are the most affected layers by the crisis? What layers are assuming most of the care load? *Intervention opportunity: How might the city or local government consider a topological approach for designing or adapting care spaces? How might the city or local government design*	What care spaces are rigid or difficult to move? How are the care spaces moving during the crisis? *Intervention opportunity: How might the city or local government consider a fluidity approach for designing or adapting care spaces? How might the city or local government design spaces with the capacity of change/ move?*	What national and international actors and actants define the local care spaces? How are the relationships between the local government and those international actors and actants? *Intervention opportunity: How might the city or local government consider global care chains for designing or adapting care spaces?*

5.2 Case Study: Pop Rua Jun in São Paulo, Brazil

According to the Municipal Secretary of Social Assistance and Social Development (SMADS as an acronym in Portuguese), more than 30,000 people live in the streets of São Paulo[62], and this number has increased

[62] Cidade de São Paulo, "Sobre POPRUA-Lei No 17.252, de 26 de dezembro de 2019 (parágrafo único).," Coordenação de Políticas para a População em Situação de Rua, 2023, https://capital.sp.gov.br/web/poprua/w/274598.

after the pandemic. A survey by the SMADS shows a variety of explanations for this phenomenon: family conflicts (34.7% of the cases), substance abuse (29.5%), and unemployment (28.4%).[63]

Given the complexity of the homelessness issue, providing a comprehensive solution with the existing infrastructure and spaces would have required unhoused individuals to relocate from multiple locations to receive appropriate care. Consequently, the local government developed an intervention that coordinated various government institutions to consolidate their services in one temporary location closer to the unhoused population. The intervention included healthcare services, legal services, and exercise of citizenship services, required around 400 volunteers, and benefited over 8,000 unhoused people.[64]

The Pop Rua Jun in São Paulo exemplifies effective design in care spaces through topological and fluidity approaches. On one hand, the city aimed to integrate three layers: health care, legal, and citizenship.[65] On the other hand, it established a fluid environment that, rather than requiring beneficiaries to visit fixed locations, shifted services and infrastructure—with the assistance of volunteers—to more suitable locations for care recipients.

6. Logics: Care-centered Decision Making

6.1 Definitions: Rational, Organizational, Bureaucratic, and Care Logics

Decision-making in urban governance is a complex process that involves dealing with bureaucracies, bargaining with various actors, and balancing a myriad of interests (most of the time conflicting). Drawing on the Cuban Missile Crisis as a case study, Graham Allison wrote a seminal piece for International Affairs on decision-making in crisis times. Graham describes three models of decision.[66] The first one is "The Rational Policy" model. In this model, "governments select the action that will maximize strategic goals and objectives."[67] The components of the decision process include goals and objectives, options, consequences, and choices. The final choice results from a careful assessment of the previous components.

[63] Claire Karle, "1st Round of Work for the Homeless Population of the City of São Paulo (Pop Rua Jud)," Observatory of Public Sector Innovation OECD (blog), July 21, 2023, https://oecd-opsi.org/innovations/1st-round-of-work-for-the-homeless-population-of-the-city-of-sao-paulo-pop-rua-jud/, https://oecd-opsi.org/innovations/1st-round-of-work-for-the-homeless-population-of-the-city-of-sao-paulo-pop-rua-jud/.
[64] Karle.
[65] Sonia Fernandes, trans., "São Paulo: Initiative to Assist Homeless People Launched," Agência Brasil, November 21, 2022, https://agenciabrasil.ebc.com.br/en/geral/noticia/2022-11/trf-organizes-joint-effort-serve-homeless-population-sp.
[66] Graham Allison, "Conceptual Models and the Cuban Missile Crisis," The American Political Science Review 63, no. 3 (1969).
[67] Allison, 694.

The second model, Graham posits, is "The Organizational Process," which describes governance logic as "less as deliberate choices of leaders and more as outputs of large organizations functioning according to standard patterns of behavior."[68] Put differently, during a crisis, decision-making results from standard operation procedures (SOPs) of the government's organizational structure rather than the output of a rational decision-making process.

Graham calls his third model "The Bureaucratic Politics." In this case, the government is not described as a "monolithic unit" but as a "competitive game," and its choices depend on "bargaining along regularized channels among players positioned hierarchically."[69] For this third model, outputs are not necessarily seen as a solution to a problem but as a compromise between various actors with different visions of the crisis and heterogeneous objectives.

Graham's models are not exclusive–they complement each other. The three models illustrate three perspectives of decision-making during a crisis. In contrast, Annamarie Mol proposes *The Care Logic*.[70] Drawing on a case study of decision-making for diabetes treatment, Annamarie Mol developed a model we propose as the fourth logic for crisis response. Mol describes it in the following words:

> Give up dreams of perfection or control, but keep on trying. But who is addressed; who should keep on trying; who should act? The answer is: everyone and everything. For in the logic of care actors do not have fixed tasks. The 'we' who does the doing may shift. There is no need to distinguish between scientific, commercial, political and other (collective) actors in an attempt to establish who may, or should, do this or that. In the logic of care the action is more important than the actor. It may be shared, shifted around. What is more: activities as highly varied as gathering facts, selling products, passing legislation and injecting insulin are not separated out as if they were different in principle. They all try to tame problems, while simultaneously creating them, too. They shape life.[71]

Mol's care logic proposes three elements that contrast with Graham's models: (i) emphasis on actions instead of goals, (ii) no fixed tasks or hierarchical organizations, and (iii) no interest in complete control as a primary goal but what she describes as "keep on trying." This latter element is similar to what Donna Haraway has called "staying with the trouble",[72] which calls for focusing on the present or the daily actions instead of only projecting into the future.

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[68] Allison, 698.
[69] Allison, 707.
[70] Annemarie Mol, The Logic of Care: Health and the Problem of Patient Choice, Transferred to digital printing 2010 (London: Routledge, 2011).
[71] Mol, 93.
[72] Donna Haraway, Staying with the Trouble: Making Kin in the Chthulucene, Experimental Futures. Technological Lives, Scientific Arts, Anthropological Voices (Durham London: Duke University Press, 2016).

Table 3. Care Logics

Rational Logic	Organizational Logic	Bureaucratic Logic	Care Logic
"Governments select the action that will maximize strategic goals and objectives."[73] *Key components: objectives, options, consequences, and choices.*	"Large organizations functioning according to standard patterns of behavior."[74] *Key component: protocols or SOPs.*	"Bargaining along regularized channels among players positioned hierarchically."[75] *Key component: bureaucratic channels.*	Good care is less about individual choices and fixed tasks but about collective action. *Key component: actions.*
What is the definition of the crisis? What alternatives exist? What is the most efficient and effective alternative? *Intervention opportunity: How might the city or local government frame the crisis as a clear and specific public problem (and identify its causes and effects)? How might we choose the most efficient and effective alternative?*	What are the protocols for crisis response? *Intervention opportunity: How might the city or local government design protocols and SOPs for crisis response?*	Who are the relevant stakeholders in the crisis? What are their main interests and most urgent necessities? What are the share needs of the different actors? *Intervention opportunity: How might the city or local government coproduce an intervention that meets the needs of the different actors affected by the crisis? How might the city or local government reduce the friction of bureaucratic channels?*	What is to be done in the crisis? What are the most urgent needs? Who are those closer to those needs? *Intervention opportunity: How might the city or local government identify the community's most urgent needs daily? How might they design an intervention that any actor (citizens, experts, bureaucrats) could implement? How might they empower as many actors as possible to respond to the crisis? How might they define an explicit action or practice that tackles the most urgent crisis' needs (e.g., during COVID-19, wearing a facemask)?*

6.2 Case Study: Mother's Trust in Multnomah, United States

The COVID-19 pandemic had a disproportionate impact on Black communities in the United States.[76] To address both the pandemic and promote equity, Multnomah County in Oregon allocated $2.9 million USD in 2021 to a trust led by 100 mothers from Black communities. This trust operated as a participatory budgeting strategy, allowing the community to manage resource allocation instead of the government.[77]

[73] Allison, "Conceptual Models and the Cuban Missile Crisis," 694.
[74] Allison, 698.
[75] Allison, 707.
[76] Maritza Vasquez Reyes, "The Disproportional Impact of COVID-19 on African Americans," Health and Human Rights 22, no. 2 (December 2020): 299–307.
[77] Institute on Race, Power, and Political Economy, "Empowering Black Mothers through the Multnomah Mother's Trust," The New School Budget Equity Project, accessed January 13, 2025, https://budgetequity.racepowerpolicy.org/.

The trust's first action was a monthly cash transfer of $500 USD.[78] Then, the trust also considered other interventions, such as homeownership projects, collective debt elimination, and baby bonds. In 2022, the trust launched The Finna Act Black (FAB) program, a homeownership initiative with a gender and race equity approach that provides "peer support, counseling, down payment assistance, and debt relief for Black women looking to become homeowners."[79]

The Mother's Trust of Multnomah adopted a care logic for crisis response. Instead of relying on fixed tasks or standard operating procedures, the government delegated responsibilities for resource allocation and policy design to a community organization run by family caregivers (mothers). This approach allowed Multnomah to address the most urgent needs of its most vulnerable communities while empowering citizens to take action in the crisis response.

7. Metrics: Making Care Legible

7.1 Definitions: Measuring Time and Practices

One of the central challenges of care worldwide is that it remains unrecognized. Care activities, especially those performed in informal and unpaid contexts, are often invisible to governments–there is no register, account, or estimation. Therefore, organizations such as the ILO[80] and the UN[90] have been advocating for developing care metrics that make caregivers, care recipients, and care practices visible and legible for governments.

[78] Multnomah County, "Multnomah Mother's Trust," Department of County Human Services, 2024, https://multco.us/info/multnomah-mothers-trust.
[79] Institute on Race, Power, and Political Economy, "Empowering Black Mothers through the Multnomah Mother's Trust."
[80] Samantha Watson, "Advancing the Measurement of Care Work and the Care Economy: A Global Consultation for New Statistical Standards," ILOSTAT, July 5, 2024, https://ilostat.ilo.org/blog/advancing-the-measurement-of-care-work-and-the-care-economy/.
[81] Julio Bango et al., "Methodology to Estimate the Costs and Economic Impacts of Implementing Care Services in Latin America and the Caribbean" (UN Women, 2022).

Nancy Folbre's research[82] on care metrics examines how care work is quantified, shedding light on the complexities of recognizing the contributions of care workers, especially women, in urban settings. Key insights from her studies can guide efforts to incorporate care into urban institutional frameworks during times of crisis.

First, Folbre emphasizes that time-use surveys, which collect detailed data on how individuals allocate their time across various activities, have become essential for measuring caregiving. Second, she stresses the need for a better understanding of inequities in care allocation, as women bear the majority of caregiving labor. Third, it is indispensable to consider cultural and contextual particularities of care. Caring practices vary across different geographies and time periods. Moreover, care practices and dynamics can change dramatically during a crisis. Therefore, during COVID-19, a group of time-use researchers in the U.K.[83] developed a digital diary[84] to track time and how family dynamics changed because of the lockdowns and other mobility restrictions.

Fourth, Folbre critiques existing measurement systems that ignore the economic contributions of care, referring to it as the "care penalty." She highlights the importance of accurately estimating the economic cost of the time spent on caregiving. In this regard, to estimate the economic cost of unpaid care labor, the UN suggests either using the opportunity cost of care time or determining the market price of a similar labor. Folbre adds that it is also necessary to consider in the cost estimation (i) the benefits for the care recipient, (ii) the intrinsic satisfaction for the caregiver, (iii) the other externalities of care, and (iv) since care is oriented toward developing human capabilities, it should be viewed as an investment good. "Investment goods, unlike consumption goods, require calculation of a flow of costs and benefits over time."

Fifth and finally, Folbre advocates for developing new metrics to measure care beyond time surveys and for incorporating those metrics into development plans to ensure effective institutionalization. According to our literature, an alternative to time surveys is to focus on one specific care practice and estimate its prevalence. For instance, during the pandemic, a group of researchers in India[85] developed a technology to detect the percentage of people in a crowd wearing masks–being wearing the mask the care practice. Another method for measuring care is to rely on

[82] Nancy Folbre, "Measuring Care: Gender, Empowerment, and the Care Economy," Journal of Human Development 7, no. 2 (July 2006): 183–99, https://doi.org/10.1080/14649880600768512.
[83] Jonathan Gershuny et al., "A New Perspective from Time Use Research on the Effects of Social Restrictions on COVID-19 Behavioral Infection Risk," ed. Nicky McCreesh, PLOS ONE 16, no. 2 (February 10, 2021): e0245551, https://doi.org/10.1371/journal.pone.0245551.
[84] Oriel Sullivan et al., "Time Use Diary Design for Our Times - an Overview, Presenting a Click-and-Drag Diary Instrument (CaDDI) for Online Application," Journal of Time Use Research, July 16, 2020, 1–17, https://doi.org/10.32797/jtur-2020-1.
[85] Prithvi N. Amin et al., "Deep Learning Based Face Mask Detection and Crowd Counting," in 2021 6th International Conference for Convergence in Technology (I2CT), 2021, 1–5, https://doi.org/10.1109/I2CT51068.2021.9417826.

qualitative observations, which are particularly helpful for understanding the cultural nuances of care practices. For example, a group of researchers in China conducted dynamic observations and qualitative analysis of a psychological crisis hotline during the COVID-19 pandemic and developed insights for future health crises.

Despite some of the progress mentioned above, care labor contributions remain undercounted and undervalued in official statistics. Furthermore, the measurement of care labor is complex due to its diverse forms—paid, unpaid, formal, and informal—and its occurrence across different settings, including homes, communities, and both market and non-market enterprises. In addition, the lack of standardized frameworks for measuring care work presents a significant challenge. As mentioned, care measurements combine various data sources such as labor force and time-use surveys, each with different methodologies.

To tackle these challenges, the ILO is spearheading an initiative to establish clear definitions, subcategories, and measurement criteria for care work.[86] Important considerations for this standard-setting process involve outlining the various types of care work, such as long-term care, and developing suitable terminologies. The ILO also intends to create frameworks for disaggregating data based on activity, geographic location, and individual characteristics to ensure the data is meaningful and contextually relevant. Furthermore, integrating existing ILO classification systems, like the International Standard Classification of Occupations (ISCO-08)[87] and the International Classification of Activities for Time-Use Statistics (ICATUS),[88] will be essential in harmonizing care work measurement.

Table 4. Care Metrics

	Measuring Time	Measuring Practices	Standardization
Definitions	Time Use surveys have become a central instrument for measuring the time invested in care activities and how that time is distributed throughout the day, across spaces, and between populations.	While use of time surveys provides the overview of care dynamics, counting one specific care practice might show the prevalence of a key action during the crisis. For instance, wearing a mask, washing the hands, or boiling water. The measurement technique entirely	Without ignoring space and temporal particularities and changes, the reviewed literature advocates for standardizing care measurements in two ways. On the one hand, in the classification of care occupations. On the other hand, in the techniques for measuring care.

[86] Watson, "Advancing the Measurement of Care Work and the Care Economy."
[87] ILO, "International Standard Classification of Occupations ISCO-08" (International Labour Office Geneve, ILO, 2012).
[88] United Nations, "International Classification of Activities for Time-Use Statistics 2016," Statistical Papers, no. 98 (2021).

		depends on the target practice. Observation and self-report are feasible alternative.	
Crisis Considerations	What are the most time-consuming care practices? For example, during a crisis that involves an energy shortage, home appliances do not work, so activities such as cooking or doing laundry might take more time. *Intervention opportunity: How might the city or local government measure time allocation?*	What are the key care practices for the crisis response? What is the prevalence of those care practices? *Intervention opportunity: How might the city or local government measure the prevalence of the most important care practices during the crisis?*	What are the city or local government protocols for measuring care? What are the offices or teams responsible for measuring care? *Intervention opportunity: How might the city or local government standardize the ways of measuring care while considering it is an ever-changing phenomenon?*

7.2 Case Study: Measuring Care in Mexico City

In September 2024, the Evaluation Council of Mexico City published a comprehensive report[89] assessing the city's Care System (*Sistema de Cuidados*). The report consolidated data on the weekly average time citizens spend on care activities, average time by demographics (to reflect inequities), the total number of caregivers, the total number of care recipients, and the classification of care recipients based on caregivers' levels of dependency, among other metrics.

The report served as a measurement effort that established the baseline for designing a city-wide ecosystem of care policies. Moreover, it reflected certain practices regarding how the city manages care metrics. For instance, Mexico City has an institution that can take on care mea-

[89] Iván Roldán et al., "Evaluación Diagnóstica y de Diseño Del Sistema de Cuidados En La Ciudad de México 2023" (Consejo de Evaluación de la Ciudad de México, 2024).

surements: the Evaluation Council. Additionally, the city relies on the National Use of Time Survey for local estimates, similar to how Bogotá does with the National Use of Time Survey in Colombia, which illustrates how local governments utilize national measurement systems. Furthermore, Mexico City connects care measurements with other metrics, such as poverty data, enabling the city to view issues from a broader perspective.

Measurements of care during the COVID-19 crisis in Mexico are also worthy of analysis. To identify and understand the gender disparities exacerbated by the pandemic, in 2020, a group of over 30 non-governmental organizations established the Observatory of Gender and COVID-19 in Mexico.* The observatory examined the of the pandemic on care dynamics. However, it did not stop there. It also investigated other interconnected topics, such as women's access to the job market, reproductive rights, gender violence, and sex work, among others. Furthermore, the Observatory developed a podcast (*Nos Cayó El 20*)** where they interviewed women facing the crisis and how they coped with it.

The Observatory was not a government initiative. However, local governments and cities can learn from it in three aspects. Firstly, the Observatory successfully articulated a myriad of actors: from international organizations such as *Médicins du Monde*, or national associations such as the *Red Nacional de Jornaleros y Jornaleras Agrícolas* (National Network of Agricultural Workers) to local NGOs like the *Centro de Derechos Humanos Fary Matías de Córdova A.C.*, which is a human rights organization that works in the Southern region of Mexico.*** Secondly, the observatory produced reports and socialized their research insights in accessible media, such as podcasts. This approach facilitates reaching larger audiences, which might represent more people willing to adopt a care approach in crisis response; as mentioned above, embedding care in crisis response is not only a matter of government bureaucrats–the more people, the better. Thirdly, the observatory also heavily relies on qualitative data, for instance, interviews with women resisting the crisis; this allows their insights to be contextualized in political, economic, and social realities.

In summary, measuring care in Mexico City is not just a project or initiative but rather an ecosystem of actors and practices collaborating toward a deeper understanding of the care phenomenon in the long term, while also serving as an immediate response to a crisis. Besides, the recent report by the Evaluation Council reflects how care metrics have been embedded within the city's institutionality.

* Pending citation
** Pending citation
*** Pending citation

8. Institutions: Care Governance

8.1 Definitions: Establishing the Relationships between Formal and Informal Institutions

A crucial challenge related to the implementation and delivery of care involves the coordination of structures and institutions. Institutions of care can encompass formal and informal systems, organizations, and policies that structure caregiving within societies. These institutions can range from hospitals, schools, and eldercare facilities to community-based organizations, religious groups, and even informal mutual aid networks. In the context of urban governance, institutions of care also include local government agencies responsible for public health, social services, housing, and emergency response.

The relationships between formal and informal institutions of care become particularly important when care is being scaled up from households and communities to city and regional levels. Razavi[90] argues for conceptualizing the relationships between different types of social and political institutions as a "Care Diamond", to include:

- The family/household
- Markets
- The public sector
- The not-for-profit sector (including voluntary and community provision)

According to Razavi, the boundaries of responsibility for care often shift in response to the claims of social networks and organized interest groups, as well as through state action. Razavi calls for countries (and, in the context of this report, cities and regions) to move back and forth across different sectors when it comes to the implementation of care, as opposed to a linear path where cities and regions inevitably shift from "private" (family and voluntary) provision of care to "public" provision (by the state and market).

Razavi also argues that policy options for care can range across a broad spectrum, from cash payments to tax allowances, various types of paid and unpaid leave, social security credits, and social services. Razavi categorizes these options into four types:

- Provisions for monetary and social security benefits
- Employment-related measures
- Services or benefits provided in-kind
- Incentives for employment creation or towards provision in the market

Distributing different kinds of policy options across the institutional architecture of the Care Diamond allows for a more nuanced and flexible approach to addressing care needs at various scales. By evaluating and leveraging the strengths of each component of the Diamond, governments and organizations can create institutional systems which adapt to changing societal demands. This framework not only ensures that care

[90] Shahra Razavi, The Political and Social Economy of Care in a Development Context: Conceptual Issues, Research Questions and Policy Options (Geneva, 2007).

responsibilities are shared equitably but also promotes resilience by diversifying the sources of care provision. Ultimately, such an approach fosters a more inclusive and sustainable care ecosystem, capable of meeting the complex needs of diverse populations across urban and regional contexts.

While institutional architectures such as the Care Diamond provide a useful high-level conceptualization of institutional relationships, such relationships can be deepened and strengthened further, when such architectures embed and integrate the themes discussed in previous sections. For instance, integrating practices of Care Topology and Care Fluidity (see Section 5 above) across different facets of the Care Diamond allows for mapping of different kinds of institutions, as well as institutional roles and responsibilities to different geographies of care. Integrating the concepts of care topology and care fluidity within the Care Diamond framework allows for a more nuanced implementation of institutional roles and responsibilities in different care geographies.

For example, during a health crisis such as an epidemic, the "family/household" sphere might experience a surge in care demands, requiring support from the "public sector" through emergency services and financial aid. Simultaneously, the "not-for-profit sector" could mobilize volunteers to provide community-based care, demonstrating the fluidity of care provision across different institutional spheres. By analyzing these dynamic interactions, city and regional governments can better adapt its strategies to support the evolving needs of its citizens, ensuring a more resilient and responsive care ecosystem.

Furthermore, incorporating care chains into the institutional analysis allows for the recognition of global influences on local care systems, particularly in diverse urban contexts. This can involve understanding how migrant communities access and provide care, and how international aid organizations interact with local institutions during crises. By acknowledging these interconnected layers, urban governance can foster more inclusive and equitable care systems that address the specific needs of all populations.

8.2 Case Study: Integrating the Care Diamond with Care Chains to Highlight Inequities in Care Work across Singapore and Myanmar

Ortiga, Wee, and Yeoh[91] illustrate how care chains can be integrated with the Care Diamond to bring out and highlight inequities in a case study of elderly care in Singapore and Myanmar. They argue that while training courses for care workers for the elderly often depict elderly care skills as a set of procedures that apply uniformly to all individuals who tend to elderly needs, the skills regime in Singapore reinforces the unequal recognition of care work in different segments of the care diamond, while also reshaping the movement of migrant women along the global care chain.

[91] Yasmin Y. Ortiga, Kellynn Wee, and Brenda S. A. Yeoh, "Connecting Care Chains and Care Diamonds: The Elderly Care Skills Regime in Singapore," Global Networks 21, no. 2 (April 2021): 434–54, https://doi.org/10.1111/glob.12281.

In tackling the growing need for care labor in Singapore's long-term care services, state agencies sought to 'build a stronger local core' by training Singaporean citizens for elderly care work. In appealing to Singaporeans, elderly care skills were packaged as quick to learn and flexible to students' schedules. The skill to care, therefore, was not an all-encompassing vocation, but an 'à la carte' suite of easily learnable abilities. Much of the discourse on skilling citizens focused on attracting Singaporean women to the elderly care sector and was less about testing and evaluating competencies.

In contrast to lowering barriers for Singaporean citizens, training Foreign Domestic Workers (FDWs) raised standards of care within the household. State agencies and nonprofit organizations encouraged employers to enrol their FDWs in elderly care training courses to ensure that they could tend to the needs of the elderly. the majority of elderly care courses seemed to be aimed at pleasing Singapore employers rather than developing the knowledge and skills of FDWs. Ortiga, Wee, and Yeoh argue that while the skills regime for Singaporeans filtered care itself so that it would be repackaged and programmed as a set of easy, discrete and basic skills, discourses surrounding FDW training reconfigured their work as high risk, hence necessitating the filtering (or sieving) out of foreign domestic workers who were incapable of managing the work of being 'more than a maid'.

The practice of pre-training migrant women in elderly care was largely a market-led initiative, and not a requirement set by the Singapore government. Time and money constraints made it difficult for agencies and training providers to have FDWs go through longer periods of training. Such pressures in Singapore's elderly care diamond pushed actors and agencies working in the global care chain to revise or modify how they produce aspiring migrants. The rising demand for migrant women who can assume caring duties immediately stimulated the growth of an industry of 'training centres' to produce FDWs competent in elderly care before these women even leave their countries of origin. Oritga, Wee, and Yeoh illustrate this point by focusing on care training centers in Myanmar. Interviews with care workers revealed that while Singa-

pore-based courses were shorter and limited, courses in Myanmar could run week-long training sessions including practical, oral and written tests.

Ortiga, Wee, and Yeoh conclude that Singapore's skills regime seeks to fill in the cracks of a nation's care diamond, mainly by expanding the role that different carers currently perform, and pushing individuals beyond the sectors of care provision in which they had been traditionally located. Training programs catering to Singaporeans attempt to encourage housewives and retirees who primarily care for their families to redirect their spillover care to elderly care services in the community. Meanwhile, the rising emphasis on caregiver training for FDWs compels migrant women to take on some of the work expected of health professionals, thus expanding their capabilities to include tasks usually provided within nursing homes and community-based centres. By combining an analysis of Singapore's Care Diamond with its care chains, Ortiga, Wee, and Yeoh caution that despite state campaigns to train particular Singaporeans for specific caregiving roles, the country's elderly care diamond continues to rely heavily on FDWs to carry out the brunt of the care work.

8.3 Deepening Institutional Architectures via Integration with Logics, and Metrics

In addition to incorporating spaces, institutional architectures such as the Care Diamond provide more use to city and regional governments when integrated with the discussions above, of logics, and metrics.

Decision-making is a fundamental function of institutions, therefore, making it imperative to map decision-making processes onto adopted institutional architectures. Different kinds of institutions (and the different kinds of policy options they work with) may be conducive to different forms of decision-making logics. For example, by mapping different logics to different components of the Care Diamond, it is possible to ascertain what kinds of logics are best adopted by different groups of formal and informal institutions.

Furthermore, incorporating logics with institutional architectures allows for a better examination of the evolution of the architecture itself. McGinnis illustrates this in a study of 'polycentric self-governance' of regional US health care systems, which advocates that any group of individuals facing a collective problem should be able to address the problem in whatever way they best see fit. According to McGinnis,[92] polycentricity can be seen as an attribute of governance architectures, which vary on the extent to which they realize connections between subsets of the population and specific units of formal and informal governance. McGinnis applies this concept to Hospital Referral Regions (HRRs) in the United States, local and regional spaces where most patients in an HRR receive

[92] Michael D. McGinnis, "Costs and Challenges of Polycentric Governance: An Equilibrium Concept and Examples from U.S. Health Care," SSRN Electronic Journal, 2011, https://doi.org/10.2139/ssrn.2206980.

most of their care at one or more hospitals within the HRR. Arguing that standard market-based or state-based solutions do not map well to healthcare problems, McGinnis advocates for strategic consideration of opportunities for institutional innovation at community levels, such as Accountable Care Organizations (ACOs) and patient-centered medical homes.

McGinnis argues that since different actors will have different levels of control over different types of outcomes, only those coalitions that include members with direct influence over an outcome dimension are likely to prove effective at achieving goals related to that dimension. By doing so, McGinnis' analysis of HRRs illustrates an example of combining institutional architectures with different forms of logics. In McGinnis's analysis, community-level co-ordination to form healthcare coalitions can be seen as a mapping of Annamarie Mol's Care Logic (See Section 6.1.) to non-market and non-state institutions on the Care Diamond, making an argument that informal co-ordination to form coalitions is a form of Mol's formula of "keep on trying" and "staying with the trouble", allowing the institutional architecture to evolve towards better provision of care.

Similar arguments can also be made for the mapping of metrics to institutional architectures. Folbre's arguments (See Section 7.1) for measuring time, measuring practices, and standardization raise questions for different institutions functioning at different levels of governance, across a spectrum of formality/informality, on what metrics best suit the logics and objectives of a particular institution. For example, a community-based organization adopting Mol's "staying with the trouble" strategy may have to adopt a more continuous monitoring of time-use metrics compared to a larger-scale organization with more goal-based logics, to continuously respond to an ongoing crisis or problem.

There remains an overarching question of who conducts and implements such mapping exercises. The allocation of such mapping responsibilities, to some extent, will be constrained by existing laws and legal structures within each country, region, or city. However, within the boundaries of such legal constraints, city and regional governments can experiment with multiple institutions and organizations at different levels and points in the institutional architecture. Given that many aspects of care are often invisibilized or not measured/tracked effectively, such experimentation is crucial to allow for diverse facets of care to emerge and be incorporated into visible institutional structures and practices. Additionally, acknowledging this point also allows for more opportunities for different institutions to adopt different responsibilities and experiment with multiple logics and metrics to best fit the crises they are addressing.◆

Chapter III
Policy Recommendations

Photo by Iván Samudra

9. Embedding Care in Urban Institutional Response During Crises

As we illustrate in this paper, there are many ways to embed care within urban institutional responses to crises. Nevertheless, there is a recurring call among care actors, spaces, logics, metrics, and institutions. Cities and local governments should expand their care lexicons, definitions, and scopes of practice. Historically, care has been confined to very specific sociodemographic segments (such as women, immigrants, and low-income families), spaces (like hospitals and schools), professions (including doctors and nurses), and beneficiaries (such as children, older adults, and people with disabilities). This has resulted in widespread inequities in care systems, making them particularly vulnerable to crises. To recognize and redistribute care labor, overcome gender disparities, and enhance care systems to make them more resilient to crises, cities and local governments should expand the scope of care in the urban institutional response to the crises. Considering the conceptual frameworks in the paragraphs above, the following subsections present policy recommendations for adopting a care apporach in crisis response.

Table 5. Summary

	Policy Recommendations
Actors	1. Including indirect caregivers as essential workers. 2. Caring for caregivers. 3. Adopting an equity approach for targeting crisis response beneficiaries.
Spaces	4. Strengthening the interconnectedness of care spaces. 5. Ensuring adaptability in crisis care spaces. 6. Enhancing local integration in global care networks.
Logics	7. Defining crisis standard operation procedures (SOP). 8. Leveraging on Behavioral Policies and citizens agency. 9. Empowering individuals and communities on crisis governance.
Metrics	10. Institutionalizing care metrics in crisis preparedness. 11. Enhancing data collection and ensuring public transparency. 12. Recognizing care labor in budget planning. 13. Integrating care metrics into crisis policy design. 14. Identifying care allocation disparities.
Institutions	15. Integrating Formal and Informal Institutions. 16. Mapping Institutions with Care Spaces, Logics and Metrics. 17. Experimentation in The Allocation of Care Responsibilities.

9.1 Embedding Care Actors

9.1.1 Including Indirect Caregivers as Essential Workers

During the COVID-19 pandemic, the term "essential workers" was used across cities and countries to refer to healthcare professionals at the forefront of the crisis response, caring for COVID-19 patients with respiratory complications. The label "essential" was developed to grant those workers special permits, benefits, or responsibilities during the crisis. For instance, some essential workers had mobility authorization during the lockdowns.

Meanwhile, for doctors and nurses to perform their jobs, an extensive network of workers maintained the infrastructure that healthcare workers needed to continue their duties. This network is what Folbre calls indirect caregivers: cooks, cleaning staff, delivery workers, house services, and more.

In this sense, the first policy recommendation for cities and local governments during a crisis is to ask their Labor or Employment Offices to consider and include indirect caregivers as essential workers and, depending on the nature of the crisis, design special permits, benefits, and responsibilities for indirect caregivers.

Including indirect caregivers in the institutional response to a crisis is challenging because these workers are more likely to operate in informal labor markets. Thus, recognizing indirect caregivers as essential workers means that the Employment or Labor Office of the city must engage not exclusively with formal institutions like hospitals but also with cooperatives or unions—for example, a cooperative of undocumented immigrant domestic workers. Therefore, local governments and cities must acknowledge the vital role of these networks and establish communication channels with groups and organizations of informal indirect caregivers before a crisis arises while also seeking ways to enhance and support these networks.

9.1.2 Caring For Caregivers

In her book *The Care Crisis*,[93] Emma Dowling examines the numerous challenges facing care systems, including the increasing demand for services, low wages in the care industry, and precarious working conditions for caregivers. This care crisis is connected to what psychologists refer to as a "care burden,"[94] which refers to the adverse physical and emotional effects on caregivers stemming from their responsibilities.

Thus, cities and local governments should view caregivers not only as essential participants in addressing the crisis but also as a vulnerable group. During a crisis, the threat of increased care burdens is significant, so local governments must be ready and take proactive steps to mitigate them.

[93] Emma Dowling, The Care Crisis: What Caused It and How Can We End It?, First edition paperback (London ; New York: Verso, 2021).
[94] Zhu Liu, Catrina Heffernan, and Jie Tan, "Caregiver Burden: A Concept Analysis," International Journal of Nursing Sciences 7, no. 4 (July 25, 2020): 438–45, https://doi.org/10.1016/j.ijnss.2020.07.012.

In this regard, during a crisis, some recommendations are to (i) prioritize caregivers and their families as beneficiaries of social services, (ii) ensure funds for salaries, subsidies, and bonuses for the extra labor of caregivers due to the crisis (including indirect and informal caregivers), and (iii) provide mental health support to caregivers to help them cope with the emotional distress caused by the emergency.

9.1.3 Adopting An Equity Approach For Targeting Beneficiaries

Crises disproportionately affect certain populations. Communities already facing health disparities, economic inequities, and other forms of inequality are more vulnerable during a crisis. Moreover, certain groups may be dealing with multiple crises simultaneously (e.g., the climate crisis and the refugee crisis) when a new emergency arises (e.g., the COVID-19 pandemic).

Cities and local governments should adopt an equity approach in crisis response. In other words, during emergencies, institutions should prioritize communities facing economic, social, and cultural disparities. These populations vary depending on the local context, but DeYoung notes that they typically include "ethnic and racial minoritized persons, people considered to be low caste, women, children, infants, sexual minorities, religious minorities, elders, and immigrants."[95]

To adopt an equity approach, cities and local governments should first gain a clear understanding of the spatial distribution of sociodemographics (e.g., through census tracts) to identify where the most vulnerable populations reside—this is usually the responsibility of the Statistics Offices or Research Departments. Additionally, cities and local governments should ask social services offices to use this spatial data to target the areas where their interventions are applied. Moreover, the staff of social services departments should be trained and sensitive in addressing disparities related to gender, race, and class.

9.2 Embedding Care Spaces

9.2.1 Strengthening The Interconnectedness Of Care Spaces

A topological approach to care spaces emphasizes the interconnectedness of various layers that form the foundation of care systems. Governments can begin by conducting multi-layered spatial assessments to map the infrastructure that supports care and identify the dependencies between both formal and informal spaces. For instance, schools, parks, public transportation systems, shelters, community centers, and homes all contribute to the care network, and understanding how they interrelate is crucial. Strengthening community-based networks is another vital aspect of this approach. By establishing localized care hubs that integrate health, education, and social services, it becomes possible to alleviate the strain on centralized institutions during crises, ensuring a more resilient response to emergencies. Furthermore, enhancing interdepartmental co-

[95] DeYoung, "Vulnerable Groups During Crisis."

ordination is essential for maintaining the functionality of care networks when critical spaces, such as hospitals or schools, are compromised. This coordination among urban planning, public health, and social services ensures that care systems remain robust and adaptable, even in the face of disruption.

9.2.2 Ensuring Adaptability In Crisis Care Spaces

Designing for care fluidity in crisis response aims to ensure that care spaces are adaptable to evolving needs, promoting flexibility and mobility in service delivery. One key strategy is the development of mobile and temporary care units, such as pop-up health clinics, legal assistance units, and emergency shelters, which can be relocated based on patterns of population displacement. This mobility allows for a more dynamic and responsive approach to crises. Expanding digital infrastructure is another critical aspect, enabling crisis-affected populations to access telehealth services, virtual legal aid, and digital education platforms, all of which provide required support without the need for physical proximity. Additionally, adapting zoning and land use policies is crucial to accommodating emergency care functions. By facilitating the temporary reallocation of spaces—such as using public transportation hubs or parking lots for vaccination campaigns or food distribution—governments can ensure that resources are effectively deployed in areas where they are most needed during a crisis.

9.2.3 Enhancing Local Integration In Global Care Networks

Strengthening local integration within global care chains involves addressing the transnational dynamics that shape local care spaces, particularly in terms of labor and resource flows. A key component of this strategy is supporting migrant and informal care workers, who play a key role in sustaining services like childcare, elder care, and domestic labor. Governments should ensure these workers receive legal protections and crisis support, recognizing their contribution to the resilience of care systems. Additionally, diversifying supply chains for care infrastructure is crucial to reduce reliance on single-source systems. Strengthening regional production capabilities for necessary resources, such as medical supplies and food distribution networks, can provide more localized and sustainable solutions during crises. Finally, enhancing international cooperation for crisis response is crucial. Establishing cross-border agreements to facilitate the mobility of care workers and the swift distribution of humanitarian aid can help address gaps in care provision during emergencies, ensuring that resources and personnel are deployed where they are most needed.

9.3 Embedding Care Logics

9.3.1 Defining Crisis Standard Operation Procedures (SOP)

During a crisis, time is a valuable asset. In emergencies, critical time that should be invested in reestablishing and providing care services and infrastructure is devoted to defining logistical elements of governance. Cri-

ses affect not only infrastructure and people but also governance mechanisms: roles, hierarchies, procedures, and tasks.

Acknowledging that it is impossible to predict or consider all the contingencies that a crisis might bring, cities and local governments would benefit from defining some basic procedures for crisis response within each institution, office, or department and across all of them.

Following the rational decision-making model approach, it is essential for each department, office, or institution (education, health, social services, environmental affairs, culture, labor, research, etc.) to have a clearly defined portfolio of activities, actions, or services that can be provided during a crisis or adjusted for crisis response, and including as a key step in the crisis SOP to review that portfolio.

Lastly, considering the bureaucratic decision-making model approach, cities and local governments should include in crisis SOPs ways to reduce bureaucratic friction among actors, facilitating interactions between stakeholders. For instance, temporarily removing an unnecessary form that might act as a barrier to access to a social service.

9.3.2 Leveraging on Behavioral Policies and Citizens Agency

Annemarie Mol asserts that adopting a care logic requires focusing on practices/actions and viewing everyone as a potential care actor without fixed tasks. In this sense, embracing a care logic during a crisis encourages cities to concentrate on practices that address emergencies (e.g., wearing masks during the COVID-19 pandemic) and to promote participation from all stakeholders—including citizens, workers, and state officials—in adopting those practices.

Behavioral policies could be a valuable tool for this purpose. This approach suggests using citizen agency (their behaviors) to tackle public issues, such as aiding responses to the climate crisis by promoting recycling (a behavior) among citizens. In this context, the government's role is to create the conditions (through media campaigns, infrastructure, etc.) for citizens to adopt these behaviors.

For this recommendation, media offices in cities and local governments play a key role in providing the necessary information on desirable practices for crisis response and how everyone can adopt them.

9.3.3 Empowering Individuals and Communities on Crisis Governance

Communities and grassroots organizations are more likely to recognize new contingencies and needs following a crisis than the government. Hence, bottom-up initiatives in crisis response might be a good strategy for local government to tackle the most urgent necessities of neighborhoods or small localities.

One way to materialize this approach is by facilitating a deliberative space within a small community and providing funds for the implementation of emerging initiatives, as exemplified by the Multnomah County

case (see above). Another strategy for this goal involves conditioned and unconditional cash transfer policies, which have been extensively documented as beneficial.[96, 97, 98, 99, 100, 101]

9.4 Embedding Care Metrics

9.4.1 Institutionalizing Care Metrics in Crisis Preparedness

Institutionalizing care metrics in crisis preparedness is essential to recognizing and addressing the often overlooked aspects of care labor during emergencies. Some key strategies include establishing care measurement taskforces within local and regional governments. These dedicated units can be integrated into existing statistics, health, and/or social services departments.[102] They would focus on tracking care labor and their differing perspectives, such as experienced and evaluative well-being, often overlooked in traditional metrics.[103]

Collaboration with national statistics offices and academic institutions can enhance bringing in the expertise and resources for innovative local data collection and analysis.[104] Another way is implementing crisis-sensitive time-use surveys. Time-use surveys can be adapted to measure shifts in caregiving responsibilities during emergencies.[105] These surveys might capture increased childcare demands during lockdowns, care burdens due to energy shortages, changes in eldercare responsibilities, or redistribution of household tasks.

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[96] Samantha Lily Kumar et al., "An Unconditional Cash Transfer Program for Low-Income New Yorkers Affected by COVID-19," Journal of Urban Health : Bulletin of the New York Academy of Medicine 100, no. 1 (February 2023): 16–28, https://doi.org/10.1007/s11524-022-00693-9.

[97] James Ferguson, Give a Man a Fish: Reflections on the New Politics of Distribution, The Lewis Henry Morgan Lectures (Durham, NC: Duke University Press, 2015).

[98] Fernanda L. Lopez De Leon, Bansi Malde, and Ben McQuillin, "The Effects of Emergency Government Cash Transfers on Beliefs and Behaviours during the COVID Pandemic: Evidence from Brazil," Journal of Economic Behavior & Organization 208 (April 2023): 140–55, https://doi.org/10.1016/j.jebo.2023.01.006.

[99] Zahrah Nesbitt-Ahmed, "Cash Transfers during Urban Crises: Lessons for Women's Economic Empowerment," 2017.

[100] Dennis Egger et al., "Unconditional Cash Transfers to Increase General Welfare and Local Public Finance in Kenya," The Abdul Latif Jameel Poverty Action Lab (J-PAL), accessed January 31, 2025, https://www.povertyactionlab.org/evaluation/unconditional-cash-transfers-increase-general-welfare-and-local-public-finance-kenya.

[101] Lisa Gennetian, Laina Sonterblum, and Kwon, "Rigorously Evaluating Cash Transfer Programs in the United States: Considerations, Challenges, and Future Research Questions," The Abdul Latif Jameel Poverty Action Lab (J-PAL), November 28, 2023, https://www.povertyactionlab.org/blog/11-28-23/rigorously-evaluating-cash-transfer-programs-united-states-considerations-challenges.

[102] Katie Morrison Lee et al., "Measuring Preparedness for Public Health and Health Care Emergencies: The Current State of Preparedness Metrics in the United States and Considerations for the Future" (Mathematica, 2024).

[103] Sean Urwin et al., "Informal Caregiving, Time Use and Experienced Wellbeing," Health Economics 32, no. 2 (February 2023): 356–74, https://doi.org/10.1002/hec.4624.

[104] Gonçalo Santinha et al., "Designing a Health Strategy at Local Level: A Conceptual Framework for Local Governments," International Journal of Environmental Research and Public Health 20, no. 13 (June 29, 2023): 6250, https://doi.org/10.3390/ijerph20136250.

[105] Vicki A Freedman et al., "Time Use and Experienced Wellbeing of Older Caregivers: A Sequence Analysis," ed. Rachel Pruchno, The Gerontologist 59, no. 5 (September 17, 2019): e441–50, https://doi.org/10.1093/geront/gny175.

9.4.2 Enhancing Data Collection and Ensuring Public Transparency

Enhancing data collection and ensuring public transparency for care metrics are essential for informed crisis responses and effective policy-making. One way to achieve this is through multi-stakeholder partnerships that bring together NGOs, universities, community groups, and government agencies to improve data collection, reflection, ownership, and analysis.

The Observatory of Gender and COVID-19 in Mexico City exemplifies how such collaborations can leverage diverse expertise and resources to ensure comprehensive data collection across various care sectors, providing a more accurate and nuanced understanding of care labor trends.[106]

Another crucial step is the establishment of dashboards that visualize care metrics in an accessible and regularly updated format covering aspects such as accessibility, referral sources, reasons for care needs, and outcomes. By linking care data with broader social indicators like poverty and gender inequities, these platforms can offer deeper insights and develop more equitable crisis response strategies.

9.4.3 Recognizing Care Labor in Budget Planning

Using UN-recommended approaches is one way to estimate the economic cost of unpaid care labor, either through the opportunity cost approach, which calculates its value based on a caregiver's potential earnings, or the market price approach, which estimates its worth by assessing the cost of hiring a professional for equivalent tasks.[107]

Integrating these valuations into budget planning allows for a more accurate understanding of the economic impact of care work, leading to better resource allocation during crises and the development of policies that support unpaid caregivers. Transparent data presentation also raises public awareness about the significance and economic value of care work, while continuous monitoring of care metrics improves crisis preparedness by enabling proactive responses to future emergencies.

9.4.4 Integrating Care Metrics into Crisis Policy Design

Integrating care metrics into crisis policy design is instrumental in developing effective interventions that address the diverse needs of caregivers during emergencies. Targeted intervention programs based on care labor data can significantly enhance crisis response by tailoring support to specific challenges.

For instance, distributing fuel-efficient stoves, establishing community meal services, and providing energy subsidies can alleviate increased

[106] UN Women, "COVID-19 Rapid Gender Assessment (Mexico)," UN Women Data Hub, 2021.
[107] Rui Zhang and Julie Bohlen, "Healthcare Business Budgeting," in StatPearls (Treasure Island (FL): StatPearls Publishing, 2025), http://www.ncbi.nlm.nih.gov/books/NBK589707/.

caregiving burdens during energy shortages. Similarly, pandemic-related interventions such as emergency childcare for frontline workers, financial aid for informal caregivers, and respite care programs for those caring for elderly or disabled individuals can ensure that caregiving responsibilities remain manageable. Designing these types of interventions requires policy-making teams to have access to data on who assumes most of the care labor and how they allocate time for care duties.

9.4.5 Identifying Care Allocation Disparities

As mentioned throughout the document, care task allocation is influenced by gender, race, and economic disparities. Care labor in cities is disproportionately carried out by women, immigrants, and low-income communities.

Thus, a key task of care metrics during a crisis is to reflect on how new care responsibilities (related to the emergency) are distributed across these sociodemographic groups and how care allocation is shifting due to the crisis.

Focusing on care disparities may ensure emergency response initiatives effectively support the most vulnerable communities and facilitate the design of policies to redistribute care duties. As mentioned above, qualitative research (e.g., in field visits), time-use diaries, and counting or self-reporting (while considering sociodemographics) one specific care practice are helpful tools for understanding care dynamics and distributions.

9.5 Embedding Care Institutions

9.5.1 Integrating Formal and Informal Institutions

Responses to crises via care require acknowledgement of the fact that care provision occurs across formal and informal institutions which can be both visible and invisible to city and regional governments. Under such circumstances, it becomes imperative to design and adopt institutional architectures which can incorporate both formal and informal institutions, as well as a wide spectrum of institutional practices and behaviors into a targeted response to a crisis. A good example of such an architecture is the Care Diamond, which links family/community with state institutions, market-based institutions, and non-profit institutions. Adopting an inclusive institutional architecture also allows for an acknowledgement of a range of policy options which are not restricted by the structure of a single institution or set of institutions.

9.5.2 Mapping Institutions with Care Spaces, Logics and Metrics

The adoption of an inclusive institutional architecture needs to be accompanied by a mapping of institutions with care spaces, logics, and metrics. Such mapping can reveal congruities, matches or tensions between the logics of different institutions, highlighting potential areas for improvement or conflict. For instance, a public sector agency operating on a bureaucratic logic might struggle to effectively collaborate with a community-based organization driven by a more relational, care-focused logic. Understanding

these differences is crucial for fostering effective partnerships and ensuring that the overall care system is aligned with its goals.

9.5.3 Experimentation in The Allocation of Care Responsibilities

Governments should promote experiments to identify nodal institutions responsible for defining roles and care responsibilities, pilot various approaches to data collection and stakeholder engagement, encourage inter-institutional collaboration on different logics and metrics, establish a learning and adaptation process, and prioritize inclusivity and equity by engaging diverse communities. This approach will foster more resilient and responsive care ecosystems that effectively address evolving community needs. ◆

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