

CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Urban Design Strategies for Future Food Systems

Working Group Description:

Globally, COVID-19 is forcing thousands of people to stay home. At the time of writing, practicing physical distancing is the only efficient strategy against the spreading of the contagion. The enforced regulations impede movements with an effect on both consumption and production of food. As the Food and Agriculture Organization of the United Nations (FAO) states in its website, “quarantines and panic during the Ebola Virus Disease outbreak in Sierra Leone (2014-2016) [...] led to a spike in hunger and malnutrition.” The FAO advocates for strong measures to ensure food security and mitigate the crisis’ impacts on the food system during and after pandemics. This Working Group aims to develop knowledge that helps to identify these measures. It does so by exploring how access to food could be affected by the urban form during the pandemic. The goal is to learn from the emergent resilient practices that pandemic is generating to design a more resilient future food system informing the work of architects, planners, administrators, and community leaders.

Priority Research Topics and Specific Research Questions:

Priority Research Topics	Potential Research Questions
<p>1. Urban Form Impacting Food Security:</p> <p>In the time of COVID-19, the issue of food security has reached an unprecedented global scale, impacting large populations and demographic groups living in very different urban conditions. In Wuhan, China, grassroots governments, self-organized residents’ organizations, NGOs, and volunteers fulfilled the basic needs for food. However, there were concerns about food quality, freshness, variety, and whether the previous food provision chain and transportation could recover to a traditional pattern. In Milan, Italy, the accessibility to food varies significantly according to the urban morphology conditions. The municipality of Milan, as a</p>	<ul style="list-style-type: none"> • <u>Research Question 1:</u> How will the pandemic affect food security according to the urban form in different geographic locations? • <u>Research Question 2:</u> How do urban form and spatial patterns of communities/neighborhoods influence food provision and thereby influencing residents’ food consumption and behavior? • <u>Research Question 3:</u> Is there a correlation between urban form, food security, and social conditions? If so, in what ways does it manifest itself across segregated and in well-developed neighborhoods?

<p>compact city, favors soft mobility to food distribution sources while fragmented and dispersed urbanization of peripheral areas encourages the use of vehicular modes of transport creating a disparity in food accessibility. In Gainesville, Florida in the U.S., the stay-at-home regulation increased the CSA (local farms' box vegetables) subscriptions, purchases of edible plant seeds (facilitated by recent urban agriculture regulations), and the organization of alternative farm markets in place of city markets. In Baltimore, Maryland in the U.S., food apartheid is a concern affecting thousands of Afro-American residents. The issue is generated by decades of urban segregation planning. The pandemic has emphasized even more the inequality of food access within the city.</p>	<ul style="list-style-type: none"> • <u>Research Question 4</u>: How does housing condition and type (apartments, downtown, peripheries, single family houses, tall building, townhouses) influence people's adaptations to different phases of the pandemic? • <u>Research Question 5</u>: What are the impacts of mitigation solidarity strategies on food consumption and food justice and security in particular? Here mitigation strategies include community-led projects, volunteer organizations, government support, food banks.
<p>2. The Emergence of New Urban Food Practices:</p> <p>Globally, the impact of the urban form on food security generates food access limitations. As a reaction, the pandemic and associated crises are driving the emergence of resilient urban food practices like food self-production, solidarity networks delivering food to the eldest people, and pop-up farm markets. Hence, the current pandemic shows opportunities and new partnerships in line with the theory of a "risk society" by German sociologist Ulrich Beck. Risk society is concerned about the future, its uncertainty, and its hazards. However, it is exactly these concerns that push society to seek positive cooperation and collaboration between diverse stakeholders. Grounded on this theory, we argue this emergency provides a unique opportunity to establish new cooperation and partnerships. This pandemic is the occasion to survey the impact of a long-term disaster on food security and the spontaneous practices of food resilience.</p>	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What types of resilient urban food practices have emerged during the pandemic? • <u>Research Question 2</u>: Can we find new emergent urban food practices across different social classes and ethnicities? How do diverse income backgrounds and social contexts generate different urban food practices? • <u>Research Question 3</u>: How do different cultures and geographies impact new urban food practices? • <u>Research Question 4</u>: How do these emergent urban food practices initiate new uses of spaces? How does the urban form of low-income neighborhoods hinder or support the development of new uses of space? Are these uses different from those observed in wealthier neighborhoods? • <u>Research Question 5</u>: How is the informality in food provision and consumption (street vendors, community supports) structured before and after the pandemic? What is the impact of informal/spontaneous uses of space on food security across social classes?
<p>3. Overcoming the Pandemic:</p> <p>The analysis of how the urban form (density, logistics, infrastructures, and distribution of food stores) and the social and economic structure influence food security will help to further reinforce the paradigm shift from the city as only a consumer to the city as a producer of food. The pandemic has been demonstrating that an urban system—a cluster of urbanized and less urbanized peripheries that work symbiotically—has been overturning the dichotomy of city versus countryside. Informal/spontaneous uses of the built environment favor local purchases and local farms. These innovative modalities of socioeconomic activities can lead to social change.</p> <p>In this light, the pandemic has highlighted the fragilities and the prospects that urban systems have to offer for a more resilient food system.</p>	<ul style="list-style-type: none"> • <u>Research Question 1</u>: How does the changed pattern in consumption and diet adaptation inform new ways of designing the food system to achieve resilient future cities? • <u>Research Question 2</u>: Considering the differences in urban forms/ community culture/ community structure/ grassroots governance/ government/ weather/climate/ social and spatial density roles and capacities between different countries, what can we learn on food security in different phases of disasters to inform the future of cities? • <u>Research Question 3</u>: How can we transform and design cities that minimize or neutralize food inequality during a disaster? • <u>Research Question 4</u>: How can we design a city to prevent food inequality between disasters (mitigation plan)? How can we design cities to prevent food segregation?

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| | <ul style="list-style-type: none">• <u>Research Question 5</u>: Can we apply urban food practices developed in advantaged areas to areas inhabited by low-income communities and vice-versa? |
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Ethical / Methodological Considerations:

The COVID-19 pandemic has overwhelmed people with concerns about health, employment, education, and food security, especially amongst disadvantaged communities. Within this situation, it is important to consider the ethical approach of research involving human subjects that experience health and economic distress. The dilemma is rooted, in part, regarding timing and the advisability of starting the study as soon as possible to capture the experiences of the moment or to wait the after-pandemic to respect the potentially fragile condition of the participants. Furthermore, during the pandemic only less stressed persons might reply to the survey or agree to participate in interviews lowering the response rate, hence impacting the reliability of the research. The Working Group has committed to decide when to launch the project following the full ethical reviews of the proposed research that will be carried out at the institutions of each case study. Informed consent will be secured for each participant.

Considering these ethical premises, we aim to engage in a series of case studies in different cultural and geographical locations. Examples are Milan, Italy, Wuhan, China, Baltimore, U.S., and Gainesville, U.S. The cases will inform how different urban forms (città diffusa/Italy, concentric city/China, vertical city/U.S., college town/U.S.) affect food security. We will employ a mixed methodology that involves qualitative and quantitative methods at the (1) regional level – quantitative analysis, (2) city-level – qualitative analysis, and (3) foodshed level - mapping the new foodsheds.

Other Frameworks, Considerations for Collaboration, and/or Resources

The goal of this Working Group is to develop research in each context and compare the case studies, when possible, through different media as webinars and virtual symposia. The group will seek to collaborate with other CONVERGE Working Groups involved in similar thematic areas and share expertise with public bodies.

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