

Hixon Center
Urban Conference

COVID's Impact and the Future of Cities

November 5, 2021



On November 5th, 2021, the Hixon Center for Urban Ecology at the Yale School of the Environment (YSE) convened the hybrid conference, “COVID’s Impact and the Future of Cities.” The conference focused on the current and potential future impact of the pandemic in urban areas. Over 100 participants joined the conference virtually from around the world, while a small group of Yale students, faculty, and affiliates gathered in Burke Auditorium to attend the conference live. The audience included foresters, architects, private equity investors, and other participants from a diverse range of disciplinary backgrounds.

Dr. Karen Seto, the Frederick C. Hixon Professor of Geography and Urbanization Science, opened the conference by highlighting the importance of focusing on COVID’s reshaping of urban space. She observed that “as we are approaching the second year anniversary of the COVID-19 pandemic, there have been a number of questions about what will happen to cities. Will the pandemic shut down cities? Will COVID slow down investment in real estate in cities? And how can we make cities healthier and safer going into the future?” Throughout the conference, experts on public health, real estate, and city parks sought to answer these questions, and more.

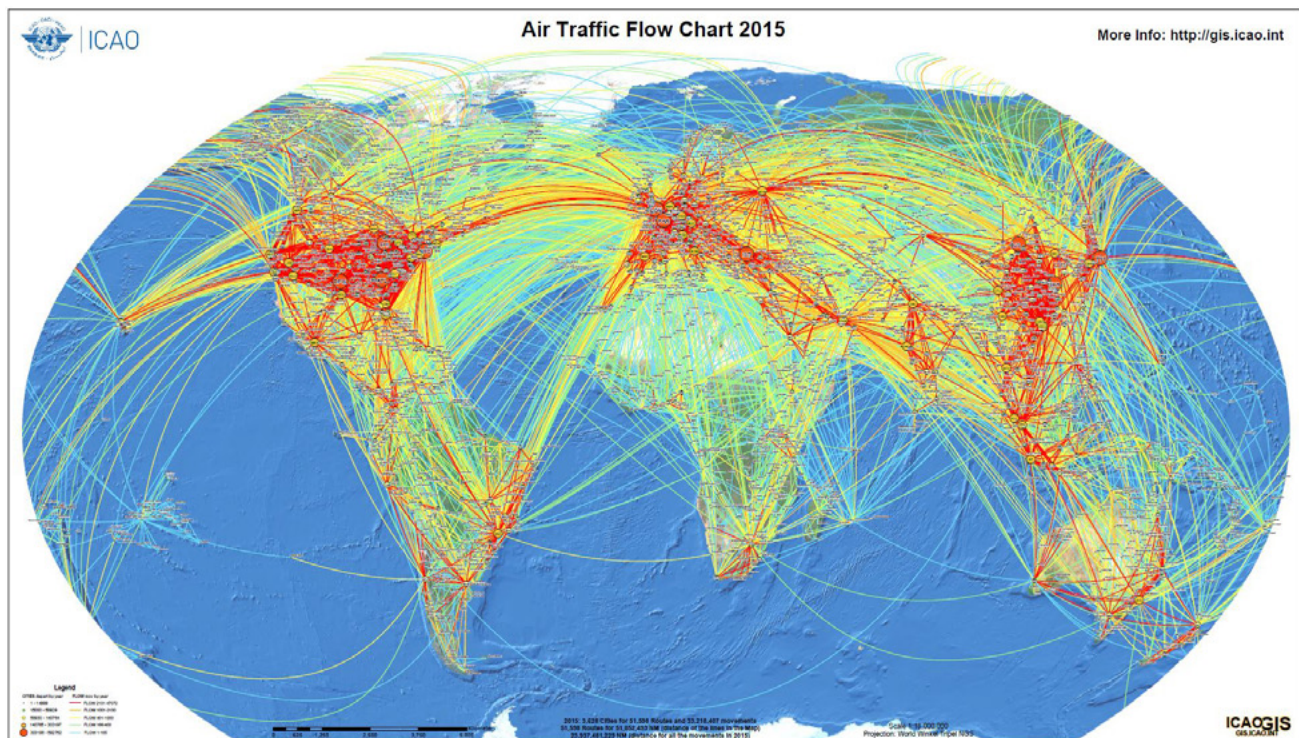
Re-imagining Cities during Covid-19: Lessons from Asiatic Cholera

In his keynote address, Dr. Frank Snowden, Andrew Downey Orrick Professor Emeritus of History & History of Medicine, stressed the importance of learning from COVID to prepare for future health crises. He warned that COVID could be a “dress rehearsal for something worse,” and that “the future is up to us” to apply lessons learned from the pandemic. Snowden contrasted two pandemics of the past, Spanish influenza and Asiatic cholera, to demonstrate the possibilities for contemporary COVID response. Snowden explained that the 1918 Spanish influenza outbreak faded quickly from collective memory due to the precedence of other global issues and censorship of the media. As a result, leaders failed to apply the lessons of the pandemic to guide preventive action. Less than a century earlier, the Asiatic cholera epidemic prompted more robust responses. Cities like Paris and Naples enacted transformative infrastructure projects to prevent future outbreaks of the disease. Reflecting on these two divergent histories, Snowden posed a key question: “Are we going to follow the example of Spanish influenza or Asiatic cholera?”

Urban Informal Settlements and the Pandemic

Following Dr. Snowden’s keynote address, Dr. Seto introduced the first panel, which focused on health in urban informal settlements. Dr. David Vlahov, professor of nursing and epidemiology, moderated the discussion between four public health experts. Dr. Albert Ko, the Raj and Indra Nooyi Professor of Public Health, contextualized the conversation by reflecting on the enormous burden of disease caused by COVID. He underscored the role that cities have played in the rapid spread of the virus due to their status as global hubs for transportation. Despite the pandemic’s significant contributions to global morbidity and mortality, Dr. Ko emphasized the inadequacy of existing data. Between underreporting and the indirect effects of COVID on disease burden, he suggested that current estimates do not accurately convey the reality of the pandemic.

Dr. Ana Diez Roux, Dean of the Dornsife School of Public Health and Director of the Drexel Urban Health Collaborative, presented data from the SALURBAL (Salud Urbana en América Latina) study in Latin America. The data reflect health inequities that exist both between and



Flights from Major Airports (Source: International Civil Aviation Organization)



Spread of COVID-19 Variants (Source: Nextstrain.org)

within cities. Dr. Diez Roux highlighted the structural and systemic drivers of urban health inequity, which have shaped disparate experiences with COVID-19 in cities. Due to these structural and systemic forces, Dr. Diez Roux called for “multisectoral approaches to reduce urban health inequities.” She suggested that these approaches should seek to empower and engage vulnerable urban-dwellers in pandemic responses. Finally, Dr. Diez Roux echoed Dr. Ko’s call for more comprehensive data collection to improve understanding of urban health inequity.

Dr. Blessing Mberu joined the panel from Nairobi, Kenya, where he serves as Head of Urbanization and Wellbeing at the African Population and Health Research Center. Dr. Mberu explained that global and national pandemic responses have disadvantaged the urban poor by failing to account for the local circumstances that shape their everyday lives. For example, national lock-down policies are often “inconsistent with the livelihood...of the urban poor” who tend to rely on day wages for survival. Dr. Mberu proposed a localized approach to pandemic response as an alternative to national-level policies that may exacerbate existing challenges for the urban poor.

Like his fellow panelists, Dr. Mberu emphasized the importance of data collection, specifically in urbanizing African cities: “Evidence generation is needed, particularly for local context.”

The fourth panelist, Dr. Jason Corburn, joined the conversation from Berkeley, where he teaches and directs the Center for Global Healthy Cities. He began by presenting suggestions that he and his co-panelists had proposed in a March 2020 paper in the *Journal of Urban Health*, “Slum Health: Arresting COVID-19 and Improving Well-Being in Urban Informal Settlements.” He observed that the reality of the pandemic in November 2021 is woefully far from this proposed pathway: “We have to ask ourselves, what have we done right and what have been the failures of public health?” Dr. Corburn highlighted several shortcomings of global COVID responses, including violent enforcement of lock-downs and mass evictions in the name of social distancing. Dr. Corburn diverged from his colleagues by urging caution with respect to the collection of public health data in urban informal settlements due to the potential for hyper surveillance and censorship of the urban poor.



Handwashing in an Urban Informal Settlement (Source: NPR)

He offered citizen science as a complementary approach to traditional data methodologies. Dr. Coburn concluded by calling for “an extended peer review of our [public health] recommendations. We seem to have lost the risk-benefit framework of who is going to benefit and who may be burdened by our policy recommendations during this pandemic.”

Dr. Ko added to the conversation by sharing recent findings on the status of COVID inequity in Salvador, Brazil and in Connecticut. In Brazil, the data suggest that children, low-income people, and women are most vulnerable. In Connecticut, vulnerability has shifted over the course of the pandemic. Rates of COVID infection were initially highest amongst Black residents of the state. However, disease burden has been declining more precipitously for Black communities than for Hispanic communities and the Hispanic population currently experiences the highest rates of COVID in Connecticut. Ultimately, from New Haven to Salvador, the pandemic continues to reflect and perpetuate inequity.

During the panel discussion, the speakers coalesced around the importance of improved data systems to empower pandemic responses at the local level. Dr. Mberu aptly observed that “if you can measure it, if you can define it, it becomes easier to address it.” Echoing Dr. Corburn’s

support for citizen science, he suggested enlisting young people as “co-researchers.” This approach would enable the “co-creation of knowledge and co-creation of solutions.”

Flows of People & Investments in/out of Cities

The second panel focused on the impact of the pandemic on commercial real estate investments. Professor Kevin Gray, lecturer at the Yale School of Management and moderator of the panel, contextualized the discussion by explaining the importance of commercial real estate in everyday life. Commercial real estate is often portrayed in a negative light, despite providing critical spaces to “live, work, and play.” Professor Gray suggested that “The decline in both income and appreciation [of commercial real estate] during the pandemic has had significant implications for our industry. And those implications go beyond just the investors that benefit from real estate.” Throughout the discussion, four commercial real estate professionals explored the myriad effects of the COVID crisis on the industry.

Robert White, founder and CEO of Real Capital Analytics Inc., began the discussion by presenting trends in the liquidity of office investments in several major cities. The data indicate that the global financial

crisis in 2008 was more disruptive than COVID has been over the past twenty months. However, Mr. White stressed that understanding the lasting effects of the pandemic on real estate markets will require more time and more data. While global office investments have been relatively resilient to the pandemic, Mr. White projected that increasingly mobile and flexible lifestyles will impact the real estate market. He observed that “The younger generation doesn’t want to be tied down by homeownership. COVID has shown that it’s better to be a digital nomad than to be tied down by property.” Mr. White predicted that these growing desires for mobility and flexibility due to the pandemic would transform the real estate industry in the future.

As the CEO of EDENS, Jodie W. McLean shared insight on COVID’s impact on retail real estate markets. Her data on foot traffic in retail spaces over the past twenty months highlighted that “retail is very much alive and thriving.” However, the industry is evolving, and the pandemic has accelerated the integration of digital and brick-and-mortar retail. For example, “buy online, pick-up in store” (BOPIS) has grown in every retail sector, and “digitally

native brands” are increasingly opening physical stores to complement their online presence. Ms. McLean explained that e-commerce is a partner to brick-and-mortar commercial space, not a competitor. She also underscored the social importance of retail space throughout COVID, as “loneliness continues to be a pandemic in this country.” In many parts of the country, the spatiality of community has shifted into commercial spaces, like shopping centers. “Prior to COVID, we were place-makers.” Now, Ms. McLean asserted, they are “experience-makers”

Clint Myers, partner at Rise of the Rest Real Estate, presented data on the flows of venture capital investment into cities during 2020. As Mr. Myers discussed, a small number of cities like New York and San Francisco have emerged as superstar cities and become “stronger and smarter,” while also becoming more congested and expensive. The superstar cities effect has centralized resources in a small number of urban areas. On the other hand, “the Internet is a decentralizing force in that it allows you to do anything from anywhere.” As a result of the Internet effect, cities like Detroit, Philadelphia, and Columbus have seen substantial venture capital



Buy online, pick-up in store (BOPIS) in action at the Mall of America (Source: Forbes)



COVID-19 Testing Clinic at the New Haven Green (Source: NBC Connecticut)

investments. Mr. Myers theorized that the “Internet effect is stronger than the superstar cities effect.” He proposed that the rise of new superstars may be a good thing “not just for investors but for society...it’s not a healthy structure...to have five cities that are doing great and the rest of the country is doing poorly.” The emergence of these new superstar cities will fundamentally reshape the future of real estate.

Christina Gaw, the Global Head of Capital Markets at Gaw Capital, joined the conversation from Hong Kong. Her participation provided a vital international perspective on the impact of COVID on real estate. Ms. Gaw highlighted several emerging commercial real estate markets in Asia, including the internet data center (IDC) sector, which has been growing rapidly as the demand for e-commerce accelerates. Outlet malls are another expanding sector. Ms. Gaw pointed to COVID policies as a possible driver of growth in this market. As a result of international travel restrictions, Chinese citizens have been “consuming in a robust manner,” which has stimulated the domestic economy. Outlet malls create an “experiential retail” opportunity, which has been particularly popular. The growth of these specific sectors during the pandemic will continue to transform the real estate industry in the future.

To conclude the panel, each of the four panelists projected the long-term impacts of COVID. Mr. White suggested that business-class hotels will be impacted for years to come due to the new ways of working that have emerged during the pandemic. Ms. McLean discussed the emergence of an increasingly “phygital world, where the physical and digital become one.” COVID accelerated the integration of e-commerce and retail real estate, which will have important long-term implications. Mr. Myers predicted that COVID will have a lasting effect on the mobility and fluidity of American lifestyles. “More choice and more mobility...opens up a whole world of options in how you spend your time.” Ms. Gaw concluded the conversation by emphasizing the importance of environmental, social, and governance (ESG) factors in the realm of commercial real estate, especially in the context of global crises like COVID and climate change.

Parks, Mental Health, and the Pandemic

The final panel on parks, mental health, and the pandemic was moderated by Dr. Morgan Grove, YSE lecturer and Team Leader for the USDA Forest Service’s Baltimore Urban Field Station. The conversation brought together three experts to discuss the impact of COVID on park utilization and the mental health benefits of green space.

Catherine Nagel, Executive Director of the City Parks Alliance, highlighted the multiplicity of roles that city parks have played over the course of the pandemic. Over the past twenty months, the COVID crisis has brought greater attention to the mental health benefits of green spaces. Research suggests that city-dwellers have a 20% higher risk of anxiety and that parks can cut anxiety and stress in half. Parks have also supported physical health throughout the pandemic. Ms. Nagel explained that parks have been used during COVID as sites for meal distribution, vaccination, temporary housing, daycare, and healthcare. The role of parks also evolved during the pandemic as a result of the movement for Black lives. Ms. Nagel underscored the importance of city parks as sites for protest and civic expression. Parks have been spaces in which citizens question historical narratives, as shown by the toppling of statues and monuments in green spaces across the country. Ms. Nagel raised important questions about culturally relevant design in city parks, observing that “how parks are managed can send strong messages about who belongs and who is excluded.”

Dr. Greg Bratman, Assistant Professor of Nature, Health, and Recreation at the University of Washington, explored the nuanced science behind the health benefits of parks. Dr. Bratman explained that the effect of nature

on mental well-being depends on the quality and quantity of nature exposure. Exposure, dose, and specific features of a natural space all shape the mental and psychological well-being effects of that space. However, questions remain about whether the absence of urban features or the presence of natural features is more impactful for mental health. It is also critical to consider the lived experiences of park users when designing a park to maximize mental health benefits. Dr. Bratman emphasized that existing associations a park user has with certain features can produce both positive and negative emotional responses. He highlighted several important questions to consider when designing a park to support users’ mental health. Is the signage inclusive and does it speak to all users? Does the park communicate environmental history in a way that is accessible and not limited? These questions and others are of critical importance when seeking to design parks that provide mental health benefits to a diverse group of users.

Sarah Charlop-Powers, Co-Founder and Executive Director of the Natural Areas Conservancy, documented the impact of the pandemic on park maintenance and visitation to urban natural areas. Enormous budget cuts for city parks and declining revenue for nonprofit organizations created significant economic challenges for urban parks. Even as



Social distancing in Lincoln Park, Chicago (Source: Chicago Sun-Times)



Mosquito Habitat in Baltimore Urban Green Space (Source: Cary Institute for Ecosystem Studies)

parks faced significant financial constraints, Ms. Charlop-Powers reported a 65% increase in visitation to natural areas in New York City. As city parks and natural areas have grappled with the simultaneous effects of budget cuts and increased utilization, volunteers have played an increasingly important role in supporting the maintenance and operation of these spaces. Ms. Charlop-Power suggested that the resurgence of volunteerism will continue in 2021. She also conveyed a “huge hope of increased funding.” City parks across the country are optimistic that “a combination of increased local spending and federal funds will bring park budgets back in line with their needs in terms of direct funding and staffing.”

The panelists engaged in a thoughtful discussion about the tensions and possible synergies between transportation infrastructure and parks. Ms. Nagel observed that COVID has highlighted how much urban space is devoted to vehicular transportation. The pandemic offered cities an opportunity to experiment with repurposing spaces traditionally devoted to transportation and creating new urban green spaces. Ms. Charlop-Powers echoed these sentiments, adding that “One of the things that has been heartening about this past year has been the commitment to cross-sector collaboration between transportation advocates and green spaces advocates.” Ms. Nagel predicted

that “The next wave of this conversation is going to be about housing...We have a housing crunch in cities.” She added, “There’s a real opportunity for low-income housing advocates and park advocates to work together, and think about the intersection of housing and green spaces as something that is not an either-or but a both-and.” The panelists expressed hope that the importance of parks during the pandemic would prompt a rethinking of urban land use in the future.

The theme of equity in parks was discussed throughout the panel. Dr. Bratman and Ms. Nagel both described the pernicious phenomenon of green gentrification, wherein efforts to expand green infrastructure in low-income neighborhoods catalyze processes of gentrification. Ms. Nagel mentioned the Eleventh Street Bridge Project in Washington, D.C. as an example of a park development project that was attentive to these harmful dynamics and actively worked to prevent community displacement. Dr. Bratman emphasized that the health impacts of parks are not uniformly positive, and noted important work from BIPOC scholars on these issues; green spaces can be sites of stress due to safety concerns and racism in parks. “We [have been talking] about equity and inequity when it comes to access but we also need to talk about equity and inequity when it comes to the experiences [in parks]

themselves...A lot of these spaces have been designed by and for a white demographic.”

Dr. Shannon LaDeau, senior scientist at the Cary Institute of Ecosystem Studies, concluded the conference with a presentation on the growing risks of arboviral diseases in temperate American cities. Dr. LaDeau explained that the range of some arboviral diseases, or diseases transmitted by an arthropod vector, has been expanding in recent years. She highlighted two key drivers of the expansion of arboviral disease range: increasing temperatures and the arrival of, *Aedes albopictus*, a non-native mosquito species that is well-suited to less temperate urban environments. Dr. LaDeau discussed the disparate impacts of arboviral diseases in urban space in the context of the Baltimore Ecosystem Study, which seeks to understand the ecological, cultural, and economic forces that shape the city. The study found nearly three times as many *Aedes albopictus* mosquitoes in low-income neighborhoods, as compared to high-income neighborhoods. The research also revealed a puzzling phenomenon: in high-income neighborhoods, vegetation was a negative predictor of mosquitoes while in low-income neighborhoods, vegetation was a positive predictor of mosquitoes. Dr. LaDeau suggested that this finding reflects the fact that not all green spaces are created equally; “many of the green areas where mosquitoes thrive were abandoned in the low-income neighborhoods.” Dr. LaDeau’s presentation reinforced the importance of equity in the quality of accessible green spaces in cities.

Many have called COVID a great equalizer and a democratizing force. Yet in so many ways, the pandemic has revealed the deep inequalities that plague our world. From urban informal settlements to city parks, the Hixon Center Urban Conference “COVID’s Impact and the Future of Cities” highlighted the enormous health impacts of inequity in the built environment. Collaboration between leaders in public health, real estate, and urban parks will be essential as the post-pandemic future of healthy cities unfolds.

Acknowledgments

On behalf of the Yale Hixon Center for Urban Ecology, Colleen Murphy-Dunning thanks the panelists and moderators for their valuable insight on key issues facing global cities amidst the pandemic. This conference would not have been possible without the support of faculty and staff, including Dr. Karen Seto, Anna Pickett, and Will Walker.

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