

ILS-IMPULSES

COVID-19 and the Future of Cities

Authors of this issue

Stefan Siedentop

Ralf Zimmer-Hegmann

**Does the pandemic change
the understanding of sustainable
urban development?**

Overview

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- Major cities in Germany are not yet affected to an above-average extent
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COVID-19 and the Future of Cities

Does the pandemic change the understanding of sustainable urban development?

The COVID-19 pandemic raises many questions for the „time after“: To what extent will our economic systems prove to be resilient? How will social interaction and communication change? Will the pandemic catalyze the digital transformation of our economy and society? How does COVID-19 work in the context of the currently fading – but not less virulent – global environmental and systemic crises like climate change or social inequality?

International debate on urbanity and density

Urban development is also confronted with urgent questions. During the past few weeks, a global debate on the relevance of density, urbanity and centrality for the emergence and intensification of the pandemic has arisen. The high physical and social density in metropolitan areas benefited – according to some journalists, bloggers and researchers – the spread of the virus. The formation of hotspots such as Wuhan, Milan, Madrid or New York City seems to underline this. Metropolises and metropolitan areas are considered more vulnerable than predominantly rural areas.¹ Basic normative orientations of urban development (such as the „compact city“) have been challenged.² Some commentators are already predicting a reversal of population growth in western metropolises that has been so dynamic in recent years.³

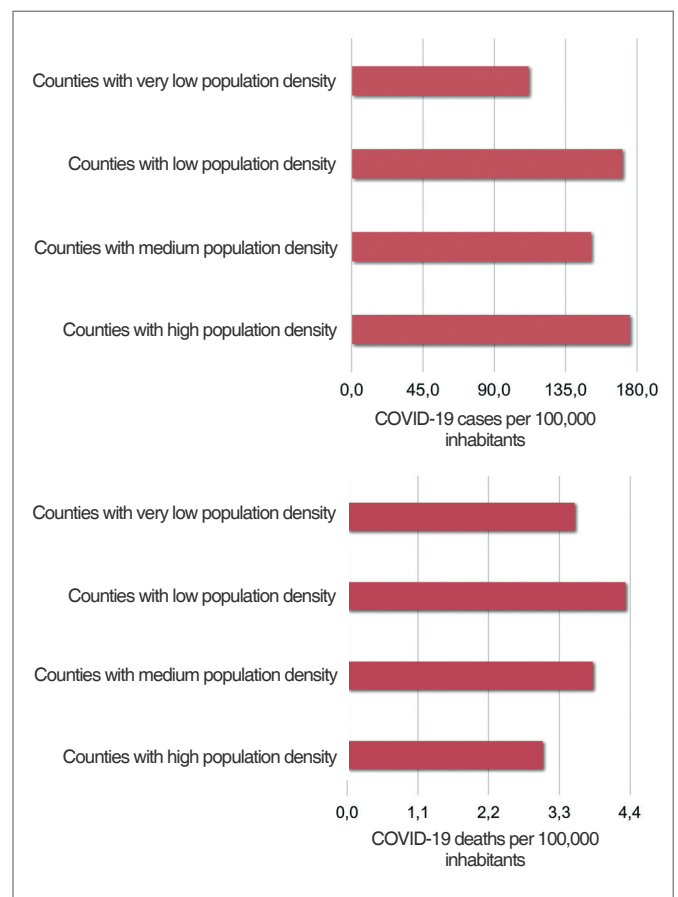
This debate surely comes as no surprise. Like after terrorist attacks, major natural disasters and in the wake of nuclear threats, metropolises are considered as highly vulnerable socio-spatial organizational forms and geographies at risk. At the same time, such a discourse is shortened if it only refers to the conditions of spread, but not to those of pandemic management. Globally integrated and highly dense cities seem to be more vulnerable than rural areas, but at the same time they offer a powerful infrastructure and governance to effectively cope with the negative effects of a virus like SARS-COV-2. Nor should it be overlooked that density and centrality are of central relevance for sustainable mobility, climate-friendly energy supply as well as for the promotion of culture and innovation.⁴

Journalist Emily Badger recently aptly expressed the importance of urban density in an article in the „New York Times“: „Density is normally good for us. That will be true after Coronavirus, too.“⁵

COVID-19, like other epochal crises, must and will be the occasion for a critical inspection of sustainability- and health-oriented urban policy. Do widely accepted principles of sustainable urbanism still offer adequate answers to various challenges in the future? How resilient are cities with regard to infectious diseases and how can resilience factors be systematically strengthened? These questions will be examined in the following.

Large cities in Germany not yet affected to an above-average extent

Let's start with the currently available figures: Is it really true that large cities are more affected by COVID-19 than rural areas? To date, in the German context, we do not see robust evidence of a significant influence of urbanity and density. Spatial hotspots can be found in large cities as well as in small rural towns – their emergence rather seems to be due to contingencies and social events that took place everywhere before the restrictions of public life. The first massive outbreak of the infection in Germany occurred in the small community of Gangelt in the Heinsberg county (North Rhine-Westphalia). As the following figure shows, there is not a significant correlation between urban density (inhabitants per hectare of urban land) and the so-called incidence rate (deaths and infections per 100,000 inhabitants). Although the incidence rate of infections is much lower in counties with a very low population density compared to more densely populated counties, the incidence rate of deaths is higher.



Incidence rate (COVID-19 deaths and COVID-19 infections per 100,000 inhabitants) in German counties and cities, differentiated according to urban density (own presentation based on data from con terra GmbH, data status: April 14, 2020)⁶

This does not mean that population density is of no fundamental relevance to the spread of the pandemic. However, other factors do not seem to be less important: the integration of a place into global economic networks, its significance for tourism, the health condition of the population or its age composition.⁷ There is considerable variation in the everyday mobility of

different age groups – for example with respect to the number of trips per day and person. Young people are more mobile than the elderly. The cohort size of young people could therefore be a relevant factor, if it is true that children and adolescents are vectors of the infection. The proportion of older people with higher risks of a serious illness also plays a role. There is also empirical evidence that air quality related illnesses could be relevant to the severity of COVID-19 diseases. Poorer air quality in densely populated cities could therefore affect the lethality rate.

The virus hits the poor harder

It is already apparent that facing the virus, not everyone is the same, as it is currently so often conjured. The urban housing market with its higher proportion of smaller apartments and a lower per capita living space proves to be disadvantageous in the case of enforced staying at home. Disadvantaged social groups are particularly hit by cramped housing conditions, and the social and socio-psychological consequences of curfews are hardly foreseeable at present. The economist Richard Florida speaks in this context of a „density divide“: While more affluent people („rich dense places“) are coping with home offices, car-based mobility, and delivery services, poorer population groups („poor dense places“) are fleeing from cramped living situations, and are exposed to a higher risk of infection when shopping and using public transport.⁸ In North American and English cities, the links between COVID-19 lethality and poverty are already being discussed.⁹ In the case of England, it has been shown that cramped housing conditions increase the risk of infection, particularly in disadvantaged urban areas.¹⁰ It must be an issue of urban research and epidemiology to better understand the interdependencies of poverty, housing, urban form and the risk of infection.

Public capacity to act is crucial

As mentioned above, not only the conditions of spread must be looked at. We also have to consider the coping capacities of large cities. Cities usually have a much better medical infrastructure than rural regions. Even in times of crisis, local public transport ensures a certain basic service. In addition, the fact that cities are usually well equipped with shopping facilities, helps in the event of occasional supply bottlenecks, since the next shop is often not far away.

Finally, the different regulatory and management capabilities of cities seem to have a major influence in dealing with the pandemic. Large cities in welfare states (e.g. in Germany) and those with a state-centered regulation (e.g. Singapore, Hong Kong) seem to manage the crisis better than cities with underdeveloped or declining public supply systems. This applies both to large cities in underdeveloped countries and to those in neoliberal systems (e.g. New York, London). The functionality of large public health services and local administrations obviously has a positive influence on coping capacities.

Metropolises and metropolitan areas are still attractive

Overall, we do not believe that the corona pandemic, and its long-term economic and social impacts will slow down urbanization and change our understanding of sustainable urban development - neither in the German context, nor in an international perspective. In the future, compact large and medium-sized cities with appropriate densities still offer the best conditions for achieving common goals of climate and resource protection, social integration and inclusion and a thriving knowledge-based economy. The attractiveness of metropolises and urban regions will not diminish in the longer term. A differentiated labour market, a wide range of public services, large ethnic communities, the individual promise of freedom or the appeal of cultural and social diversity will continue to be pull factors that shape migration decisions in the future.

COVID-19 undoubtedly has the potential to slow down urbanization in the short term, because weakening economies will decrease labor market-oriented migration. However, in the longer term we do not expect any lasting effects.

The already foreseeable social differentiation in the extent to which the virus endangers people must be a reason for decisive political action. We need more effective policies against the development of socio-economically deeply divided and socio-spatially segregated urban societies. In addition, political efforts to secure attractive rural areas are still of great importance in order to offer good housing and living alternatives and to reduce the pressure for growth in large cities.

Making cities more resilient

A central task in the „post-corona“ period will be to make cities and regions more resistant to pandemics. This applies first and foremost to health provision and care. The COVID-19 crisis shows that public institutions or at least publicly controlled institutions are needed to ensure effective crisis management. Hospitals – also in rural areas and in local supply – are primarily committed to medical care and only secondarily to economic profitability. Incidentally, this also applies to retirement and nursing homes which in recent years have become sought-after investment properties with high return expectations. Health care and nursing are central components of public services of general interest – or must become so again.

Other parts of basic services (energy, waste disposal, water, local transport) are also relevant to crisis management. We believe that the Corona lesson might lead to a renaissance of public or common goods and thus of basic public services – not in the form of large, bureaucratic state enterprises with a tendency to lacking transparency, but rather in the form of a re-municipalization that is supported and controlled by citizens. This can also contribute to a revival of local democracy.

Strengthening solidarity in neighborhoods

The urban neighbourhoods have proven to be highly resilient. What we have experienced so far in terms of helpfulness and solidarity, especially towards the elderly, proves the willingness to support those nearby and the potential of social capital in functional neighborhoods. Referring to the economic crises that will follow COVID- 19, this everyday solidarity must be effectively assisted – for example, by supporting neighborhood associations and networks or by creating community centers as well as public spaces that support such networking. The current crisis shows how important digital solutions and possibilities of „neighbourhood creation“ – in this context in the form of neighbourhood apps – are, as they help to overcome anonymity and promote contacts in the living environment.

A brief conclusion: Urban populations may be more vulnerable to the spread of the virus than rural populations. The good

news is that cities have a huge coping capacity allowing them to effectively reduce health risks. Let us also be aware that overcoming the pandemic and its long-term economic, social and cultural effects must be embedded in the sustainable solution of humanities major transformation tasks. Here, urban areas with their morphology of density and functional mix as well as their integrative capacities offer valuable resources for action.

Curbing future pandemics more effectively is not a question of urban density, but rather of functional (health) governance, efficient infrastructure and, last but not least, good urban design. Appropriate density, healthy housing conditions and sufficient open spaces are and will remain important cornerstones of sustainable urban development.¹¹ In the next few months, the ILS will address the various aspects of the pandemic's impact on cities, as well as issues of resilience in economic, social and fiscal terms in its research work.

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⁶ We used the con terra risk layer which is based on data from Risklayer GmbH and the Center for Disaster Management and Risk Reduction Technology (CEDIM) at Karlsruhe Institute of Technology (KIT). Urban density was calculated by the number of inhabitants per unit (hectare) of urban land. Counties with high densities have more than 40 inhabitants per hectare, counties with moderate urban densities range between 20 and 40 inhabitants, counties with low densities have values between 10 and 20 inhabitants and counties with very low densities fall below a value of 10 inhabitants per hectare. Data on urban land use at county level are provided by the Federal Statistical Office.

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ILS – Institut für Landes- und
Stadtentwicklungsforschung gGmbH
Brüderweg 22–24
44135 Dortmund
Postfach 10 17 64
44017 Dortmund
Telefon +49 (0)231 90 51–0
Telefax +49 (0)231 90 51–155
www.ils-forschung.de/www.ils-research.de
poststelle@ils-forschung.de

Editorial

Stefan Siedentop
Ralf Zimmer-Hegmann

Translation

Johanna Borbach

Layout

Silke Pfeifer

Images

Fotolia_80882540_Christian Müller (Cover)

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