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Weekly Briefing: July 30th 2020

Cities for a Resilient Recovery: International Lessons on recovery from COVID-19

Produced by The University of Manchester, UK (Professor Duncan Shaw, Dr Jennifer Bealt, and David Powell) in partnership with the Global Resilient Cities Network (Sam Kernaghan)

What is the weekly briefing on Cities for a Resilient Recovery?

Each week the University of Manchester brings together relevant international practices and examples on recovery from COVID-19. The weekly briefing is curated by the Global Resilient Cities Network to bring key lessons and examples targeted for resilience officers, emergency planners and other city practitioners. The structure of the briefing follows the City Resilience Framework – specifically the four drivers that cities have been identified as mattering the most when a city faces chronic stresses or sudden shocks - Health and Wellbeing, Economy & Society; Infrastructure & Environment; and Leadership & Strategy.

Highlights of the week

In this week's briefing we highlight the role communities are playing in communicating urgent public health messages to vulnerable people within their own networks; how wastewater surveillance is being used to identify new outbreaks of COVID19; and the value of spare capacity (redundancy) across organisations and systems as businesses and government seek to maintain operations through current and future waves of the pandemic and into recovery.

A second wave of infections in Melbourne, Australia, has shown how communities are effectively using their own knowledge and capacity to communicate, and provide resources to vulnerable people, highlighting the efficiency of **utilising community networks to identify different languages and cultures, and their proficiency in translating key public health messages**.

Businesses have a key role to play in recovery and renewal as they continue to support their local communities, supply chains, staff, and wider stakeholders. However, business also faces challenges protecting staff and communities at work, protecting jobs and livelihoods as economies falter, and overcoming the immediate impacts of a **shortage of accredited staff as training and re-accreditation facilities are put on hold**.

Wastewater-based disease research groups in Australia, the Netherlands, Sweden, and the USA have reported detecting traces of COVID-19 in wastewater. **Integrating sewer surveillance and wastewater inspections into systems for COVID-19 monitoring** can provide information on potential transmission pathways and improve the early warning of new outbreaks.

And as cities analyse the potential of future waves of the pandemic, there is an opportunity to reconsider the **need for redundancy, or spare capacity, across organisations and systems (food, healthcare)** and where demand for important services could exceed available capacity during recovery e.g. provision of mental health support, financial advice, unemployment services, retraining, and the potential need for spare capacity on an ongoing basis after the crisis lessens.

Consider how to effectively utilise community knowledge and capacity to communicate and provide resources to vulnerable people. In Melbourne (Australia), residents of a tower block on hard lockdown put together an information sheet for the predominantly non-English speaking community to explain the government's measures. The information sheet was translated into ten written, and five oral languages within 24 hours. The information sheet was then distributed among residents within the tower via text and WhatsApp and to community networks to help disseminate government messaging to communities more widely. Consider:
- Assessing whether your organisation has information translated sufficiently for the communities it interacts with
- How to effectively disseminate information to marginalised communities, and the networks most adept at doing this
- How to engage with networks that can access marginalised people in their communities, through religious or social networks to assess if needs are being met and if information is being received and understood
- The efficiency of utilising community networks to identify different languages and cultures, and their proficiency in translating key public health messages

Source: https://www.theguardian.com/australia-news/2020/jul/06/melbourne-towers-residents-translated-covid-19-information-sheet-into-10-different-languages-in-24-hours

Consider how to simultaneously test large numbers of people for COVID-19 through pooled testing. The basic idea of pooled testing is that instead of testing samples from individuals one at a time, samples from multiple individuals (pools) would be mixed together at a testing facility, and tested as one sample. If the test comes back negative the whole pool is clear. If the test is positive, the pool can be tested individually instead. Pooled testing is a means to test more people faster, using few tests, and for less money, and has long been used to test large asymptomatic populations for disease e.g. to screen for sexually transmitted diseases, and to test donated blood for Hepatitis B and C, Zika virus and HIV. Consider:
- The cost saving benefits of pooled testing over testing each individual - schools and businesses saddled with testing costs could lower costs by as much as 75%
- The scalability of pooled testing – batched testing of pools can provide data covering large areas such as schools and businesses
- Pooled testing could ramp up the number of coronavirus tests while lowering testing costs, especially in low-prevalence areas

Source: https://theconversation.com/group-testing-for-coronavirus-called-pooled-testing-could-be-the-fastest-and-cheapest-way-to-increase-screening-nationwide-141579; https://healthpolicy.usc.edu/research/getting-americans-back-to-work-and-school-with-pooled-testing/

Consider 'asks' to the private sector in the response to COVID-19. Throughout the response to the pandemic, many private sector companies have offered donations, skills, knowledge and resources to support local and national efforts to tackle effects of the virus. Businesses have a considerable role to play in recovery and renewal as they continue to support their local communities, supply chains, staff, and wider stakeholders. Advice from the World Health Organization suggests asking the private sector to:
- Protect against COVID-19 by:
  - Informing stakeholders on protecting staff and communities at work, protecting jobs and livelihoods, tackling misinformation
  - Protecting businesses through: business continuity plans, supply chain continuity, maintaining essential infrastructures and services, protecting jobs, acting responsibly towards suppliers
- Participate in the COVID-19 response by:
  - Producing essential supplies, repurposing production capabilities towards making essential supplies, providing in-kind contributions, making available supplies and services
  - Providing financial support to coordinated charity drives, supporting NGO and community needs

Source: https://www.who.int/docs/default-source/coronavirus/who-asks-to-private-sector-covid-19-may-2020.pdf

Consider the reduction of staff/skills availability from the effects of COVID-19. During COVID-19 many training facilities that equip staff with specialist skills have been unable to work effectively so accreditation has not been possible. Furthermore, medical fitness for work certificates may have expired and not been renewed due to the pressures on the healthcare system. Across many sectors (e.g. emergency services, construction, healthcare), these effects could have consequences for the availability of staff who have the required skills/training and are permitted to work; a problem accentuated by the departure of skilled staff during the crisis. Consider:

- How your workforce's skills profile has changed as a result of the effects of COVID-19 e.g.:
    - training centres stopping training new recruits, meaning there is a lack of new staff in the recruitment pipeline
    - expiration of staff's specialist qualifications /registration, meaning they are not permitted/qualified to deliver usual activities
    - granting of medical eligibility to work during the crisis, and impacts on staff ability to work
    - staff being made unemployed or retiring during the crisis o staff who have contracted COVID-19 and who are unable to return to normal duties
- Putting temporary waivers in place to enable workers to continue despite their skills expiring
- How staff whose qualifications have expired during COVID-19 can be re-accredited
- How to ensure staff are medically fit to work
- How to address and overcome the immediate impacts of a shortage of accredited staff
- How to mitigate the multi-year impacts on your sector from COVID-19'

Source: https://www.cscs.uk.com/applying-for-cards/covid-19/

Infrastructure & Environment: The man-made and natural systems that provide critical services, and protect and connect urban assets, enabling the flow of goods, services, and knowledge.

Consider screening sewage and wastewater to monitor the correlation between sewer data and COVID-19. Wastewater-based epidemiology groups in Australia, the Netherlands, Sweden, and the USA have already reported detecting traces of COVID-19 in wastewater. Although COVID-19 is not known to infect humans through sewage or wastewater, similar diseases can, and so monitoring the behaviour of COVID-19 in these environments is important. Consider integrating sewer surveillance and wastewater inspections into systems for COVID-19 monitoring:

- Develop a 'dashboard' of data to assess the correlations between all collated COVD-19-related indicators as seen in the Netherlands
- Provide information on potential transmission pathways and improve the early warning of new outbreaks by understanding the relationships between: wastewater analysis, the number registered infected people, and societal or behavioural traits

Source: https://www.dutchwatersector.com/news/sewer-surveillance-part-of-dutch-national-covid-19-dashboard
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7191284/

Leadership & Strategy: The processes that promote effective leadership, inclusive decision-making, empowered stakeholders, and integrated planning.

Consider having spare capacity in your organisation to cope with concurrent emergencies. Spare capacity is expensive when it is not being used so, in many cases, systems are lean and focus on maximising their utilisation, ongoing value for money, efficiency and return on initial investment. However, this reduces ability to rapidly access capacity and to react quickly in emergency situations. During the early stages of COVID-19 in different countries we witnessed the attempt to delay the impact of the virus so that the system could create needed capacity in areas of healthcare. This time was used to create spare capacity by freeing up beds, sourcing equipment and supplies expected to be needed, preparing staff, identifying processes to pause or reduce to redeploy resources to more critical activities, retrain staff in other critical activities. As countries analyse the potential of future waves of the pandemic, consider:

- What important services are/have been stretched to (or exceed) maximum capacity during the response e.g. healthcare (intensive care), schools (number of socially distanced pupils in classrooms)

- Where demand for important services could exceed available capacity during recovery and Renewal e.g. provision of mental health support, financial advice, unemployment services, retraining
- Where spare capacity should be built into the system so that an appropriate response can be rapidly provided to emergencies e.g. ongoing response to COVID-19, concurrent emergencies, future outbreaks of the virus
- How spare capacity can be created, protected, and prioritised for rapid use when needed
- The need for spare capacity on an ongoing basis after the crisis lessens

Source: https://www.nga.org/wp-content/uploads/2020/05/NGA-Memo_Concurrent-Emergencies_FINAL.pdf
https://www.mckinsey.com/business-functions/organization/our-insights/reimagining-the-office-and-work-life-after-covid-19

Case study Developing resilient systems for crisis and emergency response
The UK's first experience of pandemics has shown that its complexity, breadth and pervasiveness can only be addressed through taking a systems approach to resilience. A whole system response is needed i.e. the health system cannot deal with a pandemic on its own and if just one part of the system struggles (e.g. the provision of PPE or testing capacity), then the whole system is strained. For emergency planning by local government, examples of how COVID has tested resilience include:
- the connection between national and local decision-making protocols
- sharing and analysing data and information across the partnership
- the role of local government in the context of alignment of the whole system into this health-led emergency
- public sector working with military, private and voluntary sectors
- self-direction of local government to commission and procure

Using examples of local government crisis response from early experiences from COVID-19, to enable **delivery of operations** (one of 5 key systems[1]), resilience is needed across: the delivery approach; managing effective and efficient on-site delivery; autonomy of operating units; adjusting delivery using real-time feedback from beneficiaries. **Examples of questions that address the resilience of the delivery of operations**:
- What is the status, role and compatibility of partners in delivering response and recovery effort to a health-led crisis?
- What partner is best placed to lead the activities that builds resilience and how are these partners selected, empowered and respected?
- Where can real-time feedback from service beneficiaries be acquired to adjust delivery?

For more international examples please register @ ambs.ac.uk/covidrecovery
Join the Coalition of Cities for a Resilient Recovery here

If you would be willing to contribute your knowledge to this briefing series (via a 30-minute interview) please contact Duncan.Shaw@manchester.ac.uk

Useful webinars

Key webinars on how cities are building resilience in the face of the pandemic and other shocks & stresses.

Date	Webinar Title (Click to register or for presentation)
16 July	Cities on the Frontline: Resilient Housing
23 July	Cities on the Frontline: Water, Sanitation and Hygiene in Crisis and Recovery
24 July	Infrastructure after COVID-19 – what will it look like?
29 July	Cities on the Frontline: Digital technology underpinning recovery
6 August	Cities on the Frontline: Using school buildings to create adaptive, resilient infrastructure
13 August	Cities on the Frontline: How will public transport operators adapt in the face of the Covid-19
20 August	Cities on the Frontline: How can cities harness the power of natural infrastructure

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[1] Applying systems thinking at times of crisis https://systemsthinking.blog.gov.uk/author/dr-gary-preece/