

Recovery and renewal in the Liverpool City Region

Liverpool's Pandemic Institute: Predicting, preventing and
protecting

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The Liverpool City Region

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Liverpool's Pandemic Institute: Predicting, preventing and protecting

Key takeaways

1. In order to build back better from COVID-19, policymakers must be encouraged to pioneer innovative and better ways to recover, rebuild, and renew our communities and economies.
2. The newly formed [Pandemic Institute](#) is a Liverpool-wide collaboration, founded by the University of Liverpool, the Liverpool School of Tropical Medicine, Liverpool John Moores University, Liverpool City Council, Liverpool University Hospital Foundation Trust, Knowledge Quarter and Liverpool City Region Combined Authority, focused on preparing the world for future pandemics. Through engagement and collaboration with policymakers, the Institute will also deliver benefits to people and places in the Liverpool City Region, nationally and globally.
3. The Pandemic Institute offers an opportunity to contribute to creative and ambitious policymaking throughout the lifecycle of pandemic events, providing end-to-end academic support to policymakers and governments wrestling with pandemic resilience, response, and recovery.
4. Achieving this will require strengthening partnerships with the policymaking community and ensuring that the Institute's research can effectively inform, influence, and impact public policy at the local, national, and global level.
5. To realise this, the Pandemic Institute can focus on strengthening four interconnected dimensions of policy engagement: Evidence and Practice, Innovation and Ideas, Policy Transfer, and Social and Economic Impact.

1. Introduction

The importance of world-class research with wider societal impact and benefit has been amplified by the COVID-19 pandemic. Universities have been at the forefront of vaccine development and the ability of academic institutions to deliver research and innovation will be critical to economic and social recovery from the impacts of COVID-19. Here at the University of Liverpool, researchers are playing critical roles in local, national and global efforts to [combat the virus and find solutions](#) to the adverse effects the pandemic has had on public health, our economy and society.

More broadly, the COVID-19 pandemic has transformed the operating environment in which Higher Education Institutions (HEIs), knowledge exchange, civic engagement and translational

research for better public policy work. The world for which policymakers have to develop policies is becoming increasingly complex, uncertain and unpredictable. COVID-19 has certainly challenged HEIs to respond quickly to events, to scale and intensify the contributions they already make to the remediation of critical social, economic and environmental challenges including, and in particular, local challenges. But more profoundly, it has also challenged HEIs to think anew about the nature of their contributions; what they offer, where, why, how and with what consequences.

As the University of Liverpool's city facing public policy institute, the Heseltine Institute has responded to this challenge by publishing a regular series of COVID-19 policy briefs, drawing on expertise from within the University, across the Liverpool City Region, and beyond. Forty papers

were published over a 12 month period, covering a wide range of policy issues affected by the pandemic. Whilst Liverpool City Region has committed to [‘building back better’](#) from the pandemic, there remain many uncertainties about how local economies and communities will be affected in the longer term by the challenges ushered in by the pandemic, and questions about how prosperity and resilience can be rebuilt. It remains crucial to continue to foster an environment in which knowledge and ideas can be rapidly shared between researchers, policymakers and practitioners to collectively broaden horizons and challenge presumed narratives about what *recovery and renewal* in Liverpool City Region will look like.

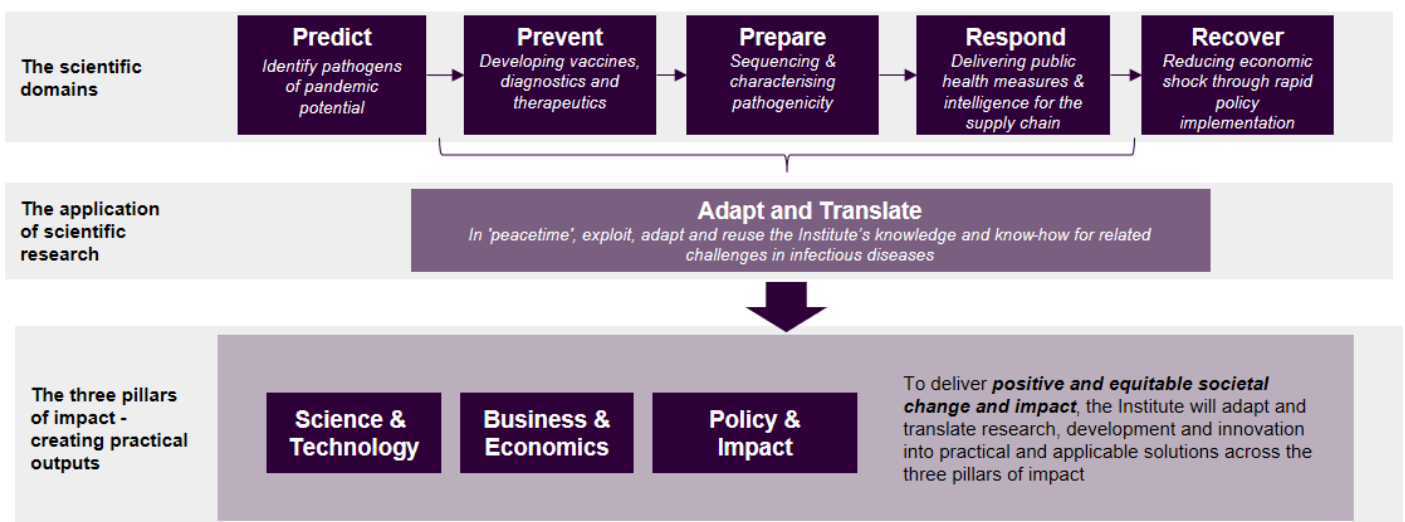
This policy briefing uses Liverpool’s newly formed [Pandemic Institute](#) as a case study to consider how pioneering research with global impact can be leveraged to realise economic and social benefits for the Liverpool City Region, UK and the world

as we seek to ‘build back better’ from COVID-19.

2. What is the Pandemic Institute?

The Pandemic Institute is a Liverpool-wide collaboration, founded by the University of Liverpool, the Liverpool School of Tropical Medicine, Liverpool John Moores University, Liverpool City Council, Liverpool University Hospital Foundation Trust, Knowledge Quarter and Liverpool City Region Combined Authority focused on preparing the world for future pandemics. Building on Liverpool’s unique strengths in health and life sciences, infection research and outbreak response, the Institute will offer a single point of access to globally connected knowledge and assets across the biological, behavioural, environmental and systems aspects of pandemics. It aims to approach pandemic research in a holistic manner, bringing together expertise and activity across 5 domains: prediction, prevention, preparation, response and recovery (see Figure 1).

Figure 1. The Pandemic Institute’s end-to-end approach



3. Pandemics and public policy

The COVID-19 pandemic has reemphasised the threat of emerging and re-emerging infectious disease across the world. It has challenged a prevailing sense, in the developed global north at least, that the future of disease would increasingly centre of degenerative and “people-made” illnesses, such as those arising from unhealthy lifestyles, poor living environments, or an aging society.

However, beyond COVID-19, serious infectious diseases such as malaria, ebola, dengue fever, HIV/AIDS, tuberculosis, influenza, severe acute respiratory syndrome (SARS), Lassa fever, and Escherichia coli (E. coli) are prevalent in places around the globe. Such diseases continue to endanger public health, community resilience and societal progress both in developing and developed countries. The risk of further, deadly epidemics and pandemics arising from such (re)emerging infectious diseases remains significant.

Quite why these infectious diseases appear to be (re)emerging is open to debate. Possible explanations could include:

- Erroneous assumptions that medical science and public health have largely conquered infectious diseases have resulted in a degree of complacency.
- Pharmaceutical companies are concentrating most attention on degenerative diseases because these affect the more developed countries, where most profit is to be made.
- Through lack of ongoing investment and/or reluctance to use insecticides (because of the environmental harm

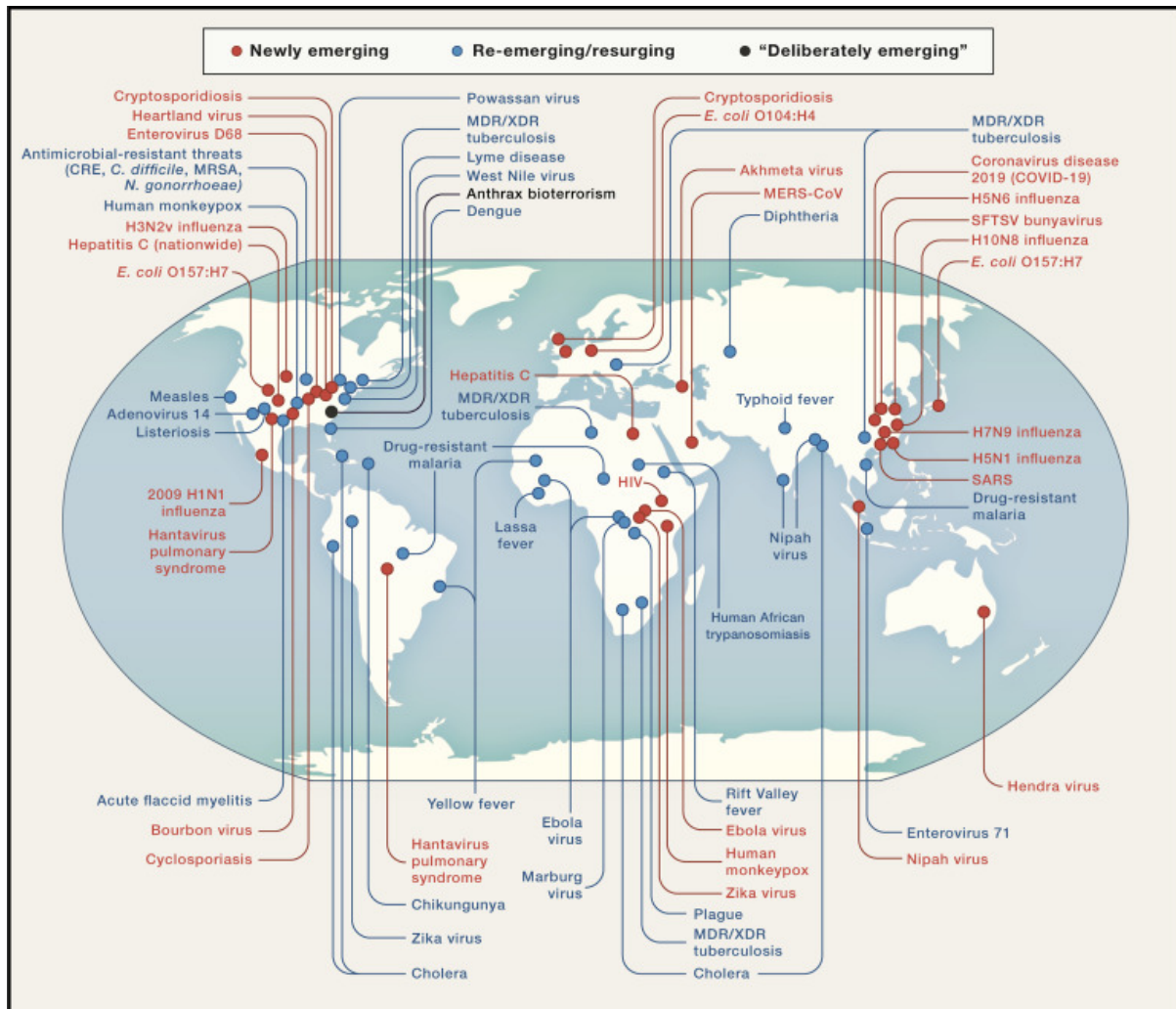
they can do), campaigns to eradicate pathogens and their breeding grounds are losing the battle.

- Excessive usage of antibiotics is creating a new family of more potent “superbugs.”
- Vaccination schemes have failed to inoculate populations at sufficiently frequent intervals.
- Rapid socioeconomic and socioecological changes in the developing world (forest clearance, mining, rapid urbanization, etc.) have released dormant viruses from the natural habitats they were trapped in and created a more hospitable environment for their incubation and proliferation.
- Climate change has altered disease regimes and enabled dangerous pathogens to incubate and spread more easily.

There is no such thing as a natural disaster. Public policy has a direct bearing on each of these issues, and it shapes every phase of a pandemic. Ultimately, how governments and societies choose to prepare for, respond to, and recover from pandemics can determine the difference between success and disaster; between life and death.

We should expect a future in which infectious diseases will once again threaten human health at scale. But we have learned a lot since early 2020 and, in the words of Bill Gates, “humanity will not be so stupid the next time”. A focus on public policy will help us better appreciate the significance of emerging and re-emerging infectious diseases; which diseases are emerging or reemerging, where, why, and with what possible consequences.

Figure 2. Some recent emerging and re-emerging infectious disease



(Source: Morens, D.M. and Fauci, A.S. 2020. *Emerging Pandemic Diseases: How We Got to COVID-19*. Cell, 182.)

4. Translating science into policy outputs

The COVID-19 crisis has been an exceptional world historical event. We must not and cannot go back to our old normal – not least because that normal lacked resilience and made us vulnerable in the first instance. But there is no reason to assume that the 2020s will necessarily see a shift in the Overton window; in the ideas, policies, and calls for change that are politically accepted in the mainstream. Whether or not COVID-19 becomes a threshold moment in ‘big history’ will depend upon what we make of it. The recent history of societal responses to

systemic shocks and disturbances has been a history of ‘ignore and override’ – for all the talk of building back better, when faced with shocks and emergencies, the tendency has been to double-down and endure the pain in the hope of picking up the same ideas, plans and projects once circumstances improve. Too often what actually emerges in the end is much the same as what came before. In spite of the powerful force of system redux we need to work hard to ensure that the 2020s do offer policy communities a moment to pioneer innovative and better ways to recover, rebuild, and renew communities and

economies in Liverpool City Region and across the globe.

One of the aims of the Pandemic Institute is to ensure its scientific research to advance our understanding of pandemics can be used to provide insights and tangible policy outputs that deliver benefits to people and places in the Liverpool City Region, nationally and globally. Delivery teams will work across each domain of the pandemic lifecycle to deliver original research, aligned to key areas of focus including Science and Technology, Business and Economics, and Policy and Impact. All of which will be underpinned by a distinct team adapting research to counter other emerging threats, making the Institute truly unique.

There is a wealth of academic literature for the Institute to draw on and inform how scientific knowledge can be applied

through the policy making process. Supporting a range of approaches and including topics such as the theory and application of policy making (see for example, Dror, 2017); the role of evidence-based policy making in informing good decisions; and the moral obligation for academics to enter and help shape policy debates, illustrated by Harvey's 'What kind of Geography for What Kind of Public Policy?' (1974) there is no shortage of advice. This interest in effective policy-making is not just confined to academic debate. The challenge of formulating successful policies is a perennial issue for national and local governments. In a review of 'Professional Policy Making for the Twenty First Century' the Cabinet Office (1999) identified nine features of modern policy-making (Figure 2) that continue to inform the process of policy making across Government today.

Figure 3. Professional policy making – core competencies

<ol style="list-style-type: none"> 1. Forward looking – takes a long term view, based on statistical trends and informed predictions, of the likely impact on policy. 2. Outward looking – takes account of factors in the national, European and international situation and communicates policy effectively. 3. Innovative, flexible and creative – questions established ways of dealing with things and encourages new ideas; open to comments and suggestions of others. 4. Uses evidence – uses best available evidence from a wide range of sources and involves key stakeholders at an early stage. 5. Inclusive – takes account of the impact on the needs of all those directly or indirectly affected by the policy. 	<ol style="list-style-type: none"> 6. Joined up – looks beyond institutional boundaries to the Government's strategic objectives; establishes the ethical and legal base for policy. 7. Evaluates – builds systematic evaluation of early outcomes into the policy process. 8. Reviews – keeps established policy under review to ensure it continues to deal with the problems it was designed to tackle, taking account of associated effects elsewhere. 9. Learns lessons – learns from experience of what works and what doesn't.
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(Source: Cabinet Office. 1999. *Professional Policy Making for the Twenty First Century*.)

The Pandemic Institute offers an opportunity to contribute to all nine features of policymaking throughout the lifecycle of pandemic events, providing end-to-end academic support to policymakers and governments wrestling with pandemic resilience, response, and recovery. Being positioned at the heart of a global network of partners the Institute has plans to develop a network of regional hubs in the global south working alongside Liverpool to deliver impact in global health security, clinical trials and digital health research. This approach will ensure solutions are rapidly scalable through existing international networks.

Translating the scientific research into tangible policy outputs will also require strengthening partnerships with the wider policy making community and ensuring that the Institute is a proactive and effective contributor to public policy.

Thinking about the role of academia in policymaking processes, we can categorise at least three possible functions that the Pandemic Institute should aim to play:

Inform

The first function is to *inform* policymaking, ensuring policymakers have access to the most timely and robust evidence. This is the most passive, but nonetheless valuable, role that academics can play, making their published research and insight available as a contribution to the wider body of data, intelligence, and evidence that will be considered by policymakers as they develop a policy, design a strategy, or make a decision.

Influence

The second function is to *influence* policymaking, that is, shaping policy through agenda setting, as well as co-development and co-delivery of policy. This is a more active role for the academic, embedding themselves as key

participants in the design of a policy through effective, personal engagement with policymaking actors. This could include formal membership of advisory groups, expert panels, more informal collaboration and relationship cultivation, or even a central role in the drafting and composition of policy itself. In either case, the aim is for the academic to guide and collaborate with policymakers, making sure their expertise and insight is a necessary, valuable, and unavoidable contribution to the development, delivery, and/or evaluation of policies within a specific area.

Impact

Finally, as a result of informing and influencing policy, the third function should be to *impact* wider society. That is, to discern tangible outcomes and change in the real world as a result of the researcher's engagement in the policymaking process. This requires methods of understanding the ways in which research has concretely shaped and improved policy decisions, or encouraged policymakers to act differently, proactively, or creatively. It also requires ways of measuring and quantifying any social and economic benefits this has had for real people, places, or the natural environment. Evaluating impact in this way enables researchers to constantly refine their approaches, their research agendas, and their methods of engagement to pre-empt the needs of policymakers and the communities they represent.

5. Disseminating policy intelligence in real time

Drawing on learning from the Heseltine Institute for Public Policy, Practice and Place and the new realities in which we have to operate in a post-COVID era, it is imperative that the Pandemic Institute builds capacity to disseminate research

and policy intelligence in real time. As a site of socially-invaluable scientific expertise, the Institute must work beyond the traditional boundaries of academia and proactively position its research to effectively inform, influence, and impact public policy. It can do this in at least four interconnected ways.

Evidence and practice

Firstly, the Pandemic Institute can work to translate and communicate high concept scientific or theoretical knowledge about pandemics, their trajectories, and their implications to a global public policy audience. This will include outputs such as easy to access data sets and dashboards, rapid evidence reviews, and briefs on international best practice. Here it will be vital to present research in a way that is concise, easy to understand, and easy to digest by time-poor policymakers, and the wider public. This will help to ensure policymakers are alerted to, and informed about, emerging threats, unfolding pandemics, and long-term impacts (and can act on them at the earliest opportunity).

Innovation and ideas

Second, the Pandemic Institute can act as a driving force for rapid policy innovation, working with policymakers to design creative and ambitious solutions that build pandemic resilience, support pandemic management, and deliver meaningful recovery. This will include activities such as quadruple helix research partnerships, convening policy workshops, and facilitating thought leadership conversations with key stakeholders. The aim here is to create a space within policy cycles for ambitious blue sky thinking and problem solving that is informed by the latest academic insights and breakthroughs in relation to pandemics and their wider social and economic impacts.

Policy transfer

Third, the Pandemic Institute can position itself as a vital critical friend to local, national, and international policymakers; scrutinising policies in the round from the perspective of resilience and preparedness, as well as offering bespoke policy solutions that encourage greater levels of innovation and ambition. Key outputs here will be easy to digest policy briefings and publications, evidence submissions to parliamentary inquiries and select committees, as well as effective engagement with TV, radio, and online media. The aim here is to facilitate effective knowledge exchange between researchers and policymakers, supporting impactful research and evidence-based policymaking before, during, and after a pandemic event.

Social and economic impact

Finally, the Pandemic Institute can work to evaluate the impacts of its activities for people, places, policymaking, and the wider economy in Liverpool City Region and beyond. Examples of this could include understanding the social and economic value of the Institute's pandemic prevention work, tracking the Institute's tangible influence on policymaking, or assessing the efficacy and benefit of capacity building activities. This is about understanding the real-world change resulting from the Institute's research and its engagement with policymaking processes, as well as the wider social value created by the Institute's activities in local communities. Here the focus should be on leveraging evaluative expertise within the University to measure and quantify the impact of the Institute as a regional anchor institution, a hub of innovation, and an active contributor to local, national, and global policymaking.

6. Conclusion

The Pandemic Institute is set to be a hub of scientific discovery and innovation at the heart of the University of Liverpool, leveraging a whole system of existing experience and capabilities to build global knowledge about pandemics, their prevention, and their management. The Pandemic Institute can also be a vital source of expertise, guidance, and support to policymakers in Liverpool City Region and beyond. By working to translate evidence, disseminate intelligence, and set agendas, the Pandemic Institute has an opportunity to effectively inform, influence, and impact policymaking and deliver truly global outcomes and results. Also, drawing on the Heseltine Institute's unique experience of bringing together the often disconnected worlds of policy, practice and evidence and harnessing its well-established connections with policymakers and practitioners will help ensure the policy outputs add value and are pertinent to policy and practice.

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The Heseltine Institute is an interdisciplinary public policy research institute which brings together academic expertise from across the University of Liverpool with policy-makers and practitioners to support the development of sustainable and inclusive cities and city regions.

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