



Roundtable Summary – Health modelling

Date: Wednesday 29 May 2024

Host: Professor Catherine Bennett, Panel Member, Commonwealth Government COVID-19 Response Inquiry

Participants: This roundtable brought together a range of participants from academia and research groups to discuss their experiences modelling infectious diseases during the COVID-19 pandemic.

Purpose of this roundtable

- Health modelling provided vital evidence that informed key aspects of Australia's public health responses to COVID-19.
- There are lessons to be learnt on how engagement between modelling groups and governments could be conducted.
- The pandemic led to a significant increase in Australia's infectious disease data collection and analysis capabilities. It is important to consider how ongoing practices can be scaled-up in the future.
- This roundtable presented an opportunity for some health modellers with differing views to reflect on what the Australian Government did well and what could be improved going forward.

What we heard at the roundtable

- Health modelling emerged in the public consciousness during the pandemic. This provided an opportunity for the health modelling community to engage the public and build understanding of the contribution trustworthy modelling brings to the evidence base.
- Investment in ongoing engagement between modellers and government – including the maintenance of an active list of modellers working in the field of infectious diseases, a panel of experts and technical advisory group – will ensure that Australia's modelling capacity can be leveraged in future pandemic planning and responses.
- This body would also provide leadership in ensuring efficiency and effectiveness in generating and collating evidence via coordinated, interoperable systems across jurisdictions for data collection and sharing.
- Modellers and other analytic researchers require timely access to reliable data during a public health crisis, tiered aggregated data at a minimum, and agreements on access and ethics clearance should be prearranged with experts to expedite real time analyses to address policy-relevant questions (recognising these will overlap with, but also include, additional variables to datasets generated in operational public health responses).

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- Modellers had significant issues with the quality and interoperability of available data and this varied by jurisdiction. They often had to rely on international data. They also faced difficulties explaining to government why some data systems were required to inform urgent work.
- If the wider modelling community was engaged earlier in the pandemic response, they could have brought a greater range of modelling expertise to the advice provided to policy makers and helped influence the data collection and accessibility needed to support modelling to meet the needs of policy makers.
- Having multiple teams independently contributing to modelling advice enables access to a broader range of modelling approaches, and can expedite availability of advice, facilitate convergence of ideas and identify for investigation discrepancies that can lead to useful insights.
- Transparency is a key component of engagement between modelling groups and government. Modelling should be shared publicly and in a timely manner, including the methods and codes used, as is standard practice for all modelling work. Transparency strengthens public trust in the modelling itself, and how it is being used by policy makers.
- A lack of government transparency can affect the quality of modelling, and the national capability. During the pandemic, some modellers were, at times, cautious of taking on work because they knew it would likely be a short, insecure contract and their findings would not be published.
- Public trust is vital during a pandemic. Misinformation can quickly fill the void where there is limited sharing of evidence or miscommunication of evidence.
- Australia saw significant innovations and skill development in health modelling during the pandemic and these capabilities must be maintained so they can be incorporated into a national effort and scaled-up quickly in the next pandemic.