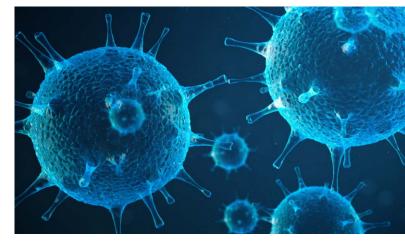


The COVID-19 pandemic shows how critical it is for governments to plan and think long term. While it's natural for most people to focus on the short-term and surviving COVID-19, we must not lose sight of the importance of longer-term thinking.

Koi Tū: The Centre for Informed Futures is an independent and apolitical think tank and research centre based at the University of Auckland, New Zealand. We generate knowledge and tools to address critical long-term global and national challenges arising from rapid and far-reaching social, economic, technological and environmental change.

Our areas of focus include developing integrated, policy-relevant knowledge for decision making by communities and policy makers in a post-truth world; societal and individual resilience in the face of rapid change; impacts of rapidly emerging technologies; and understanding the trade-offs embedded within the sustainability agenda.

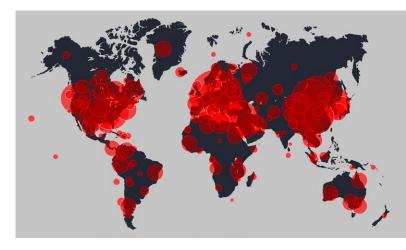


The global challenge of COVID-19, which is unprecedented in living memory, is exactly the type of scenario where the Centre can demonstrate its value as a source of informed, insightful advice to publics and policy organisations both domestically and around the world. We are undertaking a range of activities in response to COVID-19.

IMMEDIATE FOCUS

Koi Tū hosts the secretariat of the International Network for Government Science Advice (INGSA, www.ingsa.org). Our Director Sir Peter Gluckman is the chair of INGSA which has more than 5000 members globally. In these roles we have led the interactions between the science community and policy making globally in the crisis. In particular:

- Governmental assistance: we have provided informal connections between governments and experts, and in one case between governments. We have surveyed for technologies at the request of several governments.
- A website www.ingsa.org/covid/ has been set up to collate international policies in response to the pandemic. It is managed by Koi Tū and updated daily as information becomes available. It features:
 - a. An information exchange related to the science-policy and science-diplomacy aspects of the pandemic.
 - A curated website of commentary with a global editorial board: Peter Gluckman (NZ), Roger Pielke (USA), Tateo Arimoto (Japan) and Tolullah Oni (UK, South Africa, Global Youth Academy).
 - c. An interactive **policy tracker** that will present verified data in near-to real-time on the website from 1 April. It will be



useful to many researchers especially in political, policy and related sciences. Given the breadth of the INGSA network, we are appointing international correspondents to track the critical junctures for governments and their announcements. This is a major effort across the network to collect and track national and sub-national pandemic response policies and actions for comparative analysis.



- Online discussions and podcasts are planned leading up to a global virtual conference in September on COVID-19 from the perspective of science and policy, and of science and diplomacy.
- We are leading a research project on behalf of INGSA on science-policy and science-society interactions. We have started work using Koi Tū resources while we seek funds (US \$150,000 is required).

The core of the proposal is:

The growing COVID-19 pandemic is unfortunate and devastating. However, it does present a unique and essential opportunity to interrogate the elements that constitute effective and trusted science advice to governments (at scale from local to national). First, it is problem affecting most of the world at the same time and is the most serious pandemic in a century. Second, in contrast to the likes of climate change - which presents a serious, extremely complex and relatively slowly developing problem with multiple hard to delineate outcomes - the pandemic presents a well-circumscribed but rapidly evolving issue. While it might be seen as a simple policy problem - how can we stop the spread of a novel virus? The reality has been a variety of responses reflecting varied interplay between incomplete science, experts, public, policy makers and politicians with complex dimensions between nations. Science advice and science diplomacy should play a key role in navigating decisions in such an emergency response and in the recovery. But the acute phase and the recovery phase have multiple dimensions (health, including mental health; economic and social wellbeing). Yet there has been enormous variation in how countries have handled these issues.

INGSA (including its science diplomacy division) is uniquely placed to leverage its global network (more than 5000 members across 100 countries) to develop understandings regarding the use of evidence, science advice and science diplomacy in decision making in relation to COVID-19. A comparative mixed-methods approach should deliver insights relevant to this pandemic and to future global

health emergencies. In turn, lessons learnt could have major implications to how individual jurisdictions develop science advisory systems.

This will be an in-depth review on the policy (not the technical) aspects of science advice in relation to decisions made or planned for during the COVID-19 pandemic. We will survey how science advice and diplomacy have operated in different countries. Were infrastructures for advice available? Were they prepared for emergencies? Were risk registers in place? To what extent was the input of supporting evidence formal or informal, transparent or not, from formal advisory systems or from ad hoc experts? To what extent did countries follow World Health Organisation (WHO) guidance? To what extent did the media drive particular decisions? Did misinformation prevent policy being based on evidence? Aspects that will be explored in selected countries include:

- Who were considered experts? Which disciplines are providing input (behavioural and data science, epidemiology, virology, clinical medicine, social science)?
- · Perceived standard of scientific advice: who followed the WHO?
- Risk communication/preparedness: past evidence used to support predictions (e.g. 1918–1919 as the model for the prediction of a second and third wave)
- · The use of formal epidemiological and economic modelling
- The role of digital technologies (e.g. apps for contact tracing)
- The impact of the pandemic on social resilience/cohesion: to what extent were social and behavioural scientists part of the decision making?
- The level of international cooperation/science diplomacy was this diplomacy track one (formal negotiations) or track two (unofficial, non-structured, conflict resolution)?
- · Science communication/trust. How trusted was the advice?
- · The specific issues faced in low- and middle-income countries
- Is the regulatory science framework fit for purpose (this will be for later stages when drugs and vaccines emerge)?

LONG-TERM FOCUS

Given the Centre's focus on long-term issues affecting societal and policy decision making, we see a strong fit between the major themes of the Centre and a need to address the long-term issues related to the pandemic. We can employ our skills and expertise to focus on these questions. These are summarised in extracts from a commentary Sir Peter wrote on 20 March 2020.

"The COVID-19 pandemic has brought into stark focus the interaction between science, experts, society, policy making and politics. Across the world, this interaction is playing out in different strategies and decisions. In this context, both for the immediate, and particularly for the longer term (including future pandemics and other crises), it will be important to understand and learn from these varied interactions.

Scientists and public health experts have pointed out for many years the inevitability of a major pandemic. Since the SARS outbreak in 2002/2003 and then MERS, coronaviruses have been well-recognised as a likely candidate. COVID-19 is but one of a series of zoonotic infections that countries have faced in recent years (Ebola, SARS, MERS, H1N1, Zika, Nipah, and West Nile fever) but its characteristics make it particularly challenging and threatening. National risk estimates and registers in countries such as the UK have suggested a high probability that one such zoonotic would lead to a global pandemic in short order.



Yet the level of global preparation in recent years has arguably been limited by a failure to appreciate the significance of such warnings. Why is this the case? Is it due to overconfidence within the decision-making process because SARS was effectively contained, or because influenza is perceived as a usually minor disease that can be dealt with by vaccination, despite the fact that it regularly kills the elderly or the infirm? Is it the result of a reaction to messages from scientists that might be seen as unnecessarily alarmist, and the consequent costs that would necessitate? The preparative costs



involved might have little public support in the absence of a certainty of impact, making such long-term planning a low priority relative to short-term demands. This latter can be framed as particularly cogent in the context of short political cycles and a consumerism culture focused on the here and now. Indeed, in many countries we have seen, even after this pandemic had started, a reluctance to focus on the needed preventative health measures and interventions for fear of either economic or political cost. Even now, there is debate over where the equilibrium should lie between these interests. There remains an array of denial and misinformation that bends the narrative to support political and economic interests.

There have been quite different scientific responses in different jurisdictions. There has been wide variation in the speed with which foreseeable needed measures, such as increasing testing capacity, in the interval since the severity of the epidemic became shockingly apparent. Attempts to find technological solutions remain disparate and confounded by political and commercial barriers.

While we are still in the acute phase it is hard to think about the longer term. But we must. What lessons can we learn?

- Have we got the right structures for thinking about risk and planning into the medium and long term? Can we get better at horizon scanning and foresighting?
- Have we got the right institutions for linking science, society, and policy?
- What can we learn for science communication and for transparency in policy making?
- Are there sufficient inputs from other disciplines in considering how societies and individuals react in the context of communal crisis?

- Can we see better ways to get transnational cooperation in emergencies and for collective expert advice, beyond the role of virologists and epidemiologists? Or will differing short-term national interests always be barriers?
- Can we deal better with the engines of misinformation; a problem that transcends borders?
- What lessons will there be for the crisis management system, for the health system, for the science system, for managing fragile supply lines?
- What long-term changes will the pandemic bring? Will countries seek to be more self-sufficient? And if so what will that mean for commodity-based exports? What does it mean for inventory control for businesses?
- What will it do for international travel and its infrastructure and for our connectivity? Just as the Great Depression influenced thinking for decades, is this a similar tipping point for public values and policy settings?

The next year, at least, will likely be a period of managing an acute phase, followed by containment and then recovery. Enormous disruption to social lives and sense of community, to family life, to mental health, to business, to economies, and perhaps to social cohesion is inevitable. Understandably, much focus will remain on the short term. But it would be a terrible mistake if attention is not given now, and progressively, to the long-term matters that this epidemic will highlight. For example, while on a very different time course, climate change shows many of the same issues – the conflicts between science, policy, vested interests and politics and a tendency to think that addressing it can wait. Overall there remains denial of the big changes that will be needed while we pray for a technological solution."

Koi Tū's contribution will be directed towards longer-term issues, but we will do so in a manner supportive of the current acute phase. We can integrate a wide range of experiences, knowledge sources and perspectives to better understand the barriers and opportunities thrown up by seemingly intractable problems that threaten our long-term wellbeing as a society.

HELP CREATE AN INFORMED FUTURE

We engage with people and organisations focused on the long-term development of New Zealand, and on core issues where trustworthy and robust analysis can make a real difference.

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