

Invited commentary

DEVELOPING RESEARCH PRIORITIES FOR AUSTRALIA'S RESPONSE TO INFECTIOUS DISEASE EMERGENCIES

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Key points

- The Australian Partnership for Preparedness Research on Infectious Disease Emergencies (APPRISE) is a National Health and Medical Research Council (NHMRC)-funded Centre of Research Excellence (CRE). The Centre is a nationally-distributed, multidisciplinary team of experts that will conduct high-impact research to strengthen Australia's emergency response to infectious diseases.
- Announced in June 2016, this CRE is unique on the basis of the total funding and the scope of work. In the first year, the remit is to complete a targeted consultation of stakeholders across Australia to determine what research activities and protocols, training opportunities and pathways, collaborative partnerships and cross-sectoral linkages should be prioritised to ensure Australia is equipped for a more coordinated, effective and evidence-based response to infectious disease outbreaks.
- The consultation's stakeholder engagement process includes interviews and workshops with government and non-government stakeholders, ranging from government policy makers, clinicians, researchers and infection prevention specialists to consumers.
- Proposed research priorities will be discussed, with analysis and consideration of stakeholder views then incorporated into a final consultation report.
- This report, to be tabled in June 2017, will be evaluated by the NHMRC and the Australian Health Protection Principal Committee (AHPPC) and approval will be required prior to funding allocation.

Introduction

Multidisciplinary and targeted research is essential to support knowledge and practice before, during and after infectious disease outbreaks and pandemics. Countries such as the United Kingdom, the United States of America and Canada have research structures that support emergency responses to infectious disease outbreaks. Australia's research response to past outbreaks has been limited, in part due to delays inherent in grant funding calls made in reaction to such events. At the same time, it has been recognised that research co-ordination and translation must be improved in order to address the most important policy and practical needs associated with a rapidly evolving outbreak.

The APPRISE CRE is a national network of researchers in organisations across Australia funded by the NHMRC. The CRE will establish a framework for rapid and practical research responses to future outbreaks of:

- new pathogens emerging in Australia;
- new pathogens emerging outside Australia; and

- existing pathogens that become of local or regional concern.

The principal goals of APPRISE are to:

- establish a sustainable multidisciplinary research team across Australia to perform high-quality and high-impact infectious disease emergency response research – the team should have strong links to national and international networks
- develop a research strategy for the emergency response to infectious diseases across clinical, laboratory and public health domains – the strategy should be guided by ongoing consultation with stakeholders; and
- generate and execute the best evidence for the emergency response through capacity-building and training and effective communication with frontline health workers, policy makers and consumers.

To fulfil the goals of APPRISE and meet the funding conditions outlined by the NHMRC, a consultation process is underway to address and set research priorities across the CRE's 4 inter-related

‘pillars’: clinical research; public health research; laboratory research; and key populations including Aboriginal and Torres Strait Islander peoples. Each pillar will be supported and interact with 4 cross-cutting platforms: ethics; data management; education and training; and leadership and integration.

Developing proposed research priorities through consultation

NHMRC funding beyond the first year is dependent upon a successful and targeted consultation of stakeholders across Australia to define research priorities and establish methods and networks for future collaboration. Broad stakeholder engagement is essential to ensure the national research priorities are fully informed and to provide the best possible framework for future collaboration and networking.

The consultation will be a staged process (Table). Stakeholder engagement will include group interviews, one-on-one interviews and workshops. Stakeholders who will be consulted about research priorities include:

- public health organisations (government and non-government);
- clinical and infection prevention organisations (government and non-government);
- laboratory research stakeholders;
- representatives of at-risk populations;
- regional stakeholders;
- emergency and defence stakeholders; and
- consumers.

The APPRISE Expert Reference Panel (Table) will provide feedback and confirm the outcomes of the consultation phase, which will include:

- identifying research priorities;
- building the foundation for ongoing collaboration and engagement;

- recommending methods to translate research outcomes to policy and practice; and
- developing strategies to ensure the long-term sustainability of APPRISE beyond the 5-year timeframe of the CRE.

Evaluating the research priority report

The AHPPC will evaluate the consultation process report and recommend whether the NHMRC should approve the research priorities and ongoing funding of the CRE.

The complex planning and ongoing engagement needed among diverse stakeholders to predict, prepare for and respond to infectious disease outbreaks requires a solid evidence base. The consultation and collaborative priority setting phase that is now underway is a vital part of developing the research needed for an effective emergency response to infectious diseases in Australia.

The development of a cross-sectoral and multi-disciplinary team to facilitate cohesive and rapid research responses in infectious disease emergencies will strengthen Australia’s capacity to deal with the next infectious outbreak or pandemic, whatever form it takes.

Acknowledgements

The Chief Investigators of the APPRISE Centre of Research Excellence are: Soren Alexandersen, Geelong Centre for Emerging Infectious Diseases, Deakin University; Ross Andrews, Menzies School of Health Research, Charles Darwin University; Allen Cheng, Monash University; Gwendolyn Gilbert, The Westmead Institute for Medical Research, The University of Sydney; John Kaldor, The Kirby Institute, University of New South Wales; Sharon Lewin, The Peter Doherty Institute for Infection and Immunity, The University of Melbourne and The Royal Melbourne Hospital; Jodie McVernon, The Peter Doherty Institute for Infection and Immunity, The University of Melbourne and The Royal Melbourne Hospital; David Smith, Pathwest Laboratory Medicine;

Table: Six stages of stakeholder engagement

Stage	Description
1	Establish Expert Reference Panel – federal and state or territory health officers and medical advisors, Indigenous communities, veterinary health experts, public health researchers
2	Literature and document review
3	Stakeholder mapping
4	Stakeholder consultations
5	Confirm research priorities
6	Report to the National Health and Medical Research Council for evaluation

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