International Engagement Strategy
2020–2023
Contents

Vision 2
Executive summary 2
Context 3
The importance of international collaboration in health research 4

International engagement goals 5

Goal 1: Collaborate to address research gaps, build capacity and increase impact 5
  Why is this important? 5
  What are we doing? 5
  What should we be doing for 2020–2023? 7

Goal 2: Marshal international research expertise and resources 7
  Why is this important? 7
  What are we doing? 8
  What should we be doing in 2020–2023? 9

Goal 3: Engage with and contribute to international health research policy agendas 9
  Why is this important? 9
  What are we doing? 10
  What should we be doing in 2020–2023? 10

Goal 4: Participate in Australia’s science diplomacy effort 11
  Why is this important? 11
  What are we doing? 12
  What should we be doing in 2020–2023? 12
Vision

To promote international collaboration in health and medical research to achieve better outcomes for the Australian community and build Australia’s research capability.

Executive summary

As Australia’s lead agency for funding health and medical research, the National Health and Medical Research Council (NHMRC) engages internationally to achieve better outcomes for the Australian community and build research capability amongst our researchers.

We promote Australian participation in health and medical research collaborations through partnerships that leverage international expertise and funding. International collaboration contributes to creating knowledge and building research capability to achieve our mission of building a healthy Australia, as well as contributing to the aims of our regional and international partners. Our international engagement activities also support the translation of health and medical research into clinical practice, policy and health systems and promote the highest standards of ethics and integrity in health and medical research.

NHMRC’s international engagement strategy guides our approach to identifying and prioritising new and existing activities with international partners over the three years between 2020 and 2023.

The strategy sets out four overarching goals:

1. Collaborate to address research gaps, build capacity and increase impact
2. Marshal international research expertise and resources
3. Engage with and contribute to international health research policy agendas
4. Participate in Australia’s science diplomacy effort

NHMRC’s actions to support these goals include investing in international research collaborations and contributing to national and international research agendas, such as promoting open science and research integrity.
Health and medical research is a priority for the Australian Government. Investment in health and medical research helps drive better models of health care and services that improve outcomes for the Australian population and reduce disparities for disadvantaged and vulnerable groups, as well as improving prediction, identification, tracking, prevention and management of local and regional health threats.

NHMRC is Australia’s lead agency for funding health and medical research. We work actively and collaboratively to fund high quality research and build capability, promote the highest research standards and develop evidence-based health advice to improve the health of the Australian community.

NHMRC encourages investment across the four pillars of health research – biomedical, clinical, public health and health services – and funds both individual and team research projects of the highest quality. We support an Australian health and medical research system that is investigator-led, evidence-based, efficient and sustainable.

As well as supporting research in health-related basic science, NHMRC is responsive to national health priorities, consumer needs and community perspectives and to the requirements and directions of government.

All our international activities are underpinned by the strategic themes of investment, translation and integrity, and NHMRC’s strategic priorities for the 2018-2021 triennium as detailed each year in our Corporate Plan.\(^1\) NHMRC’s strategic priorities for the 2018-2021 triennium are:

- Resilience to environmental change, emerging health threats and emergencies.
- Improving the health of Aboriginal and Torres Strait Islander peoples including through research that builds capacity in Aboriginal and Torres Strait Islander researchers and addresses health disparities.
- Issues related to the end of life and the delivery of palliative and supportive care.
- Integrated and coordinated approaches to chronic conditions.
- Harnessing the power of data and analytical technologies.
- Improving research quality to maximise the rigour, transparency and reproducibility of NHMRC-funded research.

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\(^1\) The NHMRC strategic priorities will be updated in line with any changes made for the 2021-2024 triennium.
The importance of international collaboration in health research

International activity in health and medical research, health care and prevention influences and is influenced by NHMRC’s work. We recognise that no single country has the resources, skills and capacity to address all health and medical research challenges and we understand the importance of encouraging and supporting international collaboration to address issues of global importance.

International engagement improves both the quality of research undertaken in Australia and the uptake of the latest international research in Australian health policy and practice. International research collaborations help reduce global research duplication, enhance the diversity of global research projects, and use finite resources efficiently.

We support international collaborative research and engagement through three primary mechanisms:

1. investigator-led research funded through our major grant schemes
2. targeted activities and research through multilateral and bilateral collaborative arrangements with international counterparts, and
3. participation in international organisations and fora.

Across all NHMRC grant schemes between 2015 and 2019, the top five nations collaborating with Australian researchers were the United States, United Kingdom, New Zealand, Canada and Germany.\(^2\) The majority of these grants were for investigator-led projects awarded through NHMRC’s major grant schemes. Like Australia, these countries all have strong health and medical research sectors underpinned by shared principles of research ethics, integrity and independent peer review processes.

Every year, NHMRC allocates around $20 million for specific multilateral and bilateral international schemes, many of which are ongoing or long-standing collaborations. From time to time NHMRC also partners with an international funding agency to issue a joint call for research on a specific topic. For example, in 2019-20 NHMRC partnered with the United Kingdom (UK)’s Medical Research Council and Economic and Social Research Council on a built environment and prevention research joint call, which aimed to support research to prevent non-communicable diseases associated with the built environment, to improve population health and reduce health inequalities in the UK and Australia.

Participation in a variety of formal and informal international organisations enables NHMRC to keep informed of, and influence, current issues, trends and challenges in health and medical research. Knowledge sharing between major international funding organisations, both public and private, ensures that best practice in research integrity, peer review processes and equitable access to research publications and data is promoted.

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\(^2\) Top five collaborators by the number of active grants with co-investigators from these countries.
International engagement goals

Four overarching goals drive NHMRC’s international engagement activities:
1. Collaborate to address research gaps, build capacity and increase impact
2. Marshal international research expertise and resources
3. Engage with and contribute to international health research policy agendas
4. Participate in Australia’s science diplomacy effort.

Goal 1: Collaborate to address research gaps, build capacity and increase impact

Why is this important?

NHMRC’s international engagement fosters international cooperation to pool resources and talent for complex health and medical research projects that could not otherwise be undertaken. This cooperation can address known and emerging research gaps and challenges, increase scientific impact and build capacity for Australia.

NHMRC collaborates with overseas counterparts to support Australian participation in international research projects, including through joint calls for research on specific topics. Targeted international activities should have clear potential for significant scientific outcomes that might not otherwise be achieved. When assessing a particular activity we consider:
• availability of NHMRC resources
• potential benefits of NHMRC funding to address research gaps identified in the NHMRC corporate plan and/or other Australian Government priorities
• potential impact for Australia and the region
• the potential to build/increase research capacity amongst Australian researchers
• whether or not existing funding through our major grant schemes is already sufficient to support the research area, and
• any benefits for global health outcomes.

Coordination and networking between international research teams foster common approaches, ultimately leading to research that produces a stronger evidence base and impact. In addition, fostering research partnerships enables knowledge sharing and capacity building. Our targeted collaborations provide opportunities for NHMRC and Australian researchers to engage with new and emerging research partners on specific health issues of mutual interest, particularly chronic diseases and regional health issues such as antimicrobial resistance.

What are we doing?

NHMRC partners with international agencies through bilateral and multilateral programs to fund research with the greatest quality and scientific impact. In 2019, we allocated $20 million for research grants through multilateral and bilateral programs. This investment leveraged almost $90 million of research funding through international partner agencies and involved research partnerships with 54 countries ranging from our largest partners, the United States and the United Kingdom, to smaller regional partners including Samoa, Fiji and Thailand.
In 2020, NHMRC is participating in the following targeted bilateral and multilateral relationships and programs:

**Bilateral**
- UK Research and Innovation (UKRI) - United Kingdom
- National Institute for Health Research (NIHR) - United Kingdom
- National Institutes of Health (NIH) - United States

**Multilateral**
- NHMRC - European Union Collaborative Research Grant Scheme
- European Union Joint Programme - Neurodegenerative Disease Research (JPND)
- NHMRC e-ASIA Joint Research Program - Cambodia, Indonesia, Japan, Lao People’s Democratic Republic, Malaysia, Myanmar, New Zealand, Philippines, Russia, Singapore, Thailand, United States and Vietnam
- Global Alliance for Chronic Diseases (GACD) – Argentina, Brazil, Canada, China, European Commission, India, Japan, New Zealand, South Africa, Thailand, United Kingdom and United States
- NHMRC - European Research Council (ERC) implementing arrangement

These targeted programs, together with our major grant schemes, foster the creation and consolidation of vital person-to-person networks across international boundaries. Enduring career-long partnerships between individuals have their beginnings in an initial collaboration for a specific project.

NHMRC also engages in bilateral and multilateral workshops and scientific meetings through involvement in the GACD and e-ASIA programs. These programs promote information sharing and networking, and inform future NHMRC call topic selection to address global health issues. The GACD is a vehicle for implementation science, which focuses on putting chronic disease research outcomes into health policy and practice.

### Case Study: Global Alliance for Chronic Diseases

The Global Alliance for Chronic Diseases (GACD) was founded in 2009 by a group of the world’s foremost health research funding agencies, including NHMRC. It brings together national and international funding agencies to address chronic non-communicable diseases (NCDs), in low and middle-income countries (LMICs) and vulnerable populations in high-income countries.

GACD’s core interest is improving population health through implementation science. Implementation science seeks to address the significant knowledge gap between interventions that research has shown to be effective and their delivery to communities and translation into practice, particularly in LMICs.

Through GACD funding calls, NHMRC supports international collaborations for research to benefit populations in LMICs and Aboriginal and Torres Strait Islander communities. Funded projects include:

- a study of the cost-effectiveness of salt reduction interventions in Pacific Islands. Researchers from Australia, Fiji and Samoa measured the impact of sodium reduction interventions on the salt intake of populations of Fiji and Samoa.
- a study to improve the management of diabetes during pregnancy in the Northern Territory and Far North Queensland. The project also aimed to build capacity in Indigenous health research and share knowledge with Canadian researchers in the field of diabetes and diabetes in pregnancy among Indigenous populations.

In addition to targeted research calls, GACD actively promotes implementation science to the global research community through an annual scientific meeting and provision of training for emerging researchers in the field.
What should we be doing for 2020–2023?

1. Engage bilaterally and/or multilaterally with our existing international research partners.
2. Participate in and promote multilateral scientific workshops, funding calls and researcher training that address specific issues and emerging fields such as implementation science.
3. Identify and assess potential opportunities for new initiatives, programs and funding collaborations consistent with NHMRC’s strategic priorities, commitments and resourcing.
4. Work with government agencies and other stakeholders to identify research needs and opportunities for Australian researchers and international partners.

Case study: e-ASIA Joint Research Program

The e-ASIA Joint Research Program (e-ASIA JRP) formulates and supports international joint research projects in the East Asia region on a multilateral basis, and promotes researcher interaction through workshops. NHMRC formally joined the e-ASIA JRP in November 2016.

The e-ASIA JRP membership comprises funding organisations, including governmental bodies and independent funding agencies. Member organisations include agencies from Australia, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, New Zealand, the Philippines, the Russian Federation, Singapore, Thailand, the United States of America and Vietnam.

In 2019, NHMRC participated in the 8th e-ASIA call for health research on infectious diseases, antimicrobial resistance, and cancer. Under e-ASIA JRP rules each application for funding must involve researchers/research teams eligible for support from a minimum of three e-ASIA member organisations (and countries) participating in the specific call.

The e-ASIA JRP funded a total of six applications through the 8th health call. Of these, NHMRC provided funding for two projects focussed on diagnosis of infection with carcinogenic liver flukes, and on neglected helminth diseases in the Lower Mekong Basin. Partner countries for these projects were Thailand, Lao PDR, Cambodia and the United States.

Goal 2: Marshal international research expertise and resources

Why is this important?

Relative to our small population, Australia is home to a large number of world-class health and medical researchers and research institutions. In order to maximise opportunities for Australian researchers, their research projects and ideas, NHMRC actively encourages international collaborations that enable access to expertise, infrastructure and resourcing not available in Australia. This is achieved through the following mechanisms:

• engaging bilaterally and multilaterally to promote global health objectives and facilitate Australian participation in international research efforts
• participating as a member in major global research forums, such as the GACD, the Global Research Collaboration for Infectious Disease Preparedness (GLoPID-R) and the Human Frontier Science Program
• supporting NHMRC-funded researchers to undertake part of their research overseas or work with overseas based researchers and teams.
What are we doing?

Across all NHMRC grant schemes over the four year period from 2016 to 2019, more than $510 million was expended on 1076 active research grants involving international collaboration, of which $23 million was through dedicated international collaborative grants and the rest through a range of investigator-led grant schemes.

International collaboration is encouraged and supported through most of NHMRC’s investigator-led funding schemes and processes. For example:

- investigators located overseas can be named as investigators on grant applications
- Australian researchers awarded an Investigator Grant have the opportunity to spend a period of their grant duration with teams based overseas
- NHMRC grant funding can be used overseas to support specific grant activities, where it is critical to the successful completion of the project and the resources required are not available in Australia
- Aboriginal and Torres Strait Islander applicants to the Investigator Grant scheme can apply for short-term support to facilitate Indigenous researcher networks
- NHMRC peer review processes draw on international expertise.

NHMRC signed an Implementing Arrangement with the European Research Council (ERC) in late 2018 to allow NHMRC funded researchers to be hosted by ERC-funded researchers for periods of their award, to pursue research collaborations in areas of mutual interest. NHMRC’s flexible funding arrangements allow Australian researchers to use grant funds for this purpose.

NHMRC is a member of the Human Frontier Science Program (HFSP). HFSP promotes international collaboration in basic research focused on the elucidation of the sophisticated and complex mechanisms of living organisms. HFSP is supported by contributions from the G7 nations together with Australia, Switzerland, New Zealand, India, Israel, Singapore, South Korea and the European Union. Our membership allows Australian researchers to apply as Principal Applicant on HFSP Research Grants.

NHMRC is also signatory to a number of agreements to promote global health research such as the Tripartite Agreement on International Indigenous Health Research, which seeks to enhance collaborative research to improve health outcomes for Indigenous populations of Australia, Canada and New Zealand.

Case Study: ASPREE Trial

The ASPREE trial, winner of the Australian Clinical Trials Alliance 2019 Trial of the Year Award, looked at the efficacy of people aged 70 years and above taking aspirin daily in preventing age-related illness including heart attack and stroke.

Low-dose aspirin is used by millions of healthy elderly individuals across the world for ‘primary prevention’ in the hope of warding off a first heart attack or stroke.

ASPREE is a bi-national clinical trial involving researchers and participants from both Australia and United States of America. With funding from the US National Institutes of Health, NHMRC and Monash University, this study recruited over 19,000 older people from Australia and the United States to determine the benefits and risks of taking a daily low dose of aspirin in healthy older adults without previous cardiovascular events.

The trial found that, while there was no impact on prevention of cardiovascular events, there were side effects, including increased risk of internal bleeding. While aspirin was viewed as a cheap preventative, the ASPREE clinical trial has the potential to keep people from suffering a known side effect caused by taking a treatment that is ineffective.
What should we be doing in 2020–2023?

1. Encourage and promote international engagement opportunities for NHMRC-funded researchers, including maintaining flexible funding conditions to facilitate international collaboration and researcher exchange
2. Maintain memberships in organisations that promote global health objectives, such as the GACD and GLoPID-R
3. Maintain membership in the Human Frontier Science Program to promote excellence and international collaboration in the life sciences
4. Continue to collaborate bilaterally and multilaterally to support Indigenous health research and improve health outcomes for Indigenous populations.

Goal 3: Engage with and contribute to international health research policy agendas

Why is this important?

International cooperation and partnerships can unlock access to expertise, resources and infrastructure that may be beyond the capacity of individual nations. Our participation in international research policy agendas improves the capacity of Australian researchers by providing access to facilities, equipment, and information and research networks unavailable within Australia. This expanded toolbox of resources allows our researchers to be exposed to, build and complement scientific ideas generated by world-class research projects, institutions and partnerships. This engagement also enhances NHMRC’s activities in research translation that help drive improvements in research practices and health policy and guidelines.

Research resources, including private and open-source databases and datasets, are central to global life science research. These databases and datasets contain results and outcomes of work by individuals or groups of scientists who have supported the growth and functionality of these resources over many years. Unfortunately, many health and medical data repositories have arisen ad hoc without giving consideration to harmonised data structure, interconnectivity and use outside their primary scope and focus. There is also a need to find ethical ways to access and use historical data for modern research. NHMRC welcomes international efforts to create linkages in existing datasets, and to promote the consideration of data sharing and connectivity in the development of new public and private biodata repositories.

Participation in international discussion on critical research policy issues assists NHMRC to formulate its policy and guidelines that account for international debates and policy settings while being specifically designed for the Australian context.

Case study: Leading international discussions on research integrity

NHMRC representatives have contributed to workshops and debates on research integrity through participation in the last two World Conferences on Research Integrity (in 2017 and 2019). At both conferences, NHMRC presented its work on developing the revised Code for the Responsible Conduct of Research, which was released in 2018. NHMRC representatives also presented the Australian Guide for Managing and Investigating Potential Breaches of the Code in workshops on investigating research integrity matters.

In 2018, NHMRC participated in a workshop under the auspices of the Asia-Pacific Economic Cooperation (APEC) that aimed to develop a set of guiding principles for research integrity for all APEC countries. The final document will provide a shared set of principles and responsibilities for researchers, institutions, and funders or sponsors of research in APEC economies. They are intended to add to the common language of research spoken by APEC economies and to enable greater mobility and exchange of research and researchers between APEC economies.
What are we doing?

We support national FAIR principles (Findable, Accessible, Interoperable and Reusable) aimed at opening up access to publicly funded Australian research. NHMRC supports making metadata available through repositories for both publications and data and closely monitors international developments that encourage open access. NHMRC participates in the development and implementation of internationally consistent platforms and standards to facilitate and guide research through data sharing through our funding of Australian research networks that engage with organisations such as the Global Biodata Coalition, the Global Alliance for Genomics and Health (GA4GH) and GLoPID-R.

NHMRC’s membership on the GA4GH provides Australia with an opportunity for international collaboration and information sharing of genomic and clinical data to help unlock potential advancements in medicine and science. GA4GH encourages widespread access to genomic and clinical data by developing a common framework of international technical, operational and ethical standards needed to ensure the interoperability of genomic research platforms in a secure and responsible manner.

NHMRC’s membership of GLoPID-R provides Australia with an opportunity for international collaboration and information sharing in preparation for, or response to, an outbreak of a new or emerging infectious disease threat. NHMRC is a member of two GLoPID-R working groups: the Data Sharing Working Group aims to develop strategies and principles to expedite sharing of data during a public health emergency and the Response Plan Working Group is developing a Response Plan which includes complementary practical tools and solutions.

NHMRC’s CEO also participates in the Heads of International Research Organisations (HIROs), which brings together a number of major government and philanthropic funders of biomedical research. HIROs play a significant role in the promotion of policy collaboration on health and medical research issues.

NHMRC has a long history of developing health guidelines. Our guidelines are developed by multidisciplinary expert committees that follow a rigorous evidence-based approach based on a review of the available evidence. They follow transparent development and decision making processes and take international best practices into account.

What should we be doing in 2020–2023?

1. Engage with relevant international fora and initiatives to promote the sustainability, connectivity, future development, quality and access to core resources for health and medical research.

2. Contribute to and learn from international best practice, especially to support the highest standards of research quality and integrity, peer review processes, and evidence-based advice on improving health and preventing disease.

3. Assist the health and medical research sector to identify current resourcing and infrastructure needs within Australia that can potentially benefit from international linkages.
Goal 4: Participate in Australia’s science diplomacy effort

Why is this important?
Regional cooperation is a key focus for Australia’s international relations. Science diplomacy offers opportunities to develop and strengthen regional partnerships with countries in the Asia-Pacific region. As many countries in this region have a health and medical research capacity that is evolving, these partnerships offer significant opportunities for NHMRC to assist with the growth of research capability and integrity, and to build high quality health and medical research collaborations. These partnerships have the potential both to deliver regional health benefits and to address wider global health issues. As well, these partnerships can strengthen existing linkages and build new collaborations between health and medical researchers, governments, industry and not-for-profit organisations. Health and medical researchers also make significant contributions to Australia’s international development aid programs aimed at building country-level health systems and services and preparing for, and addressing, emerging health threats.

Interpersonal, cross-border connections and networks between researchers and research teams make valuable contributions to Australia’s science diplomacy. Recognising that these linkages operate in conjunction with government-to-government efforts, NHMRC seeks to maximise the opportunities for Australian researchers and research teams to build and enhance their international networks by encouraging international participation across all our grant schemes.

Case Study: DFAT Stronger Systems for Health Security

In 2017, the Department of Foreign Affairs and Trade (DFAT) established an arrangement with NHMRC to deliver an application and assessment process for funding from the DFAT Stronger Systems for Health Security call for research under the Indo-Pacific Centre for Health Security.

Funding from this call supports research that produces evidence to strengthen regional health security and will promote translation of that research into health policy and practice in the region and contribute to the growth of Australian researchers’ experience of, and expertise in, health security issues.

Seven successful research teams are conducting research across the Asia-Pacific region including Indonesia, Papua New Guinea, Fiji, Vietnam and Timor-Leste to investigate:

- treatment of antimicrobial resistance
- developing evidence-based health policy and practice for managing antimicrobial resistance
- multidrug resistant tuberculosis and malaria
- water management to tackle typhoid, dengue and leptospirosis
- antimicrobial resistant infectious diseases
- communicable disease control
- vector borne pathogen identification and containment.
What are we doing?

We work collaboratively with international bodies and other government agencies in Australia to promote and foster Australia's international science diplomacy effort. NHMRC contributes to a whole of Australian Government effort through a variety of activities, including meeting with visiting delegations from overseas funding agencies and participating in bilateral Joint Science and Technology round tables with specific countries and the Research Agencies Meeting forum that brings together Australian Government agencies involved in science and research.

Australia actively develops significant diplomatic relationships with new partners with which we are likely to share common interests and issues. NHMRC focuses on opportunities to build high quality health and medical research collaborations that have the potential to deliver health benefits both nationally and globally. We work with current and emerging partners through multilateral fora where NHMRC and other member organisations can consolidate and leverage expertise and resources to support collaborative research. NHMRC also collaborates with DFAT to support the health and medical aims of Australia’s development aid program.

Every year NHMRC meets with a number of visiting delegations from international government funding, science and research agencies to share information on issues and funding policy and practices in health and medical research. Our participation in international scientific meetings such as the GACD and HFSP annual scientific meetings, and the annual meeting of the Heads of International Research Organisations provides platforms to promote Australian research and to engage with NHMRC’s international counterparts.

What should we be doing in 2020–2023?

1. Influence health and medical research issues of global relevance through participation in international organisations and fora.

2. Proactively engage with Commonwealth Departments as well as state and territory agencies to strengthen collaborations with our neighbours in the Indo-Pacific region, in particular: the Department of Health; the Department of Industry, Science, Energy and Resources; the Department of Education, Skills and Employment; the Department of Defence; and the Department of Foreign Affairs and Trade.

3. Meet with visiting international delegations and participate in country-specific Joint Science and Technology roundtable discussions coordinated and led by the Department of Industry, Science, Energy and Resources and the Research Agencies Meeting forum.

4. Promote Australian research and engage with our international counterparts through participation in international scientific meetings and organisations.