



ANNUAL REPORT

2018



The George Institute
for Global Health



Our mission
is to improve
the health
of millions
of people
worldwide

Annual Report

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Acknowledgement of Country

The George Institute acknowledges the Gadigal People of the Eora Nation as the Traditional Custodians of this land on which our Australia office is built and this report was written. We pay our respect to Elders past, present and emerging.

The George Institute for Global Health – global headquarters

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We are a registered charity in Australia and the United Kingdom. All currency is in Australian dollars unless otherwise indicated.



Humanitarian commitment

Spurs us to tackle the health issues affecting high-risk and disadvantaged people worldwide

Focus on excellence

Ensures we will produce scientific evidence that is ethical and of the highest quality

Creativity

Encourages us to challenge traditional thinking and provide an impetus for new and innovative solutions to the world's leading health problems

Integrity

Underpins all our work and interactions, including our collaborations with partner organisations worldwide

A 'can-do' approach

Helps produce timely, effective action, even in the face of adversity or other barriers to implementation

Emphasis on impact

Will ensure our work has real consequences for those who are most vulnerable to disease and injury

ATA

Since 1999

7500+

publications and other academic outputs

119,000+

publication citations

\$800M+

raised for health and medical research

In 2017–18

600+

staff globally

69%

women

70+

academic appointments

50+

countries hosting our projects

670+

publications and other academic outputs

\$100M+

in total revenue

GLANCE



A message from the Chairman and Principal Directors

Professor Robyn Norton AO
Principal Director & Co-Founder

This past year we celebrated 10 years of working in both China and India, with academic, government, multilateral and business partners, to address the biggest killers and causes of disability in these countries and globally: chronic diseases and injuries. Non-communicable diseases such as heart attack, stroke, lung disease and diabetes cause nearly 70% of deaths worldwide, and as in previous years, our teams focused on finding evidence-based, scalable solutions to address these conditions.

A highlight of the year was our cardiometabolic team in Australia receiving their third program grant from the National Health and Medical Research Council (NHMRC) – an amount of \$24 million, the largest program grant and the third-largest grant ever awarded by the NHMRC. This year was also notable for the continuing stream of study findings published in the leading medical journals in the world, including The New England Journal of Medicine, The Lancet and the Journal of the American Medical Association – with study results providing new evidence about what works and what does not in the management of patients

with kidney disease, cardiovascular disease, stroke and septic shock. As always, studies of this kind require partnerships with healthcare providers across multiple sites and often in multiple countries.

Our global teams have been working closely with governments and other policymakers to ensure our research findings make a difference to policy and practice and have hosted a range of roundtables and symposiums in China, India and Australia. In partnership with the Australian Digital Health Agency and UNSW Sydney, for example, we hosted the inaugural International Digital Health Symposium and will be partnering with the Indian Government to host the event again next year. We supported efforts to ensure that non-communicable diseases are high on the agenda of governments across the world through our advocacy activities, in partnership with groups such as the NCD Alliance and the Taskforce on Women and NCDs, ahead of the United Nations High Level Meeting on Non-Communicable Diseases in September 2018.

Our new UNSW Sydney affiliation, supported by the President and Vice-Chancellor, Professor Ian Jacobs, continues to go from strength to strength, facilitating the growth of our clinical and health systems science research programs across all our offices. This past year has also seen the expansion of our work in women's health, with the establishment of the Global Women's Health Program, as well as continued support for our Aboriginal and Torres Strait Islander program.

George Health Enterprises, our commercial entity, now headquartered in London, has been creatively building a business model that will be measured by its global social impact as well as its financial sustainability. We were pleased to receive a donation of \$4.1 million from George Clinical, in support of our global work, but saddened to learn of Dr Marisa Petersen's decision to retire. As CEO of George Clinical for the past eight years, Marisa has had a major impact on the growth of George Clinical and we would like to acknowledge her significant contributions.

This year, as we do every five years, we were privileged to receive input on our current and planned activities, from our Advisory Committee on Research Impact and Strategy. The advice provided by Professor Garry Jennings AO, Martin Bowles PSM, Katie Dain, Dr Shahid Jameel, and Professor Dame Anne Mills was much appreciated.

Finally, we would like to recognise the tremendous support of all of our partners, supporters, funders, and of course our staff and Board, without whom our



Professor Stephen MacMahon AO
Principal Director & Co-Founder

continuing success would not be possible. As a result of their efforts, The George Institute can continue to focus on improving the health of millions of people around the world.


Michael Hawker AM
Chair


Professor Robyn Norton AO
Principal Director & Co-Founder


Professor Stephen MacMahon AO
Principal Director & Co-Founder



Michael Hawker AM
Chair / Non-Executive Director
Board of Directors



A year of highlights

This year, The George Institute for Global Health has received international accolades from the scientific community for our groundbreaking research and innovation. Across the globe our teams have been busy convening conversations and debates, as well as leading health partnerships and collaborations to ensure the highest impact possible for the health of people around the world. Thanks to our new academic affiliation with UNSW Sydney and our growing thought leadership program, advocacy efforts have also increased.

Vision for creating a healthy Australia

Over 100 healthcare leaders and academics gathered at The George Institute's global headquarters in Sydney for its annual breakfast policy forum in July 2017. Then Federal Department of Health Secretary, Martin Bowles PSM, outlined his vision for the future of healthcare in Australia and talked about the challenges and opportunities that come with a rapidly changing world.

George Institute researcher to help create healthier cities

Professor Kazem Rahimi is part of an international team working on the PEAK Urban program, a landmark project which aims to improve the lives of people living in cities in developing countries. Funded by the UK Research and Innovation's Global Challenges Research Fund, the program will foster a generation of urban scholars working in the field of humanities, science and social science to enable cities to meet the needs of their future inhabitants and help manage their growth for better population health.

“ Collaboration is critical to our work; it enables us to access essential data and resources, pulls together knowledge and talent, allows us to see the bigger picture, and ultimately, helps us to achieve meaningful impact ”

— Dr Sanne Peters

Research Fellow, Epidemiology, The George Institute, UK

Naidoc 2017 – Celebrating Aboriginal and Torres Strait Islander culture

Colleagues at The George Institute, Australia celebrated Aboriginal and Torres Strait Islander culture at the annual Naidoc Day celebrations. Festivities celebrating the 2017 theme, 'Our Languages Matter', included a performance by the Minning Minni Kaiwarrine Dance Company, a bush tucker luncheon with traditional foods and an art exhibit by Aboriginal artist, Chris Moore.

Changing health policy for women in China

The George Institute, China co-hosted a major symposium in August 2017 with China's Department of Maternal and Child Health of the National Health and Family Planning Commission, the United Nations Population Fund China Office and the National Office for Maternal and Child Health Surveillance on "Women's health through life-course and empowerment". The symposium focused on expanding the women's health agenda, as well as a gender approach to research, and gender equality in healthcare within China.

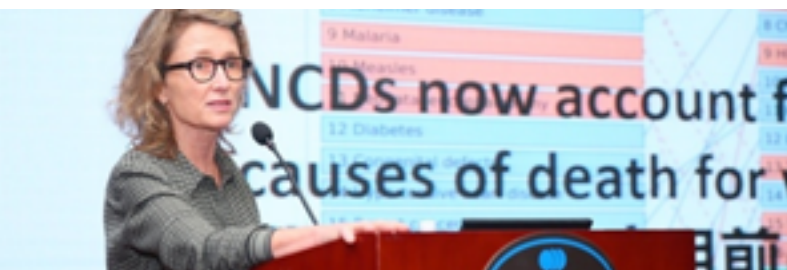


Innovation in research and healthcare symposium, Beijing

The symposium, held in November 2017 and co-hosted by the Peking University Health Science Center, UNSW Sydney, and The George Institute, China gathered over 200 participants to discuss the impact of chronic disease and injury in China and how innovation can reduce this burden.

Record \$24 million awarded for research into biggest killers

Researchers were awarded the National Health and Medical Research Council's largest program grant of all time for medical research. The landmark investment will facilitate research into preventing and treating cardiometabolic diseases – one of Australia's biggest burdens of disease. The Honourable Greg Hunt MP, Minister for Health said: "The funding is a tribute to the work of The George and it's a recognition of the importance of cardiovascular disease and the impact that it has."





World's first affordable dialysis machine a finalist in Eureka Prize

The George Institute was a finalist in the Johnson and Johnson Eureka Prize for Innovation in Medical Research for developing the world's first affordable dialysis system. The invention has the potential to save millions of lives, particularly in resource-poor settings where access prevents people from receiving the treatment.

China driving global advancement in healthcare

To celebrate 10 years of The George Institute, China, the 2017 John Yu Oration and Medal Ceremony was hosted by The China-Australia Chamber of Commerce (AustCham) Beijing, in November 2017. Professor Changsheng Ma, Director of Cardiology, Beijing Anzhen Hospital, was awarded the medal in recognition of his major contributions to clinical practice and research in cardiovascular medicine, both within China and internationally. Over 130 distinguished guests attended the event, including policymakers, members of the health and business sectors, along with diplomats, academics and scientists.

Chief Scientist wins prestigious research award

Professor Anushka Patel, Chief Scientist of The George Institute for Global Health, was the recipient of the Gustav Nossal Medal for Global Health at the annual Australian Academy of Science honorific awards in November 2017. Professor Patel was recognised for her outstanding contributions to the treatment and prevention of cardiovascular disease.



10 years of world-leading health and medical research in India

In 2017, The George Institute celebrated 10 years in India. The celebration featured an oration by Professor K Srinath Reddy and a panel discussion. Harinder Sidhu, Australian High Commissioner to India, congratulated The George Institute for reaching this important milestone, adding that it was a good foundation for expanding the cooperation between the two countries under the new India-Australia Health MOU.

A national action plan on sepsis to save lives

In March 2018, The George Institute, Australia and the Australian Sepsis Network launched a national action plan to reduce the number of people who lose their lives each year to sepsis. Over 40 stakeholders representing consumers, healthcare workers, government, research and academics contributed to the report, 'Stopping Sepsis', which sets out an action plan to drive improvements in patient outcomes, as well as in the prevention and treatment of sepsis.

Innovative program to manage diabetes in rural India

The mobile health-driven program, IMPACT Diabetes, enables access to essential diabetes care in rural India. The program is now being used within the existing primary health care system framework and implemented by Accredited Social Health Activist workers, a women's frontline workforce in India, and primary health care physicians. Unveiled by The Honourable Gladys Berejiklian MP, Premier of NSW, in April 2018 in New Delhi, Harinder Sidhu, Australian High Commissioner and Professor O.P. Kalra, Vice Chancellor of the Pt B D Sharma University of Health Sciences, Rohtak were also present at the event.

Major global report shows huge burden of multimorbidity

In April 2018, a report from the Academy of Medical Sciences pointed to an alarming lack of information about multimorbidity, a scenario where a patient suffers several diseases simultaneously. The George Institute's Principal Director Professor Stephen MacMahon AO, who chaired the report, said: "While we know multimorbidity is very common, we don't know precisely how many people live with multiple serious illnesses. This report should be the tipping point of recognising that multimorbidity is an enormous threat to global health. It is a priority to get the evidence we need to develop effective strategies for prevention and treatment."



China and UK researchers sign MOU for better digital health

Researchers at The George Institute, China have signed an MOU with the Computational Health Informatics Group of the University of Oxford. The collaboration will focus on the areas of digital health, big data and artificial intelligence in healthcare, build multidisciplinary capacity, and support the advancement of human health.



@BradHazzard

The Hon. Brad Hazzard MP
Minister for Health, NSW Australia

Gr8 to see world class research

@georgeinstitute. Thx for your
contribution to better health @NSWHealth



Collaborating with UNSW Sydney

Professor Ian Jacobs
President and Vice-Chancellor, UNSW Sydney

Last year, a new era for medical research at The George Institute began, with the establishment of our new academic affiliation with the University of New South Wales Sydney. The affiliation has bolstered our strategic and core academic priorities in clinical research, population health and health system science, as well as other new important areas of research, advocacy and collaborations globally.

Examples of our new areas include health-focused entrepreneurship and commercialisation programs, and bilateral and multilateral partnerships. We are working together on a range of novel research collaborations and clinical trials including injury, primary health care, respiratory diseases, mental health, public health law, kidney disease and children's cancers. Our health systems team are working closely with the Kirby Institute to integrate HIV treatment into chronic disease management for a whole of life-course approach to healthcare. We are working with

the Centre of Big Data on many cross-system priorities such as sex disparities in managing heart attack care, hospital admissions and data collection. Growing capacity and priorities in Aboriginal and Torres Strait Islander research has also been a major focus. This year, The George Institute also played a central role in the development of the UNSW Sydney, Faculty of Medicine's non-communicable diseases research agenda.

Growing global engagement and research capacity

One year on, the affiliation with UNSW Sydney has provided new avenues to grow our global health strategy with a focus on underserved populations in low- and middle-income countries. Some examples include the establishment of the Global Women's Health Program (more on page 36), and important initiatives to support career development and the next generation of researchers. A number of our academic staff were awarded competitive UNSW Sydney Scientia Fellowships and we are working with UNSW to establish a network of health economics researchers. Another area of focus for The George Institute has been the establishment of a global thought leadership program (more on page 34) to grow opportunities to influence policy and practice.



2018 International Digital Health Symposium

Our collaboration with UNSW Sydney has also led to a number of major events and public lectures on healthcare and health policy around the world. In February 2018, the first International Digital Health Symposium was held, a collaboration between the Australian Digital Health Agency, The George Institute for Global Health and UNSW Sydney. The event showcased innovations, discussed challenges and shared solutions in digital health from policymakers and industry around the world. Over 300 delegates attended from across the sector including government, NGOs, academia, policy organisations, peak bodies and digital health experts from 13 countries including Australia, Austria, Canada, India, Indonesia, Italy, Saudi Arabia, Singapore, South Korea, Sweden, the United States, and the United Kingdom, as well as colleagues from the Hong Kong Special Administrative Region and the World Health Organization. Researchers from The George Institute and UNSW Sydney framed key topics and participated in thought-provoking panel sessions to discuss some of the biggest healthcare challenges of the 21st century.

“ We share a strategic vision for using high-impact research to tackle the biggest causes of death and disability around the world and transform health systems

– Professor Vlado Perkovic
Executive Director
The George Institute, Australia



@JPNadda

Shri Jagat Prakash Nadda
Union Minister of Health and Family Welfare, India

Attended the “Global Digital Health Partnership Symposium” along with Mr. @MichaelKeenanMP, Hon’able Minister of Human Services, Australia & distinguished delegates. Discussed on the role of digital health in supporting improved health outcomes in India



Best research for maximum impact

At The George Institute, we are looking at the biggest causes of death and disability in the world – chronic diseases and injury – and investigating how we can make a real world impact on the prevention, delivery and treatment of these conditions. At the core of this mission we are focused on producing robust research that informs evidence-based healthcare, and challenges the status quo.

Supporting researchers

At The George Institute, we know our most valuable commodity is our people. We provide a supportive environment that allows our researchers to turn their ideas into action. Researching solutions to complex health challenges is not an easy task. From rigorous systems and tools, to ensuring high-quality, efficient, ethical standards that track with the regulatory environment, our project operations teams help us stay focused on the research itself. We help find funding opportunities for researchers, support applications and run internal funding programs that enable global staff exchanges, provide seed funding to support the Institute's big ideas, and scholarships that

attract the best students to undertake postgraduate studies at the Institute. Our statistics team maximises research impact by designing robust research studies in collaboration with researchers, performing statistical analysis of all of the major research studies run by The George Institute and ensuring the validity and accuracy of our research results.

Working globally across our regional centres

The George Institute has a strong and coordinated program of clinical research, implementation science and public health advocacy through our research centres in Australia, China, India and the United Kingdom. By working both locally and globally, our research is growing cross-country and regional knowledge exchange, identifying scalable solutions relevant to many healthcare settings faced with the burden of non-communicable diseases and injuries. For example, high blood pressure is the leading cause of disease burden worldwide, and recent research from our global team is set to change clinical guidelines for its treatment around the world. Academics from both our Australia and India offices worked together to lead the study, with project management provided by George Clinical

in Bangalore. “The sheer number of people who are experiencing high blood pressure makes the effective delivery of medications extremely important. Using a low-dose three-in-one pill to treat hypertension could transform the way high blood pressure is treated around the world,” said Dr Ruth Webster, lead author of a groundbreaking study, TRIUMPH, which found that 70% of patients reached blood pressure targets because of the ‘Triple Pill’, compared to just over half receiving normal care. “Our results could help many millions of people globally reduce their blood pressure and reduce their risk of heart attack or stroke,” said Dr Webster. Results of the study have proved the ‘Triple Pill’ was not only more effective than usual care, it was also safe.

Chronic diseases like high blood pressure are largely preventable by adopting healthier lifestyles, as well as treating high-risk individuals with blood pressure lowering and other preventive medications. The George Institute’s *SMARThealth* is a technology-

enabled platform that aims to improve the delivery of consistent high-quality essential primary health care to communities, and strengthen existing health systems to better support providers and consumers. “This year, we have rolled out the *SMARThealth* intervention in villages in Indonesia and India and found that through the intervention large portions of adults in these villages were able to know and understand their condition, and receive life-saving treatment for it, preventing early mortality,” said Professor Anushka Patel, Chief Scientist at The George Institute for Global Health. “The intervention is highly cost-effective and therefore in demand by local community groups. The implementation of *SMARThealth* led to reductions in blood pressure of a magnitude very rarely, if ever, seen with health service delivery interventions. With scale-up across Indonesia and India, the potential impact in avoiding premature death and disability is enormous.”



“Promoting world-class research means providing researchers with the tools and support they need to excel. And it means harnessing The George’s global reach with innovative projects that span regions and help as many people as possible”

— Professor Anushka Patel
Chief Scientist, The George Institute for Global Health



The George Institute Australia

This year stands out in the history of The George Institute, Australia. Thanks to our new academic affiliation with UNSW Sydney, we have been busy establishing novel research collaborations. We secured \$24 million in the largest program grant in the history of the NHMRC, and bolstered our focus on Aboriginal and Torres Strait Islander health with new program leaders.

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International collaborative study ends debate over role of steroids in treating septic shock

Our researchers have conducted the largest ever study of septic shock. The results could improve treatment for critically ill patients and save healthcare systems worldwide hundreds of millions of dollars each year. Sepsis is estimated to kill up to six million people around the world annually. Co-author of the study, Professor John Myburgh, said: "Anyone can get sepsis. Young, old, fit and healthy. It does not discriminate. That's why these results are so important – we now know how to better treat patients and save lives." Study results published in The New England Journal of Medicine found steroids not only reduced the duration of septic shock, but also the time spent on life support therapy in intensive care. Results also showed that the use of steroids did not lead to fewer deaths overall compared to not receiving steroids, showing this method to be ineffective in reducing fatalities. The international trial was conducted in Australia, New Zealand, the United Kingdom, Denmark and Saudi Arabia, and was supported by a grant from the NHMRC.

Major kidney research ends debate and shapes worldwide clinical guidelines

Treatments frequently used to prevent acute kidney failure and its complications arising from common artery imaging procedures make no difference to health outcomes, a major study published in The New England Journal of Medicine has found. The study was an international collaboration between researchers from The George Institute, Australia and the US Department of Veterans Affairs. Lead author, Associate Professor Martin Gallagher said: "Both of the treatments studied are used in hospitals all over the world with the belief that they are helping patients. This definitive study has shown that these treatments are not helping people avoid acute kidney failure nor the other poor outcomes that result from this complication. In addition, they are adding unnecessary complexity and cost." The results from this research, which were also presented at the American Heart Association's Scientific Sessions, 2017, have already shaped worldwide clinical guidelines.



Globally, sepsis kills nearly

6 million

people each year

1 million

are children and infants



@GladysB

The Hon. Gladys Berejiklian MP
NSW Premier

I've been at The George Institute for Global Health in New Delhi to launch an innovative health app pioneered in NSW that will help millions of the world's poorest to access lifesaving diabetes care for the very first time.



Cataract patients more likely to fall waiting for surgery

A major study conducted by researchers from The George Institute, Australia found that one in three people waiting for their first eye cataract surgery will fall, many of these resulting in serious injuries. The study was conducted across eight Australian public hospitals in Sydney, Melbourne and Perth and found patients were experiencing a lower quality of life prior to surgery. Lead investigator, Associate Professor Lisa Keay, said: "Cataract surgery is highly successful and can transform lives. It is therefore key that a patient has prompt access to surgery to avoid serious injuries and significant psychological distress." Notably, symptoms of depression are present in high rates among older adults with cataract awaiting surgery in Australian public hospitals. Researchers found 28.6% of patients displayed depressive symptoms – around three times higher than would normally be expected in the general population.

Researchers investigating innovative models of care for cardiovascular health

Researchers from The George Institute, Australia are investigating new models of care to treat cardiovascular disease in Nigeria. Co-author of the study Emily Atkins said: "Cardiovascular health and its associated diseases are a huge problem in Nigeria and other resource-poor settings. There is research that suggests that by empowering local communities with knowledge of cardiovascular health and how to prevent and treat it, we can improve overall population health." Researchers are investigating whether a shift in the provision of care and treatment from health facilities to community support groups can increase rates of medication adherence. The study is an international collaboration with researchers and clinicians from Nigeria, South Africa, Kenya, India, Nepal, Brazil, the United States and Australia and supported by a grant from the World Heart Federation.



@RichardDiNatale

Senator Richard Di Natale
Leader of the Australian Greens

Taxing the sweetest, most harmful sugary
drinks can reduce obesity, with money
raised invested in health



Study proves huge health benefits to reducing sugar

A new study by The George Institute, Australia found that more than 150,000 Australian deaths could be prevented if the sugar content of sugary drinks was cut by a third. The study, published in *Nutrients*, examined the lifetime health benefits of reducing the sugar in sweetened drinks by either 5% or 30%. All scenarios delivered significant health gains, but a mandatory reduction of 30% produced the greatest benefit, with 822,835 healthy life years gained over the lifetime of the Australian population. Deputy Executive Director of The George Institute, Australia, Professor Bruce Neal, said the results were a clear demonstration of both the harm sugary drinks are causing and the benefits that might be achieved with an intervention. "There is a clear opportunity to reduce the amount of sugar in these drinks and benefit the lives of millions of Australians. It will save the government many hundreds of millions of dollars too."



Respectfully connecting Aboriginal and Torres Strait Islander peoples and researchers is vital for developing community-driven priorities and ensuring mutual benefit in both the conduct and translation of research endeavours ”

– Dr Tamara Mackean

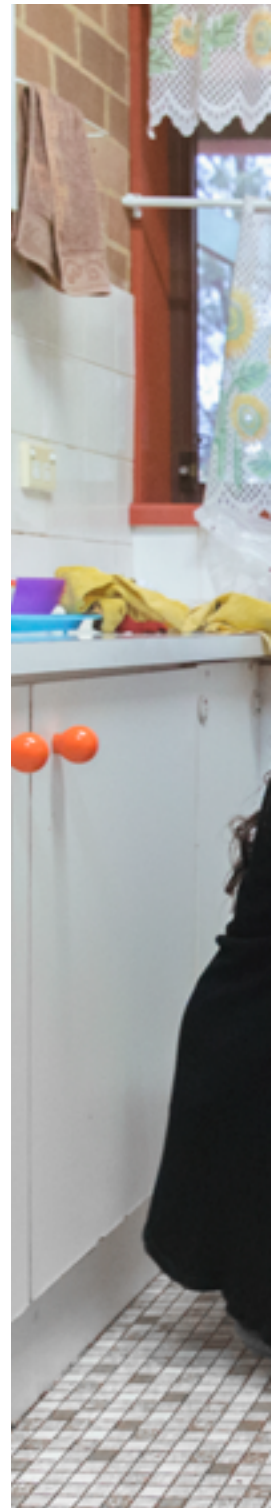
Senior Research Fellow, Aboriginal Health
The George Institute, Australia

International collaboration to improve recovery after a stroke

Three international trial investigator teams are conducting 'sister' trials to see if fluoxetine, a commonly used drug for depression, improves physical recovery after stroke. Associate Professor Maree Hackett, co-investigator on the study, said: "Our trial began after a small trial in France had very encouraging results, but was not large enough to change clinical practice." The international trials provide fluoxetine (or a placebo) to people for six months after their stroke and the studies measure the physical recovery of the patient. If fluoxetine is found to improve physical recovery without harming people, it could be provided widely as an affordable treatment to reduce disability after a stroke. The collaboration includes researchers from Australia, New Zealand, Vietnam, the United Kingdom and Sweden.

Project to enable older Aboriginal and Torres Strait Islander peoples to stand strong and tall

An innovative program developed by researchers at The George Institute, Australia in partnership with local communities, will tackle the high rate of falls that have devastating impact on health and wellbeing. The NHMRC awarded The Ironbark Program \$3 million to tackle the leading cause of hospitalisation for older Aboriginal and Torres Strait Islander peoples. Aboriginal Research Fellow Julieann Coombes said fall-related injuries are rising each year and can have a major impact on older people. "It is essential that Aboriginal and Torres Strait Islander Elders are given the opportunities to stay strong and healthy so they can continue to pass cultural knowledge on to future generations. The Ironbark Program was designed in partnership with Aboriginal communities in New South Wales using flexible and transparent methods that give ownership of the program back to the Aboriginal community". The program will run a trial on group-based balance and strength exercise classes across New South Wales, South Australia and Western Australia.







The George Institute China

This year, our researchers celebrated 10 years of cutting edge research in China, and continued growing national and international research collaborations to investigate better treatments and develop new models of care with important partners including the Heart Health Research Center, Beijing and Queen Mary University, London. Moreover, the Beijing Municipal Commission of Health and Family Planning granted official registration to The George Institute, China.

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北京大学医学部
PEKING UNIVERSITY HEALTH SCIENCE CENTER

Nationwide research collaboration set to change stroke treatment in China

Clinical researchers at West China Hospital, Chengdu and The George Institute, China joined forces in December 2017 to launch a new collaboration. The project was initiated across 45 hospitals in China, and will start at 30 more hospitals this year, involving patients with stroke. Lead investigator, Senior Research Fellow Lily Song said: "This project is the third in a series of studies designed to establish the effects of early intensive blood pressure lowering during recovering from stroke. This new collaboration could have a real difference on the impact of health outcomes for stroke patients in China and beyond." The project aims to establish the health effects of the 'care bundle' quality improvement system. This involves early intensive blood pressure lowering, control of elevated glucose and fever, and correction of anticoagulation, in patients with stroke, as compared to routine care.

“ I am proud of my work in improving clinical practice and stroke treatment, especially collaborating with researchers at West China Hospital to achieve impactful results



– Lily Song

Head, China stroke program
The George Institute, China



Globally, cardiovascular disease kills nearly

17.5 million

people each year, rising to

23 million

within the next two decades



@TimRegan99

Tim Regan

Chief Operating Officer

The George Institute for Global Health

Very successful meeting with Beijing government as we expand our health research and presence in China  @georgeinstitute



Professor Puhong Zhang, China Director of the Action on Salt China program

Global collaboration launched to take Action on Salt in China

The influence of the high salt, traditional food culture in China contributes to average salt consumption among Chinese people being much higher than is recommended by the Chinese Nutrition Society. In October 2017, the Action on Salt China (ASC) program was launched in Beijing to help reduce this growing problem. Professor Puhong Zhang, researcher at The George Institute, China and China Director of the Action on Salt China program said: "The aim of ASC is to develop and implement a comprehensive, effective and sustainable salt reduction program in China. The goal is to achieve a 15% reduction in salt intake by 2021 and contribute to China's commitment of achieving WHO's target of 30% reduction of population salt intake by 2025." The program is funded by the National Institute for Health Research of UK, will run for the next four years and involves collaborative partnerships with Queen Mary University of London and key Chinese Government agencies in health education and disease control.

Cardiovascular centre partnership providing world-leading heart health research

Since its inception in 2016, the Heart Health Research Center (HHRC) in Beijing has been providing high-quality cardiovascular research services to assist doctors, researchers and industry to have a high impact on cardiovascular health in China. Professor Du Xin, Co-Director of the HHRC said: "In the last year the HHRC has been conducting four major projects, including three trials and one observational study. The four projects are investigating more effective prevention, treatment and delivery-of-care for people with cardiovascular diseases, the biggest killer in China. The establishment of the HHRC, and its research outputs, are a massive step forward in addressing the burden of cardiovascular disease in China."



Kannan Krishnaswamy, Communications Manager, The George Institute, India

Health education program ensuring better health journalism

Policymakers and the public make significant healthcare and policy decisions based on media coverage. As such, it's essential for health journalism and communications to be evidence-based and accurate. To address this issue The George Institute developed the Media Doctor Toolkit and the Critical Appraisal Skills Program with a view to promoting evidence-based health journalism among journalists so that they are able to review and critique their own stories. The program was first piloted in India with support from UNICEF and Oxford University and is now being introduced to China. The first of its kind workshop on evidence-based health journalism was conducted at the School of Journalism and Communication, Peking University in November 2017. The aim of the workshop was to introduce to the participants the concepts of the Media Doctor Toolkit and Critical Appraisal Skills Program and to share the experience of running the same program in India. The workshop was facilitated by the School of Journalism and Communication, Peking University.



The George Institute India

In 2017, The George Institute, India celebrated 10 years of producing rigorous scientific evidence and significant partnerships with state governments and universities. Flagship research focused on innovative approaches to healthcare that address socio-economic barriers. We expanded the SMARThealth platform to new regions and new conditions, produced groundbreaking research on universal health coverage, and welcomed UNSW Sydney as co-hosts in our New Delhi office.

Limited access preventing good mental health

Around 150 million people are affected with mental disorders in India. Dr Pallab Maulik, lead investigator of an innovative study looking at improving service delivery and reducing stigma associated with mental health said: "The treatment gap for common mental disorders is around 75–80% in resource-limited settings such as India, as compared to 40–50% in developed countries. Targeted innovative strategies are needed to increase access to a basic standard of mental healthcare." Our pilot study provided technology-enabled solutions by primary health care workers across 42 villages in India. The researchers found significant increases in the use of mental health services by those in need, reduction in rates of depression and anxiety (before and after the intervention) and reduced stigma related to mental health. Currently, the program is being scaled up across two states in India with funding from the Australian National Health and Medical Research Council and the Global Alliance for Chronic Diseases.

Are burns the new leprosy in India?

An estimated seven million people suffer burn injuries every year in India, resulting in disfigurement and permanent disability in 250,000 people. A major study has found that burns survivors and healthcare providers identified stigma and social exclusion associated with burns disfigurement as the biggest challenge for recovery. Dr Jagnoor Jagnoor, lead author of the study and Head of the Injury Research Program at The George Institute, India said: "Few patients with burns in low- and middle-income countries receive appropriate first aid or immediate acute care, and have limited access to rehabilitation. In addition to physical disabilities, this often results in further complications such as anxiety, depression and post-traumatic stress disorder, poor communication between the healthcare provider and the survivor, leading the patient to the conclusion that little or nothing can be done for recovery. As a result, burns survivors become emotionally overwhelmed and typically withdraw from social activity." The results of this study will go on to inform the development of acceptable, culturally relevant models of burns care in India.



Mental health conditions affect nearly

450 million

people globally. At some point,

One in four

will suffer from mental or neurological conditions



@AusHCIndia

Harinder Sidhu

Australian High Commissioner to India

Pleased to be a part of the launch of @georgeinstitute's IMPACT Diabetes program by NSW Premier @GladysB. The program uses an innovative smartphone based health app pioneered in NSW that could help save lives in India – a great example of   collaboration in #medtech



Assessing equity of universal health coverage in India

Researchers from The George Institute, India have launched a program supporting Indian states with the rollout of reforms related to universal health coverage (UHC). Project lead, Dr Devaki Nambiar, said: "As we advance towards the achievement of the UN Sustainable Development Goal for Health through UHC reforms in various Indian states, prior experience suggests that health interventions tend to privilege already advantaged populations, creating inequality. Therefore, there is an urgent need to understand what these inequalities are, and how they arise so we may start to tackle them and be truly universal in our approach." The project aims to assess the magnitudes of inequalities related to UHC-linked health reform in the Indian state of Kerala, and then use in-depth research methods to assess the mechanisms underlying these inequalities.

“ Decision-makers deal with levels of complexity that often surpass what we confront in research projects; working with them is truly humbling and a great learning experience ”

– Dr Devaki Nambiar
Program Head, Health Systems and Equity
The George Institute, India



Landmark study to investigate chronic kidney disease in India

In India, chronic kidney disease is ranked in the top 10 causes of death, placing a huge strain on an already under-resourced health system. Researchers at The George Institute, India are conducting a series of studies aimed at addressing all aspects of the disease to provide solutions for policymakers that are based on rigorous evidence. The studies are being led by Professor Vivekanand Jha, Professor of Nephrology at Oxford and Executive Director of The George Institute, India. Professor Jha said: "Our work will estimate the burden of chronic kidney disease in the community using rigorous scientific methodology and sociological tools, undertake an environment mapping and additional investigations as needed to better understand its causes and thereby develop tools to prevent and treat it in the community. We intend to work closely with the local health systems to create real change." In 2016, 44 million people in India were affected by chronic kidney disease, and approximately 240,000 deaths every year are attributable to this disease.



The George Institute United Kingdom

The George Institute, UK this year deepened its partnership with Oxford University's Nuffield Dept. of Women's & Reproductive Health. Our expanding programs focused on analysing large datasets to identify disease burdens, risk factors and effective NCD treatments for both women and men. Executive Director Prof. Terence Dwyer AO stepped down to focus on his research, and we welcomed Dr Margie Peden to strengthen our global injury program.

Proudly affiliated with



High blood pressure linked to common heart valve disorder

For the first time, a strong link has been established between high blood pressure and the most common heart valve disorder. Researchers from The George Institute, UK followed 5.5 million adults in the UK over 10 years and found that higher blood pressure in early life was associated with a significantly greater future risk of mitral regurgitation, a condition which makes the heart less efficient at pumping blood around the body, and in severe cases can lead to heart failure. "Our research suggests this common and disabling valve disorder is not an inevitable consequence of ageing, as previously assumed, but may be preventable," said Professor Kazem Rahimi, lead author of the study and Deputy Director of The George Institute, UK. "Given the large and growing burden of mitral valve disease, particularly among older people, we believe these findings are likely to have significant implications for health policy and practice around the world." Mitral

regurgitation leads to a backflow of blood into the heart, causing symptoms such as shortness of breath, tiredness, dizziness and chest pain. It is more common in older people, and may be associated with a greater risk of death. Despite significant advances in the understanding of valve disease, mitral regurgitation has until now been largely considered a degenerative disorder, resulting from a weakening of the valve over time due to 'wear and tear'. This has led medical practitioners to focus on treatment – namely surgery to repair or replace the valve – rather than prevention. The new study suggests further research is needed to test whether lowering blood pressure – through exercise, diet or blood pressure lowering drugs – could reduce the risk of the disorder occurring.



Diabetic women vs non-diabetic are

27%

more likely to develop cancer. For men,

19%

is the risk factor with diabetes vs those without

“ To have research impact and to change policy and practice, means engaging with collaborators throughout the research process



– Rebecca Dodd

Senior Research Fellow,
Centre for Health Systems Science,
The George Institute for Global Health



Dr Jenny Tran
DPhil Student, The George Institute, UK

Major study finds sharp rise in multimorbidity

The proportion of people experiencing heart disease and stroke who have five or more other health conditions quadrupled between 2000 and 2014, according to research by The George Institute, UK. The study, which could have significant implications for the way healthcare is provided, analysed data of over four million people in the UK. Researchers found that while the proportion being diagnosed with heart disease and stroke fell by 34% during this period, among those who were diagnosed, the proportion of people with five or more other health conditions rose from 6.3% to 24.3%. "This rise in the number of health conditions experienced might be linked to changes in environmental or lifestyle factors, such as smoking, physical inactivity and diet, which we know contribute to the development of chronic illness," said Dr Jenny Tran, who led the study.

Study finds poorest people in UK are worst affected by heart failure

The research, published in The Lancet, showed that there are now as many new cases of heart failure in the UK each year as there are of the four most common cancers combined (lung, breast, bowel and prostate cancer), and people in the most deprived socio-economic groups are about 60% more likely to be affected by the condition. The research also showed that disparities between different socio-economic groups actually grew between 2002 and 2014, with the age at which heart failure is diagnosed rising for the most affluent, but dropping slightly among the most deprived. People in the poorest neighbourhoods are likely to be affected by heart failure 3.5 years earlier in life than those in the wealthiest areas. "These disparities in the incidence of heart failure and age at onset within the same country highlight the preventable nature of the disease, and suggest we still have a lot of work to do to tackle it," said Nathalie Conrad, who led the study. "If we could achieve the incidence rates we see among the most affluent groups for the population as a whole, we would see a fall of about one-fifth, or nearly 32,000 fewer cases every year."

“ The work that is being done here is not only highly innovative, but is driven by impact on patients’ lives. That gives me a lot of satisfaction in my day-to-day life

”

– **Nathalie Conrad**

PhD student, The George Institute, UK



‘Apple shape’ more strongly linked with heart attack risk in women

Researchers from The George Institute, UK have found that women with bigger waists relative to their hips face a proportionately greater risk of experiencing a heart attack than men who have a similar ‘apple shape’. Dr Sanne Peters, Research Fellow in Epidemiology at The George Institute, UK, who led the research said: “Our findings show that looking at how fat tissue is distributed in the body – especially in women – can give us more insight into the risk of heart attack than measures of general obesity.” The study, of nearly 500,000 people who provided data to the UK Biobank, suggests that in both sexes, the waist-to-hip ratio is a better predictor of heart attacks than general obesity, as measured by weight relative to body size using the body mass index. However, the research suggests women with an ‘apple shape’ are particularly at risk.



A global focus on thought leadership

Distinguished Fellow Trish Greenhalgh

Professor of Primary Care Health Sciences at Nuffield Department of Primary Care Health Sciences at the University of Oxford

Following many years of world-leading medical research, The George Institute for Global Health has increasingly been driving a new thought leadership approach in the health sector. Producing policy reports, convening events, and building consensus to complement its rigorous scientific and evidence-based research, The George Institute is focused on providing real solutions to the world's biggest health challenges. In 2017, through our new UNSW Sydney affiliation, The George Institute solidified these thought leadership activities through the establishment of a global health "think tank".

Building on current research and advocacy work on non-communicable diseases and injury, the think tank's key themes encompass women's health equity, health systems transformation, promoting healthy living environments (food and injury), leveraging social enterprises and harnessing evidence for better health. We are amplifying research findings and driving dynamic thought through critical commentary and stimulus papers, data visualisation, videos and events. We are building on existing research to challenge the status quo, drive innovative thought and discussion, increase collaborations and influence policy to deliver innovative, affordable health solutions. As well as commissioning 'deep thinking' reports and economic modelling to support new policy ideas, and disseminating new information through easy-to-share infographics, our work has led to a series of new collaborations to support transformative thinking and systems change.

Driving dynamic thought through global collaborations

Examples of collaborations through to mid-2018 included:

- The first International Digital Health Symposium in February with the Australian Digital Health Agency and UNSW Sydney attended by over 300 experts from Australia and 14 other countries (more on page 13).
- A policy roundtable on universal health coverage in India in May, attended by government officials, healthcare providers, academics, international agencies and civil society organisations that examined progress to universal health coverage and produced high-level recommendations for research and policy.
- A stakeholder forum in May on sex and gender specific health data, partnering with Bupa Health Foundation and inviting attendees to be co-authors on a call for consensus on policies in Australia.

The program also held a series of public lectures at our regional offices or via live stream and podcasts. Talks by the World Health Organization, the World Bank and the Australian Department of Foreign Affairs and Trade provided an update on healthcare and policy challenges around the world.

World-class Distinguished Fellows

As part of the think tank program, we are recruiting externally-based health researchers, policymakers and advocates who will add their independent voices to help drive thought leadership as Distinguished Fellows. Our Fellows will be driving conversations around non-communicable diseases and injury, and improved systems for prevention and treatment. In February 2018 we appointed our first Distinguished Fellow Trish Greenhalgh, Professor of Primary Care Health Sciences at Nuffield Department of Primary Care Health Sciences at the University of Oxford. "As the first Distinguished Fellow I'm keen to develop some ideas on system-level change and what we might do to complement and/or replace traditional research trial approaches. I think The George Institute for Global Health is now at the stage where it's asking what other methodologies might be helpful in addressing global grand challenges, and how can we apply these appropriately," said Professor Greenhalgh.

“ Our thought leadership effort aims to drive awareness, insights and solutions to inform better policies, practices and funding, thereby improving people's health around the world

”

– **Dr Jacqui Webster**

Head, Public Health Advocacy
The George Institute for Global Health



Martin Bowles PSM, Secretary, Department of Health, speaking at our event: 'A vision for creating a healthy Australia'



A life-course approach to women's health

Kelly Thompson
Program Manager, Global Women's Health

The Global Women's Health Program was established in 2018, with the goal of improving women's health worldwide. The program aims to do this by expanding the definition of women's health, improving our understanding of how disease affects both women and men, and by addressing women's health through a life-course approach.

In the last 30 years, the global burden of disease has shifted for women, with non-communicable diseases and injury now the leading causes of death and disability. Great advances have been made to improve the burden of maternal mortality in low- and middle-income countries and as such, attempts to improve women's health must include a broad agenda that recognises women's health beyond the traditional focus of sexual, reproductive and maternal health. Kelly Thompson, Program Manager for Global Women's Health at The George Institute, said: "Using a whole-of-life approach to address issues around women's health is fundamental to improving women's health and equity globally, and these steps align with the UN's Sustainable Development Goals to promote healthy lives, achieve gender equality and empower all women and girls."

Sex- and gendered-research

Although there is considerable evidence of women being undertreated or developing cardiovascular disease in a different way to men, sex-specific analyses of clinical trials and epidemiological studies for other non-communicable diseases are limited. An important goal of the Global Women's Health Program is to promote sex- and gender-sensitive approaches to the collection, analysis, use and publication of health data across the Institute. The program will support researchers to adopt a systematic approach to collecting, analysing and using health data to assess similarities and differences between women and men. It will promote wider acknowledgement of gender roles within society and how gender interrelates with sex and can affect health outcomes.

“ Woman-centred collaborative research is vital to a women's health life-course approach: clinicians and researchers from many different disciplines working with women, not on them, for positive impact ”

– Dr Amanda Henry

Senior Research Fellow, Women's Health, The George Institute for Global Health



@KenWyattMP

The Hon. Ken Wyatt AM, MP
Minister for Indigenous Health,
Minister for Senior Australians
and Aged Care

The work you're doing here
at the George Institute is
outstanding #GeorgeTalks

Establishing collaborations for greater impact

In May 2018, with the support of the Bupa Health Foundation, the Global Women's Health Program convened a stakeholder meeting to present research findings on Australian medical research journals' and funders' policies around sex- and gender-sensitive research. Stakeholders discussed the importance of sex- and gendered-analysis in research and the need for and strategies to support the collection, analysis and reporting of sex- and gender-specific health data. Additionally, The George Institute became a member of The Taskforce on Women and NCDs. The taskforce brings together 14 global health organisations aiming to develop and disseminate evidence-informed guidance to better integrate non-communicable disease prevention, detection and treatment into existing services for women in low- and middle-income countries. It mobilises leaders in advocacy, public health and civil society to advocate for policies that drive gender-specific and resource-specific responses to non-communicable diseases in women.





Our People

Since 1999, The George Institute has been committed to providing a diverse working environment where individual differences are respected and valued. As a result, our organisation has grown to be the successful organisation that it is today, harnessing the expertise and energy of over 600 people around the world.

Our working culture has enabled our people to grow in an environment where individual differences are recognised and valued; where dignity and respect are promoted; where all staff are offered equal opportunities; and where no employee is treated less favourably than another. Our commitment to Diversity, Inclusion and Belonging is as strong as ever. Why? Because it's good for our people, our teams and our organisation. And that helps us all achieve our mission of improving the health of millions of people worldwide.

In 2017–18

600+

staff globally

70+

academic appointments

69%

women

60+

collaborating Honorary Fellows,
extending our impact

50+%

female academic researchers

50+

students building future capacity
in medical research

“ Our Diversity, Inclusion and Belonging commitment brings me great pride. I’m pleased to work for an organisation that strives to embrace the uniqueness we all bring ”

– Neeti Sharma

Human Resources Manager, The George Institute, India

Board of Directors

Michael Hawker AM BSc (Syd), FAICD, FAIM, SF Fin
Chair / Non-Executive Director

- Non-Executive Director – Aviva Plc Group (UK)
- Non-Executive Director – Macquarie Group Limited and Macquarie Bank Limited
- Non-Executive Director – Washington H. Soul Pattinson and Company Limited
- Chair – Australian Business and Community Network (ABCN) Foundation
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- Former Chair – Australian Rugby Union
- Former CEO / Managing Director – Insurance Australia Group
- Former President – Insurance Council of Australia
- Former Chair – Australian Financial Markets Association
- Former Board Member – Geneva Association
- Former Member – Financial Sector Advisory Council



Russell Aboud MBBS (USYD)
Non-Executive Director

- Executive Chair / Founding Partner – Manikay Partners (New York)
- Non-Executive Director – George Health Enterprises Pty Ltd
- Advisory Board Member – Adamantem Capital
- Former Non-Executive Director – Australian Securities Exchange Limited, and Former Member of its Clearing Board
- Former Chairman – Ord Minnett (Australia)
- Former Senior Advisor to JP Morgan Australia
- Former Member – Advisory Board UBS O'Connor
- Former Global Head of European Equities for UBS London, and former Board member of UBS Investment Bank (London)



Dr Srinivas Akkaraju MD, PhD
Non-Executive Director

- Board Chair – George Health Enterprises Pty Ltd
- Managing General Partner – Samsara BioCapital
- Director – Seattle Genetics
- Director – Syros Pharmaceuticals



- Director – Intercept Pharmaceuticals Inc.
- Director – Versartis Inc.
- Former Director – aTyr Pharma, Inc.
- Former Director – ZS Pharma, Inc.
- Former Director – Eyetech Pharmaceuticals, Inc.
- Former Director – Synageva Biopharma Corp.
- Former Director – Barrier Therapeutics, Inc.
- Former Director – Amarin Corporation plc
- Former General Partner – Sofinnova Ventures
- Former Managing Director – New Leaf Venture Partners
- Former Co-Founder and Managing Director – Panorama Capital, LLC
- Former Manager – Genentech, Inc.
- Former Partner – JP Morgan Partners

Yasmin Allen BCom, FAICD
Non-Executive Director

- Non-Executive Director – ASX Limited
- Non-Executive Director – Cochlear Limited
- Non-Executive Director – Santos Limited
- Board Member – George Health Enterprises Pty Ltd
- Member – ASX Limited Clearing and Settlement Board and Audit Committee
- Director – National Portrait Gallery, Canberra
- Member – Federal Government's Takeovers Panel
- Former Non-Executive Director – Insurance Australia Group Limited (IAG)
- Former National Director – Australian Institute of Company Directors
- Former Chair – Macquarie Global Infrastructure Funds
- Former Board Member – Export Finance and Insurance Corporation (EFIC)
- Former Board Member – Film Australia Limited
- Former Board Member – Red Cross Blood Service
- Former Member – Salvation Army Advisory Board
- Former Director of ANZ Investment Bank, Sydney
- Former Vice President of Deutsche Bank
- Former Associate Director of HSBC, London



Gina Anderson BA, GAICD

Non-Executive Director

- Chair – The George Foundation for Global Health Limited
- Non-Executive Director – GDI Property Group and GDI Funds Management Ltd
- Former Founding Advisory Board Member – Australian Charities and Not-for-profits Commission (ACNC)
- Co-Founder and Former Chair – Women's Community Shelters Limited
- Philanthropy Fellow – Centre for Social Impact, University of New South Wales
- Former Executive Director and Chief Executive – Philanthropy Australia



- Non-Executive Director – Stockland Corporation Limited
- Non-Executive Director – OFX Group Limited
- Non-Executive Director – The Centre for Independent Studies
- Member – ASIC Director Advisory Panel
- Member – AICD Corporate Governance Council
- Former Non-Executive Director – David Jones Limited
- Former Non-Executive Director – APN News & Media Limited
- Former Non-Executive Director – NSW Clinical Excellence Commission
- Former Non-Executive Director – NSW Agency for Clinical Innovation
- Former Non-Executive Director – Garvan Medical Research Institute Foundation

David Armstrong BBus (UTS), FCA, MAICD

Non-Executive Director

Chair – Finance, Risk and Audit Committee

- Non-Executive Director – National Australia Bank
- Chair – National Australia Bank Audit Committee
- Member – National Australia Bank Risk Committee
- Director – Opera Australia Capital Fund Limited
- President of the Australian Museum
- Trustee of Lizard Island Reef Research Foundation



Paul McClintock AO BA LLB (USYD)

Non-Executive Director

- Chairman of NSW Ports
- Chairman of I-MED Network
- Chairman of Broadspectrum
- Chairman of Laser Clinics Australia
- Chairman of Committee for Economic Development of Australia
- Chair of Sydney Health Partners
- Director of St Vincent's Health Australia
- Former Secretary to Cabinet and Head of the Cabinet Policy Unit reporting directly to the Prime Minister as Chairman of Cabinet
- Former Chair – Myer Holdings, Medibank Private, Thales Australia, COAG Reform Council, Expert Panel of the Low Emissions Technology Demonstration Fund, Intoll Management, Symbion Health, Affinity Health, Ashton Mining, Plutonic Resources, and the Woolcock Institute of Medical Research
- Former Director – Australian Strategic Policy Institute and Perpetual
- Former Commissioner – Health Insurance Commission
- Former Member – Australia-Malaysia Institute Executive Committee
- Honorary Fellow – Faculty of Medicine of the University of Sydney
- Life Governor – Woolcock Institute of Medical Research



David Baffsky AO LLB (Sydney University)

Non-Executive Director

- Chairman – Investa Property Group
- Chairman – Ariadne Australia Limited
- Honorary Chairman – Accor Asia-Pacific
- Board Member – Sydney Olympic Park Authority
- Board Member – Destination NSW
- Board Member – Australian Brandenburg Orchestra
- Former Chairman – Accor Asia-Pacific
- Former Director – SATS Limited
- Former Trustee – Art Gallery of NSW
- Chevalier in the Order of National Légion d'Honneur of France



Melinda Conrad BA (Wellesley), MBA (Harvard), FAICD

Non-Executive Director

- Non-Executive Director – ASX Limited
- Non-Executive Director – Caltex Australia Limited



Professor Rodney Phillips MBBS (Melb), FRACP, MD (Melb), MA (Oxon), FRCP (London), FAMS, FAHMS
Non-Executive Director

- Dean of Medicine, UNSW Medicine, UNSW Sydney
- Director – Garvan Institute of Medical Research
- Director – Kinghorn Cancer Centre
- Director – Ingham Health Research Institute
- Director – Neuroscience Research Australia
- Member of the Medical Deans Australia & New Zealand
- Honorary Fellow – Pembroke College, Oxford
- Former Professor – Clinical Medicine University of Oxford
- Former Director – Peter Medawar Building for Pathogen Research
- Former Chair – Research Assessment Exercise Working Group, Oxford
- Former Chair – Appointments Committee, Division of Medical Sciences
- Former Chair – Oxford Cancer Radiobiology Steering Committee



- Former Co-Director – Institute for Emerging Infections, James Martin 21st Century School, Oxford
- Former Chair – Biomedical and Neuroscience Institute, Oxford
- Former Adjunct Professor – Medicine, Duke University, USA

Dr Meena Thuraisingham PhD, GAICD, MAPS
Non-Executive Director
Member – Remuneration Committee

- Founder & Principal, BoardQ
- Founder & Principal, TalentInvest
- Member, International Women's Forum
- Former Senior Executive, ANZ Banking Group



Catherine Livingstone AO BA (Hons)(MQ), FCA, FTSE, FAICD, FAA
Non-Executive Director (until 25 August 2017)

Professor Stephen MacMahon AO

Principal Director & Co-Founder,
The George Institute for Global Health

For full bio, see page 42

Professor Robyn Norton AO

Principal Director & Co-Founder,
The George Institute for Global Health

For full bio, see page 42



The Hon. Catherine King MP, Shadow Minister for Health and Medicare, speaking at our event: 'Better health for all: a policy conversation'

Global Management Committee

Professor Stephen MacMahon AO

Principal Director & Co-Founder,
The George Institute for Global Health

- Professor of Cardiovascular Medicine, Faculty of Medicine, UNSW Sydney; Professor of Medicine and Oxford Martin Senior Fellow, University of Oxford; Honorary Professor, Peking University Health Science Center
- Fellow, Australian Academy of Science, British Academy of Medical Sciences, Australian Academy of Health and Medical Sciences, and the American College of Cardiology



Professor Robyn Norton AO

Principal Director & Co-Founder,
The George Institute for Global Health
Acting Executive Director (from March 2018),
The George Institute, UK

- Professor of Public Health, Faculty of Medicine, UNSW Sydney; Professor of Global Health and Oxford Martin Senior Fellow, University of Oxford; Honorary Professor, Peking University Health Science Center
- Chair Emeritus, Road Traffic Injuries Research Network
- Fellow, Australian Academy of Health and Medical Sciences



Professor Craig Anderson

Executive Director, The George Institute, China

- Professor of Neurology and Epidemiology, Faculty of Medicine, UNSW Sydney
- Neurologist, Royal Prince Alfred Hospital, Australia
- Senior Principal Research Fellow, National Health and Medical Research Council



Erika Burmeister

Director, Global Human Resources

- Extensive experience in human resources in Australia, the US, Europe and Asia
- Previously held positions at AMP, Citigroup and Colgate-Palmolive



Peter Dolnik

Director, Research Strategy and Services

- Extensive experience in research strategy, governance and management at various institutions including UNSW Sydney and the University of Sydney



Professor Terence Dwyer AO

Executive Director, The George Institute, UK (until March 2018)

- Professor of Epidemiology and James Martin Professorial Fellow, University of Oxford
- Chair, International Childhood Cardiovascular Cohort Consortium (i3C) and the International Childhood Cancer Cohort Consortium (I4C)



Paul Hodgkinson

Chief Financial Officer

- MA (Hons) Engineering, Cambridge University
- Fellow of the Institute of Chartered Accountants of England and Wales, and member of the Institute of Chartered Accountants in Australia
- 20 years international healthcare experience in global pharmaceutical sector working for AstraZeneca and Novartis as well as in the biotech industry in the field of cellular therapies



Professor Vivekanand Jha

Executive Director, The George Institute, India

- Professor of Nephrology and James Martin Professorial Fellow, University of Oxford
- President-Elect, International Society of Nephrology; Member, WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation; Chair, Education Committee, International Society of Nephrology; Executive Committee member, Asian Forum of Chronic Kidney Disease
- Editor, Cochrane Kidney and Transplant Group



Staph Leavenworth Bakali

President & CEO, George Health Enterprises Pty Ltd

- Bachelor of Arts, City of London Polytechnics
- Masters in Management, London Business School, University of London
- 30 years' healthcare sector experience in leading global public and private companies

**E. Richard Mills**

Director, Global Communications and Advocacy

- Extensive senior level experience in global development communications
- Former Director of Communications, The World Bank and spokesperson for the US Government on trade and economic issues

**Professor Anushka Patel**

Chief Scientist

- Professor of Medicine, UNSW Sydney; PhD University of Sydney; SM (Epidemiology), Harvard University; MBBS, The University of Queensland; FRACP (Cardiology), Royal Australasian College of Physicians
- Cardiologist, Royal Prince Alfred Hospital and Central Sydney Cardiology
- Fellow, Australian Academy of Health and Medical Sciences

**Professor Vlado Perkovic**

Executive Director, The George Institute, Australia

- Professor of Medicine, UNSW Sydney
- Staff Specialist in Nephrology, Royal North Shore Hospital, Australia
- Member, National Health and Medical Research Council Principal Committee on Research Translation; Chair, International Society of Nephrology Advancing Clinical Trials Group
- Fellow, Australian Academy of Health and Medical Sciences, Royal Australasian College of Physicians and the American Society of Nephrology

**Dr Marisa Petersen**

Executive Director and CEO, George Clinical

- PhD, Clinical Pharmacology and Pharmacokinetics
- Over 25 years in clinical research management in the Asia-Pacific including as Vice President Asia-Pacific for Omnicare Clinical Research
- Joined George Clinical in 2010 as General Manager, retired August 2018

**Tim Regan**

Chief Operating Officer

- Bachelor of Economics, University of Sydney
- Director and former President, Financial Executives Institute of Australia
- Fellow, Australian Institute of Company Directors, Institute of Chartered Accountants and the Australian Property Institute

**Marna Van Zyl**

Senior Legal Counsel

- BLC, LLB, University of Pretoria (South Africa)
- Post Graduate Certificate in Intellectual Property Law, University of Technology, Sydney
- Solicitor and Trade Marks Attorney

**Dr John Wastell**

Director, Global Information and Technology

- PhD in nuclear physics from the University of Melbourne
- Extensive IT leadership experience in multiple industries, including insurance, internet services, defence and aerospace, global professional services and medical research





Our Funders and Supporters

Benefactors

Thank you to all our benefactors for your ongoing commitment to ensuring people around the world have better access to the prevention and treatment of the most common diseases and injuries.

- Gina Anderson
- Elsa Atkin AM
- Peter & Annie Eichhorn
- Nigel Elliot
- Vincent Garvey
- Mike & Sue Gregg
- Michael Hawker AM
- John Knight
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Thank you to our generous funders and supporters for helping us to improve health around the world.

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- Bethune Charitable Foundation
- British Heart Foundation
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- China Children and Teenage Fund
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- National University of Singapore
- Norton Rose Fulbright
- NSW Centre for Road Safety
- NSW Ministry of Health
- Nuffield Department of Women's & Reproductive Health
- Nursing Research Institute, Australian Catholic University
- Oxford Martin School, University of Oxford
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- Pfizer Foundation
- Qualcomm Wireless Reach
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- Servier
- St George's, University of London
- Shire
- Sydney Health Partners
- Sydney Local Health District
- Takeda
- Telstra Health
- University of Edinburgh
- University of Leicester
- University of Newcastle
- University of Oxford
- University of Queen Mary
- University of Sydney
- University of Technology Sydney
- UNSW Sydney
- Victorian Health Promotion Foundation
- Wellcome Trust
- Western Sydney Local Health District
- World Health Organization



Lily Song from our China office having some social media fun at the Australia-China fellow alumni reception in Beijing

Our Finances

Revenue

Combined Operating Revenue and Other Income reached the major milestone of \$100m for the first time in 2017-18. It was pleasing to note that both the Institute and its Commercial Enterprises grew strongly at an overall rate of 17% over the previous financial year.

Surplus

Through a combination of obtaining grant funding, winning commercial contracts and cost control, the Group in 2017-18 recorded a surplus of \$1.0 million. At the end of 2017-18, the Group had \$24.3 million of cash, \$16.8 million of trade and other receivables, and an investment portfolio of \$7.5 million. Deferred income, representing funding received for projects in advance, increased to \$36.3 million. Overall, Net Equity was at \$17.1 million at the end of 2017-18, having grown 35% over the prior financial year, keeping the Group in a financially sound position.

Peer reviewed and government funding

Across the many divisions of the Institute, researchers have continued to receive highly sought after peer reviewed grants in Australia, the UK and the US. The Australian Federal Government and NSW State Government also contributed crucial funding for ongoing research projects and infrastructure support for the Institute.

Clinical research

George Clinical continued to generate funds by managing commercial trials for its expanding number of global pharmaceutical and biotechnology companies. This innovative funding approach resulted in George Clinical contributing \$4.1 million to help fund the Institute's research activities globally.

Donations and sponsorship

Donations and sponsorships are an important source of funding for the Institute. In 2017-18, we received donations from a valuable number of supporters.

Consolidated* Profit and Loss, by segment for the year ended 30 June 2018

	2018			2017
	TGI Group (Research) \$k	GHE Group (Commercial) \$k	Consolidated* \$k	Consolidated* \$k
Operating Revenue	45,846	50,079	95,925	82,199
Other Income	1,644	2,745	4,389	3,448
Donation to TGI from George Clinical	4,100	-	N/A	N/A
Intersegment Revenue	1,635	1,823	N/A	N/A
Total Revenue			100,314	85,647
Employee Benefits Expense	(29,707)	(28,417)	(58,124)	(45,596)
Share Based Payment Expense	-	(3,061)	(3,061)	-
Depreciation and Amortisation Expense	(1,011)	(830)	(1,841)	(1,177)
Rental Expense	(1,970)	(1,386)	(3,356)	(2,872)
Administration Expense	(2,172)	(1,645)	(3,817)	(2,845)
Study Contract Fee	(596)	(9,317)	(9,913)	(9,874)
Patient Recruitment Expense	(1,122)	-	(1,122)	(1,707)
Consultants and Sub-Contractors Fee	(1,606)	(2,318)	(3,924)	(6,475)
Travel/Accommodation Costs	(2,383)	(1,037)	(3,420)	(2,827)
Other Expenses	(5,592)	(4,164)	(9,756)	(9,546)
Share of Loss of Jointly Controlled Entity	(464)	-	(464)	(542)
Donation to TGI from George Clinical	-	(4,100)	N/A	N/A
Intersegment Expense	(1,823)	(1,635)	N/A	N/A
Surplus before Income Tax	4,779	(3,263)	1,516	2,186
Income Tax	-	(477)	(477)	(951)
Surplus after Income Tax	4,779	(3,740)	1,039	1,235

Consolidated* Balance Sheet at 30 June 2018

	2018 \$k	2017 \$k
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	24,309	21,433
Trade and Other Receivables	16,759	23,223
Other Assets	3,839	2,985
Accrued Income	6,929	4,257
Total current assets	51,836	51,898
Non-current assets		
Other Financial Assets	7,545	6,912
Investments Accounted for using Equity Method	1,449	1,375
Plant, Fitting and Equipment	6,137	5,966
Goodwill	7,308	7,022
Intangible Assets	1,963	2,456
Total non-current assets	24,402	23,731
Total assets	76,238	75,629
LIABILITIES		
Current liabilities		
Trade and Other Payables	9,317	11,824
Deferred Income	36,295	36,099
Provisions	5,821	5,544
Borrowings	1,500	1,500
Other Liabilities	662	300
Total current liabilities	53,595	55,267
Non-current liabilities		
Provisions	693	624
Borrowings	2,600	4,500
Other Liabilities	2,225	2,525
Total non-current liabilities	5,518	7,649
Total liabilities	59,113	62,916
Net assets	17,125	12,713
EQUITY		
Accumulated Surplus	13,730	12,691
Other Reserves	3,395	22
Total equity	17,125	12,713

Notes

The Consolidated Balance Sheet provided above, together with the attached Income Statement, have been extracted from the audited general purpose financial statements of The George Institute of Health and its controlled entities. The summary financial information does not include all the information and notes normally included in a statutory financial report. The audited general purpose financial report can be obtained on www.georgeinstitute.org/annual-reports-and-financial-statements.

These financial statements (from which the summary financial information has been extracted) are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards - Reduced Disclosure

Requirements, including the Australian Accounting Interpretations and other authoritative pronouncements of the Australian Accounting Standards Board and the Australian Charities and Not-for-profits Commission Act 2012 as appropriate for not-for-profit oriented entities.

* CONSOLIDATED = Consolidated Entity consisting of The George Institute for Global Health and the entities it controlled for the financial year ended 30 June 2018; GHE GROUP (Commercial) = George Health Enterprises Pty Ltd and the entities it controlled for the financial year ended 30 June 2018; and TGI GROUP (Research) = The George Institute for Global Health and the Research Entities it controlled for the financial year ended 30 June 2018.

George Health Enterprises

George Health Enterprises is The George Institute for Global Health's commercial arm. Its unique vision is to provide innovative and affordable global treatment solutions for the world's biggest killers – common serious chronic diseases such as heart disease and diabetes.

George Health Enterprises' aim is to deliver high-impact, widely scalable products and services developed from the results of almost two decades of dedicated research by The George Institute for Global Health. Changing demographics and shifting disease burdens are placing huge demands on health systems everywhere. Payers, such as governments and health insurers, and patients are demanding more appropriate cost-effective treatments for chronic diseases and personalised healthcare solutions for conditions that are likely to be life-long. Payers are increasingly using value-based reimbursement to drive change. Providers, in turn, require innovative chronic disease and injury management strategies that enable them to deliver good clinical outcomes that control costs. The enormous burden of chronic disease, and the associated demand for new treatments and novel approaches to care, is driven by several factors – ageing populations, global transition of disease burden from infectious to chronic diseases; increased healthcare costs associated with life-long treatment needs, and inadequate access to effective treatments. As a consequence of markets being ill-equipped or slow to react to this demand, there are long-standing

deficits in the treatment of patients with chronic diseases and injury, resulting in poor clinical outcomes, spiralling healthcare expenditure and a widening health gap. Consequently, there is an opportunity for evidence-based, resource-sensitive innovation to generate new approaches that directly address the deficits in the treatment and care of patients with common chronic diseases. This is the market gap targeted by George Health Enterprises, using extensive sector experience of its management and Board, as well as its unique access to the IP, know-how and the global reach of The George Institute for Global Health. George Health Enterprises has a unique vision: first, to create a business that will be judged by its global impact, as well as its profits; and second, to develop and scale up effective affordable treatments, technologies and other healthcare solutions that address major unmet market needs using the best scientific evidence. The company is also unique in having three component portfolio businesses that are risk-diversified, poised for significant growth, and yet integrated in a way that enables innovative health products and services to be taken all the way from concept to market – George Clinical, George Medicines and George Health Technologies.



“ 2017–18 was a year of significant progress for George Health – George Clinical continues to deliver above market annual revenue growth; George Medicines’ pipeline of innovative and affordable treatments is progressing towards market approval as planned; George Health Technologies is focused on growing international partnerships to scale up SMARThealth. We have also strengthened our leadership team by recruiting experienced global health experts



– **Staph Leavenworth Bakali**
President and CEO, George Health Enterprises



Globally, chronic diseases kill around
40 million
people each year. This includes

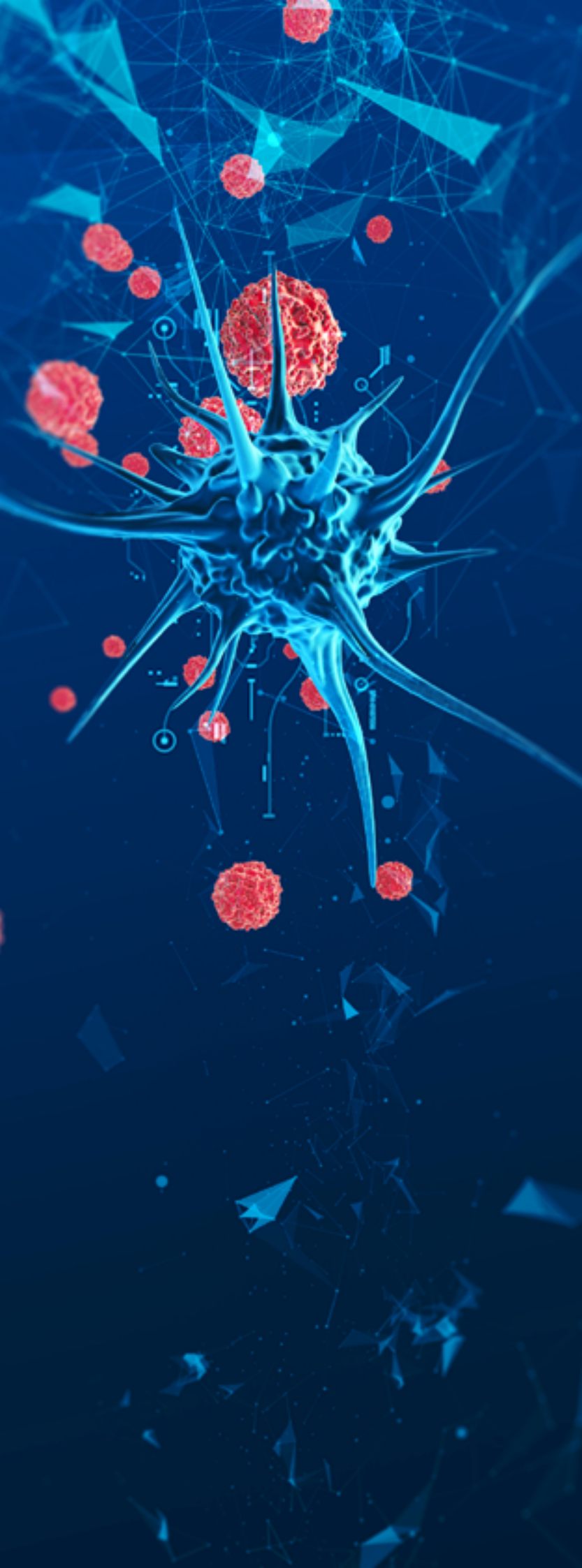
18 million
people aged less than 70

George Clinical

George Clinical is the most established of the enterprises owned by George Health Enterprises. George Clinical is a leading Asia-Pacific based contract research organisation with global service delivery that integrates world-class scientific leadership with high-quality, full-service clinical trial delivery. We provide services and employ staff across 16 countries.

New entities are currently being established in Singapore, Philippines and Japan to further strengthen our Asia-Pacific base. George Clinical has 15 years of expertise in a wide range of therapy areas with a special focus on vascular, renal and metabolic diseases and oncology. George Clinical provides innovative and flexible clinical trial management services to biotech, pharma and diagnostic customers, with over 70 active studies in the last 12 months. Increasingly, our customer base is well-diversified and includes companies on the East and West coast of the US, Europe, India, China, Korea, Malaysia and Australia. We are seeing a growing trend towards device and diagnostic studies and late-phase, observational research relying on the extraction of data from electronic records and databases. George Clinical is very well equipped to support these studies which align well with the work of The George Institute and the expertise of our staff. George Clinical also provides trial conduct and consulting services to The George Institute and contributes financially (\$4.1m in FY 2018) to support its research efforts. Throughout the past year George Clinical has also worked alongside the Institute as it builds its relationships with UNSW Sydney, seeking mutually beneficial

opportunities for collaboration. George Clinical's expansion into the US has been consolidated in the past year, with full integration of both the business and operations structures, allowing George Clinical to successfully deliver a consistent service offering over many countries and regions. The team in the US has grown from 40 at acquisition in May 2017 to 62 in June 2018 with several key personnel added in the Sales Management group. 2018 has also been an important year in adding to our growing operational and business systems which will support the scalability of the organisation. Dr Marisa Petersen advised the Board of her decision to retire in September 2018 after eight years with George Clinical. Marisa built a high-quality, full-service clinical development organisation that remains integrated with its academic origins. She leaves George Clinical in a strong position for future growth and we thank her for her dedication and commitment.



“ George Clinical offers a unique blend of clinical development and scientific leadership services around the world – we have enjoyed tremendous growth in 2017/18, delivering high-quality, responsive and flexible services to our biotech and pharma customers



– Glenn Kerkhof
Executive Chairman, George Clinical

Our staff:



28% Australia and NZ – Sydney, Melbourne, Brisbane, Auckland



18% China – Beijing, Harbin, Shenyang, Changsha, Shanghai, Nanjing, Chengdu, Taiyuan and Guangzhou



18% India – Bengaluru, Vijayawada, Hyderabad, Kottayam



23% US – Kansas City, Raleigh and Memphis, with staff in 21 states of the US



12% East Asia – Hong Kong, Kuala Lumpur, Seoul, Taipei, Bangkok, Manila and Jakarta



1% Europe – London and Amsterdam

George Health Technologies

The prevention and treatment of chronic diseases is complex, with a myriad of overlapping and often inconsistent guidelines that even the best trained physicians and nurses struggle to keep up-to-date with.

George Health Technologies is transforming the delivery of information on essential treatments for chronic diseases by using clinically proven digital healthcare to cut through complexity and transform the management of multiple diseases in a single patient. Its clinical expertise has led to the design of an innovative technology, known as SMART*health*, to make proven personalised healthcare plans widely accessible to patients, their physicians and carers through their mobile or PC. SMART*health* enables earlier detection of multiple chronic disease risks, creates a personalised care plan and manages follow-up to improve medication and care plan adherence. The platform uses proprietary algorithms to screen for high-risk patients and provide personalised, guidelines-based programs that manage patients with multiple chronic diseases. By harnessing the latest clinical knowledge at the point of care, SMART*health* also saves care providers valuable time and increases the quality of care for those consumers most at risk. George Health Technologies also partners with organisations around the world to improve patient outcomes for the treatment of chronic diseases. These include care providers, insurers, employers and health delivery

companies who deliver high-quality care at a much lower cost than is currently possible. To date, over \$10 million has been invested by The George Institute to develop proprietary SMART*health* algorithms. Highlights for this year include the appointment of Phil Offer as CEO of George Health Technologies, Dr Ruth Webster as Global Clinical Head, and an expansion of the team across Asia. A cloud-based platform has been built and is operating across India, China and Australia. It provides a flexible way to adapt and integrate with local health systems. New clinical trials conducted in India and Indonesia this year provided further evidence on the benefits to integrating the technology into existing community health workforces. This is a highly cost-effective way to screen large populations and improve the management of chronic diseases. George Health Technologies is working with care providers and payers to improve health systems, with the first partners now connected to the platform.



“ The George’s significant investment in *SMARThealth* and clinically proven results have been a key factor in attracting like-minded commercial partners who share our vision to transform chronic care



– **Phil Offer**
CEO, George Health Technologies



In rural India, the doctor to patient ratio is

3 times less
than urban India, and

50 times less
than that of Australia

George Medicines

The cost of providing drug treatment alone for the treatment of cardiovascular disease, the most common chronic disease, globally was estimated at \$71 billion in 2017 and is forecast to rise to approximately \$100 billion by 2024.

George Medicines is focused on the late-stage development and global commercialisation of novel, effective, affordable, safe and high-quality drug treatments for chronic disease. These medicines will not only offer patients and healthcare providers, in both the high and low-to-medium healthcare economies, improvements in efficacy and safety over existing treatments but also better access to affordable medicines. Research conducted at The George Institute is fundamental in identifying and evaluating these novel approaches to chronic disease treatment. Chief Business Officer of George Medicines, Dr Karl Roberts, said: "The global impact of non-communicable chronic disease is profound. Healthcare systems in both the developed and developing markets of the world are increasingly struggling with the huge burden that the effective treatment of diseases such as cardiovascular disease and diabetes are placing upon them. George Medicines has the potential to significantly relieve the burden of such diseases on healthcare systems and significantly improve the health and wellbeing of patients

worldwide." George Medicines' lead development focus is on the treatment of hypertension and cardiovascular disease, with the first of our development products being targeted for launch in Europe in 2020. The second is targeted for global launch in 2022 and this will be followed by two treatments for diabetes which are planned for commercialisation globally from 2022 onwards. Further key developments focusing on the affordable and effective treatment of the other principle causes of morbidity and mortality globally will follow. George Medicines lead development for the treatment of hypertension and cardiovascular disease is supported by a multi-million dollar investment from the global healthcare provider Bupa. George Medicines therefore aims to be a catalyst of change and a disruptive force in the affordable and effective treatment of chronic diseases, thereby improving quality of life and life expectancy for many millions of people and significantly reducing the economic burden of chronic disease on healthcare economies globally.



“ Leveraging the groundbreaking research of The George Institute, George Medicines is specifically focused on the development and delivery of innovative but affordable pharmaceutical interventions to save lives



— **Dr Karl Roberts**

Chief Business Officer, George Medicines



Chronic diseases account for nearly

80%

of premature deaths, with losses nearing

\$115 billion

annually around the world

ANNUAL REPORT

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