

### More Impact

Chairman and Principal Directors' Message

Putting together this report provides us with the opportunity to reflect on what the Institute has achieved in the past year and to consider where to next, if we are to ensure that our work has the greatest impact on the health of people worldwide.

As always, we are proud to share with you the many ways we have continued to address the burden of chronic disease and injury, and in particular, the crippling impact these conditions are having on health systems around the world, especially in lowand middle-income countries where the burden is disproportionately greatest.

Our focus has always been and continues to be on identifying how best to prevent, treat and deliver better health outcomes. Underpinning this is the growing global realisation that we must act now to create better 21st century healthcare for people today and for generations to come.

This means discarding ineffective approaches and making room for new models of care that are proven, sustainable and affordable; developing solutions that are scalable and can be implemented within a relatively short timeframe; leveraging cross country and cross sector collaborations including researchers, industry and government; and challenging the 'status quo' and traditional ways of thinking of healthcare. We are doing just this.

This past year, as highlighted throughout the report, our researchers published major findings in a number of important areas with the potential to transform health outcomes globally. For example, we identified safer and better treatments for stroke and kidney disease, determined the relationships between high blood pressure and dementia and between birthweight and cancer, and provided evidence of the effectiveness of using a simple SMS program to prevent heart attacks. We also announced the winner of our Affordable Dialysis Prize, which we believe will have a major impact globally, through improving access to affordable, life saving treatment for kidney disease.

Our researchers and their work also continued to be recognised among the world's best. With over 745 publications in the past year, many of these in the top journals in the world, our research has been quoted many times in the media around the world. Our staff have been recognised for their world class research excellence and impact, and





this year several researchers were recognised by Thomson Reuters as being among the 'World's Most Influential Scientific Minds.'

George Health Enterprises, our commercial arm, has continued to grow to help expedite the translation of our research findings into sustainable healthcare solutions, while financially supporting the broader work of the Institute. In June 2016, together with Bupa Australia, we launched a joint venture, SmartGenRx, with the aim of developing cost-effective pharmaceutical solutions relevant to many millions of people worldwide living with cardiovascular disease and diabetes.

We were also pleased to receive a donation of \$4 million from George Clinical, our most established enterprise, to support our research activities. George Clinical continues to grow, with a strong presence not only in Asia but also globally, as a leading contract research organisation providing scientific leadership and clinical trial services.

To ensure a greater impact on health policy and critical healthcare debates, as part of our strategic focus for 2015–2020 we launched a new focus around advocacy. This past year, we hosted influential speakers at several events, including Josette Sheeran, President and CEO of the Asia Society, who delivered the 2015 John Yu Oration in Beijing and received the John Yu medal for her leadership and commitment to improving people's health.

We also started a program of delivering roundtables and launching policy papers in Australia, China, India and the United Kingdom focusing on a number of priority areas including mobile health (mHealth), women's health, and health system efficiencies, such as financing models and patient-centred reforms. We also continued to engage with a broad range of stakeholders regionally as well as globally on a number of issues, with plans to grow this effort, including efforts in support of the recently announced Sustainable Development Goals (the SDGs), barriers to health equity, and changing eating habits to prevent chronic disease.

All of the above would not be possible without the dedication and support of our Board, staff, collaborators, funders and donors. This past year, two longstanding members retired from the Board, Elsa Atkin and Jason Yat-sen Li, and we would like to acknowledge their significant contributions.

However, we were pleased to welcome three new members. Melinda Conrad. Dr Srinivas Akkaraiu and David Baffsky. We would also like to acknowledge the contribution of Professor 7hi-Jie 7hena for his leadership as Executive Director of The George Institute, China, until May 2016, and we welcome Professor Craig Anderson into this role, previously Director of Neurology and Mental Health at The George Institute, Australia.

Looking to the year ahead, we will continue building on this foundation of research, enterprises and advocacy, with a major focus on maximising the impact of our research findings and ensuring that people receive the care they need. We are looking forward to settling into our new global headquarters after many years in temporary offices. We are especially grateful to the University of Sydney for their support in this critical step for The George as a world leading medical research institute and an Australian success story.

Michael Hawker AM

Principal Director

Professor Robyn Norton

Sumeduden
Professor Stephen MacMahon

The George Institute for Global Health 2016 Annual Report

## Better Preven

Around the world 60% of deaths are attributable to chronic disease, and with risk factors for chronic diseases like obesity, high blood pressure and diabetes reaching epidemic proportions globally, prevention must be part of the solution. Our research is focused on generating the best evidence for prevention strategies that can drive behavioural change, inform prevention policy and foster health system reforms.



## Better Prevention

#### Preventing diabetes after pregnancy

A simple lifestyle intervention could help prevent type 2 diabetes among women with gestational diabetes mellitus. The intervention is designed to provide an affordable and culturally acceptable lifestyle modification that can be provided to women soon after birth to help reduce their risk of developing diabetes. Research Fellow at The George Institute, India, Suresh Babu, says in resource constrained health systems, interventions like these can make a huge difference to the lives of millions. "The success of the intervention program could help prevent or delay the development of type 2 diabetes in more than a quarter of a million South Asian women over five years after giving birth, if the program gets scaled up across the region." Health workers in 24 hospitals across India, Bangladesh and Sri Lanka will facilitate the study and deliver the intervention.

#### Unlocking the mystery of childhood cancer

investigating a decade's worth of longitudinal studies of children, has found the incidence of childhood cancer rises with increasing birthweight. Cancer Cohort Consortium (I4C) have found that increase correlates to a 26% increase in the risk straightforward – the larger the baby, the higher the risk of cancer during childhood – answers for parents are not. The study does not provide cancer occurrence," said Lead Researcher of the Consortium and Executive Director of The George research does give researchers important clues about where to look next. I am optimistic about the future. Researchers are beginning to assemble strong clues, like this piece of evidence, which will help lead us to more ways of understanding how to prevent childhood cancer."

#### More steps a day keep the doctor away

Researchers from The George Institute, UK, have found that exercise can save lives, with an increase in the number of steps walked each day having a direct correlation with long term mortality. Study Author and Executive Director of The George Institute, UK, Professor Terry Dwyer said *this was the first time research has been able to make the* 



### Better PRIEWENTION

link between exercise, measured directly through pedometers, and reduced mortality in people measured for a sufficient time period in people who appeared healthy at the outset. "Inactivity is a major public health problem, with conditions like obesity costing the British economy tens of billions of dollars every year," Professor Dwyer said. "This shows more clearly than before that the total amount of activity also affects life expectancy. Previous research measured physical activity by questionnaire only, but these results are more robust and give us greater confidence that we can prevent death from major diseases by being more active." The results of this study can prompt governments to create more opportunities for physical activity in the community and stem the tide of chronic diseases associated with a sedentary lifestyle.

#### Fighting back pain with exercise

A new study from The George Institute, Australia, has found that exercise alone or in combination with education has the potential to halve the risk of a recurrence of low back pain.

The study also investigated the effectiveness of current interventions and found that education alone, back belts, shoe insoles and ergonomic interventions do not prevent back pain. "Low back pain is a significant global health burden, yet there is a lack of clear guidelines for prevention and interventions," said Professor Chris Maher, Director of the Musculoskeletal Division at The George Institute, Australia. "Back pain has a high recurrence rate, with roughly 50% of patients experiencing a recurrence within a year. We now know that exercise is essential to prevention, that is why these findings are so important." In addition to impacting overall health, back pain also leads to economic implications for millions around the globe. Pain and risk of injury can force people to take leave from work, resulting in lost wages, making low back pain an important public policy concern as well as a health issue.

#### Community based care for falls prevention

The George Institute's researchers are evaluating if a community based approach to preventing falls can improve function in older people with vision impairment and blindness. The trial will extend the

pre-existing program offered by Guide Dogs NSW/ACT to older Australians living with vision loss in the community. "With these older people having up to eight times higher risk of falls than older people with normal sight, dedicated programs are needed to protect this vulnerable group from injury," said Associate Professor Lisa Keay, Deputy Director of the Injury Division at The George Institute, Australia. The trial is extending pre-existing orientation and mobility services offered by Guide Dogs NSW/ACT to prevent falls and improve function through rehabilitation of strength and balance. "The project will determine if falls prevention can be integrated into existing community services for older people with vision loss," said Associate Professor Keay. "The program makes the most of everyday activities to incorporate strength and balance training, and if successful, there will be less injuries for older

Apps for healthy eating

Australians with vision loss."

FoodSwitch, an innovative George Institute app that allows consumers to make healthier food choices by providing alternative options in the supermarket, has launched in two new countries, India and China, where huge changes to population health are possible. In China alone, over three million people died due to dietary related disease in 2015.

The last two decades have seen rapid urbanisation,



## Better Delewenton

economic growth and social development in China, resulting in a dramatic increase in the consumption of packaged food. Although there are policies and regulations about food nutrition labelling in China, current nutritional labels can be difficult for consumers to understand. To address this problem, researchers from The George Institute, China, launched the innovative FoodSwitch app in December 2015. "By simply scanning the barcode on a packaged food using a phone camera, FoodSwitch can tell what's in the packaged food you're eating, whether it's high in salt, fat, sugar and kilojoules," said FoodSwitch Research Fellow, Polly Huang, FoodSwitch China was launched thanks to the support of the China Center for mHealth Innovation (CCmHI). "The app combines the latest technology with highest quality research," said Associate Professor Puhong Zhang, Director of CCmHI and Associate Director of The George Institute, China. "It displays healthier options based on a proven nutrient profiling model for more than 25,000 packaged food products found in China." FoodSwitch India, funded in part through an Australia-India Council grant, was launched by the Australian High Commissioner to India, Patrick Suckling, at the Australian High Commission in New Delhi, India, in November 2015, Professor Bruce Neal, Senior Director of the Food Policy Division at The George Institute, Australia, said diets high in salt, sugar and fat were now causing major health problems in India. "The app makes sometimes complicated information on nutrition panels immediately understandable and helps those trying to stay healthy." Currently, FoodSwitch can be used in Australia, the UK, New Zealand, South Africa, India and China, with opportunities to launch the app in other countries being explored.

#### Reducing salt for better health

On average, Australians consume around twice the recommended amount of salt. High salt consumption is a major cause of raised blood pressure, which affects one in four people around the country. Researchers from the World Health Organization Collaborating Centre for Population Salt Reduction at The George Institute, Australia, have partnered with VicHealth to implement five key initiatives to reduce average population salt intake in Victoria. "Almost one in 20 deaths in Victoria are estimated to be attributable to high

salt intake," said Chief Investigator of the project, Dr Jacqui Webster. "Working in partnership with VicHealth and the National Heart Foundation, the goal of this project is to achieve a one gram per day reduction in average salt intake of adults and children by June 2018 to arrest some of the devastating effects of high salt intake on population health." The project aims to achieve this through a multi-pronged strategy including securing commitment and consensus from the public, government and industry to take action to reduce salt intake in Victoria. If successful, the project has the potential to be rolled out across Australia as part of a coordinated national strategy to reduce salt consumption.

#### Tackling falls with yoga

Research from The George Institute, Australia, has found that participation in yoga programs can improve balance as well as provide a safe and enjoyable form of exercise for older Australians. "One third of community-dwelling older adults fall annually, often resulting in serious injury, longterm disability and extended hospital stays," said Associate Professor Anne Tiedemann, Senior Research Fellow in the Musculoskeletal Division at The George Institute. "Despite this high incidence of falls, engaging older Australians to take part in exercise programs to boost balance can be a challenge." Yoga classes could be an effective intervention strategy to meet this challenge. Falls affect over a million older Australians every year, with poor balance and mobility closely linked to a higher risk of falls for people over 60. Programs could be implemented to complement other effective balance programs, like tai chi, to encourage older Australians to have an ongoing exercise regime that will improve their quality of life. With the rapid increase in the proportion of Australians aged over 60, wellbeing strategies like these are essential to a long-term view of a

#### functioning healthcare system and a productive and engaged older community.

#### Buckling up for safety

Aboriginal and Torres Strait Islander children are four times more likely to die on Australian roads and twice as likely to be seriously injured compared with other Australian children. The George Institute researchers have found that while age appropriate

child restraints are essential to protecting young children against crash injury, correct use of such restraints in the community is low. *One thousand serious injuries in Australia can be prevented if children under 16 are optimally restrained.* 

Through strong community engagement, the Buckle-Up Safely program has produced a culturally appropriate, community-based model to curb this major cause of death and serious injury in Australian and Aboriginal and Torres Strait Islander children. Dr Kate Hunter, Senior Research Fellow of the Injury Division at The George Institute, Australia, said this program can have a real impact for families.

"This program can form the basis of a sustainable program that will make it safer for children to travel by car." In collaboration with Kids and Traffic, the project team for Buckle-Up Safely has developed educational resources and training programs, which have been shown to be acceptable in a pilot evaluation in two Aboriginal Community Controlled Health Services. The Buckle-Up Safely project, jointly funded by NSW Health and Transport for NSW, is being delivered in partnership with local community organisations in 12 locations across NSW and its effectiveness is being evaluated.



# A focus on prevention for better health equity

Prevention is key to addressing health inequity in low- and middle-income countries, and other communities where the burden of chronic disease and injury is disproportionately high. Our researchers are looking for solutions....

#### Driver licensing programs impact Aboriginal employment and education

Researchers are recommending continued investment in driver licensing programs after a recent study found a strong link between driver licencing and employment for Aboriginal and Torres Strait Islander people. The study found people who hold a driver licence have four times higher odds of being in full-time employment or graduating from university. Professor Rebecca Ivers, Lead Author of the study and Director of the Injury Division at The George Institute, Australia, said the findings reinforce the need to break down the barriers that prevent many Aboriginal people from accessing the licensing system. "Driving to work or college is something most people take for granted, but in many parts of Australia a driver licence is essential for mobility. Having a driver licence can be transformative in terms of education and employment. But for many Aboriginal and Torres Strait Islander people, getting a licence can be a major challenge." The study surveyed over 600 Aboriginal and Torres Strait Islander people and found almost one guarter of respondents with a current licence indicated they had had difficulty finding a licenced driver to teach them as required by law. Professor Ivers said the work demonstrated an overwhelming need for continued investment in programs such as The George Institute's Driving Change program, an innovative driver licensing initiative for young drivers. Patricia Cullen, Project Manager for the Driving Change program says "The program is proving successful because it is working with local Aboriginal communities, tapping into existing organisations, using local

employment and consulting at the community level to maintain and improve the program. It's working with, and enhancing the capacity of, organisations that have already established connections with the community." The Driving Change program has been funded by AstraZeneca's Young Health Programme, NSW Health and Transport for NSW as part of a pilot program under evaluation by The George Institute for Global Health.

#### Tackling salt consumption in Samoa

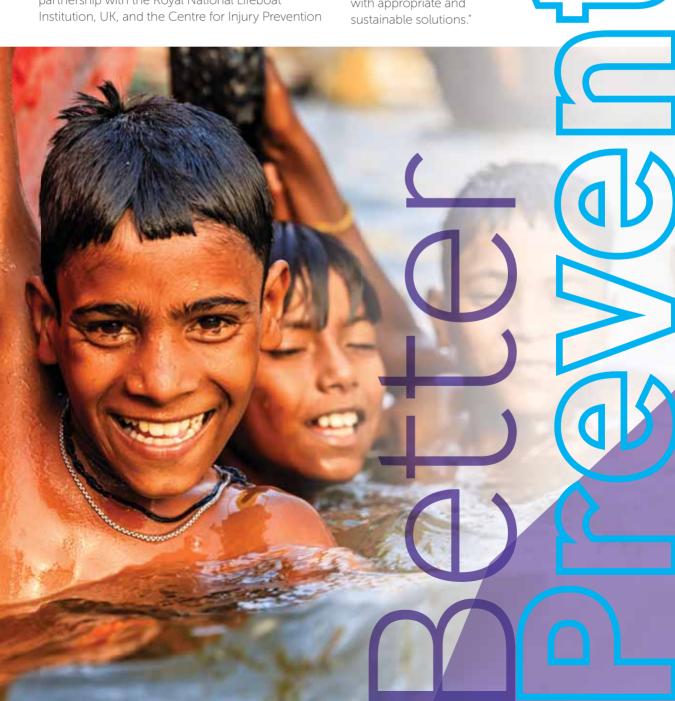
Salt reduction programs have been identified as one of the most cost-effective interventions for reducing the burden of non-communicable diseases (NCDs). Researchers in the Food Policy Division at The George Institute, Australia, measured salt intake, knowledge and behaviours related to salt and salt levels in foods to develop and evaluate a nationwide salt reduction strategy to address this growing burden in Samoa. Between 2012 and 2016, researchers evaluated the impact of an 18-month multi-faceted intervention to reduce population salt consumption. "NCDs have been declared a crisis for the Pacific Islands." said Project Research Associate, Kathy Trieu. "While the intervention was unsuccessful in demonstrating population salt reduction during the trial period, results showed improvements in knowledge and behaviours related to salt. Salt reduction has also now been mainstreamed into government policy in Samoa." This includes standards for salt levels in foods as part of the new food regulations and behaviour change programs being integrated into the NCD strategy. "It is important that the salt reduction efforts are sustained as we believe this will lead to change in the longer term, and there is

an opportunity to measure salt intake again through the WHO STEPS survey planned for 2018," said Ms Trieu.

#### **Ending the drowning epidemic**

Drowning is a leading cause of death worldwide, with over 90% of drownings occurring in low- to middle-income countries, taking the lives of over 370,000 people every year. Despite this, drowning deaths go largely unreported because they mostly occur in rural areas and away from hospitals. To combat this silent epidemic, researchers from The George Institute, Australia, are advocating for all countries to develop national drowning reduction plans that target the people most vulnerable to drowning. To begin making an impact, The George Institute, Australia, has joined an academic partnership with the Royal National Lifeboat Institution LIK and the Centre for Injury Prevention

and Research, Bangladesh, to establish Project Bhasa in the Barisal Division of Bangladesh, to reduce drowning deaths among children. In Bangladesh, drowning is the leading cause of death for children aged one to 17, with 18,000 deaths occurring annually. Senior Research Fellow in the Injury Division, Dr Jagnoor Jagnoor at The George Institute, Australia, says "The project is developing an evidencebased strategy to target the most vulnerable people with appropriate and sustainable solutions."





Treating our biggest killers and causes of disability is a global priority, and finding ways to ensure billions of people have access to the best care is fundamental to this. Our researchers are looking for new and innovative solutions that will improve treatments already available around the world, while generating critical evidence to improve clinical practice, as well as health policy and guidelines that will support better treatment of chronic disease and injury.



## Better Treatment

Socio-economic status impacts dialysis patients

Research from The George Institute, India, has revealed economic disparity plays a major role in the outcome of dialysis treatments for patients with chronic kidney disease. The first study of its kind conducted in India investigated how factors outside of treatment affected health outcomes for patients. "Our study showed that while regular dialysis treatment had a positive impact on the overall economic wellbeing of the family, many patients were forced to give it up for financial reasons," said Professor Vivekanand Jha, Executive Director of The George Institute, India, and Principal Investigator of the study. "The interim analysis indicates that outcomes of patients on dialysis for chronic kidney disease are affected by clinical as well as economic and social factors." Researchers are now conducting a larger, multicentre study to determine if there are any additional regional or geographic differences that should inform treatment of kidney diseases. Evidence gathered from this larger study has the potential to impact the lives of millions of people in India.

#### Ending kidney failure before it starts

IgA nephropathy is the most common form of kidney disease affecting young people, with up proven specific treatment. Steroids are the most commonly used treatment despite the benefits from The George Institute, in partnership with Peking University First Hospital, has found the use of steroids reduces the risk of kidney failure or substantial kidney function loss by two thirds, effects, especially infections which may be life-Director of The George Institute, Australia, says "These findings are important because they show that suppressing the immune system with steroids provides kidney protection, but highlight that this benefit comes with a high price." The results will help people with IgA nephropathy to weigh up the risks and benefits of the treatment and make informed choices. The results will also encourage the development of safer treatments aiming to supress immune damage in these people.



#### Investigating treatments for resuscitation in ICUs

Researchers from the Critical Care and Trauma Division at The George Institute, Australia, are investigating the relative risks of two commonly used fluids for resuscitation of patients in intensive care units (ICUs). Saline has traditionally been the most common fluid used for resuscitation. It contains a high concentration of chloride, which may have negative effects on patients and as such its use is being called into question. "The choice around what type of fluid to use for ICU patients is still a controversial issue among doctors," said Professor Simon Finfer, Professorial Fellow in the Critical Care and Trauma Division at The George Institute, Australia. "This critical clinical trial will allow doctors to make strong, evidence based decisions about which fluid is better for their patients." While there are many types of intravenous fluids available for Australian doctors, current research suggests different fluids produce different outcomes for patients. This research will determine whether using a balanced salt solution (Plasma-Lyte 148<sup>®</sup>) can improve survival rates of ICU patients compared with using saline.

#### Safer treatment for stroke patients

Global research conducted by The George Institute, China, has shown by modifying the dosage of a popular clot busting drug used to treat stroke patients, serious bleeding in the brain can be reduced, improving survival rates for patients.

The drug, known as intravenous rtPA, is given to people suffering acute ischaemic stroke and works by breaking up clots blocking the flow of blood to the brain. However, it can cause serious bleeding in the brain in around 5% of cases, with many of these proving fatal. Professor Craig Anderson,

Executive Director of The George Institute, China, and Professor of Stroke Medicine and Clinical Neuroscience at the University of Sydney says "At the moment you could have a stroke but end up dying from a bleed in the brain. It's largely unpredictable as to who will respond and who is at risk with rtPA." The research has shown that by reducing the dose level, the clot busting benefits remain but with significantly less major bleeds, and improved survival rates. These findings have the power to change the way the most common form of stroke is treated around the world.

#### Flu shot for heart health

A study of 60,000 patients in the United Kingdom has provided robust evidence to suggest people suffering from heart failure should be given the flu vaccine to reduce the risk of adverse events and hospitalisation. During the research period, flu vaccination was associated with a 30% lower risk of hospitalisation. Despite many guidelines recommending patients with co-morbidities, including heart failure, should have annual flu vaccinations to reduce the risk of adverse events, uptake of the vaccination is relatively low. Associate Professor Kazem Rahimi, Study Lead and Deputy Director of The George Institute, UK, said while the study has produced evidence to support the recommendation, more research is needed. "If a benefit was found, this would confirm current recommendations by health policy makers and provide the impetus to improve uptake. If there was no benefit, it would suggest that those guidelines that make an explicit recommendation for use in heart failure should be reconsidered." These findings do not suggest influenza infection causes myocardial infarction or other cardiovascular events. A more likely explanation for the reduction in risk of cardiovascular hospitalisation is that vaccination reduces the likelihood of an infection which could in turn

## Bette likelihood of an infection which could in turn trigger cardiovascular deterioration.

#### Better TREATMENT

#### Improving care for trauma patients

Trauma is among the top three leading causes of death in people under 40, with musculoskeletal injuries occurring in over 60% of injured people. Our researchers are now conducting a major observational study involving 40,000 patients from low- and middle-income countries around the world to identify common trends in diagnosis, management, complications, and outcomes of orthopaedic trauma. This research will help inform policy makers and healthcare practitioners about ways to better treat injury, thereby helping to improve outcomes following injury for potentially millions of people and reducing the strain on medical resources in poor countries. "This research is the first of its kind and is an important first step toward resolving disparities in global fracture burden," said Professor Rebecca Ivers, Director of the Injury Division at The George Institute, Australia, and Principal Investigator of the study. "Poor people worldwide are more likely to be injured, and either receive sub-standard or no care at all. The study will contribute towards improved and more affordable care for people in resource poor settings worldwide." The INORMUS study is being undertaken in partnership with McMaster University in Canada, and The George Institute is leading recruitment across the Asia-Pacific region including China and India, as well as across Africa.

#### Opioids not a cure all for back pain

Research from The George Institute, Australia, has shown despite 40% of patients who see a doctor for low back pain being prescribed an opioid, the medication has minimal benefit. The findings of the systematic review also demonstrate many patients do not tolerate the medicine, with half of the trial participants withdrawing because of adverse effects or lack of effect. Professor Chris Maher, Director of the Musculoskeletal Division at The George Institute, Australia, says the review provides some unique insights into management of low back pain.

"For people who can tolerate the medicine, taking something like oxycodone will reduce pain, but the effect is likely to be small. This result reinforces the recent US Centers for Disease Control and Prevention recommendation that if opioids are used, they should be combined with non-drug options such as physiotherapy or non-opioid painkillers, as appropriate." With tens of thousands of Australians suffering from back pain annually, and billions of dollars being spent on healthcare and missed work, research that finds effective solutions is essential to reducing burden on the health system.

#### Impacting stroke management

World first research from The George Institute, Australia, has found cold temperature exposure for just a few of hours may lead to a heightened risk of the most lethal form of stroke, intracerebral haemorrhage (ICH). The findings are the result of a ground breaking study that links hourly temperatures with data from 1997 patients with ICH globally and shows that heightened blood pressure is likely the underlying mechanism for cold induced ICH. "Intracerebral haemorrhage is a devastating disease with high mortality and morbidity rates; in 2010 alone there were over three million deaths from intracerebral haemorrhage," said Study Author Danni Zheng. The results can now be used to contribute to ICH prevention **strategies around the world,** with opportunities for public health interventions such as the instalment of central heating in cold regions, public awareness promotions as well as targeted advice and warning for at risk individuals.

#### Using mobile technology to improve maternal and child health

Researchers from The George Institute, China, are developing an innovative mobile application to improve maternal and early childhood health in China. The '1000-Day' app, designed to cover



#### Better TREATMENT

the pivotal 1000 day period from pregnancy to two years of age, will provide women with better access to much needed healthcare services and chronic disease self-management tools. Ms Huan Chen, Research Fellow at The George Institute, China, said features of the application are based on a systematic review of existing studies and applications. "While the rates of childhood mortality in China have improved in the last two decades, more work needs to be done to ensure pregnant

women and young children get the services they need. Gaps in maternal and child health services quality are still prominent," said Ms Chen. "The app will facilitate communication between pregnant women and their healthcare practitioners to improve the quality of ongoing maternal care.

We are hoping that this project can help to prevent the incidence of chronic disease and foetal events during pregnancy, and further improve women's and children's health in the near future."



# Better treatment for high blood pressure, saving lives

Cardiovascular disease accounts for the premature death of 17.5 million people globally every year. Many of these deaths are preventable through better treatment of high blood pressure. Our researchers are looking for solutions....

#### Changing treatment guidelines

Researchers are calling for an urgent revision of blood pressure lowering guidelines after their findings have shown treating blood pressure at a lower level than currently recommended could greatly reduce the incidence of cardiovascular disease and potentially save millions of lives.

Associate Professor Kazem Rahimi, Deputy Director of The George Institute, UK, says "The results provide strong support for reducing blood pressure and the provision of blood pressure lowering drugs should be offered to all patients at high risk of having a heart attack or stroke, whatever their reason for being at risk." They also recommend a shift from rigid blood pressure targets to individualised risk based targets, even when blood pressure is below 130mmHg before treatment. Overall, every 10mmHg reduction in systolic blood pressure reduced the risks of major cardiovascular disease events and heart disease by about one fifth; stroke and heart failure by about a quarter; and the risk of death from any cause by 13%. The study found treatment with any of the main classes of blood pressure lowering drugs significantly reduced the risk of major cardiovascular events, stroke, heart failure and death proportionally to the extent to which blood pressure was lowered.

#### Game changing insights

Researchers from The George Institute, UK, are calling for a stronger focus on blood pressure targets after a landmark study revealed hypertension sufferers have an almost 60% greater chance of developing diabetes. "This research is a game changer in the understanding and treatment of diabetes," says Study Author and Deputy Director of The George Institute, UK, Associate Professor Kazem Rahimi. Diabetes affects more than 400 million people around the world, with diabetics more likely to suffer from cardiovascular diseases associated with hypertension. While previous research findings in this area have been conflicting, the study reliably shows the connection between high blood pressure and diabetes, with the potential to lead to new insights and strategies for reducing the chances of developing diabetes and for treatment. "The link between hypertension and cardiovascular diseases had been well documented. but the connection to diabetes had been less clear." Associate Professor Rahimi said. "Understanding this link will help us better communicate risks to patients and can provide another motivation for patients and doctors to aim for tight blood pressure control."



#### Linking blood pressure and dementia

Over 9.3 million people are affected by vascular dementia, caused by a reduced blood supply to the brain due to diseased blood vessels. With increasing rates of vascular dementia, the disease will pose a significant economic and social burden in both developed and developing countries. Researchers from The George Institute, UK, have conducted ground breaking research into the relationship between hypertension and vascular dementia, and found patients who have heightened blood pressure are associated with a 62% higher risk.

"While we already knew high blood pressure can raise the risk of stroke and heart attack, our research has shown high blood pressure is also associated with a significantly higher risk of vascular dementia," said Associate Professor Kazem Rahimi, Study Lead and Deputy Director of The George Institute, UK. "Our results suggest lowering blood pressure, either by exercise, diet or blood pressure lowering drugs, could reduce the risk of vascular dementia."

The results of this study can go towards creating a global action plan for management and prevention of vascular dementia.





Millions of people face complex barriers that stop them from getting life saving healthcare. Our researchers are looking for the best ways to get people the care they need, with a focus on affordable, scalable and sustainable solutions applicable to multiple settings. These range from the best ways to translate important research findings into practice, to discovering new approaches to healthcare delivery like using technology and non-physician health professionals to improve access to essential services.



### Better Delivery

#### SMS to improve mental health

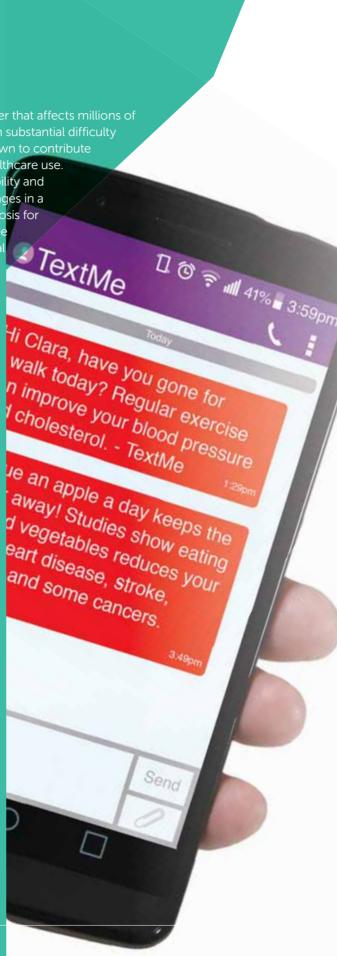
Depression is a common, chronic and relapsing disorder that affects millions of people around the world. Depression is associated with substantial difficulty in conducting usual daily tasks and activities and is known to contribute to loss of employment and earnings and increased healthcare use. "The TextMe Well trial is going to evaluate the acceptability and effectiveness of semi-personalised wellness text messages in a population with major depression as the primary diagnosis for their hospital admission," said Associate Professor Maree Hackett, Acting Director of the Neurological and Mental

"This intervention has the potential to be a cheap, safe and simple method to improve the wellbeing of millions of people." The messages would provide advice, motivation and support to maintain mental wellbeing and a healthy lifestyle, promote reduction in alcohol consumption and stress, and increase adherence with medication and follow-up.

Health Division at The George Institute, Australia.

#### Better heart health an SMS away?

Popularity of mobile technology has inspired to find innovative solutions for combatting cardiovascular disease. TextMe has examined the effects on health that a quick and easy text cardiovascular disease. The semi-personalised texts encourage patients to make healthy heart choices, such as going for a walk or adding an extra cup of vegetables to their dinner. "Patients told us 'It was nice to know that somebody cared,' and another said 'I never used to walk, now I am walking every day, the messages keep reminding me'." said Professor Clara Chow. Director of the Cardiovascular Division at The George Institute, Professor Chow says "This study furthers my belief that mHealth strategies are one of the simplest, most affordable ways to really make an impact in people's lives. Global governments and policy makers should look closely at these compelling findings for a scalable, effective and inexpensive method of getting patients with chronic diseases to take their life saving medicine." Over time, these small lifestyle changes can help reduce a person's overall risk of experiencing a heart attack or stroke.





#### Mobile tablet delivering effective diabetes care

Effective and affordable primary healthcare is essential for the early detection of diabetes and prevention of associated complications. Despite this, diabetes is one of the leading causes of death, disability, reduced productivity and crippling healthcare expenditure in India because most are unaware that they have the disease. As a result, The George Institute, India, has designed an innovative mHealth interventionist program to comprehensively screen and treat diabetes. The program will deliver low cost, community based screening, early detection, management, treatment and prevention of diabetes related complications. In this ground breaking approach, the frontline community health workers will be trained in using a tablet based clinical decision tool to screen and test for risk based diabetes. People with high blood sugar levels will be referred to the primary healthcare centre for confirmation of the diagnosis, evaluation of complications and initiation of treatment. One of the main objectives of the project is to ensure those most in need receive affordable treatment and generic blood pressure drugs that improve glycaemic control and inhibit the renin angiotensin system. In combination with statins, these treatments can reduce the risk of diabetic complications by at least half.

Can home based care prevent falls?

Researchers from The George Institute, Australia, have teamed up with the University of Sydney and Illawarra Shoalhaven Local Health District to determine the effectiveness of a home based exercise program for preventing falls in older Australians. The study will compare the effectiveness of a home based lower limb exercise program compared with a home based upper limb exercise program to prevent falls and upper limb dysfunction in older people. Professor Catherine Sherrington, Professorial Fellow at the Musculoskeletal Division at The George Institute, Australia, said around 30% of people aged 65 years or older in Australia fall at least once a year, resulting in tens of thousands of hospitalisations annually. "By evaluating the effectiveness of home based exercise programs,

we are able to see which programs can really make an impact on the lives of this vulnerable population." Results of this study have the potential to form the basis of a widely available falls prevention program for older Australians.

# A focus on mHealth for better healthcare delivery

Of the seven billion people globally, only two billion have reliable access to the primary healthcare they need. The George Institute established the Systematic Medical Appraisal, Referral and Treatment (SMARThealth) program to leverage affordable mobile health technology and a suite of smartphone based applications to help manage patients with or at high risk of premature death or disability. Through this growing global integrated care program, our researchers are looking at a range of solutions...

#### Extending care to where it is needed most

Many millions of people in low resource settings around the world do not have access to the life saving healthcare they need. SMARThealth India. successfully implemented a mobile device based clinical decision support system to help primary healthcare workers in Southern India optimise preventive treatment for cardiometabolic diseases in high risk individuals. SMARThealth Extend is the next stage of this innovative program, and will determine whether this healthcare delivery innovation can be efficiently adapted to have wider application across many parts of Asia and potentially improve the lives of tens of millions of people. "Each of the regions involved in SMARThealth Extend have substantially different primary healthcare systems than that of the South Indian region where the SMARThealth program was originally developed and implemented," said Professor Anushka Patel, Chief Scientist of The George Institute. "For broader impact, a crucial issue is the extent to which the SMARThealth program can be rapidly customised and scaled up in health systems that might differ substantially from that in which the program was developed, for example countries like Indonesia with high rates of cardiovascular disease." In Indonesia, one in five people aged 41-50 years are at high risk of cardiovascular disease. This proportion increases sharply to 70% for those aged 51-60 years.

#### Preventing kidney disease by improving screening tools

Chronic kidney disease (CKD) is an important public health problem in the developing world. About 200,000 patients develop end stage kidney failure annually in India, with type 2 diabetes being responsible for about half of these. Previous George Institute research has shown over 60% of these patients are unable to receive any therapy, with the rural poor being disproportionately affected. If diagnosed early, CKD progression can be slowed and/or prevented with affordable treatments. However, most patients are unaware of their disease until it's too late to intervene because of the lack of appropriate screening and management programs for diabetes. SMARTkidney will develop a mobile decision support system to address this gap, with a focus on kidney disease and will be implemented within the existing healthcare systems in rural areas in India. "We propose to strengthen the existing primary health system through using innovations in technology like clinical decision support systems," said Professor Vivekanand Jha, Executive Director of The George Institute, India. "A combination of innovations in technology along with task shifting using non-physician health workers to provide comprehensive evidence based care for diabetes can dramatically reduce complications of diabetes and reduce the burden of advanced kidney disease, leading to improved patient outcomes and substantial cost savings."



#### Digital health intervention to curb diabetes

Diabetes is the world's fastest growing chronic disease and it is estimated approximately 350 million people have diabetes globally, with 114 million of those being in China. To tackle this epidemic, researchers at the China Center for mHealth Innovation (CCmHI) located within The George Institute, China, have established the SMARThealth Diabetes study. It will support the development and evaluation of a digital health intervention to help type 2 diabetes patients better manage their condition and prevent complications. "We are facing a dramatically increasing disease

burden, however few people with type 2 diabetes are getting adequate treatment," said Associate Professor Puhong Zhang, Head of the Diabetes Research Program at The George Institute, China, and the Director of CCmHI. "The key element of the intervention is the involvement of trained volunteers who are able and willing to support members in their family with chronic diseases to maintain a healthy lifestyle." It is estimated 80% of people who have type 2 diabetes are living in low- and middle-income countries. *By improving the delivery of healthcare, people in resource poor settings are able to get access to life saving treatments.* 





At The George Institute, we are always looking for ways to have more impact on health outcomes around the world. Through advocacy and thought leadership activities, we are contributing to critical health policy debates, looking for answers to some of the toughest health system questions, and engaging with policy makers to translate research findings into real world benefits. The global impact of our work continues to be recognised by the world's leading academic journals, as well as various accolades being bestowed upon our researchers in recognition of their impact.



## More

#### The 2015 John Yu Oration & Medal Ceremony

John Yu Oration before an audience of business leaders, diplomats, academics and policy makers in Beijing, where she was awarded the John Yu Medal for her leadership and commitment to improving people's health. "We're proud we can honour a global leader like Josette Sheeran who has done so much to combat famine and malnutrition," said Professor Robyn Norton, Principal Director of The George Institute. "As the former head of the World Food Programme, Josette literally helped feed and keep alive hundreds of millions of people around the world."

#### BMJ recognises Australian research

Research by The George Institute, Australia, which revealed paracetamol does not relieve back pain was highlighted as one of the top 20 studies of 2015 for GPs by the British Medical Journal in May 2016.

#### Better public health reporting

Mid-career journalists from India attended a training program offered jointly by UNICEF, The George Institute, India, the University of Oxford and Reuters in November 2015 that armed them with critical appraisal skills and tools to improve public health reporting.

#### **Celebrating Aboriginal and Torres** Strait Islander culture

In July 2015, George Institute staff held NAIDOC celebrations in recognition of Australia's unique heritage, which involved a series of cultural displays including a traditional corroboree by Koomurri Dancers, a bush tucker luncheon and an art exhibition by Aboriginal artist, Chris Moore.





#### **Just keep running** (1)

Researchers in the Musculoskeletal Division at The George Institute, Australia, were finalists in Australia's 2016 Run Nation Running Film Festival, which premiered The George Institute's inspirational short film about the runner within us all. The five minute movie was shown at the opening night of the festival and has toured around Australia to advocate for people to stay active, especially as they grow older.

#### High impact, big awards (2)

A study published by the TextMe team was highlighted as one of the top 10 most impactful publications in 2015 by the Council on Lifestyle and Cardiometabolic Health of the American Heart Association.

#### Excellence in research and development (3)

The George Institute received the 'Excellence in Research and Development between Australia and India' award from the Australia India Business Council in May 2016. The award was given to celebrate and acknowledge organisations that have created long running, mutually beneficial relationships between Australia and India.

#### Innovation in dialysis care (4)

After a year long global guest, the winner of the Affordable Dialysis Prize, Vincent Garvey, was officially announced in March 2016. The prize was jointly established by The George Institute for Global Health, the International Society of Nephrology and the Asian Pacific Society of Nephrology and supported by the Farrell Family Foundation to encourage inventors around the world to develop an innovative dialysis system which works just as well as a conventional approach. "Dialysis has been with us for more than fifty years but there has been no great leap forward in its design or, more importantly, its cost," said Professor John Knight, Director of Australia-China Partnerships and Professorial Fellow in the Renal and Metabolic Division at The George Institute, Australia. "We congratulate Vincent Garvey and look forward to supporting him to build and test his exciting invention, and to bring it to those many millions of people around the world who are currently missing out on dialysis treatment."









#### More IIMIPACT

Over the past 12 months we have grown our program of health policy forums across Australia, China, India and the United Kingdom to lead cross sector conversations and produce white papers on priority health issues, globally and locally.

The George Institute, Australia, has held a series of health policy events and roundtables to engage government, non-government and health organisations and agencies on the biggest challenges facing the healthcare system.

In August 2015, more than 30 healthcare experts and community members participated in a roundtable to discuss how Australia's healthcare system is funded. The ensuing report 'Investing in healthier lives: Pathways to healthcare financing reform in Australia' (1) made seven key recommendations for reform to ensure Australians have access to high quality, effective and efficient healthcare. Professor Stephen Jan, Head of Health

Economics at The George Institute, Australia, says "The healthcare system works well for many people, but there are growing issues, especially around funding, that must be addressed to ensure it is sustainable for the next 20 years." The aim of the roundtable was to reach a broad consensus from stakeholders including the community, patients, providers and funders, and to launch what will hopefully be a continuing Australian conversation. *This report went on to inform, and subsequently* 

is aligned with, the recommended financing reforms being rolled out from the Australian Federal Government's Primary Health Care Review – the trial of the new Health Care Homes model to better treat and manage patients with chronic disease and conditions.

In September 2015, The George Institute, China, presented at the Australia-China Partnerships in Healthcare Roundtable, the first of its kind





to explore health policy and practice in both countries. The partnership will encourage further collaboration and exchange between Chinese and Australian institutions in order to generate innovation in healthcare delivery benefitting both countries.

In November 2015, researchers from The George Institute, China, and the China Center for mHealth Innovation released a landscaping report 'Mobile + Health = Boosting China's mHealth Bandwidth' (2), on mobile health in China as an early step in helping Chinese policy makers navigate the mHealth space. "The goal of the report is to provide an overview of how mHealth is currently deployed and contributing to strengthening of the Chinese health system, particularly from the perspective of new innovations with appropriate evaluation," said Professor Anushka Patel, Chief Scientist of The George Institute for Global Health. "Our findings indicated that very little mHealth innovation at the present time is contributing to health system strengthening in China, and that most technology is not subjected to rigorous evaluation in order to provide reliable evidence of effectiveness and scalability." China has experienced four major rounds of health system reforms since the 1980s and achieved extraordinary results, however, challenges in health equity as well as the ever growing burden of chronic diseases still remain.

Also in November, anticipating the ratification of the China-Australia Free Trade Agreement, researchers from the University of Sydney's China Studies Centre, National Australia Bank and The George Institute have developed a report which identified the healthcare sector as one of the key beneficiaries from the agreement. The report into 'Australia-China healthcare opportunities' (3) identified areas where Australian businesses can capitalise on China's increasing demand for quality healthcare.

In February 2016, key health sector thinkers, leaders and change makers from around the world gathered in Sydney to address *maximising the impact of research on policy and practice for greater change.* The forum included presentations from a cross section of health sector stakeholders, along with panel and audience Q&A.

In April 2016, The George Institute, Australia, collaborated with the Consumers Health Forum

of Australia to host a roundtable discussion on the importance of consumer-centred healthcare. The postbreakfast roundtable hosted 35 health experts gathered to discuss a range of changes to Australia's health system, including the development of a National Vision for Australia's Health 2025 to set out the principles of consumercentred healthcare. Key recommendations from the roundtable discussion formed the basis for 'Putting the consumer first: Creating a consumer-centred health system for a 21st Century Australia' (4) report. These include calls for health data and statistics to be made more widely available to enable consumer choice The roundtable was preceded by a breakfast forum chaired by Australian Broadcasting Corporation journalist Sophie Scott and co-hosted by the Consumers Health Forum of Australia, bringing together over 100 healthcare thinkers from multiple disciplines across primary care, government and research to discuss how we can innovate in healthcare and create a truly consumer-centred health system.



Putting the consumer first

# Better women's health for better population health

Central to The George Institute's mission is the belief that a person's life expectancy, health and wellbeing should not be determined by their gender. As a result, The George Institute is advocating for the beginning of a new conversation about women's health, broadening from a focus on maternal and sexual health to common chronic and non-communicable diseases that affect all women. The George Institute has joined a global call to action that will see women actively included in all aspects of medical research, with work in this area being conducted in our centres around the world.

#### A new global agenda

In February 2016, Professor Robyn Norton, Principal Director of The George Institute for Global Health, together with the Oxford Martin School at the University of Oxford, launched a policy paper entitled Women's Health: A New Global Agenda, at the meeting of the All-Party Parliamentary Group on Global Health in the UK. The paper is the first in a series of papers aimed at igniting a global public conversation about the women's health agenda and ultimately driving policy changes that will save lives. "For decades, global women's health policy has been centred on sexual and reproductive health, and while these aspects of health are important for women, they are not the only areas we need to address," said Professor Norton. "We are stuck with an outdated operating framework that too often limits the definition of a woman's health to her reproductive organs. The fact is that in all but the poorest countries, the greatest health burden is non-communicable diseases." The George Institute is calling for global leaders to broaden and redefine their agenda in women's health to focus on non-communicable diseases, otherwise health investments could lead to decreasing return for women's health overall and will only benefit a small slice of the female population who are of childbearing years.

#### Walking the talk

Influential women in leadership gathered at The George Institute's Sydney office in June 2016 to begin the much needed conversation around broadening the women's health agenda, from its focus on women's sexual and reproductive health, to a broader focus on women's health priorities in Australia and globally. The discussion saw a general agreement from all attendees that a new conversation is essential to improving health outcomes for women given the prevalence of chronic disease and injury. Such a shift would acknowledge the gains that have been made in maternal health and the continued work needed in this area, as well as address the gaps in and the critical importance of health research and policy that follows women across their life span.

#### Framing women's health in the 21st century

To begin a sound policy discussion on the women's health agenda, researchers from The George Institute, India, convened a roundtable discussion with various stakeholders to document gender disparities in healthcare for women in India. Participants noted inequity in awareness, access and quality of health and the need to identify biological, social, cultural and health system related explanations for these disparities. Arguing a need to provide stronger evidence to demonstrate the



benefits of pursuing such a broader life course agenda for women's health, Dr Vivekanand Jha, Executive Director of The George Institute, India, says "Governments, intergovernmental agencies and NGOs need to broaden their focus to include health issues related to NCDs. Otherwise, the ongoing health investments will lead to diminishing returns and will not benefit a majority of women." Following this roundtable, researchers at The George Institute, India, will be working closely with stakeholders to produce more policy papers that can play a role in influencing women's healthcare in India.

#### Including gender in research impact assessments

Critical to the ongoing work of formulating a new women's health dialogue is The George Institute's focus on addressing gender in research impact assessments. To this end, Professor Norton joined more than 40 health researchers around the world to call for a gender-sensitive research impact assessment to improve the quality of medical research. The article, published in the March 2016 edition of *Health Research Policy* 

and Systems, explored how unintentional but significant gender bias in medical research can result in poorer treatment for women. "Women across the world tend to be significantly underrepresented in research both as researchers and research participants, receive less research funding, and appear less frequently than men as authors on research publications," the authors said. "There is also some evidence women are relatively disadvantaged as the beneficiaries of research in terms of its health, societal and economic impacts." The authors proposed by addressing these biases and focusing on research impact assessments, the focus of the science of medical research could be on society and policy, not just knowledge.



George Health Enterprises is the commercial arm of The George Institute for Global Health, and is dedicated to improving the health of millions around the world by transforming research findings into sustainable healthcare solutions, while supporting the broader work of The George Institute. George Health Enterprises was established to develop and commercialise innovative products and services that will improve the prevention and management of common serious medical conditions in emerging markets, such as China and India, and well established markets such as Australia and the UK. George Health Enterprises is made up of three related businesses - George Medicines, George Care and George Clinical. Together, these businesses have the potential to take products all the way from concept to market. Each

business has a focus on the emerging

markets, particularly in Asia, and the 'new' epidemics of chronic disease

facing countries in this region.



### Our Enterprises

George Clinical

George Clinical is a leading, full service, contract research organisation (CRO) in Asia and the first and largest commercial enterprise of The George Institute. Over the years, all profits from George Clinical have been donated to the Institute and this has made an enormous contribution to further the Institute's mission. Since its establishment, George Clinical has grown into an independent and highly regarded contract research organisation within the expanding Asian clinical trials sector. With over 200 staff globally, George Clinical operates out of its headquarters in Sydney, Australia, and has operational hubs across nine countries in Asia and the Pacific, and also in Europe and the US.

George Clinical augments its strong, operationally

George Clinical augments its strong, operationally focused CRO expertise in Asia with a relatively unique service – Global Scientific Leadership. The scientific leadership model developed by George Clinical provides its pharmaceutical, biotech and medical device customers access to some of the world's most distinguished health researchers, engaging them from study design and throughout study delivery, and supporting them with operational teams. George Clinical's scientific leadership model enhances the scientific standards of a trial and improves trial recruitment and retention.

George Clinical and its Scientific Leaders have extensive experience managing both commercial and academic trials in oncology; medical devices; renal disease and endocrinology; respiratory and cardiovascular health; and a broad range of neurological disorders, including stroke and dementia. George Clinical has also contributed its operational expertise to several landmark clinical trials for The George Institute. The results of these studies have changed clinical practice and have been recognised in high impact journals such as the New England Journal of Medicine and The Lancet. Recent examples include George Clinical's project management, data management and monitoring for large clinical trials in hypertension and stroke; a respiratory device; a diabetes trial of over 8000 participants throughout the Asia-Pacific, Europe and the US; and a phase IV COPD trial in Asia.

#### The past year...

As every year, George Clinical's commercial success is measured, in part, by the profit it is able to donate back to The George Institute. In financial





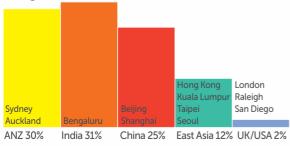
year 2015/2016, George Clinical contributed over \$4 million to the Institute. This past year, George Clinical also achieved a significant milestone in the company's history with reinvestment of almost 25% of its profit to expand key areas. These include its therapeutic specialisations including medical devices and oncology, expanded service offering to develop its regulatory and safety support for clinical trials, expanding into new geographic markets, and developing new trial delivery technologies. This investment will allow George Clinical to grow, while still continuing its annual donation to The George Institute.

Bolstering George Clinical global leadership capacity, Mr Scott Clark commenced as Head of Global Business Development in late 2015. Mr Clark, a veteran in the sector, has grown the George Clinical team in the US, with the recent appointment of Ms Kristine Afansev as Senior Manager, Global Business Development. George Clinical has also expanded its global reach with newly registered entities in the US, South Korea and a partnering office in Japan.

#### The year ahead

George Clinical has an exciting year ahead. There will be continued investment in geographic and service growth. New entities will be established to expand its footprint to meet customer needs and new services developed, including a continued focus on oncology, medical devices and regulatory service delivery. George Clinical will also continue to focus investments on project systems, adding to its already impressive capacity in this area, and invest in technologies to streamline trial delivery and maximise digital interactions for sites and patients. All of these developments will enhance further George Clinical's capacity to contribute financial and operational support to the mission of The George Institute and improve health outcomes around the world.

#### George Clinical staff ratios



#### **George Care**

George Care is developing innovative ways to deliver high quality evidence based medical care to patients with common chronic conditions. George Care is focused in part on the development of solutions for resource poor settings, typically in low- and middle-income countries where basic primary care services are either not available or are of poor quality. However, as problems facing health systems around the world are increasingly similar, it is anticipated these solutions will be translatable into healthcare settings in both emerging and established markets.

In the past year, George Care has focused on developing consumer-facing digital tools for patients, either as standalone products or as part of an integrated care program involving patients, doctors and other healthcare providers. These technologies are being developed as robust, commercial-grade products which meet all regulatory requirements and have been proven effective in clinical trials conducted by The George Institute. A recent example is the innovative TextMe app, a smart phone application that provides patients with regular personalised text messages encouraging lifestyle changes and adherence to medication to improve cardiac health. In a large clinical trial, TextMe was proven to deliver important clinical benefits to patients with heart disease. George Care has also undertaken a systematic assessment of needs and opportunities across a number of key markets globally, with a view to seeking investment to continue this impactful program of research and healthcare innovation.

### **George Medicines**

George Medicines is an innovative drug development business focused on creating effective, affordable drug treatments designed specifically to tackle the global burden of chronic diseases. In the past year, George Medicines has seen rapid growth with the establishment of SmartGenRx, a joint partnership between The George Institute and Bupa Australia to develop a highly effective polypill for patients with heart disease or stroke. A polypill is a single tablet containing several different medications [more on page 39]. George Medicines develops products on the basis of Institute research programs, which

have shown that treatment with a polypill greatly improved patient satisfaction, increased treatment adherence, and improved clinical outcomes such as blood pressure and cholesterol. George Medicines has a pipeline of similar products for a range of patient groups at high risk of early death or disability from chronic disease.

George Medicines is also exploring the potential to in-license patented drugs relevant to the management of common diseases in emerging markets. The focus is on medicines that are a small share in established markets – usually as a consequence of being the third or fourth registered

product. For such products, larger volume sales in emerging markets, at a lower price, might generate worthwhile financial returns while delivering better health outcomes where the need is great. The inclusion of such products in a polypill formulation also offers the potential for greater financial returns as well as greater impact. As most people in lowand middle-income countries receive little or no treatment for chronic diseases and their risk factors, tens of millions suffer unnecessary early death or permanent disability every year. George Medicines has the potential to make life saving treatment accessible to many of these people.



# SmartGenRx means smarter treatment

This year marked the official launch of SmartGenRx, an innovative joint venture between The George Institute and Bupa Australia, which will see the development of pharmaceutical products designed to reduce the devastating toll globally of heart disease, stroke and other chronic diseases.

The joint venture was launched in Sydney, Australia on 15 June 2016 with New South Wales Minister for Health, The Hon. Jillian Skinner MP and over 40 stakeholders from the health and business community.

SmartGenRx aims to develop cost-effective treatment solutions relevant to the many millions of people worldwide living with cardiovascular disease. As most of those affected live in middle-income countries, a major focus will be the largest emerging markets in Asia and elsewhere. The first of the SmartGenRx products will be a four-inone combination tablet, also known as a polypill, designed to significantly reduce the risk of heart attack and stroke, with just a single pill per day.

Research has shown patients who have suffered a stroke or heart attack are 40% more likely to stick to their treatments if they have access to a polypill. In Australia alone, it is estimated one million people do not receive the recommended preventative treatments long term – half have had a cardiovascular event in the past, and half are at similarly high risk because of multiple risk factors. The burden of heart disease is unsustainable, costing \$18 billion annually and half of this cost is attributable to repeat events.

"Heart disease and stroke are Australia's biggest killers and a major cause of hospital admissions, and the picture is increasingly similar across the globe," said Professor Stephen MacMahon, Principal Director of The George Institute for Global Health.

"Many people die unnecessarily because they either do not continue to take their essential treatments or cannot begin treatment because of the cost or health system failure, and this is entirely unacceptable," said Professor MacMahon. "New evidence based solutions are urgently needed and the polypill we are developing is a simple, innovative and incredibly efficient way of addressing a major global health problem." SmartGenRx is a partnership that leverages a decade of research supported by grant funding from the National Health and Medical Research Council of Australia and other research agencies worldwide.







# Our Supporters

The George Institute is already improving the lives of millions of people worldwide, but many more still need help. The generous support of our network of donors, partners and collaborators enables us to continue providing the evidence needed to guide critical health decisions and reform, focus on the vulnerable populations who need us most and nurture the brightest minds in health research.

## Supporting next generation researchers

At The George Institute, we believe we need to invest not only in the projects that will bring about significant changes to the healthcare landscape, but also in the people driving that change. Our researchers are at the forefront of much needed innovation in the sector. Whether at the early stages of their careers as PhD students, or Senior Research Fellows, our researchers are constantly challenging traditional approaches to healthcare delivery and are part of the Institute's global network of medical and health experts. Philanthropic support is crucial to the provision of fellowships for the best and brightest minds in health research. We are grateful to our supporters who join with us to invest in outstanding researchers.

## The John Chalmers Clinical Research Fellowship – Supported by Servier

The John Chalmers Clinical Research Fellowship, supported by Servier, celebrates and recognises Professor John Chalmers' momentous contribution to medical research in Australia and internationally. The Fellowship is awarded annually to an outstanding post-doctoral clinical researcher, providing them with the opportunity to undertake supported research at The George Institute. Research conducted through the Fellowship will focus on cardiovascular disease, hypertension, renal disease and diabetes. The first John Chalmers Clinical Research Fellowship was awarded in 2016 to Dr Amanda Wang, a post-doctoral research fellow who will be investigating acute kidney injury.

### The Dr John Yu Fellowship Program

To honour our distinguished former Chair, Dr John Yu AC, and contribute to the next generation of healthcare researchers in Asia, the Board and Directors of The George Institute have created the Dr John Yu Fellowship Program. The program consists of a prestigious three-year award, made annually to the best and brightest of the next generation of healthcare researchers from Asia.

The Fellowship will allow these students to complete their doctoral studies in Australia at The George Institute and the University of Sydney. Consistent with The George Institute's mission to improve the lives of millions of people worldwide, candidates will be sought who display strong leadership qualities and have a passion for solving the healthcare challenges facing low- and middleincome countries in the 21st century. With the ability to participate in research at any or all of The George Institute offices in Australia, China, India and the UK, the Fellowship will provide an opportunity for students to complete a truly global health doctorate, with mentoring by our leading world class researchers. The first Dr John Yu Fellowship will be awarded in 2017.

#### The Elsa Atkin Fellowship

In appreciation of the contribution of Elsa Atkin AM to The George Institute as a Board Member from 2007-2016, and in acknowledgement of her commitment to promoting and advocating for women's health, we are honoured to launch the inaugural Elsa Atkin Fellowship. Dedicated to supporting an outstanding senior female researcher who is undertaking research and policy work in women's health, the Elsa Atkin Fellowship will contribute to The George Institute's aims to broaden the current women's health agenda. In addition to undertaking innovative research in women's health, the Elsa Atkin Fellowship will mentor the next generation of talented female academics. The Fellowship will encourage and support promising academics to address the imbalances in women's health research and policy, and will act as an advocate for female academics both within and outside The George Institute. The Fellowship will be awarded every three years, with the first being awarded in 2017.

To find out how you can support Fellowships @ The George, visit georgeinstitute.org.au/ philanthropic-opportunities



### Thank you to our major supporters

AbbVie

Adelaide Institute for Sleep Health

AstraZeneca

Australian Embassy, China

Australian High Commission, India

Australian High Commission, United Kingdom

Australian Research Council

Baxter Healthcare Corporation

Bupa Australia

China Medical Board

Chinese Academy of Medical Sciences

Chinese College of Cardiovascular Physicians

CMS Beijing Representative Office

College of Health and Wellbeing, University of

Central Lancashire

Department of Biotechnology, Ministry of Science

& Technology, India

Flinders University

Florey Institute of Neuroscience and Mental Health

Give2Asia

GlaxoSmithKline Australia Ptv Ltd

HCF Research Foundation

Indian Council of Medical Research

Janssen

Johns Hopkins University

Medical Research Council (UK)

Ministry of Science and Technology

of the People's Republic of China

National Health and Medical Research Council

(Australia)

National Heart Foundation of Australia

National Institute of Neurological Disorders

and Stroke (US)

National Institutes of Health (US)

Norton Rose Fulbright

NSW Ministry of Health

Nuffield Department of Obstetrics and Gynaecology, University of Oxford

Nursing Research Institute, Australian Catholic

University

Oxford Martin School, University of Oxford















Peking University

Pfizer Foundation

Qualcomm Wireless Reach

Sanofi

Servier

Simmons & Simmons

Sydney Local Health District

Takeda

Telstra Health

University of Edinburgh

University of Leicester

University of Newcastle (Australia)

University of Sydney

Wellcome Trust

Western Sydney Local Health District

World Health Organization

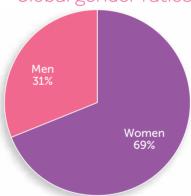
# Our People

This 2015–16 financial year, The George Institute is proud to have been successfully selected to join the Science in Australia Gender Equity (SAGE) national program promoting gender equity and gender diversity in science, technology, engineering, mathematics and medicine (STEMM). Commencing in September 2015, the Institute began collecting, analysing and presenting data on gender equity policies and practices in STEMM departments, as well as identifying gaps and opportunities for improvement at the Institute. The George Institute is now working towards an Athena SWAN Award at the Institutional Bronze level with the application due in January 2019. The Athena SWAN Award has shown significant results in improving gender diversity and bolstering women's leadership roles within other STEMM institutions, and The George Institute aims to mimic these results.

With over 600 employees around the world, the diversity and calibre of expertise of our staff is central to the success of The George Institute mission: to improve the health of millions of people worldwide. We are proud to have a team that is dedicated to this ambitious mission, ranging from the brightest PhD students in universities around the world, to global experts in medicine, population health and healthcare systems. The George Institute is dedicated to ensuring a workplace that is focused on career development for all employees and steeped in equity for all.

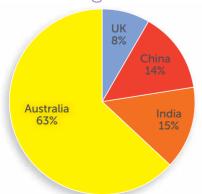
At The George Institute we believe that the nurturing of career growth and development to ensure a well trained work force is essential to addressing the biggest health challenges of the future. Creating opportunities for early- and midcareer researchers through in-house education and training is one example of how The George Institute is contributing to this effort.

Global gender ratios

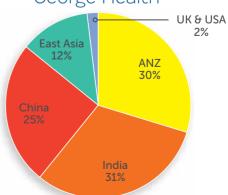


Global staff ratios

The George Institute



George Health





The George Institute is grateful for the leadership of its Board representing diverse global expertise from across the business, health and not-for-profit sectors, and for their passion to help fulfil the mission of the Institute.

#### Michael Hawker AM

Michael Hawker is a Non-Executive Director of Aviva Plc Group (UK), the Macquarie Group Limited, Macquarie Bank Limited and Washington H. Soul Pattinson. Michael is Chair of the Australian Business and Community Network Foundation, and a Non-Executive Director of the Rugby World Cup Limited. His former Executive roles include Chair of the Australian Rugby Union, Non-Executive Director of SANZAR Pty Limited, Member of the Executive Committee, World Rugby Council, CEO and Managing Director of Insurance Australia Group, Group Executive of Business and Consumer Banking at Westpac, Executive Director of Citibank International in Europe, and a Deputy Managing Director of Citibank in Australia. He has been President of the Insurance Council of Australia and the Australian Financial Markets Association, a former Board Member of The Geneva Association and a former Member of the Financial Sector. Advisory Council. He is a Senior Fellow of the Financial Services Institute of Australia and a Fellow of the Australian Institute of Company Directors. Michael joined the Board in February 2011.

#### Russell Aboud

Russell Aboud has worked in the global investment industry both domestically and internationally for over 29 years, the majority of time as a Managing Director in Sydney and London for UBS. Currently, Russell is the Executive Chairman and a Founding Partner of Manikay Partners, a New York based multi-strategy global investment firm. Former appointments include Non-Executive Director of the Australian Securities Exchange, Chairman of Ord Minnett and Senior Advisor to J.P. Morgan Australia. Russell joined the Board in August 2013.

#### Dr Srinivas Akkaraju

Srinivas Akkaraju is a former General Partner of Sofinnova Ventures. Prior to Sofinnova, Srinivas was a Managing Director of New Leaf Venture Partners, and prior to that, a Founding Managing Director at Panorama Capital, LLC. Prior to that, Srinivas was a Partner with J.P. Morgan Partners. Before his investment career, he was in Business and Corporate Development at Genentech, Inc (now a wholly owned member of The Roche Group), a biotechnology company, most recently as Senior Manager. Srinivas currently serves as a Director of Intercept Pharmaceuticals Inc, Seattle Genetics, Versartis Inc, and aTyr Pharma Inc. Previously, Srinivas served as a Director on the boards of ZS Pharma Inc, Eyetech Pharmaceuticals Inc, Synageva Biopharma Corp, Barrier Therapeutics Inc, and Amarin Corporation plc. Srinivas joined the Board in February 2016.

#### Yasmin Allen

Yasmin Allen is a Non-Executive Director of Cochlear Limited, Chairman of its Audit Committee and a Member of Cochlear's Technology Committee. She is also a Non-Executive Director of ASX Limited and a Member of the ASX Audit Committee and ASX Clearing and Settlement Board, Yasmin is a Director at Santos Limited and a Member of Santos' Remuneration Committee and Environment, Health and Safety Committee. She is also a Director of the National Portrait Gallery. Yasmin's previous directorships include Insurance Australia Group Limited (IAG), where she was Chairman of IAG's Nomination and Remuneration Committee and a Member of its Audit and Risk Committee. Yasmin was also Chairman of Macquarie Global Infrastructure Funds and a National Director of the Australian Institute of Company Directors. Prior to her directorships, Yasmin had an extensive career in investment banking, including as Vice President of Deutsche Bank, Director of ANZ Investment Bank in Sydney and Director with HSBC in London. She has a Bachelor of Commerce from Melbourne University and in 2015 was awarded their Alumni of Distinction Award. She is a Fellow of the Australian Institute of Company Directors. Yasmin joined the Board in August 2014.

#### **Gina Anderson**

Gina Anderson is an experienced Company Director. She is currently a Non-Executive Director of GDI Property Group and GDI Funds Management; Advisory Board Member of the Australian Charities and Not-for-profits Commission (ACNC); Co-Founder and Chair of

### Our Gowernance

Women's Community Shelters; Advisory Board Member, Initiative on Corporate Philanthropy, The Conference Board, USA; and Philanthropy Fellow, Centre for Social Impact, University of NSW. Gina was Executive Director and CEO of Philanthropy Australia from 2005 to 2010. She has held corporate affairs, human resources and general management roles, including seven years in senior management roles at Westpac. From 1992–1995 as Personal Assistant to the Crown Prince of Jordan she was involved in the peace treaty between Jordan and Israel. Gina joined the Board in February 2012, and is Chair of its Development Committee.

#### **David Armstrong**

David Armstrong is a Non-Executive Director of the National Australia Bank (since August 2014), Chair of the Risk Committee and a Member of its Audit Committee and Information Technology Committee. David is also a Director of the Opera Australia Capital Fund Limited (since May 2013), and a Trustee of the Australian Museum (since January 2014) and Lizard Island Reef Research Foundation (since April 2014). David has more than 30 years' experience in professional services. As a Chartered Accountant and a Former Partner of PricewaterhouseCoopers, he has significant knowledge and understanding of banking and capital markets, real estate and infrastructure and is well versed in reporting, regulatory and risk challenges faced by the industry. David has lived and worked in London and New York at various stages of his career. David is a Fellow of the Institute of Chartered Accountants in Australia and a Member of the Australian Institute of Company Directors. David joined the Board in October 2014, and is Chair of its Finance, Risk and Audit Committee.

#### Elsa Atkin AM

Elsa Atkin's experience in the not-for-profit sector, change management, advocacy, and media and corporate relations areas was gained through her previous roles as Executive Director of the National Trust of Australia (NSW), Deputy Director of the Evatt Foundation and a Senior executive at the Australian Broadcasting Corporation (ABC). She has served on a variety of government and non-government boards and committees, including University of Western Sydney (Nepean Campus),

the Heritage Council of NSW, the NSW Library Council, and the Immigration Review Panel. Elsa joined the Board in July 2007 and retired from the Board in February 2016.

#### **David Baffsky AO**

David Baffsky has had an extensive legal career specialising in commercial and fiscal law. David is Honorary Chairman (formerly Executive Chairman between 1993 and 2008) of Accor Asia Pacific. He is Chairman of the ASX listed Ariadne Australia Ltd, Chairman of Investa Property Group, and Board Member of Sydney Olympic Park Authority, Destination NSW and the Australian Brandenburg Orchestra. Previously, David was a Director of SATS Limited (Singapore) and Chairman of Food & Allied Support Services Corporation Ltd, a Trustee of the Art Gallery of NSW, Chairman of Voyages Indigenous Tourism Ltd, and a member of the Business Government Advisory Group on National Security. He was a Member of the Federal Government's Northern Australia Land and Water Taskforce and a Director of the Indigenous Land Corporation. In 2003 David received the Centenary Medal and in 2012 was awarded the Chevalier in the Order of National Légion d'Honneur of France. David joined the Board in August 2016.

#### Melinda Conrad

Melinda Conrad is currently a Non-Executive Director of OzForex Limited. Chair of its Remuneration Committee and Member of its Audit and Risk Committee. She is a Non-Executive. Director of The Reject Shop Limited, Chair of its Remuneration Committee and Member of its Audit and Risk Committee. Melinda is also a Director. of the Centre for Independent Studies, Member of the Minter Ellison Advisory Board and Member of the Australian Institute of Company Directors Corporate Governance Committee. Melinda has also served as Non-Executive Director of David Jones Limited, APN News & Media Limited, NSW Clinical Excellence Commission, NSW Agency for Clinical Innovation, and the Garvan Medical Research Institute Foundation. Melinda is a Fellow of the Australian Institute of Company Directors. Melinda joined the Board in November 2015.

#### Jason Yat-sen Li

Jason Yat-sen Li is Chairman of Vantage Asia Holdings Limited, Founding Partner and the CEO

# 

of Yatsen Associates – a corporate advisory and investment firm based in Beijing – and a Member of the Global Agenda Council for China of the World Economic Forum. Jason is a Non-Executive Director of Ontario Mining Corporation Limited. He was Head of China Strategy and Head of Sustainability for Insurance Australia Group and Vice-Chair of the Australia-China Chamber of Commerce (in Beijing). He was a Director of the Sydney Institute, the National Centre for Volunteering, and the NSW Government's Sydney Metropolitan Strategy Group. Jason joined the Board in June 2007 and retired from the Board in August 2016.

#### Catherine Livingstone AO

Catherine Livingstone spent 20 years working in the field of implantable medical devices, including six years as CEO and Managing Director of Cochlear Limited. She is a Non-Executive Director of Commonwealth Bank Australia Limited and a Non-Executive Director of Worley Parsons Limited and Saluda Medical Pty Ltd. She is President of the Business Council of Australia, and a Member of the Commonwealth Science Council, the Growth Centres Advisory Committee, and is President of the Australian Museum. Catherine's former roles include Chairman of Telstra Corporation Limited, Chair of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), President

of Chief Executive Women, Chair of The Australian Business Foundation, Non-Executive Director of the Macquarie Group, and a Member of the New South Wales Innovation and Productivity Council. Catherine joined the Board in August 2012.

#### Paul McClintock AO

Paul McClintock is Chairman of Myer Holdings Limited, NSW Ports, I-MED Network, Sydney Health Partners, Committee for Fconomic Development of Australia, and a Director of St Vincent's Health Australia Limited. Paul has served as the Secretary to Cabinet and Head of the Cabinet Policy Unit reporting directly to the Prime Minister as Chairman of Cabinet, supervising Cabinet processes and acting as the Prime Minister's most senior personal policy adviser. Former positions include Chairman of Medibank Private Limited, Thales Australia, the COAG Reform Council, Intoll Management Limited, Symbion Health, Affinity Health, Ashton Mining, Plutonic Resources and the Woolcock Institute of Medical Research. Paul graduated in Arts and Law from the University of Sydney and is an Honorary Fellow of the Faculty of Medicine. Paul joined the Board in October 2013.

**Professor Stephen MacMahon** See page 46.

**Professor Robyn Norton** See page 46.



# Dur Senior Mannagemienn

#### **Professor Stephen MacMahon**

Principal Director

Co-founder of The George Institute for Global Health; Professor of Medicine and James Martin Professorial Fellow, University of Oxford; Professor of Cardiovascular Medicine & Epidemiology, the University of Sydney; Honorary Professor, Peking University Health Science Center; Honorary Consultant, Royal Prince Alfred Hospital (Sydney); Chief Executive, George Health Enterprises Pty Ltd; Fellow of the Australian Academy of Sciences, the British Academy of Medical Science and the American College of Cardiology.

#### **Professor Robyn Norton**

Principal Director

Co-founder of The George Institute for Global Health: Professor of Global Health and James Martin Professorial Fellow, University of Oxford; Professor of Public Health, the University of Sydney; Honorary Professor, Peking University Health Science Center; Honorary Consultant Epidemiologist, Royal Prince Alfred Hospital (Sydney); Member, Health Care Committee, NHMRC; Chair Emeritus, Road Traffic Injuries Research Network.

#### Tim Regan

Chief Operating Officer Chief Financial Officer

Director and former President of the Financial Executives Institute in Australia; former Director of Thomas & Coffey; Bachelor of Economics, the University of Sydney; Fellow of the Australian Institute of Company Directors, Institute of Chartered Accountants and Australian Property Institute. Prior experience includes former COO of Mirvac Group; CEO of TJS Services; Commercial Manager for Sydney Organising Committee for the Olympic Games; and Senior Manager at PricewaterhouseCoopers.

#### Professor Anushka Patel

Chief Scientist

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

#### Peter Dolnik

Director, Research Services

13 years' experience in research strategy and research management in senior roles, including at the University of New South Wales, and as lecturer in philosophy, logic and ethics at UNSW and the University of Western Sydney.

#### **Professor Terry Dwyer AO**

Executive Director, The George Institute, United Kingdom Professor of Epidemiology and James Martin Professorial Fellow, University of Oxford; Chair of International Child Cardiovascular Cohort Consortium (i3C): Chair of the International Childhood Cancer Cohort (I4C) Consortium; Member of the UK Biobank Scientific Advisory Board.

#### Sarah Hazell

Director, Global Human Resources

Over 20 years' experience in global, strategic human resources with employee engagement, talent management and succession planning her areas of strength; previous experience includes time with Baxter Healthcare Inc., ResMed Ltd and the Australian Diabetes Council

#### Professor Vivekanand Jha

Executive Director, The George Institute, India Professor of Nephrology and James Martin Professorial Fellow, University of Oxford; is the President-Elect of the Asian Pacific Society of Nephrology; serves the WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation; Council of the International Society of Nephrology; Chair of the Education Committee of the International Society of Nephrology and is the Executive Committee member of the Asian Forum of Chronic Kidney Disease.

#### E. Richard Mills

Director, Global Communications and Advocacy Prior experience includes as Director of Corporate Communications at The World Bank and as spokesman in the United States government, from Congress and the Executive Office of the President, to the State Department.

#### Professor Vlado Perkovic

Executive Director, The George Institute, Australia Professor of Medicine at the University of Sydney; Staff Specialist in Nephrology at the Royal North



Shore Hospital; member of the National Health and Medical Research Council Principal Committee on Research Translation; Chair of the International Society of Nephrology Action for Clinical Trials (ISN-ACT) group; Fellow of the Royal Australasian College of Physicians and of the American Society of Nephrology.

#### Dr Marisa Petersen

Executive Director, George Clinical

Pharmacist with PhD in Clinical Pharmacology and Pharmacokinetics; over 25 years in clinical research management in the Asia-Pacific region. Prior experience includes eight years as Vice President Asia-Pacific for Omnicare Clinical Research and five years as CEO of ARCS Australia. Member of the Pharmaceutical Industry Council R&D Taskforce.

#### Professor Zhi-Jie Zheng

Executive Director, The George Institute, China (until June 2016)

#### **Professor Craig Anderson**

Executive Director, The George Institute, China (from June 2016)

Senior Director, The George Institute, Australia
Professor of Stroke Medicine and Clinical
Neuroscience, University of Sydney; Neurologist,
Royal Prince Alfred Hospital; NHMRC Senior
Principal Research Fellow; Fellow of the Royal
Australasian College of Physicians and the Australian

#### Dr John Wastell

Director, Global Information and Technology
PhD in nuclear physics from the University of
Melbourne; extensive experience in IT leadership
roles in various industries including insurance,
internet services, defence and aerospace, global
professional services and medical research,
including as Head of Information Technology
Services at the Walter and Eliza Hall Institute of
Medical Research.

Academy of Health and Medical Sciences.



# Our Finances

#### Surplus

Through a combination of obtaining grant funding, winning commercial contracts and cost control, The George Institute in 2015–16 recorded a small surplus of \$170,797. At the end of 2015–16, the Institute had \$19.0 million of cash, \$12.1 million of trade and other receivables, and an investment portfolio of \$8.5 million. Deferred income, representing funding received for projects in advance, increased to \$28.8 million. Overall, retained earnings was at \$11.2 million at the end of 2015–16, keeping the Institute 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, UK and USA. The Australian Federal Government and NSW State Government also contributed crucial funding for ongoing research projects and infrastructure support for the Institute.

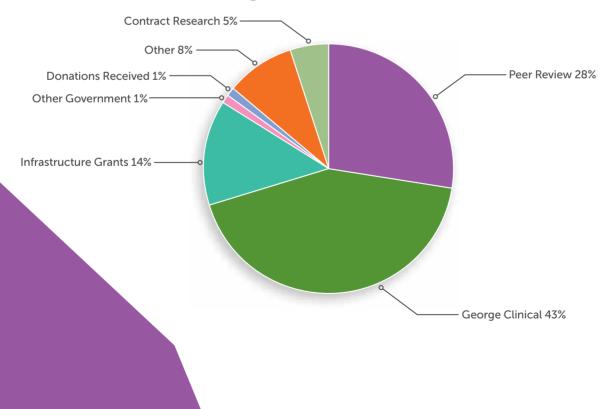
#### Clinical research

George Clinical continued to generate funds by managing commercial trials for global pharmaceutical companies. This innovative funding approach resulted in George Clinical contributing over \$4 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 2015–16, we received donations from a valuable number of supporters.

### Funding sources for 2015-2016



## Statement of profit & loss for year ended 30 June 2016

Consolidated	2016 \$	2015 \$
Operating Revenue	67,205,528	61,111,674
Other Income	2,937,757	2,547,201
Employee Benefits Expense	(40,009,834)	(34,914,379)
Depreciation and Amortisation Expense	(925,430)	(1,011,803)
Rental Expense	(2,739,421)	(2,539,862)
Administration Expense	(2,533,520)	(1,865,458)
Study Contract Fee	(6,824,798)	(6,291,950)
Patient Recruitment Expense	(2,115,177)	(1,781,122)
Consultants and Sub-contractors Fee	(4,724,452)	(5,362,384)
Travel/Accommodation Costs	(2,511,469)	(2,324,283)
Other Expenses	(7,036,116)	(6,058,461)
Realised Loss on Disposal of Financial Assets	(1,903)	(15,695)
Share of Loss of Jointly Controlled Entity	(297,306)	
Surplus before Income Tax	423,859	1,493,479
Income Tax	(253,062)	(247,071)
Surplus after Income Tax	170,797	1,246,408
Other Comprehensive Income		
Items which will be reclassified subsequently to surplus or deficit when specific conditions are met:		
Exchange Differences on Translation of Foreign Operations	(191,762)	127,860
Changes in the Fair Value of Available-for-sale Financial Assets	(443,251)	11,178
Total Other Comprehensive (Expense)/Income for the Year	(635,013)	139,038
Total Comprehensive (Loss)/Income for the Year	(464,216)	1,385,446

### Statement of financial position as at 30 June 2016

Consolidated	2016 \$	2015 \$
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	19,029,429	15,629,134
Trade and Other Receivables	12,073,447	16,328,599
Other Assets	1,459,246	1,228,509
Accrued Income	4,523,584	3,314,407
TOTAL CURRENT ASSETS NON-CURRENT ASSETS	37,085,706	36,500,649
Other Financial Assets	8,538,633	8,637,763
Investments Accounted for using Equity Method	1,259,732	-
Plant and Equipment	1,256,813	1,520,058
Intangible Assets	167,229	1,088,100
TOTAL NON-CURRENT ASSETS	11,222,407	11,245,921
TOTAL ASSETS	48,308,113	47,746,570
<b>LIABILITIES</b> CURRENT LIABILITIES		
Trade and Other Payables	2,954,347	3,424,583
Deferred Income	28,782,694	27,787,642
Provisions	4,609,505	4,198,811
TOTAL CURRENT LIABILITIES	36,346,546	35,411,036
NON-CURRENT LIABILITIES Provisions	779,698	689,448
TOTAL NON-CURRENT LIABILITIES	779,698	689,448
TOTAL LIABILITIES	37,126,244	36,100,484
NET ASSETS	11,181,869	11,646,086
EQUITY		,
Foreign Currency Translation Reserve	(476,615)	(284,853)
Available-for-sale Financial Asset Reserve	202,530	645,781
Accumulated Surplus	11,455,954	11,285,158
TOTAL EQUITY	11,181,869	11,646,086

# About The George

Better prevention. Better treatment. Better delivery. More impact.

- Challenging the status quo in healthcare delivery, treatment and prevention to find solutions
- Our mission is to improve the health of millions of people worldwide
- Over 600 staff globally, projects in approximately 50 countries, and over 6000 publications
- Centres in Australia, China, India, the United Kingdom and global offices
- Research focused on changing policy and practice
- Over 1100 collaborators, from local hospitals to world leading academic institutions
- Raised \$650 million for health and medical research
- A unique funding model assisted by our enterprises
- Tackling the leading causes of death and disability, chronic disease and injury
- Growing program of healthcare innovation to maximise research impact

#### Our values

- Humanitarian commitment
- A focus on excellence
- Integrity
- A 'can do' approach
- Creativity
- An emphasis on impact

#### Our affiliations







