

Better Treatments.
Better Care.
Healthier Societies.



The 2022 ANNUAL REPORT

Our organisation



Our strategy

RESEARCH GOALS



Better Treatments

Finding better treatments for the world's biggest health problems



Better Care

Transforming primary health care to support better health for more people



Healthier Societies

Harnessing the power of communities, governments and markets to improve health

IMPACT GOALS



Advocacy & Thought Leadership

The growth of effective advocacy and a thought leadership program aligned to our research and entrepreneurship objectives



Disruptive Entrepreneurship

The growth of a disruptive entrepreneurship program aligned to our research goals

Our values



Humanitarian commitment

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



Focus on excellence

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



Creativity

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



Integrity

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



A 'can-do' approach

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



Emphasis on impact

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

**TABLE OF CONTENTS**

Our organisation	2
From our leadership	4
A message of thanks	6
The George Institute Australia	8
The George Institute China	12
The George Institute India	16
The George Institute UK	20
Driving global impact	24
Championing disruptive entrepreneurship	32
Our social enterprises	36
Our people	40
Our supporters	44
Our finances	46

ACKNOWLEDGEMENT OF COUNTRY

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

The George Institute for Global Health

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

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From our leadership

The mission of The George Institute for Global Health – to improve the health of millions of people worldwide – is always front and centre to everything we do. This past year has been no different.



We have continued to challenge the status quo in how chronic and complex health conditions are prevented and treated and how health care is delivered. Our focus remains on creating better treatments, better care and healthier societies, especially for underserved populations, through programs of research, advocacy, thought leadership and disruptive entrepreneurship – all towards a single goal: to have the greatest impact, and ultimately, leave no one behind.

In addition to our ongoing work in non-communicable diseases and injuries and the COVID-19 pandemic, we have launched global initiatives in response to emerging health challenges. Our Global Brain Health Initiative brings together the best researchers across multiple disciplines to develop solutions, treatments and evidence for people all over the world to live better and for longer (see page 29). We have also launched an initiative to address increasing rates of multimorbidity, which is the presence of two or more chronic conditions in the same individual.

“We are responding to the biggest health challenges globally – no matter how hard these seem – by generating critical evidence to create better treatments, better care and healthier societies.”

Professor Stephen MacMahon AO
Co-Founder & Principal Director
The George Institute for Global Health

The George Institute signed a five-year partnership agreement with Imperial College London in 2022

Our goal is to create a world-leading research program to inform the development of effective and affordable strategies to identify, prevent, treat, and manage multimorbidity.

Through the Africa Partnership Initiative, our researchers and policy advocates are building authentic and sustainable partnerships in a sensitive and respectful manner to support local capacity to address unmet health needs (see page 30), and we are growing our program of research, advocacy and thought leadership to prevent non-communicable diseases, promote equity and protect the planet (see page 24).

Core to our work are partnerships with communities and like-minded organisations who share our urgency to tackle the biggest health priorities, both locally and globally. In a major milestone for the Institute, we signed a five-year partnership agreement with Imperial College London in January 2022. With a focus on large-scale transformative research initiatives, we are looking forward to working closely with the Imperial College team to contribute towards real-world change across many areas such as clinical trials, women's health, health systems, multimorbidity and planetary health (see page 20).

We have also continued to harness the power of engaging with governments, civil society, multilaterals, industry and academics to influence policy and practice, as well as build an ecosystem within the Institute that fosters disruptive entrepreneurship and helps amplify the work of our researchers, both now and in the future (see page 32).

Millions of people are closer to benefiting from our life-saving research thanks to George Health (see page 36), the commercial arm of the Institute. From developing pivotal new partnerships to launching clinical trials, it has been a year of growth and major milestones for our social enterprises.

But there's still much more to do. In the year ahead, The George Institute will be embarking on a new phase of organisational growth and leadership (see page 6) and we will continue to drive the expansion of our work into areas of the world with the greatest health needs.

This year, we welcomed Sarah Bench and Lindsay Complin to the roles of Chief People Officer and Director of Communications & Marketing, respectively, and Tim Longstaff to our Board of Directors.

We are so proud of how much we have achieved this year against the backdrop of a world that is still grappling with the impact of the COVID-19 pandemic. This is no small feat and is a testament to the 'can-do' attitude of our staff, and the shared vision and support of our Board of Directors, funders, donors and partners. Thank you.



David Armstrong
David Armstrong
Chair



Robyn Norton
Professor Robyn Norton AO
Principal Director & Co-Founder



Stephen MacMahon
Professor Stephen MacMahon AO
Principal Director & Co-Founder

A message of thanks

After more than 20 years at the helm, co-founders of The George Institute for Global Health, Professor Robyn Norton AO and Professor Stephen MacMahon AO, have announced they will step down from their Principal Director roles at the end of 2022.



Professors Stephen MacMahon AO and Robyn Norton AO at the recent GeorgeThink event at The George Institute UK

Professors MacMahon and Norton founded The George Institute in Sydney, Australia in 1999 to address the escalating global burden of non-communicable diseases and injury. Since then, our researchers have been transforming clinical guidelines, delivering affordable, innovative healthcare solutions, and helping to create healthier societies. Today, the Institute is internationally recognised as one of the world's leading global health research organisations.

The George Institute has never been in a stronger position – both financially and in the quality and quantity of its research and impact – and Professors Norton and MacMahon believe that now is the right time for a change in leadership to lead the next phase of organisational growth.

It was visionary foresight that led to Professors Norton and MacMahon founding the Institute, which has seen extraordinary growth and impact globally.

“It has been a great honour and privilege to have led this Institute from three people in a room with a bold mission, to the global organisation it is today, with more than 1,100 people across four regional offices. As the Institute embarks on a new chapter, we have no doubt that this phase of growth will continue to deliver on our mission to improve the health of millions of people worldwide.”

Professor Robyn Norton AO
Co-Founder and Principal Director
The George Institute for Global Health



Professors Stephen MacMahon AO and Robyn Norton AO with Dr John Yu AC in Beijing, 2007

The progress the Institute has made in such a short period of time has been nothing short of incredible, and its trailblazing efforts have ensured it is well-positioned for future growth.

Professors MacMahon and Norton are working with the Board to identify and transition a successor who will continue to drive the expansion of the Institute into areas of the world with the greatest health needs.

On behalf of the Board and George Institute leadership, we are enormously grateful for their contributions to global health and the legacy they leave behind. We look forward to working with the new Principal Director to build on this work as the Institute embarks on a new phase of organisational growth and leadership.

David Armstrong
Chair

“On behalf of the Board and George Institute leadership, we are enormously grateful for their contributions to global health and the legacy they leave behind.”

David Armstrong
Chair
The George Institute for Global Health



The George Institute Australia



“In an increasingly complex health landscape, our researchers remain focused on generating high-quality evidence that can have the greatest benefit to the health of populations around the world.”

Professor Bruce Neal

Executive Director, The George Institute Australia

In Australia, our researchers are responding to the biggest health and equity challenges by identifying better ways to prevent and treat disease and create healthier societies. We work with a range of partners in Australia and globally to challenge the status quo in healthcare, generating high-impact research that can be implemented into practice, transform health systems and ensure everyone has access to the care they need.

SIMPLE SALT SWAP COULD PREVENT MILLIONS OF DEATHS A YEAR

Globally, it is estimated that excess salt consumption (more than five grams per day) is responsible for three million deaths each year. Four out of five of these deaths occur in low- and middle-income countries, and nearly half are among people younger than 70. While salt substitutes have been known to lower blood pressure, until now their effects on heart disease, stroke and death were unclear.

A landmark study by The George Institute Australia showed that replacing table salt with a reduced-sodium, added-potassium ‘salt substitute’ significantly reduces rates of stroke, heart attack and premature death. The five-year dietary intervention study, one of the largest ever conducted, involved 21,000 adults with either a history of stroke or poorly controlled blood pressure from 600 villages in rural areas of five provinces in China.



A follow up analysis revealed that salt substitutes led to cost savings by reducing hospitalisations due to strokes and other associated quality of life gains, which far outweighed the cost of using salt substitutes instead of regular salt.

“We now have strong evidence that switching table salt to salt substitute is a highly feasible and low-cost opportunity to have a massive global health benefit,” said lead investigator, Professor Bruce Neal, Executive Director of The George Institute Australia (see page 14 for related research in China).



DELIVERING COMMUNITY COORDINATED BURNS CARE FOR CHILDREN

Researchers at The George Institute Australia are exploring how to improve access to culturally safe and high-quality ongoing burns care for Aboriginal and Torres Strait Islander children by developing and implementing a network of Aboriginal community service providers with a direct link to the Burns Unit at The Children's Hospital at Westmead, Sydney.

"We know that Aboriginal and Torres Strait Islander people would prefer to attend their own Aboriginal medical service rather than a hospital, where systemic racism, including issues of access, are still prevalent," said lead investigator, Dr Julieann Coombes of The George Institute. "Yet, there are very few healthcare services in Australia that are culturally safe. The Community Coordinated Burn Project will deliver training to Aboriginal Community Controlled Health Services in NSW focused on first aid and burn assessment, and aftercare of burn injury for Aboriginal and Torres Strait Islander children."

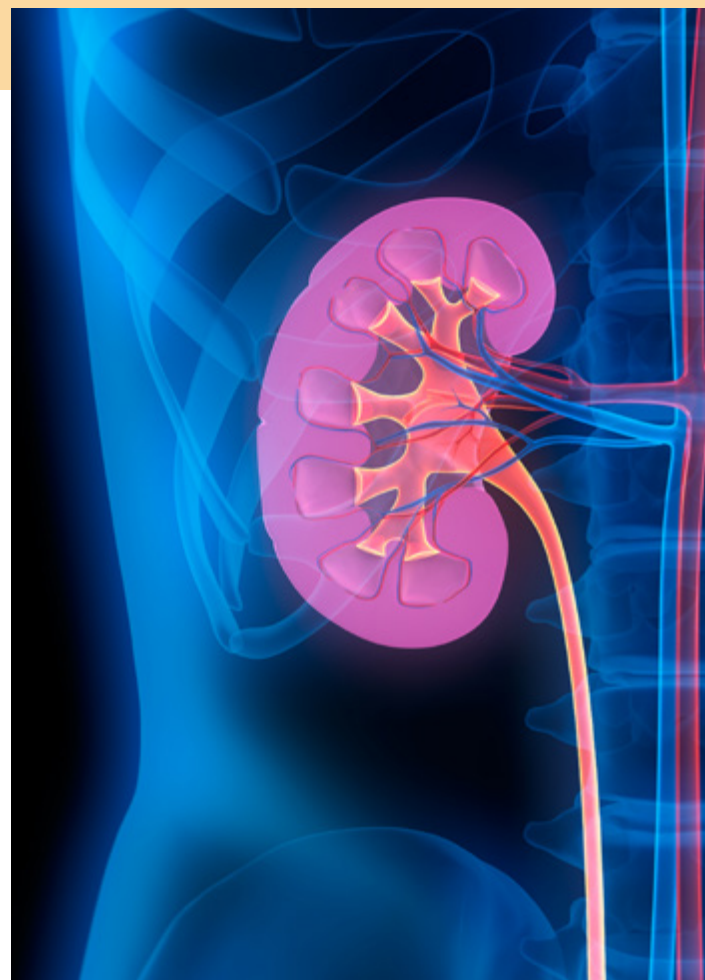
The project is focused on coordinated care and partnerships with Aboriginal communities in NSW to develop a roadmap to implement the program across Australia.

BIG STUDY ANSWERS TREATMENT QUESTION FOR LITTLE-KNOWN KIDNEY CONDITION

The largest ever randomised controlled trial in IgA nephropathy has found that treatment with a cheap, widely used corticosteroid drug – methylprednisolone – halves the risk of losing kidney function and kidney failure, and that this can be effectively achieved with fewer side effects if a reduced dose is used.

IgA nephropathy is an auto-immune condition in which a type of antibody produced by the body to fight infection forms deposits in the kidney, leading to inflammation and scarring and progressing to kidney failure in many people, which requires dialysis or kidney transplantation to prevent death.

For the first time, the results of the multi-country study by The George Institute will provide clinicians and patients with certainty on the best treatment option for patients with the kidney condition and help improve practice globally.





TIME TO SHIFT FROM 'BIKINI MEDICINE' TO WHAT IS REALLY AILING WOMEN

New research has found that women's health research remains disproportionately focused on the reproductive years – particularly on pregnancy – compared to the major causes of illness and death in women, non-communicable diseases.

The focus on so-called bikini medicine stems from the mistaken belief that women's health only differs from men's in the parts of the body that a bikini would cover. Yet, despite growing awareness of differences in how women experience medical conditions and the impact this can have on diagnosis and treatment, this research gap has widened over the last 10 years.

Sex and gender bias in research and health care can lead to poorer health outcomes for women.

"Our study shows there is much work to be done by journals, funders and researchers to broaden understanding of women's health, so that women of all ages are appropriately and effectively served by scientific research and the health benefits that result from it," said lead author Laura Hallam from The George Institute Australia.

CAN YOUR HAIRDRESSER IMPROVE MORE THAN YOUR HAIR?

An innovative new study by researchers at The George Institute Australia is looking to make the 'healthiest' use of the time Australian women spend at the hairdressers. Hairdressing is one of the most common paid services used by women across the country, so salons present a unique opportunity to reach a large proportion of the female population in a trusted environment.

The 'Hairdressers for Health' study will use this setting to give women a gentle 'nudge', along with their cut and blow dry, and encourage them to visit their doctor for relevant health checks. Using hairdressing salons across NSW, Australia, the research will help to understand how effective promoting of women's health outside traditional health care settings can be, including how non-medical influencers could be employed to deliver health promotion messages among certain groups of people.

Did you know?
Heart disease kills 22 women every day in Australia

- High blood pressure, high cholesterol, smoking, diabetes and obesity increase the risk of having a heart attack or stroke
- Women who have experienced high blood pressure or diabetes in pregnancy are also at an increased risk of developing heart disease

Most women are unaware they are at risk of heart disease

- 1 in 3 women** have high cholesterol
- 1 in 5 women** have high blood pressure

To assess your risk you should:

- Visit your GP regularly for the following checks:
 - blood pressure
 - cholesterol
 - weight
 - blood sugar
- Talk to your GP about your heart risk and what you can do to reduce your risk

We ask you to:

- Visit your GP within the next month with this letter
- When you book the appointment, please let reception know you will be asking your GP for a Heart Health Check

Taking action now could prevent a heart attack or stroke!



NEW RESEARCH INFORMS GOVERNMENT ADVICE ON E-CIGARETTES

Tobacco smoking in Australia is at its lowest for decades due to effective policy measures and public health messaging on its harm, but the uptake of e-cigarettes, especially among young adults, has reached worrying levels.

The George Institute Australia has contributed to the body of evidence analysed by the National Health and Medical Research Council (NHMRC) that has informed new Australian government public health advice cautioning against the use of e-cigarettes.

Commissioned by the NHMRC, the research showed that exposure to e-cigarette advertising across a wide range of media was positively associated with e-cigarette use among young people, and that young adults exposed to advertising on social media were more likely to try e-cigarettes. According to the researchers, digital marketing, particularly through social media, is a substantial new challenge for public health. Effective regulation is complex to implement, but possible, and social media companies need to take responsibility for harms occurring through their platforms and take appropriate action.



AUSTRALIAN STUDY SET TO GUIDE THE TREATMENT OF CRITICALLY ILL PATIENTS WORLDWIDE

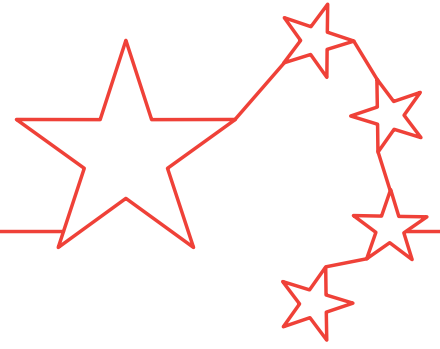
Almost every patient admitted to an Intensive Care Unit (ICU) will receive intravenous fluids as part of their standard treatment, but which fluid doctors and nurses should use has long been unclear. To address this uncertainty, researchers at The George Institute Australia conducted a study to compare commonly used saline solution with a balanced multi-electrolyte solution (or BMES) called Plasma-Lyte 148®. BMES use has increased after concerns arose that saline use might increase kidney injury and death, although this had not been proven in clinical trials.

The study showed that saline is as effective at keeping people alive and their organs functioning as the more expensive balanced solution, and that BMES did not reduce risk of death or acute kidney injury in critically ill adults.

Intensive care is one of the most expensive aspects of healthcare, costing at least \$4,000 per patient per day in Australia. With high demand for ICU beds, resources and expertise, even small differences in clinical and economic outcomes become important at the population level. The results of this study provide doctors with greater certainty about the relative safety and benefits of saline and BMES, with broad implications for treatment availability and costs worldwide.



The George Institute China



“Our researchers are responding to the biggest health priorities in China and globally with a single focus – to have the greatest impact on the health and wellbeing of all.”

Lily Zhu

Managing Director, The George Institute China

The George Institute China is conducting large-scale research, often in collaboration with national and international partners, to reduce the burden of the leading causes of death and disability in China and globally. From identifying new ways to improve recovery from life-threatening diseases and conditions, to implementing novel ways to prevent disease, our researchers are at the forefront of innovation in health and medical research.

NEW RESEARCH TARGETS WORKPLACES TO BEAT CANCER

One in five people around the world are likely to develop cancer during their lifetime, and a third of cancer deaths are linked to common modifiable behavioural risk factors. Researchers at The George Institute China are conducting a study that aims to reduce cancer risks by promoting health programs in workplaces.

“There is an urgent need to identify effective and feasible strategies to prevent cancer,” said lead investigator, Associate Professor Puhong Zhang of The George Institute China. “Workplaces offer tremendous opportunities to reduce risk factors, like banning tobacco and alcohol, and to mainstream healthy behaviours, such as the promotion of exercise and healthy diets.”

The four-year study involves approximately 15,000 employees from 15 workplaces in three provinces in China, and targets six modifiable risk factors (dietary, behavioural, metabolic, mental health,



environmental and infectious agents). A Healthy Working mobile app will be developed to support the research, and advice on cancer screening for high-risk participants will also be provided. Findings from the study will have the potential to be scaled up in China and adopted by other countries with a high burden of cancer.

The study is being jointly implemented by Queen Mary University of London, China’s National Center for Chronic and Non-Communicable Disease Control and Prevention, and The George Institute China.



CAN TRADITIONAL CHINESE MEDICINE HELP STROKE RECOVERY?

Stroke is a major cause of death and disability around the world, with few proven treatments. The most serious type of stroke is spontaneous bleeding within the brain, called intracerebral haemorrhage (ICH), which is common in China where high blood pressure is prevalent.

A first-of-its-kind clinical trial conducted by The George Institute China and Guangdong Province Traditional Chinese Medical Hospital will assess the effects of a traditional Chinese medicine called Zhongfeng Xingnao in hospitalised patients who have suffered an ICH. The medicine has previously shown promise in treating these patients by promoting blood reabsorption and reducing swelling in the brain, and it may also help prevent pneumonia.

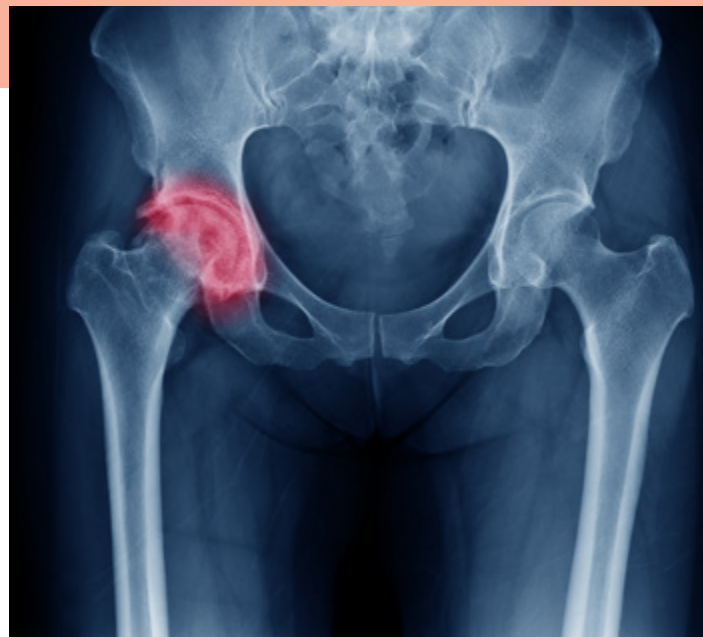
"This is a very exciting opportunity to discover a new and effective treatment for ICH," said co-lead investigator, Professor Craig Anderson of The George Institute. "Because traditional Chinese medicine is low-cost, this study could lead to a simple, widely applicable treatment to improve survival and recovery for many millions of people who suffer an ICH globally."

IMPROVED HIP FRACTURE CARE IN CHINA CAN SAVE LIVES

Hip fracture among the elderly is usually called the last fracture of life because it puts elderly hip fracture patients at high risk of death. In China, despite clinical guidelines being well-established for elderly hip fracture patients, implementation remains limited, and few studies have been conducted to improve outcomes for these patients.

A new study by The George Institute China and Beijing Jishuitan Hospital has shown that improving care after hip fractures can significantly cut death rates. Doctors reduced death in hip fracture patients by 41%, as well as other potential complications such as delirium, pneumonia and deep vein thrombosis, by adding geriatric care to the usual orthopaedic care used for these patients.

As geriatric care in China is less common, the benefits of a co-management care model for hip fracture, which involves orthopaedic and geriatric specialists working together, are potentially large in terms of saving lives, improving health outcomes and reducing the burden on hospitals and the healthcare system.





SIMPLE APP HELPS FAMILIES CUT SALT CONSUMPTION

Most salt in China is added to food during the cooking process, unlike in high-income countries where processed foods are the main source of excess salt consumption. The George Institute China has conducted the first study in China showing a smartphone app used by parents of primary school children can help cut the amount of salt families eat.

Salt reduction education can be easily integrated into existing health education curriculums at schools. As part of the study, researchers developed AppSalt, which was installed on parents' phones and a WeChat app was installed on teachers' phones. AppSalt delivered regular health and salt reduction information, accompanied by supportive messaging in the school environment, such as through classroom posters and competitions and seminars for parents and pupils.

The study led to an 8% decline in salt consumption and lower blood pressure in adults, demonstrating that the approach has great potential to reduce salt intake and avert thousands of cardiovascular disease events such as stroke and heart attack nationally (see page 8 for more salt reduction research).

GEORGE INSTITUTE RESEARCHER WINS AWARD FOR BEST PAPER

Dr Yang Zhao of The George Institute China has won the 2020 Rising Scholar Best Paper Award by the China Health Policy and Management Society for his research published in *The Lancet Global Health*. The study was the first longitudinal study in China to examine socioeconomic differences in people with several chronic conditions, also known as multimorbidity, and how this impacts healthcare use and leads to significant health expenditure. Dr Zhao's findings indicate that multimorbidity was more common in poorer regions of the country and was associated with increased health service use and catastrophic health expenditure. Health insurance reforms should therefore focus on the impact of multimorbidity in order to provide more effective economic risk protection.



IDENTIFYING WAYS TO REDUCE SALT IN PROCESSED MEAT AND FISH

A new study found a large variation in salt content in processed meats and fish products in five countries, signalling important opportunities for manufacturers and policymakers to reduce salt levels within those food categories.

Of the five countries studied, China had the highest amount of salt in both processed meat and fish products, followed by the US, South Africa, Australia and the UK, respectively. For example, researchers found that roasted chicken in China had 4.5 times more salt than its equivalent in the UK, 4.5 times more salt in chilled fish than the US, and paté and meat spreads had four times more salt than in Australia. Yet, China had the least amount of salt in bacon, frozen meat, salami and cured meats, dried meat and frozen fish.

The study was led by The George Institute China and funded by the Ministry of Science and Technology of the People's Republic of China, and the NIHR Global Health Research Unit Action on Salt China (ASC) at Queen Mary University of London.



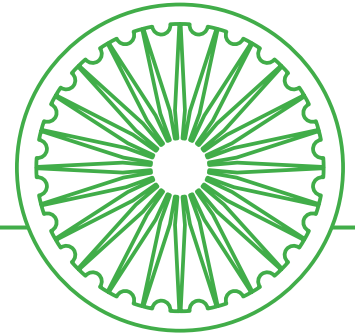
RESEARCHERS EXAMINE BEST TREATMENT FOR MOST COMMON STROKE

The most common cause of stroke is due to a blocked blood vessel, known as ischaemic stroke. Researchers at The George Institute China and Shanghai Changhai Hospital are conducting the first large clinical trial intended to provide the highest level of evidence on the best treatment for this stroke to inform guidelines and policy recommendations.

This study builds on previous research by the Institute that showed the safety and potential benefit of using more intensive blood pressure control in ischaemic stroke patients, in addition to a low-dose clot-busting medication. Researchers also found that patients who received intensive blood pressure-lowering therapies, called thrombolysis (a standard treatment for this type of stroke), were significantly less likely to suffer bleeding on the brain, a side-effect associated with clot-busting therapies.

Researchers are now aiming to determine the most appropriate level of blood pressure control in ischaemic stroke patients who receive mechanical thrombectomy, a common surgical procedure used to remove the blood clot, in patients who may or may not be receiving the clot-busting treatment. The study will be undertaken in around 100 hospitals in China.





The George Institute India



“COVID-19 challenged health systems globally. We’re building the evidence base to create sustainable primary healthcare systems to minimise the impact of a range of emerging health threats, support vulnerable communities and improve health equity.”

Professor Vivekanand Jha
Executive Director, The George Institute India

The George Institute India continues to generate actionable, policy-relevant evidence to help reduce premature and preventable deaths and disability and ensure that affordable, effective life-saving interventions reach those in need. From addressing the pressure of COVID-19 on scarce health resources, to ensuring that essential health services for non-COVID conditions are not neglected, our researchers are at the forefront of developing innovative solutions, informing policy and building partnerships to amplify our impact on communities in India and beyond.

A SYSTEMS APPROACH TO IMPROVING OUTCOMES FOR BURNS SURVIVORS

Burns cause 115,000 deaths globally each year. Most burns occur in low- and middle-income countries, with one of the highest incidence rates in India. Yet, there is a lack of adequate health systems response to burns care and rehabilitation, leading to poorer outcomes.

Researchers at The George Institute India are addressing barriers to delivering quality burns care by understanding health systems factors in resource-constrained settings and drawing lessons for policy translation.

“Our work highlights the critical need for more awareness among people and caregivers and adopting a systems approach for finding policy-relevant solutions for burns care in resource-constrained settings,” said Dr Vikash R Keshri, Senior Research Fellow at The George Institute India.



Findings from the research will help strengthen the care pathways across health system levels, communities and burn survivors to facilitate better access to burns care and rehabilitation services. The researchers are also using learnings from the impact of COVID-19 on burns care across a range of health facilities to improve guidelines for resource-poor settings during health emergencies.



UNDERSTANDING THE ECONOMICS OF TUBERCULOSIS TREATMENT

In India, the country with the highest tuberculosis (TB) burden in the world, TB treatment is largely dominated by the private sector and its cost is unknown. Additionally, TB patients managed privately face poorer treatment outcomes and elevated risk of recurrent TB than those treated in the public sector because these patients lack support to adhere to treatment.

The Indian TB National Strategic Plan recognises that high-quality TB treatment and care also needs to be delivered through the private sector and emphasises public–private sector engagement (PPE) as an important strategy to eliminate TB. In response, researchers at The George Institute India, along with other collaborators, are determining whether exposure to PPE reduces out-of-pocket patient costs, incidents of catastrophic expenditure, delays in the correct diagnosis and appropriate treatment, and overall better treatment outcomes.

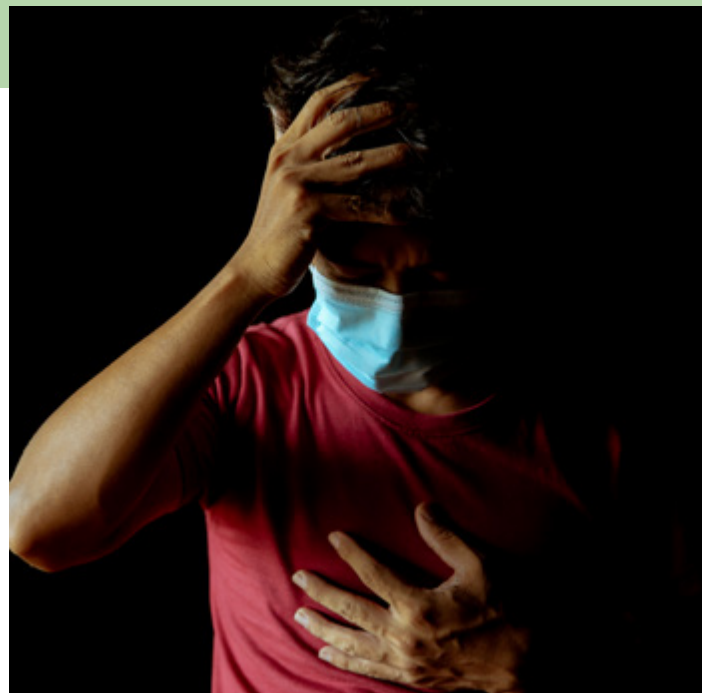
This study will identify the costs of TB in the private sector, and along with a separate George Institute study on the cost of treatment in the public sector, can help design policies to reduce financial hardship related to this disease.

TARGETING TREATMENT FOR LONG COVID-19

COVID-19 has affected hundreds of millions of people worldwide. While most have recovered, many report lingering and often debilitating health issues that appear months after the initial infection, also known as Long COVID.

In the first large-scale clinical trial of its kind, researchers at The George Institute India are assessing whether a drug (oral colchicine) can prevent Long COVID in people with persistent symptoms more than three weeks after infection. The study will also identify the effectiveness of the drug to treat respiratory and psychiatric complications from COVID-19 and assess its effects on post-COVID-19 heart inflammation.

Long COVID can be experienced by all age groups and not only those with acute severe disease. Most people impacted are in their prime working years, which has significant consequences on societal wealth. The research findings have the potential to address a significant global health priority and can be rapidly translated into practice for the benefit of people around the world.



సాధారణ మానసిక రుగ్మతలు

అంటే ఏమిటి? మీరు ఏమి చేయగలరు?

మానసిక ఆరోగ్యము
మానసిక ఆరోగ్యం అంటే వ్యక్తిగత క్రమస్థితి, వ్యక్తిగత క్రమస్థితి అంటేనే ప్రతి వ్యక్తి కనీసం సాధారణంగా కలిగి ఉండే, జీవితంలో సాధారణ ఒత్తిళ్లను ఎదుర్కోగలగలిగే, ఉత్సాహంగా మరియు ప్రబలంగా ఉండే స్థితి. మనస్సు, మనస్సు అంటే మనస్సును నిర్వహించే అందరినీ (ప్రపంచ ఆరోగ్య సంస్థ)

యక్షవయసువారి మానసిక ఆరోగ్యం
యక్షవయసులో మానసిక ఆరోగ్యం దృష్టి పెట్టడం చాలా ముఖ్యం, ఎందుకంటే దాదాపు 99% మానసిక రుగ్మతలు 14 సంవత్సరాల వయస్సు వరకు ఉంటే ప్రారంభమవుతాయి. యక్షవయసువారిలో మరణాలకు ముందు వైద్యారోగ్య ప్రధాన కారణం డిప్రెషన్ మరియు స్వీయ-హని ఆవి కారణం గుర్తించబడింది.

యక్షవయసువారిలో సాధారణ మానసిక రుగ్మతలను గుర్తించడం ఎలా?
రెండు ప్రధాన కారణాలు కారణం మనస్సు మానసిక రుగ్మతలు:
1. వ్యక్తిగత కారణం, జీవితంలో భారం పెట్టే మరలమలు కలిగించే, అసంతృప్తి, కష్టం, కష్టం, అకలి వయస్సు / కష్టం, వ్యక్తిగతం, వేరంగా కాలేజీ కీమత్వం, గుండె వేగంగా కీమత్వం, సైకింగు వ్యవస్థ, చెమట పెట్టడం మొదలైనవి.

మానసిక రుగ్మతలు: ఏదైనా, ఏదైనా, భయము, చలించుకు, ఏదైనా, తననుండి లేదా ఇతరుల నుండి వేరంగా ఉండటం, ఏదైనా లోపం ఉండటం మరియు అత్యధిక గుండె

అలాగే తన, మానసిక మరియు సామాజిక అంశాలు ఒకటి ఒకటి కలిపినప్పుడు మానసిక రుగ్మతలు ఏర్పడతాయి. కొన్ని సమయాల్లో, ఒత్తిడి మరియు జీవనంబంధన కారణాల కలయిక యక్షవయసు వైద్యారోగ్య కష్టం కలిగించే ప్రధానం చేస్తుంది, (ఒత్తిడి ఏకైకంగా మరలమలు లేదా ఒత్తిడి ఏదేమిటో వైద్యం నిరసించి), తద్వారా ఏదైనా కొన్ని సందర్భాలలో తప్పనిసరిగా మానసిక ఆరోగ్యముతో ముడిపడి, సాధారణ మానసిక రుగ్మతలు అనే మానసిక లేదా సామాజిక కారణాల వలన ఏర్పడతాయి.

డిప్రెషన్, అందోజన్, ఒత్తిడి మరియు అత్యధిక ఆలోచనల వంటి కొన్ని సాధారణ మానసిక రుగ్మతలను గురించి జాగ్రత్త ఇచ్చేటప్పుడు యుక్తి అర్థవంతం (ARTEMIS) ప్రాజెక్టులో మాట్లాడబడుతాయి. ఇది చాలా మంది ప్రజానితం చేసే సాధారణ మానసిక రుగ్మతలు. ఇది ప్రతి నలుగురు యక్షవయసు వారిలో ఒకరిని తీసుకుంటున్న ప్రమాదం చేస్తుంది.

సాధారణ మానసిక రుగ్మతల చికిత్స
తప్పనిసరిగా సమస్య వ్యాధి, ద్వారా ఉండాలి మానసిక రుగ్మతలతో వాదించుకున్న వ్యక్తి యొక్క కుటుంబ సభ్యులు, స్నేహితులు మరియు సమాజం సహాయం అవసరం. సాధారణ మానసిక రుగ్మతలతో చికిత్స చాలా సులభంగా చేయవచ్చు. ఇతర ఆరోగ్య సమస్యలు లేనట్లయితే ప్రాథమిక ఆరోగ్య కేంద్రం (సీమావేసి) అవసరమైన చికిత్స చేయవచ్చు. ఇందుకు సాధారణంగా అవసరమైన చికిత్స సంఖ్య సరిపోయినప్పుడు ఒకరి కొన్ని వైద్యులు మరియు సామాజిక వ్యక్తులను మెరుగుపరచడానికి చర్చలు చేయవచ్చు. అయితే, కొన్నిసార్లు సాధారణ మానసిక రుగ్మతలను ఏదైనా సందర్భం లేదా సులభంగా సయం చేయవచ్చు, మరియు కొన్ని సందర్భాల్లో డాక్టర్ సలహా మేరకు మందులతో సయం చేయవచ్చు.

“మానసిక రుగ్మతల గురించి స్వేచ్ఛగా మాట్లాడండి”

IMPROVING RESILIENCE AMONG ADOLESCENTS IN URBAN SLUMS

Globally around 20% of children and adolescents suffer from a disabling mental illness, and suicide is the third leading cause of death among adolescents. In India, more than 65 million people live in 14 million urban slum households, where poor living conditions, social vulnerability and substance abuse make adolescents particularly susceptible to mental disorders. These conditions often go untreated and undiagnosed.

Addressing a gap in evidence, The George Institute India is exploring the risk and resilience factors for common mental disorders among older adolescents (15–19 years) living in urban slums, and its overall influence on their mental health.

“The study will help us understand important links between common mental disorders and associated risk factors among these adolescents in an urban slum context, help develop a community-based intervention module that can directly help adolescents, and improve adolescent counselling services delivered by the government,” said project lead, Dr Mercian Daniel of The George Institute India.

IMPROVING PRIMARY HEALTH CARE IN LOW- AND MIDDLE-INCOME COUNTRIES

Strong health systems depend on primary health care and are essential to achieving the United Nations Sustainable Development Goals. Current research on how best to achieve strong primary health care systems in low- and middle-income countries is fragmented and there is limited evidence on the best ways to deliver equitable, high-quality care in these countries.

Funded by the Bill and Melinda Gates Foundation, the Primary Health Care Research Consortium (PHCRC), hosted at The George Institute India, was established in 2019 to consolidate global primary health care research, promote knowledge exchange and build partnerships that help overcome the health challenges faced by low- and middle-income countries.

By prioritising policy-relevant research, the PHCRC is supporting country and global efforts to create high-quality primary health care systems. The Consortium has established a network of researchers, health practitioners, civil society, governments, and multilaterals; published research on strengthening primary health care in the COVID-19 era and an extensive review of primary health care knowledge gaps and prioritised needs; and has a range of projects and publications underway led by researchers from low- and middle-income countries.



ENSURING CITIZEN VOICES SHAPE ACTION ON UNIVERSAL HEALTH COVERAGE

India's experience in implementing community participation models under the National Rural Health Mission (NRHM) has lessons for the world but has not been adequately documented. The George Institute India is documenting the experiences of forms of community action in health that shaped and were in turn sought to be institutionalised by the NRHM. By creating a historical record of these activities and identifying gaps, researchers and advocates may be able to identify priority areas for action and further research.

"Our project is designed to create a model of engagement and documentation of community action in health," said lead researcher, Dr Devaki Nambiar of The George Institute India. "We hope this will strengthen research and advocacy on citizen and community voices for Universal Health Coverage (UHC)."

Findings from the research will feed into the work of the Community Stakeholder Engagement Mechanism for UHC2030, a global movement advancing citizen engagement, mobilising collective action and political commitment, and a platform to forge greater collaborations globally for UHC.

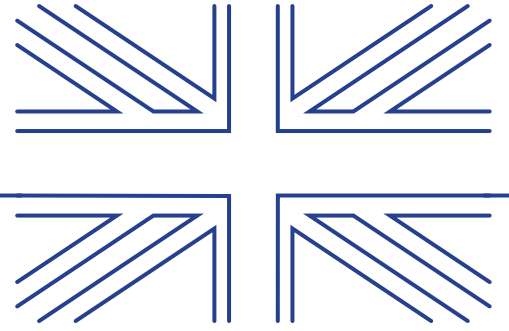


RESEARCH HUB CHAMPIONS ACCOUNTABILITY FOR URBAN EQUITY

Around 1.5 million people in India are waste-pickers, approximately 10% of the global waste-picker community. The Accountability for Informal Urban Equity (ARISE) hub at The George Institute India is focused on issues that need greater attention to improve the health and wellbeing of waste-pickers. ARISE is part of a global consortium bringing together partners to improve governance, accountability and policy for the marginalised.

ARISE researchers have developed a range of broad policy and research recommendations that can lead to better health and wellbeing outcomes for waste-pickers. For example, safe and sustainable menstrual hygiene management is a major challenge faced by female waste workers who have limited or no access to toilets during their workday. Researchers are investigating current practices, barriers and enablers of safe, healthy and sustainable menstrual hygiene management. The findings will help local governments, workers' collectives, and non-government organisations develop effective menstrual hygiene programs for waste-pickers, particularly in communities facing socioeconomic disadvantages.





The George Institute UK



“We are building large-scale, transformative research initiatives to support progress towards universal health coverage and sustainable development. Together with Imperial College London, we aim to contribute to a significant change in the health and lives of individuals and communities globally by addressing the greatest health challenges.”

Professor Robyn Norton AO

Acting Executive Director, The George Institute UK

Following a successful initial collaboration, a new five-year partnership between The George Institute UK and Imperial College London was signed in January 2022, with a focus on health systems, women’s health and multimorbidity. Other priority areas include planetary health and clinical trials.

COMPARING DIALYSIS TREATMENTS FOR END-STAGE KIDNEY DISEASE

Colleagues from The George Institute UK and the University Medical Centre Utrecht in the Netherlands are conducting a multi-centre clinical trial to investigate the superiority of an alternative dialysis treatment, haemodiafiltration, compared to haemodialysis. Despite being the standard of care for end-stage kidney disease, haemodialysis carries risks to cardiovascular health and is often associated with a poor quality of life.

The international trial involves over 1,300 patients across 75 study sites in France, Germany, Hungary, the Netherlands, Portugal, Romania, Spain, and the UK. Participants have end-stage kidney disease for which treatment options are either a kidney transplant or lifelong dialysis.



The study will explore the scale of benefits of haemodiafiltration, which is thought to remove waste products accumulated due to kidney failure more effectively than haemodialysis. The team have hypothesised better outcomes in terms of mortality, cardiovascular events, cost-effectiveness and quality of life. Preliminary results are expected in late 2022.



UK NATIONAL MATERNITY DATABASE PROMISES WIDE-REACHING SERVICE GAINS

Researchers at The George Institute UK, in partnership with colleagues at Imperial College London, are creating a National Health Service-approved dataset for UK maternity data, which will include outcomes from all stages of pregnancy, the postnatal period, and for neonates.

“The principal aim of establishing this database is to improve pregnancy outcomes for babies and families in the UK by supporting local, regional and national service improvements and addressing major questions around pregnancy, including safety and participation in research,” said project lead, Dr Edward Mullins of The George Institute UK.

A pilot dataset comprising routinely collected clinical outcomes from women in pregnancy is being built and is expected to be available by the end of 2022. Through partnerships with key stakeholders in UK maternity data, the quality of the dataset will be assessed, with improvements planned over later stages to include linkages with other national datasets, and greater inclusion of regional data to complement national, high-level data.

EXPLORING THE IMPACTS OF NON-COMMUNICABLE DISEASES ON WOMEN IN MEXICO

A collaborative project between The George Institute and the Mexican National Institute of Public Health is exploring the health and economic impact of non-communicable diseases on women in Mexico.

The 20-month project, which launched in late 2021, employs a range of methods to deliver evidence-based insights into the drivers and characteristics of health inequities as a consequence of non-communicable diseases, particularly in relation to gender. Women’s and patients’ voices, community members and advocacy groups are involved throughout the project in a process guided by an expert advisory committee.

Research outputs include analyses of financial burden, lost productivity and policy enablers, which are being used to enhance system-wide efforts to improve the prevention and treatment of non-communicable diseases and inform broader social protection policies in Mexico and similar countries across the region.





BUILDING EVIDENCE TO INFORM CLINICAL PRACTICE WORLDWIDE

International Clinical Trials Day in May 2022 was marked with a global communications and engagement campaign. Reflecting on clinical trials across the Institute and more widely, internationally recognised clinical triallist Professor Laurent Billot of The George Institute said: "We use clinical trials to build evidence. This evidence helps inform clinical practice worldwide and, ultimately, improve health outcomes for individuals and communities globally."

According to Professor Billot, trials need to become more efficient, relevant, transparent and representative of the population. Increasing efficiency and limiting research waste via innovative trial designs is the subject of an ongoing collaboration with the Imperial College London Clinical Trials Unit. The George Institute is also strengthening equitable participation in Institute-led trials, promoting the involvement of individuals and communities that have historically been excluded.

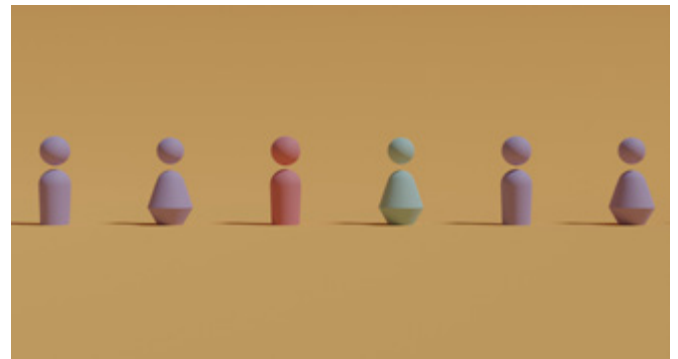
IMPROVING SEX AND GENDER INCLUSIVITY IN MEDICAL RESEARCH

The George Institute UK, in collaboration with Imperial College London, received funding from the Wellcome Trust for a project aimed at improving sex and gender inclusivity in medical research.

The project responds to the lack of policies in the UK that require researchers to consider the sex and gender of people who participate in research trials.

"The absence of policies means that research results are often not analysed by sex or gender," said project co-lead Dr Kate Womersley of The George Institute UK. "Therefore, healthcare providers and the public are denied potentially crucial findings about women, men, trans and non-binary people, which could influence the medical care they receive."

The team are working with members of the public, other researchers, and funding and drug regulatory bodies to co-develop recommendations, a sex and gender policy framework, and supporting educational materials to improve gendered health outcomes in the UK.



PREVENTING CHILDHOOD INJURIES IN UGANDA

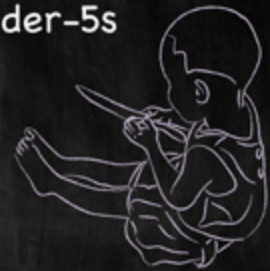
The first phase of a study aiming to reduce unintentional injuries occurring at home among children under five in Jinja, Uganda, concluded in September 2021.

This initial phase focused on contextualising the injury problem by employing qualitative and quantitative methods and community engagement to co-develop tools to reduce injury risk. Research insights were shared in various formats to reach key audiences, including through an awareness-raising campaign via WhatsApp groups and social media and a feature in *Global Citizen*. The campaign also included an interactive photo exhibition and supporting narrative detailing the project's journey that featured images taken by researchers and participants.

The research findings are being used to plan the next phase of the project, which will measure behaviour change and injury reductions through an intervention study (see page 30 for more about our work in Africa).

Saving lives of under-5s

Keep sharp objects
out of reach of
children



The George Institute
for Global Health

georgeinstitute.org.uk



INTERSECTORAL ACTION FOR THE HEALTH OF PEOPLE AND PLANET

Professor Kent Buse, Director of The George Institute's Healthier Societies Program, led an author group that included The George Institute Distinguished Fellow, Professor Göran Tomson, on an analysis of the political will underpinning intersectoral action on planetary health, published in *The BMJ*.

The research was part of a special collection called *The world we want: Actions towards a sustainable, fairer and healthier society*, and describes barriers (such as lack of coordination mechanisms and uninspiring framing) and facilitators (including civic mobilisation and accountability) to such intersectoral action.

A supporting *BMJ* podcast *Get political, for health's sake* features Professor Buse and co-authors in conversation with editor-in-chief Kamran Abbasi. The podcast highlights success stories in bridging gaps between sectors, shares key recommendations, and defines how health sector leaders need to get political to make such success more widespread and improve planetary health (see page 24 for more about our work on planetary health).



Driving global impact

The George Institute brings together advocacy, thought leadership, policy engagement and research to amplify our impact on health and equity. We harness the power of partnerships with governments, civil society, multilaterals, industry and academics to influence policy and practice to ensure better health for all.

PREVENTING NON-COMMUNICABLE DISEASES, PROMOTING EQUITY AND PROTECTING THE PLANET

Environmental change is the greatest threat facing the world in the 21st century, but it is also the greatest opportunity to redefine the commercial, social, political and environmental determinants of health, and to redress related inequities within and across countries and communities. The George Institute is responding by targeting action to prevent non-communicable diseases, promote equity and protect the planet, with a growing program of related advocacy, engagement and research regionally and globally.

In August 2021, the Institute partnered with the Walgett Aboriginal Medical Service, Dharruwaa Elders Group, and the Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases, to call for Traditional Knowledges and First Nations and Pacific Island priorities to be recognised at the UN Food Systems Summit in September 2021.

In the lead-up to and following the 2021 United Nations Climate Change Conference (COP26) in October 2021, The George Institute called on governments and other stakeholders to take



urgent actions that will have benefits for both planetary and human health, while addressing the growing inequities within and between countries, and between generations. In a statement following COP26, Professors Robyn Norton AO and Stephen MacMahon AO, Principal Directors, and Professor Anushka Patel, Vice-Principal Director and Chief Scientist of The George Institute, said: "This level of warming is going to be devastating for people everywhere. Climate change is the single biggest health challenge of the 21st century. COP26 was the moment for world leaders to step up and deliver ambitious and just action on climate, but they largely failed to deliver."

This past year, The George Institute also hosted a webinar on intersectoral action needed for the future health of people and planet (see page 23) and in the lead-up to COP26, co-convened the online conference *Health and Human Rights in the Climate Crisis: Charting Challenges and Solutions*, together with UNSW Sydney's Human Rights Institute and the University of Southern California's Institute on Inequalities in Global Health.



Together with the NCD Alliance and others, the Institute co-hosted *Nutrition For Health, not just for Growth*, an official side event of the Nutrition for Growth Summit in November 2021, showcasing examples of 'double duty' actions that can be prioritised to ensure healthy diets nourish people while being produced and consumed sustainably for the planet.

Announced in March 2022, the Healthy Food, Healthy Planet, Healthy People Centre for Research Excellence will deliver world-leading innovations in nutrient profiling algorithms and environmental indicators that estimate the human and planetary consequences of varying patterns of food and beverage consumption. Plans are underway for other major research projects to prevent non-communicable diseases, promote equity and protect the planet.

A CALL TO ACTION*

Based on the latest evidence, The George Institute is calling for governments and other stakeholders to take urgent actions that will have benefits for both planetary and human health, while addressing the growing inequities within and between countries, and between generations.

We call on governments to:

- Establish a just, fair, and rapid transition to renewable energy that fulfils renewed and ambitious Nationally Determined Contributions that achieve the 1.5C target
- Phase out the use, import and export of fossil fuels and immediately end public financing of, and subsidies for, the fossil fuel industry
- In high-income countries, deliver on commitments to mobilise US\$100 billion a year in climate financing
- Ensure decarbonisation strategies are implemented immediately and engage with communities most affected and at risk of climate change to ensure self-determined priorities and solutions
- Ensure decarbonisation strategies are informed by First Nations, Indigenous and Tribal peoples' Knowledges to ensure self-determined priorities and solutions
- Build resilient, climate-ready health systems that can respond to extreme weather events and the increasing, climate-related disease burden, with a particular focus on serving communities at greater risk
- Embed climate change into all existing and future health-related policy to recognise the impacts of global heating on human health and equity outcomes
- Fund research into the health and equity implications of rising global temperatures
- Work with communities to establish national dietary guidelines that address environmental sustainability and recognise cultural diversity
- Adopt a range of regulatory and fiscal measures to reduce ultra-processed foods in the food system and ensure access to healthy, sustainable and affordable diets, using an equity lens
- Invest in and promote public transport and policies that prioritise walking and cycling, and encourage planning of liveable urban spaces, with a focus on communities experiencing marginalisation

* Visit www.georgeinstitute.org/news/the-george-institute-calls-for-urgent-triple-win-actions-on-climate-health-and-equity-to-pull for full range of recommendations

Parliament House, barely visible from the streets of Australia's national capital Canberra, during the catastrophic 2020 Australian bushfire season



Juan A. Rivera
Mexico City, Mexico



Jaime Miranda
Lima, Peru



Trish Greenhalgh
Oxford, UK



Corinna Hawkes
London, UK



Ophira Ginsburg
New York City, USA



Göran Tomson
Stockholm, Sweden



OUR DISTINGUISHED FELLOWS

Our Distinguished Fellows are leading external health researchers, health policy experts, policymakers and health advocates driving critical conversations about solutions to the most pressing global health challenges. Our Distinguished Fellows continue at their own organisations while we support their thought leadership work and amplify their insights to key stakeholders around the world.

THOUGHT LEADERSHIP FOR IMPACT

The George Institute continues to stimulate debate on key global health issues through its Thought Leadership program. Now in its fourth year, the program has expanded to include interactive web stories, a series of webinars focused on Latin America and Africa (see pages 29 and 30) and educational webinars to share economic modelling insights.

The program also welcomed new Distinguished Fellows: Professor Edwine Barasa, Director of the Nairobi Programme of the KEMRI-Wellcome Trust Research Programme; Dr Janine Mohamed, CEO of the Lowitja Institute in Australia; and Professor Jaime Miranda of the Department of Medicine and Director of the CRONICAS Center of Excellence in Chronic Diseases at Universidad Peruana Cayetano Heredia in Peru.

Among the podcasts produced this year was *Seeing the full picture*, a series on systems thinking for health system strengthening, produced in partnership with the Alliance for Health Policy and Systems Research, who also commissioned the project.

Another new initiative is the Emerging Thought Leaders program. Taking learnings from the external Distinguished Fellows program, the 12-month program aims to nurture the next generation of early and mid-career researchers at The George Institute by helping them share insights, expand the reach of their research, and influence and inspire others to action.

“We have developed a comprehensive impact measurement framework, based on global best practice, to capture and report the impact of our research in a uniquely meaningful way, and ultimately, help amplify the impact of The George Institute even further.”

Emma Feeny
Director, Impact & Engagement



Rajani Ved
New Delhi, India



Edwine Barasa
Nairobi, Kenya



Olive Kobusingye
Kampala, Uganda



Michael Moore AM
Canberra, Australia



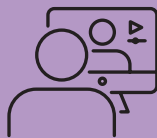
Janine Mohamed
Melbourne, Australia

10 YEARS OF GLOBAL IMPACT

Since 2012, Altmetric reports* that our research has been mentioned in:



2,250
blogs



251
videos



130
patents



1,464
wikipedia
articles

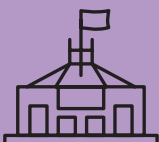


19,815
news
stories



197,087
twitter
mentions

Overton reports* that our research has been mentioned in:



2,093
government and
intergov documents



375
think tank
documents



621
other policy
documents

* As of October 2022



Photo courtesy
of RNLI Lifeboats

WORLD DROWNING PREVENTION DAY: ANYONE CAN DROWN, NO ONE SHOULD

Drowning is among the top 10 leading causes of death for children between five and 14 years old. The George Institute marked the inaugural United Nations-designated World Drowning Prevention Day on July 25, 2021 with a range of regional and global activities.

A child parliament was hosted with partners in West Bengal, enabling children to share their ideas on how to tackle the drowning problem in their own communities. The Institute issued a call for multisectoral action in a *Lancet* editorial, followed by publication of a policy analysis in *The Lancet Global Health* identifying opportunities for action. A webinar was co-hosted with the UNSW School of Population Health to highlight the challenges, progress and next steps for effective drowning prevention in low- and middle-income countries.

Dr Jagnoor Jagnoor, Head of the Injury Program at The George Institute India, was also a panellist on a World Health Organization webinar, which aimed to generate momentum for action on drowning prevention.

KEY ACTIONS TO ACCELERATE GLOBAL DROWNING PREVENTION*

Building on evidence from the drowning prevention research and knowledge sharing with partners, The George Institute recommends the following key actions to accelerate global drowning prevention:

- **Local data for global advances:**
National and sub-national empirical data is needed to quantify burden, identify the diverse contexts of drowning, and inform the multi-sectoral response for implementing drowning prevention solutions to ensure an escalated reduction in global drowning deaths.
- **Co-developing sustainable solutions:**
Community acceptance, and the impact and sustainability of known and yet to be discovered drowning prevention interventions, policies and programs requires co-development with those most vulnerable to drowning.
- **Drowning within sustainable development:**
Mapping intersections with the UN Sustainable Development Goals, health, disaster and climate agendas may recognise synergies and targets that reinforce the contribution drowning prevention can make to advancing progress on these
- agendas and international priorities, providing co-benefits and/or identify gaps for further research. Action on upstream social, economic and environmental determinants of drowning may provide undiscovered systemic opportunities for prevention.
- **Multi-sectoral action:**
The diversity of sectors and stakeholders with core or passing, accepted or unrecognised interests presents a scenario with equal parts challenge and opportunity. Harnessing this need for multisectoral action requires top-down advocacy and bottom-up pragmatism. Engaging those most willing and able to act is only a starting point.
- **Global Strategy, Global Partnership:**
To strengthen cohesion, advance the field and maximise impacts, a global strategy of objectives, actions and targets is needed. Uniting the field through a global platform requires a multi-stakeholder, multi-sectoral partnership of UN agencies, governments, donors, civil society groups and academic institutes.

* *The Lancet*, Vol 398, Issue 10300, P564–566, AUGUST 14, 2021

GLOBAL BRAIN HEALTH INITIATIVE: LIVING BETTER LONGER

Humanity has never been as old as it is now. People are living longer, with profound effects on health, particularly brain health. Everyone wants a healthy brain, but interrelated diseases like dementia and stroke alone account for 10% of the global burden of disease. The new Global Brain Health Initiative at The George Institute is bringing together the best researchers across multiple disciplines to develop solutions, treatments and evidence for people all over the world to live better and for longer.

“Delaying the onset of stroke and dementia by just a few years would have tremendous social benefits and save hundreds of billions of dollars a year,” said Professor Craig Anderson, Director of the Global Brain Health Initiative. “The Initiative will form strategic partnerships, design and implement disruptive large-scale projects, influence policy change, support entrepreneurship and identify solutions through key research and better systems for equal access to affordable healthcare.”

The Global Brain Health Initiative focuses on the keys to the healthy brain: healthy blood vessels and circulation, good memory, healthy lifestyle, and strong systems of care, including new technologies.



COVID-19 CATALYST FOR CROSS-REGIONAL HEALTH RESEARCH COLLABORATION

A unique virtual collaboration involving researchers across Latin America and the Asia-Pacific is exploring solutions to the common challenges of non-communicable diseases and injury. The collaboration, supported by The George Institute’s Thought Leadership program, is looking at ways to strengthen health systems in a local context and address gaps in sharing public health knowledge.

Launched during COVID-19 lockdowns, the project connects researchers from Mexico’s Instituto Nacional de Salud Pública, Peru’s CRONICAS Center of Excellence in Chronic Diseases at Universidad Peruana Cayetano Heredia and The George Institute. The first joint project was a supplement in *Salud Pública de México*, one of the region’s longest-running public health journals. The supplement aims to encourage and support the writing and submission of joint proposals and grant submissions by researchers based in Latin America and the Asia-Pacific region.

The collaboration also features a webinar series titled, *Coffee with Latin America*, which provides a platform for researchers across different countries and contexts to share perspectives and experiences on global health topics and define future research priorities.



Olive Kobusingye delivering a talk on how to approach injury research in diverse settings, drawing examples from Uganda and other East African countries

BUILDING AUTHENTIC AND SUSTAINABLE PARTNERSHIPS IN AFRICA

Africa faces the complex challenge of the double burden of communicable diseases and rising rates of non-communicable diseases, which are adding strain to already over-stretched health systems. Compounding the issue, the COVID-19 pandemic has disrupted essential health services, stalling progress towards preventing and treating non-communicable diseases and injuries. In response, researchers at The George Institute are building authentic and sustainable partnerships in Africa in a sensitive and respectful manner to support local capacity to address unmet health needs.

“We are aware that if not done in a proper manner, research engagement in Africa can deepen rather than improve social and health inequities,” said Kenneth Yakubu, Co-Lead of the Africa Partnership Initiative at The George Institute.

With 26 projects in 14 countries, The George Institute is focused on implementing solutions in collaboration with communities, local community organisations and local health authorities to deliver impactful and sustainable health programs and interventions. See page 23 for more about our research in Africa.

This past year the Institute also launched the *Tea with Africa* webinar series with the aim of building cross-sector, cross-country connections. Hosted by The George Institute Distinguished Fellow, Dr Olive Kobusingye from Uganda, each event features experts from African countries, and explores a locally relevant health and social equity priority.



Kenneth Yakubu, Co-Lead of the Africa Partnership Initiative



A *Tea with Africa* event featuring from left to right: Dr Alta Schutte, Xuejun Yin, Professor Bruce Neal, Dike Ojji and Clementina Ebere Okoro



From left to right, Professor Anita Charlesworth, Professor Marisa Miraldo, Dr Celine Mougénot, Professor David MacIntyre, and Dr Sanne Peters during a panel discussion held at the Women's Health Showcase event on June 10 at Imperial College London

GLOBAL WOMEN'S HEALTH PROGRAM

The Global Women's Health Program is addressing health inequities faced by women due to a myriad of influences – physiological, societal and systemic – and takes a life-course approach to understanding the best ways to improve women's health through research, advocacy and thought leadership activities.

The George Institute continues to call for research and policy to better reflect the leading causes of death and disability among women – non-communicable diseases and injury. Researchers are generating first-of-its-kind evidence that highlights sex and gender differences in conditions such as stroke, dementia and COVID-19 to guide best practice for prevention and treatment of disease in women. Other program priorities include menstrual health, pregnancy and non-communicable diseases, as well as gynaecological health, with a particular focus on women in low- and middle-income countries.

A recent analysis by The George Institute showed a disproportionately high and increasing focus on reproductive health in medical and women's health journals. The leading causes of death for women remain poorly covered in mainstream medical literature, and researchers continue to advocate for policies for sex- and gender-sensitive research across the health and medical research ecosystem globally.

The George Institute and the World Health Organization continue to co-chair the NCD Lab on Women and Girls, which supports innovative, ambitious initiatives that promote gender equity and address the urgent need for progress among women and girls, aligned with the United Nations Sustainable Development Goals. In a major milestone for the program, this year The George Institute India was appointed Secretariat for the global Taskforce on Women and NCDs, positioning it to play a leading role in shaping the Taskforce's direction in promoting women's health through advocacy and technical guidance. See more program highlights on pages 10 and 21–22.



Championing disruptive entrepreneurship

The George Institute uses disruptive entrepreneurship to create evidence-based, commercially sustainable solutions to pervasive global health problems. We are fostering innovation among researchers by supporting health-focused start-ups as they create new treatments and therapeutic technologies. We also facilitate partnerships between healthcare organisations, researchers and industry to create new products and services that address unmet needs in our society.



ACCELERATING INNOVATION TO SAVE LIVES

This past year, The George Institute has expanded its work to accelerate the translation of research and product development to commercialisation and market success. The Health10x Accelerator facilitates the growth of health start-ups, particularly those developing affordable solutions to the most pressing unmet needs globally. Delivered in partnership by The George Institute and UNSW Founders and supported through the MTPConnect Researcher Exchange and Development within Industry (REDI) initiative, Health10x supports entrepreneurs to clinically validate ideas, develop go-to-market strategies, and connect with health and business experts all over the world. Since its launch in 2019, 80 start-ups have participated in the program, 30 jobs have been created, and \$7 million in grants and investment has been awarded to our teams.

In 2021, Health10x formed a partnership with global pharmaceutical company AstraZeneca that will provide the 2022 cohort of start-ups with access to a global network of over 250 mentors. This cohort has a total enterprise value of over \$55 million and includes two start-ups founded by researchers at The George Institute.

“By delivering a range of entrepreneurial programs, we are championing an ecosystem where unmet global health needs are addressed through disruptive innovation that challenges the status quo and in doing so, is helping improve the health of millions of people globally.”

Dr Parisa Glass

Director of Innovation and Enterprise
The George Institute for Global Health



CREATING PARTNERSHIPS WITH IMPACT

Partnerships between researchers and entrepreneurs create a network of experts that can work together to create impact. The Australian Stroke and Heart Research Accelerator (ASHRA) is a new government program, supported by MTPConnect, designed to transform the field of cardiovascular research in Australia by bringing a new sector-wide focus on clinical impact and entrepreneurship.

The George Institute is part of this prestigious centre and will work collaboratively to identify Australian projects at the cusp of commercialisation and drive health gains through better treatment and prevention of heart disease and stroke. Our cardiovascular researchers will be developing and contributing to these projects, and the Institute will support commercial successes across the centre.

The George Institute is also lending its clinical expertise in partnership with start-ups. Health10x 2021 alumni start-up, Nuroflux, is developing a wearable device that will continuously monitor brain function in patients after a stroke to ensure neurological deterioration does not go unnoticed. Nuroflux is bringing together the fields of medicine, engineering and business to deliver real-time insights and improve health outcomes. The start-up is currently collaborating with The George Institute's Global Brain Health Initiative (see page 29) to conduct clinical trials that will define the value of the device.

Innovation & entrepreneurship for unmet healthcare needs



We are dedicated to finding practical, affordable evidence-based solutions that can lead to better treatments, better care and healthier societies. We believe that by embedding entrepreneurship and innovation into medical research we can improve the health of millions of people worldwide.

70% of deaths worldwide are caused by non-communicable diseases (NCDs), such as heart attack, stroke, lung disease and kidney disease. The scale of this challenge demands disruptive, innovative healthcare solutions that change the traditional way of treating disease and delivering healthcare. Genovate, The George Institute's innovation and entrepreneurship program,

works with a global network of healthcare experts and emerging entrepreneurs to identify solutions to unmet health needs. Our programs guide researchers from idea discovery to commercialisation by building entrepreneurial skills and providing business support leading to successful healthcare solutions that create lasting impact.

Accelerating New Solutions

- Health10x is a start-up accelerator program from The George Institute and UNSW Founders. It supports start-ups building affordable, accessible health solutions with a focus on NCDs. Through Health10x, these start-ups access mentorship and training from The George Institute's health and clinical research experts and UNSW's entrepreneurship experts.
- Genovate partners with Imperial College London to pursue Frugal Innovation. This program drives the systemic adoption of low-cost, quality healthcare solutions with significant commercialisation potential to address critical unmet needs globally.

- Our Entrepreneurship and Innovation training program upskills researchers in entrepreneurial thinking and creative problem solving. This capacity-building program offers dedicated training in health market analysis, clinical idea validation, business development, human-centred design, and presentation skills and is designed to create impact from research.
- Genovate runs a unique internship program designed for students, early career researchers and entrepreneurs passionate about innovation in health and building entrepreneurial skills. This three-month program fosters provides opportunities for rising stars in the health ecosystem to work on real global health challenges.

Building Entrepreneurial Capacity

Partners and collaborators

George Health

REDI

UNSW FOUNDERS

cicada

RANDWICK

Imperial
Entrepreneur Lab

www.georgeinstitute.org/genovate

The George Institute
for Global Health

BUILDING ENTREPRENEURIAL CAPACITY

In 2021, with support from REDI, The George Institute launched an entrepreneurship training program to focus on impact and innovation. The goal is to build an industry-ready workforce with the skills and capacity to keep pace with the demands of a rapidly changing sector.

Since 2020, the Institute has welcomed eight health innovation interns, providing hands-on project experience in solving global health problems. The internships offer the opportunity to develop diverse skills sets and subject knowledge, such as working with the Institute's Global Women's Health Program (see page 31), the global injury prevention team, and the Global Brain Health Initiative (see page 29).

Increasing entrepreneurial capacity at The George Institute has led our researchers to found companies that address unmet health needs. Healthgenic is a diabetes prevention start-up founded by a team of PhD candidates at the Institute, Anthony Paulo Sunjaya, Ashwani Kumar and Nipuna Cooray. It is developing an actionable, personalised, accessible diabetes prevention program that will use gamification features to help patients adhere to treatment and improve health outcomes. The team is currently preparing to test the idea in a clinical trial.



Nipuna Cooray, Anthony Paulo Sunjaya and
Ashwani Kumar of Healthgenic



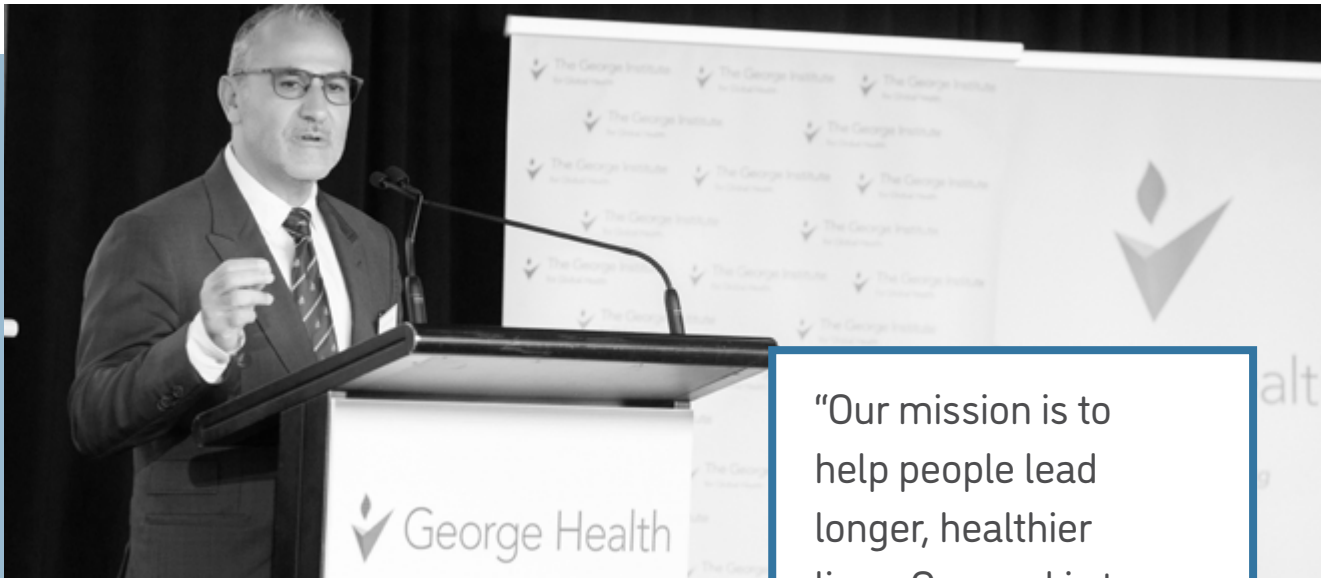
“As a medical student, it is rare to find opportunities to look at healthcare beyond the clinical context. This internship gave me the chance to develop my knowledge of health innovation, technology and commercialisation, and truly encouraged innovative thought and critical analysis – skills which are imperative to being an effective clinician.”

Cyril Saji

Graduate of the Genovate entrepreneurship internship program at The George Institute

Our social enterprises

George Health pioneers innovative, affordable and scalable healthcare solutions. Established in 2014 to commercialise the research of The George Institute, George Health is executing a 'profit with purpose' strategy with an impact focus that is aligned with the United Nations Sustainable Development Goals: to reduce the inequitable social and economic burden of non-communicable diseases on communities globally; to help people enjoy longer, healthier lives; and to drive more efficient and stronger health systems.



Through a portfolio of four commercial businesses – George Clinical, George Health Technologies, George Medicines and Ellen Medical Devices – George Health is providing high-quality, affordable treatments, technologies, devices and services at scale.

“This past year has been one of real momentum and growth for George Health in terms of growing partnerships to amplify our impact across the world and launching clinical trials that will help deliver life-saving treatments to those who need them most,” said Staph Leavenworth Bakali, President and Chief Executive Officer of George Health.

“Even amid the devastation of the COVID-19 pandemic, heart disease, stroke and chronic obstructive pulmonary disease represent the top three leading causes of death globally,” he said. “Reducing the burden of these diseases requires a global effort to help health systems cope better with the unrelenting demands on their capacity and resources. This underpins everything we do at George Health.”

George Health is backed by investment partners Bupa, Federation Asset Management and Brandon Capital, who share its financial and impact vision.

“Our mission is to help people lead longer, healthier lives. Our goal is to bring innovative, affordable and scalable healthcare solutions that can transform care and wellbeing. We do this by supporting and driving stronger, more sustainable and equitable health systems, with a focus on those with the greatest need.”

Staph Leavenworth Bakali
President and Chief Executive Officer
George Health



GEORGE CLINICAL

George Clinical is a leading Asia-Pacific contract research organisation (CRO) with global capabilities. Comprising over 400 staff in 18 locations, George Clinical is delivering clinical trials in 39 locations and has completed more than 500 clinical trials for pharmaceutical, biotech, medical device and clinical nutrition customers. In recent years, George Clinical revenue has increased by an average of 30% due to the demand for high-quality, customer and quality focused CRO services.

George Clinical combines scientific expertise and clinical leadership to deliver distinctive, world-class clinical trial solutions across all phases of clinical research. It has experience spanning all major therapeutic areas, with significant expertise in renal and oncology therapeutic areas, and a growing focus on central nervous system therapeutics.

In the past year, George Clinical achieved tremendous business growth in China, East Asia and Europe. The company won the Frost and Sullivan Asia-Pacific Clinical CRO Competitive Strategy Leadership Award and was a finalist for the SCRIP Best CRO Full-Service Providers Award and the Citeline Clinical Research Team of the Year Award, positioning the company alongside the largest and most prominent CROs and clinical research teams globally.

“George Clinical has enjoyed another strong year of growth and development, establishing itself as a leading global CRO, as evidenced by the recognition we have received in the past year, our high levels of customer and staff satisfaction and our growing customer base,” said Glenn Kerkhof, Executive Chairman of George Clinical.



GEORGE HEALTH TECHNOLOGIES

George Health Technologies is focused on transforming the way health care is funded and delivered to millions of people globally by providing its customers with unmatched data and technology solutions. By supporting payers, providers and employers to deliver value-based care, George Health Technologies is helping improve health and wellbeing outcomes, decrease costs and increase efficiencies. Supporting individuals and their families to lead healthier, more productive lives is also a major focus for George Health Technologies.

“In emerging markets, healthcare demand driven by demographics and rising rates of non-communicable diseases and economic growth has outpaced financial and human resources, and healthcare systems are shifting to value-based care to improve population health outcomes at a lower cost,” said Dr Nina Desai, Strategy Lead of George Health Technologies. “We are responding by providing complete solutions that offer insights into their populations and the tools to effect action and improved health and resource outcomes, grounded in data and clinical evidence.”

This past year, George Health Technologies has been building major partnerships to transform care delivery across global health systems with new data and analytics products for governments, micro-insurers, providers and payers in Southeast Asia, Asia and Africa. Establishing new data and analytics partnerships with a range of clients has also been a focus and will continue in the year ahead.



This past year, George Medicines has also advanced its novel ultra-low-dose triple combination, GMRx4, for first-line treatment of type 2 diabetes into Phase II clinical development, with the support of a \$1.5-million grant from CUREator, Australia's national biomedical incubator managed by Brandon BioCatalyst.

"We are proud that GMRx4 has been recognised by CUREator as an innovative and much needed therapy," said Stefan König, Chief Executive Officer of George Medicines. "Type 2 diabetes is a devastating chronic illness that carries a socioeconomic burden for people and health care systems, despite it being a preventable and treatable condition.

"We believe the synergy of combining three best-in-class medications in a low-dose, single pill combination to be given early on as a first-line treatment will help patients better control their diabetes with fewer side effects and improved adherence so they can lead productive and healthy lives."

GEORGE MEDICINES

George Medicines is a late-stage drug development company focused on improving the management of non-communicable diseases with innovative, single-pill combinations of existing medicines. By combining best-in-class molecules from existing medicines in proprietary low-dose formulations, George Medicines aims to develop innovative treatments with the potential to be more efficacious, safer and more accessible than current treatment options. These single-pill combinations offer the potential to bring significant improvements in therapy adherence and clinical outcomes in patients with cardiovascular diseases and type 2 diabetes, which remain the leading causes of premature death and disability worldwide.

George Medicines' leading candidate for treating high blood pressure, GMRx2, aims to offer simplicity to patients through improved efficacy and enhanced disease control. GMRx2 is in the advanced stages of Phase III clinical trials, which will also support a US regulatory submission in 2023. Studies are also ongoing to investigate the use of GMRx2 to prevent stroke reoccurrence.





Ryan Mestric, a dialysis patient working with the prototype Ellen Medical Dialysis System during its first clinical trial

ELLEN MEDICAL DEVICES

The need for dialysis is growing around the world due to epidemics of high blood pressure, obesity and diabetes, which contribute to kidney disease and ultimately kidney failure. Dialysis has been a safe and effective treatment for kidney failure for over 70 years, but is very expensive, costing around \$85,000 per patient per year in Australia.

Ellen Medical Devices is developing the world's first affordable dialysis system to prevent millions of people dying unnecessarily each year because they cannot access treatment for kidney failure. Costing under \$500 to build and just a few dollars a day to run, the Ellen Medical Dialysis System is a breakthrough in low-cost technology and will create an important new export market for Australia's MedTech community.

In major milestone this year, Ellen Medical Devices has commenced its first clinical trial to assess the safety, efficacy and usability of the system.

"It is deeply rewarding to see Australian kidney patients using our system to create peritoneal dialysis fluid in their own homes for the first time," said Professor John Knight, Managing Director of Ellen Medical Devices. "We have spent five years and several million dollars testing prototypes and developing the chemistry and engineering breakthroughs we needed to bring our system to this point."

Results from this pilot clinical study are expected in late 2022, with plans to then pursue regulatory approval in Australia, India, Thailand and Hong Kong as initial target markets.

The award-winning Ellen Medical Devices has patents in 10 countries and is supported by multi-million-dollar strategic grants and partnership agreements with leading Australian regulatory, intellectual property, design, quality, manufacturing and sterilisation contractors.



The Ellen Medical Dialysis pure water distiller design concept

Our people

Thanks to 1,100+ people around the world, The George Institute is creating better treatments, better care and healthier societies to improve the health of millions of people globally.

The Institute is committed to being an outstanding and diverse employer. We focus on cultivating a culture that leverages the diversity of our workforce, supports and encourages the development of our people, celebrates success, and emphasises flexibility and wellbeing.



We are proud of making The George Institute a great place to work. By supporting new ways of working during the pandemic, placing a continued emphasis on wellbeing, and investing in initiatives to build our future leadership capability, we have maintained high levels of employee retention and are ensuring we have the capability we need for the future.

IN 2021-22:

1,100+
people globally

119+
new team members

105+
Honorary Fellows

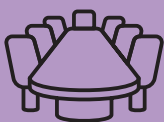
George women represent:



64%
of our staff



60%
of people managers



40%
of our Board



57%
of academic appointments

“One key difference at The George Institute is the value we place on the voices of our people – we believe our employees are best placed to guide the culture, systems, programs and processes to enable them to deliver on our mission.”

Melanie Newman
Acting Chief People Officer



OUR BOARD OF DIRECTORS

David Armstrong BBus (UTS), FCA, MAICD
Chair/Non-Executive Director

- Non-Executive Director – National Australia Bank
- Non-Executive Director – Insurance Australia Group
- Director – Opera Australia Capital Fund Limited
- President – Australian Museum
- Trustee – Lizard Island Reef Research Foundation



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

Non-Executive Director (until 3 December 2021)

- Non-Executive Director, ASX Limited
- Non-Executive Director, Ampol Limited
- Non-Executive Director, Stockland Corporation Limited
- Non-Executive Director, The Centre for Independent Studies
- Advisory Board Member, Five V Capital
- Member, AICD Corporate Governance Council



Dr Srinivas Akkaraju MD, PhD
Non-Executive Director

- Board Chair, George Health Enterprises Pty Ltd
- Managing General Partner, Samsara BioCapital
- Director, Chinook Therapeutics
- Director, Syros Pharmaceuticals
- Director, Intercept Pharmaceuticals Inc.



Timothy Longstaff BEc, FCA, GAICD, F Fin

Non-Executive Director (appointed 1 January 2022)

- Non-Executive Director, Snowy Hydro Limited
- Non-Executive Director, Ingham's Limited
- Non-Executive Director, Perenti Global Limited
- Member, The Takeovers Panel



Yasmin Allen BCom, FAICD
Non-Executive Director

- Non-Executive Director, ASX Limited
- Non-Executive Director, Cochlear Limited
- Non-Executive Director, Santos Limited
- Board Member, George Health Enterprises Pty Ltd
- Member, ASX Limited Clearing and Settlement Board and Audit Committee
- Director, National Portrait Gallery, Canberra
- Acting President, Federal Government's Takeovers Panel
- Chair, Tic:Toc Online
- Chair, Digital Skills Organisation (Australian Government)



Professor Vlado Perkovic MBBS, PhD, FRACP, FAAHMS, FASN

Non-Executive Director

- Dean of Medicine and Health, UNSW Sydney
- Non-Executive Director – Garvan Institute
- Non-Executive Director – Victor Chang Cardiac Research Institute
- Non-Executive Director – Mindgardens Neuroscience Network
- Non-Executive Director – Children's Cancer Institute
- Non-Executive Director – Ingham Institute for Applied Medical Research
- Non-Executive Director – St Vincent's Health Australia



Gina Anderson BA, GAICD

Non-Executive Director (until 3 December 2021)

- Chair, The George Foundation for Global Health Limited
- Chair, GDI Property Group and GDI Funds Management Ltd
- Co-Founder and former Chair, Women's Community Shelters Limited



Professor Rodney Phillips MBBS (Melb), FRACP, MD (Melb), MA (Oxon), FRCP (London), FAcadMedSci (London)

Non-Executive Director

- Professor Emeritus, UNSW Sydney
- Honorary Fellow, Pembroke College, Oxford
- Non-Executive Director, The National Drug and Alcohol Research Centre Advisory Board



Catherine Brenner BEcLLB, MBA, FAICD
Non-Executive Director

- Non-Executive Director – Scentre Group Limited, Carindale Property Trust
- Non-Executive Director, Schools Plus
- Chair, Australian Payments Plus Limited
- Panel Member, Adara Partners



Dr Meena Thuraisingham PhD, GAICD, MAPS
Non-Executive Director

- Founder and Principal, BoardQ
- Founder and Principal, TalentInvest
- Non-Executive Director, Shared Value Project
- Member, International Women's Forum



Professor Stephen MacMahon AO

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

- For full bio, see page 42



Professor Robyn Norton AO

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

- For full bio, see page 42



SENIOR LEADERSHIP GROUP

Professor Stephen MacMahon AO

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

- Professor of Cardiovascular Medicine, Faculty of Medicine, UNSW Sydney
- Chair of Global Health, Faculty of Medicine, Imperial College London
- Fellow, Australian Academy of Science, British Academy of Medical Sciences, Australian Academy of Health and Medical Sciences, and the American College of Cardiology



Professor Laurent Billot

Director, Biostatistics and Data Science

- MSc Statistics and Computer Science, University of South Brittany; MRes Public Health (Biostatistics), University of Paris V
- Conjoint Professor, Faculty of Medicine and Health, UNSW Sydney
- Adjunct Professor, Digital Public Health Graduate Program, University of Bordeaux
- Accredited (AStat) Statistician, Statistical Society of Australia



Professor Robyn Norton AO

Principal Director and Co-Founder
The George Institute for Global Health

Acting Executive Director, The George Institute UK

- Professor of Public Health, Faculty of Medicine, UNSW Sydney
- Chair of Global Health, Faculty of Medicine, Imperial College London
- Fellow, Australian Academy of Health and Medical Sciences
- Member, Chief Executive Women, Australia



Professor Kent Buse

Director, Healthier Societies Program

- Visiting Professor, School of Public Health, Imperial College London
- Co-Director, Global Health 50/50
- PhD London School of Hygiene and Tropical Medicine



Professor Anushka Patel

Vice-Principal Director and Chief Scientist

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



Peter Dolnik

Director, Centre for Operational and Research Excellence

- GAICD (Australian Institute of Company Directors), Certificate in Executive Management and Development (UNSW Business School), MPhil (Comenius University)
- Extensive experience in governance and all aspects of research operations
- Experience in strategic and business plans development in complex organisations globally
- Solid track record in leading large multi-disciplinary teams and creating high performance culture underpinned by innovative mindset



A/Professor Clare Arnott

Co-Director, Global Better Treatments
Program Head, Heart Failure

- Associate Professor, Faculty of Medicine, UNSW Sydney and University of Sydney; BMedSci MBBS(Hons) PhD FRACP FCSANZ CF
- Staff Specialist Cardiologist, Royal Prince Alfred Hospital, Sydney



Emma Feeny

Director, Impact & Engagement

- MA in the Social Anthropology of Development, School of Oriental and African Studies, University of London
- Co-chair, WHO NCD Lab on Women and Girls; Co-chair, NCD Alliance Supporters' Group
- Extensive experience influencing and driving impact in academia and the humanitarian and development sectors



Sarah Bench (from January 2022)

Bachelor of Arts, Psychology and Social Policy –
University of Sydney

- Masters of Industrial Relations and Human Resource Management – University of Sydney
- 20 years of international experience spent in Corporates, Health Care, Professional and Financial Services



Dr Parisa Glass

Director of Innovation and Enterprise, The George
Institute for Global Health

- Director of Operations, Clinical Research Unit, Faculty of Medicine, UNSW Sydney
- Senior Lecturer, Faculty of Medicine, UNSW Sydney
- PhD, Faculty of Science, UoW; MBA, Faculty of Business, UoW; B Med Chem (Hon 1), Faculty of Science, UoW; Dip App Sci, Medical Radiation Technology, USyd
- Extensive experience in operational management combined with significant experience in facilitating entrepreneurship in medical research



**Professor Hiddo L. Heerspink**

Co-Director, Better Treatments Program

- PhD (Groningen)
- Professor, Clinical Trials Department of Clinical Pharmacy and Pharmacology University Medical Center Groningen, Netherlands
- Conjoint Professor of Medicine, UNSW Sydney

**Professor Vivekanand Jha**

Executive Director, The George Institute India

- Professor and Chair of Global Kidney Health, Imperial College London
- Conjoint Professor of Medicine, UNSW Sydney
- Immediate Past President, International Society of Nephrology
- Member, WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation
- Editor, Cochrane Kidney and Transplant Group

**Helen Monaghan**

Director Global Project Operations, Centre for Operational and Research Excellence

- Adjunct Senior Lecturer, Faculty of Medicine, UNSW Sydney
- Extensive experience in the management of academic randomised controlled trials and other research projects

**Ganen Nadarajah**

Group Financial Controller

- MBA (Executive), Australian Graduate School of Management (AGSM-UNSW Sydney)
- Fellow of the Association of Chartered Certified Accountants, UK
- Member of the Institute of Chartered Accountants in Australia

**Professor Bruce Neal**

Executive Director, The George Institute Australia

- Professor of Medicine, UNSW Sydney; MB ChB, University of Bristol, UK; MRCP, Royal College of Physicians, UK; PhD (Medicine), University of Auckland, NZ
- Professor of Clinical Epidemiology, Imperial College London
- Fellow of the Australian Academy of Health and Medical Sciences, the American Heart Association, US, and Royal College of Physicians, UK

**Melanie Newman**

Interim Director, Global Human Resources (from July 2021 until December 2021)

- Extensive experience in human resources in Australia, the US, Europe and Asia
- Previously held human resources leadership positions in Australian headquartered ASX-listed global technology companies, as well as US headquartered global technology companies
- Extensive experience with Australian Boards

**Justin Ooi**

Chief Financial Officer

- BEc (Accounting) – Macquarie University
- CPA (Australian Society of Certified Practising Accountants)
- 25 years pharmaceutical experience, both in Australia and overseas with AstraZeneca and a PE backed OTC startup

**Professor David Peiris**

Director, Global Primary Health Care Program (Better Care)

- Co-Director, Health Systems Science
- Professor, Faculty of Medicine, UNSW Sydney; PhD (USyd); MIPH (USyd); FRACGP
- General Practitioner, Glebe Family Medical Practice

**Tim Regan**

Chief Operating Officer

- BEc, University of Sydney
- Vice President and Treasurer, Australia China Business Council NSW
- Committee Member and Treasurer, Australia India Business Council NSW
- Non-executive Director, Evolve Housing Limited
- Former President, Financial Executives Institute of Australia
- Former Deputy Chair, Australian Theatre for Young People
- Fellow, Australian Institute of Company Directors, Institute of Chartered Accountants and Australian Property Institute

**Marna van Zyl**

Legal Director

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

**Dr John Wastell**

Director, Global Information and Technology

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

**Yunyun (Lily) Zhu**

Managing Director, The George Institute China

- Master of Economics, University of International Business and Economics
- Former Head of Finance, Save the Children China



Our supporters

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

- AbbVie
- Adelaide Institute for Sleep Health, Australia
- AHRA Women's Health Research, Translation and Impact Network, Australia
- All India Institute of Medical Science
- Allison Doorbar
- Anushka Patel
- Asia Venture Philanthropy Network
- AstraZeneca
- Australian Embassy, China
- Australian High Commission, India
- Australian High Commission, UK
- Australian Research Council
- Baxter
- Beijing Center for Disease Prevention and Control, China
- Beijing Municipal Health Commission, China
- Bill and Melinda Gates Foundation
- BP Children's Products HK
- British Heart Foundation
- Bruce Neal
- Bupa Australia
- Cambridge University Hospital NHS Foundation Trust, UK
- Changhai Hospital, Shanghai, China
- Chengdu Medical College Hospital, China
- Chinese Center for Disease Control and Prevention, China
- Chinese Center for Health Education, China
- Cindy Coutts Smith
- College of Health and Wellbeing, University of Central Lancashire, UK
- David Armstrong
- David Farrant
- DBT/Wellcome Trust India Alliance

"The generosity of our supporters is helping us fight health inequity worldwide and take on the biggest global health threats of our time."

Tim Regan
Chief Operating Officer

- Department of Biotechnology, Ministry of Science and Technology, India
- Department of Foreign Affairs and Trade, Australia
- Department of Health, Australia
- Department of Health, Medical and Family Welfare, Government of Andhra Pradesh, India
- Department of Health Research, India
- Department of Science and Technology, Ministry of Science and Technology, India
- Elias Messaïke
- Engender Health
- European Commission
- European Connected Health Alliance
- Faye Williams Estate
- FIA Foundation
- Fidelity Foundation
- Flinders University, Australia
- Florey Institute of Neuroscience and Mental Health, Australia
- Foundation for Innovative New Diagnostics
- Genesis
- Give2Asia Fiscal Sponsorship Fund
- GlaxoSmithKline Australia
- Global Alliance for Chronic Diseases
- Global Connections Fund
- Good2Give



- Guangdong Provincial Hospital of Chinese Medicine, China
- Guangdong Provincial People's Hospital, China
- Harvard University, US
- HCF Research Foundation, Australia
- HCL Foundation, Australia
- Heart Foundation, Australia
- Heart Health Research Center, China
- Hein Dolieslager
- High Blood Pressure Council of Australia
- Imperial College London
- Indian Council of Medical Research
- International Economics Consulting
- International Federation of Red Cross and Red Crescent Societies
- International Road Assessment Programme
- International Society of Nephrology
- Investment Giving Australia
- ITAD
- Janssen
- John Chalmers AC
- Johns Hopkins University, Australia
- Kelly Webb
- King's College, UK
- London School of Hygiene & Tropical Medicine, UK
- Makerere University, Uganda
- Manipal Academy of Higher Education, India
- Maridulu Budyari Gumal
- Mary Jane Foundation
- Medical Research Council, UK
- Medical Research Future Fund, Australia
- Medical University of South Carolina, US
- Mercy for Animals, US
- Ministry of Health and Family Welfare, Government of India
- National Council of Applied Economic Research, India
- National Health and Medical Research Council, Australia
- National Health Systems Resource Centre, India
- National Institute for Health Research, UK
- National Institutes of Health, US
- National Institute of Neurological Disorders and Stroke, US
- New Venture Fund, US
- Nicole Williams
- Nielsen Company
- Northwestern University, US
- Norton Rose Fulbright
- NSW Centre for Road Safety, Australia
- NSW Ministry of Health, Australia
- Nursing Research Institute, Australian Catholic University
- Peking University Health Science Center, China
- Penumbra Inc
- Postgraduate Institute of Medical Education and Research, Chandigarh, India
- Primary Healthcare Performance Initiative
- Queen Mary University of London, UK
- Road Safety Innovation Fund, Australia
- Robyn Norton AO
- Royal Australasian College of Physicians
- Royal National Lifeboat Institution, UK
- Royal Society of Tropical Medicine and Hygiene, UK
- Sanofi
- Sax Institute
- Servier
- Shanghai East Hospital, China
- Sichuan Provincial People's Hospital, China
- Siyu Huang
- Stephen MacMahon AO
- St George's University of London
- Sydney Health Partners
- Sydney Local Health District
- Takeda
- Telstra Health
- The Ian Potter Foundation
- The Liverpool School of Tropical Medicine
- The Transplantation Society, Canada
- Thrombosis and Haemostasis Society of Australia and New Zealand
- Tim Regan
- Tim Sims AM
- UNICEF
- Universidad del Desarrollo, Santiago, Chile
- University of Abuja, Nigeria
- University of Edinburgh, Scotland
- University of Leicester, UK
- University of Newcastle, UK
- University of Nottingham, UK
- University of Sydney, Australia
- University of Technology Sydney, Australia
- UNSW Sydney, Australia
- Victorian Health Promotion Foundation, Australia
- Vital Strategies
- Vivekanand Jha
- Wellcome Trust
- West China Hospital, Chengdu, China
- Western Sydney Local Health District, Australia
- Workplace Giving Australia
- World Bank
- World Health Organization
- World Heart Federation
- World Stroke Organization

Our finances

REVENUE

The George Institute's³ revenue declined by 4% to \$61.1 million. However, this was largely due to extraordinary items in revenue for the 2021 financial year (FY21). RBG COVID support payments, along with JobKeeper, amounted to \$6.3 million in FY21. These, of course, were not replicated in 2022 financial year (FY22). When accounting for these extraordinary items, and timing issues in terms of receipt grants, underlying research revenue increased by 4% in FY22.

George Health² increased by 12% in FY22, driven primarily by the strong performance of George Clinical. George Clinical revenue for FY22 amounted to \$71 million, making up the majority of George Health's \$74 million total revenue. It should be noted that the financial schedules below treat George Clinical financials as "Held for Sale", resulting in George Clinical financials only included as a single line item of George Clinical's profitability (as opposed to consolidating across the Profit and Loss Schedule. The rationale for this treatment is noted below.

OPERATING RESULT

The result for the Consolidated¹ entity was a loss before income tax of \$14.5 million (2021: loss of \$17.1 million), with a surplus arising in The George Institute and a loss in George Health. The George Institute generated a surplus before income tax of \$3.6 million for the year. Operating expenses of The George Institute were deliberately reduced and constrained in the face of COVID-19 impacts, with only a 1% increase in costs.

To date, \$53 million has been successfully raised, using a combination of equity and debt in order to fund the pre-revenue business of George Health. During the fiscal year, the commercial segment incurred a loss before income tax of \$19.5 million. The loss, funded by the capital raised, was driven by the acceleration of clinical trials for GMRx2. The strong recovery of George Clinical generated operating profits of \$5.2 million, partially offsetting the costs of the significant trial and research activity of the other units.

At the end of 2021–22, the Institute continued to have a strong balance sheet with \$59.8 million of cash and net assets sitting at \$10.5 million. The reduction of net assets from \$21.7 million was related to the planned costs incurred on GMRx2 product development. As per the Profit and Loss Statement, the balance sheet table is also impacted by George Clinical being "Held for Sale". George Clinical's balance sheet position is reflected on a single line item as opposed to be represented across the categories.

GEORGE CLINICAL

As announced in December 2022, The George Institute for Global Health announced it had entered a sale agreement with global investment firm, Hillhouse, for the purchase of George Clinical, its spin-out clinical research organisation (CRO). As the sale will be completed in FY23, it is not reflected in FY22 results. However, accounting standards dictate that George Clinical financials are treated as "Held for Sale". This means The George Institute financials reflect its results, excluding George Clinical, except for a single line item on both the Profit and Loss and Balance Sheet, which summarises George Clinical's financial performance.

PEER REVIEWED AND GOVERNMENT FUNDING

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

DONATIONS AND SPONSORSHIP

Donations and sponsorships are becoming an important source of funding for the Institute. In 2021–22, we received donations from a valuable number of supporters.

CONSOLIDATED¹ PROFIT AND

LOSS ACCOUNT BY SEGMENT

FOR YEAR ENDING 30 JUNE 2022

	2022			2021	
	<i>The George Institute</i> ³ \$k	<i>George Health</i> ² \$k	<i>Eliminations</i> \$k	<i>Consolidated</i> ¹ \$k	<i>Consolidated</i> ¹ \$k
Operating Revenue	58,404	95		58,499	55,603
Other Income	2,650	2,649		5,299	3,963
Intersegment Revenue	328	(1,343)	1,015	0	-
Total Revenue	61,382	1,401	1,015	63,798	59,566
Employee Benefits Expense	(39,209)	(4,061)		(43,270)	(40,541)
Share Based Payment Expense	-	(1,525)		(1,525)	(3,464)
Depreciation and Amortisation Expense	(2,351)	(5)		(2,356)	(2,684)
Rental Expense	(486)	(83)		(569)	(77)
Administration Expense	(2,215)	(307)		(2,522)	(2,721)
Study Contract Fee	(376)	0		(376)	(751)
Patient Recruitment Expense	(2,403)	0		(2,403)	(2,581)
Consultants and Sub-Contractors Fee	(2,837)	(4,512)		(7,349)	1,689
Finance Costs	(431)	(4,134)		(4,565)	(3,774)
Travel/Accommodation Costs	(1,062)	(251)		(1,313)	(404)
Other Expenses	(6,363)	(5,414)		(11,777)	(14,611)
Impairment	-	0		-	(10,804)
Share of Loss of Jointly Controlled Entity	-	(274)		(274)	-
Held for Sale Profits in the Year ⁴	-	(3,802)		(3,802)	3,368
Intersegment Expense	(65)	(231)	296	-	N/A
Fair Value Gain on Derivatives		3,730		3,730	719
Surplus before Income Tax	3,584	(19,468)	1,311	(14,573)	(17,070)



CONSOLIDATED¹ BALANCE

SHEET 30 JUNE 2022

	2022 \$k	2021 \$k
ASSETS		
CURRENT ASSETS		
Cash and Cash Equivalents	59,829	66,908
Trade and Other Receivables	5,427	19,261
Other Assets	1,301	2,733
Accrued Income	138	18,614
Assets Classified as Held for Sale	62,583	
TOTAL CURRENT ASSETS	<u>129,278</u>	<u>107,516</u>
NON-CURRENT ASSETS		
Other Assets	840	1,190
Other Financial Assets	8,677	9,518
Plant, Fitting and Equipment	3,161	4,665
Goodwill	0	7,603
Intangible Assets	142	1,831
Right-of-use Assets	6,966	12,009
Deferred Tax Asset	11,525	13,845
Investments Accounted for using Equity Method	593	
TOTAL NON-CURRENT ASSETS	<u>31,904</u>	<u>50,661</u>
TOTAL ASSETS	<u>161,182</u>	<u>158,177</u>
LIABILITIES		
CURRENT LIABILITIES		
Trade and Other Payables	5,496	16,252
Deferred Income	42,705	49,789
Lease liabilities	1,642	2,469
Provisions	6,265	9,098
Borrowings	0	1,460
Other Liabilities	302	2,570
Liabilities Directly Associated with Assets Classified as Held for Sale	42,438	
TOTAL CURRENT LIABILITIES	<u>98,848</u>	<u>81,638</u>
NON-CURRENT LIABILITIES		
Provisions	618	678
Borrowings	0	3,540
Lease Liabilities	6,293	10,532
Other Liabilities	44,880	40,038
TOTAL NON-CURRENT LIABILITIES	<u>51,791</u>	<u>54,788</u>
TOTAL LIABILITIES	<u>150,639</u>	<u>136,426</u>
NET ASSETS	<u>10,543</u>	<u>21,751</u>
TOTAL EQUITY	<u>10,543</u>	<u>21,751</u>

Notes

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

These financial statements (from which the summary financial information has been extracted) are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards–Reduced Disclosure Requirements, including the Australian Accounting Interpretations and other authoritative pronouncements of the Australian Accounting Standards Board and the Australian Charities and Not-for-profits Commission Act 2012, as appropriate for not-for-profit oriented entities.

Consolidated¹ = Consolidated Entity consisting of The George Institute for Global Health and the entities it controlled for the financial year ending 30 June 2022

George Health² = George Institute Ventures Pty Ltd and the entities it controlled for the financial year ending 30 June 2022

The George Institute³ = The George Institute for Global Health and the Research Entities it controlled for the financial year ending 30 June 2022

Held for Sale Profits in the Year⁴ = In line with the organisation's strategic plan, the Board approved initiating the sale process of George Clinical. Launched in Q4 FY22, the process is anticipated to be completed in the first half of FY23. The accounts were prepared treating George Clinical as a Held For Sale Asset, where the profit and loss line items have been consolidated under the Held For Sale Profits in the Year line.



*Better treatments
Better care
Healthier societies*

At a glance:



Raised more than \$1.1 billion for research since 1999

Developed and own a number of social enterprises

1,100+ people globally



245+ active projects across 50+ countries

Established in Sydney, with major centres in China, India and the UK



Our academic partners: Imperial College London, Manipal Academy of Higher Education and UNSW Sydney

10,000+ peer-reviewed publications and other academic outputs since 1999



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