



The 2017 Annual Report

The George Institute, India



The George Institute
for Global Health

10 Years in India!
Results + Impact

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Our mission

Our global mission is to improve the health of millions of people. *In India, we aim to reduce premature and preventable deaths and disability. The focus is on non-communicable diseases, road traffic injuries and mental health.*

We will achieve this by:

- Providing the best evidence to guide critical health decisions
- Targeting global epidemics, particularly chronic diseases and injury
- Engaging with decision makers to enact real change
- Focusing on vulnerable populations

Our values

Our humanitarian commitment

will spur us to tackle the health issues affecting high risk and disadvantaged people in India.

Our focus on excellence

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

Our creativity

will challenge traditional thinking and provide an impetus for new and innovative solutions to India's leading health problems.

Our integrity

will underpin all our work and interactions, including our collaborations with partner organizations worldwide.

Our "can do" approach

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

Our emphasis on impact

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

Our Partners

Partnerships with institutions, organizations and individuals sharing our vision, allow us to extend our reach across the country in urban and rural settings alike. Through these partnerships, we draw on a wide range of expertise to develop and implement activities to address a range of health issues.

In India we have collaborations with over 60 national and international institutions as well as strong ties within our global offices in Australia, China and the United Kingdom.



Indian Council of Medical Research (ICMR)

ICMR has contributed to a number of events organized by The George Institute, India through its many research institutes and continues to support a number of projects conducted by the Institute.



Public Health Foundation of India (PHFI)

The George Institute and the Public Health Foundation of India have a Memorandum of Understanding and work jointly to promote collaborative research and capacity development activities. The joint activities focus on urban health and disability due to chronic diseases and injury. A number of projects have been conducted in collaboration with PHFI on hypertension, salt reduction, and stroke management.



University of Hyderabad

The George Institute, India, has a Memorandum of Understanding with the University of Hyderabad to increase public health research capacity through training of students and researchers, and to develop collaborative public health projects. A large number of undergraduate students from the university were trained in public health research methodology and subsequently faculty from the university have been involved in other training activities. Mentoring and internship of students has also been a focus of the collaborative activities. The university and The George Institute have also collaborated on projects on yoga and falls in elders and adolescent health.



Post-Graduate Institute for Medical Education and Research, Chandigarh

The George Institute, India works with the Post-Graduate Institute for Medical Education and Research, Chandigarh on joint research, exchange of faculty and students in addition to developing collaborative public health projects. Collaborative projects on kidney disease, injury prevention and stroke management have been undertaken with them.



Christian Medical College, Ludhiana

The George Institute, India has a Memorandum of Understanding with CMC, Ludhiana and is implementing collaborative projects in the area of neurology.

Our global affiliations





From the Executive Director

Presenting the latest annual report of The George Institute, India offers me a double delight. We continue to grow in our mission to tackle premature deaths and disability in the country by undertaking research that can contribute to policy change, and in this process complete 10 years of our work in India in 2017.

It seems just like yesterday that we started working in the West Godavari district of Andhra Pradesh to undertake a verbal autopsy study on the causes of death and disability. It led to the first realisation that people are dying in increasing numbers due to non-communicable diseases. And over the past 10 years, evidence and data gathered by us in rural as well as urban areas has not only confirmed this trend but also reinforced the fact that unless urgent measures are taken, this ticking time bomb will rob away the health and economy of a growing nation.

We continue to reorganise ourselves in ways that maximizes the impact of our work. Our technology-led primary healthcare delivery interventions that we continue to test in cardiovascular disease, mental health and kidney disease are evolving into a model of health systems strengthening using task sharing between the doctor and the village health worker as an effective strategy.

This year we shared the findings and learnings from our digital health interventions with various stakeholders, and it is gratifying to see the recent policy change envisaging the creation of a national digital health authority.

As we grow our kidney and cardiometabolic disease program, we again see a big window of opportunity in contributing to the recently announced initiatives under the National Programme for Prevention and Control of

Cancer, Diabetes, Cardiovascular Diseases and Stroke, and the National Dialysis Program. Our evidence-based research has given insight into what works and what does not and we are already feeding this learning into several government interventions.

The ATTEND trial which investigated whether a family-led care giver training model can be effective in post-stroke rehabilitation has resulted in boosting the capacity of researchers across the country to do research in the area of stroke. The Indian Stroke Trials Network that has been set up as a result is already looking to do more relevant research in the area in times to come.

The George Institute researchers are starting to shine a light on some of the other neglected areas of health in India. These include broadening the women's health landscape to a life-course approach, highlighting road safety and injury as public health issues, examining the impact of nutritional intervention on improving healthcare, and building multiple research interventions around the same. This year we did an injury surveillance study for the World Health Organization and have initiated a project on drowning reduction in Asia.

As we look forward to the next ten years, we realise that there is a need to do more in areas that require the use of evidence-based healthcare delivery. And to this effect, we have started looking at big data to address the risk factors for NCDs. The effort will also be to build new scalable models of intervention that can be taken up at the policy level by the government.

We will continue our focus on training and capacity building. Training is targeted at all levels – from PhD opportunities, supporting research students from collaborating institutions, to developing new models of

teaching for primary care physicians and non-physician healthcare workers.

None of this would be possible without the continued dedication and commitment of our researchers and staff, an extensive network of national and international collaborating partners and the willingness of thousands of individuals and hundreds of communities to volunteer for participation in our activities.

Our efforts have also received immense boost from our supporters and funders. We are grateful to all of them – in particular to the Australian High Commission, Department of Biotechnology, Wellcome Trust/DBT India Alliance, Indian Council of Medical Research, Pfizer Foundation, Qualcomm India, Baxter Healthcare,

Navajbai Ratan Tata Trust, ORBIS International and European Foundation for Study of Diabetes for their support.

Finally, we thank each one of you for being with us on this ten-year journey and look forward to our continued association in the future.



Professor Vivekanand Jha

Executive Director,
The George Institute for Global Health, India



Primary Healthcare

India's large population relies on the primary healthcare system to provide everyday health services. A key resource of the primary healthcare system are the ASHA's – non-physician healthcare workers. They form the vital link between the consumers and the primary healthcare system. Drawn from within the community, their reach and familiarity with the community is a great asset that can be leveraged to improve healthcare delivery.

In order to address the critical health issues and disease burden that the vast rural population is facing, we have been able to leverage technology and non-physician healthcare workers to overcome the gaps at the primary healthcare level. We design, implement and evaluate a series of efficient, low-cost and sustainable interventions.

Our research has shown how these interventions can be delivered successfully, and also helped identify the potential enablers and barriers.

Starting from cardiovascular diseases, the project provides evidence for the prevention and management of all non-communicable diseases in India, but also has lessons for other developing countries and regions worldwide to effectively combat the NCD burden.

Components of this program include integration with an mhealth based electronic decision support systems, enabling physicians and non-physician health workers to provide high-quality care. We are expecting greater development in this area through partnership with communities and government.

New programs of research in primary care include issues around women's and adolescents' health conditions. In the former, we plan to focus on developing a life-course approach and in the latter, we would examine unique models of healthcare delivery including those through social media.



SMARThealth to manage cardiovascular diseases in rural India

Diseases related to the heart have become the top cause of premature death and disability in India. Existing primary healthcare services are not equipped to manage these cardiovascular diseases which require early intervention and regular monitoring throughout a person's lifetime.

The wide gap between research and policy has made the situation even worse for effective implementation of strategies to deal with heart disease.

In villages, reliable access to healthcare required to prevent and manage heart disease is wanting. This is where SMARThealth India (Systematic Medical Appraisal Referral and Treatment), an android-based platform, can deliver low-cost, high-quality healthcare.

A total of 53,478 (86%) individuals above the age of 40 years were screened by the village level health workers in 54 villages of West Godavari district of Andhra Pradesh and 16% of these were found to be at high risk and referred to nearby primary health centres. Among the high risk patients, 40% have consulted a government doctor, and 38% private practitioners for their treatment.

The health workers followed up 85% of high risk patients at least once, of which 75% of patients informed that they are taking medicines regularly.

The platform records blood pressure, blood sugar and other heart disease risk factors like age, sex, smoking status, and then analyses the data to indicate the extent of cardiovascular risk in a person. The blood pressure instrument is bluetooth enabled and can transfer readings to the app, which also has a meter that displays risk projection over a 10 year period.

SMARThealth provides the healthcare worker with personalised evidence-based decision support to manage a person's condition. Based on the analysis and recommendations from the platform, the healthcare worker can recommend precautionary measures, such as lifestyle changes, and refer those at high risk to doctors. The doctors can use the app to provide algorithm driven evidence based treatment. All health worker activities are complemented by regular monitoring, supervision and an interactive voice recorded system enabled feedback mechanism that provides timely messages to the Accredited Social Health Activists or ASHAs, doctors and community members to adhere to treatment guidelines.

The intervention's two key components – task shifting and the use of mobile-based technology for identification, referral and management of cardiovascular diseases – save time and resources. It complements the Government's existing primary healthcare infrastructure, and the work of health professionals including the village level health workers and doctors.



SMARThealth Extend in Haryana

For broader impact, a crucial issue is the extent to which the SMARThealth programme can be rapidly customized and scaled up in health systems that might differ substantially from that in which the programme was developed. In a new study called SMARThealth Extend, these questions are addressed – in Haryana, North India, which is much more urbanized and has a higher prevalence of risk factors and NCDs than Andhra Pradesh; and in East Java, Indonesia, where NCD awareness is minimal, as are specific government policies and programs to combat these diseases.

The aim of this project is to determine whether SMARThealth can be appropriately and rapidly customized and implemented in two other large rural communities (from the Indonesian province of East Java and the northern Indian state of Haryana). Mixed methods evaluation will be used to assess feasibility, acceptability, scalability and sustainability in both the sites while in Indonesia, an additional evaluation of effectiveness will be undertaken.

The outcomes will be measured by the proportion of high risk individuals with lower blood pressure as compared to the non-intervention areas. The study is currently underway in rural settings in Jhajjar, Haryana covering a population of around 20,000 individuals in two primary healthcentres and in Malang, East Java, covering a population of around 40,000 individuals in four primary healthcentres.

BASIC study – assessing availability and cost of polypills for cardiovascular drugs

Cardiovascular diseases have overtaken communicable diseases as the leading cause of mortality in India, and their prevalence is increasing. While improvements have been made in treating people with or at high risk of CVD, significant treatment gaps still exist. The large majority of CVD patients in low- and middle-income countries, including India, either do not receive treatment or do not adhere to them in the long run.

Use of low-cost, fixed dose combination medications or polypills, containing statin, blood pressure lowering and anti-platelet medications have been recommended by the World Health Organization as well as the World Heart Federation as a potential solution to addressing this treatment gap. The SPACE Collaboration, an international collaboration of polypill researchers has demonstrated the effectiveness of a polypill based-strategy in improving use of recommended therapy, with improvements in blood pressure and cholesterol across a range of patient groups.

The Barriers Analysis of uSe and Implementation of Combination treatment in India (BASIC) is a mixed-methods study being undertaken to assess the availability and cost of polypills for cardiovascular drugs, explore barriers and enablers to their uptake, and assess readiness of the Indian health system to support their wider implementation.

Phase one of the study, which was concluded recently, involved collection of quantitative data from pharmacies in rural and urban regions. Collection of qualitative data through interviewing doctors, patients and pharmacists is underway.





Integrated chronic disease management study

Globally, India is estimated to have the highest burden of Tuberculosis and the second highest prevalence of diabetes mellitus. Studies have shown that the prevalence of tuberculosis (TB) is higher in people with diabetes mellitus (DM) than in the general population. DM can worsen the clinical course of TB, and TB can worsen glycaemic control in people with diabetes.

While there are clear guidelines for the management of patients with TB through the 'Directly Observed Therapy Short-term' (DOTS) program, there are no clear strategies for the management of individuals with TB and diabetes. Though the World Health Organization guidelines and Indian government guidelines recommend screening patients with TB for DM at the initiation of treatment, there are no studies that have documented the feasibility

of managing TB patients with DM in the Indian healthcare setting.

There is a great need to determine the best way to manage individuals with both conditions. Access to these patients through DOTS centres might provide opportunity to deliver appropriate diabetes care with emphasis on risk-factor mitigation, education and treatment adherence.

This study aims to develop an integrated, multidisciplinary programme addressing the management of individuals with TB and DM and other associated chronic conditions in the Indian primary healthcare setting, and field-test this programme through a randomised control feasibility study.



The strategy is based on the Indian chronic disease management guidelines and Revised National Tuberculosis Control Programme (RNTCP) and is currently being field-tested in 10 DOTS clinics with a team of non-physician healthcare workers (NPHWs) using electronic decision support tools (SMART*health* platform). All patients newly diagnosed with TB are screened for DM and associated cardiovascular risk using the WHO/ISH risk charts. Those with newly diagnosed diabetes or significant cardiovascular risk will be referred to the local primary health centres for the initiation of treatment. NPHWs will be trained to follow-up patients for a period of 8 months from study enrolment to encourage treatment adherence, monitor treatment response including blood glucose levels and provide lifestyle advice.

A preliminary estimate of the effectiveness of this SMART*health* led intervention will assess the proportion of TB patients newly identified with DM and prescribed recommended treatment. A secondary outcome will include adherence to treatment, including drugs for TB and associated chronic diseases (diabetes, hypertension etc) at 5 and 8 months. In-depth interviews will be conducted with healthcare teams and patients to assess the acceptability and feasibility of such an approach and explore the barriers and enablers of the integrated disease management approach.

The intervention programme has been developed, and training of NPHWs completed.

Kidney & Cardiometabolic diseases

The epidemic of cardiometabolic diseases is escalating worldwide including in India. The rapid socioeconomic transition is believed to have contributed to this rise with individuals being increasingly exposed to energy-dense diets, high stress levels, and sedentary work habits.

High levels of blood pressure, blood glucose, serum cholesterol, and obesity are risk factors for cardiovascular diseases and chronic kidney disease.

Our research projects investigate the prevalence and pattern of cardiometabolic risk, identify the unique risk factors responsible for development and/or progression of these conditions and the economic and social cost of treatment of these diseases. Using a variety of approaches including large scale cohort-studies, use of big data analysis on large data sets, we hope to arrive at a better understanding of these diseases, develop arguments to help develop policy and define steps to early detection, prevention and management. We develop and test innovative models of care delivery for management of these conditions both at the community level and also with patients in hospitals.

We also plan to expand the scope of our work to respiratory diseases, and common infections and reproductive health conditions and their interface with chronic non-communicable diseases.



Dialysis outcomes in India: setting up of a national registry

The pilot revealed that diabetes and hypertension are responsible for 27% and 26% of kidney failure. It also brought out the huge economic disparity and its impact on the patient and his/her family. Regular treatment had a positive impact on the economic well-being of the family by keeping them normal and productive but many patients were forced to give up dialysis for financial reasons.

A larger multi-centre study is currently underway across the country and aims to determine if there are any regional or geographic differences which will inform the policy on the evidence based approaches to designing strategies for the management of end stage kidney diseases in India.

The George Institute for Global health has conducted a prospective longitudinal cohort study of dialysis outcomes on 117 patients at the Post Graduate Institute of Medical Education, Chandigarh, and the Medanta Hospital in Gurgaon (NCR) to evaluate the feasibility of establishing a dialysis outcomes registry.

Based on the success of the pilot, the kidney research team has expanded the study across 10 states in India and to date have recruited over 750 patients with end stage renal disease receiving maintenance haemodialysis. An easy to use, secure, web-based data collection tool based on open source platforms has been developed and is being used to monitor and follow the patients for a period of two years. Data is being collected on the impact of the treatment modalities, comorbidities, socio-economic determinants and quality of life.



Indian chronic kidney disease study

Chronic kidney disease (CKD) has become a growing public health problem worldwide with a serious socio-economic impact. CKD results in mortality mainly due to progression to end-stage renal disease and a disproportionate increase in the risk of cardiovascular disease (CVD) and associated deaths. Recent advances suggest the possibility of using biologically relevant biomarkers to develop prediction algorithms for outcomes in patients with CKD. However, there are no large longitudinal studies comparing the differences in racially, geographically and genetically different populations. This study is the first of its kind in India as there have been no long term longitudinal follow up studies on CKD patients. This is also one of the largest clinical cohort studies in India that has been developed and funded within the country.

With funding from the Department of Biotechnology, Government of India, the ICKD study is recruiting a large cohort (5000 patients) of CKD patients in India who are being followed prospectively to determine the natural course of CKD in India, and to compare patients with CKD in other countries, to establish valid associations between biomarkers and disease progression. Till date the study

has recruited 1785 patients with CKD across nine nephrology referral sites in India and these subjects are being followed up at regular intervals. The number of subject currently on follow up across India are 1700.

The study is collecting biological samples with an exploration of genetic markers of kidney disease severity, progression, and elevated risk for CVD. Apart from opportunities for gene expression profiling and genotyping, the study will also include additional approaches using modern technologies such as proteomics and metabolomics to identify new biochemical and genetic biomarkers of CKD progression and CVD complications.

Support for home-based management of peritoneal dialysis

Nearly two lakh (200,000) Indians require dialysis each year for management of end-stage kidney disease. The popular and often recommended treatment for these patients is haemodialysis, though home-based peritoneal dialysis would be a more convenient option with minimum disruption to one's daily activities.

The common perception is that it is better to have dialysis under the supervision of a care provider rather than go for self-managed peritoneal dialysis.

Our research team has developed and is currently field-testing a mobile health application that is user friendly and innovatively designed. The user experience testing has identified that most of the users feel that this application would provide virtual support for the person undertaking peritoneal dialysis at home. The mobile application has a highly interactive user interface and provides a virtual simulation of the actual care provision scenario and real-time clinical decision support and feedback to the users.

A key component of the study is the qualitative research to evaluate the perception and acceptability of the application by patients and their clinical care providers - primary care physicians and nephrologists.

This application paves the way for demonstrating the usefulness of remote monitoring in chronic kidney disease.

The study on Seamless User-centred Proactive Provision of Risk-stratified Treatment for Peritoneal Dialysis (SUPPORT-PD) aims at developing an integrated, patient-centred, affordable and sustainable system for proactive management of patients undergoing peritoneal dialysis.



Early detection, management and treatment of diabetes

Diabetes mellitus (DM) is one of the leading causes of death, disability, reduced productivity and crippling healthcare expenditure in India. Approximately 69 million Indians have diabetes, but most are unaware of having the disease that puts them at a high risk of developing cardiovascular, eye and kidney complications.

Effective and affordable primary healthcare is a must for early detection of diabetes and prevention of complications around uncontrolled sugar levels in the blood.

The frontline community health workers are being trained in using a tablet-based clinical decision tool to screen and test for risk-based diabetes. Persons with high blood sugar levels are referred to the primary healthcare centre for confirmation of the diagnosis, evaluation of complications and initiation of treatment.

Persons with diabetes are regularly examined at home by Accredited Social Health Activists (ASHAs), who monitor their blood pressure and sugar levels, advise on lifestyle modifications, and refer them to the doctor at appropriate intervals to ensure treatment compliance and prevent any complications from the disease.

Research is currently being undertaken in four Primary Health Centre in the National Capital Region (NCR) and in Guntur district (Andhra Pradesh).

The George Institute for Global Health has designed an intervention programme called IMPACT Diabetes - an Innovative mhealth led participatory approach to comprehensive screening and treatment of diabetes - that will deliver low-cost, community-based screening, early detection, management, treatment and prevention of diabetes related complications.





Lifestyle intervention in gestational diabetes

Around 15% of pregnant women worldwide are diagnosed with gestational diabetes annually (GDM). India has a high prevalence with 17.8% of women in urban areas and 9.9% in rural areas developing GDM. Despite the high incidence of GDM in India, only 17.5% of women are aware of the disease and its complications.

Women who have had GDM are at higher risk for type 2 diabetes later in life. Data suggests that in India 35 to 40% of women with GDM run the risk of developing type 2 diabetes within 5 years of giving birth.

The LIVING study is aimed at determining whether an affordable and culturally acceptable lifestyle intervention, provided to women with GDM soon after the delivery of their child, can help reduce the incidence of type 2 diabetes.

This randomised controlled open-label trial will be conducted in 24 public and private hospitals across India, Bangladesh and Sri Lanka. Study staff, including intervention facilitators and outcomes assessors, will have qualifications like those of health workers routinely appointed at government health facilities. The intervention will comprise group sessions and text/voice

message prompts on physical activity, healthy diet, and stress management. Trained study staff will deliver the intervention, and monitor the outcomes over the study period of approximately three years.

This study will generate knowledge related to the implementation of a preventive strategy embedded in existing resource-constrained health systems. If shown to be successful, the intervention could be scaled up across the region, and has the potential to help prevent or delay the development of type 2 diabetes in more than a quarter of a million South Asian women with prior GDM.

The study is funded by the Global Alliance for Chronic Disease through the National Health and Medical Research Council of Australia and Indian Council of Medical Research.

Mental health, neurology & trauma.



Mental health is one of the biggest causes of disability and carries enormous economic burden in India. It is estimated that 1 in every 5 Indians is suffering from some form of mental disorder. Especially in productive age of 20 to 40, common mental disorders are very high among Indians. Until recently, mental health has been absent from the conversation in healthcare research. Our research in neurological conditions aims to improve outcomes using large scale collaborative research. An example is improving the outcomes of stroke victims using family-led models of rehabilitation, as in the ATTEND trial.

Road trauma in India is a significant health and socio-economic burden, which requires urgent attention. An area of focus is to develop evidence around development of better organized systems of trauma care to reduce this growing cause of death and disability – especially in the young. We bring in global expertise of our researchers, and evidence generated elsewhere in the world to India.



The Systematic Medical Appraisal, Referral and Treatment (SMART) Mental Health Project aims at developing a potential strategy to narrow the treatment gap, by empowering the available primary healthcare workers, through provision of an affordable and accessible electronic clinical decision support system.

SMART Mental Health Project

India is facing a huge burden of mental health illnesses and associated stigma, but it has few trained professionals to provide the necessary care and treatment. Many people suffering from mental disorders go undiagnosed and untreated, especially in rural communities.

The SMART Mental Health Project is exploring ways to reduce the stigma by increasing awareness about mental health issues; facilitating identification of common mental disorders, such as anxiety, depression, suicidal risk and stress; and increasing access to mental health services.

To make optimum use of the resources available, the project is using task shifting, whereby the Accredited Social Health Activists (ASHAs) are taught to identify common mental disorders and primary healthcare doctors are trained to diagnose and provide treatment by using a mobile technology-based clinical decision support system.

The project, funded by Grand Challenges Canada and Wellcome Trust/Department of Biotechnology India Alliance, is running in 42 villages in the West Godavari district of Andhra Pradesh. The study has been completed in 30 Scheduled Tribe villages and researchers are currently collecting data from the remaining 12 Non-Scheduled Tribe villages. The main objective of the project is to increase access to mental health services for people at the primary healthcare level.

The Clinical Decision Support System is programmed to facilitate continuity of care and follow-up, by sharing clinical information between the ASHAs and doctors, using an algorithm-based tracking and monitoring system. While the ASHAs use questionnaires as screening tools to identify people with likely symptoms of common mental disorders such as stress, depression, anxiety and suicidal risk, the primary healthcare doctors use the World Health Organization's tool, MH GAP-IG, to clinically diagnose and treat patients.

The results from the scheduled tribe villages show that the intervention led to more than 5000 adults being screened for common mental disorders by village health workers of whom ~5% were screened positive for common mental disorders. About 13% of them were seen by the primary care doctor which was significantly more than the less than 1% who sought care for mental disorders prior to the intervention. The model was deemed feasible and acceptable. The effectiveness of the intervention needs to be demonstrated using more robust randomized controlled trials, while addressing the issues identified that will facilitate scale up. Though there have been positive results, system level change would depend on collaboration with different stake holders within the health system to minimise the barriers that were identified during the implementation of this project and making a policy level change.



Family-led rehabilitation after stroke in India

Stroke is a block or break in blood vessels of brain which impairs its ability to control the body functions. Stroke needs immediate medical assistance and its incidence and prevalence is increasing globally with a significant burden on low- and middle-income countries without proper infrastructure and manpower to manage stroke patients. The majority of people are unaware of stroke which is one of the reasons treatment is not given on time.

An estimated 1.6 million people suffer from stroke each year in India with a half a million being disabled due to lack of rehabilitation services. There are only 35 stroke units across hospitals in India making it almost impossible to cater to the need for stroke management and rehabilitation. Stroke rehabilitation in low-middle income countries is not highly developed as in high income countries.

The ATTEND Trial was a large multicenter, randomized controlled trial, assessing whether a family-led, care-giver-delivered, home-based rehabilitation intervention supported by early discharge, is an effective and affordable strategy versus usual care for those with disabling stroke in India.

The ATTEND Trial was one of the world's largest home based stroke rehabilitation trials, enrolling 1250 stroke patients across 14 hospital sites with senior researchers collaborating from Australia, United Kingdom and India.

It was funded by the National Health and Medical Research Council (NHMRC) Australia. The trial also undertook a process evaluation to understand the implementation and intervention and to understand the participant's perspective – the patient, carer and provider. The trial was completed in August 2016 and study results were presented at the World Stroke Congress 2016, in Hyderabad. A dissemination workshop was organised in New Delhi to engage with key stakeholders including government.

Key Findings and Recommendations

- The intervention was found to be safe.
- There was similar level of disability observed in Intervention and control arm patients
- More investment should be done in the establishment of sophisticated stroke units and multidisciplinary rehabilitation centers.
- Carers and patients reported an average of 18 hours of training in the first month after discharge.
- There was a small reduction in death in the intervention group patients.

International orthopaedic multicenter study in fracture care

Trauma is amongst the top causes of death and permanent disability in the first four decades of life worldwide. For every death attributable to trauma, three patients survive but are permanently disabled.

The majority of trauma injuries are caused by road accidents and over 90 percent of road traffic deaths occur in low- and middle-income countries. Over 60 percent of the road accident victims sustain musculoskeletal injuries, but the burden of these injuries has not been studied in developing countries, such as India.

In keeping with the United Nations' Global Plan for the Decade of Action for Road Safety 2011-2020, the study aims at identifying important interventions that could potentially reduce morbidity and mortality in musculoskeletal trauma patients in developing countries, including India.

The INORMOUS study is being conducted in 12 Indian hospitals on 10,000 patients. Eight hospitals have already begun the study on 1,468 patients.

The findings from the study will further inform measures to mitigate the burden of orthopaedic injury-related trauma in India and other low- and middle-income countries.

The International ORthopaedic Multicenter Study (INORMUS) in fracture care will determine the burden of musculoskeletal trauma in adult patients by identifying the incidence of major complications (mortality, re-operation and infection) within 30 days of hospital admission.

It is a collaborative project involving researchers from 40 clinical sites in 18 countries with over 40,000 participants across three continents. This partnership will encourage institutional linkages and jointly planned initiatives in policy development, research, training and design of future low-cost, evidence-based interventions in musculoskeletal trauma patients.





Rehabilitation prescription allowing injury recovery

India faces a very real challenge in ensuring all injured people can obtain life-saving early care, timely treatment of injuries, and restoration of function and mobility. Recovery after trauma is dependent on effective rehabilitation from the time of injury to long-term care after discharge from the hospital. Evidence suggests that early rehabilitation can result in better health outcomes, reduce costs by shortening hospital stays, reduce disability, and improve quality of life. Physical therapy or physiotherapy is one of the important prescriptions within rehabilitation, targeting pain management and relief; preventing pressure sores; endurance and gait training; therapeutic exercise; and recommendation to achieve optimal functional outcomes.

As part of the Australia-India Trauma Systems Collaboration program, Rehabilitation Prescription Allowing Injury Recovery (REPAIR) trial intends to involve in-hospital assessment to predict and define the rehabilitation goals for each patient in addition to acute medical care. However, in India, comprehensive rehabilitation services are still emerging and the extent of these services is unknown. Therefore, it is important to conduct an observational study determining the rehabilitation practices that exist for people hospitalised with lower limb fractures following a traumatic injury in India.

The observational component of the study was followed by a trial launched in June 2017. A total of 382 patients: 191 each in the intervention and control group are being recruited from three Indian trauma centres at Delhi, Mumbai, and Ahmedabad. Participants and their families will receive training on the exercises before discharge, along with an exercise manual with tailored information related to the type and frequency of exercises. Each participant in the intervention group will receive voice messages to their mobile phone twice a week, reminding them to complete the prescribed exercises.

An android application of the intervention is being developed and will be piloted along side the paper-based rehabilitation programme for those patients with access to smartphones.



Drowning reduction project

There is limited research on drowning prevention and the social impacts of drowning in low- and middle-income countries. Through the drowning reduction study, funded by the Royal National Lifeboat Institution UK, we seek to explore the community perceptions of drowning, the circumstances surrounding drowning and the social impact of drowning and water related disasters in India using mixed methods approach. Another objective of this project is to explore the risk perception in the population and community preparedness as well as disaster management

practices in vulnerable communities with regards to water-related disasters. We aim to understand community members' personal experience of such disasters, and to explore the enablers and barriers in implementing drowning prevention interventions in high risk populations in geographical areas where drowning rates are high (East-Northeast India), identified through local partners. Our local partners in this study are Child In Need Institute, West Bengal and JHAI foundation, Assam.



Injury surveillance project

The overall goal of the project is to assess the pattern and trend of injuries, and to reduce their incidence and impact. It covers a range of injuries such as road traffic injuries, burns, falls and drowning. The objective is to review the effectiveness and scope of the existing system of injury surveillance in India and make appropriate recommendations to concerned authorities. The project also involves development and testing of tools and instruments to enhance injury surveillance at all levels as well as to examine the extent of utilization of surveillance information for intervention.

The research is based on the premise that effective injury surveillance can facilitate identification of emerging issues and high-risk populations, and quantify issues related to injury disparities in vulnerable populations. Additionally,

it facilitates the tracking of trends, which in turn inform programme design and evaluation for development of more targeted, effective interventions. A desk review from this study, compiled using data collected across all three tiers of health system- primary, secondary and tertiary, as well as other stakeholders such as police posts, ambulance services, insurance companies, and the Ministry of Health and Family Welfare, was submitted to the World Health Organisation in April 2017.

An evaluation of the Urban Mental Health Program in Kolkata, India

Mental disorders impose an enormous burden on society. Globally, mental health problems are a serious public health concern accounting for 7.4% of disability adjusted life years (DALY), and 22.9% of all years lived with disability. The National Mental Health Programme (NMHP) is being implemented by the Government of India to support state governments in providing mental health services in the country. One such programme is the Urban Mental Health Programme (UMHP), a pilot initiative that has attempted the integration of mental health services in primary healthcare settings in two municipal wards in Kolkata. The goal of the UMHP is to *increase the quality, accessibility and acceptability of mental healthcare services*. In partnership with the Kolkata Municipal Corporation, this programme, funded by Navajbhai Ratan Tata Trust from 2012–15, conducted a series of activities focused on providing mental health services in two specific wards.

The George Institute conducted an evaluation over a four-month period between February and June 2016 using a mixed methods approach with an emphasis on qualitative assessment. A number of stakeholders including community members, service providers, municipal councilors, policemen and partner NGO staff were interviewed. A number of barriers and facilitators were identified and the appropriateness of the prescriptions were analysed.



Research dissemination & evaluation

Research dissemination and evaluation, particularly implementation research is an integral part of the research at The George Institute, India. We wish to highlight how the evidence generated from research can be quickly translated into policy including empowerment of the non-conventional healthcare workforce.

Our efforts are targeted at all stakeholders – central and state governments, funding agencies, non-government organizations, consumer organizations, corporates and business houses, global health organizations, media personnel and educational institutions.



FoodSwitch India

The rise of obesity and diet-related non-communicable diseases are becoming an increasing burden on the economies of nations worldwide. Now more than ever, it is critical to monitor and assess the healthiness of food environments to identify areas where improvements can be made.

The FoodSwitch initiative has been established with the goal of providing a sustainable, low-cost platform for tracking a nation's packaged food supply. FoodSwitch is a health technology platform driven by smartphone technology designed to capture, curate, evaluate and disseminate food composition data.

International interest in technologies supporting FoodSwitch has identified the system as a new method for tracking the global food supply. The crowd-sourced data is enabling improvements to the broader food environment by holding industry and government to account for their performance.

FoodSwitch India now provides over 11,000 products with an easy to understand nutrition breakdown to consumers. Indians have crowd-sourced 1305 products to the database using FoodSwitch.

In addition to providing nutritional information in an easy to interpret format to consumers, the data is consistently used by government, non-government and independent research organisations to drive change, develop policy and monitor actions of creating healthier food environments. To-date data from FoodSwitch has been used in over 60 peer-reviewed journal articles, four academic or government reports, and over 50 conference papers or proceedings. Most recent examples include the New South Wales government (Australia) Healthy Food Provision Policy document and Access to Nutrition Foundation's Report on the Comparative Nutritional Profile of 943 Food and Beverage Products Marketed by 12 Large Companies in India .



Salt Summit 2017

Realizing that salt reduction in India requires a multi-stakeholder effort, The George Institute for Global Health, in association with Arogya World organized the Salt Summit in Delhi on February 9th 2017.

The summit brought together key representatives from the government, food industry, academic and research organizations, civil society representatives and the media to deliberate on the growing body of evidence that links various non-communicable diseases to high salt intake and a strategy for salt reduction in India.

India is one of the first countries to have developed an action plan for meeting the 10 targets on NCDs. One of the targets is a 30% relative reduction of salt or sodium intake. This will also directly help in achieving the other target which is 25% relative reduction in raised blood pressure.

Several studies carried out in developing countries, including India, have reported an increase in the prevalence of diet-related chronic diseases, such as obesity, hypertension, diabetes mellitus, other cardiovascular diseases and cancers, especially among urban populations.

The conference brought out suggestions, comments and recommendations from different stakeholders, forming a list of recommendations to reduce salt consumption in India.

Developing evidence for saving lives through reduction in salt consumption

High blood pressure is the leading risk for non-communicable diseases in India. Twenty four percent of the 2.3 million deaths from cardiovascular diseases are attributed to high blood pressure each year. The number of people suffering from hypertension is anticipated to double from 118 million in 2000 to 213 million in 2025.

The George Institute, along with the Public Health Foundation of India and the Centre for Chronic Disease Control, has completed a survey of dietary salt intake in urban and rural areas of the states of Delhi, Haryana and Andhra Pradesh.

The study, which used the 24 hour urine assessment method, was conducted on 712 persons in Delhi and Haryana and 840 in Andhra Pradesh. Overall urinary salt excretion was estimated to be 8.59 g/day in Delhi and Haryana and 9.46 g/day in Andhra Pradesh compared to the WHO standards of 5g/day. Intake was highest in urban slum areas followed by rural areas. In slum areas of Delhi and Haryana, the intake was lowest while in Andhra Pradesh, the result was not significantly different across different residential areas.

Additionally, an analysis of stakeholders involving government, industry, consumers and civil society organisations; and a quantitative evaluation of packaged foods sold in supermarkets in Delhi and Hyderabad has been done.

A survey of packaged foods in the supermarket was another component of the study. Out of a total of 5,686 products included in the analysis, only 43% products met the national Food Safety and Standards Authority of India guidelines for nutrition labelling, and only 34% products had labels with sodium content.

The project has been funded by the Global Alliance for Chronic Disease through the National Health and Medical Research Council of Australia.

Evidence shows that salt intake is a leading cause of high blood pressure. India, along with other member states of the World Health Organisation, has committed to 30 percent reduction in mean salt consumption by 2025 to control the growing epidemic of non-communicable diseases.

The data makes a strong case for India to adopt a national salt reduction strategy. Further, the evidence from other areas and extensive modelling suggests that a salt reduction programme is a cost-effective way of improving population health and saving lives.





An evaluation of the healthiness of packaged foods sold by major manufacturers in India

The Indian food retail sector is evolving rapidly, with progressively more packaged foods and beverages sold. Availability of unhealthy packaged products can be a key driver of obesity and diet-related disease.

To contribute to the first India Access To Nutrition Index, The George Institute evaluated the healthiness of packaged foods and beverages sold by major manufacturers in India.

We assessed healthiness using two nutrient profiling models: the Australian Health Star Rating (HSR) and the World Health Organization's European Regional Office (WHO EURO) model. Sales weighted mean healthiness and proportions of 'healthy' products (i.e. $HSR \geq 3.5$; and meeting WHO EURO criteria for marketing to children) were calculated overall, by company and by food category.

Healthiness was low overall (mean HSR 1.9 out of 5.0) with a low proportion of products defined as 'healthy' (17% had a $HSR \geq 3.5$; 9% met the WHO EURO criteria). There were marked differences in the healthiness of similar products within categories: for example, milk packs ranged from 0.5 to 4.5 HSR. There was a substantial variation between companies as a result of differences in types of products sold and the nutritional composition of individual products.

This work formed the 'Product Profile' of the Access to Nutrition Index for India report, which aims to encourage and guide companies to increase consumers' access to nutritious and affordable foods through product formulation, pricing and distribution and influence on consumers' choice and behaviour by improving marketing, labelling and the use of claims that promote healthy diets and active lifestyles.

In particular we recommend that

Companies should:

- Direct investment toward improving the healthiness of their products by enhancing the product mix and reformulating unhealthy products to healthier compositions.
- Redirect marketing towards healthier products to assist in increasing the proportion of sales derived from these foods.
- Ensure labels comply with international standards established by the Codex Alimentarius Guidelines on Nutrition Labelling.

The Government of India should:

- Compile and maintain a national food composition database, allowing action areas to be identified, addressed, and progress monitored.
- Establish a government led programme to reduce salt, sugar and harmful fats in the food supply.
- Develop and implement effective and enforceable legislation to prevent the marketing of unhealthy products to children.
- Extend nutrition labelling requirements to comply with minimum standards recommended by the Codex Alimentarius Guidelines on Nutrition Labelling, including provision of sodium information.

Going beyond the quick fixes for health systems using technology

Scaling up pilot projects in the area of technology-enabled healthcare delivery requires a concerted effort that involves going beyond the quick fixes and working towards a sustainable health solution that can help tackle the rising burden of communicable and non-communicable diseases in India.

This is the recommendation of a new report entitled, "Landscape of Technology enabled Healthcare in India", by The George Institute for Global Health. The report is based on an evaluation of a large number of initiatives and several healthcare apps in the area of *mHealth* that have been launched in the market.

The report was released at a Consensus Conference on Technology Enabled Healthcare organised by The George Institute in December 2016. The conference drew renowned experts from the healthcare sector and government health officials who deliberated on topics related to the potential of technology-enabled healthcare in India. It was noted by experts that smartphones and

tablet devices are being increasingly used to screen and monitor high-risk conditions and so presented a real opportunity to tackle the rising disease burden.

Technology-enabled healthcare is rapidly being recognised as an important enabler in reducing the double burden of communicable and non-communicable diseases. Several examples of the usefulness of technology-enabled healthcare delivery were presented at the conference.

In May 2017, we partnered with the Australian High Commission in India to organize a digital health and technology round table.

Experts from the Australian and Indian health industry, policymakers and thought leaders came together to share the implementation experiences, key lessons learned and discuss issues around digital technologies and medical technology. The key recommendations were captured in a report and submitted to the bilateral Senior Officials Working Group on Health and Medicine.



Our governance

Our Directors & Advisors

Professor Vivekanand Jha

Executive Director,
The George Institute for Global Health, India
James Martin Fellow, The George Institute for Global Health,
University of Oxford

Professor Vivekanand Jha is the Executive Director, The George Institute for Global Health, India, and James Martin Fellow at The George Institute for Global Health at the University of Oxford.

Prior to joining The George Institute, he was Professor of Nephrology and Head, Department of Translational Regenerative Medicine and Officer-In-Charge, Medical Education and Research Cell at the Postgraduate Institute of Medical Education and Research in Chandigarh, India. Vivek serves on the international advisory boards of several organisations, including membership of the WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation, and the executive committee of the International Society of Nephrology.

He is a councillor of the International Society of Nephrology, a member of the education committees for the International Transplantation Society and International Society of Peritoneal Dialysis. A physician with a specialisation in the area of kidney disease, he focuses on emerging public health threats globally and in India. He is particularly interested in using multi-disciplinary approaches and innovation to address the major challenge posed to humanity by non-communicable diseases. More recently, he was chosen as the president elect of the International Society of Nephrology from 2019 to 2021.



Professor Anushka Patel

Chief Scientist and Professorial Fellow

Anushka is a Professor of Medicine at UNSW and a cardiologist at Royal Prince Alfred Hospital in Sydney, Australia. She undertook her medical training at the University of Queensland, with subsequent postgraduate research degrees from Harvard University and the University of Sydney.

As the Chief Scientist of The George Institute for Global Health, she has a key role in developing and supporting global strategic initiatives across the organisation. Her personal research interests focus on developing innovative solutions for delivering affordable and effective cardiovascular care in the community and in acute care hospital settings.

Anushka currently leads research projects relating to these interests in Australia, China and India. She is supported by a Senior Research Fellowship from the Australian National Health and Medical Research Council (NHMRC).



Dr Pallab K. Maulik

Deputy Director and Head of Research,
The George Institute for Global Health, India
Senior Research Associate, George Institute for Global
Health, University of Oxford

Pallab K. Maulik joined The George Institute, India as the Head of Research in early 2010. Dr Maulik brings a wealth of experience to the Institute, in particular expertise in mental health.

Dr Maulik has worked with the World Health Organisation (WHO), Geneva on Project Atlas and other mental health programs, and clinically as a psychiatrist in India and Australia. After training as a psychiatrist at the All India Institute of Medical Sciences, New Delhi, Dr Maulik received training in public health at the London School of Hygiene and Tropical Medicine, as well as Johns Hopkins School of



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Public Health where he studied his Masters and Doctoral training. He is a Wellcome Trust-DBT India Alliance Intermediate Career Fellow.

His particular research interests include social determinants of health, especially mental health services, mental disorders, international mental health, and intellectual disability.

Amit Khanna

Director, Finance and Operations, India

Amit joined The George Institute, India in May 2013 as Director of Finance and Operations. Prior to joining our team, he worked in the services industry with companies providing services such as auditing and consulting, shipping and logistics, online classifieds/advertising, internet and technology based solutions.

He instantly connected with The George Institute mission and values and is very passionate about being instrumental in driving policy changes in India. Amit holds a degree in Commerce from Delhi University and is a member of the Institute of Chartered Accountants of India.



Research Advisory Committee

The George Institute, India is proud to have some of India's finest health and medical researchers as members of its Research Advisory Committee (RAC) – an independent body that provides high-level research recommendations. Meeting in Delhi last year, the RAC provided positive feedback on the 2016–17 research programme in India.

The committee appreciated the growth of the Institute and its involvement in quality research. While acknowledging the steps taken by the Institute to improve its profile in India and facilitate research capacity development, they stressed upon leveraging local funding opportunities and increasing the national profile of the Institute.

Members of the Research Advisory Committee include:

1) Dr G Gururaj

Professor and Head, Department of Epidemiology, WHO Collaborating Centre for Injury Prevention & Safety Promotion National Institute of Mental Health & Neurosciences, Bengaluru.

2) Professor S.V.Madhu

Department of Medicine, Division of Endocrinology & Metabolism, University College Of Medical Sciences & Guru Tegh Bahadur Hospital, New Delhi

3) Professor Prathap Tharyan

Director, South Asian Cochrane Centre, Prof. BV Moses Centre for Research & Training in Evidence-Informed Healthcare and Health Policy, Christian Medical College, Vellore

4) Dr Jeyaraj Durai Pandian

Professor, Department of Neurology, Christian Medical College, Ludhiana.

5) Dr Usha Raman

Associate Professor and Head, Department of Communication, University of Hyderabad

6) Dr K.R. Thankappan

Professor and Head, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram

7) Dr Rajapurkar Mohan Manohar

Postgraduate Studies & Research, Department of Nephrology, Muljibhai Patel Urological Hospital, Nadiad, Gujarat

8) Dr D.K Shukla

Head (NCD), Indian Council for Medical Research

9) Somil Nagpal

Senior Health Specialist, Global Practice on Health, Nutrition and Population, World Bank.

Funders & Collaborators

Key Funders

Key Funders

Department of Biotechnology
Indian Council of Medical Research
National Health and Medical Research Council (NHMRC)
University of Oxford
Wellcome Trust - DBT India Alliance
Baxter Foundation
UNICEF India
Grand Challenges, Canada
ORBIS International

Key Collaborators

Key India collaborators

Apollo Group of Hospitals
Care Group of Hospitals
Fortis Group of Hospitals
Centre for Chronic Disease Control,
New Delhi
Christian Medical College and Hospital, Ludhiana
Guru Tegh Bahadur Hospital and University College of
Medical Sciences, New Delhi
Indian Institute of Public health, Bhubaneshwar
Indian Institute of Public Health, Hyderabad
Post-Graduate Institute of Medical Education and Research,
Chandigarh



Co-creators

Public Health Foundation of India,
New Delhi

Rishi Valley Health Centre, Chittoor

Sanjay Gandhi Post-Graduate Institute of Medical Sciences,
Lucknow

Sree Chitra Tirunal Institute of Medical Sciences
and Technology

University of Hyderabad

Key International collaborators

Imperial College, London

King's College, London

London School of Health and Tropical Medicine

Monash University, Australia

University of Oxford

University of Sydney

World Health Organization, Geneva

Our finance

Balance Sheet, as at 31st March 2017

Particulars	As at 31-Mar-2017	As at 31-Mar-2016
SOURCES OF FUNDS	(All amounts in Indian Rupee)	
1. Shareholders' Fund		
I. Share capital	25,624,920	25,624,920
II. Reserves & surplus	29,689,293	27,300,375
2. Non-current liabilities		
Long-term provisions	4,599,066	2,668,547
3. Trade payables		
Total outstanding dues of micro enterprises and small enterprises	-	-
Total outstanding dues of creditors other than micro enterprises and small enterprises	4,432,889	5,799,504
4. Current liabilities		
I. Short-term borrowings	-	57,748
II. Other current liabilities	26,606,766	35,181,030
III. Short-term provisions	1,260,109	374,096
Total	92,213,043	97,006,220
APPLICATION OF FUNDS		
1. Non-current assets		
I. Property plant & equipment		
- Tangible assets	4,835,111	7,346,646
II. Long-term loans and advances	7,385,753	6,774,979
2. Current assets		
I. Cash and bank balances	51,325,664	45,520,788
II. Short-term loans and advances	20,289,219	31,149,407
III. Other current assets	8,377,296	6,214,400
Total	92,213,043	97,006,220

Income & Expenditure, year ended 31st March 2017

Particulars	Year ended 31-Mar-2017	Year ended 31-Mar-2016
INCOME	(All amounts in Indian Rupee)	
Project Funds & Grants	124,598,236	119,120,858
Other Income	3,405,394	2,947,106
I Total Income	<u>128,003,630</u>	<u>122,067,964</u>
EXPENDITURE		
Employee Benefit Expenses	65,886,160	45,600,038
Finance Cost	11,787	43,667
Depreciation and Amortization expense	3,161,384	2,301,380
Operating and Other Expenses	56,555,381	67,865,209
II Total Expenditure	<u>125,614,712</u>	<u>115,810,294</u>
III Excess of Income over Expenditure (I-II)	<u>2,388,918</u>	<u>6,257,670</u>
Tax Expense		
1. Current Tax	-	-
2. Deferred Tax	-	-
IV Tax Expense	-	-
V Balance carried to Reserves (III-IV)	<u>2,388,918</u>	<u>6,257,670</u>



Our team

Vivekanand Jha
Amit Khanna
Pallab K. Maulik
Abdul Ameer
Abdul Salam
Abhinav Bassi
Alpana Saha
Anadya Prakash Tripathi
Bhanu Bangari
Chetan C Purad
D Ram Babu
D V Siddhardha Kumar
Deepak Sati
Devaki Nambiar
Devan Pericherla
Mohan Kohli
Esam Hariprasad
J.K Lakshmi
Jagnoor Jagnoor
Kishor M

Executive Director
Director, Finance & Operations
Deputy Director and Head of Research
Project Manager
Senior Research Fellow
Research Fellow
Head of Fund Raising
Lead Biostatistician
Android Developer
Clinical Lead
Project Supervisor
Research Fellow
Accounts Assistant
Programme Head, Health Systems and Equity
Senior IOS Developer
Programme Manager
Research Assistant
Senior Research Fellow
Senior Manager
Research Fellow



Kannan Krishnaswamy
 Lalit Yadav
 Mohd Alim
 N Balaji Rao
 Neeti Sharma
 Nirosha Yeddalapudi
 Oommen John
 Pavitra Madhira
 Praveen D
 Rachna Kapoor
 Rajesh Arora
 Raju Kanukula
 Sagar Mishra
 Sudha Kallakuri
 Sudhir Raj Thout
 T. Naga Jyothi
 T. Rajani
 Tarun Gupta
 Veena Singh
 Y. Govind Babu

Communications Manager
 Research Fellow
 Research Fellow
 Senior Project Supervisor
 HR Manager
 Junior Android Developer
 Senior Research Fellow
 Research Assistant
 Programme Head, Primary Healthcare Research
 EA and Admin Coordinator
 Finance and Admin Manager
 Research Assistant
 Accounts Assistant
 Research Assistant
 Research Fellow
 Administrative Officer
 Administrative Officer
 Digital Communications Advisor
 Senior Research Fellow
 Administrative Manager



The George Institute
for Global Health

Celebrating
ten years of
results & impact
in India!

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