

# GLOBAL HEALTH at the george

Issue 21 | September 2011

CHRONIC AND CRITICAL CONDITIONS	2
INJURY, AGEING AND DISABILITY	3
HEALTHCARE INNOVATION	4

## THE POWER TO TRANSFORM HEALTH IN CHINA



AS GLOBAL HEALTH EXPERTS, WE HAVE A RESPONSIBILITY TO FOCUS ON THE HEART OF CHINA'S HEALTHCARE. ACTION IS URGENTLY NEEDED TO HELP THE MILLIONS OF PEOPLE LIVING THOUSANDS OF MILES FROM THE BOOMING CITIES, UNAWARE OF THE TSUNAMI OF BAD HEALTH HEADING THEIR WAY. A VISIT OF INTERNATIONAL EXPERTS TO A THOUSAND YEAR OLD VILLAGE IN RURAL CHINA PROVIDED AFFIRMATION OF WHAT PROMISES TO BE A LANDMARK HEALTH INNOVATION FOR THE DISADVANTAGED POPULATION.

More than half of China's population is living in rural areas, where less is known about the major causes of death, and where health systems are less likely to

be tailored to treat them. The health landscape in China has shifted significantly over the last decade to mirror that of developed countries thanks to rapid social and economic transition. It is this major change that presents new challenges and opportunities in healthcare development, in particular chronic disease prevention and control.

A project to address these ideas has brought together some of the best minds in healthcare as part of a global health initiative. The team at the China Center for Chronic Disease Prevention at The George Institute, China are working on their flagship project, LifeSeeds, which involves 120 townships in five provinces where local doctors are being taught the latest in treatment and prevention in heart disease and stroke. The project will heavily involve local communities and trial innovative low-cost health initiatives.

Over a four year period, the program will have the potential to transform health in rural China, as successes are likely to be implemented in other areas. For these reasons, LifeSeeds was a key focus at the 3rd Annual Forum on the Prevention and Management of Chronic Disease in Shanxi, China in June. The open Forum is a must-see event in the Chinese health calendar, and involved eminent China and international policy makers, academics, industry experts and opinion leaders. A closed roundtable discussion followed, where 30 guests discussed strategies for the prevention and control of chronic disease in social transition.

But this wasn't any normal boardroom discussion. Participants were not only briefed on the LifeSeeds project, but were taken to a participating village of Lianghu in Shanxi province to see first-hand the project in action.

Director of the UnitedHealth Chronic Disease Initiative, Professor Richard Smith likened the welcome to Barack Obama as decorated locals lined the streets with gold and red banners, balloons, drums and

plaquards. "As we marched up to meet the villagers, I felt like Barack Obama or Lady Gaga", he says in a BMJ blog 6 June 2011. Locals celebrated the experts arrival, and the village mayor outlined the health challenges they face on a daily basis. As part of the campaign to address salt reduction, the village is adopting a salt substitute to help manage raised blood pressure. Professor Smith noted, "Hypertension is a big problem in Northern China, partly because of their high salt consumption. The mayor told us that salt consumption in the village was 17g per person per day when WHO recommends no more than 6g." "How many mayors," said an American colleague, "know the salt consumption of their citizens?"

The one thousand year old village paints a vibrant picture of hope for the many Chinese who are living at risk of chronic diseases. To read more about these events or the innovative LifeSeeds project as part of the China Center for Chronic Disease Prevention, please find the China Health Focus enclosed, or visit [www.georgeinstitute.org.cn](http://www.georgeinstitute.org.cn).

### This issue



**P2** CHRONIC AND CRITICAL CONDITIONS

Seeing through the salt storm



**P3** INJURY, AGEING AND DISABILITY

Protecting motorcycle riders



**P4** HEALTHCARE INNOVATION

Leading global heart care from India

## GLOBAL SALT MONITORING

PROCESSED FOODS CONTRIBUTE SIGNIFICANTLY TO OUR INTAKE OF ENERGY, SATURATED FAT, SUGAR AND SALT. THIS PROBLEM IS NOT SPECIFIC TO WESTERN COUNTRIES, AS DEVELOPING COUNTRIES NOW HAVE AN INCREASED RELIANCE ON IMPORTED AND PROCESSED FOOD PRODUCTS.



To keep an eye on the salt content in food products and meals, The George

Institute has established a high-powered database with the nutrient composition of over 10,000 processed

food products. While initially focusing on sodium, this database now covers all the main components of food.

This resource is now the focus of a major international collaboration including more than 20 other countries. By developing a standard global branded food composition database,

it will be possible to track industry and government commitments to improving the food supply not just in Australia, but also on a global basis. This will be a key step forward in holding governments and industry to account.

## CHRONIC AND CRITICAL CONDITIONS

## SEEING THROUGH THE SALT STORM

RECENT MEDIA COVERAGE OF CONTENTIOUS SALT REPORTS SET THE CAT AMONG THE PIGEONS WITHIN THE HEALTH AND NUTRITION ARENA. THE RESEARCH SUGGESTED BOTH BENEFITS OF A HIGH SALT DIET AND NO HEALTH PROTECTION WITH SALT REDUCTION. BUT THE WORK VARIED GREATLY IN QUALITY AND THIS, SAY EXPERTS, IS THE KEY FACTOR IN A DIFFICULT AREA OF INVESTIGATION.

Following the hype, Professor Bruce Neal, Senior Director, The George Institute for Global Health and Chair of the Australian Division of World Action on Salt and Health (AWASH), says it's time to see the controversy for what it is - a media frenzy focused on boosting circulation and maximising media hits. None of this changes the real issue - salt is dangerous to your health and there is overwhelming evidence to support this. He says the question is no longer whether population-wide salt reduction should be a goal, but how to achieve it.



Excess salt progressively raises your blood pressure from childhood through to old age greatly increasing your risk of premature stroke and heart attack.

Professor Neal has advocated for salt reduction programs in Australia and overseas for many years. "There is little debate about the adverse impact of salt on health. Despite recent highly publicised reports on the opposing view, the totality of evidence is convincing. This is widely understood by health

leaders, organisations and governments. Hypertension guidelines advocate consuming less salt, and more than 30 countries have some form of salt reduction program in place", says Professor Neal.

High blood pressure is responsible for more than seven million deaths worldwide each year. For this reason, the global impact of salt reduction campaigns could be colossal.

"The most impressive feature of population-wide salt reduction programs is the huge health gains to be achieved, and the very low-cost required to deliver them. We are talking about health benefits on par with those that might be achieved with tobacco control", he added.

The solution, according to Professor Neal, is to get to the source of the problem. A reduction in the salt added to widely consumed foods, such as cereals and breads would clip a small, but powerful amount of salt from an individual's diet. Because almost everyone eats far more salt than they need, almost everyone stands to benefit from eating less.

This approach also has the great advantage of being equitable. Everyone eats food and if you take a little bit of salt out of everything, everyone ends up a bit better off. And those parts of the population eating the cheapest, saltiest food, who most need to reduce their intake, end up getting the greatest benefit.

## UK SMOKERS GET SMART THANKS TO TEXT MESSAGES

For the millions of smokers worldwide, stopping the habit could be as easy as carrying a mobile phone. An innovative study of targeted text messages sent to people who wished to stop smoking has shown to double quit rates after six months.

The simple and smart approach was invented by Professor Anthony Rodgers from The George Institute and tested in the United Kingdom, following a successful trial in New Zealand. Led by the London School of Hygiene and Tropical Medicine, the study involved 5,800 participants who were willing to quit smoking and had a mobile phone.

Participants received personalised messages to coach them through periods of craving, any lapses and concerns about quitting. Messages included: "This is it! QUIT DAY, throw away all your fags. TODAY is the start of being QUIT forever, you can do it!"

"We started work in this area a decade ago and there are now lots of other e-health and m-health smoking cessation programs, but this is one of the very few shown to be effective in clinical trials that are as rigorous as those that would be conducted for a smoking cessation drug", said Professor Rodgers.

## PATIENT FOCUS: Giving it up for the kids

Motivated to quit smoking for his two young children, Fergus Joel, 36, successfully gave up his 20-a-day habit thanks to the txt2stop study, and feels much healthier as a result. Fergus likened the messages to a 24/7 friend providing encouragement and useful advice which spurred him on during moments of weakness.

Fergus started smoking in 2000 and would regularly light up three or four cigarettes before his morning coffee until he gave up during the txt2stop program.

"The messages really helped me. I'd tried to give up before but it's tough to keep up the willpower. At the end of the day, I've got two children, and I don't want them to see their daddy as a smoker. And the thing that motivated me most was the children, but it was also for my health



Fergus with his two children - Kiera, six, and Fergus, three.

as well. I feel much fitter now - I can run about with the children, I can taste my food much better, I can smell the air, it's just brilliant. It's been two years now and I'm very happy I've come this far."

## STROKE STRIKES YOUNG IN POOR AREAS



PROVING THAT MONEY REALLY DOES MAKE THE WORLD GO AROUND, STAGGERING NEW RESEARCH HAS REVEALED THAT THE RATE OF STROKES IN LOWER SOCIOECONOMIC AREAS IS 70% HIGHER THAN THOSE IN MORE AFFLUENT AREAS. THE FINDINGS ARE THE FIRST OF THEIR KIND TO CLEARLY SHOW THE RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS AND RISK OF STROKE IN AUSTRALIA AND NEW ZEALAND.

Stroke is the world's second biggest killer after heart disease. The impact of the disease is fast becoming a major issue for both developing and western countries, as one third of the 11 million people who survive the acute illness will rely on health services and carers to support their everyday activities.

A key result from the new research was that people living in the poorer areas were having their first ever stroke at a younger age.

Lead author Dr Emma Heeley found signs that stroke patients in poorer areas had an unhealthier lifestyle, which may explain the higher rate of strokes. "People from lower socioeconomic areas were having strokes at an average age of 68, compared to more affluent areas where the average age is 77."

Dr Heeley and colleagues believe that by improving the socioeconomic profile of those living in deprived areas, we could prevent up to one-fifth of strokes in Australia and New Zealand.

"Prevention must be targeted to lower socioeconomic groups, which should include education and service provision to reduce the levels of risk factors such as smoking, alcohol and also improve management of blood pressure", she added.

Stroke patients from deprived areas were more likely to be from non-European ethnicity, blue-collar workers, current smokers and have a history of hypertension and diabetes. Those in less disadvantaged areas were older, with fewer risk factors such as diabetes and smoking. They were also shown to have been actively employed before having a stroke.

Over 3,000 patients were analysed in this pooled analysis across Australia and New Zealand. Patients were grouped into five different socioeconomic groups assessing employment status, social class, social behaviour and health history.

The research was funded by the National Heart Foundation, and included researchers from Baker IDI Heart and Diabetes Institute, Monash University, Royal Perth Hospital and the University of Western Australia.

The George Institute for Global Health is conducting a range of research into stroke prevention, management and care. To find out more, visit [www.georgeinstitute.org.au](http://www.georgeinstitute.org.au).

## PROTECTING RIDERS FROM MORE THAN JUST THE WEATHER



IT'S BEEN MORE THAN 25 YEARS SINCE CLOTHING HAS BEEN EXAMINED AS A SAFETY MECHANISM FOR MOTORCYCLE RIDERS. INJURY RESEARCHERS AT THE GEORGE INSTITUTE HAVE FILLED A MASSIVE EVIDENCE GAP, BY PROVIDING NEW UP-TO-DATE INFORMATION AIMED TO KEEP RIDERS SAFER AND OUT OF HOSPITALS.

Researchers assessed 212 motorcycle and scooter riders involved in accidents to establish the severity of injuries and better understand the role of protective clothing.

By wearing motorcycle jackets, pants, gloves or boots riders were:

- > 23% less likely to have an injury to the upper body
- > 39% less likely to injure their legs
- > 45% less likely to injure their hands and feet
- > 53% less likely to have a foot or ankle injury than riders wearing shoes or joggers
- > Significantly less likely to be admitted to hospital.

According to Research Fellow Liz de Rome, over 200 motorcyclists die and a further 8,000 are seriously injured on Australian roads each year. For many years, motorcycle safety research has been dominated by debate about the

effectiveness of helmets with less focus on other protection for the rider's body.

With the increasing human and economic costs of motorcycle injuries around the world, research into the effectiveness of protective clothing is fundamental to improving road safety.

While there are limits to the extent clothing can prevent injury in high-impact crashes, it is in low-impact crashes that protective clothing is thought to offer the greatest injury reduction. However, the results of the study also send a clear message to the manufacturers of motorcycle protective clothing. The proportion of jackets (29%), pants (28%) and gloves (25%) that failed under crash conditions due to material damage, indicates a need for improved quality control.

Co-investigator, Associate Professor Rebecca Ivers, Director of Injury Research at The George Institute said: "This research sends a clear message to riders that protection is important every time they ride, and highlights the need for further investment by governments to encourage riders to wear appropriate clothing, and to work with the industry to improve the quality of products available."

The study was funded by Australia's leading motorcycle insurer Swann Insurance.

## 60 SECONDS WITH... DR KAZEM RAHIMI, DEPUTY DIRECTOR, GEORGE CENTRE FOR HEALTHCARE INNOVATION



**I was born in** Tehran and then lived in Germany in my early teens. I spent 16 years in Munich and Leipzig and have been in the United Kingdom since 2004.

**What excites me** is to be challenged by my two little daughters when returning home from work. You know, those disarming moments when any attempt to gain control is futile.

**When I was a child I wanted to be** cool like my dad (who is not a doctor).

**If I could meet anyone famous** it would be Abraham Lincoln.

**I never leave home without** my raincoat.

**My fridge usually contains** Becks Blue.

**If I could be anything else I would** be an artist, musician, philosopher, social entrepreneur...

**I work at The George Institute because** the pipeline of challenges and opportunities are guaranteed. We hope to establish the Centre as one of the leading healthcare innovation centres worldwide.

**At work, I would most like to** break the traditional boundaries of thinking in healthcare provision and to make a contribution towards more equitable health. My primary goals over the next year are to secure funding for at least two of our first research programs and for a personal fellowship.

# HEALTHCARE SOLUTIONS SPARK AT OXFORD WORKSHOP



The Indian Institute building at Oxford University

In a number of different offices nestled in the buildings and corridors of the University of Oxford sit an array of health and medical experts with impressive but separate health links worldwide. Following a university-wide celebration of Oxford's links with India, an initiative hosted by the George Centre for Healthcare Innovation saw a selection of these experts come together in June to explore the untapped potential of networked cooperation in global health research.

At the heart of the group, lies a common thread of health research underway in India and South Asia.

Paul Ryder, Executive Manager of the George Centre for Healthcare Innovation in Oxford, said the aim was to explore the potential for strengthening collaboration between a number of Oxford centres and India-based partner organisations and affiliates. "We discovered that many areas of work were complementary, and a great opportunity to collaborate and harness different areas of expertise existed", he said.

The group of 17 identified five key areas of opportunity to improve health in the region:

Development and testing of new medical technologies: such as software and monitoring devices for resource-poor settings.

Curriculum development and capacity building: innovation in public health teaching and student and clinical placements.

Clinical trials implementation: exchanges on protocol development, increasing awareness and sharing of existing capacity, providing training opportunities.

Observational studies: sharing experience on data collection, exploring the potential for cross-linking studies and populations.

Funding development: identifying sources of research income for new projects and preparing collaborative proposals.

"With respect to core work areas, there was wide appreciation for the benefits to be gained from collaborating and bringing together different strengths. As the impact of chronic disease starts to take its toll in developing regions of India and South Asia, it's vital to harness innovative ways of developing healthcare solutions for such a massive population", said Associate Professor Anushka Patel, Director of The George Institute, India.

Suggested mechanisms to take the collaboration forward and pool resources included awareness raising events, establishing a website, and dedicating resources to facilitate work.



## HEALTHCARE INNOVATION

### LEADING GLOBAL HEART CARE FROM INDIA

**IN A LANDSCAPE WHERE THE LEADING CAUSES OF DEATH HAVE CHANGED DRAMATICALLY OVER THE PAST DECADE, INDIAN AND AUSTRALIAN RESEARCHERS HAVE A LEADING ROLE IN A SERIES OF PIVOTAL GLOBAL CARDIOVASCULAR CARE TRIALS OF INEXPENSIVE 'POLYPILLS' FOR THE PREVENTION OF HEART DISEASE AND STROKE.**

The polypill is expected to be substantially cheaper than existing medications to combat cardiovascular problems.

Heart disease and stroke are the leading cause of death in India, which on average occur at a much younger age, compared with more developed countries. With a population of approximately 1.2 billion that has grown by 181 million in just the

last decade, India has no choice but to be as well equipped as possible to deal with the massive impending impact of cardiovascular conditions.

A partnership established in 2003 with Dr Reddy's Laboratories in India saw the development of the polypill. Since then, the treatment has been extensively tested and has been shown to have similar benefits on heart disease risk factors. The next step is to establish if this simple treatment strategy can be maintained better by patients long term and thus produce greater benefits. This is currently underway in India with the Centre for Chronic Disease Control, New Delhi as part of a larger international study.

Researchers will address patients who are at a high risk of cardiovascular events and will also assess if patents are sticking

to their medication over the long term.

"In an area of the world where rates of cardiovascular disease are rapidly increasing, reliable evidence about the effectiveness of new strategies to provide cost-effective preventative therapies to those at greatest risk are urgently required", said Associate Professor Anushka Patel, Director of The George Institute, India.

Effective preventative treatments are available for patients at high risk of heart attack and stroke, but optimal therapy is often not prescribed and many patients find it difficult to adhere to complex drug regimens, particularly when they have no symptoms. In India, 80% of healthcare is paid out of pocket and the majority of people do not currently have access to cardiovascular drugs.

### REFORM AT WHO: AN OPPORTUNITY FOR GLOBAL HEALTH

**SINCE ITS ESTABLISHMENT IN 1948 THE WORLD HEALTH ORGANIZATION (WHO) HAS WEATHERED AN INCREDIBLE STORM OF HEALTH CHALLENGES YET REMAINS THE MECCA FOR GLOBAL HEALTH DECISIONS AND RESOURCES.**

In 2011, the world's most esteemed health body finds itself at the crossroads. Faced with an incredible mandate to act as the global coordinating authority for improving human health, the World Health Organization is armed with strong science and world-class expertise yet is overwhelmed by other highly-publicised global health initiatives with competing interests and is restricted by substantial funding limitations.

Internationally acclaimed scholar and global health law expert, Professor Larry Gostin, joined a panel of global health experts to discuss the imminent reform of WHO in August 2011 at the University of Sydney, co-hosted by The George Institute and Sydney Law School.

Professor Gostin highlighted the challenges, including international trade and intellectual property – both of which have an important influence on health

today, yet are not areas WHO has a strong foothold in. Additionally, WHO controls only 30% of its budget while the remaining funds are received from grants supplied by other funders with their own agenda. The result is that WHO's focus is skewed from where the true burden of disease lies.

Professor Gostin suggests a number of reforms that would help address these issues such as restricting governance and restructuring funding. But change is never easy, and while some suggestions may seem extreme to such a large and old institution, it is widely accepted that change is indispensable.

Other possible solutions tabled at the event included:

- > Development of a global framework aligning individual national health plans, to ensure funding matches with specific health priorities
- > Greater accountability in WHO's six regional offices
- > A stronger legal capacity for control of non-communicable diseases.

This important discussion is podcast at [www.sydney.edu.au/law/video/](http://www.sydney.edu.au/law/video/).

Dr Devi Sridhar co-authored with Professor Gostin, a paper on the reform of WHO. We welcome Devi joining The George Centre at Oxford early October.

#### THE GEORGE INSTITUTE FOR GLOBAL HEALTH

Postal Address: PO Box M201, Missenden Road  
NSW 2050 AUSTRALIA

#### HOSPITAL

Level 10, King George V Building, Royal Prince Alfred  
Hospital, Missenden Road, Camperdown  
Sydney NSW AUSTRALIA

Telephone +61 2 9993 4500 Facsimile +61 2 9993 4501  
info@george.org.au

#### CITY

Level 7, 341 George Street, Sydney NSW AUSTRALIA  
Telephone +61 2 9657 0300 Facsimile +61 2 9657 0301

#### CHINA

Room 1302, Tower B, Horizon Tower  
No. 6 Zhichun Road  
Haidian District, Beijing 100088 PR CHINA

#### INDIA

Plot No. 839C, Road No. 44 Jubilee Hills  
Hyderabad 500 033 INDIA

#### UNITED KINGDOM

George Centre for Healthcare Innovation  
University of Oxford  
Richard Doll Building, Old Road Campus, Roosevelt Drive  
Oxford OX3 7LF, United Kingdom

[www.georgeinstitute.org](http://www.georgeinstitute.org)



ISSN 1833-3656