



Chronic Diseases Initiative for Africa – May 2014 – Issue 1

CDIA is a collaborative research initiative that develops and evaluates models for chronic disease care and prevention of risk factors.



Investing in Solutions

We are proud to welcome you to our first 2014 newsletter.

The CDIA has started the year with a bang – in this issue you will read about a new investment for research into non-communicable diseases from Discovery Health, an overview of the outcomes of the 2014 Health Innovation Summit and updates from CDIA members.

Please let us have your feedback – email cdia@uct.ac.za



Cover page photographs taken by Eric Bosch

Discovery Fund contributes R2m for vital research into non-communicable diseases

South Africa's biggest private healthcare funder has announced a R2 million donation to the Chronic Diseases Initiative for Africa (CDIA) for vital research into non-communicable diseases in South Africa.

"The CDIA is delighted to receive this significant donation. It allows us to expand vital research into NCDs, which have emerged as major threats to health in South Africa, placing an even heavier burden on our already strained health services," says CDIA director, Professor Naomi Levitt.

Non-communicable diseases like heart disease, stroke, diabetes and some cancers currently contribute to 30% of deaths in South Africa. About 6.3 million South Africans have high blood pressure and 3 million have type 2 diabetes.

"It is critical that we pay attention to these statistics now. Nearly half of the deaths caused by cardiovascular disease in South Africa occur before the age of 65 years, four times the rate in the USA. Many of these premature deaths could be prevented," says Professor Levitt.

The Discovery Fund's vision is in line with the healthcare service's core purpose, which is to make people healthier, and to enhance and protect their lives. In the letter confirming the donation, the

Discovery Fund trustees stated: "This grant is a contribution towards core funding for the directorate of the CDIA, which will enable CDIA's research network to continue to make a vital contribution to NCD-related research and advocacy work in South Africa."

Some of the work the CDIA has been involved with includes: developing an assessment tool for the early identification of people at risk of cardiovascular disease, a group diabetes education programme, and the use of mobile technology to deliver SMS support to patients with hypertension to promote adherence to treatment. This innovation is being evaluated in a clinical trial, in collaboration with researchers from Oxford University.

"It is critical that the current focus on NCDs be strengthened and expanded."

Professor Levitt concludes: "It is critical that the current focus on NCDs be strengthened and expanded, in order to improve the health of patients with chronic diseases and reduce premature mortality. This donation by the Discovery Fund is an opportunity to promote the work of the CDIA network."



Professor Krisela Steyn

Playing a major role in the fight against salt

The Chronic Diseases Initiative for Africa (CDIA) has been instrumental in campaigning for salt reduction in South Africa.

"It is crucial that South Africans are made aware of how much salt they are consuming in their diet and how this is affecting their health," says Professor Krisela Steyn, Associate Director of the CDIA.

The Heart and Stroke Foundation of South Africa (HSFSA) launched a lobby group – Salt Watch at its Salt Summit this March. It brings together academics, dieticians, nutritionists and civic organisations. The organisation hopes to bring home to South Africans that they are consuming dangerous amounts of salt in their food.

South Africa has 6.3 million people living with high blood pressure, one of the highest rates of hypertension worldwide. Statistics show that about 130 heart attacks and 240 strokes occur daily in South Africa. According to the HSFSA, a staggering 80% of these cardiovascular diseases could be prevented through modified behaviour – like reducing salt.

The CDIA was instrumental in the process of establishing Salt Watch and helped to compile vital

research, highlighting the high salt content in South African bread. This CDIA research also worked with the national department of health to introduce a pioneering salt policy – making South Africa the first country in the world to legally regulate salt content in the food industry – a process that will be phased in over the next few years.

Professor Steyn, who was also awarded the 2014 WHL Notable Achievement in Dietary Salt Reduction by the World Hypertension League says: "It was a great pleasure to have our research project's results translated to national policy, which could improve the health of South Africans by reducing blood pressure in the country."

In March, the Department of Health also announced that R5 million will be made available to Salt Watch for use in its campaigns, advertisements, announcements and programmes for members of the community to warn them against using too much salt.

Community Health Workers Project – the challenges and the opportunities.

CDIA researcher, PhD student Lungiswa Tsolekile talks about the outcomes of her research on the Community Health Workers Project.

Lungi Tsolekile's PhD is based on her research and findings on the CDIA's Community Health Workers Project. Her first project in 2011 was an observational study of a group of community health workers (CHWs) in Khayelitsha. The aim was to gain a deeper insight into the roles and activities of CHWs, and to determine their current roles in prevention and control of chronic non-communicable diseases (NCDs).

Findings of the first study showed that CHWs have multiple roles in the care of people with NCDs, such as health educators, advisors, rehabilitation workers and support group facilitators. Lungi says that these roles are "shaped both by expectations of the health system and in response to community needs".

A problematic find, however, was how newly recruited CHWs are taught by fellow CHWs. She says the process of peer learning needs to be supervised and formalised to ensure that messages are standardised.

"Although the process is done in good spirit and CHWs delegate with trust, information may not be accurate, thus this process needs to be supervised."

Her second study, based on the findings of the observational study, was developed to survey a larger sample of CHWs in Khayelitsha, to assess their knowledge and practices with regards to chronic NCDs. This was conducted using a questionnaire, which assessed the general roles and activities of CHWs and those related specifically to NCDs.

The questionnaire assessed the following: induction of CHWs, in-service training, support offered to CHWs and the referral system, as well as supervision of the CHWs and their knowledge on NCDs.

Preliminary results of the second phase give weight to observations she made in the first study, that the training of CHWs, especially in NCDs, is fragmented. Training of CHWs is provided by numerous sources meaning they receive varying messages from a variety of trainers. This in turn may influence messages which clients at community level receive.



Lungiswa Tsolekile

Mobile health cardiovascular disease risk assessment tool shows promising progress

CDIA researcher, Dr Sam Surka, a past Discovery Foundation Academic Fellowship Award recipient, continues his work in connected health and has recently been awarded a MRC Clinician Researcher Fellowship to undertake a PhD.

Dr Sam Surka has spent the past two years working closely on one of the CDIA's core research projects; the Community Health Workers (CHWs) Project, researching and developing a mobile application risk assessment tool, which assists CHWs in calculating a cardiovascular disease (CVD) risk score. His PhD will continue to focus on how mHealth and big data tools can be used to improve outcomes for individuals with CVD risk factors.

The CVD risk assessment application, which was developed for basic feature phones, uses a non-laboratory risk assessment model developed by colleagues at Harvard University. It was recently tested in a pilot study in Nyanga, where Dr Surka's team trained unskilled health workers to use the mobile phone application to assess community members for the risk of developing CVD.

Preliminary findings show the mobile application to be associated with reduced CHW training times and risk

assessment times in the field, as well as elimination of errors in calculating a risk score when compared to using a paper-based version of the tool.

The next phase of this project will include investigating how CVD risk is perceived and understood by community members, as well as identifying which method of communicating risk is most effective.

Determining a CVD risk score and identifying individuals at risk is an important part of primary prevention of cardiovascular disease, which Dr Surka says is a leading cause of death worldwide and developing countries are worst affected. His research aims to contribute to the work done by using innovative technology to solve priority health challenges and he remains optimistic about the potential that lies in the power of mobile technology as a game changer in health care in Africa.



Dr Sam Surka

New solutions for a healthier African future

The Inclusive Healthcare Innovation Summit 2014 offered all stakeholders in the health industry the opportunity to discuss ideas for improving healthcare in SA and Africa.

The Inclusive Healthcare Innovation Summit held in Cape Town earlier this year did more than just connect major role players in the healthcare sector – it put innovation at the top of the healthcare agenda and paved the way for real results and tangible solutions.

“The summit totally exceeded any expectations we had. It was the first time we have had something like this in Africa; a platform really focusing on finding approaches to healthcare innovation,” said one of the event organisers, Dr Lindi van Niekerk, a former CDIA research associate and Health Innovation Lead at the Bertha Centre for Social Innovation and Entrepreneurship at the UCT Graduate School of Business.

“These innovators are reimagining an alternative narrative of what healthcare could be in South Africa.”

The summit, held on 29 and 30 January 2014, served as the launch of the new collaborative Inclusive Healthcare Innovation Initiative of the University of Cape Town's Faculty of Health Sciences and the Graduate School of Business (UCT GSB). The summit hosted 284 delegates from seven countries and featured international and local guest speakers, workshops and discussions on the most topical healthcare issues on the African continent. Among the international speakers were Professor Anjali Sastry from MIT Sloan School of Management, as well as Richard Stubbs from the NHS England and design expert Jenny Winhall. Speakers from other African countries included Lisa Kimbo from Nairobi and Stefanie Weiland from Burundi.

South African Minister of Health, Dr Aaron Motsoaledi presented the keynote address at the event, saying South Africa would not meet the United Nations health-related Millennium Development Goals' 2015 deadline without innovation. According to the minister, innovation is needed in healthcare delivery, health worker education, and preventative healthcare. For example, he said, while patients requiring ARV treatment for HIV/Aids would increase fourfold by 2016, clinics and medical staff would not increase at the same pace. “So what do you do? You need some form of innovation to address this challenge.”

Dr van Niekerk explained that the summit was geared towards finding solutions for exactly these issues around



SA Health Minister - Dr Aaron Motsoaledi and Dr Lindi van Niekerk

healthcare delivery. “We need to think in terms of outcomes that serve more people. So it's not just about technology and high-flying gadgets that very few people can in fact afford, but rather about solutions that serve our country and continent in an inclusive manner.”

The summit honoured several ‘healthcare innovators’ – individuals and projects whose innovative and creative solutions are transcending current challenges in the system to improve health outcomes for patients. The profiles of these leading innovators have also been captured in a new publication, the Health Innovators Review.

Dr van Niekerk says that this is just the beginning. Following the success of the summit, vital communication channels have been opened with the Department of Health, healthcare facilities and students at the university. Another example of a tangible outcome, developed during the Healthcare Hackathon at Groote Schuur Hospital, a precursor event to the summit, is an electronic app called EC Tracker, which is currently in development. The award-winning innovative idea, developed by a cross-disciplinary team of students, doctors, software developers and designers, looks at better systems in hospital casualty to improve efficiency.

“Our next step is to think how we can help support innovators locally, what can we do to help showcase their work and grow their ideas to implementable solutions,” says van Niekerk.

“There are many South Africans determined not to accept the status quo, but to use their creative ability and relentless drive to deliver better healthcare to those who need it most. These innovators are not waiting for rock stars, superheroes or leaders to come and fix the problems. Instead, they are reimagining an alternative narrative of what healthcare could be in South Africa,” she says.