

CDIA

Chronic Disease Initiative for Africa

SEPTEMBER 2016

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

A Tribute to Dr. Krisela Steyn



We are proud to welcome you to the second edition of our newsletter for 2016.

This special edition is dedicated to recently retired Dr. Krisela Steyn, who has played a huge role within CDIA as well as being part of many successful projects that are highlighted in the newsletter. From the Salt Project to student mentorship, we take a peek into her life as an academic.

We will also be making mention of some exciting current and upcoming projects as well as a new arrival to the CDIA family.



We are pleased to announce that the Trustees of Discovery Trust have awarded the CDIA R2.5 million towards NCD-related research and advocacy work in South Africa for another year.

Your feedback is always welcome –
email cdia@uct.ac.za



A passion for life and science



Dr Krisela Steyn, outgoing associate director of the CDIA, might indeed be an impartial scientist and researcher, dedicated to hard, impersonal facts, but she is driven by a passion for life and for people that emanates from her like sunshine.

Listening to her reminiscing about her career, one soon realises that no obstacle can deflect her from the path she has determined to take. From a young age, she wanted to study medicine, but financial constraints made it impossible, so she became a biochemist at Stellenbosch University and went on to lecture at the University of the Western Cape.

But the siren call of medicine never ceased, so ten years after gaining her MSc, now married with four sons and the sole breadwinner, she began her studies in medicine and qualified as one of the older students in her M.B.Ch.B class.

Dr Steyn experienced all the “agony and ecstasy” of clinical work. At Woodstock hospital and in the day hospitals in Cape Town, confronted by countless different sicknesses, diseases and injuries, she gained a wealth of experience in the public sector primary care setting.

“The work was gruelling, but it fulfilled all my expectations and I developed a deep respect for the doctors and nurses who worked in these challenging settings,” she says.

The big breakthrough in her research career came with her appointment as senior medical officer at the National Research Institute for Nutritional Diseases in

“Everything would be better if more people were like you! You’re a great listener. You bring out the best in other people. Any team would be lucky to have you on it. You should be thanked more often.” - Mahmoud Werfalli, PhD Student CDIA

the Medical Research Council (MRC). Here her work culminated in being awarded an MD in Community Health at the University of Cape Town (UCT).

From there it was an ever deepening delving into the epidemiological research of chronic diseases, moving to the newly created Centre of Epidemiological Research of South Africa. She eventually became Director of the Chronic Diseases of Lifestyle (CDL) Unit, as well as Director of a World Health CDL Collaborating Centre.

Buoyed by a delightful sense of humour, Dr Steyn possesses a remarkable gift for drawing people together from different fields of study and research to form fruitful multidisciplinary networks that operate locally and internationally. And though she constantly gives high praise to the work and achievements of colleagues and team members, it is clear that she is a significant inspiration and role model to co-workers and students alike.

Whenever she tackles a new project, she throws herself into it with no holds barred, always stimulated by the new fields of knowledge and discovery, determined to bring change and improvement into unhealthy, negative circumstances. During her career she has worked to promote tobacco control legislation, and healthy diet and physical activity. She was also involved with studying the chronic disease risk factors patterns of populations. She eagerly courted international collaboration and was instrumental, along with other colleagues, in setting

“I have had the good fortune to have worked with Krisela over many years at the MRC and at the CDIA. I would like to express my heartfelt appreciation for her unfailing encouragement and support over the years. Krisela has always been a very reassuring figure to be around. She is such an able problem solver, can help one see the bigger picture, is a natural optimist and always ready to see and expect the best in people. Her contribution to the field of public health is prodigious, with hundreds of academic publications to her name, a long list of people whom she has mentored and trained in research (myself included) and a long standing involvement with the Heart and Stroke Foundation, as a custodian and steward. I hope she can now happily rest on her laurels and enjoy spending more time doing the other things she enjoys. Thank you, Krisela, for your generosity, mentorship and friendship. It has meant a lot to me.”

– Katherine Murphy



Writers Workshop 2015

up the Chronic Disease Initiative for Africa (CDIA) as one of 11 centres of excellence doing research on reducing the impact of non-communicable diseases in developing countries. The CDIA works with universities and research organisations in South Africa and colleagues at Harvard and Johns Hopkins Universities.

Throughout her career, Dr Steyn has also poured significant time and commitment into capacity building, mentoring and supervising undergraduate and postgraduate students. This also involved fundraising, even setting up exchange programmes with countries such as Sweden and the USA.

After she retired from the MRC in 2006, Dr Steyn became a Senior Scholar of the Department of Medicine at UCT and Associate Director of the CDIA. A prolific writer, she has authored 165 local and international publications, numerous technical reports and MRC policy briefs and has been a sought-after speaker at local and international scientific meetings, with over 200 presentations under her belt. She has also received a number of national and international awards and recognitions for her contribution to chronic disease research.

It has been a long, varied and prolific career, but now, she is ready, she says, to step back.

“Age might slow one down a bit,” she smiles. “Retirement now seems appropriate as does handing over the important chronic disease research initiative to my younger colleagues.”



The story behind the Salt Policy

In March 2013, South Africa was hailed internationally for the introduction of ground breaking legislation to make salt reduction in the food industry mandatory. What many people don't know was that the initiative started out as a small research project in the Chronic Disease of Lifestyle Unit of the Medical Research Council, says Dr Krisela Steyn.

Dr Steyn, tells the story of how she and Professor Naomi (Dinky) Levitt supervised a PhD student, Dr Karin Charlton, with her study of salt sensitivity in black communities. Studies had shown that South Africans were consuming about 7.8g to 9.5g and some as much as 40g of salt per day, significantly increasing their risk of developing hypertension.

The aim of Dr Charlton's study was to take the usual foods that black populations ate at their level of available resources, turn them into healthier products by reducing the salt content and increasing the potassium content, and then determine whether that would lower hypertension.

"The student worked closely with the food industry, getting players to reduce the salt content in bread, replace some salty shakes with potassium and also decrease the percentage of salt in about seven or eight products consumed on a regular basis," Dr Steyn continues.

"It was a difficult randomised control trial involving both low salt and normal products over an eight-week period in the township of Langa. It was possible to prove after that period that people who consumed the lower salt products had significantly lower blood pressure."

The results were seen to be seminal and she submitted the data to the National Department of Health (NDOH) for consideration. The Department subsequently identified salt reduction as one of their important projects. The Heart and Stroke Foundation

"It was possible to show that over the five-month media campaign, people had the intention to change their behaviour for the better, though monitoring this is a challenge."

worked with many stakeholders to start 'Salt Watch', a multidisciplinary group who undertook to educate the public and create awareness of the risk posed by excessive salt consumption. "In South Africa, only 60% of salt intake is provided by products prepared by the food industry, the other 40% is from discretionary use during cooking or adding salt at the table, so people had to be sensitised also to reduce their personal use of salt," says Dr Steyn.

Presented with the findings, health minister, Dr Aaron Motsoaledi was convinced, and by 2012 legislation had been drafted to ensure that the food industry would reduce salt content in a number of specified products

Dr Steyn concludes, projections showed that proposed salt cuts would lead to a 10% drop – or 7 000 fewer deaths from heart attacks – and 4 000 fewer non-fatal strokes each year.

"We're cooperating with Australian colleagues on the path forward and working with the Potchefstroom School of Nutrition in developing plans for measuring the impact, but we are confident that by 2020, salt consumption will be reduced."



Krisela Farewell 2016 with members and students.

Building up the next generation of scientists

Helping young researchers to blossom into confident scientists has been a lifelong passion for Dr Krisela Steyn.

One's first impression on meeting Dr Steyn is of a bright-eyed, caring grandmother – and it is doubtless it is this nurturing quality that has equipped her to be an exceptional mentor of students reading for their master's and doctoral degrees.

Her first real venture into mentoring came when she was lecturing in the Department of Chemistry at the University of the Western Cape in the late 1960s. Her heart went out to the bright young students who arrived with great potential, but from backgrounds with insufficient training and who sometimes lacked even the most basic studying skills.

"I started developing study methods, techniques and materials," she explains. "I trained them in interviewing skills. So many of them were actually petrified at the prospect of getting through their tertiary education! It was very rewarding seeing them develop from being shy, nervous students to confident and assured scientists!"

She also pursued her mentoring activities at the MRC, which had a division for capacity development, making funds available to various research units to appoint research interns.

"At the MRC some of our most successful projects were conducted by excellent PhD students," continues Dr Steyn. "Dr Karin Charlton worked on an important salt reduction project and Dr Katherine Murphy and Dr Zaino Peterson illustrated the success and importance of providing smoking cessation programmes for poor pregnant women attending antenatal public sector clinics. This project was conducted as a collaboration between the CDL Unit, UCT and Umeå University in Sweden.

After 2006, her mentoring continued at the CDIA where part of the group's focus was to support postgraduate students to develop their projects in chronic disease research. CDIA researchers were based at the universities of Cape Town, Stellenbosch, and the Western Cape, as well as at the MRC.

Research projects in public health are complex so students need strong support, says Dr Steyn. "The logistics can be a nightmare: where the resources are, who to talk to, how to get access to clinics, what transport is available when, how to cope when you arrange to interview five people and only one turns up – late. They need a lot of staying power – and obviously when they run into hurdles, it helps when the PhD support group can encourage all concerned to provide practical help!"

She stresses that teamwork is key. "The projects are too large and you can make too many mistakes on your own. Students learn to cooperate and engage in supportive work, understanding where the support systems are, how to find articles and academic information, learning the hierarchies and how to use them." And in the end, she says, "When you have worked with them for a few years, you forget how naive and unprepared they were in the beginning. They become trusted colleagues with their own bright ideas, finding solutions you didn't think of and making their own contributions to the field."



MRC colleagues.

It was 1982 when an encounter with Professor Jacques Rossouw opened the door for Dr Krisela Steyn to launch her research journey at the Medical Research Council (MRC). Initially appointed as senior medical officer at the Research Institute for Nutritional Diseases, she became specialist scientist there, then chief specialist scientist at the Centre for Epidemiological Research in Southern Africa, then Head of the Division and subsequently programme leader and Director of the Chronic Diseases of Lifestyle research unit.

She sums up those first years of research with Rossouw with great enthusiasm as a captivating smorgasbord of “laboratory information, medicine, clinical studies, public health information and statistics, working with the most amazing team, with people well connected internationally, so that it grabbed your imagination at every level” Here, she says, she learned to do proper community-based, cardiovascular public health research.

It is in this field that Dr Steyn has made a major contribution to the understanding of many aspects of Chronic Diseases of Lifestyle (CDL), cooperating with countless local and international scientists.

In 1988 she joined Dr Derek Yach in building epidemiological research activities in the country, tracing the patterns of diseases in the population and determining the risk factors in communities, identifying the quality of care people with chronic diseases were receiving and establishing the basic information based on the burden of chronic diseases and their risk factors in the South African populations.

“There was a general perception that non-communicable diseases were diseases of affluence, which is arrant nonsense,” she emphasises. “When we started looking at the risk factors in populations other than white, it quickly became very clear that risk factors were rising rapidly in poorer communities in South Africa”

Dr Steyn was involved in numerous community interventions to test various models to reduce CDL risk factors and her work led her to spearhead, with Prof Debbie Bradshaw, an adult health section for South Africa’s first Demographic and Health Surveys. This has helped to ensure that national data is available for informing health policy decisions for improving health services for CDL in adults.

Dr Steyn also acknowledges the important role that Prof Carl Lombard, head of the Biostatistics Unit, played in her research to ensure that it complied with the highest statistical standards.

There were few people working in this field and she excelled in setting up networks, using the MRC as the ideal setting where specialists, scientists and experts could work together in a neutral environment, unaffected by institutional limitations.

In the 1990s, she was instrumental in setting up the Chronic Diseases of Lifestyle Research Unit. It was as Director of the CDL that she was contacted by the World Health Organisation to become Director of the Collaborating Centre for Chronic Diseases of Lifestyle. Her work in this field has undoubtedly established South Africa as one of the leading countries in determining the epidemiology of CDL in developing countries.

In 2006, after her retirement from the MRC, she moved to the Department of Medicine at UCT. Her subsequent collaboration with Prof Naomi Levitt and an extended research team from three Western Cape Universities, the MRC and the Western Cape Department of Health, led to an invitation by an American company, United Health, and the National Institutes of Health’s National Heart Lung and Blood Institute to establish the Chronic Disease Initiative for Africa (CDIA). The centre is looking at research on models for care of chronic disease patients in the public sector at a primary level.

What's Happening at CDIA

UPCOMING PROJECTS

StAR2D – A Pragmatic Individually Randomized Trial

BACKGROUND:

The StAR2D project will assess the impact of SMS text messages on adherence with people living with type 2 diabetes across a variety of health care settings. This project also contains a formal health economic analysis component and a process evaluation tracing the project through all its phases.

RESEARCH TEAM: Andrew Farmer; Stephanie Robinson (UK); Moffat Nyirenda (Malawi); Shane Norris (Soweto); Naomi Levitt; Natalie Leon; Kirsty Bobrow; Carmen Delport (Cape Town)

ANNOUNCEMENTS



We welcome to the world an early arrival of BABY Larsen to the CDIA family.

CURRENT PROJECTS

IINDIAGO (Integrated Intervention for Diabetes risk after Gestational diabetes)

BACKGROUND:

The IINDIAGO study will take place in urban, public sector health services settings in Cape Town and Soweto where the population is of lower socio-economic status, the diabetes prevalence is high, and there are large hospital-based services for the management of GDM. The main objective of the study is to develop and pilot a health system intervention for women with recent GDM that links existing public hospital-based antenatal care with postnatal community-based care. The idea is to leverage scheduled visits for infant immunisation at community based Well Baby Clinic as an opportunity to offer the necessary tests and lifestyle interventions to GDM mothers.

RESEARCH TEAM: Naomi Levitt, Christina Zarowsky, Shane Norris, Katherine Murphy, Janetta Harbron, Sharmilah Booley, Krisela Steyn, Carl Lombard.

STUDENTS: Lorrein Muhwava, Tawanda Chivese, Jean-Claude Mutabazi, Stephanie Krige, Vimbayi Mafunda