$740,000 to maintain fight to curb diabetes

Dr Thomas Astell-Burt and Dr Xiaoqi Feng, members of the Western Sydney Diabetes Prevention and Management Initiative, have been awarded an NHMRC grant of $740,000 to continue one of the world's largest studies into environmental factors that may contribute to successful management of the disease.

With 280 Australians developing diabetes every day, or one person every five minutes, the spotlight is on western Sydney where the incidence is among the highest.

According to Dr Astell-Burt, director of Public Health Sciences at Western Sydney University, the prevalence of diabetes in Sydney's west is between 6 to 8 per cent of the population compared with only 2 per cent in more affluent areas in the eastern suburbs and north shore.

“We have researched this since 2012, with incredible support from Western Sydney Local Health District (WSLHD) and WentWest Primary Health Network, and found we have this wide inequity within our city which we think may be driven by the environments we live in,” Dr Astell-Burt said.

“In western suburbs like Blacktown and Mount Druitt, between 10 and 20 per cent of residents live within a kilometre of a takeaway, but do not have a supermarket or green grocer within the same distance.

“This circumstance is likely to influence decision making in terms of what people eat and, therefore, the success of diabetes prevention and management efforts.”

Dr Feng, a senior lecturer in epidemiology

Continued on page 2
Research into an innovative peer-led project introduced into high schools across western Sydney shows hundreds of teens are being motivated to live a healthier lifestyle as a result.

Under the leadership of clinical associate professor Smita Shah, director of the Primary Healthcare Education and Research Unit at Westmead Hospital, the program encourages healthy lifestyle choices in teens through nutrition and physical activity.

Students As LifeStyle Activists (SALSA) has reached more than 9000 Year 8 pupils, trained over 1400 Year 10 students as SALSA peer leaders and more than 170 university students as SALSA educators since its inception in 2005.

Researchers have been assessing the project since June 2013 to determine its impact in 22 high schools across Sydney.

Evaluation focuses on five key factors: fruit, vegetable, and breakfast intake, as well as time spent engaging in vigorous physical activity and in front of screens for recreation.

“The outcomes will assist in identifying areas to target the dietary and activity behaviours in adolescents in western Sydney, and inform future direction for research and funding to effect change on a broader scale,” A/Prof Shah said.

“We are analysing and aggregating data from 22 high schools involved in SALSA and the feedback from students and school principals is showing the program is making a difference.

“The statistics reported for individual schools are showing students are adopting healthier lifestyle behaviours,” she said.

“SALSA has helped motivate hundreds of students to exercise more, decrease their intake of junk food and minimise time spent on electronic devices.”

The program is run in partnership with the University of Sydney, high schools in western Sydney, Mount Druitt and Blacktown Medical Practitioners’ Associations, WentWest Primary Health Care Network and Western Sydney Local Health District.

SALSA recruits and trains university students to coach Year 10 pupils to educate those in Year 8.

The program consists of four lessons about food choices, physical activity, healthy lifestyle and individual and community action, which are run during regular Personal Development, Health and Physical Education (PDHPE) classes.

Data shows SALSA is making the right moves with our teenagers

Associate Professor Smita Shah (centre) and her team shaping healthy adults

The project aims to bolster collaborations with health policymakers and urban planners to improve the quality of neighbourhoods.

“That will, in turn, support longer, healthier and happier lives for everyone living with diabetes in western Sydney and across Australia,” Dr Astell-Burt says.
Associate Professor Clement Loy, director of the Huntington Disease Service at Westmead Hospital, has been awarded a four-year NHMRC Dementia Fellowship.

A/Prof Loy who is a clinical epidemiologist and cognitive neurologist said that over the past decade, less than half a per cent of drugs trialled for Alzheimer’s disease were found to be effective, highlighting the need for new drug targets for dementia.

“The fellowship aims to study how genes express themselves over time among people with a very high risk of dementia such as the genetic form of Alzheimer’s and Huntington diseases,” he said.

“By looking at gene expression in nerve tissue in the nose, fluid around the brain, and blood, I hope to better understand the disease mechanisms causing dementia.”

The fellowship builds on the clinical research carried out by the Huntington Disease Service at Westmead Hospital, and will involve next-generation sequencing work at the Garvan Institute of Medical Research.

To read about our other successful NHMRC grant receipts, see story opposite.
Robert leads the way

Robert Zecchin is on track to change the way exercise stress tests are conducted in hospitals for high-risk heart patients.

The nursing unit manager of WSLHD Cardiac Rehabilitation Services is in the final stages of documenting his latest review of 15,000 nurse-led exercise stress tests performed without medical supervision.

The analysis follows his 1999 study of more than 17,000 nurse-led exercise stress tests performed without medical supervision published in *Heart & Lung: The Journal of Acute and Critical Care*.

The new findings confirm his earlier results that conducting the tests without medical supervision is an extremely safe environment.

Zecchin’s early work sparked changes to the Cardiac Society of Australia & New Zealand guidelines which now states exercise stress tests can be performed by health professionals (nurses) on low-risk patients.

It was the first paper to explain how to train nurses in stress tests.

The next step for Zecchin, who is the first nurse to be invited to join the Cardiac Society’s guidelines committee on exercise stress testing, is to produce more evidence and publish the results so the guidelines may be extended to high-risk patients.

“We are trying to change the culture of people thinking doctors need to oversee exercise stress tests,” Zecchin said.

“We haven’t had a death in more than 33,000 nurse-led stress tests, and a low complication rate, which is amazing considering about 90 per cent of our patients have ischemic heart disease and many have had recent heart attacks, bypass grafts or stents.

“We have shown the process we have in place is extremely safe and we can have a medical emergency team there within minutes if required.

“Our nurses are trained in advanced life support skills with more than 20 years’ experience and are re-accredited every year.”

Zecchin’s work is one of the largest nurse-led stress test studies in the world.

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Research Governance with Maggie Piper*

Research governance examines the proposed quality, safety, privacy, risk management and financial management of a study. It does not look at the scientific, clinical or ethical validity.

Research governance authorisation is required after ethical approval for each public health organisation site or facility within WSLHD where the study will be undertaken.

There is no need to feel stressed or overwhelmed when submitting to WSLHD Research Governance for site authorisation or ongoing approval of your project.

To assist researchers WSLHD Research Governance:

- Regularly conducts a half-day workshop that involves overviews of research governance, hands-on experience in completing an online Site Specific Assessment (SSA) form and identifying the mistakes in a full SSA, Low and Negligible Risk SSA (LNRSSA) and Access Request submissions
- Holds presentations for departments/research units
- Has an open-door policy meeting with researchers to discuss their project; and
- Every Friday at Westmead Hospital, via appointment, provides one-on-one assistance with completing online form SSA, LNRSSA, Access Request submission and/or guidance with submitting study documents.

Although based at Westmead Hospital, WSLHD Research Governance travels to the other hospitals and community health centres to meet investigators and department heads.

We are at:

- Auburn Hospital the first Wednesday of the month; and
- Blacktown Hospital the second and fourth Tuesday of the month.

We may also phone or request a meeting with you so we can obtain a clear picture of how your research is going to be conducted in WSLHD.

A total of 374 studies were submitted to Research Governance for review in 2015.

We can be contacted via email WSLHD-RGO@health.nsw.gov.au or phone 9845 9007.

*Maggie Piper is the Research Governance manager at the WSLHD Research & Education Network*