



**Health**  
South Western Sydney  
Local Health District



2014 - 15

# research

ANNUAL REPORT



We would like to thank and acknowledge the departments for their contributions and also UNSW and the Ingham Institute for imagery provided.

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# CONTENTS

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## About SWSLHD Research

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Message from the SWSLHD Board and Executive	04
Message from the Director of Research, SWSLHD	05
SWSLHD Research Strategy 2012-2021	06
Sydney Alliance for Healthcare, Research and Training	07
South Western Sydney Research Hub	08

## Research and Ethics

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Message from the Chair of the Human Research Ethics Committee	09
The SWSLHD Research and Ethics Office	10
Clinical Trials	11

## Education and Training

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Ingham Institute for Applied Medical Research	12
University of NSW	13
Western Sydney University	14
Research Scholarships	15
2014 Research and Teaching Showcase	16

## Research Committees

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Bankstown-Lidcombe Hospital	17
Camden and Campbelltown Hospitals	18
Fairfield and Liverpool Hospitals	19

## Research Highlights

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Aged Care and Rehabilitation	20
Allied Health	21
Cancer Services	23
Cardiovascular Services	24
Critical Care	25
Drug Health	27
Gastroenterology and Liver	28
Medical Imaging	30
Mental Health	31
Nursing and Midwifery	33
Oral Health	34
Paediatrics and Neonatology	35
Population Health	36
Primary and Community Health	37
Surgical Specialties	38
Women's Health	39

## THE SWSLHD BOARD AND EXECUTIVE

**Professor Philip Harris AM, SWSLHD Board Chair**  
**Ms Amanda Larkin, SWSLHD Chief Executive**



Our population is growing fast, it is ageing, has a high level of socio-economic disadvantage and is ethnically diverse. This brings significant challenges for the future. High levels of smoking, inadequate exercise and poor diet among many people in our community come with often higher levels of health conditions such as cancer, diabetes and cardiovascular disease to name just a few.

entities in south western Sydney as a co-ordinated hub.

The Hub aims to be internationally recognised as a leader in health and medical research and will contribute to the District achieving research priorities. This includes strengthening leadership, focusing on state, national and local priorities and increasing community engagement particularly with our CALD groups.



The burden of disease in this District is therefore higher than the NSW average. This presents both challenges and opportunities for researchers who have been working hard to help improve clinical and health benefits for the south west Sydney community.

Collaboration remains one of the key strengths of the District and together with the Ingham Institute for Applied Medical Research we have worked closely with our important university partners. These relationships will develop even further through close collaboration between students, academic researchers, clinicians and SWSLHD facilities.

Much has been achieved over the past 12 months to further research activities and progress the Research Strategy for South Western Sydney Local Health District.

Research is an integral part of improving the delivery of health care and is a key priority for the District. Research promotes inquiry and importantly attracts clinicians who are more willing to implement findings into the best clinical practice.

A great deal of high-quality world-class research is undertaken in the District and it was with great pleasure that we recognised some of our finest researchers by awarding them with Academic Unit status this year. Researchers from Mental Health, Respiratory Medicine and Radiation Oncology were the worthy recipients of the inaugural awards and the first three of many we hope will be established in the very near future.

On behalf of the District Board we thank all staff, research partners, patients, community and consumer representatives for what has been achieved and for the ongoing commitment to delivering high-quality research to ensure we realise our vision of *Leading Care, Healthier Communities*.

We were also delighted to see the establishment of South West Sydney Research Hub which brought together health, research and health education

# DIRECTOR OF RESEARCH, SWSLHD

## Professor Michael Barton OAM



SWSLHD has a strong reputation for research that has changed many people's lives for the better. The research strategy for SWSLHD builds on our track record, to increase productivity and support the transfer of research into clinical practice.

In 2014-15, we commenced a program to strengthen academic healthcare in SWSLHD. An academic unit comprises a number of academics and research staff that provide services to the people of SWSLHD. The benefits are obvious: clinicians who are active researchers are more likely to implement the latest research findings into clinical practice, while research attracts thoughtful clinicians and trainees who build SWSLHD's reputation for innovation.

In the first phase of the program, we recognised three key groups that have built a significant international reputation for research: mental health, respiratory medicine and radiation oncology. Collectively, they have received over \$80 million in competitive research funding over the last five years. SWSLHD has allocated over \$6 million to enhance existing groups and create academic units in these areas over the next three years.

Of course, strong research needs to be underpinned by efficient and effective governance. The performance of the Research and

Ethics Office has greatly improved over the last two years and its activities have been expanded during this time. Average approval times for full, low and negligible-risk applications are among the shortest in the state. The Research and Ethics Office provides onsite services at Campbelltown Hospital and is trialling site-specific approvals for all facilities in SWSLHD.

SWSLHD continues to build partnerships both internally and externally, to support research across the district. The new South Western Sydney Research Hub is funded by the NSW Office of Health and Medical Research and is a result of collaboration between SWSLHD, the Ingham Institute of Applied Medical Research, four universities, the Primary Health Network and other healthcare providers in SWSLHD. Its first project is to develop a research portal that collates the productivity of researchers into a single site, which aims to streamline reporting and facilitate new collaborations.

I would like to thank the SWSLHD Board and Research and Ethics Office, as well as the researchers, clinicians, universities, clinical institutes and community and consumer representatives who have made these achievements possible.

# SWSLHD RESEARCH STRATEGY 2012-2021

The SWSLHD Research Strategy 2012-2021 aims to increase the quantity and quality of research in South Western Sydney and translate those discoveries into clinical benefits. It's an ambitious program that will embed research into all services within SWSLHD by 2021.

In 2014-15, three units were officially recognised as SWSLHD academic units, with \$100,000 awarded each year for the next three years. Five early career scholarships and one mid-career scholarship were awarded, in addition to two PhD and two coursework scholarships that were awarded to support higher education undertaken by SWSLHD staff.

Mentors for nursing and allied health professionals were identified and aim to provide new and early

career researchers with advice and guidance on research in their field of expertise. A range of new staff were appointed to assist in the implementation of the research strategy, including a Clinical Trials Pharmacist at Liverpool Hospital, an additional staff member in the Research and Ethics Office and a Clinical Trials Manager funded by the Office of Health and Medical Research.

A community participation program was also established, in collaboration with the Ingham Institute for Applied Medical Research. The team worked closely with the Community Consumer Council to identify strategies that will increase community interest and participation in research undertaken by SWSLHD in the future.



# SYDNEY ALLIANCE FOR HEALTHCARE, RESEARCH AND TRAINING



The Sydney Alliance for Healthcare, Research and Training (SAHRT) is a network of four Academic Health Science Centres (AHSC) in Sydney.

The South Western Sydney AHSC is comprised of the University of NSW, Western Sydney University, Ingham Institute for Applied Medical Research, Central and Eastern Sydney Primary Health Network as well as Bankstown-Lidcombe, Fairfield and Liverpool Hospitals.

In the 2014-15 financial year, SWSLHD developed a SAHRT Strategy that will allow members to maximise resources and be recognised as leaders in research translation. Key goals in the strategy are as follows:

1. to establish and develop effective governance of SAHRT
2. to celebrate, nurture and grow existing areas of strength
3. to develop strengths in diabetes and other lifestyle diseases and manage the health and wellbeing of our multicultural communities
4. to increase opportunities for local and global collaboration and participation for our people and communities
5. to ensure SAHRT has the right people, expertise and access to the infrastructure needed to support our future success.

As part of this strategy, SAHRT is identifying opportunities to simplify and streamline policies and procedures relating to clinical research and clinical trials. Moving forward, there is a focus on developing key initiatives in the areas of integrated biobanking, biostatistics, data integration and linkage, to ensure they are aligned to the emerging National Health and Medical Research Council Good Practice Guidelines for Clinical Trials.

**For more information on SAHRT in South Western Sydney, visit [sahrt.org](http://sahrt.org).**



# SOUTH WESTERN SYDNEY RESEARCH HUB



The NSW Research Hub Council was established in September 2014 and brings together local health districts, medical research institutes and universities to drive statewide research initiatives with a shared vision and commitment. The council is formed by members of the nine NSW Health Research Hubs and aims to enhance communication between members, to inform statewide policy and project development.

The South West Sydney Research Hub was built on the founding principles of inclusiveness and collaboration and has a governance framework and strategic plan that aligns to the Office of Health and Medical Research (OHMR) and SWSLHD strategies. The strategic plan aims to increase community interest and participation, strengthen health research leadership and embed education and research within service delivery, to improve outcomes for people in South Western Sydney.



# THE HUMAN RESEARCH ETHICS COMMITTEE

## Professor Jeremy Wilson, HREC Chair



The SWSLHD Human Research Ethics Committee (HREC) plays a central role in the ethical oversight of research involving humans. We are responsible for reviewing and making recommendations to the Chief Executive about the governance of research projects within SWSLHD and work closely with stakeholders including researchers, universities and the local community, to answer questions and provide information on the policies and procedures of human research.

In the 2014-15 financial year, the workload of the HREC continued to grow, with a commensurate increase in support staff. The turnaround time for handling full applications and low-risk applications were 38 days and 22 days respectively.

I am indebted to the hardworking members of the HREC committee

and our wonderful support staff, for their selfless contributions to healthcare in SWSLHD over the past 12 months. I am particularly pleased by the high standard of applications received by the HREC about investigator-initiated projects.

As an accredited lead HREC, we are able to review applications for proposed research to be undertaken in any NSW public health organisation, to ensure they meet ethical considerations. We are also accredited to review projects from participating public health organisations in VIC, SA and QLD for clinical trials of drugs or devices.

The purpose of this national accreditation system is to ensure a more effective use of resources, improve the quality and effectiveness of ethical and scientific reviews and allow multicentre research to commence in a timely manner.

Our regular meetings allow us to engage clients and provide researchers with an opportunity to improve their understanding of the ethics process, which in turn improves the quality of their HREC applications. We continue to welcome new members and those interested in observing our meetings, so they can learn more about the role and objective of

the HREC. External experts are also invited to speak at HREC meetings on relevant topics, such as researchers with expertise in running phase one clinical trials.

There are currently 21 members, including the following roles as per HREC guidelines:

- one committee chair
- at least two laypeople, comprising one man and one woman who have no affiliation with the institution
- at least one person with knowledge of and current experience in the professional care, counselling or treatment of people
- at least one person who performs a pastoral care role in a community
- at least one lawyer
- at least two people with current research experience that is relevant to the research proposals considered at the meetings they attend.

A full list of current HREC members can be found online at [www.swslhd.nsw.gov.au/ethics/members](http://www.swslhd.nsw.gov.au/ethics/members). Training is provided to HREC members on a regular basis and they are invited to attend the Annual Chairs Meeting and other meetings and conferences organised by the Ministry of Health.

# THE SWSLHD RESEARCH AND ETHICS OFFICE

The SWSLHD Research and Ethics Office oversees submissions to the SWSLHD Human Research Ethics Committee and reviewed 162 ethics applications in the 2014-15 financial year. A total of 339 site-specific applications were reviewed, with average processing times of 36 days for National Ethics Application Form (NEAF) applications and 21 days for low and negligible-risk research applications.

The Research and Ethics Office comprises a manager, an ethics and research governance coordinator and two administration officers. The second administrative officer joined the team in July 2014 and is responsible for helping the manager implement the SWSLHD Research Strategy 2012-2021, organise the Research Showcase and facilitate internal research scholarships.



The team visits Campbelltown Hospital once a month to discuss ethics submissions with researchers, who are encouraged to undertake regular training and make an appointment with staff to review draft applications prior to submission.

Training options available for researchers include:

- Basic Principles: In-House Training for Beginners
- In-House Training for Coordinators of Multicentre Research
- In-House Training for Clinical Trials

- Good Clinical Practice (GCP) Training
- Invitation to attend a SWSLHD Human Research Ethics Committee (HREC) Meeting.

In 2015, the Research and Ethics Office commenced a mentoring program where researchers in SWSLHD are encouraged to share their expertise with early career researchers who are seeking assistance with their research projects. The program currently includes experts in the areas of nursing and midwifery, statistical consultation, recruitment of Culturally and Linguistically Diverse (CALD) participants, radiation oncology and allied health. It has been well received by researchers looking for help with their ethics applications.

The team also published a Research Code of Conduct, to maintain integrity in all research conducted by SWSLHD and guide institutions and researchers in responsible research practices. The Code of Conduct also helps researchers, administrators and the community manage the risk of a departure from best practice research.

SWSLHD also amended the policy on Responding to Allegations of Research Misconduct, to streamline the process. The policy outlines the principles and procedures to be followed if allegations of research misconduct are made against a staff member.

The Research and Ethics Office publishes a quarterly newsletter that aims to increase awareness of policies and guidelines on research ethics, to help researchers conduct high-quality and compliant research in SWSLHD. It also provides news and information on upcoming events, scholarships and industry developments. To read previous issues of the quarterly newsletter and for more information on the SWSLHD Research and Ethics Office, visit [www.swslhd.nsw.gov.au/ethics](http://www.swslhd.nsw.gov.au/ethics).

# CLINICAL TRIALS



All clinical trials in SWSLHD are overseen by the Clinical Trials Manager, Kelsey Dobell-Brown. This role provides managerial oversight of governance, mentorship, capacity building and development of shared infrastructure, to foster locally-developed and investigator-led clinical trials across the district. The Clinical Trials Manager also acts as the point of contact for clinical trial sponsors, collaborative groups who want to conduct research within SWSLHD and supporting units including pathology, research and ethics, finance and radiology.

In 2014-15, there were 21 clinical trial groups supported by the Clinical Trials Manager, including 13 different specialties within SWSLHD and the Ingham Institute for Applied Medical Research. Strong governance and the development of standard

operating procedures provide a solid framework for the management of clinical trials and allow SWSLHD to standardise efficiency, quality and compliance with the principles of Good Clinical Practice (GCP).

Staff involved in clinical trials are offered a range of training in conduct and management throughout the year, including principles of GCP, ethics submissions and financial management. Additional support and networking opportunities are provided at monthly meetings, to ensure clinical trials are nurtured across all facilities and community services.

# INGHAM INSTITUTE FOR APPLIED MEDICAL RESEARCH



The annual Ingham Institute Awards Dinner was held on 20 November 2014 and recognised the efforts and achievements of scientists, students, clinicians, nurses and researchers across SWSLHD. The Lady Mary Fairfax Distinguished Researcher Award was presented to Professor Guy Marks, Director of Respiratory and Sleep Medicine, while the Excellence in Teaching Award was presented to Professor Iain Gosbell. The Early Career Researcher Award was presented to Dr Bjorn Espedido in recognition for his impressive credentials so early in his career. The Research Director's PhD Scholarship Program was awarded to David Lynch for ongoing support of his studies in brain cancer.

The Ingham Institute's annual report provides an overview of research highlights during 2014-15 and can be found online at [inghaminstitute.org.au](http://inghaminstitute.org.au).

The Ingham Institute for Applied Medical Research is the medical research institute for South Western Sydney and works closely with SWSLHD, University of NSW, Western Sydney University and the local community. Its celebrated researchers are dedicated to finding better ways to treat the most common health conditions affecting SWSLHD and beyond.

Based at Liverpool Hospital, the Ingham Institute is changing the way medical research is undertaken in Australia, by transferring research into practice across its five research streams. Research teams are focused on new medical approaches to a range of critical diseases including cancer, clinical sciences, community and population health, early years and childhood disease, injury and rehabilitation and mental health.

*"The Ingham Institute is changing the way medical research is undertaken in Australia."*

# UNIVERSITY OF NSW

The University of NSW (UNSW) has continued to expand its research activity in SWSLHD over the past 12 months, through its partnership with the Ingham Institute for Applied Medical Research and research groups affiliated with the South Western Sydney Clinical School, School of Psychiatry, School of Women and Children's Health and School of Public Health and Community Medicine.

UNSW continues to make a significant contribution to research infrastructure in SWSLHD, with more than \$3 million invested in academic activity each year. This includes support for the Ingham Institute for Applied Medical Research, as well as funding activities and management of the Clinical Skills and Simulation Centre at Liverpool Hospital. Approximately 520 SWSLHD staff hold conjoint appointments with UNSW and contribute to more than 300 publications produced by UNSW-affiliated staff each year.

Professor Ian Harris (Orthopaedics), Professor Ken Hillman (Intensive Care) and Conjoint Professor Roy Beran (Neurology) were recognised with Order of Australia awards during 2014-15, while Professor Minoti Apte (Pancreatology) was named the NSW Premier's Woman of the Year. Other awards include the Ingham Institute Lady Mary Fairfax Distinguished Researcher Award, which was presented to Professor Guy Marks (Respiratory Medicine) and the Australasian Pancreatic Club's Outstanding Commitment to Pancreatology Award, presented to Professor Jeremy Wilson (Pancreatology).

Recent appointments to the UNSW Executive team promise to further develop the close relationship between the university and SWSLHD in the future.

*"UNSW continues to make a **significant contribution** to research infrastructure in SWSLHD."*



# WESTERN SYDNEY UNIVERSITY

The School of Medicine at Western Sydney University (WSU) has close relationships with all hospitals in SWSLHD. Students undertake placements in medicine and surgery at Bankstown-Lidcombe and Liverpool Hospitals, with obstetrics and gynaecology placements at Fairfield Hospital. The Macarthur Clinical School is housed at Camden and Campbelltown Hospitals and brings together expert medical teachers with high-tech facilities, to create outstanding opportunities for clinical education. A number of academic teams engaged in service delivery are also based at Liverpool Hospital and the Ingham Institute for Applied Medical Research.



During the 2014-15 financial year, WSU was involved in research projects across several disciplines and received grants to the value of \$8,699,315. There were 59 publications in peer-reviewed journals and 14 post-graduate students who were supervised as they completed clinical and translational research.

Professor David Simmons joined Campbelltown Hospital as Professor of Medicine and published the results of the world's largest study on diabetes, from a project initiated with Cambridge University Hospital in the United Kingdom. In collaboration with Australian biotech companies BioDiem and Opal Biosciences, microbiology researchers at WSU confirmed that BDM-I (a novel anti-infective synthetic compound) has a unique mechanism to counteract

multi-resistant organisms, which has highlighted opportunities for new cleaning technologies to be developed. Research on colorectal, breast, prostate and head and neck cancers were also conducted by anatomical pathology teams in SWSLHD.

*“WSU was involved in research projects across several disciplines and received grants to the value of \$8,699,315.”*

# RESEARCH SCHOLARSHIPS



## **SWSLHD and Ingham Institute Research Scholarship Support Program 2014**

- Dr May Wong, Masters of Medicine (Clinical Epidemiology), \$10,000.
- Dr Annette Tognela, Masters of Clinical Trials Research, \$10,000.
- Dr Melissa Leung, PhD, \$9190.
- Brendan Whelan, PhD, \$5000.
- Zhihong Xu, PhD, \$2905.
- Srinivasa Pothula, PhD, \$2905.

## **SWSLHD Mid-Career Support Program 2015-2017**

- Dr Susan Connor, 'Use of a decision aid in ulcerative colitis: enhancing patients' empowerment, quality of life and disease control', \$180,000.

## **SWSLHD Early Career Researchers Program 2015-2017**

- Dr James Otton, 'Novel computational imaging techniques for the assessment and treatment of complex valvular heart disease', \$30,000.
- Jarrad Begg, 'The development of a combined magnetic resonance imaging device and linear accelerator (MRI-linac) for radiotherapy treatment at the Ingham Institute and SWSLHD', \$30,000.
- Matthew Malone, 'The microbiome of chronic wounds', \$30,000.
- Dr Wei Cha, 'The association between metabolic syndrome, systemic inflammation and Castrate Resistant Prostate Cancer (CRPC) prognosis', \$30,000.
- Weng Ng, 'Personalising adjuvant chemotherapy for locally advanced rectal cancers following curative surgery', \$30,000.

# 2014 RESEARCH AND TEACHING SHOWCASE



SWSLHD and the Ingham Institute of Applied Medical Research held the 9th Annual Research and Teaching Showcase on Friday 28 November 2014, at the Thomas and Rachel Moore Education Centre in Liverpool Hospital.

The event provided doctors, nurses, researchers and students with an opportunity to share current studies, key findings and implications of research programs developed in South Western Sydney. The aim was to showcase and celebrate the efforts of researchers, as well as educate the community on new developments in science, medicine and healthcare.

The theme of the 2014 event was nursing and midwifery research, reflecting the growing research portfolio in this discipline. Professor Sandy Middleton from the Nursing Research Institute was one of many keynote speakers and discussed how the findings

from the Quality in Acute Stroke Care Trial are being translated into the hospital setting.

The showcase also featured a new 'Three Minute Thesis' competition, which was a skills development activity that challenged research higher degree students to explain their project to a non-specialist audience in just three minutes.

A range of health and medical abstracts were featured in presentation and poster format, providing an overview of the medical breakthroughs achieved by the Ingham Institute, as well as treatment options for critical diseases including cardiovascular disease, cancer, mental health and population health.

The event closed with a light-hearted debate on the topic of 'surgeons versus physicians'. Three highly-reputable practitioners from each side took to the stage to debate the question that has remained unanswered for hundreds of years: who provides the greatest benefit to society, surgeons or physicians? The outcome was a draw.



# BANKSTOWN-LIDCOMBE HOSPITAL

The Bankstown-Lidcombe Hospital Research Committee was established in April 2014 and aims to promote and support all research within the hospital, while fostering an innovative research culture that leads to sustainable funding for multidisciplinary research. The committee is also responsible for overseeing the development and implementation of the SWSLHD Research Strategic Plan for Bankstown-Lidcombe Hospital.

Members of the Bankstown-Lidcombe Research Committee meet once a quarter and include representatives from the following areas:

- Director of Medical Services (Chair)
- General Manager
- Director of Nursing and Midwifery Services
- Director of Corporate and Financial Services
- Director of Research
- Director of Medicine
- Director of Surgery
- Director of Prevocational Education and Training
- Chief Pharmacist
- Research and Ethics Office Manager
- Quality and Risk Manager
- Library Manager
- Allied Health
- Clinical Nurse Consultant
- Nurse Practitioner
- Western Sydney University Medical School
- Western Sydney University School of Nursing
- University of NSW Medical School
- Centre for Applied Nursing Research
- Consumer and Community Participation Unit
- SWSLHD senior researchers.



**For more information, please contact the  
General Manager's Unit on 02 9722 8225.**

# CAMDEN AND CAMPBELLTOWN HOSPITALS

The Camden and Campbelltown Hospitals Research Committee promotes high-quality clinical research taking place in both hospitals, through the development of a strategic plan that provides a foundation for research excellence.

Over the past 12 months, the committee has established a Clinical Trials Unit at Campbelltown Hospital, published a research gazette for the local community and sourced funding and resources to support SWSLHD researchers. The \$300 million Stage 2 Redevelopment of Campbelltown Hospital will be integral to attracting international-calibre clinical researchers and research funding to SWSLHD and is a key focus for the research committee moving forward.

Members of the Camden and Campbelltown Hospitals Research Committee meet once a month and include the following roles and representatives:

- Chair
- Director of Research
- Executive Secretary
- Medical Services
- Nursing and Midwifery
- Allied Health
- Pharmacy
- Pastoral Care
- Library Manager
- Corporate and Financial Services
- Western Sydney University
- Consumer and Community Participation Unit.

**For more information, please contact the General Manager's Unit on 02 4634 3855.**



# FAIRFIELD AND LIVERPOOL HOSPITALS

The Liverpool Hospital Research Committee advises the Hospital Executive and Clinical Council on strategies to promote and support research at Fairfield and Liverpool Hospitals. This includes responsibility for overseeing the implementation of the SWSLHD Research Strategic Plan and addressing the research and governance components of the EQulPNational National Safety and Quality Health Service Standards.

The committee is currently preparing for the 2016 EQulP Periodic Review, by working with stakeholders to develop clusters of research activity, particularly for researchers not formally affiliated with the Ingham Institute for Applied Medical Research or partner universities. It is also focused on engaging members of the local community to encourage further research on campus, as well as working with people who have a responsibility to promote research among junior staff.

Members of the Liverpool Hospital Research Committee meet every second month and include representatives from the following areas:

- Hospital Executive
- Nursing and Midwifery
- Allied Health
- Medical Services
- Clinical Trials
- Ingham Institute for Applied Medical Research
- Research and Ethics Unit
- University of NSW
- Western Sydney University
- SWSLHD researchers.



**For more information, please contact the General Manager's Unit on 02 8738 6301.**

# AGED CARE AND REHABILITATION

The Aged Care and Rehabilitation (ACR) clinical stream provides inpatient, outpatient and community services at Bankstown-Lidcombe, Bowral and District, Braeside, Camden, Campbelltown, Fairfield and Liverpool Hospitals.

Over the past year, ACR clinicians have developed active research partnerships with academics from the University of NSW, University of Sydney, Western Sydney University and the University of Wollongong. Professor Daniel Chan collaborated with a number of international organisations in China, while Associate Professor Friedbert Kohler developed important rehabilitation networks within the World Health Organisation.

The inaugural Aged Care and Rehabilitation Conference was held in December 2014 at Liverpool Hospital and included a keynote address from Professor Gerold Stucki from the University of Lucerne in Switzerland. He joined SWSLHD staff and other invited speakers, who delivered presentations on a range of research and quality improvement projects.

## Publication Highlights

1. Basic, D & Shanley, C 2015, 'Frailty in an older inpatient population: using the Clinical Frailty Scale to predict patient outcomes', *Journal of Aging and Health*, vol. 27, no. 4, pp. 670-685.
2. Chan, DK, Levi, C, Cordato, D, O'Rourke, F, Chen, J, Redmond, H, Xu, YH, Middleton, S, Pollack, M & Hankey, G 2014, 'Health service management study for stroke: a randomised controlled trial to evaluate two models of stroke care', *International Journal of Stroke*, vol. 9, pp. 400-405.
3. Faux, SG, Kohler, F, Mozer, R, Klein, LA, Courtenay, S, D'Amours, SK, Chapman, J & Estell J 2015, 'The ROARI project – Road Accident Acute Rehabilitation Initiative: a randomised clinical trial of two targeted early interventions for road-related trauma', *Clinical Rehabilitation*, vol. 29, pp. 626.
4. Jiang, YL, Ruberu, N, Liu, XS, Xu, YH, Zhang, ST & Chan, DK 2015, 'Mortality trend and predictors of mortality in dysphagic stroke patients postpercutaneous endoscopic gastrostomy', *Chinese Medical Journal*, vol. 128, no. 10, pp. 1331-1335.
5. Selb, M, Kohler, F, Robinson Nicol, MM, Riberto, M, Stucki, G, Kennedy, C & Ustun, B 2015, 'A comprehensive picture of health, an update on the ICD-ICF joint use initiative', *Journal of Rehabilitation Medicine*, vol. 47, pp. 2-8.



# ALLIED HEALTH

The Allied Health division comprises a number of disciplines including physiotherapy, psychology, nutrition and dietetics, occupational therapy, orthoptics, speech pathology, social work and podiatry.



Allied Health has continued its partnerships with a number of universities and research institutes, demonstrating improved research capacity through an increase in ethics submissions and postgraduate enrolments. In addition to established research activity in the areas of orthopaedics, brain injury, stuttering, mental health and development assessment, there has been new developments in diabetes, rehabilitation and child protection streams over the past year.

A number of podiatry and physiotherapy clinical trials are underway, including the Activity and Mobility Using Technology (AMOUNT) trials at Bankstown and Liverpool Hospitals, which are funded by the

National Health and Medical Research Council and developed in collaboration with The George Institute for Global Health.

Bernadette Brady, Physiotherapist and PhD candidate, was awarded the SWSLHD and Ingham Institute Research Scholarship and delivered a presentation to the World Physical Therapy Congress 2015 titled 'Are culturally and linguistically diverse populations responsive to chronic pain interventions?' Anne Walsh was also awarded the SWSLHD and Ingham Institute Research Scholarship and Matthew Malone received the SWSLHD Early Career Research Award.



Other highlights include Robyn Barnes' 2015 Annual Health Presentation Award for 'A model for the prediction of therapy type in women with gestational diabetes mellitus' and Occupational Therapist Dr Susan Milne's continuing research on preschoolers with developmental disabilities.

The Liverpool and Macarthur High Risk Foot Services are involved in a number of clinical studies, including microbiome of diabetic foot ulcers, biofilms in diabetic foot ulcers and an open study on the efficacy of denosumab in the treatment of acute charcot foot. Members of the podiatry service remain affiliated with the Liverpool Diabetes Collaborative Research Group, based at the Ingham Institute for Applied Medical Research.

### Grant Highlights

- \$548,248 from the Wound Management Cooperative Research Centre for establishing Diabetic Foot Australia, 2015.
- \$50,000 from Medibank Health Research for 'Integrating mobile-health and physical activity to reduce the burden of chronic low back pain', 2015.
- \$30,000 from Lions Club Diabetes, to the Liverpool Diabetes Collaborative Research Unit for a study on inpatient hyperglycemia and 3D wound photography, 2014.
- \$20,000 from the Physiotherapy Research Foundation for 'Development of a readiness and success evaluation framework for Australian musculoskeletal models of care', 2014.
- \$6,000 from Novo-ADIPS Award for clinical research in 'Continuous glucose monitoring as a teaching tool for the dietary management of GDM', 2015.

### Publication Highlights

- MacMillan, V, Kokolakis, A, Sheedy, S & Packman, A 2014, 'End-word dysfluencies in young children: is this stuttering?' *Folia Phoniatrica et Logopaedica*, vol. 66, pp. 115-125.
- Malone, M, West, D, Xuan, W, Lau, N, Maley, M & Dickson, HG 2015, 'Outcomes and cost minimisation associated with Outpatient Parenteral Antimicrobial Therapy (OPAT) for foot infections in people with diabetes', *Diabetes Metabolism Research and Reviews*, vol. 31, no. 6, pp. 638-645.
- Treacy, D, Schurr, K, Lloyd, B & Sherrington, C 2015, 'Additional standing balance circuit classes during inpatient rehabilitation improved balance outcomes: an assessor-blinded randomised controlled trial', *Age and Ageing*, vol. 44, pp. 580-586.
- Wilson, N 2015, 'Factors that affect job satisfaction and intention to leave of allied health professionals in a metropolitan hospital', *Australian Health Review*, vol. 39, no. 3, pp. 290-294.
- Wong, VW, Manoharan, M & Mak, M 2014, 'Managing hyperglycaemia in patients with diabetes on enteral nutrition: the role of a specialized diabetes team', *European Journal of Clinical Nutrition*, vol. 68, no. 12, pp. 1305-1308.

# CANCER SERVICES

Cancer research is governed by a steering committee with representation across many areas of SWSLHD Cancer Services, from laboratory research to clinical care.

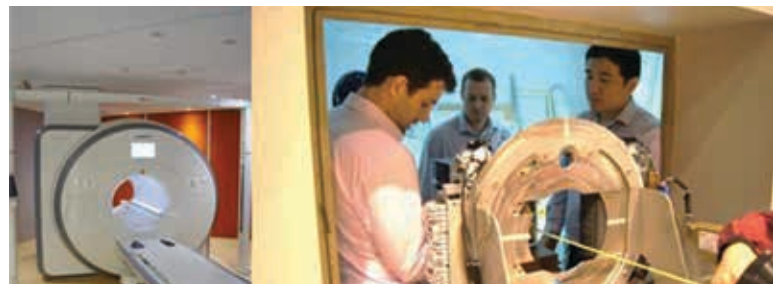
The primary focus of the past 12 months has been to establish the Centre for Oncology Education and Research Translation (CONCERT). The program was established in July 2014 with funding by the Cancer Institute NSW in addition to leveraged funds from the University of NSW, University of Wollongong, Western Sydney University and Ingham Institute for Applied Medical Research.

The grant ensures a collaborative link between laboratory research and bedside care, with a feedback loop that leads to improvements in patient care. CONCERT engages professionals from SWSLHD and Illawarra Shoalhaven Local Health District, with stakeholders from three universities, two medical research institutes and four collaborative partnerships across NSW and the ACT. CONCERT also works closely with its 209 diverse members, who are professionals in the research, treatment and care of cancer. An open day in August 2014 celebrated the achievements of CONCERT to date, including over 80 publications and \$11.6 million in new funding.

In other news, 12 staff in Cancer Services completed their post-graduate qualifications such as a PhD or Masters in the 2014-15 financial year.

## Grant Highlights

- \$5.7 million from the National Health and Medical Research Council (NHMRC) and \$2.5 million from the Australian Cancer Research (ARC) Foundation for MRC-linac and related programs over the next five years.



- \$1.8 million from the National Breast Cancer Foundation, with co-contributions from SWSLHD, to develop a national clinical pathway for cancer pain management.
- \$1.06 million from the ARC Linkage Infrastructure, Equipment and Facilities Scheme, to investigate the use of ultra-high magnetic resonance imaging in cancer diagnosis and management.
- \$860,000 from NHMRC with co-contributions from SWSLHD, for a multi-institutional randomised trial to optimise prescribing morphine for breathlessness.
- \$535,000 from NHMRC and \$250,000 from NSW Health for data mining to support lung and prostate cancer decision-making.
- \$500,000 from NSW Cancer Institute and BUPA Foundation for the development of a patient-reported outcomes portal for evaluation and self-management of cancer patients.

## Publication Highlights

Key publications for Cancer Services can be found in the 2014-15 Annual Report at [www.swslhd.nsw.gov.au/cancer/annual.html](http://www.swslhd.nsw.gov.au/cancer/annual.html).

# CARDIOVASCULAR SERVICES

The Cardiovascular clinical stream at SWSLHD comprises a broad range of clinical services including cardiology, cardiothoracic surgery, renal medicine and vascular surgery.

In 2014-15, the cardiology and renal departments implemented a significant number of local and multicentre trials, which aimed to assess the safety and efficiency of new drugs and the effects of cardiology and renal treatments on patient outcomes. A range of observational studies were also undertaken, to assess the rate, characteristics and determinants of disease progression.

There were over 60 publications in peer-reviewed journals and 11 students from the Department of Cardiology at Liverpool Hospital that commenced post-graduate study, demonstrating SWSLHD's ongoing commitment to cardiovascular research.

Cardiovascular Services was awarded the Collaborative Team Award at the 2014 NSW Health Awards, for its project 'RETRIEVE: safe return of post PCI patients'. The project aims to reduce bed block by developing evidence-based protocols to support decision-making around inter-hospital transfers.

## Publication Highlights

- Blanke, P, Dvir, D, Cheung, A, Ye, J, Levine, R, Precious, B, Berger, A, Stub, D, Hague, C, Murphy, D, Thompson, C, Munt, B, Moss, R, Boone, R, Wood, D, Pache, G, Webb, J & Leipsic, J 2014, 'A simplified D-shaped model of the mitral annulus to facilitate CT-based sizing before transcatheter mitral valve implantation', *Journal of Cardiovascular Computed Tomography*, vol. 8, no. 6, pp. 459-467.
- Fernandez, R, Rolley, JX, Rajaratnam, R, Sundar, S, Patel, NC & Davidson, P 2015, 'Risk factors for coronary heart disease among Asian Indians living in Australia', *Journal of Transcultural Nursing*, vol. 26, no. 1, pp. 57-63.
- Hassan, HC, Howlin, K, Jefferys, A, Spicer, ST, Aravindan, AN, Suranarayanan, G, Hall, BM, Cleland, BD, Wong, JK, Suranyi, MG & Makris, A 2014, 'High-sensitivity troponin as a predictor of cardiac events and mortality in the stable dialysis population', *Clinical Chemistry*, vol. 60, no. 2, pp. 389-398.
- Saad, Y, Shugmanim, IM, Kumar, M, Pauk, I, Mussap, C, Hopkins, AP, Rajaratnam, R, Lo S, Juergens, CP & French, JK 2015, 'Safety and efficacy of same-day discharge following elective percutaneous coronary intervention, including evaluation of next day troponin T levels', *Heart Lung and Circulation*, vol. 24, no. 4, pp. 368-376.
- Xu, B, Charlton, F, Makris, A & Hennessy, A 2014, 'Antihypertensive drugs methyl dopa, labetalol, hydralazine, and clonidine improve trophoblast interaction with endothelial cellular networks in vitro', *Journal of Hypertension*, vol. 32, pp. 1075-1083.





# CRITICAL CARE

Critical Care incorporates anaesthetics, emergency, intensive care and high dependency, pain services and organ and tissue donation services.

Critical Care made significant contributions to research during the 2014-15 financial year. The Campbelltown Anaesthetics Department conducted an international epidural survey, to determine the standard of care for infection of the neuraxial space and the impact of using sterile gowns on infection rates around the world.

The department also conducted a number of audits to examine the incidence of complications associated with interscalene blocks and epidural anaesthesia. Areas such as theatre cancellations, blood sugar levels in diabetics receiving dexamethasone and intravenous cannulation were also audited to determine where improvements can be made to policies and practices across the department.

Dr Philip McGrath, Provisional Fellow at Campbelltown Anaesthetics Department, commenced a systematic review to examine the role of parecoxib in paediatric otolaryngologic surgery and Dr Laurent Wallace, Specialist in Pain Medicine, commenced a prospective study on the use of Targin in the acute pain setting.

Liverpool Hospital's Intensive Care Unit (ICU) participated in two multicentre studies during 2014-15, investigating steroid replacement in patients with septic shock and approaches for consenting next of kin of potential organ donors. Overall, one third of patients admitted to Liverpool Hospital ICU were involved in research or audit projects, including seven projects initiated and managed by intensivists on a range of topics, from haemodynamic monitoring and management to optimising enteral nutrition.



Senior academic members of Liverpool ICU continued to engage in research at national and international levels, in addition to supervising two students who went on to receive the David Sloan Prize for Best Paper (Swan XXII Trauma Conference) and the Prize for Best Free Paper at the Spark of Life Conference (Australian Resuscitation Council).

The Liverpool Hospital Research Committee also developed a program to improve the research structure of the Intensive Care Unit Treatment Evaluation (iCUTE).



### Publication Highlights

- Gupta, K, Sondergaard, S, Parkin, G, Leaning, M & Aneman, A 2015, 'Applying mean systemic filling pressure to assess the response to fluid boluses in cardiac post-surgical patients', *Intensive Care Medicine*, vol. 41, pp. 265-272.
- Aneman, A, Frost, SA, Parr, MJ, Hillman, KM 2015, 'Characteristics and outcomes of patients admitted to ICU following activation of the medical emergency team: impact of introducing a two-tier response system', *Critical Care Medicine*, vol. 43, pp. 765-773.
- Shehabi, Y, Sterba, M, Garrett, PM, Rachakonda, KS, Stephens, D, Harrigan, P, Walker, A, Bailey, MJ, Johnson, B, Millis, D, Ding, G, Peake, S, Wong, H, Thomas, J, Smith, K, Forbes, L, Hardie, M, Micallef, S, Fraser, JF, ProGUARD Study Investigators & ANZICS Clinical Trials Group 2014, 'Procalcitonin algorithm in critically ill adults with undifferentiated infection or suspected sepsis: a randomized controlled trial. *American Journal of Respiratory Critical Care Medicine*, vol. 190, pp. 1102-1110.
- Herod, R, Frost, SA, Parr, M, Hillman, K & Aneman, A 2014, 'Long term trends in medical emergency team activations and outcomes', *Resuscitation*, vol. 85, pp. 1083-1087.
- Holst, LB, Haase, N, Wetterslev, J, Wernerman, J, Guttormsen, AB, Karlson, S, Johansson, PI, Aneman, A, Vang, ML, Winding, R, Nebrich, L, Nibro, HL, Rasmussen, BS, Lauridsen, JR, Nielsen, JS, Oldner, A, Pettila, V, Cronhjort, MB, Andersen, LH, Pedersen, UG, Reiter, N, Wils, J, White, JO, Russel, L, Thornberg, KJ, Hjortrup, PB, Muller, RG, Moller, MH, Steensen, M, Tjader, I, Kilsand, K, Odeberg-Wernerman, S, Sjobo, M, Bundgaard, H, Thyo, MA, Lodahl, D, Maerkedahl, R, Albeck, C, Illum, D, Kruse, M, Winkel, P & Perner, A, TRISS Trial Group & Scandinavian Critical Care Trials Group 2014, 'Lower versus higher haemoglobin threshold for transfusion in septic shock', *New England Journal of Medicine*, vol. 371, pp. 1381-1391.

# DRUG HEALTH

Drug Health services operate across the local health district and provide a range of treatments and interventions for people who have problems associated with alcohol and other drug use.

In January 2015, a research forum was organised by Drug Health in collaboration with the Ingham Institute for Applied Medical Research, National Drug and Alcohol Research Centre, non-government organisations and SWSLHD partners. It resulted in the development of a Drug Health Research and Innovation Plan, which will be implemented under the guidance of a Drug and Alcohol Research Steering Committee.

Other highlights in 2014-15 include a number of innovative projects formed in partnership with Mental Health services and the Ministry of Health. These include the development of an online co-morbidity tool and Project Air, which aims to improve the capacity of services to effectively diagnose, manage and treat people with personality disorders.



# GASTROENTEROLOGY AND LIVER

This clinical stream comprises gastroenterology, gastrointestinal surgery, liver, urology, head and neck surgery, colorectal, hepatology and general surgery.

The clinical stream has had a successful research year, with a number of new studies, grants and publications demonstrating the expertise of staff across SWSLHD. A pilot study by the Gastroenterology and Hepatology Department at Liverpool Hospital will soon commence, to measure bowel cancer screening efficiency in the community.

The Head and Neck Surgery Unit focused on cancer research during the 2014-15 financial year, including thyroid cancer, oral squamous cell carcinoma and studies that aim to improve the quality of life of cancer patients and their families. The Upper Gastrointestinal Unit has also made significant contributions to the understanding and management of patients with pancreatic cancer and gastro-oesophageal cancers.

The Colorectal Unit was involved in ongoing clinical skills and simulation training, in addition to projects on colorectal cancer, circulating tumour cells and polyps. The Urology Unit commenced a project to assess the influence of music during flexible cystoscopy and developed several other projects in the areas of bladder and prostatic cancer.

At Bankstown-Lidcombe Hospital, Professor Rupert Leong led the development of consensus statements on the diagnosis and multidisciplinary management of acute severe ulcerative colitis, which was endorsed by the NSW Agency for Clinical Innovation. He was also nominated to assist in the development of the National Health and Medical Research Council (NHMRC) and Cancer Council of Australia's guidelines on colorectal cancer and was awarded the 2014 Gastroenterological Society of Australia AbbVie

Clinical Research Award, for his work on developing tissue biomarkers for the diagnosis of leaky gut.

Dr Hadis Mirzaei was a finalist in the prestigious 2014 Douglas Piper Young Investigator Award and Dr Jeff Chang was awarded the NHMRC Postgraduate Scholarship for his research on intestinal mucosal permeability. Dr Chang was also awarded first prize at the Concord Hospital Gastroenterology and Liver Services Research Awards and delivered presentations at the European Crohn's and Colitis Organisation in Barcelona and Digestive Diseases Week in Washington DC.

## Grant Highlights

- \$6.5 million from Cancer Institute for The Centre for Oncology Education and Research Translation, 2014-2019.
- \$180,000 from SWSLHD Mid-Career Support Program to develop a decision aid for patients with irritable bowel syndrome, 2015-2018.
- \$90,000 from Cancer Institute NSW for 'Improving access to colonoscopy and surgery for individuals with FOBT and overt rectal bleeding in disadvantaged groups in outer South Western Sydney', 2014.
- \$90,000 from Cancer Institute NSW for 'Safe and timely open access colonoscopy for bowel cancer screening following a positive FOBT', 2014.
- \$75,000 from Gastroenterology Society of Australia for AbbVie IBD clinical research, 2014.



### Publication Highlights

- Azizi, A, Kumbhari, V, Gill, R, Pavey, D, Leong, RWL, Merrett, N, Baird, P, Dixon, H & Meredith, C 2014, 'Diagnostic yield of SurePath® in solidpancreatic and GIST lesions', *Journal of Gastroenterology and Hepatology*, vol. 29, no. 2, pp. 46-67.
- Devdas, M, Mittal, A, Lin, P, Cosman, PH, Ziazaris, W, Wilson, R, Das, A & Merrett, ND 2015, 'FDG-PET nodal staging does not correlate with histopathological nodal stage for oesophageal cancers: a retrospective cohort study', *International Journal of Surgery*, vol. 20, pp. 113-117.
- Gibson, KM, Chan, C, Chapuis, P, Dent, OF & Bokey, L 2014, 'Mural and extramural venous invasion and prognosis in colorectal cancer', *Diseases of the Colon and Rectum*, vol. 57, pp. 916-926.
- Nguyen, V, Tan, PK, Greenup, AJ, Glass, AL, Davison, S, Chatterjee, U, Holdaway, S, Samarasinghe, D, Locarnini, S & Levy, M 2014, 'Efficacy and safety of tenofovir disoproxil fumarate in pregnancy to prevent perinatal transmission of Hepatitis B Virus', *Journal of Hepatology*, vol. 61, no. 3, pp. 502-507.
- Ko, Y, Karnib, M, Samuels, D, Alrubaie, A, Rahme, N, McDonald, C, Katelaris, P, Barr, G, Jones, B, Paven, G, Chapman, G, Park, G, Meredith, C, Connor, S, Geary, R & Leong, R 2014, 'Environmental risk factors for inflammatory bowel disease: a case-control study in a Middle Eastern migrant population', *Clinical Gastroenterology and Hepatology*, vol. 12, no. 1, pp. 160-161.

# MEDICAL IMAGING

The Medical Imaging clinical stream conducts cutting-edge research, supported by a comprehensive range of tertiary level six diagnostic, consultative, interventional and therapeutic services.



During the 2014-15 financial year, research was undertaken on a range of clinical improvements, including preclinical molecular imaging and instrumentation optimisation, image-guided treatment planning and adaptive therapy, and model of care and practice redesign.

The current focus is to develop individualised cancer treatments using precision medicine, which takes into account individual variations in genetics and other factors that can influence the patient's response to treatment. This involves ongoing research on the connection between functional Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI) data, to develop individualised precision radiotherapy and other oncology treatments.

The planned upgrade of the Picture Archive and Communications (PAC) Radiology Information System (RIS) and new Cyclotron facility will allow SWSLHD to be at the forefront of precision medical research and expand into other areas, including cardiovascular, neurodegenerative disease and mental health.

## Publication Highlights

- Chicco, A, Lin, P & Som, S 2015, 'Assessment and correction of partial volume effect in SPECT/CT', *Internal Medicine Journal*, vol. 45, pp. 1-2.
- Coupe, NA, Karikios, D, Chong, S, Yap, J, Ng, W, Merrett, N & Lin M 2014, 'Metabolic information on staging FDG-PET-CT as a prognostic tool in the evaluation of 97 patients with gastric cancer', *Annals of Nuclear Medicine*, vol. 28, no. 2, pp. 128-135.
- Lin, P, Stoakes, E, Scott, A, Sam, S & Chicco, A 2015, 'Clinical impact of fluorodeoxyglucose positron emission tomography-computed tomography carried out for non-Medicare eligible indications in Australia: a prospective study', *Clinical Oncology*, doi: 10.1016/j.clon.2015.08.005.
- Min, M, Lin, P, Lee, MT, Shon, IH, Lin, M, Forstner, D, Bray, V, Chicco, A, Tieu, MT & Fowler A 2015, 'Prognostic role of metabolic parameters of (18) F-FDG PET-CT scan performed during radiation therapy in locally advanced head and neck squamous cell carcinoma', *European Journal of Nuclear Medicine and Molecular Imaging*, vol. 42, no. 13, pp. 1984-1994.
- Sidhu, P, Lin, P, Son, H, Rosenfeld, D & Lin, M 2014, 'Testicular fluorine-18 fludeoxyglucose uptake on positron emission tomography CT in patients with lymphoma: clinical significance and management impact', *British Journal of Radiology*, vol. 87, pp. 1044.

# MENTAL HEALTH

## Mental Health operates as a networked service through community mental health services and inpatient services across SWSLHD.

The Psychiatry Research and Training Unit (PRTU) was officially recognised as a SWSLHD academic unit in 2014-15 and received the title of 'South Western Sydney Academic Mental Health Program'. The PRTU has diverse interests including a focus on global mental health, refugees, survivors of trauma, women exposed to gender-based violence and other populations experiencing disadvantage and marginalisation, including migrants.

The Infant, Child and Adolescent Group remained at the forefront of research in the study of autism, Tourette's syndrome and maternal-infant mental health, while the Schizophrenia Research Unit conducted an extensive program of research during the 2014-15 financial year. This included an investigation into neuro-imaging and other bio-markers relevant to psychosis, as well as interventions that prevent metabolic effects of antipsychotic medication.

The Child Psychiatry Unit translated its health and lifestyle intervention research into clinical practice, with the implementation of the NSW Youth Metabolic Algorithm Project. This project aims to apply research findings to prevent weight gain and other adverse metabolic effects of antipsychotic medication when given to young people with psychosis. It involves a comprehensive intervention, including exercise, diet and other lifestyle factors, to help young people avoid cardiovascular and other health complications from taking these medications.

Professor Phillippa Hay, Foundation Chair of Mental Health at Western Sydney University, presented a keynote speech at the 2nd Annual Australian & New Zealand Eating Disorders and Obesity Conference in

May 2015. The conference explored contemporary best practice, multidisciplinary care and research into the epidemiology, clinical manifestations and treatments relating to eating disorders and obesity.

### Grant Highlights

- \$805,485 from the National Health and Medical Research Council (NHMRC) for 'Intimate partner violence amongst women refugees during and after pregnancy: associations with mental health and capacity for resettlement', 2015-2018.
- \$843,495 from NHMRC for 'Testing a transgenerational cycles of violence model in Timor-Leste: impact of maternal anger on childhood aggression', 2015-2020.
- \$10,637,635 from NHMRC for 'Translating science into better post-traumatic mental health', 2015-2020.



- \$550,000 USD from the Department for International Development for 'The Nguvu project: evaluating an integrated approach to reduce intimate partner violence and improve psychosocial health in refugees' in partnership with Johns Hopkins University, Red Cross and UNHCR, 2014-2015.
- \$684,000 from the Cooperative Research Centre Autism for the 'Base Resource and Biobank Project', 2013-2016.

### Publication Highlights

- Eapen, V, Dadds, M, Barnett, B, Kohlhoff, J, Khan, F, Radom, N & Silove, B 2014, 'Separation anxiety, attachment and interpersonal representations: disentangling the role of oxytocin in the perinatal period. *PLoS ONE*, vol. 9, no. 9, doi: 10.1371/journal.pone.0107745.
- Rees, S, Thorpe, R, Tol, W, Fonseca, M & Silove, D 2015, 'Testing a cycle of family violence model in conflict-affected, low-income countries: a qualitative study from Timor-Leste, *Social Science & Medicine*, vol. 130, pp. 284-291.
- Silove, D, Liddell, B, Rees, S, Chey, T, Nickerson, A, Tam, N, Zwi, AB, Brooks, R, Sila, LL & Steel, Z 2014, 'Effects of recurrent violence on post-traumatic stress disorder and severe distress in conflict-affected Timor-Leste: a 6-year longitudinal study', *The Lancet Global Health*, vol. 2, no. 5, pp. 293-300.
- Silove, D, Alonso, J, Bromet, E, Gruber, M, Sampson, N, Scott, K, Andrade, L, Benjet, C, Caldas de Almeida, JM, De Girolamo, G, de Jonge, P, Demyttenaere, K, Fiestas, F, Florescu, S, Gureje, O, He, Y, Karam, E, Lepine, JP, Murphy, S, Villa-Posada, J, Zaekov, Z, Kessler, RC 2015, 'Pediatric-onset and adult-onset separation anxiety disorder across countries in the World Mental Health Survey', *American Journal of Psychiatry*, vol. 172, no. 7, pp. 647-656.
- Silove, D, Rees, S, Tam, N, Mohsin, M, Tay, AK & Tol, W 2015, 'Prevalence and correlates of explosive anger among pregnant and post-partum women in post-conflict Timor-Leste', *British Journal of Psychiatry Open*, vol. 1, no. 1, pp. 34-41.





# NURSING AND MIDWIFERY

SWSLHD hosts the Centre for Applied Nursing Research and the NSW Centre for Evidence Based Health Care, which provide a supportive framework for transforming research into nursing practice.

There was extensive research activity undertaken in the SWSLHD Nursing and Midwifery Service during the 2014-15 financial year, in collaboration with the Centre for Applied Nursing Research (CANR).

Key research projects include the Safely Administering Medications and Managing Interruptions (SAMMI) project, which aims to improve patient safety by developing strategies to reduce or mediate interruptions during medication administration. The Excellent Practice in Communication (EPIC) project aims to provide timely, relevant and structured clinical handover that supports safe, compassionate and person-centred care.

Another important research project was the Safety Huddle program, which involves the implementation of post-fall huddles to reduce inpatient falls. This program has been presented internationally and incorporates the CORE values of SWSLHD, to address an important patient safety concern in the rehabilitation setting.

The Point of Community Nursing Care Documentation Health Outcomes (PONCHO) project has seen the implementation of tablet devices in community health nursing teams within SWSLHD. Valuable outcomes from this project include electronic documentation at the point of care and the improvement of clinical handover with major service providers.

There was ongoing work in the maternal and infant oral health area over the past 12 months, with the development of an oral health audiovisual resource for pregnant women and antenatal care providers. The Nursing and Midwifery service continued its affiliation with local universities,

to provide staff with the opportunity to further their knowledge with support from SWSLHD.

## Grant Highlights

- \$65,400 from Nursing and Midwifery Strategy Reserve Funding for 'Safe administration of medications: managing interruptions during medication administration (SAMMI)'.
- \$32,904 from NSW Kids and Families for the development of an oral health audiovisual resource for pregnant women and antenatal care providers.

## Publication Highlights

- Fernandez, R, Rolley, JX, Rajaratnam, R, Everett, B, Miranda, C & Davidson, PM 2015, 'Reducing the risk of heart disease among Indian Australians: knowledge, attitudes and beliefs regarding food practices—a focus group study', *Food & Nutrition Research*, vol. 59, doi: 10.3402/fnr.v59.25770.
- Heilbrunn, A, De Silva, A, Lang, G, George, A, Ridge, A, Johnson, M, Bhole, S & Gilmour, C 2015, 'Midwives' perspectives of their ability to promote the oral health of pregnant women in Victoria, Australia', *BMC Pregnancy and Childbirth*, vol. 15, pp. 110, doi: 10.1186/s12884-015-0536-x.
- Johnson, M, George, A, Dahlen, H, Ajwani, S, Bhole, S, Blinkhorn, A, Ellis, S & Yeo, AE 2015, 'The midwifery-initiated oral health dental service protocol: an intervention to improve oral health outcomes for pregnant women', *BMC Oral Health*, vol. 15, pp. 2, doi: 10.1186/1472-6831-15-2.

# ORAL HEALTH

Oral Health services aim to protect, promote, maintain and improve the oral health of people in SWSLHD, through affordable, evidence-based and consumer-focused dental services.

During the 2014-15 financial year, Oral Health created an innovative DVD resource on dental health for expectant mothers, in collaboration with the Centre for Applied Nursing Research and other partners. It was endorsed by NSW Kids and Families and distributed in antenatal and dental services across the state. Translated brochures on oral health during pregnancy were also developed and endorsed by NSW Multicultural Health.

Oral Health established a partnership with the School of Nursing and Midwifery at Western Sydney University, to form the Collaboration for Oral Health Outcomes, Research, Translation and Evaluation (COHORTE) research group based at the Ingham Institute for Applied Medical Research. This partnership received a 2015 SWSLHD Quality Award, for the efforts made to improve the oral health of Aboriginal children and provide care and services to Aboriginal clients.

Dr Ajesh George received the Western Sydney University Vice Chancellor's Excellence Award as an Early Career Researcher in 2014, while the Australian Postgraduate Award Scholarship was awarded to Paula Sanchez, for her PhD project on development of a cardiovascular oral health program for cardiac rehabilitation nurses in Australia.

## Grant Highlights

- \$32,904 from NSW Kids and Families, for the development of an oral health audio-visual resource for pregnant women and antenatal care providers in NSW, 2014.



## Publication Highlights

- George, A, Ajwani, S, Johnson, M, Dahlen, H, Blinkhorn, A, Bhole, S, Ellis, S, Zheng, C & Dawes, W 2015, 'Developing and testing of a midwifery oral health screening tool for pregnant women', *Health Care for Women International*, vol. 36, no. 10, pp. 1160-1174.
- Heilbrunn, A, De Silva, A, Lang, G, George, A, Ridge, A, Johnson, M, Bhole, S & Gilmour, C 2015, 'Midwives' perspectives of their ability to promote the oral health of pregnant women in Victoria, Australia', *BMC Pregnancy and Childbirth*, vol. 15, pp. 110.
- Johnson, M, George, A, Dahlen, H, Ajwani, S, Bhole, S, Blinkhorn, A, Ellis, S & Yeo, AE 2015, 'The midwifery initiated oral health-dental service protocol: an intervention to improve oral health outcomes for pregnant women', *BMC Oral Health*, vol. 15, no. 15, pp. 2, doi: 10.1186/1472-6831-15-2.
- George, A, Duff, M, Johnson, M, Dahlen, H, Blinkhorn, A, Ellis, S, Ajwani, S, & Bhole, S 2014, 'Piloting of an oral health education program and knowledge test for midwives', *Contemporary Nurse*, vol. 46, no. 2, pp. 184-190.

# PAEDIATRICS AND NEONATOLOGY

Paediatrics and Neonatology provides care to newborn babies and children up to the age of 16 years and works to improve the health and wellbeing of pregnant mothers.



The medical and nursing teams in SWSLHD Paediatrics and Neonatology were actively involved in a number of research projects during the 2014-15 financial year. Many of these were run across a number of facilities and included studies on iron-deficiency anaemia, twin-to-twin transfusion and high-flow versus continuous positive airway pressure.

A study on therapeutic cooling for hypoxic ischemic encephalopathy has now been translated into clinical practice, while partnerships with international collaborative trials are being finalised and will be reported in 2016.

Other ongoing projects include prospective studies on the effect of tongue tie snips on breastfeeding, as well as Vitamin D and calcium levels of babies born to mothers with or at risk of Vitamin D deficiency.

## Publication Highlights

- Bolisetty, S, Dhawan, A, Abdel-Latif, M, Bajuk, B, Stack, J & Lui, K 2014, 'Intraventricular hemorrhage and neurodevelopmental outcomes in extreme preterm infants', *Pediatrics*, vol. 133, no. 1, pp. 55-56.
- Psaila, K, Foster, JP, Pulbrook, N & Jeffery, HE 2014, 'Infant pacifiers for reduction in risk of sudden infant death syndrome review', *Cochrane Database of Systematic Reviews*, vol. 7, doi: 10.1002/14651858.CD011147.
- Richards, R, Foster, JP & Psaila, K 2014, 'Continuous versus bolus intragastric tube feeding for preterm and low birth weight infants with gastro-oesophageal reflux disease', *Cochrane Database of Systematic Reviews*, vol. 7, doi: 10.1002/14651858.CD009719.pub2.

# POPULATION HEALTH

Population Health aims to protect and promote the health of the local population, with a comprehensive range of high-quality, evidence-based programs across SWSLHD.



During 2014-15, Population Health was engaged in a range of epidemiological studies that investigated the effects of environmental factors and the built environment on health. This research covered topics including bushfires, traffic-related air pollution, heatwaves, water fluoridation, public housing regeneration, new growth centres and green space.

The service also conducted a number of birth cohort studies, including the Gudaga Study. The Gudaga Study was awarded the 2014 NSW Aboriginal Health Award for Building Research and Evidence, as well as Best Community Paper for a study on Sudden Infant Death Syndrome, led by the Ingham Institute for Applied Medical Research.

Other research highlights include collaboration with research partners on health impact assessments and intervention studies, such as the Health Beginnings Trial.

## Research Grants

- \$582,336 from the Australian Research Council's Discovery Program, for 'Development of health

risk-based metrics to define a heatwave and assessment of its policy implications', 2015-2017.

## Publication Highlights

- Blinkhorn, AS, Byun, R, Mehta, P & Kay, MA 2015, 'A 4-year assessment of a new water-fluoridation scheme in New South Wales, Australia', *International Dental Journal*, vol. 65, no. 3, pp. 156-163.
- Ding, D, Chong, S, Jalaludin, B, Comino, EJ & Bauman, AE 2015, 'Risk factors of incident Type 2 diabetes mellitus over a 3-year follow-up: results from a large Australian sample', *Diabetes Research and Clinical Practice*, vol. 108, no. 2, pp. 306-315.
- Eapen, V, Woolffenden, S, Williams, K, Jalaludin, B, Dissanayake, C, Axelsson, EL, Murphy, E, Eastwood, J, Descallar, J, Beasley, D, Crnčec, R, Short, K, Silove, N, Einfeld, S & Prior, M 2014, 'Are you available for the next 18 months? Methods and aims of a longitudinal birth cohort study investigating a universal developmental surveillance program: the 'Watch Me Grow' study', *BMC Pediatrics*, vol. 14, no. 1, pp. 234.
- Harris-Roxas, B, Haigh, F, Travaglia, J & Kemp, L 2014, 'Evaluating the impact of equity-focused health impact assessment on health service planning: three case studies', *BMC Health Services Research*, vol. 14, pp. 371.
- Wen, LM, Baur, LA, Simpson, JM, Xu, H, Hayes, AJ, Hardy, LL, Williams M & Rissel, C 2015, 'Sustainability of effects of an early childhood obesity prevention trial over time: a further 3-year follow-up of the Healthy Beginnings Trial', *JAMA Pediatrics*, vol. 169, no. 6, pp. 543-551.

# PRIMARY AND COMMUNITY HEALTH

Primary and Community Health provides a range of health screening, early intervention, post-acute care, chronic and palliative care services in a variety of community settings.

Primary and Community Health continues to foster a culture of innovation, with a range of research projects across SWSLHD in partnership with tertiary institutions and other local health districts.

A highlight of 2014-15 was the development of perinatal Electronic Medical Record (eMR) forms, which allow clinicians to accurately record information on women in the perinatal period, retrieve information in a timely manner and identify psychosocial risk factors that may impact the care provided by community health services.

The Maternal Child Health Data Linkage Project was led by the Early Years Research Group and has resulted in several improvement projects over the past 12 months, including: an in-depth study of the prevalence of maternal depression risk and the impact of infant health outcomes; maternal predictors of vulnerability and the impact that vulnerability has on child health; and the benefits of sustained home visiting programs for women and children.

Two comprehensive reports on maternal child health data were produced and are now being used to provide healthcare services that support families with young children, particularly those who are socio-economically disadvantaged and vulnerable.



## Publication Highlights

- Yoong, T, McKenzie, A & Grace, R 2015, 'Is the Australian Developmental Screening Test (ADST) a useful step following the completion of the Ages and Stages Questionnaire (ASQ) on the pathway to diagnostic assessment for young children?' *Australian Journal of Child and Family Health Nursing*, vol. 12, no. 1, pp. 4-8.

# SURGICAL SPECIALTIES

Surgical Specialties incorporates research in the areas of neurosurgery, orthopaedics, ear, nose and throat, plastics, hands, ophthalmology and trauma.



In 2014-15, the Orthopaedic Department at Camden and Campbelltown Hospitals developed and implemented the first Australian and New Zealand (ANZ) Hip Fracture Registry and nationally-endorsed guidelines for hip fracture care, to reduce clinical variation between hospitals and improve hip fracture care.

Other highlights include publication of the first annual report for the Arthroplasty Clinical Outcomes Registry NSW (ACORN) and a multicentre trial of surgery for ankle fractures.

## Grant Highlights

- \$705,000 from the HCF Research Foundation, for improving services and outcomes for joint replacement patients, 2013-2015.

- \$40,000 from The Lincoln Centre, for the 'Combined Randomised and Observational Study of Surgery for Fractures in the Distal Radius in the Elderly (CROSSFIRE)', 2015.
- \$25,000 from the Australian Orthopaedic Association, for 'Surgery for Olecranon Fractures in the Elderly (SOFIE): a pragmatic randomised trial of surgery versus non-operative treatment', 2014-2015.

## Publication Highlights

- Mak, JCS, Fransen, M, Jennings, M, March, L, Mittal, R & Harris, IA 2014, 'Evidence-based review for patients undergoing elective hip and knee replacement', *ANZ Journal of Surgery*, vol. 84, no. 1-2, pp. 17-24.
- Harris, IA & Naylor, JM 2014, 'Double standards in clinical practice ethics: is the researcher held to a higher standard than the clinician?' *Medical Journal of Australia*, vol. 200, no. 2, pp. 76.
- Lim, HC, Adie, S, Naylor, JM & Harris, IA 2014, 'Randomised trial support for orthopaedic surgical procedures', *PLoS One*, vol. 9, no. 6, doi: 10.1371/journal.pone.0096745.
- Adie, S, Ma, D, Harris, IA, Naylor, JM & Craig, JC 2015, 'Quality of conduct and reporting of meta-analyses of surgical interventions', *Annals of Surgery*, vol. 261, no. 4, pp. 685-694.
- Machado, GC, Ferreira, PH, Harris, IA, Pinheiro, MB, Koes, BW, van Tulder, M, Rzewuska, M, Maher, CG & Ferreira, ML 2015, 'Effectiveness of surgery for lumbar spinal stenosis: a systematic review and meta-analysis,' *PLoS One*, vol. 10, no. 3, doi: 10.1371/journal.pone.0122800.

# WOMEN'S HEALTH

Women's Health undertakes a range of policy, program, health promotion and community development work, in addition to providing clinical services through Well Women's Clinics in SWSLHD.

A number of research projects were undertaken in the 2014-15 financial year, including a longitudinal study on retained placentas and its associated biomarkers, as well as the correlation of placental pathology and stillbirths in SWSLHD. Gautami Banlagangatharan and Gamal Matthias ran a study on cervical incompetence and emergency cerclage, while Jim Parker conducted research on laparoscopic colpopexy for vault prolapse.

The Obstetrics and Gynaecology Unit is currently conducting a multicentre randomised controlled trial to reduce the levator hiatus with a puborectalis sling, as well as a trial on the prediction of maternal and perinatal outcome in vaginal birth after caesarean section.

## Publication Highlights

- Budden, A, Chen, L & Henry, A 2014, 'High-dose versus low-dose oxytocin infusion regimens for induction of labour at terms,' *Cochrane Database of Systematic Reviews*, vol. 10, doi: 10.1002/14651858.CD009701.pub2.
- Krishna, V & Murray K 2014, 'Rising rate of emergency caesarean sections in low risk pregnancies', *International Journal of Biological and Medical Research*, vol. 5, no. 2, pp. 4007-4011.





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SWSLHD Research Annual Report 2014-15  
ISBN 978 1 74079 199 1

This document can be downloaded from the  
SWSLHD Research and Ethics Office website at  
[www.swslhd.nsw.gov.au/ethics](http://www.swslhd.nsw.gov.au/ethics).

November 2015

