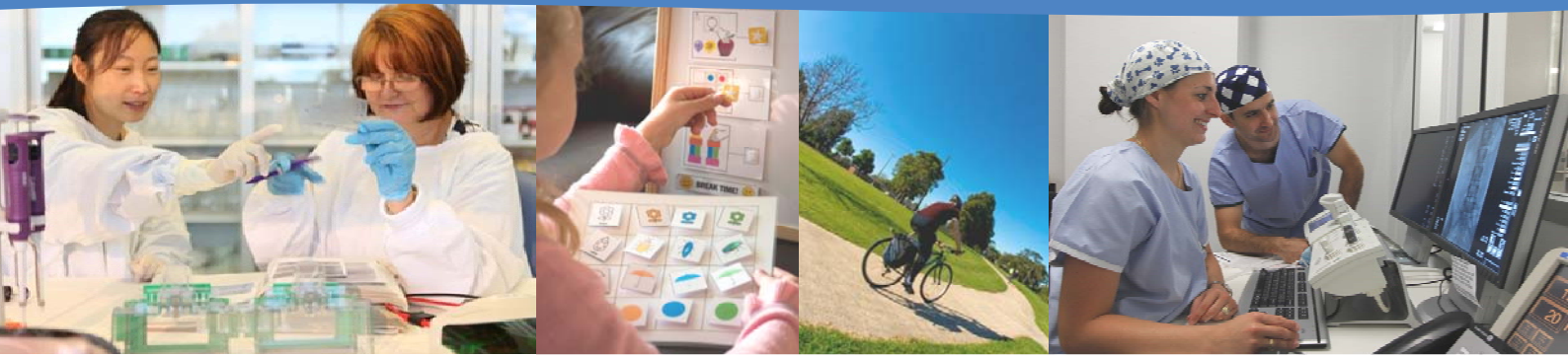


Research Strategy for South Western Sydney Local Health District 2012 – 2021



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Foreword

Research is an integral part of improving the delivery of health care. Research promotes inquiry, and attracts clinicians who are more willing to implement research findings into clinical practice. National and State Governments recognise the importance of research in health care delivery and are increasing the funding for research projects and infrastructure.

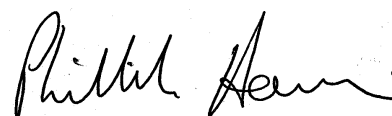
The Research Strategy for 2012-2021 builds on the excellence in research that exists in the South West Sydney Local Health District to increase the quantity and quality of research and to translate discovery into clinical benefit. The South Western Sydney population is a large population with a high burden of illness. It is also a growing population and will exceed 1 million people by 2021. Research can help meet the challenge of their health needs in the next decade. Health research in South West Sydney occurs at every level from bench-top laboratory research to community interventions. It is recognised for its expertise in cancer, community and population health, critical care, injury, and mental health research.

It is clear that there are major issues that need to be dealt with if we are to create a successful

research enterprise. They include emerging health problems, the need to create more research capacity, organisational issues in leadership and management, and governance of research.

This new Strategy will strengthen research leadership, develop research priorities, increase clinical trials activity, build the research workforce and increase community participation. It will provide a pathway into research for local clinicians, foster early career researchers and support and recognise senior researchers.

The Research Strategy 2012-2021 is an ambitious program that will embed research in all the clinical services of the Local Health District. We have achieved all the goals of the last Research Strategy 2006 - 2011 with the formation of the Ingham Institute, the opening of a new research building and the success of infrastructure grant funding to develop new research organisations in SWSLHD. There is no doubt that we can transcend these achievements in the next decade.



Professor Phillip Harris AM

Chair
South Western Sydney Local Health District Board



Professor Michael Barton

Director of Research
South Western Sydney Local Health District

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Introduction

Health research in Australia is at a significant crossroad with national and state reviews focusing on ways to foster health research and innovation, translate research into practice and increase the commercial success of research efforts. The direction for the future is to increase collaborations and partnerships across the industry.

This Strategy has been developed at the request and under the direction of the Board of South Western Sydney Local Health District. The Board is

cognisant that stronger research will reap great benefits for the health of the community by improving the quality of health care, strengthening innovation and critical enquiry, increasing the likelihood that health practice will be informed by evidence and supporting the recruitment of higher quality clinical staff.

The Strategy builds on considerable consultation over the last six - nine months with researchers, managers, clinicians, universities and consumers and will be the blueprint for research development in the short and medium term. It will provide the gauge through which research success and improvement can be measured.

1. South Western Sydney Local Health District

South Western Sydney Local Health District is one of eight local health districts established in metropolitan Sydney in January 2011. Covering 6,243 square kilometres, the District is responsible for providing health care to residents of the local government areas of Bankstown, Fairfield, Liverpool, Campbelltown, Camden, Wollondilly and Wingecarribee.

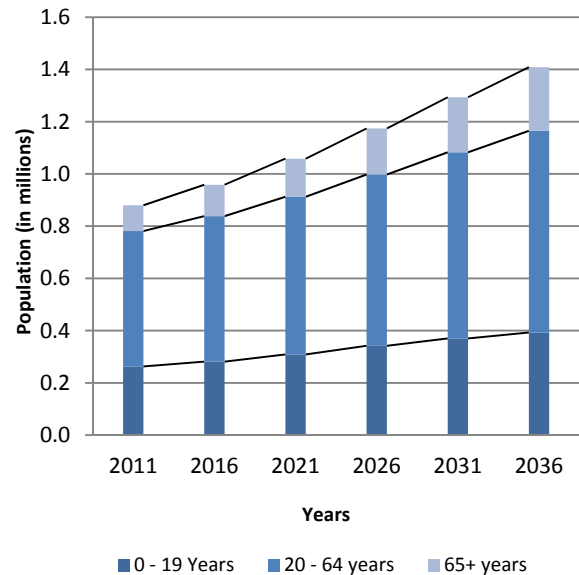
South Western Sydney is one of the fastest growing local health districts in NSW with the population projected to grow from its current eight hundred and seventy five thousand people to 1.058 million residents by 2021 and 1.4 million by 2036. Although all parts of the District will grow, the most significant growth will be in the new South West Growth Centre which is located in the Camden and Liverpool local government areas.

Figure 1.1 Geographical Coverage of South Western Sydney Local Health District



Figure 1.2 Projected Population Growth in South Western Sydney, 2011- 2036

(Source: NSW Department of Planning 2009)



Population growth and ageing will drive demand for health services and at the same time, there will continue to be a growing population of children and young people. Health conditions such as lung cancer, diabetes, cardiovascular disease, Hepatitis B and perinatal mortality are all significantly higher in this District than the NSW average. A precursor to these conditions is the relationship between life style behaviours such as smoking, inadequate exercise and poor diet with socio-economic status, environment and culture. The demographic characteristics and health profile of the community together with rapid growth offer opportunities and challenges for researchers.

There are approximately 11,200 people who identify as Aboriginal people or Torres Strait Islanders, with large communities in Campbelltown and Liverpool. The health of Aboriginal people is significantly poorer than the general population. Aboriginal people are more likely to die at a younger age, infant mortality is almost twice the rate for NSW babies overall and Aboriginal people are more than three times as likely as non-Aboriginal people to die as a result of diabetes.

South Western Sydney is marked by its culturally diverse communities with Arabic, Vietnamese, Spanish and Cantonese some of the major languages other than English (LOTE) spoken and a large refugee population. This diversity is greatest in Fairfield LGA where 71% of residents use a LOTE at home. There are specific health issues in some communities including overweight and obesity and diabetes in Middle Eastern and Pacific Islander communities, and high rates of hepatitis B in people born in Asian and Middle Eastern countries.

In addition to biology, ageing and lifestyle, social factors such as income, job and education also determine health outcomes. SWSLHD has pockets of disadvantage with some of the poorest communities in NSW. Nine suburbs are ranked among the fifteen most disadvantaged suburbs in metropolitan Sydney (Australian Bureau of Statistics 2006).

There are six acute public hospitals in the District: Bankstown-Lidcombe Hospital; Bowral and District Hospital; Camden Hospital; Campbelltown Hospital; Fairfield Hospital and Liverpool Hospital. In addition, there are affiliated health services of Karitane, Braeside Hospital, Carrington Centennial Care, Scarba South West Sydney and the NSW Service for the Treatment and Rehabilitation of Torture and Trauma Survivors (STARTTS).

Community health services operate in accessible locations across the District providing prevention,

early intervention and community-based treatment and longer term care. Major community health centres are located at Bankstown, Cabramatta, Carramar, Prairiewood, Liverpool, Miller, Moorebank, Hoxton Park, Ingleburn, Campbelltown, Rosemeadow, Narellan, Tahmoor and Bowral.

Medical specialties and services and programs are grouped into District-wide clinical streams to support effective clinical governance and direction: Aged Care and Rehabilitation; Allied Health; Cancer; Cardiovascular; Complex Care and Internal Medicine; Community Health Services; Critical Care; Gastroenterology and Liver; Laboratory Services; Medical Imaging; Surgical Specialties; Oral Health; Paediatrics and Neonatology; and Women's Health. In addition, services such as Mental Health, Oral Health, Drug Health, Population Health and BreastScreen NSW are managed on a networked basis across South Western Sydney and Sydney Local Health Districts. Pathology Services operate as a hub locally under NSW Health Pathology.

Excluding the affiliated third schedule facilities, approximately 11,980 people work in the District. The workforce is predominantly female and comparatively young with 34% of staff aged under 35 years. It comprises 48% nurses, 12% medical and 15% other health professions (including allied health, pharmacy, dental, health promotion and other clinical support). Non-clinical staff i.e. general hospital employees represent a further 25% of the workforce. The greatest proportion (46%) of staff work at Liverpool Hospital (including SWSPS and District staff) with Campbelltown and Bankstown-Lidcombe Hospitals employing 16% and 15% of staff respectively. The remaining 23% of staff work in other facilities including Fairfield and Bowral Hospitals, Community Health and Mental Health.

2. Research Strategic and Policy Context

National and NSW Strategic Direction

In 2010, the Council of Australian Governments (COAG) signed the final National Health Reform Agreement which was developed in response to [National Health and Hospitals Network for Australia's Future](#). The agreement established a National Health Funding Pool and introduced Activity Based Funding (ABF) as a mechanism to fund hospitals for activity using a nationally agreed price. Under this agreement a new framework for teaching and research will be developed. The lack of standard methods for classifying, counting and allocating costs for teaching and research has been identifying as a significant issue in achieving this end.

The [Strategic Roadmap for Australian Research Infrastructure](#) (2011) has identified national priority research infrastructure areas. Targeted capability areas include population health, translating health research, urban settlements, integrated biological discovery, eResearch and digitisation infrastructure. The Australian Government has also initiated a [Strategic Review of Health and National Research in Australia](#) seeking to optimise Australia's capacity to produce world class research. The outcomes of this review are expected in late 2012 but a driver has been the structural change occurring through COAG.

The National Health and Medical Research Council (NHMRC) is the peak body for supporting health and medical research in Australia. It develops health advice for the Australian community, health professionals and governments, and provides advice on ethical behaviour in health care and in the conduct of health and medical research. The [NHMRC 2010-2012 Strategic Plan](#) (2010) has identified health issues requiring special attention including a self-improving health system; Indigenous health and well-being; ageing and health; chronic disease; mental health; genomic medicine and frontier technologies; planning for emerging infectious disease threats; examining alternative therapy claims; global health; and health consequences of climate change.

The [NSW Health and Medical Research Strategic Review 2012](#) focused on NSW health and medical research performance and how the sector could be improved, better coordinated and leveraged; and proposed ways for supporting NSW health needs, clinical trials and commercialisation capacity. Utilising a partnership approach, the Review has two broad strategies: foster translation and innovation from research; and build world class research capacity.

The [NSW Government Response to the Strategic Review](#) endorsed and fully supported the majority of recommendations. It also announced dedicated funding to support collaboration, develop medical devices, build research capacity, support research hubs and create an Office for Health and Medical Research (identified with other funding programs under Funding Mechanisms later in this Section). The NSW Government vision, deliverables and themes for implementation are summarised in Appendix 11.1.

The NSW Ministry of Health has also developed targeted research plans such as [Promoting the generation and effective use of population health research in NSW: A Strategy for NSW Health 2011-2015](#) which provides a framework, strategies and actions to support efficient and collaborative use of funds for population health research. The [NSW Mental Health Research Framework](#) (2012) also seeks to improve collaboration and strengthen research across the NSW Mental Health Program.

The importance of fostering collaboration in research has been recognised internationally and within Australia. Formal structures such as research centres have been developed in other countries and locally to increase potential for collaboration and sharing. Examples of these formal structures follow.

There have been proposals for Advanced Health Research Centres (AHRC) similar to those in the United Kingdom where consortia of universities, medical research institutes and hospitals apply formally for recognition of their excellence in research and research translation. These centres seek to promote excellence in health and medical research where clinical care is provided; encourage collaboration between researchers; promote the translation of research into clinical practice, day to day care of patients and training in research for health professionals; develop innovative models of care and ensure efficient use of research facilities through sharing of infrastructure. The NSW Cancer Centre Translational Cancer Research Centre (TCRC) Grant Program and the Translational Cancer Research Program also link leading research centres with leading clinical centres to facilitate closer collaboration between researcher and clinician, drive practice improving research and its rapid adoption for improved patient care.

Health Research Policy

Research policy is driven at an international, national and state level. The Guideline for Good Clinical Practice (GCP) developed by the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) defines the international quality standard in practice in clinical trials. It covers the design, conduct, performance, monitoring, auditing, recording, analysis and reporting of clinical trials. Compliance with the GCP assures that data is reported, results credible and accurate and that trial participants are protected.

The National Statement on Ethical Conduct in Research involving Humans 2007 (updated 2009) is the principle guideline to promote ethical human research and the ethos that should permeate the way those engaged in human research approach their research practice. Additional policies such as the Australian Code for the Responsible Conduct of Research and the Research Governance Handbook: Guidance for the national approach to single ethical review informs research practice across Australia and the governance activities that

institutions must address before, during and after research.

The NSW Ministry of Health policy Research Governance in NSW Public Health Organisations (GL2011_001) summarises the principles, standards and requirements for the responsible conduct of quality research. It also clarifies the responsibilities and accountabilities of key parties involved in research taking place in NSW public health organisations. Other NSW Health policies which consider ethical review, research governance and clinical ethics are available through <http://www.health.nsw.gov.au/ethics/research/policies.asp>.

The Aboriginal Health and Medical Research Council (AH&MRC) Ethics Committee operates as a Human Research Ethics Committee (HREC) under the National Health and Medical Research Council (NH&MRC) legislation. It assesses research proposals affecting the health and wellbeing of Aboriginal people and communities and monitors data collection on Aboriginal health to ensure ethical conduct of these activities. This role is endorsed by the NSW Ministry of Health Department. The Aboriginal Health Impact Statement and Guidelines (PD2007-082) seeks to ensure that the health needs and interests of Aboriginal people are considered in the development of new policies programs and strategies.

Funding Mechanisms

Funding for health and medical research comes from a range of sources. Across Australia, the National Health and Medical Research Council (NHMRC) administers funding for health and medical research on behalf of the Australian Government and includes funding for buildings and the upgrading of health and medical research and training facilities via the Health and Hospitals Fund. The Australian Government Department of Innovation, Industry, Science and Research (DIISR), the Australian Research Council (ARC), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and the Department of

Education, Employment and Workplace Relations (DEEWR) are also sources of funding nationally.

NSW health and research grant funding programs (such as the recently announced programs) include:

- The Medical Research Support Program (MRSP) which provides infrastructure funding on a competitive basis to health and medical research organisations that undertake world class research activities and build capacity in NSW
- A Medical Devices Seeding Fund to encourage investment in new medical devices
- A Research Capacity Building Program to build capacity and attract researchers to NSW
- Financial support for research hubs
- The NSW Health Capacity Building Infrastructure Grants (CBIG) Program which provides infrastructure funding to research organisations that undertake public health and health services research
- Cancer Institute NSW competitive grants program designed to accelerate the translation of research into clinical practice. Support is also provided for resources, infrastructure and personnel to conduct clinical trials at research institutions throughout NSW.
- Specialty specific grants such as the NSW Health Drug and Alcohol Research Grants.

Research funds are also provided through research institutes, community organisations, philanthropic bodies and individuals, and the operational funds of local health services. The NSW Office of Health and Medical Research will contribute to the block funding of research hubs and will be developing funding programs targeted at senior researchers. Changes at a national level have not yet been determined.

Measuring Performance

The NSW Government requires transparency and accountability in research and measurement of progress. The South Western Sydney Local Health District Performance Agreement 2011/12 includes a key performance indicator (KPI) on research: *“Improve the research and teaching culture and capability across the District”* however it does not define how this will be measured.

The NSW Office of Health and Medical Research has responsibility for oversight and indicator development. Potential indicators to measure performance identified within the NSW Strategic Review include:

- Research and output metrics
- LHD research processes, programs and outcomes
- Performance against strategic plans
- Incorporation of collaboration and translation performance measures into all relevant research funding agreements with NSW government
- Number of researchers by role by age
- NHMRC and other peer-reviewed grants awarded
- Number of trial sites (NSW compared to other states)
- Commercialisation office performance metrics
- Ranking of hubs in the international field for area of expertise
- Funding source and destination reported
- Research ethics and governance metrics including total number of clinical trials initiated; research applications (HREC review and site specific assessment) of more than low risk to participants authorised within 60 days; and research applications (HREC review and site-specific assessment) of low and negligible risk to participants authorised within 30 days.

3. Planning for the Research Strategy

In September 2011, under the direction of the Research and Teaching Subcommittee of the SWSLHD Board, a strategic planning process to develop a Research Strategy for the South Western Sydney Local Health District (SWSLHD) with a ten year timeframe commenced. The planning process was supported by a small working party. The Terms of Reference for the planning process are listed in Appendix 11.2.

Key steps in developing the strategy included:

1. Initial fact finding which included a review of national and state policy and strategic planning parameters; consideration of local health data and demographics; identification of current research activities undertaken by the District Ethics and Research Governance Office and by the community of health researchers in the District; assessment of the outcomes of previous strategies and initiatives; and identification of key stakeholders.
2. Broad consultation which focused on the current situation regarding health research in South Western Sydney, barriers and potential directions. Over 50 people contributed to this initial phase. This included:
 - a. face to face interviews with twenty local senior medical, nursing and allied researchers, District Executive staff, Research management, and senior executive from New South Wales, Western Sydney and Sydney universities.
 - b. written submissions (by questionnaire) sent to District Executive, General Managers, Clinical and Network Stream Directors, Medical Staff Councils, Divisions of General Practice, local Aboriginal organisations and leading research

- entities. Thirty one senior managers and clinicians provided a written submission.
- c. meetings and consultations to consider selected complex issues of research endeavour with the SWSLHD Community and Consumer Council (and networks), SWSLHD Aboriginal health staff, local Aboriginal organisations, multicultural health staff, researchers interested in culturally and linguistically diverse communities, clinical trial nurses/coordinators and medical librarians.

In addition, an on-line survey for District staff was conducted December 2011 - January 2012. Two hundred and forty two staff completed the survey.

3. The key findings were summarised in two papers *A Research Strategy for South Western Sydney Local Health District: Paper No 1 Issues and Paper No 2: Potential Research Directions*. Validation of these findings occurred via an invitation for written comment and participation in consultation forums at Bankstown, Campbelltown and Liverpool. Sixty six researchers, clinicians, consumers and other stakeholders participated in these forums and a further five commented in writing.
4. Consideration of comments by the Research and Teaching Subcommittee of the Board and amendment of the proposed directions and consolidation with this Research Strategy.
5. Endorsement by the Research and Teaching Subcommittee, SWSLHD Clinical and Quality Council and the Board of SWSLHD.

4. Rationale for a Research Focus

Over the last 15 - 20 years, there has been considerable expansion in the amount and quality of health and medical research in South Western Sydney, an increase in the depth of research expertise through the appointment of quality staff and development of organisational structures that support research. The construction of the new Ingham Institute at Liverpool represents a further milestone in this process.

The research environment in South Western Sydney is still relatively young, and although there are few of the traditions that can stifle research thinking and endeavour there are also areas which require further development. Opportunities abound as the research marketplace has not been crowded out by long established institutes competing for funds from entrenched paradigms.

Within the broader community, there is frequently a narrow interpretation of research which focuses on biomedical and clinical trial research. However, the approach within South Western Sydney has been broad and included a focus on:

- Health services research – in areas such as cancer services, critical care, trauma, electronic medical record implementation and mental health
- Population health research – in equity, health promotion and environmental health
- Clinical research – including clinical trials
- Biomedical research – in molecular biology, neuroscience, basic pharmacology, immunity, inflammation, cancer and pancreatic disease.

Figure 4.1 Defining Research

Clinical - improves the diagnosis and treatment of disease and injury and improve health and quality of life

Clinical Trials - procedures to collect information about adverse effects and efficacy of drug and other treatments and health interventions

Biomedical - research in laboratory settings

Translational - produces innovation in health care

Population Health - considers factors that influence the health status of groups or whole populations

Health policy – focuses on how policy is created and the use of evidence to formulate policy

There is wide recognition and agreement that fostering research is important for health services in general and for South Western Sydney specifically because:

- It will bring the wider community benefits associated with medical breakthroughs and with improved understanding of health, wellbeing, disease patterns, healing, health systems and services.
- It will propagate an enlightened and innovative spirit of critical enquiry and analysis within the health service.
- It will foster policy, service development, clinical practice and care which is evidence-based; thus contributing to service and system quality, safety, effectiveness and efficiency.
- It can be an important factor in attracting and retaining high quality staff who are interested either in undertaking research or in working in centres of research and healthcare excellence.
- It will support a strong and enthusiastic teaching and training environment.

5. Vision, Aims and Principles

The Board of South Western Sydney recognises the importance of research in improving the health of the community and improving patient care, and in

attracting and retaining highly skilled health practitioners.

The **Vision for Health Research in South Western Sydney** is that:

Researchers in South Western Sydney have a reputation for high quality health research that improves the health and health outcomes of local communities and has broad applicability nationally and internationally

The **Aims of the SWSLHD Research Strategy** are to:

1. Support and further develop the capacity for research across the SWSLHD.
2. Enhance the profile of current research in the SWSLHD.
3. Strengthen the quality and quantity of research in the SWSLHD.
4. Encourage new researchers, including junior staff, and, sustain the commitment to research of SWSLHD personnel in management, support and research roles.
5. Identify resourcing required to implement the strategies in the Plan and potential sources of funding.
6. Develop governance arrangements which ensure accountability and responsibility for research conducted according to ethical principles, scientific, regulatory and professional standards and the principles of risk management.
7. Ensure structures support creativity and lead to research which improves health and health service provision.

The **Principles** which underpin this vision and the health research direction are that:

- Research will provide a cornerstone of the Local Health District and be an intrinsic part of normal Health business.
- Research will aim to address the health concerns of patients and local communities, whether this be through capacity building, changing behaviours, improving health or maintaining or improving quality of life.
- Research will be multi-disciplinary, multi-professional and will be undertaken in partnership with patients and communities, facilities, services and organisations. It will focus on hospital services and will also look outward into community and primary health services and local communities.
- Research will translate into everyday practice.
- Research will be undertaken in a manner that respects and protects the research participant, the researcher and the District.
- Research will provide a foundation from which we can develop our workforce and will provide a competitive advantage to attract and retain skilled and committed staff.

6. Health Research in South Western Sydney

Research leadership within South Western Sydney has grown from the teaching hospital status of Bankstown-Lidcombe and Liverpool Hospitals. It gained considerable momentum in the 1990's with collaborative partnerships with the University of New South Wales (UNSW) which funded research units such as the Centre for Health Equity Training Research and Evaluation (CHETRE) and University of Western Sydney (UWS) that funded the Centre for Applied Nursing Research (CANR); the commitment of local clinicians; and the commitment and financial support of local companies and communities.

The Research Strategy for SSWAHS (Western Zone) 2006 to 2011 set the broad strategic research direction for the last five years with its focus on increasing research capacity, strengthening performance, creating an enhanced profile, and sustaining commitment of managers, clinicians and other personnel to the research effort. The achievements are reflected in Figure 6.1.

These achievements occurred within a context of growing research strength and collaboration between local clinicians and researchers, universities, and state, national and international institutions. This strength is reflected in the annual Research Reports for the District which have been produced by the Ingham Institute of Applied Medical Research.

With the establishment of the South Western Sydney Local Health District in January 2011, the new Board identified a key strategic direction to develop health research within the district. This strategy responds to the Board's direction by profiling health research structures, collaborations and performance within the District and outlining the directions required for the next five years with a long term view to 2021.

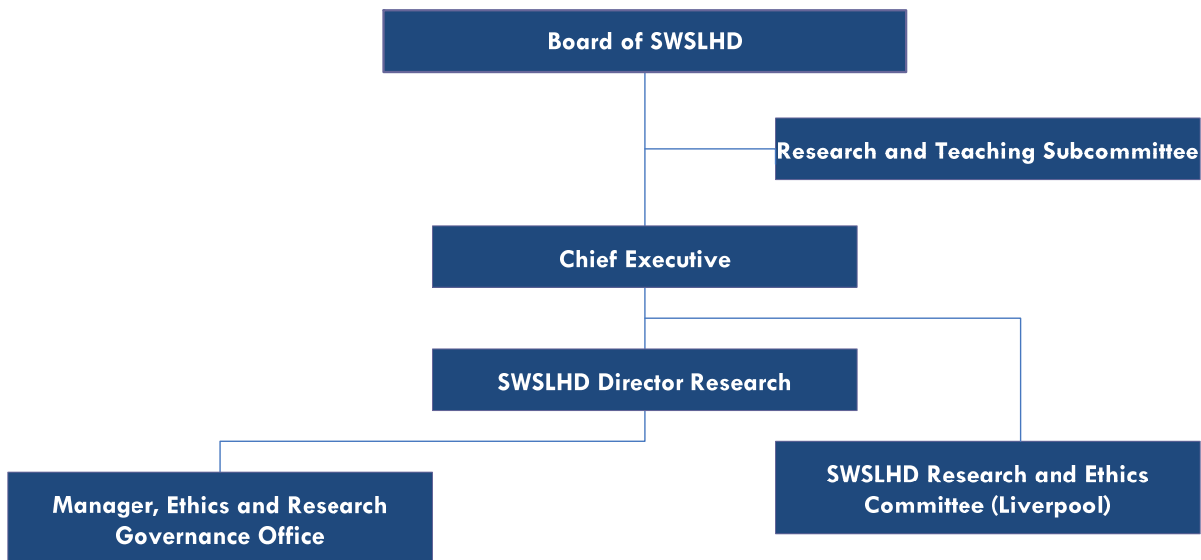
Figure 6.1 Key Achievements from the *Research Strategy for SSWAHS (Western Zone) 2006 to 2011*

- Establishment of the Ingham Institute for Applied Medical Research
- Development of the Ingham Institute Building, a Clinical Skills and Simulation Centre and Research Radiation Oncology Bunker with its MRI coupled linear accelerator to be completed in 2012.
- Appointment of a Research Director for the Ingham Institute and SWSLHD, Director of Clinical Trials and a Biostatistical Unit.
- Creation of an internal grants program with four infrastructure grants of \$200,000 each to encourage collaborations into stronger more competitive research enterprises. Four collaborations were funded: the Allied Health group at Bankstown-Lidcombe Hospital; Cardiology at Liverpool Hospital; Early Years researchers; and community health researchers working with CHETRE.
- Creation of a Grant Preparation Scheme to provide small grants to assist those who submit NHMRC applications.
- Development of seven research streams.
- In the last three years, increased funding and grants for research and over the last five years a strengthening of innovative and essential research in fields such as Aboriginal early years, cancer and environmental health.
- Annual and targeted research forums to showcase local research, network and discuss new findings.

6.1 Research Governance

The formal governance structure of research in South Western Sydney Local Health District is reflected in the following diagram:

Figure 6.2 SWSLHD Research Governance Structure



The **Research and Teaching Subcommittee of the Board** established in July 2011 operates under the broad purpose to establish South Western Sydney Local Health District as a leading organisation in research and teaching nationally and internationally. The Subcommittee's main role is to provide advice to the Board about research with specific attention to:

- Infrastructure support (i.e. the SWSLHD Ethics and Research Governance Office, information management and technology, finance and the Ingham Institute of Applied Medical Research)
- Strategic initiatives and funding opportunities
- Research achievements
- Embedding research into the culture of the District
- Barriers to research
- Research co-operation between partner Universities and the Ingham Institute.
- Development of a research incentive program.

The **SWSLHD Director Research** holds overall responsibility for leading and coordinating the SWSLHD research effort in collaboration with the

heads of individual research units. In particular, the role involves implementation of the Research Strategy. It also includes developing capacity, advocating and raising the profile of local health research and improving efficiency and participation in research.

The **SWSLHD Ethics and Research Governance Office (ERGO)**:

- Administers submissions to the SWSLHD Human Research Ethics Committee
- Reviews and makes recommendations to the Chief Executive about the satisfactory governance of research projects within the SWSLHD
- Answers questions and advises stakeholders on human research ethics and human research governance policies, guidelines and procedures within SWSLHD
- Provides the research community with updated information relating to internal and external human research policies and guidelines.

- Disseminates information about human research being undertaken in the District
- Facilitates communication with Research Offices in other jurisdictions
- Organises educational opportunities for stakeholders on matters relating to ethical research and authorisation (governance) of human research in SWSLHD.

The **SWSLHD Human Research Ethics Committee (HREC)** reviews human research applications where the research takes place in a South Western Sydney Local Health District facility for single-centre studies and/or external institutions/organisations and investigators as approved by the Chief Executive. It provides independent oversight of human research projects; competent, timely review and monitoring of human research projects in respect of their ethical and scientific acceptability; determines the compliance of a human research project with the National Statement and grant, withholds or withdraws ethical approval; and provides advice on strategies to promote awareness of the ethical conduct of human research. Of note is that research involving Aboriginal people requires approval by the Aboriginal Health and Medical Research Council Ethics Committee.

The **Clinical Trial Coordinators and Nurses Meeting** held on a monthly basis supports clinical trial practice and provides an avenue to address research operation and governance concerns and share ideas and resources.

Annual forums provide a venue for presenting and promoting local research and fostering collaboration and learning.

6.2 Researchers, Research Groups and Research Units

The effort given to health research by clinicians and other health practitioners across the District is mixed. A number of senior clinicians contribute to

national and international research through a combined clinical/service and research workload. The intent of this dual role is that local research is more likely to be practically based and informed by clinical experience and local needs. While some clinicians undertake research locally, others contribute to research in other parts of Sydney where their field of interest and expertise may have a stronger research history and greater success in winning research grants. There are also clinicians who contribute to the endeavours of researchers in other Districts or universities. These clinicians may or may not get recognition for their work. There are also a large number of other clinicians who do not undertake research, some of whom have higher qualifications in research.

Research success is heightened by a history of research endeavour and increasingly by collaboration with other researchers. While some local clinicians have developed small local research teams (comprising clinical trial nurses or coordinators, data managers and/or research managers and assistants) to support their research, others have developed local collaborations or research groups to pool interest, expertise and increase research viability and a competitive edge for grant success. An increasing number of research groups and units have signed memorandums of understanding with the Ingham Institute to access expertise and funding support.

The following table lists many of the local collaborative groups (and areas of interest) which operate in the District. The information comes from the *Ingham Institute for Applied Medical Research Annual Research Report 2010* and consultations and submissions by various research groups in developing this Strategy and as such, it is not an exhaustive list of research. In addition to these groups, there are individual researchers who undertake highly regarded research however due to their number they have not been included in the following list.

Table 6.1 Health Research Groups Operating in SWSLHD

Research Group	Area of Expertise or Interest
Allied Health	Physiotherapy clinical practice based and implementation; patient outcome; and interdisciplinary focus.
Allied Health Group, Bankstown-Lidcombe Hospital	Rehabilitation (stroke and aged care); patient practice, effectiveness and outcomes; and multidisciplinary implementation.
Antibiotic Resistance and Mobile Elements Group	Vancomycin-resistant enterococci; and antibiotic resistance in human bacteria.
Arthritis Research Unit	Underlying causes of arthritis occur and patient management including basic science, health service research and medical education/evaluation; and autoimmune diseases, including rheumatoid arthritis, gout, and systemic lupus erythematosus.
Bankstown-Lidcombe Hospital Acute Pain Service	Post operative pain management.
Bankstown-Lidcombe Hospital Aged Care	Stroke care; Parkinson's Disease and genetics; Alzheimer's Disease; and falls reduction.
Bankstown-Lidcombe Hospital Diabetes Service	Advanced diabetes nursing practice e.g. ambulatory stabilization program, clinical outcomes; inpatient diabetes care; hypoglycaemia management in ED; national benchmarking.
Braeside Research Group	Clinical epidemiology; rehabilitation models of care, rehabilitation outcomes and rehabilitation outcome measures; developing outcomes scales from the International Classification of Disability, Health and Functioning (ICF).
Brain Injury Rehabilitation	Alleviating effects of traumatic brain injury including biomedical, health services and clinical research; suicide prevention (post-neurodisability), psychosexual adjustment; physical deconditioning; treating families who support relatives; and resilience.
Cancer Services	Radiation Oncology (MRI linear accelerator project); Clinical Trials (palliative care, medical oncology, haematology and radiation oncology); Health Services Research (CCORE) in outcomes and implementation of best practice; Survivorship in Cancer; Psycho-oncology; Laboratory-based Cancer Research (e.g. pancreas, upper GI); Cancer Outcomes (Clinical Cancer Registry).
Cardiology Services	Non-invasive imaging research, predominately echocardiography; ACS/PCI research, clinical trials and outcomes research at Liverpool Hospital; and Echocardiography; clinical and epidemiological research in heart failure management and rehabilitation at Campbelltown Hospital.
Centre for Applied Nursing Research	New knowledge and synthesis of existing knowledge to improve nursing and midwifery practice; systematic reviews and evidenced based practice; development of nursing and multidisciplinary policies and clinical guidelines; patient safety, women's and child en's health, and cross-cultural health and health literacy; and capacity building in nurses.
Centre for Health Equity Training Research and Evaluation	Primary care, equity, health impact assessment and health policy e.g. Health and Housing, Miller, etc.; early childhood intervention in the community, community development and population health; embedded translational research e.g. Maternal Early Childhood Sustained Home Visiting (MECSH).
Community Paediatrics	Aboriginal and refugee child health; social epidemiology and child protection.

Research Group	Area of Expertise or Interest
Division of General Practice, Fairfield	Translational clinical and population-based research in integrated care and prevention of high prevalence chronic illness, particularly quality of care and information e.g. electronic Practice Based Research Network (ePBRN); cross-cultural and Aboriginal health; health information sharing and exchange within and across primary and secondary care; clinical decision support; patient-clinician relationships, healthy behaviour and decision aids; ethical and social issues of integrated care of patients; and capacity building.
Drug Health	Treatment of problematic alcohol use and associated mental and physical comorbidities, part. liver disease; hepatitis C infection treatment in marginalized populations; psychopharmacology; service access for Aboriginal people; clinical toxicology; case management and ambulatory withdrawal services evaluation; alcohol and ED presentations; medical student teaching in addiction medicine; pain management and Opioid dependence; treatment outcomes in substance using patients; drug and alcohol problems in young people including offenders.
Gastroenterology and Liver	Upper GI; oesophagus, stomach pancreas and liver; clinical databases; pancreatic research into the genome.
Gastro-Intestinal Viral Oncology Group	Infectious causes of gastro-intestinal cancer with a special emphasis on Barrett's Oesophagus, a precancerous condition of the oesophagus.
Heart and Brain Collaboration	Stroke and atrial fibrillation and use of large population data bases.
Health Promotion Service	Intervention research on NSW Health priorities e.g. obesity prevention, tobacco control, physical activity, improving nutrition and injury prevention; and behavioural /environmental/ policy interventions to improve population health.
Infant, Child and Adolescent Mental Health Service Research Unit (ICAMHS)	Infant, child and adolescent mental health issues; clinical service evaluation; aetiology (both biological and environmental), epidemiology, clinical intervention and outcomes; perinatal mood disorders – parenting programs, child and infant emotional health. Neurodevelopmental disorders including autism, Tourette Syndrome, etc.; child and adolescent psychiatric disorders; weight gain and metabolic syndrome in young people on antipsychotic medication.
Karitane Research	Maternal mental health, adult attachment, parenting and child outcomes; disruptive behaviour disorders in toddlers: aetiology, assessment and early intervention; fathers and parenting ; applications of the 'Family Partnership Model'; and volunteer home visiting for vulnerable families.
Liverpool Haematology Research Group	Haematology clinical trials including pharmacokinetics, dose escalation and expansion, and geriatric.
Liverpool Renal Clinical Research Centre	Management of high blood pressure, prevention and management of kidney disease, complications in pregnancy and basic immunology.
Macarthur Respiratory and Sleep Research Unit	Inflammation-mediated obstructive airways disease including obstructive sleep apnoea and pulmonary disease; cough; respiratory viruses, smoking and Chronic obstructive pulmonary disease (COPD).
Multicultural HIV/AIDs and Hepatitis Service	Prevention of HIV, hepatitis and sexually transmitted diseases.
Newborn Intensive Care Unit	Neuro-developmental outcomes of babies born very prematurely; interface of clinical care with information technologies; management of neonates.
Obstetrics and Gynaecology at	Clinical studies including maternity outcomes, preterm prerupture of membranes close to term trial, progesterone trials; and clinical studies in

Research Group	Area of Expertise or Interest
Campbelltown Hospital	induction of obesity pregnant women.
Oral Health	Population oral health; forensic odontology; and clinical research (endodontics and orthodontics).
Orthopaedics	Randomised controlled trials – wound healing, operative techniques, post operative care including rehabilitation and follow-up care; epidemiology; clinical/outcomes; and all surgery - benefits and risks.
Paediatric Research Group, Campbelltown Hospital	Clinical research with clinical trials e.g. high flow nasal prong oxygen for bronchiolitis and bipap for asthma, streptococcal pharyngitis; genetic research including genetic predisposition.
Pancreatic Research Group	Exocrine pancreas diseases including acute and chronic pancreatitis (inflammation of the gland), pancreatic cancer, with a focus on alcohol-induced pancreatic injury, pancreatic fibrosis and tumour-stomal interactions in pancreatic cancer.
Population Health Directorate	Health of the population and the promotion of equity rather than the treatment of individuals who are sick; built environment and health.
Centre for Population Mental Health Research	Refugees, conflict affected populations, trauma and mental health and issue of inequity; markers of anxiety, women and DV and early childhood related issues; gender based violence, child abuse, developmental psychopath i.e. early determinants including separation anxiety and anxiety disorders.
Psychiatry Research and Teaching Unit	Transcultural, refugee, post-conflict, post-traumatic and disaster mental health and the mental health of developing countries.
Centre for Research, Evidence Management and Surveillance	Environmental health particularly air pollution and health events; built environment; social epidemiology.
Neurology	Stroke prevention, management and outcomes; epidemiology of neurological diseases; and multiple sclerosis.
The Simpson Centre for Health Service Research based at Liverpool	Health care systems including services to influence policy and practice; deteriorating patients, access block in Emergency Departments, perioperative system, discharge programs and early intervention for at-risk hospitalised patients and health of children.
Schizophrenia Research Unit	Causes of schizophrenia and related mental disorders including treatment and prevention.

6.3 Partnerships and Collaborations

Collaboration is fundamental to the way in which research is conducted and occurs across disciplines (medical, nursing, allied health and other health staff); hospital departments and health facilities; with other institutions and organisations including universities, research institutes, non-government organisations and government departments; and across national and international boundaries.

Underlying almost all health research is the essential collaboration between the researcher and the research participant, including patients undergoing specific treatments and the general community. This partnership is underpinned by trust, health literacy, informed consent, and an understanding by the participant of the importance of health research and the implications for the individual.

The **Ingham Research Institute for Applied Medical Research** is the preeminent health research organisation in South Western Sydney. Initially incorporated under the control of the former Sydney South West Area Health Service, the Institute was established as an independent legal entity with its own Board in December 2008. Located adjacent to Liverpool Hospital, the Institute supports the potential for a unique collaboration between local health services, universities (particularly the Universities of NSW and Western Sydney) and the growing and diverse community of South Western Sydney.

The Institute conducts medical and health research in prevention and treatment of diseases and other health problems prevalent in South West Sydney, with application nationally and internationally. Research areas include translational cancer research, complex care, population health, brain science and mental health, and trauma and rehabilitation. Through infrastructure funding and the considerable donations and philanthropy of individuals, local communities and businesses, the Institute has:

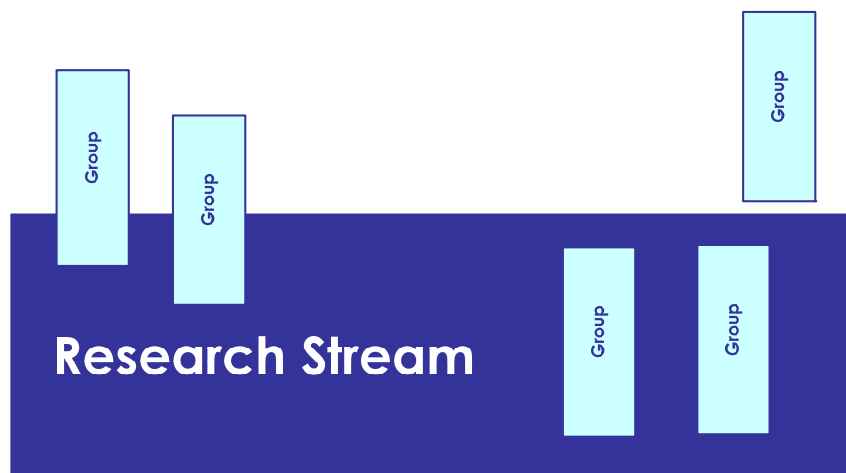
- provided small grants to support existing research and capacity to develop research

proposals and larger \$200,000 infrastructure grants to build capacity

- funded positions of Director, Clinical Trials and Biostatistical Unit to further develop and support research
- organised educational and support mechanisms such as research forums to showcase local endeavour and facilitate networking
- produced the annual report of local research activities
- advocated for health research development in South Western Sydney.

A specific initiative has been the development of broad research streams which seek to foster research collaborations and used to group South Western Sydney researchers into larger competitive entities. These streams are not all inclusive and do not seek to narrowly confine the research activities of their constituent groups. The figure following (Figure 6.3) shows the conceptual relationship between researchers, research groups and streams. It indicates that the research of an individual or group may be partially or wholly within a stream and acknowledges that some research groups may choose not to be affiliated with a stream and that the work of others may not fit within the limited number of streams.

The streams bring together clinical, preventative and research expertise from various disciplines, services, facilities and organisations. They have a clear definition of identity, enable economies of scale for shared resources, support cross-fertilisation between groups and facilitate greater weight of achievement for grant applications. An important focus of each stream is translational research to ensure that findings are incorporated into health practice and positively impact on the health of the local community.

Figure 6.3: Relationship between Research Groups and Research Streams

The research streams in South Western Sydney are:

- Translational Cancer Research
- Cardiovascular Disease
- Community and Population Health
- Early Years
- Infectious and Inflammatory Disease
- Injury
- Mental Health.

The **University of New South Wales** and **University of Western Sydney** are the two major university partners of the local District, with key roles in teaching and research. Dedicated research units have been jointly funded by the District with a partnering university and have clearly identified roles in conducting research, collaborating with local clinicians in translating research into practice and building capacity of local clinicians and students to undertake research. These partnerships enable research to be informed by the academic rigour and the externality of the university supported by access to the populations and clinical staff provided by the District and provide a cogent model for sustainable practice. Jointly funded research units are detailed below (with details of research and areas of interest provided in Table 6.1):

1. **University of Western Sydney Partnerships**

- The **Centre for Applied Medical Research (CANR)** based at Liverpool and focuses on enhancing nursing and midwifery practice by undertaking systematic reviews and implementing guidelines or developing new knowledge through research.

2. **University of New South Wales Partnerships**

- The **Centre for Health Equity, Training, Research and Evaluation Health (CHETRE)** based at Liverpool was established in 1998 and provides leadership and focus in training, research and evaluation in health equity, with particular emphasis on the development and evaluation of interventions to reduce health inequities.
- The **Schizophrenia Research Unit** conducts research into the causes and better treatments for people with schizophrenia and other major mental health disorders.
- The **Centre for Population Mental Health Research** is a research and training centre in the interrelated fields of transcultural, refugee, post-conflict, posttraumatic and disaster mental health and the mental health of developing countries. It also supports teaching, clinical service development, information system management and international development work.

- The **General Practice Unit** at Fairfield Hospital undertakes research in systematic and integrated care of high prevalence chronic illness, preventive interventions for disease risk factors, health systems and informatics, data/information quality, and research capacity building.

In addition, the **Centre for Research, Evidence Management and Surveillance Unit (REMS)** is a SWSLHD funded unit supporting the District executive, Population Health and related services. Based at Liverpool, it aims to maintain and expand research, evaluation and surveillance capacity in Population Health; promote an evidence-based approach to population health programs; and support graduate and postgraduate learning in population health and epidemiology.

Research collaborations and partnerships also exist outside of these units with other faculties within UWS and UNSW and extend to other Australian universities; NSW Ministry of Health and other Australian health facilities and services; international universities and health facilities; community and non-government organisations such as Tharawal Aboriginal Medical Service; and NSW government departments and local councils.

The South Western Sydney Medicare Local (SWSML) established in July 2012 replaced the three former Divisions of General Practice in South Western Sydney and will be a focal point for primary health coordination in this District. With a broad health remit encompassing private practice (medical, nursing and allied health) and population health, the District has identified this agency as an important partner for improving the health of the community.

The close partnership with SWSML will provide opportunities to further develop research across the continuum of care. In addition, the new NSW Office of Preventative Health based at Liverpool which is responsible for coordinating initiatives to reduce lifestyle related risk factors which lead to chronic disease also has the potential to be a strong research partner.

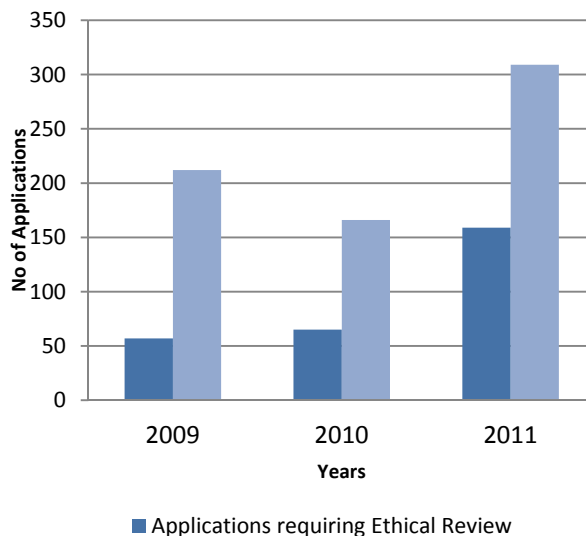
6.4 Physical Infrastructure

Physical research infrastructure generally includes research facilities and equipment, libraries and mechanisms for accessing knowledge, information technology, collections and archives and complex data sets. The physical infrastructure locally to support research is:

1. The **Research Precinct at Liverpool Hospital** comprising
 - The seven storey Ingham Health Research Institute Building, a purpose built facility completed in 2012 which includes “wet” laboratories and dedicated research office space;
 - The Research Bunker in the Liverpool Cancer Therapy Centre with a cancer therapy MRI coupled to a linear accelerator (MRI-LINAC) to undertake integrated imaging and radiation therapy experiments; and
 - The Clinical Skills and Simulation Centre which will provide state of the art training for clinicians, nurses, allied health professionals and students and will support the translation of research and policy into practice.
2. **Research office and work areas** are usually located within clinical or service units or colocated within dedicated educational units e.g. Karitane or Clinical Teaching Units such as the Macarthur Clinical School. In many cases research offices are created through negotiation rather than purpose built.
3. The **Animal House** located in the Ingham Institute Building at Liverpool Hospital
4. **Medical libraries** at Bankstown-Lidcombe, Fairfield, Liverpool, Campbelltown and Bowral Hospitals provide a knowledge-based library and information service to staff, academics and students. The staff support and in some cases undertake literature searches to support research.

5. **Information Technology** such as the CERNER based electronic medical record (eMR) have the capacity to support research. While some clinical services such as Orthopaedics have built their research data on the eMR platform, other services use purpose specific data sets. In addition, local researchers have access to record linkage technology through the Centre for Health Record Linkage (CHeReL).
6. **Pharmacy Departments** provide facilities for dispensing pharmaceutical items. Clinical trial pharmacists (funded through District funds, trust funds, pharmaceutical industry trials and the Ingham Institute) support and promote the safe and ethical use of investigational drugs.
7. **Sydney South West Pathology Service (SSWPS)** has equipment used to support research and provide additional testing for research purposes.

Figure 6.4 SWSLHD Ethics & Research Governance Activity 2009-2011



Source: SWSLHD Ethics and Governance Office June 2011

6.5 Research Performance

Research performance can be measured by indicators such as total research funding, research applications, publications in peer reviewed journals, conference presentations and commercial success. At a state level it is recognised that performance measurement is difficult with few standard key performance indicators used to assess performance.

The SWSLHD Ethics and Research Governance Office monitors the number of applications seeking ethical review and site specific applications and timeliness of processing. Figure 6.4 indicates that the number of applications requiring ethical review and site specific applications increased by approximately 180% and 46% respectively between 2009 and 2011.

Increased resourcing of the Office has enabled a back-log of applications in 2011 to be processed and improved ethical application processing time as reflected in the following table.

Table 6.2: Processing Time for Research Applications

Source: SWSLHD Research and Governance Office 2012

Indicators	June 2011	June 2012
Turnaround Time: Protocol Amendment	3 – 6 months	2 – 4 weeks
Processing Time: Site Specific Applications (SSA)	3 -6 months	46 days (6 month av.); 3 days @ 30/6/12

NB. Processing time may be longer if there is a request for further information or with seasonal fluctuations

An annual report on health research in South Western Sydney has been provided for the past six years, initially by the former Sydney South West Area Health Service and most recently by the Ingham Institute. Contribution to this report is voluntary and research is under-reported. The Research Annual Reports detail projects undertaken, clinical trials completed, publications, conference presentations, awards received and student enrolment and qualifications in higher degrees in research. The following table summarises changes in performance between 2005 and 2009 and indicates an increase in research and research related activity.

Table 6.3: Processing Time for Research Applications

Source: SWSLHD Research Reports 2005 and 2009

Indicators	2005	2009
Research Funding	\$8.2 mil	\$11.5 mil
Articles in peer Reviewed Journals	249	310
Presentations at National and International Conferences	185	406

6.6 Funding

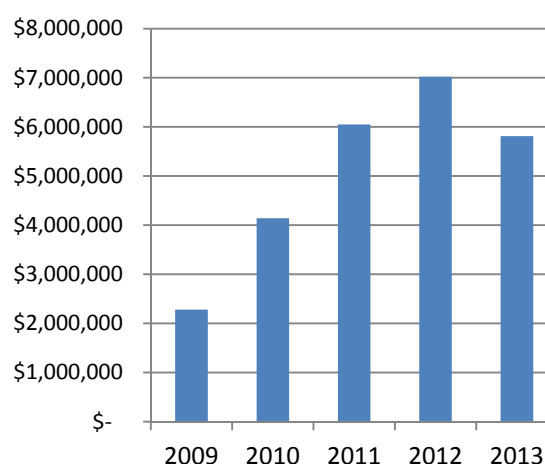
The NSW Research Review has indicated that NSW attracts less than its population share of research funding and that there is dissatisfaction across the sector with the quantum and the funding process.

There is no single picture of the funding that is awarded to SWSLHD researchers. The Ingham Institute maintains the only database for local health research, however its capacity to provide a comprehensive picture of funding is limited by the

voluntary nature of the data collection and the variable way that funding is reported.

The following information from the Ingham Institute provides an indication of local success in competitive research funding. It indicates that average grant income grew from \$4,156,700 in 2009-2011 to \$6,295,059 in 2011-2013. NHMRC and ARC grants starting in 2013 will be awarded in November 2012 and this is likely to increase 2013 competitive grant income.

Figure 5.5 Ingham Institute Competitive Grants Income (Category I)



The list of the sources of funding grants between 2008 and 2010 for SWSLHD researchers (Appendix 11.3) indicates that funds were received from over 80 organisations/sources and that approximately 50-60% of research activity was funded from the NHMRC. Management of funding rests with the District, the Ingham Institute, universities and other organisations.

7. Research Issues

As outlined in Section 3, a broad consultation process occurred with researchers, managers, staff, consumers and other stakeholders to identify the major issues and concerns associated with research in the District. The findings from the initial consultation process were summarised in two papers *A Research Strategy for South Western Sydney Local Health District: Paper No 1 Issues* and *Paper No 2: Potential Research Directions*. A second consultation process occurred to validate the proposed directions and identify other issues requiring attention.

The consultation identified considerable strengths in research in the District:

- a research workforce which enables senior experienced researchers to work with enthusiastic early career researchers;
- comprehensive health research expertise, activity and collaborations across South Western Sydney communities and the development of nationally and internationally recognised research in interests such as cancer, health services research, prevention, nursing and mental health;
- the importance of the new research facilities which support development of a community of researchers and foster biomedical research;
- the size, diversity, uniqueness and rapidly changing demographics, health profile and status of local South Western Sydney communities which offer researchers a wealth of opportunities for exploring and resolving important questions in health care and prevention;
- the urban/rural coverage of the District with a broader range of health issues and opportunities for implementing urban models of health care into rural settings;
- the increased health service capacity and clinical expertise which encourages researchers to work in this District;
- the progressive development of SWSLHD facilities as teaching hospitals and services

which has fostered a growing research relationship with a number of universities;

- the value and contribution of SWSLHD and university jointly funded research units to knowledge and capacity building;
- the generosity of local communities and business supplying much needed funds and time for research;
- the culture of innovation, creatively and multidisciplinary services that extends to research.

The issues and concerns identified can be broadly defined within four main categories:

1. Emerging priorities within South Western Sydney
2. Capacity Building
3. Organisational Issues
4. Governance

The following summarises the key issues identified under each theme:

1. Emerging Priorities

South Western Sydney is an environment that is rich in opportunities. The diversity and changing nature of local communities together with the development of new entities and new infrastructure provides opportunities for development of research and translation into practice.

- SWSLHD has developed considerable expertise in working in **partnership** with other agencies to address major health problems. Australian and NSW government initiatives such as the creation of Medicare Locals, urban development in the South West Growth Centre, presence of the NSW Office of Preventative Health at Liverpool, redevelopment of Campbelltown Hospital and development of the Ingham Institute offer unique opportunities for new partnerships and areas of research.

- **Emerging health problems** such as obesity, Hepatitis B and injury will place increasing demands on the health systems and require greater attention.
- **Aboriginal people** feel “over-researched” with poor translation of research into practice or limited impact on health outcomes. Potential areas for research into Aboriginal Health include: translational research using models that are known to improve health outcomes for Aboriginal people; a stronger focus on service effectiveness; building on GP related research; the impact of colonisation and forced separation of families on health; and care planning.
- Patients from **culturally and linguistically diverse backgrounds** need better access to clinical trials. Research should focus on mitigating health inequalities associated with specific cultural groups.
- Collaborative research in prevention and intervention with **disadvantaged communities and complex families** needs to continue.
- Significant **growth and ageing** in the local population will drive the need for evaluation of and research into existing and new models of care.

2. Capacity Building

The need to increase capacity to support early, mid-career and experienced researchers was the most frequently identified issue during the consultations. Key points identified were:

- SWSLHD needs a strong research profile to attract and retain high quality staff and the number of staff with research qualifications needs to be increased.
- More research activity should be initiated or directly involve staff from the District. In particular, SWSLHD staff contribution to research initiated by other Districts and other organisations should be recognised and fostered.
- In meeting **pre-requisites for research**, there is a lack of dedicated time for research due to

workload pressures; a culture where research was not supported by managers or by other staff; variable understanding and knowledge about the importance of ethical practice; a lack of skills, interest or desire to do research; and senior clinicians with variable ability to foster research.

- In **specialist research support and coordination**, there is a lack of research supports such as data management, IT and statistics; funding is required for small grants, early career research support and support for mid-career researchers; and there is a need for a single coordination office within the District to provide advice and report on research activity.
- **Clinical trial** policy and processes require development (including research pathology systems and processes); and fundamental supports such as statistics and pharmacy are unavailable or funded on an ad hoc basis.
- There is very limited **workforce development** with no formal education programs covering basic research or methodology; a lack of financial support for employees undertaking post-graduate degrees by research; and no formal broadly based mentoring or supervision programs for new and emerging researchers or ways to enable interested staff to contribute to larger projects.
- Some professions, services and parts of the District are less engaged in research:
 - In **Nursing**, a lack of an academic base and research experience; exclusion of nurses from aspects of interdisciplinary research design, analysis and write-up (and non-recognition of their contribution to research); Clinical Nurse Consultants (CNCs) with clinical expertise but almost no post-graduate qualifications in research, reducing their capacity to undertake research or to support others; and difficulty in gaining release from clinical workloads.
 - In **Allied Health**, limited practical support to become research active in the workplace and lack of academic leadership.

- For staff in **community settings** and **rural facilities**, distance and structural separation from large teaching hospitals and lack of a research culture and leadership impedes engagement in research.
- For **staff working with target populations** employed within multicultural health services and Aboriginal health services, staff skill and capacity to inform research and researchers' engagement practices are variable.
- Facilities with less experience as a **teaching hospital** appear to be less likely to undertake research. Services which are smaller may also have difficulty initiating research due to capacity issues.
- There are significant barriers to **community participation** in research in SWSLHD including research literacy, language and culture.
- Research in SWSLHD requires greater support from **enablers** such as information technology, human resources and finance if it is to thrive.

3. Organisational Issues

There are a number of fundamental issues in research leadership, direction and management:

- In **leadership and direction**:
 - The relationship of the Ingham Institute to research in SWSLHD needs to be better defined.
 - Advanced Health Research Centres are in early development and their final form and value are uncertain.
 - Decisions about priorities and provision of funding enhancements for research need to be transparent
- In **management** of research:
 - Knowledge about research streams and their relationship with clinical streams is

variable and the relationship between the Ingham Institute research streams and SWSLHD research and clinical services needs to be defined.

- The function, strategies and relationships of research streams need support and leadership.
- The number of streams should be limited but will not define all of the research undertaken in SWSLHD or in the Ingham Institute.
- Should research streams be limited to disease entities or reflect professional groupings such as Allied Health or Nursing?
- The importance of research needs to be consistently recognised in District facilities.
- Clinical trials assistants have difficulty undertaking standard parts of their role requirements such as travel to investigator meetings.

4. Governance

Specific issues relating to governance focus on:

- The **SWSLHD Research and Ethics Office** is under-resourced to meet the requirements to be a lead ethics committee; SSA processes are time-consuming and variable; and ethics governance has caused severe delays resulting in the loss of pharmaceutical industry sponsored trials.
- **Implementation** will need to be monitored and performance indicators developed to assess progress. In addition to oversight by the Research and Teaching Subcommittee of the Board, progress will be monitored by the new NSW Office for Health and Medical Research.

8. New Directions for Health Research in South Western Sydney

The Health Research Strategy for South Western Sydney will focus on seven major areas. It recognises that collaboration is essential to building an environment in which research will succeed. The District has developed strengths in a number of fields – these strengths need to be supported and used to build strength across the District and across clinical and network services.

The following directions have been identified:

1. Strengthen Health Research Leadership

This Direction includes:

- a District policy emphasizing the value of research to the health service and community; that it is part of the quality continuum; the effort required; the importance of collaboration within and across the District and with other partners including universities, non-government organisations and institutes; the role of managers and staff in encouraging research; the value of ethics and ethical conduct; and expectations including recognition of SWSLHD contribution to multicentre studies. The implications of this policy can be reinforced during orientation; service planning, development and evaluation; when collaborating with other services and in workforce development programs.
- a communication strategy to profile and promote health research activity and increase knowledge about research and research supports.
- embedding research activity into new proposals and developments and into the performance agreements of services and facilities.
- targeting senior leadership to those with research knowledge.
- appointing a research director, delineating the activities of SWSLHD and the Ingham institute and fostering the partnership between the two organisations.

- enhancement of the Ethics and Research Office with a research office function to support early, middle and elite researchers, promote health research and work with District support services to facilitate research project commencement, management and completion.
- a stronger role for the Research and Teaching Subcommittee to set priorities and key performance indicators and in monitoring performance to measure progress.

2. Develop Priorities and Innovation for Research

This Direction includes:

- concise stream plans which identify expertise, key issues, priority research agendas and directions (in clinical, clinical trials, biomedical, translational, population health, and health policy and/or health services research); consider NSW health and medical priorities, national imperatives in Aboriginal health, CALD communities and communities with poorer health outcomes; support and encourage innovation; undertake research which supports translation into practice; and develop strategies to build capacity within the stream such as journal clubs, research rounds using teleconferencing and interdisciplinary research meetings.
- transparent identification of local health research priorities and increased effort in research areas which address national, state and local priorities and needs. This includes a focus on primary health care, prevention and new capital developments and research which aims to improve the health of Aboriginal people, access to and engagement with health services.

3. Build Research Capability

This Direction includes:

- a policy and model for how time for research can be incorporated into clinical activities,

including consideration of flexible funding approaches such as “summer scholarships” and an expectation that all staff will contribute to the District’s research effort (although not all will participate directly in research).

- consolidation of statistical and information management expertise and resources using existing medical librarian expertise, new statistical resources and partnerships with universities. Consideration will be given to outreach to local facilities to improve access to expertise.
- encouraging elite researchers to work and remain in the District .
- increasing local knowledge about intellectual property and commercialisation.

4. Increase Clinical Trial Capability

This direction includes:

- developing and evaluating trial standard operating procedures, documentation and data sets.
- strengthening pharmacy capability by creating a District team of clinical trial pharmacists and building sustainable business and funding models.
- providing mandatory training in Good Clinical Trials Practice.
- working with services to incorporate clinical trial methodology into health services research.
- improving the management of research human tissue samples.
- strengthening cost recovery mechanisms within pharmacy and pathology services.
- improving indemnity management.
- consolidating Clinical Trials Assistants at Liverpool Hospital in the Ingham Institute Building and increase the number of Clinical Trials Assistants.
- continuing the position of Director of Clinical Trials and considering a co-contribution.

5. Build Workforce Capacity to Undertake Health Research

This direction includes:

- workforce development programs which cover the full spectrum of research education needs, including basic introductory courses

for staff with little or no experience in research and advanced courses for new and middle career researchers; “good practice” education courses; and special seminars and programs to update and further develop the knowledge and expertise of researchers, and managers who need to support research efforts; supporting staff who work with target groups e.g. Aboriginal Health and multicultural health staff; and facilitating access to programs offered by other institutions.

- a stronger focus on building the capacity of professions with less experience in health research such as nurses, allied health , community health and staff in metropolitan fringe and rural areas.
- providing “financial and organisational” support for staff who are undertaking higher degrees by research.
- a Mentoring Program to provide advice, coaching and support to early and middle career researchers, linked to funded research projects and a small grants program to provide incentives.
- supporting middle career researchers through development of conjoint appointments with universities, establishing academic and research fellowships, and public awards to recognise research excellence.

6. Increase Community Interest, Knowledge and Participation

This direction includes:

- a policy, model and research engagement strategy targeted to patients, consumers and the community which includes easy to understand information about research, the benefits and how to participate in research; engagement with the Aboriginal community and Aboriginal organisations in ways consistent with the NSW Aboriginal Health Impact Assessment and AH&MRC guidelines; and tangible and intangible rewards and supports provided by the District to consumers.

- a strategy to increase participation by people from culturally and linguistically diverse backgrounds, building on existing and new partnerships. This will include funding to translate research patient information and consent into other languages and training and guidelines for researchers on successful engagement practice.
- promoting local health research success and expertise to the South Western Sydney community.
- opportunities to explore research which supports the activities of SWSLHD Community and Consumer Participation networks.
- streamlined approval processes for research-related aspects of human resource management including recruitment and employment, grading and awards, retention and conference attendance.
- IT solutions to meet research information requirements including use of the electronic medical record for research purposes; data management, delegations, reporting, programming, guideline development and training; access to new tools e.g. on-line surveys; and addressing technology related communication barriers such as firewalls with other institutions.
- a model for research for each facility which identifies research requirements, location of research (standalone or shared) facilities and clinical and non-clinical support arrangements such as the management of arrests, governance and funding processes. This will be particularly important for the next stages of the Liverpool Hospital redevelopment (including capacity to expand the Ingham Institute), and incorporating research capacity in the Campbelltown Hospital Redevelopment and other health facilities including geographically isolated services.
- creation of a research asset register and a strategy to support sharing of resources, asset management and replacement.

7. Optimise Use of Infrastructure Support

This direction includes:

- improvements in the performance of the Ethics and Research Office including additional staff and regular monitoring of timeliness and performance, and a review of the all processes relating to research approval and monitoring.
- attention to all aspects of the financial management of research grants and projects including initial proposal budget build-up, timely reporting, and appropriate governance and acquittal.

9. Implementation – Measuring Success

Implementation of this Strategy will require leadership across all levels of the District and across all professions. Building on the strength of multidisciplinary team work that occurs within the District and the collaborative research undertaken with other agencies and organisations, leadership will also need to occur within all facilities, streams and networks.

At a state and local level there has been recognition that to ensure that progress occurs, organisations need to consistently measure research performance. This is recognised in the research related KPI within the District's Performance Agreement with the Ministry of Health. If South Western Sydney staff and services are to improve the "research and teaching culture and capability" and achieve the District vision for research of "high quality health research that improves the health and health outcomes", it is essential that the existing structures for setting direction and monitoring performance are effectively used and that there is a clear understanding of how success and progress is measured.

In addition to the current role of advising the Board on research matters, the SWSLHD Research

and Teaching Subcommittee of the Board will take on the new roles of monitoring research performance across the District and monitoring implementation of the Strategy. It will also be responsible for developing:

- explicit criteria for identifying research priorities where District resources are to be allocated.
- a Research Performance Framework which includes key performance indicators to measure intermediate and longer term research performance. The framework will also identify indicators by which the overall success of the Strategy will be measured. The framework will contribute to and be informed by the work of the NSW Office of Health and Medical Research.

The Action Plan in Section 10 identifies the action required, timeframes and initial measures of success. It also identifies those responsible for implementation i.e. leading an action and those who will have a role in supporting implementation. The list is not exhaustive and it is presumed that other partnerships and collaborations will be required.

10. Action Plan

Strategic Area 1: Strengthen Health Research Leadership			
Action		Timeframe	Responsibility
1.1 Develop a District-wide Approach to Research Leadership			
1.1.1	Develop and disseminate a SWSLHD Research Policy Statement.	Dec. 2012	Lead: Director Research
1.1.2	Implement a Communication Strategy targeting existing and future staff and the community including: <ol style="list-style-type: none"> Develop the Research webpage with information about local health research, supports available and achievements. Promote research achievements through internal and external media and forums. An annual research report summarising research achievements, related activities and progress in implementing the Research Strategy. 	Dec. 2014	Lead: Director Research; Research Office Partner: Public Relations
1.1.3	Include research strategies in all District strategic, clinical and service plans, major new initiatives and extraordinary funding proposals.	Ongoing	Lead: District Executive, General Managers Partner: Clinical Directors
1.1.4	Build research into annual performance agreements of all clinical directors and facility managers with key performance indicators (KPIs) to assess performance.	June 2013	Lead: Director Research Partner: Manager Performance
1.1.5	Target recruitment in clinical leadership positions to active researchers and clinicians actively upgrading their research knowledge and skills.	Ongoing	Lead: Chief Executive
1.1.6	Build relationships with the NSW Ministry of Health, NSW Office of Health and Research, universities and other health agencies and institutions to develop research, influence research policy and advocate for research funding within new service developments	Ongoing	Lead: Chief Executive; all Services
1.2 Develop a Role of the Research and Teaching Sub Committee to Strengthen Governance			
1.2.1	Review the Membership and Terms of Reference (TOR) of the Board's Research and Teaching Subcommittee to: <ul style="list-style-type: none"> consider access to legal and medical librarian/information expertise incorporate "Monitor Research Strategy implementation and research performance" within the TOR. 	Nov. 2012	Lead: Research & Teaching Subcommittee
1.2.2	Develop a performance reporting framework which identifies key performance indicators and considers NSW Office of Health and Medical Research requirements.	June 2013	Lead: Research & Teaching Subcommittee
1.2.3	Annually report on research performance and regularly on Research Strategy implementation to the Research and Teaching Subcommittee and NSW Office of Health and Medical Research	Ongoing	Lead: Director Research Partner: Research Office
1.2.4	Survey satisfaction with the implementation of the Research Strategy	June 2016 & June 2021	Lead: Director Research

Strategic Area 1: Strengthen Health Research Leadership			
Action		Timeframe	Responsibility
1.3 Clarify the Roles and Relationship between SWSLHD and the Ingham Institute			
1.3.1	Appoint a SWSLHD Director of Research with clearly articulated responsibilities in relation to SWSLHD research governance and oversight. Determine: <ol style="list-style-type: none"> The scope of work and activity for the SWSLHD Research Office under the direction of the SWSLHD Director. Areas of research coordination specific to SWSLHD responsibilities and to the Ingham Institute and the relative contributions of each. Roles, reporting relationships and accountabilities for research coordination and support for units jointly funded by SWSLHD and the Ingham Institute. A budget for the SWSLHD Research Director and Research Office. 	June 2013	Lead: Chief Executive
1.3.2	Maintain a close and cooperative working relationship with the Ingham Institute via ongoing involvement of SWSLHD senior staff in the Board of the Ingham Institute; and consulting with the Institute in strategic planning and development of new initiatives.	Ongoing	Lead: Chief Executive Partner: SWSLHD Board; Research Director
1.4 Develop a Research Office to Support and Promote Research			
1.4.1	Establish a Research Office within the SWSLHD Ethics and Research Governance Office to support the SWSLHD Research Strategy and future research which will: <ul style="list-style-type: none"> Audit researchers, interests, capabilities, outputs and research infrastructure Establish and maintain a research data base profiling researchers and research activities Further develop and maintain the SWSLHD Research Webpage Work with research services, streams and support services to improve research related workforce development, information technology, human resources and finance. Produce an annual report about research achievements. Organise and coordinate annual research forums and targeted forums in priority research areas, identified professions and specific facilities to showcase new and emerging research . Facilitate access to expertise on building research capacity 	Dec 2012 June 2013 June 2013 Dec. 2013 Ongoing Dec. 2013 Dec. 2013 Dec. 2013	Lead: Director Research; Research Office Partner: All Researchers & Streams Partner: IM&TD Partner: Public Relations Partner: All Researchers Partner: Streams; all Researchers Partner: Streams; all Researchers Partner: Research Streams & Units
Alignment with the NSW Research Strategic Review: Strategy 1.1 Encourage Research and innovation in health services; Strategy 2.6 Enhance Health and Medical Research Hubs and Collaboration. Delivering on the Strategy			
Performance Indicators			
<ul style="list-style-type: none"> Completion of each action Research activity and achievements are visible and valued KPIs enable District research performance to be measured with improvement demonstrated 		<ul style="list-style-type: none"> Research Culture Survey indicates positive Number of clinical directors with research qualifications % satisfaction with partnership arrangements with the Ingham Institute using a Partnership Self Assessment Tool 	

Strategic Area 2: Develop Priorities and Innovation for Research			
	Action	Timeframe	Responsibility
2.1	Develop District-wide Priorities for Research within each stream		
2.1.1	Develop concise Research Stream five year plans which identify expertise, key issues, priority research agendas and directions including opportunities for innovation.	June 2013	Lead: Research Stream Directors; Clinical Stream Directors
2.2	Grow Research in New and Emerging Priority Areas		
2.2.1	Develop explicit criteria to determine research priorities for SWSLHD	June 2013	Lead: Research & Teaching Subcommittee
2.2.2	Seek expressions of interest from Clinical Streams and Networks to establish multidisciplinary Clinical Academic Units in priority areas and fund proposals that meet District research priorities.	Dec. 2013 & ongoing	Lead: Research Director
2.2.3	Develop research expertise in prevention of major health problems in South Western Sydney communities.	Dec. 2015	Lead: Director Population Health; Partner: NSW Office of Preventative Health
2.2.4	In collaboration with local Aboriginal people and community controlled organisations <ol style="list-style-type: none"> undertake and develop population health and health services research which addresses health problems in Aboriginal communities. develop and fund projects which translate existing knowledge about effective models of care for Aboriginal people and focus on improved outcomes. 	Ongoing	Lead: Clinical and Network Directors Partners: Clinical Directors; Director Aboriginal Health; Tharawal Aboriginal Medical Service; Gandangara Land Council; Aboriginal Health and Medical Research Council
2.2.5	Strengthen research in primary health care in: <ol style="list-style-type: none"> shared clinical priorities such as mental health, complex care and continuity of care new models of care and service management e.g. Integrated Primary and Community Care Centres (IPCCCs), Health One initiatives, etc. use of technology 	Ongoing	Lead: General Practice Unit Fairfield Partners: South Western Sydney Medicare Local; CHETRE; CANR; Research Director; Clinical Stream Directors
2.2.6	Utilise new infrastructure to progress research and incorporate research into practice: <ol style="list-style-type: none"> cancer treatment utilising the new Research Radiation Oncology Bunker at Liverpool student and workforce education and models for translating research and evidence into practice in the new Clinical Skills and Simulation Centre at Liverpool. 	Ongoing	Lead: Clinical Director Cancer; Director Liverpool Simulation Centre
2.2.7	Build on the development of Campbelltown Hospital as a teaching hospital to develop a stronger focus on research in Paediatrics and Maternity services.	Ongoing	Lead: Clinical Directors Paediatrics and Neonatology, and Women's Health
2.2.8	With the NSW Agency for Clinical Innovation and other agencies, support the translation of research into practice	Ongoing	Lead: Clinical Directors
2.2.9	Incorporate research into the redevelopment of Campbelltown Hospital	Dec. 2013	Lead: General Manager Partner: Director Research; UWS; Clinical Directors
Alignment with the NSW Research Strategic Review: Strategy 1.1 Maximise the use of research in policy practice and health service delivery Strategy 2.8 Improve research infrastructure support			
Performance Indicators			
	<ul style="list-style-type: none"> Completion of each action 		<ul style="list-style-type: none"> Plans effective in supporting research activity SWSLHD has clearly articulated research priorities

Strategic Area 3: Build Research Capability		
Action	Timeframe	Responsibility
3.1 Management of Research		
3.1.1 Develop a District-wide policy and model in the allocation of dedicated time for research.	Dec. 2012	Lead: Director Research Partner: Clinical Stream Directors; General Managers; Research and Teaching Subcommittee
3.1.2 Incorporate the requirement to participate in research in job descriptions of clinical staff and review participation through annual performance reviews.	Dec. 2012	Lead: Department Heads; General Managers
3.2 Develop Specialist Statistical and Information Research Support		
3.2.1 Partner with the Ingham Institute Statistical and Epidemiological Support Unit & other partners to provide statistical services, advice for all phases of research and participate in workforce building strategies. Services will include: randomisation services, bioinformatics, health economics, epidemiology and survey methodology.	Sept. 2012	Lead: Chief Executive Partner: Research Director, Ingham Institute; UNSW; UWS, REMS
3.2.2 Develop information retrieval consultancy services comprising District Medical Librarians and Biostatisticians to improve initial phases of research project design	March 2012	Lead: Research Director Partner: Medical Librarians; Biostatisticians
3.2.3 Trial and purchase new electronic resources e.g. Dynamed to broaden the range of information which researchers can access through Medical Libraries.	Ongoing	Lead: Medical Libraries
3.2.4 Develop affiliations between medical libraries and universities to improve access to additional data bases held by University libraries.	June 2013	Lead: Medical Libraries Partners: Universities
3.2.5 Submit a proposal to increase flexibility in addressing information needs e.g. short term purchase of journals, data base trials and adopting new funding models e.g. donations and sponsorship.	June 2013	Lead: Medical Libraries Partner: Ingham Institute
3.2.6 Develop strategies to use information held by the Clinical Cancer Registry and proposed orthopaedic registries	June 2013 & Ongoing	Lead: Clinical Directors Cancer and Surgical Specialties Partner: Cancer Institute NSW
3.3 Develop and Sustain Elite Research Expertise		
3.3.1 Identify potential elite researchers who require additional support to remain within SWSLHD or who could be recruited into academic appointments in priority areas.	Ongoing	Lead: Research and Teaching Subcommittee Partner: Universities
3.3.2 Identify a research funding stream and funding source to support research in District priorities. This funding could be used for the appointment of clinical chairs (in collaboration with universities), senior researchers and/or research managers.	Dec. 2012 and ongoing	Lead: SWSLHD Board Partner: Universities
3.3.3 Develop knowledge and capacity regarding intellectual property and identify potential partners to support and achieve commercialisation.	Dec. 2016	Lead: Research Director Partner: NSW Office of Health and Medical Research; Universities; Principal Legal Officer
3.3.4 Ensure that SWSLHD Research Units jointly funded with universities contribute to the achievement of the Strategy	Ongoing	Lead: Research Director Partner: all funded Research Units

Strategic Area 3: Build Research Capability		
Action	Timeframe	Responsibility
<p>Alignment with the NSW Research Strategic Review: Strategy 1.1 Encourage research and innovation in health services; 1.4 Focus intellectual property expertise; 2.7 Strengthen the Research Workforce</p>		
<p>Performance Indicators</p> <ul style="list-style-type: none"> • Completion of each action • Number of staff involved in research • Information capability for research enhanced • Research performance captured 		

Strategic Area 4: Increase Clinical Trial Capability			
	Action	Timeframe	Responsibility
4.1	Ensure the Fundamental Elements of Clinical Trials meet Accepted Standards		
4.1.1	Develop standard operating procedures for clinical trials and evaluate their effectiveness.	June 2013	Lead: Director Clinical Trials
4.1.2	Strengthen clinical trial pharmacy capability: <ol style="list-style-type: none"> Appoint clinical trial pharmacists to the Bankstown-Lidcombe, Liverpool and Campbelltown Hospitals with outreach to Fairfield, Braeside and Bowral. Build in flexibility for out-of-hours clinical trial pharmacy. Develop processes and capacity to ensure funding is captured and a sustainable funding model using pharmaceutical industry, SWSLHD, SP&T and Ingham Institute funds. Establish a small seeding fund for two years to develop clinical trial pharmacy capability. 	June 2013	Lead: Director Clinical Trials Partner: Directors Pharmacy; Director Finance
4.1.3	In collaboration with the centre for Education and Workforce Development (CEWD) and universities, develop a mandatory training program in Good Clinical Trials Practice and incorporate this into the Research Workforce Development Program	June 2013	Lead: Director Clinical Trials Partner: Director CEWD; Universities of NSW and WS; Clinical Trial Assistants Group
4.1.4	In collaboration with the Sydney South West Pathology Service (SSWPS): <ol style="list-style-type: none"> Develop a policy and protocols for human tissue sample management including standard operating procedures for sample collection, banking, distribution, cataloguing and disposal; Review research pathology arrangements including cost recovery; Provide seeding funding to SSWPS to develop clinical trial capacity. 	June 2014	Lead: Director Clinical Trials Partner: Clinical Director Laboratory Services; Business Manager SSWPS; Pathology NSW.
4.1.5	Develop standardised documentation and minimum data set requirements.	Dec. 2013	Lead: Director Clinical Trials
4.1.6	Investigate and address issues relating to Indemnity	Dec. 2013	Lead: Director Clinical Trials/Chair Ethics Committee Partners: Principal Legal Officer
4.1.7	Consider contribution towards the cost of the Clinical Trials Director	June 2013	Lead: Chief Executive
4.1.8	Consolidate the Liverpool Clinical Trials Assistants in the Ingham Institute and continue to grow	Ongoing	Lead: Research Director
4.2	Incorporate Clinical Trial methodology into other aspects of research		
4.2.1	In collaboration with the research and clinical streams, build the capacity of the clinical workforce to use clinical trials for health services research.	Dec. 2014	Lead: Director Clinical Trials Partner: Clinical Directors; Research Stream Directors
Alignment with the NSW Research Strategic Review: Strategy 1.2 Leadership in Clinical Trials; 1.3 Maximise the use of Research in policy , practice and health service delivery			
Performance Indicators			
<ul style="list-style-type: none"> Completion of each action All Clinical Trials use the Standard Operating procedures and standard documentation and all research staff meet training requirements 		<ul style="list-style-type: none"> Clinical trial pharmacy is provided and business systems support fee recovery Management of pathology samples for research meets international standards 	

Strategic Area 5: Build Workforce Capacity to Undertake Health Research			
	Action	Timeframe	Responsibility
5.1	Build the Research Capacity of Early Career Researchers		
5.1.1	Develop a Research Education Program of e-learning and face-to-face courses and seminars coordinated by the Centre for Education and Workforce Development, building on existing SWSLHD and university courses, researcher expertise and university collaborations including: <ol style="list-style-type: none"> Good Clinical Practice (Standard Operating Procedures - refer 4.1.3) Introductory and advanced courses in research skills e.g. research development and planning, developing collaborations, funding options, writing successful applications Governance and ethics processes Legal issues and risk management Intellectual property Statistics Other topics such as Building a Research Culture, Health Literacy, and education of staff working with targeted communities e.g. Aboriginal Health staff and Multicultural Health staff 	First course to commence June 2013 with other courses for progressive roll-out	Lead: Research Director and Director CEWD Partner: Director Clinical Trials Partner: Director Clinical Trials; REMS; CHETRE; CANR; Biostatisticians; Medical Librarians. Partner: Chair Ethics Committee; Manager ERGO Partner: Chair Ethics Committee; SWSLHD Principal Legal Officer; Risk Manager. Partner: SWSLHD Legal Officer; Director Clinical Trials; Principal Legal Officer. Partner: REMS; Biostatisticians Partner: As required
5.1.2	Promote training opportunities provided by Universities and external bodies, including PhD and other courses.	June 2013	Lead: Research Office
5.1.3	Establish a Research Scholarship Program to provide part financial support to staff enrolled in a post-graduate research degree, with capacity to target specific health issues and professions.	Dec. 2013	Lead: Chief Executive Partner: Research Director; Research Office
5.1.4	Develop a Research Mentoring Program to support early career researchers which includes: identification and education of mentors; individual mentoring and regular meetings; and a Small Grants Program (tied to large research projects, District priorities and the Mentoring Program) to enable early and middle career researchers to further develop their expertise.	Dec. 2013	Lead: Research Office Partner: Research Units; research community
5.2	Support Professions and Groups which are under-represented in Research		
5.2.1	In Nursing: <ol style="list-style-type: none"> Develop new models for supporting early career nurses to undertake research In consultation with Clinical Nurse Consultants (CNCs), develop a targeted and coordinated approach for increasing the research skills and outputs of CNCs and Clinical Nurse Specialists. Include research as an agenda item in all District Nursing Committees Assess progress in nursing lead research and create additional Nurse Academic positions where required. 	July 2013 July 2014 Dec 2012 2016 and ongoing	Lead: Director Nursing Partner: CANR, UWS, CHETRE Lead: Director Nursing Partner: Facility DONs, CANR, UWS, CHETRE, CNCs Lead: Director Nursing Partner: Committees Lead: Director Nursing Partner: CANR; Director Research

Strategic Area 5: Build Workforce Capacity to Undertake Health Research			
5.2.2	In the Allied Health Stream, develop and implement an Research Strategy which includes: <ul style="list-style-type: none"> • An Allied Health Research Steering Committee; • A model and mechanisms for translating evidence into practice; • Sustainable models for building research into Allied Health services. 	June 2013	Lead: Director Allied Health Partner: Universities; CHETRE
5.2.3	In partnership with universities, strengthen research in Allied Health practice via the progressive establishment of Clinical Academic Units with Chairs in Allied Health.	Dec 2014 and ongoing	Lead: Director Research Partner: Chief Executive; Universities
5.2.4	In Community and Primary Health implement a capacity building strategy which includes: <ol style="list-style-type: none"> a. A Community Health Research Advisory Group; b. A survey to identify opportunities for developing a research culture; c. Implementation of recommendations from the survey including mentoring; d. Joint projects with the SWSML focusing on primary health nursing. 	Sept. 2012 Dec. 2013 Dec. 2014 Dec. 2013	Lead: PCHRU Partner: Community Health; Universities; Allied Health: CANR; CHETRE; General Practice Unit Fairfield; UWS; SWSML
5.2.5	Develop opportunities for Bowral and District Hospital to contribute to rural research (including translation of metropolitan models into rural practice) and engage in District-wide research (via links with Campbelltown Hospital).		Lead: Director Research Partner: GM Bowral & District Hospital; GMs; CHETRE; CANR; Universities
5.3 Build the Research Capacity of Middle Career Researchers			
5.3.1	Develop a model for conjoint appointments with universities for all professions to support development of a community of researchers: <ul style="list-style-type: none"> • which recognises expertise and innovation; • outlines the benefits of a conjoint appointment; • provides them with an induction package to welcome them; • includes a focus on expected performance. 	Dec. 2014	Lead: Research Director Partner: Clinical Stream Directors; Universities
5.3.2	Provide clinical academic and research fellowships for mid and senior career researchers in priority research areas.	Dec. 2015	Lead: Research Direction Partners: Research Office; University Clinical Schools and other Universities
5.3.3	Establish an Annual SWSLHD Early Career Prize and Outstanding Research Prizes to recognise and reward expertise and excellence in research.	Dec. 2012	Lead: Research Director; Chief Executive
Alignment with the NSW Research Strategic Review: Strategy 1.1 Encourage research and innovation in health services, 2.7 Strengthen the research workforce			
Performance Indicators			
<ul style="list-style-type: none"> • Completion of each action • Number of staff attending courses • Number of staff having completed higher degrees by research 		<ul style="list-style-type: none"> • Number of projects initiated • Number of staff engaged in research • Number of presentations at conferences and articles in peer reviewed journals 	

Strategic Area 6: Increase Community Interest and Participation			
	Action	Timeframe	Responsibility
6.1	Develop a District policy on patient and community engagement in research and supports available and review local processes to ensure its effective implementation.	Dec. 2013	Lead: Research Office Partners: Director Clinical Trials; Manager Community Participation; CCC
6.2	Develop information for consumers consistent with Plain English guidelines about the range and value of research and the ways to participate in research. Produce it in a range of formats and community languages.	June 2014	Lead: Research Office Partners: Director Clinical Trials; Managers Community Participation, Multicultural Health and Interpreter Service; CCC
6.3	Develop and implement a Community Research Engagement Strategy to increase the community's knowledge and interest in research. This may include a community focused webpage, regular local press, general and targeted promotional information for waiting areas, and interviews with researchers.	Dec. 2014	Lead: Research Officer Partners: Manager Public Relations, Director Clinical Trials, Manager Community Participation, Consumer and Community Council (CCC)
6.4	In collaboration with Multicultural Health Services, develop a Community Research Engagement Strategy targeted at culturally and linguistically diverse communities (CALD). This would include: a. Modification of community engagement strategies for non-English speaking communities; b. Protocols and processes for researchers on increasing participation and targeting CALD communities and engaging with the community and organisations; c. Guidelines on "Arranging translation and interpretation".	Dec. 2015	Lead: Research Office Partner: Managers Multicultural Health, Public Relations, Health Language Services, Director Clinical Trials
6.5	Develop protocols and provide training to clinicians and researchers in patient and community engagement, including the process for engaging with Aboriginal people and organisations.	Dec. 2014	Lead: Research Office Partners: Director Aboriginal Health; Director Clinical Trials; Manager Community Participation
6.6	Establish a fund for translations and use of interpreters to increase participation by people from CALD communities in research.	Dec. 2012	Lead: Director Research; Chief Executive Partner: Health Language Services
6.7	Develop strategies to promote SWSLHD research achievements in the community	Dec. 2014	Lead: Director Research, Partner: Manager Public Relations; Ingham Institute Marketing
6.8	Explore opportunities for undertaking research in health literacy and in other areas of interest relevance to SWSLHD Consumer Participation Networks	Dec. 2015	Lead: Manager Community Participation Partner: Consumer and Community Council; CHETRE; Director Population Health
Alignment with the NSW Research Strategic Review: Strategy 1.2 Leadership in Clinical Trials			
Performance Indicators			
	<ul style="list-style-type: none"> Completion of each action Increased number of residents participating in research 		<ul style="list-style-type: none"> Research project design includes a formal assessment of consumer engagement, including Aboriginal people and CALD communities

Strategic Area 7: Optimise Use of Infrastructure Support			
	Action	Timeframe	Responsibility
7.1	Enhance Overarching Research Governance Performance		
7.1.1	Build the expertise of the SWSLHD Ethics Committee and SWSLHD researchers by developing information about research literacy.	June 2014	Lead: Chair, Ethics Committee Partner: CHETRE; CCC
7.2	Improve SWSLHD Ethics and Research Governance Office Functioning		
7.2.1	Enhance the SWSLHD Ethics and Research Governance Office staffing to facilitate timely ethics application processing and improve processes and protocols including those relating to adverse impacts and annual reporting.	Ongoing	Lead: Chair, Ethics Committee Partner: Chief Executive
7.2.2	Monitor and regularly review the workload and timeframes of the SWSLHD Ethics and Research Governance Office and the factors contributing to performance	Ongoing	Lead: Research and Education Subcommittee Partner: ERGO
7.2.3	Review and streamline the SWSLHD Ethics Approval processes	June 2013	Lead: Chair Ethics Committee
7.2.4	Seek accreditation as a Lead NSW Health Human Research Ethics Committee	Dec. 2012	Lead: Chair, Ethics Committee
7.3	Develop Finance Systems and Accountability, Human Resource Management and Information and Communication Technology Capabilities to support Research		
7.3.1	Develop a framework for financial reporting and accountability of research, underpinned by comprehensive stakeholder engagement which includes: <ul style="list-style-type: none"> a. identification of funded research ; b. research fund management policies and processes i.e. grant management, operation, acquittal and closure; c. timely and efficient financial processes and account reports. 	June 2013	Lead: Research Director Partner: Director of Finance; Facility General Managers and Finance staff; Researchers
7.3.2	Strengthen the capacity of Finance and Business Managers in facilities and clinical streams to assess the financial viability of research projects and ensure financial support and governance.	June 2015	Lead: Director of Finance Partner: Research Director
7.3.3	Develop and implement a Research Human Resource Strategy which includes: <ul style="list-style-type: none"> a. A model for structure, staffing, position grading and award classification; b. A streamlined process for recruitment including approval and recruitment; c. A defined process for research related conferences, meeting and mandatory training leave and funding applications specifically tailored for non-medical staff. 	<ul style="list-style-type: none"> a. July 2013 b. Sept 2013 c. Dec 2013 	Lead: Research Director Partner: Director Human Resources; Director Nursing & Midwifery; Director Workforce
7.3.4	Develop information technology solutions for research in the electronic medical record, information technology platform and communication technology.	Ongoing	Lead: Research Director Partner: Director IMTD; Research Office; Clinical Directors; Universities; and other agencies
7.4	Build and Increase Sharing of Research Assets		
7.4.1	Develop a Research model for each health facility which identifies how and where research is conducted and the clinical and non-clinical support arrangements.	Dec. 2013	Lead: General Managers Partner: Research Director; Managers Planning and Capital Works.

Strategic Area 7: Optimise Use of Infrastructure Support		
7.4.2 To enhance use and sharing of research building and equipment assets, develop and regularly update: a. A Research Asset Register with maintenance and replacement strategies. b. An Asset Sharing Strategy which includes reporting on optimal and actual utilisation	June 2015 and ongoing	Lead: Research Office Partner: Manager Capital Works; Universities; Ingham Institute, Research Director
Alignment with the NSW Research Strategic Review: Strategy 1.1. Encourage Research and innovation in health services; Strategy 2.9 Build Research Assets and Maximise their Use Strategy 2.11 Improve NSW Health Research Administration		
<p>Performance Indicators</p> <ul style="list-style-type: none"> • Completion of each action • Timeliness of Ethics Review processes • Accreditation as a Lead Ethics Committee • Research Office recognised as significantly contributing to research activities in SWSLHD • Human resource processes that enable research to commence on time 		
<ul style="list-style-type: none"> • Timely, transparent finance processes which ensure accountability across all research functions • Information technology captures research participant information in a safe and secure manner & supports effective and timely communication • Efficient use of research resources 		

11. Appendices

11.1 NSW Health and Medical Research Strategic Review (2012)

The following summarises the vision, key deliverables and developmental themes proposed within the NSW Health and Medical Research Strategic Review (2012) and the NSW Government's response NSW Government Response to the NSW Health and Medical Research Strategic Review (2012) to the Review.

Vision for Research in NSW

The Vision proposed in the Review and endorsed by the NSW Government is that:

NSW will have a global reputation as a resilient, innovative centre of excellence for health and medical research that strongly supports a high-quality health system that is highly responsive to scientific advances and that generates health, social and economic benefits for the state and beyond.

Deliverables

1. A priority-driven approach to research and innovation in our health services that will generate

new evidence and translate knowledge into the delivery of a better health system and improve health;

2. Improving research infrastructure to enable research organisations to build critical mass, maximise their success in securing competitive grants and build centres of global relevance;

3. Building and optimising the use of shared research assets, such as strategic investments in bio-banking and data linkage, to build research capacity and contribute to research excellence;

4. Leadership in clinical and other health intervention trials to improve clinical care, lead to better treatments and medical devices and improve health.

Approach

The approach proposed is that NSW take a partnership approach to build progressively and systematically across eleven themes under two broad strategies. The table following lists the eleven themes and the degree of support articulated by the Government.

Summary of the Themes identified in the NSW Research Review (2012) and the Government Response

Objective	Theme	Government Support
Strategy 1: Foster translation and innovation from research	Theme 1: Encourage research and innovation in health services	Supported
	Theme 2: Leadership in clinical trials	Supported
	Theme 3: Maximise the use of research in policy and practice and health service delivery	Supported
	Theme 4: Focus intellectual property expertise	Supported
	Theme 5: Support early-stage venture capital	Supported
Strategy 2: Build Globally Relevant Research Capacity	Theme 6: Enhance health and medical research hubs and collaboration	Supported
	Theme 7: Strengthen the research workforce	Supported in principle
	Theme 8: Improve research infrastructure support	Supported
	Theme 9: Build research assets and maximise their use	Supported
	Theme 10: Leverage all investment sources	Supported in principle
	Theme 11: Improve NSW Health research administration	Supported
Delivering on the Strategy	Adopt a strategic investment approach	Supported
	Adopt a robust implementation approach	Supported in principle

11.2 Terms of Reference for the SWSLHD Research Strategy

To develop a Research Strategy for South Western Sydney Local Health District which will:

1. Establish the vision, goals, principles and strategic directions for research in SWSLHD (to 2016 and 2021)
2. Outline the current research policy context, including the changes in approach to funding and prioritising research at a national and state level
3. Describe and evaluate the current research capacity. This will include an overview of each research entity, their key functions, research interests, governance structures and future priorities. It will also include an overview of non-institute research activities.
4. Summarise the outcomes of the Sydney South West Area Health Service Western Zone Research Strategy 2006-2011
5. Ensure wide ranging consultation occurs with key stakeholders
6. Outline the key issues for research with a focus on those areas which underlie a strong and vigorous research focus
7. Determine strategies, actions, priorities and a timeframe for implementation
8. Provide advice and a draft plan to the SWSLHD Research and Teaching Committee.

11.3 Funding Sources for SWSLHD Research (2008- 2010)

Funding Source	Organisation or grant type
NSW Ministry of Health	NSW Ministry of Health; NSW Oral Health Promotion - Demonstration Project Grants Scheme; Sydney Cancer Centre (SCC) Breast; NSW Health Centre for Oral Health Strategy; Clinical Excellence Commission; SWSLHD (including Liverpool Hospital Postgraduate Award; Fairfield Hospital; Gastroenterology and Liver Services; HCEP Hepatitis C Education and Health Promotion); and former Area Health Services - Sydney South West, Hunter New England and North Coast
Other State and Local Government Agencies	Housing NSW; NSW Department of Environment, Climate Change & Water; Landcom; Motor Accidents Authority of NSW including Lifetime Care and Support Scheme (LTCSS); NSW Community Services; NSW Department of Education & Training; & Liverpool Council
Australian Government Departments	Dept of Families, Housing, Community Services and Indigenous Affairs; National Health and Medical Research Council (NHMRC) including Primary Health Care Research Evaluation and Development (PHCRED); Department of Health and Ageing including Aust Better Health Initiative ; Australian Research Council (ARC); Department of Veteran's Affairs; Department of Industry, Innovation, Science, Research and Tertiary Education (including Australian Postgraduate Award (APA)); and AusAid
Research institutes and centres	Ingham Institute for Applied Medical Research (IIAMR) including the Research Infrastructure Grant Program (WZRIGP); Australian Primary Health Care Research Institute (APHCRI); Cooperative Research Centre (CRC) for Asthma and Airways; Garvan Institute; Cancer Institute NSW; Centre for Clinical Research Excellence in Respiratory and Sleep Medicine
Non-Government organisations including private foundations & philanthropists	Australian Dental Association; Juvenile Diabetes Foundation; National Heart Foundation of Australia; Cancer Australia; Cancer Council - NSW, Western Australia; Australian Rotary Health Research Foundation; Cure Cancer Australia Foundation; The Menzies Foundation; Australian Society of Orthodontists (ASO); Arthritis Australia Practitioner Fellowship; Royal Australasian College of Physicians (RACP); Asthma Foundation of NSW; Bushell Foundation; Clive and Vera Ramaciotti Foundation; Australian Orthopaedic Association (AOA) Research Foundation; Michael J Fox Foundation for Parkinson's Research; Morrison Lloyd Bequest Fund; Cabramatta Community Centre; Royal College of Nursing Aged Care Scholarship; Multiple Sclerosis of Australia; and National Breast Cancer Foundation
Private Sector including pharmaceutical companies	Abbott Australia; Alcohol and Health Research Grants Scheme (AHRGS); St Jude Medical ; Boehringer Ingelheim; Amgen Pharmaceuticals; Pfizer; The Medicine Company; Roche Products; Genzyme Australia; Global Pharmaceuticals; and IMB
International Groups	National Council for the Professional Development of Nursing and Midwifery, Dublin; United Arab Emirates University (UAE)- University Interdisciplinary Fund Réseau provincial de recherche en adaptation/ réadaptation (REPAR), Montreal, Canada
Other	The Canberra Hospital Private Practice Fund; Pegasus Initiatives for Learning and Research (PILLAR) Award; Queensland Health Tropical Population Health Service; Brisbane South Division of General Practice; University of Sydney; GWS Region Cancer Control Grant Program; University of Western Sydney; South Australian Department of Health; and University of New South Wales

Source: Ingham Institute Research Data Base 2008,2009 and 2010

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