



Spotlight: Medical Research at Monash

Volume 1, Issue 3, 2006

Welcome to *Spotlight*, a publication highlighting various aspects of health and medical research within the Faculty of Medicine, Nursing and Health Sciences at Monash University.

This issue focuses on social and public health research taking place within the faculty. The excellence and breadth of this research is driven by local and international collaborations. By providing an evidence base for healthcare, determining risk associated with recycled water use and establishing new research networks, Monash researchers are making significant contributions to the Australian community.



Assessing the risk of recycled water

To conserve high-quality drinking water during the ongoing drought, alternative sources of water (rainwater, greywater, stormwater, sewage effluent) are increasingly being substituted for a range of non-drinking purposes in urban areas.

However, there is currently little experimental data on the degree of health risk associated with exposure to such sources of water. There is a need for more accurate assessment of health risks associated with the use of such water use, so that public health authorities may better define required levels of water treatment for each purpose.

Building upon their involvement in developing the national guidelines for water recycling, Dr Karin Leder and Dr Martha Sinclair (Department of Epidemiology and Preventive Medicine) in collaboration with the CRC for Water Quality and Treatment and CSIRO, are pursuing projects to characterise levels of public exposure and potential health risks associated with alternative water sources. Projects will cover such areas as the use of recycled water for laundry purposes and appropriateness of treatment for recycled water that is used to irrigate public parks.

www.ourwater.vic.gov.au

Maternal health outcomes in South East Asia to be addressed

The SEA-ORCHID initiative (South East Asia – Optimising Reproductive and Child Health in Developing Countries)* is a five-year collaborative project (2004-08) involving centres in Thailand, Malaysia, the Philippines and Indonesia.

A network of researchers and teachers of evidence-based healthcare has been established across the four countries, with support being derived from investigators and educators based at the Australasian Cochrane Centre, Monash University and the Universities of Adelaide and Sydney.

Their project aims to improve the clinical practice of treating pregnancy and childbirth-related disorders, thereby enhancing health outcomes of mothers and infants in South East Asia.

* Jointly funded by an International Collaborative Research Grant from the National Health and Medical Research Council and Wellcome Trust, United Kingdom.

The Australasian Cochrane Centre forms part of the Monash Institute of Health Services Research.



Members of the SEA-ORCHID Project meet in Manila.

Maternal health – the numbers show the need

- Each year there are over 500,000 maternal deaths world-wide and 98 per cent of these occur in the developing world.
- For women in Asia the lifetime risk of a maternal death is 1 in 65 compared with 1 in 1,800 for women in developed countries.



Mobile phone modified for use in the MorPhEUS study

Mobile telephones and young people – radiation exposure

The Mobile Radiofrequency Phone Exposed Users Study (MorPhEUS) is an NHMRC funded project run by the Department of Epidemiology and Preventive Medicine in partnership with the Australian Centre for Radiofrequency Bioeffects Research (ACRBR). It is investigating mobile phone use in secondary school students around Melbourne. The study investigators are Professor Michael Abramson, Dr Imo Inyang and Dr Geza Benke.

Mobile phone use has become commonplace among children and adolescents. With their developing nervous system they may be more vulnerable to possible health effects of radiation emitted by mobile phones. However there is little evidence of the effect of such exposure.

The MorPhEUS study is using specially modified phones which measure exposure, time and duration of call. Some of the phones also record the orientation of the phone in relation to the head and transmits call data automatically to the study computer by email. Testing also includes cognitive function testing (eg attention and memory), physiological measures (including hearing tests) and questionnaires about phone use. Final results are expected in December 2007.

For abused children the truth is longer than a lie

Child abuse is a major health issue for our society. The National Research Centre for the Prevention of Child Abuse (NRCPCA) in the Department of Social Work seeks to understand and prevent child abuse.

In collaboration with the Australian Childhood Foundation, a significant feature of the centre's work is on what children and young people themselves say. Such experiences are contained in a book* written by Dr Neerosh Mudaly and Professor Chris Goddard, which to the authors' knowledge, is the first book of its kind in the world. Centre Director and Head of Department of Social Work Professor Goddard is a major contributor to the field.

Over the next 12 months the centre will be releasing results from some significant studies as well as commencing data collection on new projects. New studies include examining serious child abuse and researching children born of chemically dependent mothers.

* *The Truth Is Longer Than A Lie: Children's Experiences Of Abuse And Professional Interventions*, by Dr Neerosh Mudaly and Professor Chris Goddard (2006), Jessica Kingsley: London and Philadelphia.



Professor Chris Goddard

Improving wireless technology use by nurses

To enable nurses to gain immediate access to pathology results, pharmacology information and other decision support tools, there is interest in using technology such as personal digital assistants.

This issue is being addressed in a collaborative project between the School of Nursing and Midwifery and the Faculty of Information Technology that aims to overcome limitations of the equipment. The aim is to create more useful mobile-wireless equipment suitable to be utilised by nurses in hospital ward settings.

Dementia care in a multicultural society

There are many different types of dementia and each has its own causes, but all describe a progressive decline in a person's mental functioning. Dementia symptoms include loss of memory, intellect, rationality, social skills and normal emotional reactions. Dementia can happen to anybody, but it is more common after the age of 65 years – it is not a normal part of ageing.

It is common for people who have acquired English as a second language since arriving in Australia to lose this ability as their dementia progresses. For older culturally and linguistically diverse (CALD) residents in Australia proficiency in English plays a pivotal role in the experience of dementia, however such people in aged care have been little researched.

Professor Daniel O'Connor and Dr Susannah Runci from the Aged Mental Health Research Unit are investigating Italian and Greek aged care facility residents living with dementia. They will collect data in aged care facilities with the older residents, as well as interviewing professional caregivers and family members.

Coping with disaster and learning lessons: evidence aid

Following natural disasters, governmental and non-governmental agencies need to be able to make decisions regarding healthcare.

Using topics originally identified as priorities by people in regions affected by the 2004 tsunami, the Australasian Cochrane Centre has joined forces with several other Cochrane entities to prepare healthcare summaries for interventions

relevant to natural disasters and other healthcare emergencies.*

The Australasian Cochrane Centre is one of a number of Cochrane centres worldwide that coordinate activities of the Cochrane Collaboration. The Australasian Cochrane Centre is part of Monash Institute of Health Services Research and core funding is provided by the Australian Commonwealth Department of Health and Ageing. The centre has four branches that coordinate activities in New Zealand, Singapore, South Asia and Thailand.

* Freely available via the Cochrane Collaboration website: www.cochrane.org/evidenceaid



Tsunami aftermath

Ambulance for asthma?

When to dial 000

During severe asthma incidents, people in rural areas have tended to drive themselves or family members to a hospital instead of using the ambulance service. Monash researchers have identified a number of reasons for this, including concern the paramedics would be unable to locate their property, a distrust of the 000 process, underestimating asthma severity and not appreciating how well ambulance paramedics are trained or how the drugs they carry can treat asthma. Those that did call 000 found that paramedic care was excellent and had improved patient outcomes.

In response to these findings the Ambulances for Asthma project has been developed by researchers at Monash University's Department of Community Emergency Health and Paramedic Practice* to help people with asthma better assess when to call 000 when they are having an attack. A key element of the project is an interactive website# that aims to provide timely information to help people assess the seriousness of their situation, whether to call an ambulance and encourages people to have an active asthma plan.

* *The Asthma Foundations of Australia.*

www.ambulanceforasthma.net.au

Asthma fast facts

- Asthma is a disease where the airways in the lungs become narrowed making it difficult to breathe. Symptoms include wheezing, tightness in the chest, shortness of breath and cough (especially at night or early morning).
- Compared to other countries the prevalence of asthma in Australia is relatively high; more than 2.2 million Australians have asthma.
- The risk of dying from asthma increases with age, the majority of deaths occur in people aged 65 years and over. Asthma related deaths in Australia have dropped from 969 in 1989 to 314 in 2003.

Source: The National Asthma Council Australia

Paramedic research comes of age

The Department of Community Emergency Health and Paramedic Practice awarded its first paramedic PhD to Dr Ameer Morgans.

For her thesis work, Dr Morgans investigated how patients make decisions in pre-hospital health emergencies. Dr Morgans currently holds a research fellow position in the department, where she is involved in a number of projects, including emergency preparedness for an avian influenza pandemic and paramedics' perceptions of risk and willingness to work in disasters.

MonRAS: a lens that focuses collaborative research into ageing

Extended human lifespan is internationally recognised as one of the major accomplishments of the modern age. However, an ageing population brings significant challenges for the future. To enhance the life experience of older people in the Australian (and international) community, research is required to identify issues and address areas of need.

At Monash there is a breadth of expertise and established research interests in ageing that extends across most faculties and encompasses a range of health, social, economic and technological issues. Monash Research for an Ageing Society (MonRAS) is facilitating a cross-faculty multidisciplinary approach to the study of ageing.

MonRAS has developed a framework of three major themes: planning, policies and infrastructure; health and support services; and biomedical aspects. Operating a virtual network of researchers led by director David Harrison, and supported by a small directorate, MonRAS is overseen by an advisory committee with representatives from across the university.

www.monras.org

Ensuring health information is understood

Understanding health information is a crucial facilitator of optimal clinical care and critically important for positive health behaviours such as preventive healthcare. The first Australian study to examine how well the general public understands health information is being conducted by Professor Rachelle Buchbinder's Clinical Epidemiology Unit at Cabrini Hospital, Department of Epidemiology and Preventive Medicine.

In a collaborative study with Dr Richard Osborne (University of Melbourne), the team is conducting face-to-face interviews with a representative sample drawn from metropolitan and regional Victoria. The interview asks about perceptions of healthcare services, and the individual's demographic, socio-economic and health status. Participants also complete several validated measures of health literacy that assess an individual's level of understanding of health information. This project will provide the first data on how many Australians have health literacy levels that are so poor that they may prevent them from accessing and receiving optimal healthcare.

Wellbeing plan at Frankston based on evidence

Research carried out by Professor Helen Keleher and Ms Jackie Doyle (Department of Health Science) has been used by Frankston City Council* to inform redevelopment of their municipal public health plan.

The researchers surveyed public opinion, conducted interviews and focus groups with stakeholders as well as reviewing secondary data relevant to the Frankston local government area.

Recommendations from the research were workshopped through the Frankston Health and Wellbeing Plan Steering Committee, facilitated by Professor Helen Keleher and Christine Burrows, community wellbeing coordinator Frankston City Council. Health priority areas were identified and key actions to address priority areas are currently being developed.

* Work commissioned by Social Strategy and Planning Unit of the Frankston City Council.

New consortium to address complex issues woven around criminal justice

The Criminal Justice Research Consortium (CJRC) is a multi-disciplinary consortium focusing on various aspects of criminal justice research that has grown from a number of researchers across the faculty. Officially launched by Professor Leon Piterman (Senior Deputy Dean, Faculty of Medicine, Nursing and Health Sciences) on 31 October 2006, the CJRC's mission is to become an acknowledged leader in criminal justice research and a major contributor to policy development.

In his address, Professor Piterman commended the CJRC's cross-disciplinary approach, noting the successes it has achieved and concluded by stating he expected the CJRC to have a major impact in the field through this approach.

A highlight of the launch was a keynote address delivered by Professor Colin Roberts (Head of the Probation Studies Unit at the Centre for Criminological Research, University of Oxford), where Professor Roberts emphasised the importance of a multi-disciplinary approach for advancing research in the United Kingdom. Such a multi-disciplinary approach is being employed by the CJRC to facilitate research into Australian criminal justice issues.

Police interaction with the mentally ill

Despite people with mental illness being grossly over-represented in the criminal justice system, very little is known about police interactions with this group. This matter is being addressed by Professor Jim Ogloff and his team at Victorian Institute of Forensic Mental Health, in partnership with Commander Ashley Dickinson and Assistant Commissioner Ken Lay from Victoria Police.

The issue is being explored using a variety of methodological approaches, ranging from assessing officers' knowledge and practices, to exploring the relationship between mental health and offending. The five-year project will culminate in a best-practice model of identification and intervention that will assist police and mental health services in the delivery of an integrated approach for those with mental illness.



Professor Jim Ogloff

How to donate

Your donation to research at Monash University will be an important and much appreciated contribution. Donations made to the Monash University Medical Foundation are tax deductible. Please send your cheque or money order to:

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