

NHMRC HEALTH RESEARCH PARTNERSHIP : PREVENTION OF OLDER PEOPLE'S INJURIES

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This article provides an overview of the background to, and research planned as part of the NHMRC Health Research Partnership *Prevention of Older People's* (POPI) program. Through this partnership, two major research projects are being undertaken by a consortium led by the Prince of Wales Medical Research Institute: falls among older people, and transport injuries to older people.

BACKGROUND

In April 1999, the National Health and Medical Research Council (NHMRC) published the document *Paradigm Shift: Injury from problem to solution*.¹ This document provided a comprehensive overview of the burden of injury in Australia, and the current status of injury research. Future directions for injury research were identified. Later that year the Health Research Partnerships in Injury Committee was formed as a joint initiative of the NHMRC's Strategic Research Development Committee and Research Committee. Applications for funding of injury research were invited. In order to be eligible to receive NHMRC funding, applicants were required to assemble a team of researchers with complementary expertise as well as secure funding from a range of organisations.

The POPI program is one of two programs funded under the NHMRC Health Research Partnerships initiatives. Research is expected to commence in 2002. The POPI program focuses on the two most frequent causes of injury in older people, falls and transport injuries.

PREVENTION OF INJURIES IN OLDER PEOPLE PROGRAM PARTICIPANTS

Table 1 lists the nine POPI chief investigators and their affiliated institutions, and six core participating organisations.

The POPI program has 31 associate investigators who bring clinical and research expertise from a broad range of backgrounds including: nursing, podiatry, physiotherapy, psychology, optometry, engineering, human movement, public health, health promotion, physiology, and biomechanics; and the medical specialties of rehabilitation, aged care, neurology, rheumatology, and ophthalmology. These associate investigators are from a number of universities (University of New South Wales, University of Western Sydney, University of Sydney, Queensland University of Technology); hospitals (Port Kembla Hospital, Royal Prince Alfred Hospital, Westmead Hospital, Greenwich Hospital, Royal North Shore Hospital, Calvary Hospital,

Bankstown–Lidcombe Hospital, Princess Alexandra Hospital Brisbane); and other organisations (South Western Sydney Area Health Service, and the Centre for Research on Ageing).

RESEARCH INTO FALLS AMONG OLDER PEOPLE

The falls aspect of the research program includes a range of related studies directed to reduce falls and related injury in older people. The work will investigate:

- the basic physiology and biomechanics of human balance (including stepping, trips–slips, and walking);
- risk factors for falls in community dwellers and among those with Parkinson's disease (with a focus on the vestibular system, vision, and neuropsychological aspects);
- by studying of large populations, prediction of people who are at risk of falls and injury and develop practical screening tools for clinical use in Australia;
- the effect of different aspects of shoe design with an aim of developing safer footwear for older people;

TABLE 1

CHIEF PARTICIPANTS IN THE PREVENTION OF OLDER PEOPLE'S INJURIES PROGRAM

The POPI program is directed by Stephen Lord, Prince of Wales Medical Research Institute. There are eight other chief investigators:

Graham Kerr	School of Human Movement Studies, Queensland University of Technology
Kaarin Anstey	Centre for Mental Health Research, Australian National University
Anthony Broe	Prince of Wales Hospital and Medical Research Institute
Ian Cameron	Rehabilitation Studies Unit, University of Sydney,
Robert Cumming	Department of Public Health and Community Medicine, University of Sydney
Richard Fitzpatrick	Prince of Wales Medical Research Institute
Julie Steele	Department of Biomedical Science, University of Wollongong
Joanne Wood	School of Optometry, Queensland University of Technology.

The core participating organisations are:

NSW Department of Health
NRMA Insurance
Medical Benefits Fund of Australia (MBF)
Vincent Fairfax Family Foundation
Illawarra Retirement Trust
Northern Sydney Area Health Service *Good Age Trust*.

- through large randomised controlled trials (including multi-faceted programs and home-based and group exercise), identification of whether targeted falls intervention programs can prevent falls in older people staying in acute hospitals and in community dwelling people at high risk of falls.

RESEARCH INTO TRANSPORT INJURIES TO OLDER PEOPLE

Another arm of the research program will investigate older drivers. Crashes involving older drivers already cost the Australian economy \$500 million annually and have a major effect on the quality of life of the community. These statistics will rise as the population of older drivers grows by 25 per cent per decade, approximately twice the rate of younger age groups.² There has been little research into motor vehicle crashes involving older drivers in Australia. At the population level, crash rates, both per driver and per kilometre, begin to increase at 65 years and are much higher for people over 85.³ As with falls, age per se does not cause crashes but age-related sensorimotor and cognitive changes probably do.

The transport research program uses a wide range of sensorimotor and cognitive tests and applies them prospectively in a large population of older drivers; and, finally, links the results of these tests with crash data. The transport research program aims to develop and validate an assessment screen for accurately identifying older drivers who are not capable of safe driving due to visual, cognitive, or sensorimotor impairments.

IMPLEMENTATION

A key aspect of the NHMRC Health Research Partnership *Prevention of Injuries in Older People* is the dissemination of the results of research to clinicians from a range of disciplines, as well as to health promotion practitioners, policy officers, and older people themselves. Researchers are increasingly recognising the need to take active steps to facilitate the translation of research findings into practice. Accordingly, strategies to be undertaken will include: publication of findings in a range of media (including professional journals, local newspapers, and newsletters of older people's organisations); presentations at and hosting of meetings, conferences, and workshops (ranging from local to international); representation on policy committees as appropriate and the maintenance of a Web site.

To view the *Falls and Balance Research Group* Web site visit www.powmri.unsw.edu.au/FBRG/FBRGhome.htm.

REFERENCES

1. Strategic Research Development Committee of the National Health and Medical Research Council. *Paradigm Shift. Injury: from problem to solution*. Canberra: Commonwealth of Australia, 1999.
2. Australian Institute of Health and Welfare. *The changing demographic profile 1976-2016*. Canberra: Commonwealth Government, 1997.
3. McKnight J and McKnight A. Multivariate analysis of age-related driver ability and performance deficits. *Accident Analysis and Prevention* 1999; 31: 445-454.