# CONTENTS

**MESSAGE FROM THE VICE-CHANCELLOR** | 3
---|---
**HEALTH SCIENCES OVERVIEW** | 3

## CHRONIC DISEASE
- Ambulatory Care – Wound care | 4
- Pharmacy Drug Research | 5
- Biomedical Sciences Drug Research | 6
- Centre for Research into Disability and Society | 7
- Ambulatory Care – Chronic care in the community | 8

## AGEING
- Exercise Programs for the Elderly | 10
- Centre for Research on Ageing | 11

## INDIGENOUS HEALTH
- Restory[ing] Aboriginal Parenting | 14
- Centre for International Health | 15
- Indigenous Mental Health | 16

## MENTAL HEALTH
- Act-Belong-Commit, Mentally Healthy WA | 18
- Nursing Mental Health Initiatives | 19

## POPULATION HEALTH
- Health Services Research | 22
- WA Centre for Cancer and Palliative Care | 23

## ILLNESS AND INJURY PREVENTION
- Centre for Food and Genomic Medicine | 26
- Physiotherapy | 27
- Nutrition and Exercise in Disease Prevention | 28

## ALCOHOL AND OTHER DRUGS
- Alcohol and Tobacco Research | 30

## CONTACTS
- Centres & Institutes | 32
- Faculty & Schools | 34
MESSAGE FROM THE VICE-CHANCELLOR

Australia’s health care expenditure is set to soar under the increasing burden of chronic conditions and lifestyle diseases associated with an ageing population and prolonged life spans. Curtin University of Technology recognises that new health care models are therefore required to manage our changing health care needs and their impact on the country’s social and economic sustainability.

Traditional, reactionary health care models based on providing acute, episodic care are no longer sufficient to deal with our changing health needs, and infrastructure is crumbling under a widespread lack of resources and funding.

Innovative, future-focused models of health care are required, and Curtin, through the Faculty of Health Sciences, has responded to this major national issue with the establishment of the Curtin Health Innovation Research Institute (CHIRI).

CHIRI aligns with the University’s aim of remaining relevant and responsive to present and anticipated community needs. The importance of health care to the State and nation led the University to identifying health, ageing and wellbeing as a key focus for its research, particularly in its areas of competitive strength – prevention and management of chronic disease, with particular relevance for vulnerable populations, namely mental health, Indigenous health and the aged.

Curtin’s research initiatives within the Faculty of Health Sciences are innovative, collaborative, interdisciplinary and oriented towards practical solutions. Indeed, all of our health science research is continually evolving to meet our society’s changing needs.

You can read about many of our exciting health research initiatives in this inaugural edition of Health at Curtin. I encourage you to explore our fresh approach to the pressing health care issues that face us. And I invite you to move forward with Curtin as we embrace the challenges that lie ahead and work to deliver robust health care models for the future.

Professor Jeanette Hacket
VICE-CHANCELLOR
CURTIN UNIVERSITY OF TECHNOLOGY

HEALTH SCIENCES OVERVIEW

I am delighted to bring you Health at Curtin, the magazine for the Faculty of Health Sciences, which highlights the targeted research initiatives underway within the Faculty and, particularly, through the newly established Curtin Health Innovation Research Institute (CHIRI).

CHIRI is focused on developing effective, sustainable health delivery models for the future, in line with the shifting health care patterns of an ageing population and a society suffering from chronic illnesses, such as diabetes, obesity, cancer and cardiovascular disease.

Today, chronic conditions account for 70 per cent of Australia’s health care expenditure. Indigenous, migrant and socially disadvantaged populations are among the country’s vulnerable communities whose health needs are not being optimally met. Among these groups are people with compromised mental health and those with disabilities – sectors of our community still marginalised by the stigma associated with such conditions. Also, we’re living longer, thanks to advances in 20th-century medicine, but our lifestyles are challenging our health, compounding the natural ageing process and bringing with it increased incidences of some disease, especially dementia, diabetes and obesity.

CHIRI was established to respond to these national health issues and to fill the void created by traditional health care models structured on providing acute, episodic care.

The Institute is bold and relevant. It is focused on preventative care, disease management and the provision of wellness clinics to keep people out of hospital, as well as self-management programs to empower individuals to manage their own health care needs in the comfort of their community.

This work requires professionals with the vision and determination to embrace these challenges boldly, and I invite you to read about the innovative, integrated and collaborative approach to research, education and practice throughout the Faculty of Health Sciences. In these pages, you will glean how Curtin’s engagement with the community, government and industry will bolster collaborative partnerships and attract funding to deliver evidence-based solutions to our health care challenges.

Professor Jill Downie
PRO VICE-CHANCELLOR
FACULTY OF HEALTH SCIENCES
CHRONIC DISEASE

Chronic conditions are now dominating health care spending in Australia and increasingly affecting the nation’s productivity. The focus of health care must therefore shift from the provision of acute care to preventative care and long-term health maintenance. At Curtin, research is exploring how individuals can be supported to take greater charge of their ongoing health management needs, not only to save health dollars, but also to ensure that they enjoy the maximum quality of life possible. Curtin research is employing new techniques and technologies to improve diagnosis, management and understanding of a range of chronic conditions – and addressing some important health care equity issues along the way.
WoundsWest tracks wound care best

AMBULATORY CARE

The WoundsWest initiative is one system that is changing both clinical practices and outcomes for the large number of Western Australians who require wound care. As well as helping to improve wound prevention and management in WA hospitals, the program is providing the tools for better diagnosis, tracking and treatment of wounds in community health care services. Its arrival is particularly welcome in remote areas like the Kimberley, where diabetes-related wounds such as leg ulcers are a big problem for Indigenous people and can often lead to limb amputation.

WoundsWest’s internet-based system enables clinicians statewide to send digital images of wounds (via mobile phone or computer) to specialists in Perth for diagnosis and treatment advice. Subsequent digital photos of the wound allow its progress to be tracked over time, and the images are accompanied by information about the patient’s treatment thus far, and any medical or other factors that may affect recovery.

“This ‘wound file’ can be accessed by any clinician treating that patient,” explains Nick Santamaria, Professor of Acute and Ambulatory Care within Curtin’s School of Nursing and Midwifery.

“So the wound doesn’t have to be continuously reinvestigated as the patient moves around different health settings or locations. Rural patients can stay in their community and still receive appropriate care.”

Santamaria’s research and that of colleagues Associate Professor Keryn Carville and Dr Jenny Prentice has formed the basis of the WoundsWest system.

The project was launched in 2006 by WA Health Minister Mr Jim McGinty with $2.3 million in funding from the State’s Health Department. The system includes online educational tools and evidence-based clinical guidelines to help health service providers improve their diagnosis and treatment skills. In addition, the Silver Chain wound clinic at Curtin’s Bentley campus will use videoconferencing to broadcast teaching sessions to lecture theatres and, in the future, to clinicians located off campus.

Importantly, the initiative also provides wound prevalence data not previously recorded, via an annual prevalence survey that will run for three years.

The first survey, completed in 2007, revealed that wound care was a significant part of the daily business of hospitals; almost half of the 3000 patients surveyed across WA’s 85 public hospitals had at least one wound during their hospital admission. One outcome of the survey was the Government’s allocation of $2 million for a statewide mattress replacement program to help reduce the incidence of pressure ulcers.

“There was no information about the prevalence of wounds in hospitals and other health care settings, but the care of wounds can consume a lot of health resources – a pressure ulcer can double a hospital patient’s length of stay and significantly increase their nursing care requirements,” says Santamaria.

“Understanding the issue helps health care managers to better direct resources. The system should lead to faster wound healing and health outcomes for patients, and a significant reduction in expensive hospitalisations.”

The program is providing the tools for better diagnosis, tracking and treatment of wounds in community health care services.
or the health profession, drug delivery via the skin offers the opportunity for longer lasting and more targeted treatment of a range of chronic health conditions, often at less cost than traditional treatments.

It’s an area of great promise and one being closely explored by the School of Pharmacy at Curtin.

“The accessibility of the skin makes it very attractive in terms of drug administration,” explains Associate Professor Heather Benson, leader of the School’s skin research group. “However, the skin is a very effective natural barrier, and drug delivery via the skin has been quite limited, so we’re taking new approaches to looking at how this natural barrier can be overcome in non-invasive ways.”

One of the major areas of her research, undertaken in collaboration with researchers from the University of Queensland, is the novel delivery of peptides (small proteins) for the treatment of skin conditions such as psoriasis and dermatitis. This involves the development of therapeutic peptides linked to novel carriers that transport them into the skin to their site of action. Benson has achieved skin targeting of a peptide agent designed to block chemicals that cause psoriasis, and has demonstrated its effectiveness at the target site.

“Skin conditions like psoriasis are pervasive and hard to treat,” she explains. “Creams, ointments and oral tablets frequently offer poor control and can have undesirable side effects. A treatment that can restore the natural balance of chemicals in the skin is an attractive alternative.”

The same approach is being used to produce novel anti-inflammatory drugs, in collaboration with the Queensland team and Sydney’s Westmead Hospital. New agents with much-enhanced activity have been synthesised and will be tested by Benson’s group to determine their potential for treating a number of dermatological conditions.

Research has also been initiated to consider the application of these new methods of skin administration for anti-ageing therapies, with the aim of providing a more user-friendly alternative to Botox® injections.

In addition, a collaboration has been developed with the University of Barcelona to investigate how peptides can be used as carriers for drugs into the skin to target a range of conditions. The Barcelona group is renowned for its work in designing peptide “shuttles” for delivering drugs across membranes, including into the brain. This approach has not been applied to skin delivery, but will now be developed for drugs that are resistant to skin penetration. The first test drug has application in the treatment of skin cancer, but it is hoped the approach will have wide application.

Together with local biotech company OBJ Limited, the Curtin team is exploring the use of magnetic fields to enhance skin penetration for a range of drugs, including drugs to treat skin conditions, local anaesthetics to treat pain, anti-inflammatory...
A range of approaches has been used in the past to improve the skin penetration of certain drugs, including electrical, ultrasound and heat treatments, " says Benson.

"Whilst some success has been achieved, only a small number of applications have been developed and often the technology is cumbersome, inconvenient and expensive. There is certainly still room for a technology that is effective, and can be miniaturised and produced inexpensively,"

"Many people don’t like taking corticosteroids because of their associations with side effects such as osteoporosis, increased chance of glaucoma and thinning skin. Often these risks are perceived rather than real, but it stops people taking the drugs they need," explains Coombe.

"Beta-agonists open up the airways to relieve the symptoms of an attack, but don’t address the underlying inflammation of the air passages that is causing the disease. If you have bad asthma, just taking Ventolin isn’t going to help in the long term, and you may increase the risk of severe attacks that may require emergency care,“

Coombe and her team are therefore developing new carbohydrate-based drugs they hope will effectively replace the corticosteroids and, possibly, the beta-agonists too.

“We’re using natural products as our inspiration, mimicking essential carbohydrate structures in the body, known as glycosaminoglycans or GAGs,” she says.

“Recent technological advances have revealed the chemical structures of these sugars and their enormous importance in fundamental aspects of mammalian biology, and we are mimicking these natural structures in our drug development,”

Carbohydrate-based drugs in the past, Coombe explains, have been too difficult to synthesise and manufacture in bulk. Now, a novel chemistry platform developed by her colleague, Dr Warren Kett, is able to produce structures in a cost-effective way, so they can be scaled up for bulk manufacturing and, eventually, therapeutic use.

“We want to produce new drugs that are safe, effective, fast-acting, long-lasting and competitively priced so that asthma and allergic rhinitis sufferers are more willing to use these new drugs to control their conditions," says Coombe.
ased within Curtin’s School of Occupational Therapy, the Centre’s research teams are exploring a range of ways to break down barriers for people with illness and disability. The Self-management Research Team is specifically focusing on health care reform, needed to assist people with chronic conditions to manage their conditions and participate in all aspects of life.

“Our view is that participation is the right of every individual, and the ability to participate shouldn’t relate to a disability or chronic condition,” says Packer. “People who participate and are more in charge of their lives are far less likely to get depressed or develop secondary conditions that further reduce their quality of life.”

The Self-management Research Team is working closely with the Department of Health and various agencies (including the Association for the Blind of Western Australia, the Multiple Sclerosis Society, the Cerebral Palsy Association and Parkinson’s Association of Western Australia) to develop and test new self-management models of care. Packer’s research team has developed structured group programs that encourage participants to develop information-gathering, problem-solving and decision-making skills so they can better understand their condition and make informed choices about what works for them.

“The self-management approach acknowledges that everyone’s personal circumstances are different, and treatment regimes are likely to be more effective with personalised plans that put the person with a disability or chronic condition in the driver’s seat,” explains Packer.

Making active choices about activity participation is encouraged and supported.

Online programs are also being developed and assessed, with the view that if an effective model can be identified for one group, it can be modified to suit the needs of any client group. As an online facility, it has the potential to reach much larger numbers of people and to address equity of access issues for people in rural and remote areas where health care information and support may be much less available.

Self-management programs run overseas have seen reductions in hospital admissions and lengths of stay, fewer visits to GPs and outpatient clinics, better management of medication and reduced time off work – amounting to a considerable cost-saving to the community.

Accordingly, recent funding initiatives are reflecting the potential of self-management programs for improving health care outcomes here in Australia. Under the Federal Government’s “Australian Better Health Initiative (ABHI)”, patient self-management was one of five programs to receive a total of $250 million over five years. Under this initiative, the Curtin team will lead the evaluation of the WA Department of Health flagship self-management program, giving them the opportunity to aggregate the data in a way that will answer research questions previously impossible to answer. An Eye Health Demonstration grant from the Commonwealth Department of Health and Ageing will allow results in new programs...
Supporting patient recovery in the community is the Centre for Cardiovascular and Chronic Care, established at Curtin’s Sydney campus in mid-2007. As part of Curtin’s School of Nursing and Midwifery, the Centre aims to improve the health and wellbeing of those with cardiovascular and chronic conditions.

In addition to its strategic research within the Sydney metropolitan region, the Centre works closely with researchers from Royal Perth Hospital (RPH) and Sir Charles Gairdner Hospital, and with faculty members from Curtin’s Bentley campus to address chronic health issues faced by individuals, their families and communities.

Activities at the Centre are based on outcome-driven, patient-centred, interdisciplinary research. ‘Symptom management’ is one research stream that is addressing issues such as dyspnoea management in heart failure, and risk perception and behaviour change. Reflecting its high-quality research capabilities, the Centre has projects funded by the National Health and Medical Research Council (NHMRC) and by the US National Institutes of Health. In addition, an Australian Research Council grant is enabling the Centre to evaluate motivational interviewing – a client-centred, directive method for promoting behaviour change – for individuals attending cardiac rehabilitation.

The Centre’s program also focuses on models of care and health services research, including an NHMRC-funded trial comparing clinic-based and home-based models of care for people with heart failure. Other research is looking at vulnerable populations, such as the assessment of the impact of widowhood and of smoking interventions in Aboriginal populations. In the area of health care transitions, the Centre is focusing on palliative care and heart failure and adolescent transitions, as well as a cultural diversity stream that is tailoring health interventions for people from culturally and linguistically diverse populations.

The School of Nursing and Midwifery and RPH will soon announce their new collaborative Centre for Clinical Nursing Research. The Centre already has projects that focus on survivors of critical illness as they recover and return to the community. These projects include a pilot study of how former intensive care patients at RPH use health care services after they are discharged from hospital, particularly when returning to rural areas. The research group is also participating in an NHMRC study investigating how effective home-based rehabilitation is returning survivors of a critical illness to their previous level of functioning.

These initiatives reflect the vision and mission of Curtin in promoting research, scholarship and clinical care within this important area of health sciences.
The fact that the Australian population is ageing often sparks fears in the community that this will create an increased burden of ill-health. While it is true we can expect to see an increase in the diseases common in older age – such as dementia, hearing and vision loss, and heart disease – it is likely that the increase in chronic diseases among younger people will be a bigger drain on our health system. Curtin research is exploring exercise and diet interventions aimed at keeping older people healthier for longer, while the Centre for Research into Ageing is demonstrating how existing services will need to change to enable the elderly to live independently for as long as possible. It is also preparing the health workforce to deliver better care to the growing number of dementia sufferers.
ith this in mind, Curtin researchers began assessing the feasibility of providing an inexpensive and community-sustainable exercise program for the elderly to promote their better physical health. The Perth Active Living Seniors (PALS) project has since attracted the interest of researchers and health practitioners worldwide, and is providing a model for exercise and nutrition intervention programs – both for the elderly and for younger target groups.

The Healthway-funded project was designed, implemented and evaluated by the Western Australian Centre for Health Promotion Research (WACHPR) at Curtin, in conjunction with the University’s School of Public Health and Centre for Research into Ageing, the National Heart Foundation and two US collaborators: the Oregon Research Institute and the Center for Disease Control and Prevention.

“The PALS project addresses national and international health priorities of obesity control and chronic disease prevention for a rapidly ageing population,” explains WACHPR’s co-director, Professor Peter Howat.

“The project was very successful, not only in terms of the number of participants recruited and retained, but also in terms of the positive outcomes achieved.”

Targeted at ‘insufficiently active’ 65 to 74 year olds, the project invited participants from across all socio-economic areas to engage in a graduated walking and exercise program in their local suburb. The program was designed by an exercise gerontologist and led by trained walk leaders, and included balance, strength and flexibility components.

Baseline data was collected on the 573 participants in both the control and intervention groups, and followed up at 12 weeks and again at six months, when the project concluded. This gauged the impact of the program on participants’ activity levels, mental and physical health, fear of falling and injury, and perception of personal safety, among other factors.

“The groups met twice a week and were locally based for easy access. The walk leaders provided expert advice, feedback, encouragement and education across a range of health areas, and participants received a regular newsletter,” says Howat.

“At the end of the six months, only 32 per cent of the intervention group and 25 per cent of the control group had dropped out – much lower than reported rates for similar projects – and there was a significant increase in participants’ walking and in their total physical activity.”

The program has since been modified to create the Physical Activity and Nutrition for Seniors (PANS) study, a home-based program which provides information packages, motivational telephone calls and self-monitoring equipment such as pedometers to encourage seniors to improve their physical activity and nutrition habits.

“The Perth Active Living Seniors project has since attracted the interest of researchers and health practitioners worldwide.”

“One of the real strengths of WACHPR is that we spend a lot of time in the formative stage of our research looking in detail at the profile and needs of our target group to determine what interventions will really work in practice for them, rather than just forging ahead with what we think will work,” says Howat.
Adapting services for an ageing population

CENTRE FOR RESEARCH ON AGEING

STRONG INDUSTRY PARTNERSHIPS ARE HELPING CURTIN’S CENTRE FOR RESEARCH ON AGEING TACKLE ISSUES OF CRITICAL INTEREST TO AN AGEING POPULATION.

The Centre is working closely with aged-care providers, local councils, independent living centres, hospitals and environmental designers, among others, to help prepare for the complex changes ahead.

According to the Centre’s director, Barbara Horner, the increasing number of older people in the community won’t, as many might expect, see our nursing homes bulging at the seams, but it will definitely change the profile of care.

“An ageing population won’t necessarily be more disabled, and we can expect an increase in demand for community-based services and for services that promote independent living,” she says.

“All of our service sectors and care systems will have to adapt to this changing level and profile of need.”

Established in 2000 with financial support from the Freemasons of Western Australia, the Centre has a major focus on dementia. It has forged a close partnership with Alzheimer’s Australia WA to develop and evaluate models of care for the growing number of people with dementia, and has investigated how social engagement and activity can help dementia sufferers, and their carers, live with the illness.

The Centre also initiated the successful bid to establish the Western Australian Dementia Training Study Centre for Health Professionals at Curtin. Operated in collaboration with Alzheimer’s Australia WA, The University of Western Australia, Edith Cowan University and seven industry partners, the training centre is developing a range of educational initiatives to improve understanding and care of people with dementia across the health professions.

“More and more health professionals will come in contact with people with dementia,” says Horner.

“Most people in residential care have some level of dementia and receive good care, but our hospitals, which aren’t well set up to deal with people with a chronic illness such as dementia, will increasingly be required to provide care for these patients.

“We want to improve understanding of dementia at undergraduate, postgraduate and professional practice levels – from seminars that help increase expertise within organisations, to developing career pathways for doctors and nurses aiming to be expert practitioners in this field.”

The planned relocation of Alzheimer’s Australia WA’s metropolitan operations to a purpose-built facility at Curtin’s Bentley campus will consolidate research links with industry. The move will also provide greater opportunities for health sciences students to undertake clinical placements in dementia care settings – a very important aspect of preparing tomorrow’s workforce to deal with this complex condition. (See also dietary links to Alzheimer’s, page 29.)
Meanwhile, the Centre is involved in a number of projects aimed at helping individuals to live independently, from helping local governments to better understand the needs and priority issues of their ageing constituents so they can deliver their services accordingly, to looking at how building design and public services need to respond to issues of ageing.

The Centre has been contracted by a number of aged-care providers to assist in changing workplace practices and cultures, to benefit both staff and residents. For example, it worked closely with the SwanCare Group during the planning and development of a new residential aged-care community that uses advanced information technologies to enhance communication with residents living in the facility’s villas and units.

The Centre is also exploring the potential of new ‘smart house’ technology. Developed within Curtin’s Department of Computing, the technology uses non-invasive tools such as motion detectors and infra-red sensors to detect changes in patterns of behaviour that may signal an emergency. It is designed to help elderly people live safely in their own homes for as long as possible.

The Centre has forged a close partnership with Alzheimer’s Australia WA to develop and evaluate models of care for the growing number of people with dementia.
Indigenous Australians suffer higher rates than non-Indigenous Australians of all preventable chronic diseases. They are much more likely to die from respiratory diseases and cancer, and to die from cardiovascular disease at a much younger age. Socially, many Indigenous communities are devastated by substance abuse and high rates of youth suicide. Given past failures in addressing these serious health issues, Curtin researchers are trying to better understand the often complex reasons why existing services aren’t working or aren’t being used. And in the process, they are helping to build the capacity of Indigenous communities to take charge of their own health destiny.
Good parenting helps address intergenerational grief

RESTOR(Y)ING ABORIGINAL PARENTING

Using data obtained from the landmark Western Australian Aboriginal Child Health Survey, a new project from Curtin’s Centre for Developmental Health (CDH) and the Telethon Institute for Child Health Research is aimed at empowering Aboriginal parents to provide a healthier start to life for their young children.

“The WA Aboriginal Child Health Survey provided information on the major factors affecting the readiness of Aboriginal children for school learning,” explains CDH’s Professor Sven Silburn.

“We discovered that intergenerational grief from previous forced separation policies was a key factor associated with Indigenous disadvantage, undermining children’s confidence, skill development and resilience.

“Good parenting is obviously a critical factor in children’s behavioural and social competence and subsequent readiness to learn. So the new project aims to provide culturally relevant mechanisms for building stronger family relationships and knowledge, so that Aboriginal parents feel more confident in their parenting practices.”

The project – Restor(y)ing Aboriginal Parenting – has attracted $1.6 million over five years from the National Health and Medical Research Council under its ‘Healthy Start to Life’ initiative.

Aimed at parents of children aged between one and three, it has been developed with a team of Indigenous researchers, including Associate Professors Ted Wilkes, Jill Milroy and Helen Milroy, Dr Cheryl Kickett-Tucker, Heather D’Antoine and Adele Cox. The project is being implemented in a cluster control design whereby participants are recruited into the program, their baseline data is collected, and their children’s progress is charted through school.

The nine-week program involves each group of parents participating in weekly group sessions that aim to strengthen familial ties and cultural skills and, by providing information and support, help them start to deal with the impact of trauma and loss that affects so many Aboriginal families. The focus then moves to practical skills in parenting and what families can do to encourage their children’s positive cultural identification and socialisation. The final session involves a bush camp, designed to reinforce the learning from the previous sessions and to celebrate what each family has accomplished over the course of the program.

“One of the ‘good news’ findings of the original survey was the extent to which good quality parenting can significantly ameliorate the disadvantaging effects of the past policies of forced separation,” says Silburn.

“If proven effective, we hope the Restor(y)ing Aboriginal Parenting project can be replicated nationally to help minimise the impact of these policies on future generations of Aboriginal children.”

“Good quality parenting can significantly ameliorate the disadvantaging effects of the past policies of forced separation.”
e’ve done a lot of work in other countries, so we can look at what has worked for other marginalised populations and adapt it for the Australian context,” explains Sandra Thompson, who heads up the Indigenous research arm of the Centre.

“It’s all about capacity-building: building the knowledge and skills in Indigenous communities so they can make necessary changes, based on a real understanding of what the local issues and barriers are.”

The Centre is currently undertaking a major project funded by the National Health and Medical Research Council to help increase Indigenous participation in population health research. ‘Not Just Scholars, But Leaders: Learning Circles in Indigenous Health Research’ is a collaboration between Curtin, the Telethon Institute for Child Health Research, the Combined Universities Centre for Rural Health and The University of Western Australia.

“Indigenous people can be sceptical about research because they often don’t see the results – they see benefits for academics rather than for their communities,” says Thompson.

“However, research is critical to building knowledge and influencing change, so we’re aiming to improve the skills of people who are already connected to Indigenous communities – who know the issues and hold valuable personal knowledge – but aren’t fully familiar with conventional research practices required to affect health policy and planning.”

With eminent health researchers such as Professors Fiona Stanley and Charles Watson providing mentorship, 10 Indigenous researchers are developing their research knowledge across four key themes. These include improving the acceptability and cultural relevance of research within Indigenous communities; improving usage of health services; better understanding the factors leading to susceptibility to disease; and identifying the cultural and emotional factors that promote resilience.

“Enabling capable, committed Aboriginal people to engage in research in a supportive environment challenges those conventional paradigms of research in which knowledge belongs to an elite group,” says Thompson.

“We want them to increase their circle of influence and generate quality research that informs preventive programs able to have a real impact on Indigenous health.”

The Centre is also involved with projects that target specific Indigenous health issues, including cardiovascular disease, which is killing Aboriginal people at a much younger age than in the non-Indigenous population.

“One project aims to reveal the reasons why individuals who have a heart attack or other acute cardiac event aren’t accessing the help that could prevent a further attack,” says Thompson. “We can reduce the recurrence rate by a third if people make lifestyle and medication changes.

“We also have a project with the Cancer Council of Western Australia that is determining why Aboriginal people often present late for cancer diagnosis and treatment. That there is actually no Aboriginal word for ‘cancer’, and many people in regional areas link the word to ‘Perth’ and ‘death’, is significant.”

A new media research project, funded by Healthway, aims to counterpoint negative stories of Aboriginal health in the mainstream media with good news stories, especially around health promotion activities.

“Media is a big driver of public opinion and continuous negative coverage has helped form the impression for some people that Aboriginal health is a lost cause, beyond any help,” says Thompson.

“This project provides training for Indigenous community leaders over a three-year period to develop their skills in dealing with the media, so that the positive stories start coming through, too, and we start seeing some fresh faces in the media representing emerging Aboriginal leadership on health issues.”
Returning the results of research endeavours

INDIGENOUS MENTAL HEALTH

IN A MOVE DIRECTLY DESIGNED TO TRANSLATE MORE INDIGENOUS RESEARCH INTO POLICY AND PRACTICE, ASSOCIATE PROFESSOR DAVID VICARY HAS BEEN APPOINTED AS A CURTIN RESEARCH AND TEACHING FELLOW WITHIN THE SCHOOLS OF PSYCHOLOGY AND NURSING AND MIDWIFERY.

A former senior executive within the State Government’s Department for Child Protection, Vicary has substantial experience in developing evidence-based policy for children and young people, and developing service delivery programs designed to meet the community’s needs – especially those members of the community most at risk.

Vicary is particularly concerned with mental health issues for young Aboriginal people across the State. His research interests include the high rates of suicide among young Aboriginal populations, the intergenerational effects of alcohol and drug use, and the ongoing individual, familial and community effects of the forced removal policies of earlier decades.

“Curtin is aiming to develop, enhance and integrate the research happening in the areas of psychology and nursing and midwifery, and fast-track its impact on current policy,” says Vicary. “Indigenous communities want the results of research projects returned to them in pragmatic and understandable ways.

“We’ll be investigating resilience in young Indigenous people from a strength-based perspective – looking at the strengths that already exist in Indigenous communities and working in partnership with them to develop programs that are sustainable.”

Consultancies with government and other Indigenous service providers will be an important mechanism for translating research into practice. Vicary is currently working with not-for-profit and government agencies in Western Australia to help improve the cultural sensitivity of services for Indigenous clients. Plans to develop a counselling service at the Bentley campus for young, urban Aboriginals are also underway.

“It is a much-needed service for this at-risk group, and it will be a great teaching tool for ensuring that psychology graduates are more aware of the issues, needs and sensitivities of young Aboriginal clients,” Vicary explains.

“I’m also interested in embracing new technologies such as Skype and videotelelink that will help us deliver a range of services to isolated Aboriginal communities. Often we put the use of these technologies in the ‘too hard’ basket, but if we can find technologies that suit the circumstances of remote communities, and the community is comfortable with them and want to use them, then we should start using them.”
MENTAL HEALTH

With one in five Australians expected to experience some form of mental illness – including depression – each year, attitudes to this often stigmatised area of health care are in urgent need of change. A number of Curtin research projects are looking at ways to empower people of all ages to strengthen and maintain their mental health, especially during periods of difficulty and transition. A range of intervention strategies is also being developed to support particularly vulnerable groups of mentally ill people at risk of falling through the cracks in a de-institutionalised mental health care setting.
The Mentally Healthy WA project aims to reframe people’s perceptions of mental health so that they no longer view it only in the context of complex illnesses, such as schizophrenia and bipolar disorder, but also in relation to their own ability to cope with everyday stress and changing circumstances. It is based on the premise that people who are active, connected to their community and committed to an interest feel better about themselves and are more equipped to cope with the bad times when they occur; hence the campaign’s slogan of ‘Act–Belong–Commit’.

“Our goal is to increase people’s awareness that mental health can be strengthened and protected – that individuals can do things to increase their resilience and be mentally healthy,” explains the campaign’s manager Amberlee Laws, who works within Curtin’s Centre for Behavioural Research into Cancer Control.

“A lack of resilience can manifest in many ways, from alcohol and drug abuse, to delinquency, depression and suicide. It can cause time off work, much expense to the health system and a lot of heartache for individuals and their families.”

The project was piloted over a two-year period in six regional Western Australian sites, from Karratha to Esperance, and supported by WA Country Health Services, Healthway, Lotterywest and Pilbara Iron. The ‘Act–Belong–Commit’ slogan was promoted via advertisements and supporting marketing materials, while project officers in the pilot sites fostered links between individuals and organisations, and helped facilitate a greater sense of social engagement within the community.

Baseline data from 1200 people from across the six sites was collected to assess their understanding and awareness of mental health issues and existing levels of social participation, and self-rating of their physical and mental health status. Follow-up surveys at 12 and 24 months determined how these factors changed over the course of the campaign.

Activities were promoted according to a region’s demographics and social circumstances. Generally, these included walking and environment groups, and the development of community contact directories, volunteer recruitment centres and welcome packs for newcomers to town. They also included the organisation of concerts for over-60s, music concerts for young people, local photographic exhibitions and ‘Have-a-Go’ days, where people could trial activities offered by clubs and groups.

Preliminary results showed a 65 per cent awareness of the campaign across the regional sites – which is very good for a new project – and 17 per cent of people who were aware of the campaign acted on the message.

“That’s a fantastic result in health promotion terms,” says Laws. “It’s put mental health on the agenda in a lot of non-health settings, and there’s more awareness that mental health is a continuum that can be supported at all stages of life.

“We’ve got the documentation on what works and what are the possible barriers, so we can extend the project to other rural areas and aim for it to become a blueprint for mental health promotion across Australia.”

“Individuals can do things to increase their resilience and be mentally healthy.”
Protecting the most vulnerable

NURSING MENTAL HEALTH INITIATIVES

The shift of care for mental health patients from institutional to community settings has more and more people with mental illness endeavouring to live independent lives within the community. Researchers within the School of Nursing and Midwifery at Curtin are studying the needs of particularly vulnerable groups within this population.

Curtin researchers are studying the health care ‘career’ of Western Australians 65 years and over with known mental health problems.
Older people with mental health problems are one of the more marginalised groups within the health system,” explains Dianne Wynaden, director of research and development within Curtin’s School of Nursing and Midwifery.

“But responding to their needs requires a detailed understanding of their patterns of health service use and the outcomes.”

Utilising the Western Australian Data Linkage System and data from the Commonwealth Department of Health and Ageing, Curtin researchers are now studying the health care ‘career’, over the course of seven years, of Western Australians 65 years and over with known mental health problems.

“We’ll use the information to inform policy change that directly targets service provision to this vulnerable population and improves their health outcomes,” Wynaden says.

New research for improving the diagnosis and management of delirium is also likely to improve health outcomes for older patients, with the development of an efficient protocol that emergency department nurses can use to screen patients for delirium.

“Delirium is a short-term confusional state,” explains project researcher Malcolm Hare, “but delirious patients can be misdiagnosed with dementia and be discharged inappropriately to a nursing home or hostel. Conversely, the delirium may be missed altogether because confusion in an older person may be assumed to be normal.

“Part of the problem is that knowledge of how to recognise delirium is not at high levels among emergency nurses. However, it’s very important to detect delirium early because it is often the first and only outward sign of a severe illness in an older person, and is associated with high morbidity and mortality rates.”

Pregnant women with serious mental illness are another particularly vulnerable group because they are at high risk for pregnancy and birth complications. Of concern is that women with serious mental illness are less likely to seek out the antenatal care they need, even though they continue to utilise mental health services.

In response, an antenatal intervention resource has been developed by Associate Professor Yvonne Hauck and her Curtin colleagues, together with the Telethon Institute for Child Health Research, the North Metropolitan Area Health Service and the Centre for Clinical Research in Neuropsychiatry. The project involved extensive consultation with community mental health clinicians, midwives, obstetricians, psychiatrists, general practitioners and mental health consumers – an endeavour that was recognised with a 2007 Western Australian Mental Health Good Outcomes award.

“Our case-management framework focuses on community mental health clinicians promoting early and ongoing attendance at antenatal care services, smoking moderation and nutritional advice, and linking clients to appropriate support services at the earliest opportunity,” explains Hauck.

“It helps service providers ensure that those women are getting the help they need, when they need it.”

Researchers in the School are also addressing an emerging problem for patients who rely on injections of long-acting antipsychotic medication to control their condition and stay living within the community.

“Increased rates of obesity within this population may be causing a problem whereby standard gauge needles aren’t enabling enough medication to be absorbed by the body,” explains mental health lecturer Carole Harrison, who is a research consultant with the Fremantle Mental Health Service.

“Our research will examine the relationship between body mass index, needle size, and the absorption level of antipsychotic medication in a sample of psychiatric outpatients.

“Psychiatric patients throughout the world are maintained in the community setting on these medications. Improved delivery of these drugs can significantly reduce relapse rates and, ultimately, social and economic costs to the community.”
While it may be a more straightforward matter to improve health care services at an individual level, the mission to improve them at a community level so that service gaps are eliminated, and care and communication between services is continuous, is complex. However, this is the goal that Curtin researchers are working towards. The Western Australian Data Linkage System is enabling health service usage and outcomes to be tracked across the population, to help address inequalities across a range of areas. At the same time, a new centre addressing current deficiencies in the provision of cancer and palliative care services is developing an innovative, integrated health service model that can be applied to the treatment of a range of other conditions.
Making all the right links

HEALTH SERVICES RESEARCH

LINKING HEALTH RECORDS FROM A VARIETY OF SOURCES IS PROVING A POWERFUL TOOL FOR IMPROVING HEALTH SERVICES AND OUTCOMES FOR WESTERN AUSTRALIANS.

The Western Australian Data Linkage System (WAdLS) combines information from more than 30 population-based data collections, such as birth and death records, cancer registrations, mental health services data and hospital morbidity data gathered since the 1970s. The records – stripped of identifying information – enable approved researchers to monitor and assess health trends and outcomes, without compromising privacy.

In 2003 the WAdLS was funded as the centrepiece of a State Government Centre of Excellence known as Data Linkage Australia, a joint effort from Curtin, The University of Western Australia, the Telethon Institute for Child Health Research and the Department of Health.

Renowned epidemiologist Professor James Semmens – who heads Curtin’s Centre for Population Health Research (CPHR) – has been involved with the system since its inception.

“Linked health data helps to address inequalities in health care provision,” says Semmens.

“The system can create, store and retrieve links among data sets, so we can track particular diseases and conditions across the population, looking at risk factors as well as the outcomes of using health services.

“It is the most comprehensive data linkage system in Australia and one of only seven such record linkage systems in the world.”

The WAdLS has assisted more than 300 studies and led to a complete review of mental health patients and the rewriting of the mental health legislation. It also led to the installation of defibrillators in WA ambulances and the prevention of birth defects, with expanded screening services.

The WA Safety and Quality of Surgical Care Project was established by Semmens in 1996, in collaboration with the Royal Australasian College of Surgeons and the WA Health Department. The only project of its type in Australia, it uses the WAdLS to describe the incidence of a range of diseases requiring surgical care. It also monitors trends in the use of surgical services, establishes benchmark standards of surgical care, and evaluates the differences in the provision and use of surgical services between rural and urban communities.

“It also recommends changes in surgical practice and assesses the performance of new surgical technologies,” says Semmens.

“Because research results are disseminated widely, the project has been able to contribute to many changes in surgical practice and policy over the past decade.”

Current projects using the data linkage system include those improving medication safety in seniors, and tracking the incidence and impact of chronic diseases associated with ageing, such as Alzheimer’s and Parkinson’s Disease.

The system is also being used by the CPHR for its ophthalmology research program to help prepare for the significant increase in the incidence of blindness likely to occur over the next 20 years. Already, the data has been used to contribute to State and national eye health plans.

The success of the WAdLS has been recognised by the World Health Organization which is considering establishing an international record linkage consortium, with WA as one of the key participating members.

“Across so many areas, the WAdLS is proving a vital tool for helping policymakers to ensure they allocate scarce health resources in the best way possible,” says Semmens.
A model of good service

WA CENTRE FOR CANCER AND PALLIATIVE CARE

WHILE THE CHANCES OF DEVELOPING CANCER BY THE AGE OF 75 ARE QUITE HIGH (ONE IN THREE MEN AND ONE IN FOUR WOMEN IN AUSTRALIA) IT IS IMPORTANT TO REMEMBER THAT 60 PER CENT OF PATIENTS CAN EXPECT TO SURVIVE THE DISEASE, ALBEIT SOMETIMES WITH DIMINISHED HEALTH.

The WA Centre for Cancer and Palliative Care is devoting significant energy towards improving systems for the timely diagnosis and care of cancer patients so that families are not so physically and emotionally ravaged by living with the disease.

The Curtin-based Centre operates in collaboration with Edith Cowan University and draws together a multidisciplinary team of GPs, nurses, allied health professionals, psychologists, radiologists, health economists, biostatisticians and media experts. Its function is to develop and promote innovative approaches to the care of cancer and other progressive terminal illnesses. The Centre also collaborates with other Australian universities which contribute specific projects to the research mix.

“We identify where cancer care can be improved, from how early symptoms can be better detected, to how a patient’s family can be supported after the patient’s death so the health of other family members doesn’t suffer,” explains Professor Moyez Jiwa, Chair of Chronic Disease within the Curtin Health Innovation Research Institute.

“There’s an enormous range of other issues to look at. For example, how children of cancer patients are affected, how we deal with the psychosexual problems of cancer patients, how to support cancer survivors and tailoring programs to the needs of minority groups.

“The Centre’s aim is to be an architect for better health care design, and there is a growing interest in making care for cancer patients less hospital-centred and more community-based.”

The Centre’s innovative approaches – including the strategic use of information technology – are trialled within its ‘lab’
and then refined before they are further field-tested. As part of these lab trials, actors are briefed to seek advice from health care professionals, and Centre staff analyse the ‘consultation’ to see what variables are at play.

“We need to ensure that any changes of approach by health professionals can realistically be deployed in busy health environments,” explains Jiwa, who also works as a GP.

“One of the innovations we’re trialling is a computer-based referral system, designed to speed the cancer diagnosis process, whereby GPs can check off boxes against symptoms, and the system will generate urgency flags to indicate when a patient is more at risk and in need of an urgent referral.”

The Centre is also interested in broadening the diagnosis net and exploring the role that pharmacists might play in picking up ‘red flag’ symptoms from their over-the-counter consultations with clients.

At the other end of the spectrum, palliative care initiatives are being explored. These include measuring exactly what is ‘quality of life’, benchmarking standards for palliative care, and addressing issues specific to dying children. ‘Dignity psychotherapy’ – whereby dying patients record information of importance to them to help alleviate their psychological suffering – is also being explored.

New developments are promoted by the Centre through established and evolving networks with health providers and policy bodies such as the Cancer and Palliative Care Network, and through academic and mainstream publications. The Centre has produced an online publication, the Australasian Journal of Cancer, but will also target broad-based men’s and women’s magazines that cover health issues so that consumers are more aware of what is available to them.

“There is a growing interest in making care for cancer patients less hospital-centred and more community-based.”

“The multidisciplinary nature of the team means that we see problems from a range of different perspectives and we own them jointly,” says Jiwa.
ILLNESS AND INJURY PREVENTION

Significant changes in our lifestyles over recent decades are damaging our health on a number of fronts and escalating the burden of chronic diseases and conditions such as diabetes, chronic back pain and cardiovascular disease. Curtin researchers are investigating a wide range of environmental, social and economic influences that are compromising our health and limiting our ability to participate in a productive way in the community. This research is arming the community with new tools to get us moving more, eating better and stressing less. It is also helping to ensure our children get the best start in life to optimise their later health and wellbeing.
While totally eliminating these potentially disease-causing foods from a young person’s diet is the ideal, researchers at Curtin are taking a more realistic approach to the whole question by developing foods that look and even taste like junk foods, but contain healthy ingredients.

“The reality is that it’s hard to stop kids eating junk foods they love and are used to, so we’re coming at it from a new angle – finding quality products they would like to eat,” explains Dr Vijay Jayasena, Program Leader of Food Science and Technology within Curtin’s School of Public Health.

His project is being run under the auspices of the Centre for Food and Genomic Medicine, a joint initiative of Curtin, The University of Western Australia (UWA), CSIRO, Murdoch University and the WA Department of Agriculture and Food. The overall aim of the Centre – established in 2006 with funding support from the WA State Government – is to develop new approaches to tackle the twin epidemics of diabetes and obesity, or ‘diabesity’. Curtin’s focus within this is to develop novel, healthy food products using locally produced lupins.

“Lupin is a grain legume that is high in protein and dietary fibre but low in saturated fat, starch-free and with a low glycaemic index (GI). It has similar characteristics to soybeans, but is only half the cost,” says Jayasena.

“Research has shown that lupins have a cholesterol-lowering effect and high satiety, which creates that feeling of fullness, so it has great potential to reduce appetite and, ultimately, body fat.”

Using the internationally recognised food processing laboratories at Curtin – the only facilities of their kind in WA – Jayasena and his researchers are developing a range of healthy lupin-based foods – including breads, muffins, breakfast cereals, noodles, pasta and potato chip-type snacks – designed to have a high consumer acceptance.

Some of these food products will then be tested in clinical trials conducted by the team’s UWA colleagues to determine their identifiable benefits on obesity, diabetes and cardiovascular diseases.

Also under investigation by the Centre is the way the individual components within lupins work to offer health benefits.

Jayasena explains: “The combined health benefits of lupins are well documented; they have a high fibre and protein content, low fat and starch contents, and the presence of some other bioactive compounds. But we need more information on which components are responsible for the positive bioactivity.

“We’re breaking lupin into its various components, such as protein and dietary fibre, and incorporating these individual components into different food products.”

And the particularly good news for Western Australian farmers is that the State is the main producer and exporter of lupins, producing around 80 per cent of the world lupin export.

“At the moment, lupins are mainly used as animal feed, but we’re hoping local farmers will benefit from the higher demand for lupins once these foods gain popularity,” says Jayasena.
Avoiding the cost of inactivity

If your child fidgets while using the computer, don’t stop them – it’s actually helpful behaviour. That’s one of the research findings from Curtin’s School of Physiotherapy, in exploring the impact of information and communication technology usage on young people’s musculoskeletal health.

Children – unlike adults – don’t generally sit still in front of the screen – they fidget and move around, and that’s good,” explains Professor Leon Straker.

Straker has been developing guidelines for the use of computers by children as part of world-leading research he is undertaking in this area, with funding support from the National Health and Medical Research Council.

“The development of ICT (Information and Communication Technology) technologies has significant implications for the way we use – or don’t use – our bodies,” he says.

“International guidelines for computer use were developed 20 to 30 years ago for adult workstations. It’s not just a matter of sizing down the workstations for use by children, the ergonomic guidelines need to reflect that the technology has changed and that children actually use computers in quite different ways to adults.”

Straker and his co-researchers have investigated the optimum height of screens for children, as well as the best placement of the keyboard and mouse to provide forearm support and avoid unnecessary strain on the neck and shoulders. They’re also making recommendations about the amount of time children should spend and the way they should ‘behave’ when using computers.

“Lack of postural variety is a big contributor to musculoskeletal disorders, so it’s encouraging to observe that children move about when using a computer,” explains Straker.

“We’ve also been investigating the benefits of interactive computer games that require moderate to vigorous physical activity, such as dance mats and EyeToy®. Children aren’t going to stop using computers, so we have to look at ways to introduce variability into their usage.”

The team is conducting a field study to determine whether such games (which can exercise a range of muscle groups), once introduced into the home, can make children more active over the course of a week.

Straker and Associate Professor Peter O’Sullivan are also looking at spinal pain, which is seen increasingly in young adolescents. Acknowledging that the issue is a multifaceted one, the researchers are working with Curtin’s School of Psychology to look at the range of risk factors – physical and psychological.

“Lack of postural variety is a big contributor to musculoskeletal disorders, so it’s encouraging to observe children move when using a computer.”

Expects O’Sullivan: “We’ve also been granted access to Western Australia’s Raine Study – a longitudinal study of children since their birth year of 1990, which tracks their physical and psychosocial history. We’ll match this data with our own study profiles to predict which children are likely to develop chronic back pain, and to trial integrated interventions that address both physical and emotional factors for these children.”
“The trajectory for back pain frequently begins in adolescence. Those who experience back pain during this time are at higher risk of developing ongoing problems in adulthood.

“Musculoskeletal conditions are the second highest consumer of health funds in Australia. They may be less visible to the community than cardiovascular disease, but their potential to drain the economy in adulthood is significant.”

Diet and exercise a powerful health mix

NUTRITION AND EXERCISE IN DISEASE PREVENTION

“Making the right connections between an individual’s physiology, their nutritional intake and their exercise habits has enormous potential to prevent chronic diseases within the community. Which is why this area is a strong focus of research within Curtin’s School of Public Health.

Professor of Health Sciences John Mamo paints the picture: “We know exercise is good for us, but how much is enough for each individual and what type is best? How should our exercise habits influence our eating habits? And what foods will deliver what our body needs at a particular age, or period of health vulnerability?”

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Mamo’s recent focus has been on the relationship between diet and Alzheimer’s Disease. His research builds on population studies indicating that people who regularly ingest certain types of fats are at greater risk of developing Alzheimer’s Disease than those on ‘heart-healthy’ regimes. And Mamo believes that, as a result of his research, people at risk of developing Alzheimer’s will, in the near future, be given new dietary advice.

“It is generally accepted that beta-amyloid (protein) plaques are a major player in the development of Alzheimer’s, whereby deposits accumulate between nerve cells in the brain, disrupting messages, damaging connections and ultimately causing cell death,” he says.

“But we’re looking at how the body metabolises beta-amyloid, and at the role that other tissues – such as the small intestine which manufactures it in significant quantities – may be playing in over-delivering it to the brain. It could be a disturbance in the way an individual handles dietary fats, which implies a different treatment and management approach.”

Research in this area is also informing the work of the national Centre for Metabolic Fitness which is focusing on nutritional intervention strategies for metabolic health problems. Curtin’s research contributions include exploring the metabolic causes of obesity and the role particular nutrients and exercise activities can play in weight management.

In line with this, Associate Professor Sebely Pal is leading a prospective study into weight management and disease outcomes in overweight males. She is also investigating whether whey proteins in dairy foods can help with weight management, heart health and hypertension.

Says Mamo: “Similarly, other researchers within the School are examining the particular components in agricultural produce that may have a positive influence on weight management and they are looking at how these can be enriched in our foods or provided as supplements.” (See also Centre for Food and Genomic Medicine, page 27.)
Drug use is a fact of modern life, but the negative impact of harmful drug use on both individuals and the community continues to be a serious cause for concern. While smoking rates within the Australian community have declined in recent decades, thanks largely to public health campaigns, drinking rates have not, and alcohol continues to be the most common drug for which people seek treatment. Meanwhile, the emergence of psychostimulant ‘party’ drugs has generated serious social and health issues. Research at Curtin is providing a clear picture of the trends, contexts and outcomes of drug use in Australia to better inform drug policies. It is also exploring innovative techniques for delivering harm-minimisation strategies to target groups.
Alcohol-related problems associated with high-risk drinking pose the greatest drug-related risk to young people, including university students,” explains CBRCC’s director, Professor Peter Howat, “and existing research tells us that drinking patterns established during youth predict subsequent alcohol-related harm. “Violence, accidents, sexual assaults and hospitalisations are the more visible outcomes of this behaviour, but hazardous drinking can also contribute to depression and suicide and is a risk factor for cancer. So it’s important on many levels to try to get at-risk young people to change their consumption habits.”

Traditionally, tertiary students don’t respond in great numbers to epidemiological and intervention research, so the team is using the internet to connect with tertiary students, who are easily contactable when their university provides them with an email account and are comfortable with this mode of communication.

Funded by Healthway, the web-based Alcohol and Tobacco Intervention project recruited 7000 students – the largest ever such survey in an Australian university and one of the largest of its type in the world – to assess the effectiveness of online interventions.

“Of the 1200 students who identified themselves as high-risk drinkers and were selected for an intervention group, 16 per cent indicated they’d reduced their high-risk drinking behaviour as a result of the interventions over a six-month period,” says Howat.

“Participants reported the program helped them understand their drinking was risky.”

“These modest changes were achieved via minimal intervention. Moreover, most participants reported the program was interesting and helped them understand their drinking was risky, and that it would be desirable to drink less.”

The project comprised a computer-generated assessment of each student’s drinking and personalised motivational feedback including: how their drinking compared to medical guidelines; their blood alcohol concentration and driving risks; and costs of alcohol over a 12-month period. It also provided them with strategies for reducing harm. Plans are now underway to expand the project to other Australian universities.

“These sorts of health promotion intervention programs can be implemented wherever there is group email access, so they have great potential for workplace settings, too,” says Howat.

The CBRCC is also collaborating with the marketing department at Curtin Business School. Together they are investigating whether advertising can be used to negatively reconstruct memories of risky and high-risk drinking among young people, to counteract the positive expectancies of drinking set up by a lot of alcohol advertising.

CBRCC’s Professor Rob Donovan explains: “New models for understanding how advertising works show that it not only manipulates expectations about alcohol consumption, but also attempts to restructure memories of previous drinking experiences, so that consumers believe retrospectively that their drinking experience was a good one.”

“We’re hoping that it’s possible to negatively restructure recall of an experience, to make a memory of binge drinking less enjoyable and turn the advertising strategy back on itself.”

Researchers from the Western Australian Centre for Health Promotion Research (WACHPR) and the Centre for Behavioural Research into Cancer Control (CBRCC) have been working with the University of Newcastle and New Zealand’s Otago University to trial online drinking intervention strategies for university students – and the results are extremely promising.
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