Mental health is everyone’s business. Increased research in this field is crucial to changing perceptions of mental illness and improving our ability to prevent and treat it. Curtin’s mental health researchers are making a difference, particularly in community-based service approaches to dealing with mental wellbeing.

Curtin works with the community, government and industry partners to ensure the breakthroughs necessary for new approaches and treatments for mental illness are being discovered. And, to continually shape the future of mental health, we are always looking to partner with different organisations.

In this issue, Health at Curtin highlights the mental health research undertaken at the Curtin Health Innovation Research Institute and that of other research groups and schools working to improve the mental health and wellbeing of our community.

Among the articles in this issue are those that focus on:
- the early diagnosis and treatment of Alzheimer’s disease
- how an increase in seafood consumption may improve mental health
- children and adolescents
- the impact depression has on the recovery time of patients diagnosed with acute coronary syndrome
- improving mental health and wellbeing in communities.

I invite you to read about the innovative, integrated and collaborative approaches Curtin’s health sciences researchers are undertaking to advance mental health and wellbeing around the world.

Professor Neale Fong
Director
Curtin Health Innovation Research Institute
A PREVENTATIVE APPROACH TO ALZHEIMER’S DISEASE

Curtin is undertaking research that could have the potential to change the way Alzheimer’s disease is diagnosed and treated.

“Preventative approach to Alzheimer’s Disease

Professor John Mamo, from Curtin’s School of Public Health, is leading a team of laboratory and clinical scientists who are applying a preventative approach to Alzheimer’s disease.

“The brain is protected from viruses, bacteria and other potentially toxic compounds which may be ingested, inhaled or introduced accidentally into the body,” Mamo says.

“The millions of blood vessels that supply the brain with nutrients and oxygen, and so forth, have a layer of cells that tightly regulate what penetrates the brain and what comes out of the brain.

“Normally, these blood vessels selectively take up oxygen and glucose to derive energy for the brain while allowing the release of toxic substances that are the by-product of the brain’s metabolism, thus preventing penetration by viruses and bacteria.”

However, these tiny vessels in the brain are prone to damage by harmful compounds that may be circulating in blood. Fortunately, they can repair quickly, but when substantial disruption occurs the brain loses its protection, allowing harmful substances to enter the brain. This can often cause significant inflammatory responses and damage.

“We’ve found that if you can identify what’s causing the damage and you intervene in that process early, you may be able to prevent this devastating disease,” Mamo says.

“Our goal is to identify people experiencing disturbances in the blood vessels in their brains, and pinpoint the risks causing those disturbances – before symptoms of Alzheimer’s disease emerge.”

Mamo says the team has worked hard to identify the risk factors, and has discovered that some dietary factors significantly impact on blood vessel integrity in the brain.

“Certain components of diets – for example, substantial and ongoing ingestion of saturated fatty acids or cholesterol – can influence the integrity of the blood vessels and cause them to deteriorate more rapidly, but without the individual knowing this is occurring.

“The next steps involve undertaking targeted intervention.”
In 2008 the World Health Organization listed mental health disorders as accounting for seven of the top 20 causes of moderate and severe disability worldwide, with the most prevalent being anxiety and mood disorders.

In response to this growing concern, the Centre of Excellence for Science, Seafood and Health (CESSH) at Curtin’s Health Innovation Research Institute has conducted a systematic review of literature concerning seafood consumption and mental health.

According to the director of CESSH, Professor Alexandra McManus, the types of foods we consume can play a surprisingly large role in our ongoing mental health.

“There are many nutrients essential to normal brain function, including folic acid, vitamin B12, antioxidants, selenium, iron, zinc, and essential fatty acids such as omega-3s that are commonly deficient in a Western dietary pattern,” McManus says.

“Seafood is a good source of these nutrients, and research shows the inclusion of seafood as part of a healthy diet has the potential to significantly reduce the prevalence of mental health disorders.”

The review found that multiple studies have been undertaken to determine the role omega-3s have in both the development and maintenance of healthy brains.

“It is known that a nutritionally balanced and healthy diet is required for the physical and mental development of children. The role of maternal consumption of marine-sourced omega-3s for positive pregnancy and lactation, as well as infant neurodevelopmental outcomes, is also established,” McManus says.

Researchers have collated mounting evidence that regular seafood consumption may have the potential to significantly reduce the prevalence of mental health disorders.

“Multinational studies have demonstrated that frequent seafood consumption is also associated with a decreased risk of depression,” McManus says new research in Australia indicates that the balance of omega-3s and omega-6s – a type of fat found mainly in red meat and certain oils in processed foods – may also be important.

“One of the theories is that an increased consumption of omega-6s and a lower consumption of omega-3s may lead to depression and other chronic diseases,” she says.

CESSH is about to begin new research into the effectiveness of omega-3s in treating children with attention deficit hyperactivity disorder (ADHD).

Together with a clinical psychiatrist who specialises in behaviour management, the centre plans to run a clinical trial to assess the dose of omega-3s required to manage problem behaviours in primary school-aged children.

“We hope to include a sub-group of children with ADHD to assess the effectiveness of omega-3s as part of a nutrition therapy regime to complement traditional medical treatments,” McManus says.
A three-year ‘Animal Fun’ program, designed by a Curtin research team and funded by a Healthway grant, has been trialled in pre-primary classes, and involves teachers working with children to imitate animals.

Professor Jan Piek, at Curtin’s School of Psychology and Speech Pathology, says that at pre-primary level, teaching kids basic motor skills can be unexciting.

“So what we developed is a program where kids imitate animals – crawling across the floor like a crocodile and skipping like a crow, and so on,” Piek says.

“They enjoy it, and it’s important for group interaction. The aim is not only to improve motor ability, but also to improve psychosocial skills. If kids are more sociable, they’ll be more confident, engage more in sport and play, and be happier.”

The program comprises nine modules. The first four modules, developed by Lynn Jensen and Professor Leon Straker, from Curtin’s School of Physiotherapy, address trunk and body stability and gross motor skills.

The next four modules, developed by Ms Alma Dender and Adjunct Professor Tanya Packer from the School of Occupational Therapy and Social Work, focus on upper-body stability and hand skills. Some of the skills use finger puppets and rhymes such as ‘Two Little Dickie Birds’ and ‘Incy Wincy Spider’, for example.

The final module was developed by Associate Professor Clare Roberts and Dr Rosanna Rooney, at the School of Psychology and Speech Pathology. This module focuses on social-emotional development, and is based on a family- and friends program adapted from the Aussie Optimism Program previously developed by Roberts and colleagues at Curtin.

“All the components have the animal theme, so kids can relate back to the animals,” Piek says.

“Because the activities are fun, children will take them home and undertake more activity, which will further promote their movement skills.”

To evaluate the success of the program, 12 schools were involved in a trial, with six schools using the intervention program and six serving as control groups. Research coordinator Sue McLaren oversaw the assessment of the fine and gross motor abilities of the 500 participants prior to the trial, and again at six and 18 months after commencement. The children’s social skills development, mood (including anxiety and depression), behaviour outcomes (inattention and hyperactivity), and body mass index (including height, weight and girth) were also recorded.

“We collected the final data at the end of last year and have started to analyse the results,” Piek says.

“The key outcome so far is an improvement in movement skills for the children in the intervention group, which wasn’t identified in the control children.

“We also found that kids love the program, and the teachers are finding it’s an excellent resource – not just to teach movement skills, but also for teaching other skills such as maths and literacy.”

Curtin has received a $35,000 grant from the Western Australian Mental Health Commission to make the program more teacher-friendly and to incorporate tips for teachers on how it can be further applied.

“There has already been international interest in the program from the Netherlands and Ireland, and there has been a request to train teachers in the eastern states,” Piek says.
Everybody has mental health – and, like physical health, it can be good or bad. Worryingly, it is an area often overlooked, as mental health and wellbeing are commonly not deemed as serious as physical health. At the beginning of the 21st century, increasing rates of mental illness in Australia and across the globe were recorded – yet nothing was being done to stem this burden in the community.

Recognising this gap in need, a team led by Professor Rob Donovan, from Curtin’s Centre for Behavioural Research in Cancer Control (CBRCC), was approached in 2002 by Healthway to undertake a study to gauge people’s perceptions of mental health and to determine what people thought constituted a mentally healthy person.

The team found that the phrase ‘mental health’ invoked negative images depicting mental illnesses. However, people generally agreed that if you keep active, have a good sense of belonging, engage in the community, and have meaning and purpose in life, you are much more likely to experience good mental health.

In 2005, the CBRCC joined forces with Healthway, Western Australian Country Health Service and Lotterywest to implement a community-based mental health promotion campaign to improve individual resilience and strengthen community cohesion: the Act–Belong–Commit (A–B–C) campaign.

Amberlee Laws, from the CBRCC, is the manager of Mentally Healthy WA – the hub that coordinates the campaign.

“We wanted a simple message, given that mental health is such a complex area,” Laws says.

“The A-B-C guidelines for positive mental health remind us what we all can and should do to keep mentally healthy. These are: act – keep physically, socially and mentally active; belong – join a club, team or class; and commit – make commitments to activities that you engage in through volunteering, learning new skills, challenging yourself or helping others.”

The project was piloted in six regional centres – Albany, Esperance, Kalgoorlie, Northam, Geraldton and Karratha – chosen to represent the Western Australian communities of mining, coastal and farming.

“We used an animated television commercial, along with signage and merchandise, to sensitise people to the Act–Belong–Commit message. We also worked closely with community groups to increase attendance, membership and volunteerism in community activities,” Laws says.

“For example, in Northam we hosted an intergenerational concert where the over-60s brought their grandchildren and performed something special, such as a highland dance or a comedy sketch, to connect the older and younger generations.”

Within two years, more than 200 activities and events were branded with the positive mental health message. With such positive results, funding was sourced to launch the program statewide in 2008.

“The campaign has gained considerable momentum since then,” says Laws. “We have more than 20 sites in WA that have identified mental health as a priority and are driving Act–Belong–Commit on a local level.

“We now have about 75 official partners, including the Department of Sport and Recreation, Fremantle Headspace and GROW WA.”

The last evaluation, conducted by the CBRCC in September 2010, showed that about 70 per cent of people were aware of the Act–Belong–Commit campaign, with 20 per cent deliberately acting to improve their mental health. Twenty-four per cent said they had amended their association of ‘mental health’ with mental illness and believed people can be proactive in looking after their mental wellbeing.

“An unexpected but welcome outcome was the reduced stigma associated with mental illness,” Laws says.

In 2011 television advertisements promoting the campaign were launched, which featured real-life people sharing how Act–Belong–Commit impacted their lives and boosted their mental wellbeing.

Also, an A–B–C Self-Assessment Tool was made available on the campaign’s website, where people rate their involvement in mentally healthy behaviours.

“What we have done here in WA is unique,” Laws says.

“The campaign is spreading through organisations on the east coast, with an Act–Belong–Commit presence in Queensland, New South Wales, Victoria and Tasmania, and we’ve received interest internationally.”

For more information visit actbelongcommit.org.au
Breast and gynaecological cancers are the first and third-most common cancers diagnosed in Western Australian women respectively. For breast cancer, early detection can lead to high survival rates; however, survival rates for those with gynaecological cancer are far lower, and the incidence is steadily increasing.

Because women undergoing treatment may live with the cancer for a number of years, their condition can inevitably become a long-term aspect of their everyday lives and the lives of their families and friends.

Dr Moira O’Connor, a senior research fellow from the Western Australian Centre for Cancer and Palliative Care at the Curtin Health Innovation Research Institute, says the needs of children living with a parent with cancer are largely overlooked in existing family research.

“the focus of most research has been on the individual and their family supports, and also the spouse’s coping and adjustment – particularly in relation to how this impacts on the care of the patient,” O’Connor says.

Furthermore, while psychosocial guidelines for cancer treatment focus on caring for the patient holistically, the needs of children and parents throughout the cancer trajectory are rarely addressed in the hospital or primary care environment. The culture of clinical practice may exclude children from any involvement.”

To help address the issue, O’Connor has designed a study that investigates the psychological needs of children and adolescents who are coping with a mother living with cancer. The study also aims to determine delivery methods to meet those needs.

Information gathered from the one-year research project, which commenced in 2011, will be used to generate a comprehensive description of children and adolescents’ experiences of having a mother with cancer, and their subsequent needs.

The results will identify similarities and differences across participants and developmental stages, with the aim of developing a needs-assessment tool to identify appropriate supports and interventions.

“our research proposes a child-centred, developmentally appropriate approach. It will provide an essential first step in ascertaining the needs of children aged between six and 17,” O’Connor says.

“our robust methodology and use of innovative interviewing techniques, which include feeling cards and drawing, will enable us to ascertain how children experience everyday life when their mothers have cancer, and what support they will need.”

Children and adolescents who live with a mother with breast or gynaecological cancer will be interviewed, with the research team employing age-appropriate engagement strategies that enable a comfortable environment in which the child feels safe conveying their experiences and perspective.

“this gap in healthcare provision needs urgent attention to ensure the needs of these individuals are met.”
Despite progress in road safety, crashes are all too common in Australia. The psychological repercussions of collisions can run through entire communities; drivers, passengers, family, friends, colleagues, witnesses and emergency service workers are affected by every serious crash.

Dr Lauren Breen, from Curtin’s School of Psychology and Speech Pathology, says the impact left on affected individuals can reach far beyond physical injuries or shock.

“Psychosocial consequences may include not only serious physical injuries and temporary or permanent disability, but also intense grief, post-trauma reactions, psychiatric disorders, social isolation and stigma,” Breen says.

“People can experience significant decreases in quality of life, restricted opportunities for leisure, carer burden and considerable financial costs.”

A recent study estimates that road traffic crashes and their consequences costs Australia at least $27 billion per year. While crashes are a leading cause of death and injury, there is no dedicated road trauma support service in Western Australia.

In response, the WA Department of Health has funded Curtin research that could make recommendations on the formation of such a service.

The research, coordinated by Breen, involved a study guided by a stakeholder reference group comprising representatives from government and non-government agencies, and community members affected by road trauma.

“Existing supports and services are inadequate in meeting the varied needs of people affected by road traffic crashes,” Breen says.

“This is because appropriate supports are difficult to identify, costly to access, limited – by time delays or staffing resources – and available only in certain regions rather than statewide.

“A road trauma support service in WA is urgently required to provide sustainable, coordinated, timely and appropriate peer support and professional therapeutic interventions for road trauma victims, family members, witnesses, and others affected by road trauma.”

Breen visited Road Trauma Support Services in Victoria, the Road Trauma Support Team of South Australia, and the Road Trauma Support Team (Tasmania) to see their operations and resources firsthand. In addition, Road Trauma Services Queensland, Enough is Enough Anti-Violence Movement, TrueLight Foundation, Motor Vehicle Fatality Support Program, and Trans-Help Foundation services were also examined. The analysis of each service resulted in a series of 22 recommendations towards a WA model.

“Each of those services has strengths and limitations,” Breen says.

“Our recommended service arrangement provides sustainable peer support and professional therapeutic interventions for affected people.”

“A road trauma support service in WA is urgently required to provide sustainable, coordinated, timely and appropriate peer support and professional therapeutic interventions for road trauma victims, family members, witnesses, and others affected by road trauma.”
Researchers at Curtin are improving outcomes for people with obsessive-compulsive disorder through group therapy, and aim to further encourage accessibility to treatment by way of an online program.

Obsessive-compulsive disorder (OCD) has been described by the World Health Organization as one of the most severe anxiety disorders, capable of affecting a person’s job performance, career opportunities and numerous other aspects of their life.

The condition is characterised by obsessive behaviour, such as the excessive washing of hands for fear of contamination, or having unwanted thoughts that may be sexual, aggressive or disturbing. Some sufferers have superstitious beliefs that may cause them to spend hours each day lining up objects or checking that doors and windows are locked.

On average, it can take about seven years before most people with OCD seek appropriate treatment. This is often because they are embarrassed about their symptoms, but also because they do not know where to seek help. Many sufferers become depressed because of OCD and tend to take prescribed medications such as anti-depressants.

Associate Professor Clare Rees, a clinical psychologist at Curtin, completed a pilot study at Royal Perth Hospital in 1998. The research led to the establishment of the Obsessive-Compulsive Disorder Treatment Program in 2002 at the psychology clinic in Curtin’s School of Psychology and Speech Pathology.

“The psychological treatment program offered at our clinic involves cognitive behavioural therapies (CBT) rather than prescribing medicine,” Rees says.

“Rees says that in a group setting, patients listen to individual experiences that are often similar to their own.

“This is of significant value and enables participants to gain perspective on their own problem,” Rees explains.

“And, as well as being more cost-effective than individual counselling sessions, patients do just as well in groups and there are fewer dropouts.”

A randomised, controlled trial of CBT in a group setting, run by the clinic, was the first of its kind to be published in Australia, and Rees says the next phase of the work will make treatment available online.

“We are currently developing self-guided web-based treatment, where a patient can work through modules and learn to change their behaviours,” she says.

“This is going to markedly improve access to treatment and help those who are too ashamed – or who even don’t realise they have OCD – to seek help.”
Children diagnosed with developmental coordination disorder (DCD) are often recognised as having problems with their physical and scholastic abilities, with these difficulties often leading to problems with peer acceptance and support. Recently, greater levels of anxiety and depression have been identified in these children, which may indicate the potential for problems later in life.

Professor Jan Piek, from Curtin’s School of Psychology and Speech Pathology, is leading research into children with motor coordination problems. Spanning more than 15 years, the ongoing research is funded primarily by the National Health and Medical Research Council and the Australian Research Council. The research project has involved a number of PhD students who have gone on to publish several publications on the topic.

“Recently, one of our PhD students, Daniela Rigoli, demonstrated that a progression of poor motor ability leads to low self-esteem, which then results in anxiety and depression,” Piek says.

“This is important to know, as we need to understand why these children have greater levels of anxiety and depression.”

Piek says DCD can affect manual dexterity, with children with DCD having trouble dressing themselves, doing up buttons or zips, putting on shoes or using a knife and fork. Writing skills and speech can also be poor and often impacts on school abilities.

“DCD kids are often first recognised through being identified with other disorders, such as attention deficit hyperactivity disorder, as symptoms can be similar. Or they might have a speech problem they are referred for instead,” Piek says.

“The good news is that DCD is starting to be recognised more in schools, with programs being introduced to address the problems these children may have.”

Piek says that further research by another PhD student, Dr Jillian Pearsall-Jones, suggests that DCD may be a result of problems at birth, with potential prenatal links such as a loss of oxygen to the foetus.

“More research is needed to understand the disorder,” Piek says.

“Importantly though, our research has shown that an interdisciplinary team is what is needed for these children: a combined approach, with occupational therapists, physiotherapists, speech therapists, psychologists, and parents and teachers, all involved.”
A group of researchers from Curtin’s School of Public Health has launched a web-based tool to help organisations plan and evaluate peer-based youth programs.

Peer-based youth services, including peer education programs, drop-in services, peer mentoring programs, after-school programs, camps and online discussion forums have become increasingly common within Australian communities.

Such programs respond to the need for early intervention services that are informal, youth-friendly, accessible and confidential.

The perception of peer-based services among non-profit community organisations is that they can have a positive effect on young people’s mental health and wellbeing, particularly for at-risk youth. However, a lack of evidence about the effectiveness of programs – and, importantly, a lack of evaluation capacity among service providers – limits the validation of the benefits and threatens the sustainability of the programs.

Roanna Lobo, from the Western Australian Centre for Health Promotion Research at Curtin’s School of Public Health, is part of a team of researchers that identified the absence of appropriate tools for evaluating the effectiveness of peer-based youth programs.

“The data collection instruments that measure attributes associated with positive youth development programs are often not suitable for peer-based programs for at-risk target groups, due to participants’ literacy levels, high levels of attrition and cost issues.”

To address this, Lobo and her collaborators undertook a two-year action research project that examined a diverse range of peer-based youth programs operating within Australia.

The group formed a consortium with seven community youth service providers and an interest group of 30 youth workers. The Youth Affairs Council of Western Australia was consulted to help ensure the project outcomes were relevant for the wider youth sector.

The project’s major outcome was the My-Peer Toolkit (1.0): a free, web-based resource for community organisations and youth service providers, which provides tools for planning, implementing and evaluating peer-based programs.

In addition, feedback collected from partner agencies through the review process and post-project workshops indicated that participation in the project increased the agency’s capacity to deliver peer-based programs in an effective, safe and sustainable way.

“Participation in the project was generally perceived to have contributed to improved and more efficient services, as the guidelines and instruments were tailored to each agency’s needs and grounded in their practice,” Lobo says.

“Participants also emphasised the benefits of increased networking opportunities and knowledge-sharing.”

Lobo stresses that while program facilitators’ evaluation skills and knowledge are critical factors that determine whether program evaluation is carried out, there also needs to be increased recognition within the youth services sector of the value of evaluation as a process of improving services and assessing program impact, and not simply a means to meet funding requirements.

“Acceptance by funding bodies of alternative and more relevant evaluation approaches which reflect the benefits for young people of participating in peer-based programs will be necessary to encourage youth service providers to invest their currently scarce resources in evaluation,” Lobo says.
**TREATING HEART AND MIND**

While the primary treatment for a heart attack revolves around the physical symptoms, the depression that sometimes follows can have a significant impact on a patient’s recovery. However, this mental illness is often under-diagnosed and under-treated.

Jo Crittenden, a Curtin PhD student and researcher at the Sir Charles Gairdner Hospital (SCGH) Heart Research Institute of Western Australia, is looking at how patient outcomes can be improved by first identifying people who are at high risk of depression following a heart attack.

Crittenden says practitioners can determine who might be currently depressed, but in WA there is no screening method for determining which heart-attack patients are at risk of developing depression.

“Knowing who is at risk is important because depression in patients who have had a heart attack is associated with poorer health outcomes and an increased risk of death,” Crittenden says.

“Failing to identify depression in the acute cardiac setting denies vulnerable patients safe, effective treatment and psychological support at a time when they need it most,”

Crittenden says an easy way of identifying patients who might be at risk of becoming depressed following a heart attack was needed.

Funded by the SCGH, Crittenden’s research began with an extensive review of the literature and tools that were currently available. Now, she is developing a new approach to identify cardiac patients vulnerable to depression through the Depression Risk Assessment Questionnaire (DRAQ).

“By utilising the DRAQ we hope to identify which patients are at the greatest risk of developing depression following a heart attack,” Crittenden says.

“By knowing this, appropriate support can then be offered to help patients make adjustments to their lifestyle, reduce the risks of further episodes and improve their quality of life for a longer, healthier future.”

Testing of the DRAQ is currently underway, and further funding is being sought with a view to creating a depression screening strategy in the acute cardiac setting.

Crittenden’s study is being supervised by Professor Gavin Leslie, from Curtin University; Professor Patricia Davidson, Professor of Cardiovascular and Chronic Care, University of Technology Sydney and Visiting Professor at Curtin’s Centre for Cardiovascular and Chronic Care, Sydney; Professor Sean Hood, from The University of Western Australia; and Clinical Professor Peter Thompson, from The University of Western Australia and the WA Heart Research Institute.

“Failing to identify depression in the acute cardiac setting denies vulnerable patients safe, effective treatment and psychological support at a time when they need it most.”
At the Curtin Health Innovation Research Institute, a feasibility study by PhD student Brenda Bentley aims to apply ‘dignity therapy’ to motor neurone disease (MND) sufferers and their families.

Dignity therapy is a brief psychotherapeutic intervention designed to address psychological and existential distress among the terminally ill. It was developed by Dr Harvey Max Chochinov, of the University of Manitoba in Winnipeg, Canada, and originally used with cancer patients.

Bentley’s two-year study, which commenced in 2011, will involve dignity therapy carried out with 50 people with MND and their family carers, who will represent a secondary research population.

“There is ample evidence that the MND population currently suffers from a lack of targeted palliative care services, and dignity therapy may fill one of these needs,” she says.

“This study will address questions about how to best utilise dignity therapy to benefit this population.”

The gathered data will establish the effects, feasibility, workability and acceptability of dignity therapy with a MND-diagnosed population – a population that differs significantly from the cancer population in that MND is always fatal.

According to Bentley, dignity therapy could be particularly effective for not only MND sufferers, but also their carers.

“MND is a family disease, and family carers carry an exceptional burden by providing extraordinary amounts of care. Previous research in Australia indicates that family carers provide the majority of daily care for people with MND throughout the course of the illness,” she says.

“Importantly, a carer’s distress impacts the mental and physical status of the person with MND. A palliative care intervention that assists the family carer in increasing hope and discovering meaning may help to reduce depression and minimise distress for both parties.”

Bentley is hopeful the feasibility study will pave the way for future, larger studies of dignity therapy with MND populations.

“A palliative care intervention that assists the family carer in increasing hope and discovering meaning may help to reduce depression and minimise distress for both parties.”
The establishment of the multi-million-dollar Curtin Health Innovation Research Institute (CHIRI) – the first of its kind in Australia – brings together Curtin’s health researchers to work with industry partners, government and the wider community.

CHIRI will evolve the education of our health professionals, focusing on interprofessional education programs and research opportunities while providing vital clinical practice opportunities to enhance student learning and experiences.

CHIRI aims to facilitate high-quality translational health research in a number of key areas, including:

- ageing and dementia
- prevention and management of chronic conditions
- Indigenous health
- mental health
- population health services research
- biomedical and clinical sciences.

Australia’s population is undergoing dramatic changes in its health, ageing and longevity patterns, and these key areas will be the focus of extensive research by CHIRI to improve the standard of healthcare in Australia.

Programs of research

**Biomolecular interactions and drug discovery in chronic conditions**

**Health informatics and genomics**

**Healthy environment and behaviours**

**Human movement and rehabilitation**

**Lifespan - development and ageing**

**Metabolic health**

**Neurosciences and Mental health**

This program of research covers many aspects of mental health including brain function and behaviour from the fundamental neurosciences to the management and treatment of disorders. This group has alliances with researchers examining the complexity of neurological function and management at many levels of intervention including, but not limited to, pharmacological intervention, nutritional intervention and psychological clinical programs.

**Pathogenesis and management of disease**

**Vulnerable populations**

**Curtin Health Innovation Research Institute**

Centre for Behavioural Research in Cancer Control
Centre for Research on Ageing
Centre of Excellence for Science, Seafood and Health
Centre for Population Health Research – Public Health
Western Australian Centre for Cancer and Palliative Care – Nursing and Midwifery
Centre for Research into Disability and Society – Occupational Therapy and Social Work
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