Towards a world without dementia
The most significant health concern in the 19th century was infectious disease in younger people. In the 20th century mid-life systemic diseases, such as heart disease and cancer, have dominated public health. As the population rapidly ages in the 21st century, the neurodegenerative disorders, such as dementia, are emerging as leading causes of disability and death. We need broadly based research into all aspects of neuro-degeneration, to determine how to promote active and healthy ageing before it is too late.

Professor Tony Broe

Research has demonstrated that quality of life for people with dementia and their families and carers can be improved through counselling, education, skills training and well organised support systems. We understand better how to tailor interventions to carers' needs so that people with dementia and their carers lead more fulfilling lives.

Professor Henry Brodaty

Since the mid 1980s there have been significant advances in the field of Alzheimer's research. We now know much about the origin of amyloid plaques and the genetic basis for the disease. There are many identified therapeutic targets with drugs in clinical trials. There is still much to do, but it is achievable. There's never been a better time for young researchers to join in the effort to develop rational therapeutic strategies.

Professor Colin Masters

“A rewarding part of my public life has been my association with Alzheimer's Australia. During the National Consumer Summit last year at Parliament House, Marlena and I were privileged to meet many people with dementia, their families and carers, from all over Australia. I commend the association's efforts to support the one million Australians involved in caring for a family member or friend with dementia, through your advocacy, helpline, counselling and specialised support services. Equally important is the work of the association in promoting a better understanding of dementia in the wider community. Well done to all of you.”

His Excellency Major General Michael Jeffery, AC CVO MC (Retd)
Governor-General of the Commonwealth of Australia
“I am determined to make a difference, to do what I can to help break down stigma and lack of understanding about dementia in the community. As the President of Dementia Advocacy and Support Network International, I am determined to make the voice of people with dementia heard internationally. The advances that are being made in research hold out a hope for us all. I may not know what my future holds, how far I will travel in this journey that is dementia, how and when a cure or release will come, but I know that I look to my future with confidence. My greatest desire is to make life better for those who follow after me.”

Shirley Garnett

“My life changed when I was diagnosed with Alzheimer's disease but the support of my family and access to support through Alzheimer's Australia has enabled me to get on with my life and continue doing the things I enjoy. Early diagnosis is so important if people are to learn about dementia and plan for the future. I know that my life would have been quite different without the information, education and support that I have received over the last five years. I could not have managed without it.”

Carmel McGrath

“Hope for future advances helps us to cope with the uncertainties of this terrible disease. With no cure on the horizon, we urgently need to find better ways of dealing with the impact of dementia which is affecting rapidly growing numbers of people in our society. We must encourage substantial investment into ongoing and new research into the care and treatment of people with dementia to ensure improvements in their quality of life.”

Ron Sinclair

“With Alzheimer's you are slowly losing the person you knew and relied on. The grieving for that sets in early and waves of it can come with every fresh milestone of loss. But I found that if you could also see and feel what you are not losing it helps you to find a way through. Instead of relating to the person as someone who can't do this or that, you relate to them as somebody who is this and that and who you love and respect and value for those qualities.”

Sue Pieters-Hawke
German psychiatrist and pathologist Alois Alzheimer first describes Alzheimer’s disease in a 55 year-old woman who died with severe dementia. An autopsy of her brain revealed plaques and tangles - the hallmarks of Alzheimer’s disease, which are still central to our understanding of the disease today.

Researchers realise Alzheimer’s disease mainly affects older people, although it can affect younger adults too. Alzheimer’s disease is also recognised as a “disease” (not a normal part of ageing) after research reveals the link between decline in memory and thinking and the numbers of plaques and tangles in the brain.

Little progress is made as confusion remains over central issues. For decades it is mistakenly believed that Alzheimer’s disease is a disease of younger people, or just a normal part of the ageing process.

Alzheimer’s disease becomes increasingly recognised as an important public health issue after it is shown that Alzheimer’s accounts for most cases of dementia in older people. This factor, and the new discoveries about biochemical changes in Alzheimer’s affected brains, combine to fuel new scientific interest in the disease.

Projected prevalence of dementia in Australia

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Prevalence</th>
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<tr>
<td>2000</td>
<td>171,000 people</td>
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The first drug approved to treat Alzheimer’s symptoms becomes available in 1994 (Cognex™). This drug has since been replaced with 3 new “cholinesterase inhibitors”: Aricept™ (approved 1998), Exelon™ (2000) and Reminyl™ (2001). These drugs have been shown to lessen the symptoms of mild to moderate Alzheimer’s disease in some individuals for a time. In 2003, a new type of drug (an “NDMA receptor antagonist”) becomes available. Ebixa™ is approved to treat symptoms in moderate to severe Alzheimer’s disease.

State and Territory Alzheimer’s Associations are established in Australia in the early 1980s. Soon after, Alzheimer’s Australia becomes the national peak body representing people with dementia, their families and carers.

In the early nineties, scientists discover mutations in any one of three genes are responsible for younger onset, familial Alzheimer’s cases. Although the familial form of the disease is very rare, the discovery of these genes is an important breakthrough in understanding Alzheimer’s. In 1992, scientists identify a gene that increases the risk of late-onset Alzheimer’s disease, but does not directly cause it.

Research centres on the abnormal proteins implicated in Alzheimer’s disease: “amyloid” in plaques and “tau” in tangles. Australian scientist Professor Colin Masters and his team are among the first to isolate and characterize amyloid protein from the brains of people with Alzheimer’s disease in the mid-eighties.

Healthier Neuron

Aged Neuron

Research into Plaques and Tangles

The scope of the dementia epidemic is revealed. Australian Professor Anthony Jorm undertakes studies of the expected growth in numbers of people with dementia and the implications for health care. The basis is laid for identifying risk factors, including family history, high blood pressure, mental activity and exercise. Research indicates that what is good for the heart is good for the brain too.

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Research into Plaques and Tangles

Australian psychogeriatrician Professor Henry Brodaty and team present evidence that their well-designed carer intervention program significantly improves the quality of life of people with dementia, their families and carers, as well as delaying nursing home admission.

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Alzheimer’s Australia initiates the ‘Living With Memory Loss’ program, an innovative group program providing support, information and education for people with early-stage dementia, as well as their families and carers. This is an important advance for support group interventions, as it produces significant improvements in the mental health of people with early-stage dementia and their carers.

Alzheimer’s Australia launches ‘Mind your Mind®’, the first comprehensive community education program in Australia on how to reduce the risk of developing dementia. Based on scientific research, the program identifies lifestyle factors that have beneficial effects for brain and physical health.

The Australian Government makes dementia a National Health Priority. Over the next five years, $320 million will go towards research, better prevention, treatment and care, with $225 million of this money earmarked for more Extended Aged Care at Home places.

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New advances in imaging technology allow researchers better insight into the brain. A new compound is developed which allows amyloid plaques to be imaged using PET scans in the brains of living people.

People with dementia establish a worldwide voice through Dementia Advocacy and Support Network International (DASNI), including through Alzheimer’s Disease International (ADI). Australian author, Christine Bryden, a Founding Director of DASNI, is the first person with dementia to address a plenary session of the ADI annual conference. In 2003, Christine becomes the first person with dementia to be elected to the Board of ADI.

People with Dementia Speak Out

Our vision is a world where people with dementia can live as comfortably and independently as possible.

Aging population: 2000 - 466,000 2030 - 466,000 2040 - 619,000 2050 - 731,000

Imaging Advances

A new compound is developed which allows amyloid plaques to be imaged using PET scans in the brains of living people.
Towards a world without dementia there is no time to lose

It has been 100 years since Alzheimer’s disease was first described. However, only in the last 25 years has increased investment in research made possible progress towards better understanding Alzheimer’s disease and other forms of dementia. What happens next will depend on an even greater commitment to research and innovation.

Looking towards the future, here are some of the most promising research avenues...

Therapies to stop Alzheimer’s disease
A number of new therapies in development aim to neutralise the toxic effects of Alzheimer’s disease in the brain by targeting the plaques and tangles that accumulate in the brains of people with Alzheimer’s disease.

Aiming for Vaccination against Alzheimer’s disease
Another promising research area involves harnessing the body’s own immune system to attack Alzheimer’s disease, including through the development of a safe Alzheimer’s vaccine.

Other Treatment Strategies
Researchers are developing many other therapeutic approaches to targeting Alzheimer’s disease and other dementias, including promoting brain repair, targeting inflammation in the brain and gene therapy.

Finding Early Changes in the Brain
Sophisticated brain scanning techniques combined with tests of blood and brain fluid will help to understand changes in the disease process and promote earlier and more accurate diagnosis.

Developing Better Strategies for Dementia Prevention
Future research will provide improved understanding of dementia risk factors throughout people’s lives and better knowledge on how to prevent or delay dementia.

Improving Quality Dementia Care through Evidence
Evidence-based interventions will improve quality of life for people with dementia and their families, through improving care, service delivery and non-pharmacological approaches to management.

Tools for Accurate and Early Diagnosis
The development of better screening tools and memory tests as well as advances in the education and training of doctors and other health care workers will facilitate early intervention in the disease process.

Better Medications for the Treatment of Dementia Symptoms
Even as we await a true cure or preventative agent, we are developing better tolerated and more effective medications for the memory, behavioural and other symptoms of dementia.

Associate Professor Michael Woodward, Austin Health

If a cure is not found...
Commit to a world without dementia  Invest in dementia research

For future generations, an annual investment of $50 million in dementia research - or 1% of the annual cost of dementia - would be a small price to pay for the prospect of delaying the onset of dementia and dramatically reducing health care costs and improving quality of life. A greater corporate and community effort is needed to provide some assurance of hope for the future.

There is a small window of opportunity to find solutions to the dementia epidemic. By 2050, it is estimated that over 730,000 Australians will have dementia. Currently, there are more than 1,000 new cases of dementia each week in Australia. Worldwide, there is a new case of dementia every seven seconds.

I ask you to contribute to support dementia research through Alzheimer's Australia and increase the research capacity in Australia by providing annual grants and scholarships. A key priority is to fund young researchers.

Associate Professor Marc Budge,  
President of Alzheimer's Australia

About Dementia

Dementia is the term used to describe the symptoms of a large group of illnesses which cause a progressive decline in a person's functioning.

Alzheimer's disease is the most common cause of dementia and accounts for 50-70% of all cases. Other causes include vascular dementia, frontotemporal dementia and Lewy body dementia. At present, there is no cure.

Although most people with dementia are in the 65+ age group, younger people also develop dementia. People may live with dementia for many years. As it progresses, the person gradually loses the ability to perform even the simplest activities of daily living.

For more information about dementia contact
Alzheimer's Australia  
www.alzheimers.org.au
National Dementia Helpline 1800 100 500

Invest in our future – donate to dementia research

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PO Box 4019 Hawker ACT 2614
Credit card  
02 6254 4233

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