

GLOBAL HEALTH MELBOURNE PLAN

Taking Victoria's health strengths to the world

April 2014



CONTENTS

FOREWORD	4
EXECUTIVE SUMMARY	5
A HEALTHIER ECONOMY	7
A GLOBAL MARKET THAT'S GROWING	8
NEW OPPORTUNITIES FOR VICTORIA	12
Health system policy and design	13
Medical research	16
Health and medical conferences	17
Workforce training	18
Facility design, construction and management	22
Provision of medical services	24
Manufactured products and related IP	24
GLOBAL HEALTH MELBOURNE – A PLAN FOR VICTORIA	26
Action areas	29

FOREWORD

The world is currently facing unprecedented health challenges driven by ageing populations, rising costs, constrained budgets and growing consumer expectations. Developing nations in particular are seeking to deal with existing health issues and an increase in chronic diseases.

Victoria is very well placed to partner with other countries and economies in dealing with these challenges through developing innovative healthcare systems, services and products that provide quality care at affordable costs.

Victoria has comprehensive world-leading capabilities across the health and aged care spectrum based on our leadership in medical research, education and training, our outstanding healthcare providers and skilled health professionals, deep expertise in planning, constructing and managing health and aged care facilities, a thriving medical products industry and our globally renowned life sciences sector.

This *Global Health Melbourne Plan* aims to leverage these strengths as part of Victoria's increasing international engagement, generating new export and investment opportunities, diversifying our economy, adding value to our global relationships and securing our position as Australia's innovation capital, which in turn will improve our ability to develop and deliver high-quality health services for all Victorians.

We encourage all Victorian organisations working in the health and aged care sectors to explore the emerging global opportunities highlighted in this Plan and work together to deliver a healthier future for Victoria in every sense.

We acknowledge and thank the Hon Rob Knowles AO, the independent expert advisory committee he chairs, and Victoria's healthcare community for their advice which has helped shape this Plan and will continue to guide its implementation.



A handwritten signature in black ink, appearing to read 'Peter Ryan'.

Hon Peter Ryan MP
Deputy Premier
Minister for State Development



A handwritten signature in black ink, appearing to read 'David Davis'.

Hon David Davis MP
Minister for Health
Minister for Ageing

EXECUTIVE SUMMARY

Globally, the demand for health goods and services is growing fast, particularly in emerging economies with ageing populations and a growing middle-class with higher quality healthcare expectations. Other jurisdictions are recognising these emerging opportunities. The United Kingdom and Singapore for example, have international health strategies and initiatives that are generating significant benefits for their health sectors.

Victoria is a recognised international leader in the health sector, which includes patient treatment and care, aged care and senior living, medical research and life science industries and is home to a wide range of organisations that provide innovative health-related goods and services for global markets.

This *Global Health Melbourne Plan* (the Plan) provides a framework for leveraging our strengths globally by enhancing the export of health-related tradeable goods and services and inbound investment in our domestic health system. It has been developed in consultation with Victorian organisations already operating internationally and guided by an independent expert advisory committee. The Victorian Government's role in delivering the Plan is as a facilitator and coordinator while also ensuring Victoria's high health service standards are maintained at all times.

The Plan aims to:

- > Build a new concerted focus on identifying, developing and growing opportunities for the export of health industry goods and services and related investment to generate more economic growth and jobs in Victoria
- > Ensure the benefits and opportunities generated by a thriving health industry and services sector will drive improved health and aged care services for Victoria and enhance our national and international leadership in health and aged care

It is not about changing Victoria's existing public and private healthcare systems but about leveraging their capabilities in international markets, which in turn will strengthen the quality, availability and accessibility of health services for all Victorians through increased revenues, investment, skills and technology development.

The Plan focuses on seven key strengths with significant potential for global growth:

- > **Health system policy and design** – drawing on both public and private health expertise
- > **Medical research** – including clinical trials, contract research, registries/cohorts, research partnerships, and licensing of intellectual property
- > **Health and medical conferences** – based on our expertise in hosting major conferences and events
- > **Workforce training** – particularly health and aged care medical education and training for students and clinicians
- > **Facility design, construction and management** – from initial planning to daily operations
- > **Provision of medical services** – diagnostic, medical and clinical services to international patients both on- and off-shore
- > **Manufactured products and related IP** – based on our expertise in design, development and production of medical devices, digital/ICT health products and pharmaceuticals

These strengths are grouped by existing and potential capability within Victorian organisations and not necessarily centred on key market opportunities. For example, demand for aged care expertise involves many of the above strengths, including medical research, health system design and operations, workforce training, and facilities design, construction and management.



The Plan's actions are:

- > **Facilitating trade opportunities** for Victorian organisations by raising the international profile of Victoria's health capabilities, assisting with in-market access, building government-to-government relationships and using international Victorian Government Business Offices (VGBOs)
- > **Enabling collaborations and partnerships** by bringing together various parties across the health supply and value chains where appropriate
- > **Improving the operating environment** for Victorian organisations moving into global health markets by tackling regulatory and administrative barriers
- > **Growing investment** in Victoria by supporting organisations to make investment decisions, making local business conditions attractive to investors and using VGBOs to promote investment opportunities

In developing this Plan, the Victorian Government is not seeking to intervene in the market or direct the current focus or activities of either public or private enterprises. It recognises that many Victorian organisations are already well-advanced in their efforts to export health products world-wide and are best placed to determine the specific opportunities available to them globally, the target market share they can realistically hope to achieve and their capacity to grow and maintain their competitive advantage at an organisational level.

The Plan is based on industry advice and expertise and its development has been guided by an independent expert advisory committee, chaired by the Hon Rob Knowles AO. The committee members include Victorian health and business leaders in areas ranging from technology, research and development, public and private health services and aged care to international relationship building, infrastructure design and education and training, and they will continue to provide advice on implementation of the Plan.

A HEALTHIER ECONOMY



Increased international competition and a strong Australian dollar have placed considerable pressure on some of Victoria's major export industries. There is a need to diversify Victoria's export offerings and export markets not only to help generate new job opportunities, but also to reduce the economy's exposure to external factors. Diversifying will also deepen our ties with key markets and improve access to the information, skills, innovation and technologies that will drive future prosperity and meet our health needs.

Over the last decade, the Victorian economy has become more services-oriented, with services accounting for most of the State's employment and export growth. The largest increases in employment were in healthcare and social assistance (including aged care), professional, scientific and technical services and construction. Together, these industries accounted for 49 per cent of employment and export growth in Victoria.

Victoria's health and aged care system has a proud track record of serving local community needs while simultaneously exporting high-quality goods and services. The broader health-related sector also delivers very significant benefits, with the biotechnology and pharmaceutical sectors contributing more than \$1 billion a year to the Victorian economy, and employing over 10,000 people. Healthcare is also the largest employer in Victoria's regional cities which will also benefit from an expansion of international health business opportunities and related investment.

Growing Victoria's international health opportunities will strengthen the sector at home and generate additional benefits and opportunities for other Victorian industries such as education, manufacturing and tourism. Exporting companies are generally more productive than non-exporters, perform better financially and enjoy more market opportunities. In a study of UK companies, firms beginning to export gained a productivity uplift of 34 per cent and those that exported were 11.4 per cent more likely to thrive.

Increased international engagement in health and aged care has broader benefits. Building Victoria's position as a leading global exporter of health and aged care products has the potential to attract highly skilled researchers, doctors, nurses and allied health professionals and new health-related businesses, and drive innovation in our own health system.

A more robust, innovative health system with a strong international profile will also attract new investment in world-class facilities, production capacity, R&D and innovative processes and products. This will deliver better quality of life outcomes for Victorians and generate new job opportunities throughout health and aged care supply chains at home and abroad.

Many other developed economies such as the USA, Singapore, the UK and Europe and developing countries such as Thailand and India are already building up their health goods and services sectors. The *Global Health Melbourne Plan* provides the framework for us to build a stronger share of this growing global market.

A GLOBAL MARKET THAT'S GROWING

Major changes in global demographics that are driving the demand for health goods and services include:

- > Ageing populations – contributes to rising healthcare costs and higher burden of chronic disease management
- > Changing profile of disease burden – shift to non-communicable chronic diseases as a result of lifestyle changes
- > Increasing demand – consumer expectations of higher quality healthcare
- > Affordability – ability of both governments and individuals to pay
- > Increasing trade exposure – advances in travel and telecommunications resulting in governments and individuals seeking health expertise world-wide

Much of this change and demand is taking place in Asia, particularly in China, Indonesia, Malaysia, India, Japan, South Korea and Thailand. These seven nations have a combined population of around 3.1 billion people – nearly half the world's population and they account for around a quarter of the global economy. It is predicted that by 2050, they will account for 45 per cent of global GDP.

Victoria's economic prosperity is already closely linked to our economic, cultural and community relationships with regional neighbouring economies, both now and for the future. Chinese and Indian immigrants have been the largest and fastest growing sources of Victorian immigration over the last decade. Asian countries now account for two thirds of Victoria's goods exports and 80 per cent of Victoria's international student enrolments, and are the largest and still growing markets for Victoria's international tourism sector.

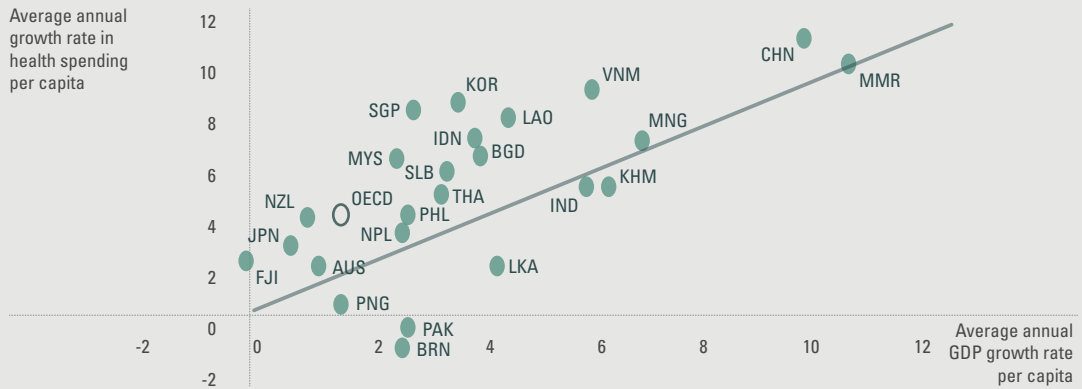
Our growing partnerships with the region's strongest economies means Victoria is well-placed to benefit from Asia's increasing demand for healthcare and health-related products. The recent Korea-Australia free trade agreement, similar agreements now being negotiated with China and Japan and the Trans-Pacific Partnership, have the potential to open up new health and aged care export and investment opportunities for Victoria.

The quality of Victoria's international relationships, whether at the government, business, institutional, community or personal level, will be critical to positioning us as a leading supplier of health goods and services to the region. Victoria must harness the connections and knowledge of our vibrant multicultural community, as well as knowledge from our organisations experienced in these markets, to navigate the cultural complexities and build enduring relationships in Asia.

Increasing global health spending

Global healthcare spending per head of population is projected to increase at a compound annual growth rate of 4.6 per cent. Healthcare spending per capita has been growing significantly over the last decade, particularly in emerging Asian economies. These economies have also had relatively strong GDP growth rates. As economies grow wealthier, governments and consumers tend to dedicate a greater proportion of their spending to health goods and services.

FIGURE 1: ANNUAL AVERAGE GROWTH RATE IN HEALTH SPENDING AND GDP PER CAPITA



Source: WHO Global Health Expenditure Database; IMF World Economic Outlook, April 2012.

AUS	Australia	BGD	Bangladesh	BRN	Brunei Darussalam	KHM	Cambodia
CHN	China	FJI	Fiji	IND	India	IDN	Indonesia
JPN	Japan	LAO	Lao	MYS	Malaysia	MNG	Mongolia
MMR	Myanmar	NPL	Nepal	NZL	New Zealand	PAK	Pakistan
PNG	Papua New Guinea	PHL	Philippines	KOR	Korea, Rep.	SGP	Singapore
SLB	Solomon Islands	LKA	Sri Lanka	THA	Thailand	VNM	Viet Nam
OECD	Organisation for Economic Co-operation and Development (OECD)						

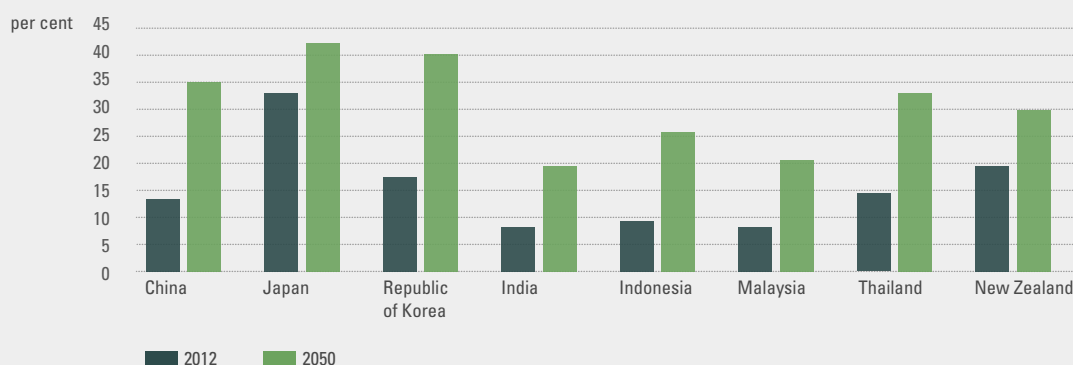
Ageing populations

There were approximately 810 million persons aged 60 years or over worldwide in 2012. Opportunities already exist to meet their current needs, for example, today nearly one-third of Japan's population is already 60 years or older.

There will be additional challenges as populations age across the globe – the number of people aged 60 years or over is projected to grow to more than two billion by 2050. At that point, older persons will outnumber the population of children (0-14 years) for the first time in human history.

In China alone, the number of people aged over 60 years will rise by over 250 million to nearly a quarter of the population by 2050. In India and Indonesia, the number of people aged over 60 will more than treble by 2050. Preparing for this shift and managing its evolution will require a huge effort – building and equipping thousands of new facilities (particularly aged care), training hundreds of thousands of health professionals and providing drugs and treatments to cope with tens of millions of new patients each year. Victoria has the capability to capture a valuable share of these vast new opportunities, to the great benefit of Victoria's own health system and its economy.

FIGURE 2: POPULATION AGED 60 YEARS OR OVER – PROPORTION OF TOTAL POPULATION (PERCENTAGE)



Source: United Nations Population Ageing and Development, September 2012.

Case Study – China

China's healthcare spending is projected to grow from \$357 billion in 2011 to \$1 trillion in 2020. Substantial growth in the healthcare sector is fuelled by demographic trends including continuing urbanisation, an increasing disease burden, healthy expansion of the overall economy and income growth. China's 12th five-year plan, approved by the National People's Congress of the Communist Party in March 2011, demonstrates China's continued intent to develop its health service and biomedical capacity.

China has been Victoria's largest goods export market since 2007-08, reaching \$3.8 billion in 2013. The maturity of Victoria's relationship with China is reflected by the five Victorian Government Business Offices located there, the largest number in any country. Since 1979, Victoria has had a sister-state relationship with the Jiangsu Province, one of the longest-standing sister relationships between the two countries. A key component of this relationship is the Victoria Jiangsu Joint Economic Committee, which provides a framework for discussing areas for cooperation and specific projects of interest.

China has been the target of three Super Trade Missions by the Victorian Government since 2011. These missions, which included organisations involved in the health sector, have been some of the largest trade missions ever undertaken to China from any source.

Case Study – India

India and Victoria's existing relationship is largely underpinned by skilled migration, tourism and international education. Victoria is home to the largest India-born community in Australia. Indian companies have invested approximately \$300 million in Victoria over the last ten years, resulting in more than 4,000 jobs. Melbourne is home to the headquarters of the Australia India Institute, a hub for dialogue, research and partnerships between India and Australia.

There is currently only a modest level of business engagement and exports outside of tourism and education, and therefore there is significant scope for future growth in health related fields, including training and research partnerships. The urbanisation trend in India means that US\$1 trillion in new infrastructure is required to meet this growth, which includes new hospitals and aged care facilities.

Given the global trends in healthcare and the breadth of established and emerging export opportunities, a focused industry policy approach to promoting and supporting Victoria's health sector has the potential to deliver significant benefits to the State. Victoria has placed great emphasis on developing its trade, investment and cultural relations with India. The Government has recently opened its second Indian business office, in Mumbai, and a Super Trade Mission to India in March 2014 was the third in three years.

Victorian university strengthens Australia's ties with Indonesia

Victoria's and Australia's largest university, Monash University, is the base for a new Australian initiative that will drive stronger business, cultural, educational, research and community links with Indonesia, including health-related areas.

The Australian Government has allocated \$15 million over four years starting in 2013-14 to set up a new Australian Centre for Indonesia Studies based at Monash University in Melbourne. The Centre is also supported by the Victorian Government and the private sector. It has nodes at the University of Melbourne, the Australian National University and CSIRO, Australia's national science and research agency.

The new Centre will promote a greater understanding of contemporary Indonesia and its growing importance to Australia, encouraging Australian research agencies, commercial companies and community organisations to increase their involvement with Indonesian counterparts. The success of Victoria's engagement with Asia's fast-growing economies will depend to a large extent on the quality of its international relationships in all areas of human endeavour.

The Centre will facilitate a higher level of bilateral collaboration in areas such as health and education, and support the establishment of a similar network of universities and research centres in Indonesia.

The Centre's strong Victorian base will help ensure that the state is well-placed to benefit from Indonesia's growing demand for goods and services in areas of particular Victorian expertise such as health and aged care.

Case Study – Indonesia

Indonesia is projected to become the world's seventh largest economy by 2030, with a services sector worth \$1 trillion. Indonesia has the highest GDP of all countries in the South East Asia region, but it also has the largest population and therefore a lower GDP per capita. The Indonesian Government's 2010-2014 National Health Strategic Plan has a baseline spend allocation of around \$17.5 billion to achieve objectives, such as increasing immunisation coverage and improving children's health.

The Government is introducing universal coverage of health insurance in 2014, and a legislative framework has been put in place that will require the upgrading of skills of some health professionals. According to the Ministry of Health, there are approximately 88,000 primary care physicians alone that will require training.

Victorian-educated alumni are prominent in Indonesian government and business and can be strong ambassadors for the State. Many of Victoria's leading hospitals and educational institutions are highly regarded in Indonesia. Victoria has also taken the step of reopening its business office in Jakarta, reflecting the value Victoria places on strengthening its relationship with Indonesia.

NEW OPPORTUNITIES FOR VICTORIA



Victoria's outstanding healthcare system, medical research leadership and successful life sciences industry provide an excellent base for a vibrant international health business sector focused on high-quality, value-added specialist goods and services rather than low-cost providers or mass manufacturing.

There are a broad range of new opportunities, including:

- > Producers of goods – medical devices and equipment, including health-related digital and ICT technologies, and pharmaceuticals
- > Health service providers – hospitals, specialised clinics, primary care, home care, long-term care and nursing homes and clinical services such as radiology and pathology
- > Suppliers of services – design and architectural services, construction and management of healthcare facilities; value-added service providers – legal, management and standards advisory
- > Higher learning and medical research organisations – universities, vocational training providers and research institutes
- > Event and hospitality management services – companies involved in health conference organisation and management and associated retail, food and beverage, accommodation and other tourism service providers

Many Victorian health-related organisations in these areas, both public and private, already do business overseas or are exploring opportunities to do so. These organisations, located both within the Melbourne metropolitan area and across regional Victoria, have considerable expertise and provide a range of high-quality health-related products across the supply chain. Many have the capacity to grow their export activity and related employment and attract increased investment into Victoria and the health sector.

Based on stakeholder advice and independent research, the Victorian Government has identified seven strengths within Victoria's health system as an initial focus for building strong exports activity.

They are:

- > Health system policy, design, funding and operations
- > Medical research
- > Health and medical conferences
- > Workforce training/education and professional development
- > Design, construction and management of health, aged care and senior living facilities
- > Provision of diagnostic, medical and clinical services to international patients, both on and off-shore
- > Manufactured products and associated intellectual property



Preliminary estimates based on available data suggest that exports in these key areas of strength are currently worth \$2.6 billion to Victoria's economy at the very least. Even at this level, this represents one of the highest contributors to Victoria's export performance behind only education and tourism. Therefore, even moderate growth in these activities has the potential to return significant value to Victoria.

Each sector has the potential to generate export revenue and attract new investment, with unique opportunities depending on the specific requirements of individual overseas target markets. Right now, each organisation within these sectors has the opportunity to consider whether its capabilities, partnerships and future plans will enable their organisation to gain and grow a sustainable international competitive advantage.

In some cases, Victorian organisations will do best by forming collaborations across the public and private sectors that offer an 'end-to-end' solution, such as partnerships between architects, construction and service operators or between medical research organisations, service providers, training centres and workforce planners.

Health system policy and design

The Victorian healthcare system is one of the world's top health systems in terms of life expectancy and survival rates for cancer and cardiovascular disease, and the State has a strong international reputation for health services expertise and quality care.

Victoria leads health-related reform in Australia. The Commonwealth Government adopted Victoria's healthcare governance structure and is rolling out Victoria's hospital funding model.

The State's health system has greatly benefitted from the state-wide networks and expertise of many of its key public health institutions. The Victorian State Trauma System (VSTS) facilitates the management and treatment of major trauma patients across Victoria and has resulted in improved patient outcomes and a system that has become one of the most well-regarded in the world.

Victoria has also developed a unique network of public hospitals and institutions, such as the Royal Victorian Eye and Ear Hospital and the Royal Women's and Children's Hospitals, that provide outstanding service across the State.



Australia-India collaboration to reduce trauma

New Australia-India collaborations will improve the care and management of people who are injured on roads and in workplaces in both countries.

Around the world, over five million people die each year as a result of road or workplace injuries. More than one in 10 of these deaths occur in India, with the health and social costs of road trauma alone estimated to cost India three to four per cent of its GDP. India is seeking Victorian assistance to reduce the rising toll.

Victoria is an international leader in the management of trauma, having one of the most successful integrated trauma systems in the world. The introduction of compulsory seatbelts helped to reduce road deaths from 1034 in 1969 to less than 250 now, and in the nine years since the Victorian State Trauma System was implemented in 2001, the probability of death following injury has halved.

The United Kingdom's National Health Service (NHS) recently modelled its National Trauma System for England on Victoria's system, and Victorian expertise has contributed to the design and implementation of trauma and emergency services through the Asia-Pacific region.

A new Memorandum of Understanding to support trauma system development in India has now been agreed between the Indian Ministry of Health and Family Welfare and the National Trauma Research Institute/Alfred Health in Melbourne.

Announced in November 2013, the agreement sets out a five-year relationship to tackle many aspects of injury treatment and prevention. Significantly, the Victorian relationship was preferred over proposals from other established international agencies.

In a separate but related initiative, an Australia-India Trauma Systems Collaboration (AITSC) was established in 2013 as a four-year research program to investigate the management of trauma victims from the first response by emergency services through to hospital procedures, rehabilitation and the collection of information to assist further system improvements.

AITSC brings together clinicians and researchers in Australia and India and is led by Monash University and the National Trauma Research Institute/Alfred Health in partnership with the Jai Prakash Narayan Apex Trauma Centre at the All India Institute of Medical Sciences in Delhi.



Academic Health Science Centres (AHSC)

Monash Partners Academic Health Science Centre and Melbourne Academic Health Research Centre were launched by the Victorian Government in 2013. These two new AHSCs are amongst the first of their type in Australia and will strengthen Victoria's leadership in health and medical research, science, education, innovation and clinical practice.

The Centres are based on establishing and growing collaboration between Victoria's leading public and private health care providers to drive innovative approaches to medical and health research, professional training, and patient care. Monash Partners brings together Alfred Health, Baker IDI Heart and Diabetes Institute, the Burnet Institute, Cabrini Health, Epworth HealthCare, Monash Health, Monash University and Prince Henry's Institute. The Melbourne Centre includes the Florey Institute of Neuroscience and Mental Health, Melbourne Health, Mercy Health, Murdoch Children's Research Institute, St Vincent's Hospital and the University of Melbourne. Cluster partnerships such as these foster innovation and more efficiently translate research into clinical practice. The Centres will also facilitate international partnerships and collaborations to ensure Victoria's expertise has global reach.

Victorian Health Promotion Foundation (VicHealth): a world leader in health promotion

VicHealth was the world's first health promotion foundation, created in 1987, and has since driven innovation in health promotion knowledge and practice. VicHealth has become a significant contributor to global knowledge about the social and economic determinants of mental and physical wellbeing, and has actively sought to share its expertise and contribute to the development of intellectual capital that will benefit not only Australia but the wider global community.

Amongst its recent leadership achievements VicHealth has provided:

- > direct mentoring for similar foundations established/establishing in other countries, assisting with support and advice on governance, research and program establishment, including its founding membership of the International Network of Health Promotion Foundations
- > ongoing technical advice, resourcing and training in health promotion to partners in the Asia Pacific region including New Zealand, Tonga, Fiji, Vietnam, Malaysia, Thailand, the Philippines, Indonesia and India
- > active engagement with the World Health Organization (WHO), including the WHO's ProLead (the health promotion leadership capacity development program), coediting publications and acting as expert advisor on panels and in emerging areas of interest



Medical research

Victoria's world-class medical research segment includes clinical trial capabilities, contract research, registries/cohorts, research partnerships and licensing of intellectual property.

Victoria is the undisputed leader in Australian medical research, capturing 40 per cent of government medical research funding.

Many of Melbourne's twelve health and medical research institutes are considered world leaders in their fields:

- > The Walter and Eliza Hall Institute is Australia's oldest and largest medical research institute
- > The Murdoch Children's Research Institute is the world's third-largest paediatric research institute
- > The Burnet Institute is Australia's largest virology and communicable diseases research institute

- > The Florey Institute of Neuroscience and Mental Health is the world's third-largest neuroscience institute
- > The Baker IDI Heart and Diabetes Institute is internationally renowned for diagnosis, prevention and treatment of diabetes and cardiovascular disease

In 2013, Melbourne was one of only three cities in the world to have two universities in the global top 30 medicine rankings – the University of Melbourne and Monash University.

Victoria also has expertise and a considerable offering in clinical trial-related services. Victoria's particular strengths include phase I trials (the first trials in human subjects), oncology and paediatrics, and large cohort studies, leveraging the State's innovative and high-quality reputation for its teaching and research hospitals and its ethnically diverse population for clinical trials.

Australian Imaging, Biomarker and Lifestyle Flagship Study of Ageing (AIBL)

Victoria has a strong track record of managing clinical and occupational registries, conducting all phases of clinical trials and running large, complex cohort studies on health. Large clinical studies require deep capabilities in clinical project design and management, patient recruitment, data collection and analysis. Victoria is an international leader in such studies, which provide the evidence base for interventions to prevent, detect and treat diseases and for planning effective and safe health services. The Australian Imaging, Biomarker and Lifestyle Flagship Study of Ageing (AIBL) is one example.

AIBL is one of the largest cohorts of healthy ageing and cognitive decline in the world, comprising more than 1100 subjects, all aged over 60 at recruitment. It aims to discover which biomarkers, cognitive characteristics, and health and lifestyle factors determine subsequent development of symptomatic Alzheimer's disease. Innovative biomarker and imaging technologies are utilised to study the natural history of Alzheimer's disease. AIBL is a collaboration between three Victorian organisations – Austin Health, the Florey Institute of Neuroscience and Mental Health and the National Ageing Research Institute – and Edith Cowan University and the CSIRO, Australia's national science and research organisation.

The quality and impact of the AIBL data are widely acclaimed. The Study has generated world-leading research findings including demonstrating significant changes in brain proteins and structure detected by novel imaging technologies in patients on the road to Alzheimer's disease many years before the onset of dementia. Such information is essential for the design and timing of therapeutic interventions against Alzheimer's disease. AIBL has also attracted over \$9 million in foreign investment to date to support projects that use AIBL data. This includes investment from major international pharmaceutical, radiochemical and medical imaging companies.

Health and medical conferences

The Melbourne Convention and Exhibition Centre (MCEC) is a state-of-the-art venue located in the heart of the city that hosts a wide range of conferences and events year round. It is the first '6 Star Green Star' environmentally-rated convention centre in the world and has won numerous awards. The attraction of business events to MCEC may be supported by the Victorian Government, which provides assistance and support to attract a range of international business events (including in the health sector). MCEC is a major asset in Victoria's ability to attract key conferences in the health and medical fields, which currently brings significant revenue to the State.

The Melbourne Convention Bureau (MCB) is a partnership between the Victorian State Government, the city of Melbourne and private enterprise. Its core function is

to identify and bid for the right for Melbourne to host conferences and other business events from around the world. MCB estimates that conference delegates spend more than double that of leisure tourists during their stay in Australia. Victoria will continue to seek to attract major health and medical events to the State. However, Victoria's position will be tested by renewed competition from Asian and domestic cities.

Conferences and events that are smaller in scale are also important to build linkages with other countries, improve medical practices and to consolidate Victoria's international reputation as a leader in specific health and medical fields. For example, in 2014 Victoria will host the International Congress of the World Federation of Haemophilia and the 23rd World Cancer Congress (UICC).

Major health events bring major benefits to Victoria

Victoria's ability to attract key conferences in the health and medical fields is expected to yield an economic contribution of around \$230 million from 16 health and medical conferences held over the 12 months up to December 2014.

Conferences already organised to take place over the next five years could bring in a further \$334 million, with more events being confirmed every year.

Such international events attract many thousands of delegates. The 22nd World Diabetes Congress organised by Diabetes Australia and the International Diabetes Federation brought over 10,300 delegates from 140 countries to Melbourne in early December 2013. The 20th International AIDS Conference is expected to bring 14,000 delegates to Melbourne in July 2014. AIDS 2014 will be the largest health conference to be held in Australia and is the single most widely covered health event in the world. The Pharmaceutical Sciences World Congress in April 2014 and the World Congress of Cardiology in May 2014 are collectively expected to attract a further 10,000 delegates.

Victoria is a popular destination for conference delegates due to the quality of the facilities and first class event management, and also the outstanding tourism and lifestyle attractions the State has to offer.

Holding conferences in Victoria provides other important benefits, particularly to the state's health and medical sector. It projects Victoria and Melbourne to the world, including showcasing the quality and capability of the State's health system, research, education, industry and other sectors. These benefits include numerous opportunities for local specialists and students to learn from overseas experts and develop or extend their professional networks, strengthening Victoria's expertise and potentially leading to future partnerships with mutually beneficial outcomes. Additional benefits accrue when overseas clinicians and other specialists arrange to spend time in local hospitals and teaching organisations before or after their conference commitments, which is often the case.

Victorian Government support for health and medical conferences and the conference facilities that hold such events will help the state to maintain its attractiveness as a venue, despite increasing competition from other Australian and overseas venues.

Workforce training

Victoria has significant expertise in providing medical education and training to students and clinicians in Victoria and overseas. International education is Victoria's largest single export industry. In 2012, the export value of Victoria's international education sector from students studying onshore on a student visa was \$4.365 billion. Victoria had around 5,500 international students enrolled in health-related training in 2011-12.

There are strong links between economic growth and demand for education. As global demand for medical training and education increases, the State is well placed to be a leader in the Asia-Pacific region.

Victoria's capabilities can be leveraged to improve and expand the offering of training and education programs to international participants both here and abroad, particularly those with postgraduate qualifications; packaged offerings (including language classes and workplace placements); training in meeting standards and introducing accreditation.



Asia-Australia Mental Health (AAMH) delivering programs across Asia-Pacific

Asia-Australia Mental Health (AAMH) is a consortium of St Vincent's Mental Health, the University of Melbourne's Department of Psychiatry and Asialink. Established in 2003, AAMH partners with leading local and international organisations to develop culturally and context appropriate solutions to the growing global epidemic of mental illness.

AAMH supports large national mental health service reform programs in China, India, Japan, and the Pacific, with emerging programs in Indonesia and the Sub-Mekong region. In collaboration with regional partners in 18 Asia Pacific countries, AAMH delivers customised training programs, policy advice, leadership development and mentoring programs.

For example in China, AAMH has been the principal international partner in the development of the "686" program, China's national community mental health program. By 2011, the "686" program covered 680 districts in 161 cities/provinces and a population of 330 million, the world's most extensive mental health reform program to date.

A global first, AAMH has led the establishment of the joint Melbourne-Peking Centre for Psychiatric Training and Research. A partnership with long standing partner, the Peking University Institute of Mental Health, the Centre will jointly train outstanding PhD students, build research capacity and collaborate on cutting edge research projects.

In India, AAMH is partnering with the Ministry of Health and Family Welfare to develop and document local models of community mental health service in pilot sites across four Indian States. The models, which could be scaled up nationally, are trialling services for remote tribal peoples, farming communities and the growing urban middle class.



Victorian education expertise benefits healthcare in China

Monash University is one of the growing number of Victorian research and education providers that are actively engaging with the health and aged care sectors in important regional partner countries such as China.

The Shenzhen-Monash Cooperation Agreement delivers Monash training and research collaboration to Shenzhen health professionals and hospitals. To date, 1000 Chinese health professionals have been trained by Monash in China, and 150 have visited Australia for leadership programs.

In another initiative with China, the Happy Life Club, doctors and nurses 'coach' patients to help them better manage chronic diseases such as diabetes and heart health. The Happy Life Club is a partnership between the Fengtai District Government, Beijing Government, Peking University and Monash.

Through the Monash China Health program, Monash partnerships with senior Chinese health services researchers have delivered almost 200 presentations at international conferences in China, and journal articles in Chinese peer-reviewed periodicals.

Monash University's health and aged care research and training partnerships with China exemplify the mutually beneficial outcomes to be gained from making Victoria's longstanding expertise in these areas available to Australia's regional neighbours.



New aged care facility in Jiangsu Province (RDNS and Zhongshan College).

Aged care opportunities in China

Victorian expertise in nursing and aged care is helping to improve the quality of the aged care services available to China's rapidly ageing population.

Royal District Nursing Service (RDNS) and Zhongshan College in Victoria's sister state Jiangsu Province will establish a new joint venture company to facilitate the introduction and adaptation of best-practice aged care models into China.

The joint venture partners will develop and operate an aged care facility to provide 1500 care places, a 400-bed hospital, and education and training services. It will conduct research and develop quality standards, models of care, clinical pathways and operational management systems.

Around 220 million of China's estimated 1.34 billion people are over 65, and the number is expected to double in the next 20 years. Factors behind this huge increase include a doubling in life expectancy from as low as 36 years in 1960. China's one-child policy typically means each child is socially responsible for four grandparents and two parents, an issue sometimes referred to as the '4-2-1' problem.

In response, the Chinese Government has identified ageing as one of its top priorities, relaxed the one-child policy, and offered tax concessions to encourage private industry to develop initiatives that help address the problem.

RDNS Chief Executive Officer Steve Muggleton says the decision to work with China is closely aligned with the RDNS mission "to make a positive contribution to improving the quality of life of a large number of people". The organisation's research, education and care delivery systems are readily transferable to the Chinese environment, and the project with Zhongshan College could serve as a template for other facilities in China and Asia. There is also potential to develop and trial innovative new models of care in China that could be deployed in Australia.

The partnership between RDNS and Zhongshan College was fostered by the Victorian Government, which introduced the two organisations during its 2012 trade mission to China. Steve Muggleton says the Victorian Government's advice on business protocols and how to do business in China "helped RDNS to navigate many of the landmines that can tarnish or spoil early meetings with potential partners". RDNS also benefitted from the active involvement of its chairman, Paul Montgomery, which gave "greater respect and credibility to our commitment to the venture and shortened the time taken to get to market".



Artist's impression of the Victorian Comprehensive Cancer Centre

Facility design, construction and management

Another area of strength for Victoria is in the architectural design, construction and operational management of healthcare facilities, and facilitating the coordination of packaged 'end-to-end' solutions to offer international customers.

Victorian companies deliver comprehensive services spanning:

- > Pre-construction feasibility studies, master planning, architecture and interior design
- > Construction management, transport and logistics, contract management in operation and greenfield environments
- > Fit-out and refurbishment
- > Facilities planning and management

Victoria has particular expertise in providing solutions for aged care and senior living; from the planning, design and delivery of health services, to training courses specifically tailored for aged care service providers.

Victoria is also a national leader in the design and delivery of health facilities through Public Private Partnerships. The Partnerships Victoria policy provides the framework for a whole of government approach to the provision of public infrastructure and related ancillary services through Public Private Partnerships. The policy focuses on whole-of-life costing and optimal risk allocation between the public and private sectors.

There have been a total of 23 Partnerships Victoria projects contracted which are worth around \$11.7 billion in capital investment. This includes, for example, Melbourne's \$1 billion Royal Children's Hospital, which features cutting-edge design and advanced medical, research and educational technologies; and the Victorian Comprehensive Cancer Centre (VCCC), a \$1 billion cancer research, treatment, care and education facility in inner Melbourne which will enhance the translation of research discoveries into new treatments.

The VCCC also demonstrates the outstanding results that can be achieved through international partnerships in developing world leading facilities and services.



Bendigo Hospital Project

The \$630 million Bendigo Hospital Project will be the largest regional hospital development in Victoria and one of the largest hospital projects across Australia.

It will generate more than 770 construction industry and supply chain jobs, with at least 300 jobs maintained for a minimum of three years during the peak construction period for the hospital.

The new hospital will provide state of the art facilities, enabling Bendigo Health to deliver improved patient care according to recognised best practice, develop a skilled health workforce for the future, improve operational efficiency and provide for the health needs of a growing regional population.

The new facilities will include:

- > A regional integrated cancer centre, including radiotherapy bunkers
- > Acute inpatient and same-day beds
- > Ten operating theatres
- > An 80-bed, integrated mental health facility including an adult psychiatric unit, an aged psychiatric unit, a secure extended care unit and a mother-baby service specialising in care for post-natal depression and related conditions
- > Expanded research and education facilities with the information technology component able to support the teaching and training role
- > A helipad built on top of a multi-storey car park, connected by a bridge link to the main hospital
- > The flexibility to adapt and expand to meet future demands and ensure a sustainable health service into the future

Construction commenced in 2013 and is expected to be completed in 2016. The project is being delivered as a Public Private Partnership under the Partnerships Victoria policy, ensuring the best value for money.



Provision of medical services

Development of this segment can contribute to the growth of the public and private health services sector by delivering an additional revenue stream outside of Victorian patient care and research. This will support increased service delivery and enable the purchase of the latest health technologies, such as new MRI scanners and genetic testing equipment that will benefit all Victorians.

A sub-segment within this, sometimes referred to as “medical tourism”, relates to the provision of medical services to fee-paying international patients, separate to meeting service commitments to Victorian patients. Primarily involving private providers, provision of these services has the potential to expand the health services market and use existing capability and expertise to provide increased throughput and revenue for healthcare providers, with spill-overs to other important sectors of the Victorian economy such as tourism and hospitality. For example, organisations such as the Epworth are actively expanding in order to meet international demand.

Where existing service targets are being met, public organisations may also choose to pursue these international opportunities, particularly in areas of specialised surgical and medical capability, which international health visitors may not have access to in their home countries.

Greater involvement in the provision of these international services also has the potential to expose health professionals and the organisations they work for in Victoria to the latest developments in medical practice and techniques, while opening up and growing partnerships with health specialists and leading organisations overseas. These partnerships have the potential to raise the standard of health and medical services to Victorians into the future.

Manufactured products and related IP

Victoria is home to one of the world’s top biotechnology clusters, generating over \$1 billion of export revenue per annum. Victoria hosts close to half of Australia’s listed life sciences companies, including CSL Ltd, one of the world’s top five biopharmaceutical companies by revenue.

There is further capacity to grow Victoria’s international exports of medical devices, scientific equipment, pharmaceuticals and digital health/ICT products. This includes leveraging expertise in design consultancy and high-tech contract development for international clients, as well as encouraging collaboration to improve domestic procurement and market access information.



Telehealth benefits across the State

Victoria has well established expertise in developing software or telehealth solutions for the clinical and aged care sector. These technologies enable better access to health providers and information, resulting in improved outcomes for patients and keeping people happy and comfortable in their own homes for longer. This makes these initiatives particularly important for the elderly and those living in regional Victoria.

Companies such as Telstra and Polycom are working with the Florey Institute of Neuroscience and Mental Health and partners to deliver a new telemedicine service to rapidly diagnose and treat patients with acute stroke symptoms. The service is being rolled out in emergency departments of four hospitals in the Loddon-Mallee region of Victoria. It will allow specialists based in Melbourne to rapidly view and assess complex brain imaging results of regional patients suffering from a stroke, leading to faster treatment.

Health information technology providers such as Attend Anywhere, Tunstall Healthcare, Riskman and SmartHealth Solutions are working with Monash University and partners to provide a new health service for Victorians living with cystic fibrosis. The project is delivering a package of technologies, together with shared electronic health records, for patients across Victoria including those in Bendigo, Ballarat and Warrnambool. For Victorians living with chronic conditions, such as cystic fibrosis, this technology is enabling remote health monitoring and delivering more services online.

Similarly, companies such as Tunstall Healthcare and Telstra are working with the Loddon Mallee Rural Health Alliance to enable in-home management of complex health conditions, pre/post-surgical monitoring and improved monitoring of residents in aged care facilities. The project will enable clinicians and care teams to work with individuals in their home or aged care residence to monitor vital signs, manage conditions and engage appropriately in guided self-care.

Victorian companies like iCareHealth are providing a range of integrated aged-care software products world-wide to assist community and residential care providers to improve productivity, enhance the management and outcomes of care delivery, and reduce compliance risks through integrated software to streamline care and medication. The UK is already an established market for the company, but there is increasing demand for technologies enabling at-home care, and therefore further growth is anticipated, including in Asian markets.

GLOBAL HEALTH MELBOURNE – A PLAN FOR VICTORIA

This *Global Health Melbourne Plan* will enable Victoria to capitalise on opportunities presented by a sustained growth in global spending on health and aged care goods and services and help to overcome challenges that could limit engagement with influential economic partners.

This will involve expanding international demand for Victorian health products, improving the capabilities and competitiveness of Victorian organisations in the health supply chain, encouraging greater investment and improving the sustainability of the State's health system.

The Plan takes into account the Victorian health system's strengths and the areas of competitive advantage that align with identified international healthcare needs, particularly those of key Asian economies.

The Victorian Government's role in the Plan will be facilitating, promoting and coordinating the State's strengths across the public and private sectors.

Government support for specific segments will be phased, concentrated on immediate areas of best economic return and reflect the maturity of each area's market offerings and its composition in terms of public versus private ownership and company size.

Removing barriers

Consultation with Victorian organisations has identified several barriers or issues that are limiting their ability to grow exports. Key barriers include:

- > **Lack of understanding of emerging markets and how to access these** – including any gaps that may exist in a firm's understanding of the competitive environment of emerging markets. Other issues may include limited access to key decision-makers in some export markets or those that would facilitate market entry, and in some cases, a lack of understanding of supply chains leading to difficulties in identifying pathways to market entry.
- > **Inadequate healthcare brand visibility** – including a lack of consistent branding or messaging around Victoria's offering or of internationally publicised success stories that support the quality of Victoria's healthcare services compared to other potential suppliers.
- > **Lack of scale and structures (groups, links or networks) within the sector** – this makes it difficult for a single organisation or a small number of organisations to engage and deliver to international clients and markets for health goods and services. Measures to improve coordination and collaboration across the health industry value chain would strengthen Victoria's value proposition.



- > **Administrative and regulatory barriers that may deter export-oriented activity** – there is scope to improve the Victorian authorising environment that supports some organisations, such as public hospitals, in the international health services market. In addition, there are issues that make Australian and Victorian market penetration difficult – such as product registration/reimbursement inequities and barriers to local procurement. These can make it difficult for businesses to demonstrate local market share.

Prioritising markets

In implementing policy actions, the Victorian Government will adopt a targeted approach to supporting Victorian businesses and institutions across both the public and private sectors. There are significant regional market differences within countries and Victoria's economy and population are comparatively small in a global context. It makes sense for Victoria to focus its engagement on specific provinces and cities rather than taking a broad, 'whole of country' approach. This will require strengthening ties with established partners, as well as cultivating new relationships.

As previously outlined, this Government recognises opportunities and challenges presented by growing markets in Asia. The Victorian Government's *International Engagement Strategy 2012*, including *Engaging China – Strengthening Victoria, Victoria and India: From Engagement to Partnership*, and *South East Asia Market Engagement Plan*, will be leveraged to forge new relationships in health and strengthen existing ones.

The following criteria are taken into account when prioritising geographic targets:

- > Where and what industry is already exporting in the healthcare domain, and where industry has explicitly expressed desire for Government action
- > Existing Government strategic international relationships and partnership/links programs (both State and Commonwealth)
- > Existing trade relationships and evidence of trade
- > Ability to pay to access Victoria's high-quality healthcare offering
- > Current population and population growth forecasts and demand for new goods and services
- > Ability to invest in Victoria's health system to raise health services and export capability



GLOBAL HEALTH MELBOURNE PLAN

Taking Victoria's health strengths to the world

Action area one: Facilitating trade opportunities

- > Developing awareness of Victoria's quality healthcare brand
- > Establishing and maintaining government-to-government relationships in key markets
- > Using international Victorian Government Business Offices (VGBOs) to improve access to markets
- > Providing information to assist Victorian businesses to take up opportunities
- > Making better use of existing networks such as education and medical alumni to create opportunities for trade and promotion

Action area two: Enabling collaborations and partnerships

- > Improving international access to Victoria's health and aged care capabilities
- > Supporting Victorian organisations to gain greater market share by connecting trade offerings of their services and products
- > Providing networking opportunities and forums to build understanding of overseas markets and make connections between related firms

Action area three: Improving the operating environment

- > Working with Commonwealth counterparts to make the operating environment for exporters as favourable as possible at home and overseas
- > Enhancing access to local health services markets
- > Supporting the use of technologies that improve business practice and health service delivery

Action area four: Growing investment

- > Supporting companies in making location and investment decisions
- > Making local business investment conditions attractive for those ready to invest in Victoria
- > Using VGBOs to promote investment opportunities in Victoria

Health system
policy and
design

Medical
research

Health and
medical
conferences

Workforce
training

Facility design,
construction
and
management

Provision
of medical
services

Manufactured
products and
related IP

Action areas

To address the challenges identified by the sector and to enable Victorian organisations to achieve their export priorities, targeted policy actions are required. The *Global Health Melbourne Plan* will focus on four action areas.

Action area one: Facilitating trade opportunities for Victorian organisations

This action area is designed to help address the barriers identified by stakeholders in accessing emerging markets.

The Victorian Government can play an important role in increasing trade opportunities through opening doors and establishing and promoting the State's health goods and services.

The Government will assist through a range of activities including:

- > Developing brand awareness to increase the international profile of Melbourne's and Victoria's health and aged care capabilities, including developing clear messaging and differentiation of Victoria's value proposition in international markets
- > Establishing and maintaining government-to-government relationships in key markets, from central governments down to provincial and city levels
- > Using Victorian Government Business Offices (VGBOs) to ensure Victorian organisations have access to relevant information on health opportunities within markets of interest and are best placed to develop their own relationships and progress trade deals

- > Undertaking on-going in-market research in regions of interest to assist Victorian businesses in navigating the opportunities and potential pitfalls
- > Making better use of existing networks in overseas markets such as education and medical alumni and social media to create opportunities for trade and promote the Victoria and Melbourne brands in key markets

Refer to page 31 for the location of the international VGBOs.

Action area two: Enabling collaborations and partnerships

This action area is focused on bringing together various parties across the full health supply and/or value chains, to enable these groups to more effectively pursue export opportunities. By collectively pursuing opportunities, the limited scale issue can be addressed, providing international partners with more comprehensive solutions.

The Government will assist through activities including:

- > Improving international access to Victoria's health and aged care capabilities, including through creating a web-based single access point for international customers
- > Supporting cooperation between Victorian firms and organisations to develop packaged trade offerings of their services and products
- > Providing networking opportunities and forums to build local understanding of overseas markets, make connections between related firms and learn from the experiences of others



Action area three: Improving the operating environment for Victorian organisations

This action area will address various trade-related regulatory and administrative barriers that stakeholders across the health system are experiencing, including visa processes for medical treatment and students, and domestic procurement processes for medical devices and pharmaceuticals.

The Victorian Government will improve the environment for Victorian firms by:

- > Working with its Commonwealth counterparts to make the operating environment for exporters as favourable as possible at home and overseas
- > Enhancing access to local health services markets
- > Supporting the adoption and use of technologies that help drive reform in business practice and health service delivery

Action area four: Growing investment in Victoria

This action area will encourage investment in Victorian health businesses and infrastructure. Investments into the State, either from existing domestic businesses seeking to expand or from international firms looking for an Australian presence, provide a significant opportunity to create new jobs and new exports.

The Victorian Government will enhance investment through:

- > Supporting companies in making location and investment decisions
- > Making local business investment conditions attractive for those ready to invest in Victoria
- > Using VGBOs to promote investment opportunities in Victoria

For more information

Over the next year, the Government will continue to work with the independent expert advisory committee and other stakeholders to deliver actions. For updated information, please visit vic.gov.au/globalhealthmelbourne

LOCATION OF INTERNATIONAL VICTORIAN GOVERNMENT BUSINESS OFFICES

