



H20 INTERNATIONAL
HEALTH SUMMIT

13 & 14 November 2014 • Melbourne

HEALTHY PEOPLE
SUCCESSFUL ECONOMY

PRESENTED BY



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H2O International Health Summit

Healthy People - Successful Economy

Report of Proceedings

Hotel Windsor
Melbourne, Australia

13 & 14 November 2014

World Medical Association
Australian Medical Association
AMA Victoria

INTRODUCTION



H2O delegates on the steps of the Parliament House of Victoria (photo - AMA Victoria)



The inaugural H2O International Health Summit (H2O) was held on 13 and 14 November 2014 at the Hotel Windsor in Melbourne. It was initiated and co-hosted by the World Medical Association (WMA), the Australian Medical Association and AMA Victoria.

The Summit welcomed health professionals, academics and thought leaders to discuss a wide range of health and related social issues on the eve of the G20 Leaders' Summit in Brisbane.

Health is the foundation of economic growth, yet has been omitted from the global G20 agenda.

While the Brisbane G20 Summit pursued goals of economic stability and growth, the H2O emphasised the economic, social and personal importance of public health and health investment. It argued that economics and health are not discrete, clearly bounded domains, but are intimately connected and dependent on each other for success. Poor health reduces economic productivity, increases social costs and affects individual quality of life. Adequate investment in health is therefore a pre-requisite of national and global economic success.

The H2O agenda, led by Australian and international speakers, revolved around four major topics:

- 1. Health as a wise investment**
- 2. The burden of non-communicable diseases (NCDs)**
- 3. Social determinants of health**
- 4. Health effects of climate change**

The Summit challenged the common assumption that health spending in Australia is unduly high or unsustainable. However, given rising public expectations and ongoing fiscal constraints, health systems must explore more effective ways to collaborate and target resources to prevent illness and deliver better health outcomes for all. New funding models should reward outcomes rather than activities, while modern data collection and analysis should generate insights into population health dynamics. A health system focused on patients and outcomes, rather than suppliers and processes, offers exciting opportunities for the future.

Recommendations of the H2O Summit were summarised in a communique issued to the G20 leaders to underline the case for investing in health as 'the greatest social capital'. The communique called for a global effort across sectors to tackle the world's most pressing health challenges through a renewed focus on preventative care, holistic government policy and the social determinants of health.

The H2O was sponsored by the Victorian Government, Avant Mutual Group, BOQ Specialist, CSL, Global Health, MDA National, Medibank Private, Melbourne Pathology, NAB Health, Telstra Health and TressCox Lawyers.

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At the H2O Summit (photo collage - AMA Victoria)



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EXECUTIVE SUMMARY

- **Health is the Foundation of Economic Growth**

Health should be included in the G20 global agenda. Political leaders must acknowledge that “health is the greatest social capital a nation can have”¹ and a major determinant in social and economic success. Investment in public health and access to quality health care are core strategies to a fair, just and productive economy, and nations must approach global health issues together.

- **Health in Victoria**

Victoria enjoys high standards of service, although issues of poor Indigenous health remain. Commercial opportunities and improved health outcomes are generated by the State’s world-class research institutions and their professional and academic partnerships. Victoria has also invested in improving the health of refugees in recent years. Moving forward, the funding responsibilities between federal and state governments should be clarified, primary and preventative care improved and the flow of patient information facilitated by modern technology. Victoria has a strong record of public health promotion and its *Healthy Together Victoria* programme is encouraging positive lifestyles in schools and communities around the State.

- **Health as a Wise Investment**

Public health spending should be reframed as a wise investment in economic growth and social equity. Australia’s health spending remains marginally below the Organisation for Economic Co-operation and Development (OECD) average, and its health system, although complex, is held in high regard. However, an ageing population, growing patient expectations and technological developments are increasing budget pressure, and more efficient pathways must be sought. The USA has worse outcomes than other OECD nations despite spending significantly more, for example, and debate should focus on the quality and effectiveness of budget allocations, rather than obsess about aggregate figures or the number of hospital beds. Governments must acknowledge and address the social determinants of health in the nation as a whole, as well as indigenous communities. The Australian Medical Association (AMA) supports universal access to affordable health care and will continue defending Australia’s current health system. The ‘creative dissatisfaction’ of health professionals should be harnessed through meaningful consultation with policy makers to produce broadly supported reforms.



- **Health Research**

Every \$1 invested in Australian health research generates \$2.17 in health benefits and commercial returns. Research has produced breakthroughs in global health, not least in the fight against acquired immune deficiency syndrome (AIDS). Research aggregates a range of basic, clinical, social and operational approaches and, alongside better public health provision, will help combat new infectious threats spreading through global connections. Investment in multidisciplinary medical research and effective partnerships should remain a spending priority, with the bionic eye exemplifying what it can achieve.

- **Value-Based Health Care**

Measuring and reporting patient outcomes to the individual physicians responsible presents a powerful tool to improve personal, and therefore national, medical performance. While discussions of cost immediately divide funders and services down predictable and intractable lines, a focus on outcomes aligns the interests of all stakeholders. The standardisation of outcome measurement builds evidence to support long-term planning and enables international comparisons and the adoption of best practice.

- **Global Health and Investment**

Economic growth has improved global health, and countries such as China have made significant strides, although spending in South Africa has been less effective. Corruption and maladministration must also be acknowledged and tackled around the world to maximise budget outcomes. Australian aid strengthens health services in the Asia-Pacific region to improve health, growth and stability. The Red Cross faces increasing violence and harassment in its work in conflict zones, and the security of health workers and facilities must be strengthened for its mission to succeed. World leaders must prioritise 'the health perspective', preserve the health of the planet as well as its inhabitants, and address the underlying social determinants of health.

- **Australian Support for Regional Health Services**

The Australian Government's aid program promotes Australian interests by encouraging sustainable economic growth to reduce poverty in the Indo-Pacific. A stress on accountability and outcomes strengthens its effectiveness. Australia also provides assistance to Africa and elsewhere and has pledged \$42 to international efforts against Ebola. The Government integrated AusAID and the Department of Foreign Affairs and Trade (DFAT) in 2013, aligning the aid and diplomatic arms of Australia's international policy agenda. Australian aid includes goods.

and services such as building health clinics and immunising children, strengthening local services, including health care, and encouraging policy dialogue and reform. It works with government partners, funds non-government organisations (NGOs) and contributes to international agencies.

- **The Social Determinants of Health**

Health outcomes are significantly affected by wider social factors, including early childhood development, income inequality, social stratification, workplace and domestic stress, social exclusion and discrimination, unemployment, community networks, substance abuse and the affordability of good food, housing and transportation. A sustained bi-partisan effort to improve public health must produce long-term investment in education, training, public transport and other infrastructure, instead of ‘micro-shuffling’ health administration. Collaboration between government departments is vital as synergies from transport, housing, utilities and education can significantly improve – or degrade – public health.

- **Health Care Reform**

Given rising demand and economic strictures, health providers must embrace the technological and organisational innovations transforming other commercial sectors to deliver better patient outcomes at lower cost. Consideration of horizontal connections, rather than in-depth analysis of isolated components, will offer many opportunities for change. Health must learn from modern commerce and offer personalised, customised services responsive to individual needs in a new world of technologically driven communication, competition and choice.

- **Health IT**

The collection and analysis of Big Data will improve service planning, and individual delivery while imbedded and wearable devices will help individuals achieve ‘the quantified self’. Supply-driven systems based on procedures, hospitalisations and clinicians will evolve into e-enabled platforms, organised around the patient experience, which prize value and outcomes, drive down costs and improve safety and accountability. IT solutions should be designed and implemented in consultation with the clinicians who will use them to ensure their support and exploit the power, convenience and ubiquity of smartphones and mobile devices.



- **Non-Communicable Diseases (NCDs)**

Non-communicable diseases, including cardiovascular complaints, cancers, chronic respiratory failure and diabetes cause over 60% of global mortality. The NCD epidemic threatens service sustainability and population health in Australia and around the world. NCDs can be caused or exacerbated by tobacco, physical inactivity, alcohol misuse and unhealthy diets, but rather than blame patients for lifestyle choices, attention must be given to the social determinants which drive them. Greater emphasis on primary care and health literacy will reduce the incidence of diabetes, hypertension and other problems, while structured care plans and clinician teamwork will reduce avoidable admissions to hospital. Action against smoking has been effective, and disinvestment in tobacco shares by Australia's superfunds should be pursued.

- **Mental Health**

No condition is as prevalent, persistent or has the range of personal and social impacts as mental illness. Early interventions and effective treatment must be complemented by policies to address social inequality and other exacerbating factors. Improved professional training and both universal and targeted interventions should be delivered through a sustained and coordinated cross-government approach in partnership with NGOs and communities.

- **Successful Ageing and Dementia**

The pursuit of 'successful ageing' could increase the quality of life and sustain the workforce productivity of Australia's ageing population while reducing disability and hospital expenses. Dementia is an increasing issue, but its incidence can be reduced through better health in youth and middle age, while the experience of sufferers can be eased by better care and more community understanding. Dementia is not an inevitable part of ageing, and research into its causes and treatment must be pursued.

- **Health and Climate Change**

Human health and modern society rely on a stable climate and biologically diverse environment. Clinicians should therefore use their expertise and the respect in which they are held to urge prompt and decisive international action to reduce carbon emissions and limit the extent and impact of climate change. Australia and other nations can maintain economic growth while 'decarbonising' their economies through the electrification of transport, greater energy efficiency, the replacement of coal with renewable sources and reforestation. Enlightened urban planning can also reduce heat stress and encourage physical activity, improving the state of both the planet and its ever growing population.

KEY RECOMMENDATIONS

1. Government should acknowledge health spending as a wise investment in future economic growth and social equity.
2. Health care systems should be organised around the patient experience, prioritise outcomes rather than activities, drive down costs and improve quality and safety. New consumer-centric health services should deliver equity, choice, autonomy, confidentiality and the local provision of services, as well as the highest standards of care.
3. Decision makers should put a greater emphasis on primary and preventative care to limit the incidence and severity of chronic disease and reduce acute admissions and hospital expenses.
4. Health care systems should pursue excellence and effectiveness, as well as efficiencies. There should be clear funding responsibilities to avoid duplication of services and minimise unmet need.
5. All government policies should consider their impact on health and coordinate to support public health. Cross-departmental action on the social determinants of health, from income inequality to poor housing and transport, will improve the health and social outcomes for disadvantaged citizens and social groups.
6. Health literacy should be promoted to empower citizen lifestyle choices regarding diet, exercise, smoking, alcohol and related issues. Public health campaigns should broaden their scope and magnify their impact.
7. Action must be taken to improve the prevention and treatment of non-communicable diseases through improving the social determinants of health for disadvantaged social groups and strengthening provision and collaboration in primary care.
8. ‘Successful ageing’ should be promoted across sectors to reduce the personal toll and growing social costs of dementia in Australia’s ageing society. Further research into the causes and treatment of dementia must be pursued.
9. Action to tackle mental health issues should include greater funding for research, public education and early intervention.
10. Clinicians should be consulted in the design and implementation of health IT and embrace its potential to gather, aggregate, analyse and share information to improve patient health outcomes and public health provision and efficiency.
11. The ‘creative dissatisfaction’ of health professionals should be harnessed through meaningful consultation with policy makers to produce broadly supported reforms.



12. Investment in health research should be prioritised to unlock rich commercial opportunities for the nation as well as dramatically improve health outcomes in a range of domestic and global health issues.
13. Modern methods of Big Data collection and analysis should be encouraged to generate insights into population health dynamics.
14. Surgical and other patient outcomes should be discussed with the clinicians responsible to improve standards and ensure the use of best practice. Standardisation of outcome measurements will support long-term planning and allow national and international comparisons to be made.
15. Government should support international efforts to tackle newly emerging infectious threats such as Ebola as they pose a serious cross-border threat in today's globalised society. Developed nations should work to strengthen government, growth and public health systems in low-income countries to improve their resilience and health provision.
16. Governments, military organisations and non-state actors should agree and respect effective measures to safeguard the security of emergency health workers in combat zones.
17. Donor and recipient governments and supra-national organisations must acknowledge and tackle corruption and maladministration in the provision of health services in the developing and more developed world.
18. Health professionals should organise and campaign for state and national health reform and broad social change, as well as take concrete action in their local communities.
19. Medical professionals should understand the potential health impacts of man-made climate change and lobby for effective action to reduce carbon emissions worldwide and protect the biosphere humanity relies upon.

HEALTHY PEOPLE SUCCESSFUL ECONOMY

SPEAKERS



Assoc. Prof Nick Barnes

Senior Principal Researcher in the Computer Vision Research Group at National ICT Australia (NICTA) and has been at NICTA's Canberra Research Laboratory since 2003. A/Prof Barnes is a lead investigator of the Bionic Vision Australia consortium which aims to develop a bionic eye, where he leads Vision Processing.



Dr Tony Bartone

President of AMA Victoria and former chair of the Section of GPs at AMA Victoria, Dr Bartone has worked in general practice in Melbourne's North for over 27 years. He has a keen interest in preventative healthcare.



Mr Roy Batterham

Roy Batterham, began his career as a physiotherapist with nine years in clinical and management positions mostly in rehabilitation. After completion of his M.Ed. (Evaluation) Roy worked for six years at the Centre for Health Program Evaluation. Roy's research activities at CHPE were initially in the field of disability and case management. From the end of 1999 to the start of 2010 Roy worked as an independent consultant, conducting dozens of evaluations and freelance research activities. He joined Deakin University's Public Health Innovation as a Senior Research and is project leader for a beyondblue funded project to develop an internet-based intervention. Roy is also working on self-management support and health literacy projects in Thailand.



Prof Dinesh Bhugra

Professor Bhugra is the President of the World Psychiatric Association. From 2008 to 2011 he was President of the Royal College of Psychiatrists in the UK. Dinesh has also been Chair of the Mental Health Foundation from 2011 to 2014 of which he is currently President.



Dr Robin Coupland

Dr Coupland is a Medical Adviser in the International Committee of the Red Cross (ICRC). He joined the ICRC in 1987 and worked as a field surgeon around the world. Robin has developed a health-oriented approach to a variety of issues relating to violence and the design and use of weapons and was a Fellow of the Royal College of Surgeons in 1985. He has developed a public health model of armed violence and its effects as a tool for policy-making, reporting and communication. Robin has published medical textbooks about care of wounded people and many articles relating to the surgical management of war wounds, the effects of weapons and armed violence.



Hon. David Davis MLC

Member for Southern Metropolitan Region, Minister Davis was first elected to the Victorian Parliament as Member for East Yarra Province in 1996. David's academic background includes a Bachelor of Applied Science, a Bachelor of Arts and a Graduate Diploma in Arts (Applied Philosophy). David held many positions in opposition including Shadow Health Minister and is currently the Leader of the Government in the Legislative Council and Minister for Health and Minister for Ageing.



Prof Phillip Davies

Prof Davies has had more than 30 years experience in health policy and management. He currently occupies the following positions: Deputy Director General – Queensland Health, Director – Australian Medicare Local Alliance and Director – Metro North Brisbane Medicare Local.



Dr Xavier Deau

Dr Deau is currently the President of the WMA and has been working since 1976 as General Practitioner in Epinal (East of France). He is the President of the European and International Delegation of the French Medical Council as well as the President of the Departmental Council of Medical Order of Vosges. At European and International level, Dr Deau is the General Secretary of the Conference of Medical Councils from French-speaking countries (CFOM) and was until last October the General Secretary of the European Council of Medical Orders (CEOM).



Dr Alessandro Demaio

Postdoctoral Fellow in Global Health and NCDs at Harvard Medical School and an Assistant Professor at the Copenhagen School of Global Health, Dr Demaio trained and worked as a medical doctor in Melbourne, Australia. He completed a Masters in Public Health including field-work in Cambodia. In 2010, Dr Demaio relocated to Denmark and completed a PhD fellowship in Global Health with the University of Copenhagen, focusing on Non-Communicable Diseases (NCDs). In 2013 Dr Demaio co-founded NCDFREE, a global social movement against NCDs. Currently, he holds a Postdoctoral Fellowship at Harvard Medical School and is currently serving on the Advisory Board of the EAT: Stockholm Food Forum.



Dr Vanda Fortunato

Dr Fortunato commenced her career as an academic at Victoria University following the completion of her PhD and Post-Doctoral fellowships. Currently she is the CEO at Macedon Ranges North Western Medicare Local. Vanda has had experience in both the private and public sectors having worked in private health insurance, pharmaceutical companies and not-for-profit sector. Vanda also has extensive experience in developing and managing large scale health projects and has worked in countries including: Pakistan, Egypt, China; Vietnam, and Malaysia.



Mr Andrew Goodsall

Senior healthcare analyst with UBS Australia. Andrew and the team have been rated the number one healthcare equities research team in major surveys since 2003. Andrew commenced as a sell side analyst in 1999 after an extensive health policy background: he was senior adviser/chief of staff to the Health Minister in the reformist Kennett Government (Victoria, Australia), with responsibilities for advice on 120 public hospitals, episodic funding, medical research funding and privatisation programmes (hospital and pathology). Andrew holds MBA, BA (hons) and Grad Dip (Asian studies) qualifications.



Dr Mzukisi Gootboom

Dr Gootboom specialized in Orthopaedics and qualified as an Orthopaedic Surgeon in 1987 and had a stint at the King Edward VIII Hospital as a Consultant OS. He was the Founding Member of the National Medical and Dental Association and was its Deputy General Secretary from 1989 – 1990. He joined the South African Medical Association (SAMA) in 1997 after the amalgamation of various associations / groups in the country. He held various positions at Branch (President for 2 terms) and National Level including the Chair of the Private Practice Committee.



Dr Mukesh Haikerwal AO

General Medical Practitioner in Melbourne Victoria Australia. He is the Chair of Council of the World Medical Association and was elected in May 2011 working with 104+ Member National Medical Associations (NMA). He is a Professor in the School of Medicine in the Faculty of Health Sciences at Flinders University in Adelaide, South Australia. He is also Chair of the beyondblue National Doctors' Mental Health Program and a Co-Chair of the Australian Asian Medical Federation. He sits on the Advisory Board of Brain Injury Australia. On August 1st 2014, he was appointed as Chair of the Australian Institute of Health and Welfare by the Hon. Peter Dutton, Minister for Health and Minister for Sport.



Prof Angang Hu

Professor Hu is one of the pioneers and leading authorities in the realm of Contemporary China Studies. He now serves as the Dean of the Institute of Contemporary China Studies of Tsinghua University and Professor of School of Public Policy and Management of Tsinghua University. He is also a member of the Advisory Committee for the Thirteenth and Twelfth Five-Year Plans under

NDRC, a member of the Advisory Committee of the National Disaster Mitigation Committee and a member of the Advisory Committee of Beijing Municipal Government. He was elected as the representative of the 18th CCP National Congress in 2012.



Dr Masami Ishi

Dr Ishi has worked as Medical Director of the Neurosurgery Department of Iwaki Kyoritsu Hospital before opening Ishi Hospital of Neurosurgery & Ophthalmology in 1985 and taking office of the President of the Iwaki Medical Association in 2002. He has served as Vice-President of the Fukushima Medical Association. Dr Ishi was elected as the Executive Board Member of the Japan Medical Association in April 2006, and re-elected forth. He is also serving Vice-Chair of the Council of the World Medical Association, Secretary General of the Confederation of Medical Associations in Asia and Oceania and Editor-in-Chief of the JMA Journal, the official English-language journal of the JMA.



Mr Gavin Jennings MLC

Currently the Victorian Shadow Minister for Health and Mental Health as well as Deputy Leader of the Opposition in the Legislative Council. He has been an Australian Labor Party member of the Victorian Legislative Council since 1999, representing Melbourne Province and then the South Eastern Metropolitan Region. Until December 2010 he was the Deputy Leader of the Government in the Legislative Council and the state Minister for Environment and Climate Change and Minister for Innovation.



Prof Frank Jones

Full time General Practitioner for 30 years Professor Jones is senior partner at the Murray Medical group in Mandurah, a large progressive, multi-disciplinary, non-corporatised private practice with a number of allied health

professionals working from the same site. Frank was a procedural obstetrics GP for 25 years and still maintains visiting rights at Peel Health Campus for general medicine in-patients. Frank is the national President of the RACGP and is passionate about the vital role of the expert generalist in the provision of quality healthcare.



Mr David Kalisch

Mr Kalisch has been Director (CEO) of the Australian Institute of Health and Welfare since December 2010. He is an economist with over 30 years' experience largely in the Commonwealth government across a range of social policy issues. David's professional experience has included appointments as a Commissioner at the Productivity Commission, Deputy Secretary in the Commonwealth Department of Health and Ageing, Senior Executive roles in the Department of Family and Community Services, Social Security and Prime Minister and Cabinet, and two appointments at the Organisation for Economic Co-operation and Development (OECD) in Paris. He's a Fellow of the Australian Institute of Company Directors and a Public Policy Fellow at the Australian National University.



Mr Roger Kilham

Roger Kilham had an 18-year career in the Australian Federal Treasury before joining Access Economics. From 1989 until 2014, he worked as a consultant to the Federal AMA, since 2011 as an independent consultant. In that period, he also undertook consultancy projects for health sector organizations, government, professional associations and lobby groups.



Dr Bronwyn King

Dr King is a radiation oncologist at the Peter MacCallum Cancer Centre and Epworth Healthcare. In 2010 Bronwyn founded the Tobacco-Free Investment Initiative after discovering her unwitting investment in the tobacco industry, via her superannuation investments. Bronwyn is the Cancer Council Australia Tobacco Control Ambassador, the 2014 recipient of the Thoracic Society's President's Award, an Australian Financial Review/Westpac 100 Women of Influence winner for 2014 and an Australia Day Ambassador.



Dr Otmar Kloiber

Currently secretary General of the World Medical Association prior to that Dr Kloiber was Secretary of the German Medical Association. Dr Kloiber has served on several committees including the WMA. Throughout his career he has served on many boards and influenced medicine at the highest levels. He received an honorary doctorate of the Victor Babes University for Medicine and Pharmaceuticals from Timisoara, Romania.



Mr Jonathon Kruger

General Manager (Policy) at the Australian and New Zealand College of Anaesthetists. Jonathon is a physiotherapist who has worked for nearly two decades in the Australian public health system in senior management roles. He has a Master degree in Public Health, Graduate Certificate in Governance and is currently enrolled in a Master of Health and Medical Law. Jonathon has substantial expertise and achievement in analysing and influencing public health policy and programs in areas as diverse as workforce modelling and climate change and human health.

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SPEAKERS



Ms Ann Larkins

Ann is the Chief Knowledge & Information Officer (CKIO) at Barwon Health. She is a Fellow at Deakin University – Pattern Recognition and Data Analytics (PRaDA), has a Masters in Business and Technology (MBT) UNSW, and is a Registered Critical Care Nurse with over 20 years' experience in clinical practice, patient flow, hospital administration, ICT enabled projects and strategy in the health sector.



Emeritus Prof Stephen Leeder

Emeritus of Public Health and Community Medicine at the University of Sydney. Professor Leeder is currently Chair of the Western Sydney Local Health District Board, and Director, Research Network, Western Sydney Local Health District. Stephen was appointed Editor-in-Chief, Medical Journal of Australia, in 2013.



Prof Sharon Lewin

Sharon Lewin is the inaugural director of the Doherty Institute for Infection and Immunity at the University of Melbourne; consultant physician, Alfred Hospital, Melbourne, Australia; and an Australian National Health and Medical Research Council (NHMRC) Practitioner Fellow. She was the local co-chair of the 20th International AIDS Conference (AIDS2014) which was held in Melbourne July 2014 and was the largest health conference ever held in Australia.



Prof Lynn Madden

Associate Dean, Learning and Teaching at Notre Dame University. Prof Madden has been widely published in medical journals throughout Australia and is key academic within the medical field.



Dr Tim Malloy

Dr Malloy has played an active role within the College as Rural Chapter Chair, College Council representative and educator. He is well known in the rural community and network with an impressive record in developing and implementing 'Learning Environments' for both undergraduate and postgraduate GP training. He was the main driver behind setting up and maintaining the 'Centre of Excellence for Rural Primary Care - Te Whariki Teitei', a multi-disciplinary and inter-disciplinary education unit in collaboration with Waitemata DHB. Tim took over the position of President at the NZ College of GPs in December 2012.



Mr Andrew McAuliffe

Currently the Senior Director, Policy and Networks Australian Healthcare and Hospitals Association (Public Sector), Mr McAuliffe has worked in Public Healthcare since commencing his career in 2004. He has profound understanding of the Public Healthcare system.



Mr Ewen McDonald

Mr McDonald joined the Department of Foreign Affairs and Trade as a Deputy Secretary in November 2013 following the integration of the department and the Australian Agency for International Development (AusAID). He commenced at the Agency as Deputy Director General in 2011. From 2008, Mr McDonald was a Deputy Secretary in the former Department of Education, Employment and Workplace Relations (DEEWR). Before taking up his Deputy Secretary position, Mr McDonald undertook senior management roles in education covering policy, program and corporate.



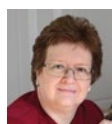
Ms Frances Mirabelli

Frances was appointed a CEO of AMA Victoria in January 2014. She has worked in many senior roles across the health and aged care sectors, beginning in the acute care sector as a medical scientist and administrator, before spending five years as Chief Operating Officer at Wintringham, an innovative company which provides housing and care for the homeless. During seven years as Chief Executive Officer of the Mayflower Group, which offers retirement living and aged and community-based care, Frances oversaw massive expansion, redevelopment and a return to profitability. She also served as General Manager (Operations) at Prestige In-Home Care before taking on the Deputy CEO role at LASA Victoria, the peak body for the state's aged care industry. Frances holds a Bachelor of Applied Science from RMIT and a Masters in Business Administration from Monash University. She is a graduate of the Australian Institute of Company Directors. Frances has also served on a number of state and federal Ministerial Advisory Committees, as well as the boards of several companies, including Whitehorse Community Health, Yarra Community Housing, and Bailey House.



Prof Michael Moore

Professor Moore is currently CEO of the Public Health Association of Australia and Vice President/President Elect of the World Federation of Public Health Associations. He is Adjunct Professor at the University of Canberra and was formerly a teacher and consultant having served four terms as an elected member of the ACT Legislative Assembly from 1989 to 2001. Michael was Australia's first independent Minister when he was appointed as Minister of Health and Community Care.



Prof Vivienne Nathanson Professor Nathanson joined the British Medical Association in 1984 before being appointed Scottish Secretary (Chief

Executive) for the BMA 1990-1995, and then as Head of Central Services and International Affairs 1995-1996. She was then Director of Professional Activities at the BMA, and in April 2014 was appointed Senior Director. In 2004 Vivienne Nathanson became an Honorary Professor of Public Health Ethics at Durham University. She was also awarded an Honorary Doctor of Science by Strathclyde University. In 2008 Professor Nathanson was made a Fellow of the Royal College of Physicians, and in 2013 she was awarded the Honorary Fellowship of the Faculty of Public Health.



Assoc. Prof Brian Owler

Assoc. Prof Brian Owler is a Consultant Neurosurgeon and currently the President of the NSW AMA also representing surgeons on the Federal Council of the AMA. He is a member of the COAG Expert Panel on Emergency Department and Elective Surgery Performance. A/Prof Owler is a member of the International Society for Hydrocephalus and CSF Disorders Board and is a Patron of the Hydrocephalus Association of NSW. Currently he is conducting a randomised controlled trial of deep brain stimulation surgery for cerebral palsy.



Dr Aktan Ozdemir

Professor of General Surgery at Marmara University Hospital, Istanbul, Turkey. Author of 72 clinical and experimental research papers in SCI indexed journals. Additionally, he held positions as the President of Istanbul Medical Chamber 2006-2010; Vice President of Turkish Medical Association 2010-2012 and President of Turkish Medical Association 2012-2014.



Dr Jitendra Patel

Graduated from the University of Sambalpur, Dr Patel specialises in Family Medicine/Family Practice. Having worked and interned in major hospitals Dr Patel has an in-depth understanding of the medical system and is currently the President of the Indian Medical Association.



Dr Mark Peterson

Dr Mark Peterson previously held the roles of New Zealand Medical Association (NZMA) Deputy Chair and Chair of the NZMA General Practitioner Council. A graduate of Otago University, Dr Peterson has worked as a general practitioner in the Hawke's Bay for 25 years where he is also Chief Medical Officer Primary Care with the local district health board. Dr Peterson is a past Chair of the General Practice Leaders Forum (GPLF) and is currently a Board member of the Royal New Zealand College of General Practitioners. In these roles he has served on a wide range of sector advisory groups.



Dr Pradeep Philip

Dr Pradeep Philip commenced as Secretary, Department of Health in 2012. Prior to working for the Department of Health, Pradeep was Deputy Secretary of the Policy and Cabinet Group at the Department of Premier and Cabinet. Pradeep has extensive experience in both state and Commonwealth Government, including as Director of Policy in the Prime Minister's Office and as Associate Director-General in the Queensland Department of Premier and Cabinet. Pradeep first joined government as an economist with the Commonwealth Department of the Treasury, having been a tutor and lecturer at the University of Queensland, Griffith University and the Australian National University.



Mr Frank Quinlan

Mr Quinlan is CEO of Mental Health Australia, and was previously the Executive Director of Catholic Social Services Australia. Frank has a long history of working in the not-for-profit sector. He has held senior positions with the Alcohol and Other Drugs Council of Australia and the Australian Medical Association.



Dr Neil Soderlund

Dr Soderlund is a Senior Adviser in The Boston Consulting Group's Sydney office, having joined the firm in 2000. He currently leads BCG's healthcare practice in Australia and New Zealand, and the firm's broader big data and analytics work (across industries) in Asia Pacific. He has a particular interest in measuring health outcomes and using this data to simplify and improve value for money in health care systems. Neil is a qualified medical doctor and has masters and doctoral degrees in Health Economics from the London School of Economics and Oxford University respectively.



Prof Hon. John Thwaites

Professorial Fellow at Monash University and Chair of ClimateWorks Australia and the Monash Sustainability Institute, John also chairs the Australian Building Codes Board and the Peter Cullen Water and Environment Trust. He is Director of the Australian Green Building Council and a member of the Leadership Council of the UN Sustainable Development Solutions Network ("SDSN"). John was Deputy Premier of Victoria from 1999 until his retirement in 2007.



Mr Jason Trethowan

Jason Trethowan is the CEO of Barwon Medicare Local and has held this position within the company since 2007. As part of his work at Barwon Medicare Local he has been leading the organisation to work more closely with the community and health industry partners to strengthen the primary care system. Jason's experience includes partnerships, business operations, health system innovation and corporate governance. He holds a masters degree in business administration. Jason is also the Deputy Chair of the G21 Geelong Region Alliance.



Dr Robert Wah

Dr Wah is President of the American Medical Association and has served over 23 years on Active Duty in the Navy and was the Associate CIO for the Military Health System. At HHS, Dr Wah served as the first Deputy National Coordinator/Chief Operating Officer, setting up the ONC (Office of the National Coordinator for Health IT). He is CSC's Chief Medical Officer; has been Lead Client Executive and served on the faculties of Harvard Medical School, University of California, San Diego and the Uniformed Services University of the Health Sciences. Dr Wah trained at National Naval Medical Center Bethesda and Harvard Medical School and is a graduate of the Advanced Management Program at the Harvard Business School. Dr Wah currently sees patients, does surgery and trains residents and fellows at the NIH (National Institutes of Health) and Walter Reed National Military Medical Centre.



Dr Andrew Wilson

Dr Wilson was appointed Executive General Manager of Provider Networks and Integrated Care in April 2013 and is responsible for managing benefit outlays, provider contracting, claims auditing and improved model of care initiatives encompassing Medibank Privates relationships with hospitals and medical professionals. Andrew has 25 years experience in the health sector, and remains a practicing psychiatrist and lecturer. Andrew was Co-founder and Co-President of McKesson Asia-Pacific which was acquired by Medibank in 2010.



Ms Tana Wuliji

A health and pharmaceutical systems performance researcher, policy and improvement advisor, Tana leads the Health Workforce Development Unit in the USAID Applying Science to Strengthen and Improve Systems Project (ASSIST) and is the Asia Pacific Region Lead at the Quality and Performance Institute, University Research Co., LLC. Her work focuses on better understanding and improving health worker performance and productivity in low resource settings. She received her PhD from the University of London and a BPharm from the University of Otago.



Assoc. Prof Mark Yates

Assoc. Prof Yates is a Ballarat based Geriatrician with interests in Dementia, Medical Education and System Redesign. He has been the Clinical Director of Subacute Medicine, Clinical Director of Internal Medicine and is currently Deputy Chair of the BHS Medical Staff Group. Assoc. Prof Yates is currently a board member for AMA Victoria.



Prof Heather Yeatman

Prof Yeatman is Head of the School of Health and Society at University of Wollongong and President of the Public Health Association of Australia. She has experience working in government, academia and with community organisations. Heather has worked in food and nutrition policy across the spectrum of local, state, national and international levels and has held leadership positions on numerous government and non-government boards and committees.

REPORT OF PROCEEDINGS

DAY ONE

MORNING SESSION – WELCOME AND MINISTERIAL ADDRESSES

WELCOME TO COUNTRY

Ms Frances Mirabelli, Chief Executive Officer (CEO) of AMA Victoria, welcomed attendees to the H20 International Health Summit. She acknowledged the Wurundjeri Land Council and paid respect to the Kulin Nation and the Wurundjeri community, the traditional owners of the land, and their elders past and present. She welcomed Uncle Bill Nicholson to offer the welcome to country.

Uncle Bill Nicholson spoke on behalf of the Wurundjeri community, welcoming guests on behalf of his people and acknowledging his elders for their strength in maintaining Indigenous culture over time. He spoke of his people's spiritual connection with the Yarra River and their management of the land through fire. Noting the popularity of the Australian Football League (AFL) in Melbourne, he said the Indigenous community played a similar game before colonisation to stay fit and healthy. Colonisation changed both the land and Indigenous culture, and problems such as the health gap persist. He stressed the difficulties which Indigenous people faced in securing their rights from the authorities and the intergenerational trauma which accrued. He noted the importance of education in binding Melbourne's multicultural society together and promoting understanding and reconciliation. The welcome to country is part of traditional law and strengthened good relations between communities and their messengers in previous times.

OFFICIAL SUMMIT WELCOME

After the Australian National Anthem, **Assoc. Prof Brian Owler**, President of the AMA and **Dr Pradeep Philip**, Secretary to the Victorian Department of Health, opened the debate.

Prof Owler stressed the importance of health to the economic vitality and social welfare of nations. The G20 Summit in Brisbane will argue that employment, education and economic development lead to health, but all these factors are dependent on people being healthy themselves. He thanked Dr Mukesh Haikerwal for his efforts in organising the event and welcomed members from China, the USA, the UK, New Zealand and elsewhere to Melbourne, 'the world's most liveable city'.



Dr Philip said world leaders had increased economic resilience and rebuilt economic relations in the wake of the global financial crisis (GFC). The G20 Summit will pursue goals of economic stability and growth, but health care is an equally important driver of wellbeing. Poor health and preventable mortality reduce living standards, degrade quality of life and inhibit opportunities for all. Economics and health are not discrete, clearly bounded domains, but are intimately connected. Given sharply rising public expectations and ongoing fiscal constraints, international health care systems are exploring new ways to drive efficiency, productivity and better health outcomes. New pathways are taking patients to the right care at the right time, while data mining reveals the health status of populations and understanding of the social determinants of health inform more holistic strategies.

New funding models and government structures should reward results, rather than processes, and encourage innovation. Facing common challenges in times of common constraints encourages people to learn from each other in forging new directions in health care. The goal of citizens leading happier, healthier, more meaningful lives can be achieved through professional partnerships across sectorial and national boundaries.

WMA President **Dr Xavier Deau** raised a series of health issues, from widening health inequalities in developed nations to epidemics such as Ebola in developing ones. Health spending should be seen as an investment for growth as the relationship between health and economic development is well documented, with high growth and low infant mortality closely correlated. The importance of investment in public health and the achievement of the United Nations (UN) Millennium Development Goals are stressed in recent declarations by the WMA. Reducing poverty and health exclusion is a collective responsibility and must begin with increased investment in the health care sector. Humans have valued health throughout history and it remains an aspiration for us all.

OPENING ADDRESS

Dr Tony Bartone, President of AMA Victoria, welcomed **Mr Gavin Jennings MLC**, the Victorian Shadow Minister for Health, to the podium. Mr Jennings welcomed the Summit to Melbourne and praised its contribution to local civic life and the wider health debate. He stressed the importance of remembering and respecting the original inhabitants of the land in terms of health and other issues. Culture is an important underlying factor in the social determinants of health, alongside economic and social participation.

The city of Melbourne, the State of Victoria and the nation of Australia are blessed with advantages not enjoyed by all communities around the world. Climate change may exacerbate

these disadvantages, and Mr Jennings praised the progress of climate negotiations in the Northern Hemisphere and hoped similar policies would be re-embraced closer to home. Meeting the challenges of global warming and adverse weather events is already a factor in public health planning.

Melbourne and Victoria enjoy comfortable standards of living, relative economic equality and high workforce participation. Victorians have access to universal health care, although challenges remain even within such an urbanised and geographically constrained community. Victoria's medical professionals and researchers maintain exemplary standards of performance, and Mr Jennings praised their willingness to collaborate in the cause of public health.

Research must lead to innovation and improvement in pharmaceuticals, technology and clinical practice. Translating the world-class work of Victoria's medical research institutes into clinical and hospital care offers exciting opportunities, given the concentration of medical and science education in the State's universities and their burgeoning connections with hospitals and community health practices.

Victoria faces the 'first world challenges' of driving capability, improving connections and offering universal access in a comprehensive and equitable fashion. The creation of the Victorian Comprehensive Cancer Centre in the Parkville Precinct² in association with Melbourne's hospitals and research institutes will create an internationally significant facility.

Broader issues arise from **the interlocking funding responsibilities of state and federal government**. Australia's states have traditionally run the nation's public hospitals, while the federal government has paid for primary health and pharmacy benefits. Although this has generally served the community well, jarring disconnects can disrupt a seamless patient journey from primary health to the hospital system. The clarity and navigability of the patient pathway must be improved to deliver better health outcomes. Mr Jennings favoured a focus on community support and home-based care as an intermediary between the primary and hospital systems in the future.

Government health policy should be more predictable. Moves towards a national health agreement to share the burden of growing health costs between Commonwealth and states have stalled, and certain policy settings have degraded significantly over the last four years. This has increased pressure on state governments to find the right balance of investment in public health, a problem compounded by the federal establishment of Primary Health Networks³ – formally known as Medicare Locals. These were designed to provide clear, consistent, reliable and available patient pathways, but have not yet achieved that goal.



Proposals to increase catchment sizes and change funding arrangements will offer economies of scale, but may increase problems of coordination and administration, reduce connections to the community and hospitals and make it harder to integrate and coordinate general practitioners (GPs).

The costs of chronic care must be managed while maintaining the highest standards of care.

The politics and economics of health care do not always align with the key performance indicators of hospitals and emergency management, but health outcomes must be seen as a product of the entire health system. Political debate should not focus on spending in the acute sector alone.

The system must build confidence in patient pathways in Victoria and elsewhere. In comparison to the relative sophistication of much of Australia's health system, the flow of patient information and use of personally controlled electronic health records (PCEHR) remains poor. A huge database of patient data should be available for use in clinical trials, but this information has not been adequately captured, therefore improved patient records and electronic management remain a priority. Mr Jennings hoped health ministers and departments would continue to support the introduction and use of health IT in Australia, despite the problems involved and a patch track record. Confidence and certainty regarding current platforms and future trends in the connections between primary, community and hospital care must be improved, and Mr Jennings called for **better integration of mental health, alcohol and drug services, aged care and disability provision**. Whilst there is a common rhetorical commitment to holistic provision, it is not always reflected in resource allocation or the delivery of services on the ground.

He reminded attendees of the problems faced by Australia's Indigenous inhabitants and the developing world on the nation's doorstep. Better community approaches must improve standards in Indigenous communities and tackle chronic illness, hepatitis and other issues which sap both individual health and the public purse.

Victoria's Hazelwood coal mine fire subjected the local population to stress and air pollution for 45 days, and the public health response was clearly inadequate. It was a reminder for even the most comfortable state to remember its vulnerabilities and not take any public health issue for granted. Mr Jennings called for continued vigilance and determination to respond to such events and wished the Summit well in its deliberations.

ACKNOWLEDGMENT

After the presentation of a book commemorating the 50th anniversary of the Helsinki Declaration on the ethical use of medical experimentation, and the history of the Port Phillip Medical Society, one of the world's oldest medical associations and precursor of AMA Victoria, **the Hon. David Davis MLC**, Victorian Minister for Health and Minister for Ageing, acknowledged Summit guests and noted Melbourne's high international ranking in health care, education, culture, environment, infrastructure and stability. It is one of only nine cities which achieved an 'ideal score' in the recent *Economist* liveability survey⁴ for both public and private health care, a success the Minister attributed to the Victorian Government's record health investment of more than \$15 billion in 2014-15.

Such surveys remind Victorians and Australians of their fortune in enjoying a world-class health system which both drives and is supported by a prosperous economy. The health services which Victorians take for granted are often unknown in the developing world, and Minister Davis hoped the H20 Summit would offer opportunities to create connections and share the benefits of medical research and new approaches around the world. Australia has just 0.33% of world's population and produces less than 1% of its intellectual property, but its capability in health service research and delivery is recognised worldwide. Victoria generates much of the nation's medical research and attracts a high percentage of the nation's skilled immigrants.

Not all incoming migrants are skilled or in good health, however, and so Victoria invested heavily in refugee and asylum seeker health in 2013. The State receives a third of all refugees and asylum seekers entering Australia, more than any other state. Immigrants often arrive from countries with limited access to modern health care and may have endured years of physical and psychological trauma and deprivation. They may present with multiple and chronic health conditions requiring comprehensive assessment and a range of medical interventions. Such issues can include vaccine preventable illnesses, dental decay, malnutrition, impaired vision and hearing, drug dependency, the effects of sexual abuse, mental health problems and social isolation. Australia must reach out to them to ease their integration into a modern, multicultural society.

Refugees need support and guidance in their own languages on how to navigate Australia's complex health system, who to ask for support and how to make the right decisions regarding their health needs. Published in June 2013, the Victorian refugee and asylum seeker health action plan⁵ outlines a long-term strategic vision to meet the needs of refugees as a humanitarian ideal and economic imperative.



The Victorian Government launched a \$50 million international engagement strategy in 2012⁶ to help Victorian businesses establish international connections, enter global markets and create new jobs. Its success led to the Global Health Melbourne Plan⁷ which helps Victorian organisations take health and aged care products and services into markets opened in the last three years. This support will make the most of Victoria's competitive advantage in health system and facility design, medical health training, biotechnology, health conferences, medical research and clinical trials.

Only London, Boston, New York and Melbourne have two or more of the world's top 50 medical schools. Melbourne remains an international leader in medical research, and the city's wide range of globally respected research institutions enjoy strong international links with other researchers and facilities. The Burnet Institute⁸ developed point-of-care diagnostics for liver disease, for example, and will begin to manufacture test kits in China for sale to the global market.

Victoria's \$18.8 million Medical Technology Strategy⁹ was launched in October 2014 to provide coordinated support for the sector. The strategy promotes the State's capacities to local and international markets, facilitates access to funding and improves the regulatory environment for companies. The State's clinical trials research initiative¹⁰ has streamlined the ethical review process for trials at multiple sites to encourage global companies to conduct work in the State, boosting investment and speeding the release of new medications worldwide.

The Victorian Infectious Diseases Reference Laboratory¹¹ has tested Australians for Ebola in the wake of the West Africa outbreak and is part of the World Health Organization (WHO) influenza surveillance and response system, routinely analysing the influenza viruses circulating in Asia.

Victoria has a strong record of health promotion and preventative action. With support from the Commonwealth, the State Government launched *Healthy Together Victoria*¹² in 2011, a multi-agency initiative to improve the health and wellbeing of Victorians and their communities. It 'improves people's health where they live, learn, work and play' by addressing the underlying causes of poor health in children's settings, workplaces and communities through encouraging healthy eating and physical activity and reducing smoking and harmful alcohol use.

The Victorian Government supports creative solutions in the health sector and is diversifying the revenue base of Victoria's health organisations and strengthening their capacity to improve outcomes for all. The system's sustainability, efficiency and productivity must be improved to maximise outcomes and take patients to the right care at the right time. **The collection and analysis of health data will produce new insights into the social determinants of health and new governance structures will reward quality and encourage innovation.** Victoria is proud of its health system and the lifestyle enabled by it, and Minister Davis encouraged attendees to enjoy their stay.

VIDEO ADDRESS

A video address by **the Hon. Tony Abbott PM**, Prime Minister of Australia, was broadcast to delegates. He welcomed the H20 Summit in the context of Australia's G20 programme and stressed the importance of its themes. He emphasised the commitment of his government to improve domestic and international healthcare.



DAY ONE

LUNCH SESSION – HEALTH AS A WISE INVESTMENT

Ms Anne Trimmer, Secretary General of the AMA, welcomed **Dr Mukesh Haikerwal AO** to chair the session. Dr Haikerwal reiterated the event's theme of healthy economies requiring healthy people to sustain them. The WMA works with many nations at varying stages of health development, and he found the problems they face, and their solutions, to be broadly the same.

OVERVIEW

Health Data: Comparing Australia and International Health Spending

Mr David Kalisch, CEO of the Australian Institute of Health and Welfare, reiterated the dependency between economics and health. Health systems vary in scope and sophistication across the G20, with governments playing varying roles in funding, subsidy and regulation, but most developed nation systems are large and complex. Australia separates the costs of public hospitals and primary care between state and Commonwealth, with similar sums spent on each, while a 'maze' of public and private services and institutions is funded by contributions from Australian, State and Territory governments and private fees.

The proportion of a nation's GDP spent on health offers little information on efficiency and health outcomes. The US experience shows that more spending is no guarantee of better care.

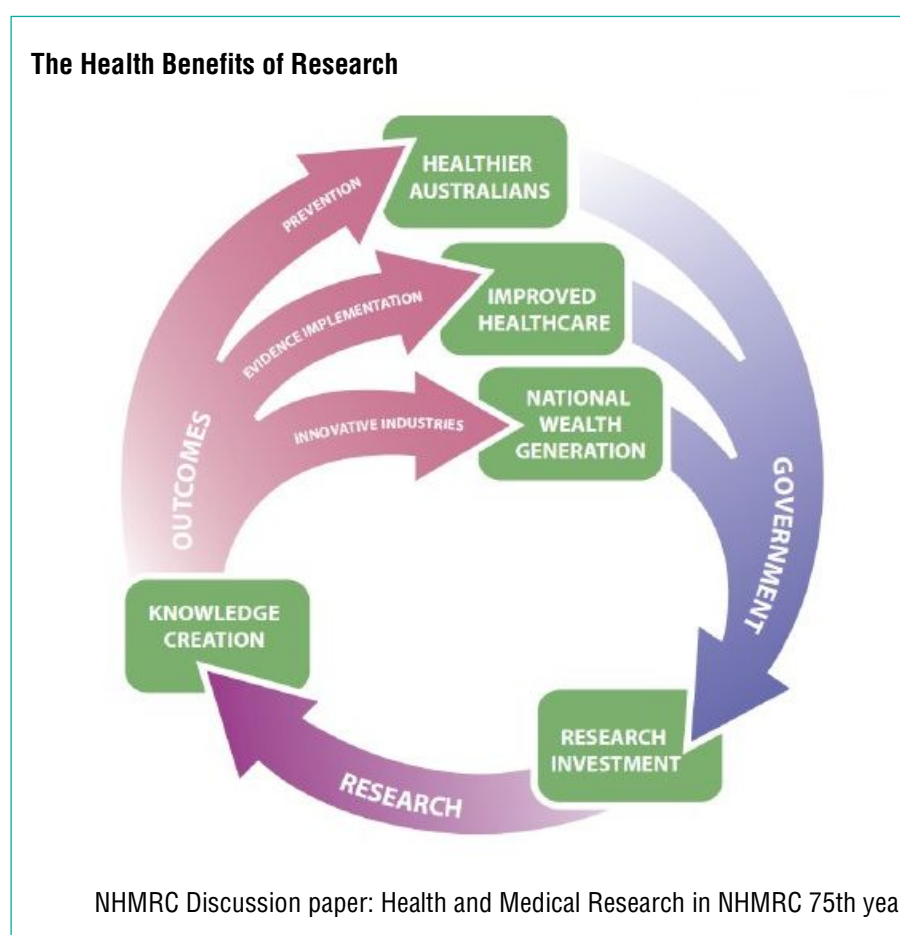
Many OECD nations restrained growth in health spending after the GFC, and ageing populations and technological developments will increase budget pressure around the world. Most OECD countries spent between 9% and 12% of their gross domestic product (GDP) on health in 2012 (although the USA spent 17%). Despite the GFC, these figures have increased over the last decade, with an average of 8.2% a decade ago rising to 9.2% today. Health spending peaked at 9.6% in 2009, before the GFC.

Although it remains the most cited statistic, the proportion of a nation's GDP spent on health can be 'crude and ambiguous', as the US experience shows that more spending is no guarantee of better care. While it reflects an economy's ability to fund health and offers clues towards political intentions and public living standards, it offers little information on efficiency and health outcomes. Life expectancy at birth has little correlation with relative spending in developed nations, with the USA suffering poorer outcomes than most while spending more. However, **developing countries show a positive correlation between levels of spending and health outcomes**, with some countries finding smart ways to use their health dollars free

from the ossified structures of the developed world. **Developed economies must increase the quality and effectiveness of their health spend**, rather than merely its aggregate, to improve health outcomes, and attend to the social determinants of health, not least in Indigenous communities in Australia.

The Value Proposition for Research: Achievements Today, More Gains Tomorrow

Prof Sharon Lewin, Director of the Peter Doherty Institute for Infection and Immunity at the University of Melbourne, spoke of her passion for health research and its return of \$2.17 for every dollar invested¹³.

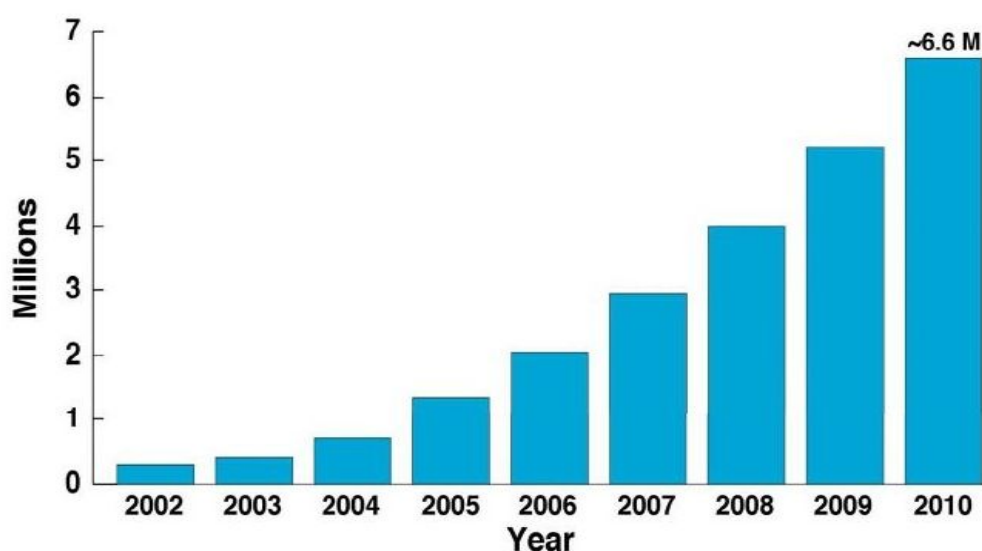


Research has produced major gains in global health, and Prof Lewin outlined the progress made in fighting AIDS and reducing infections from human immunodeficiency virus (HIV). Apocalyptic predictions of its impact were made in its early days, when infection was a virtual death



sentence, but over the last 30 years effective treatments have been developed and newly infected people who receive anti-retroviral therapy retain a normal life expectancy. **All Australian states have pledged to eradicate new HIV infections by 2020.** While treatment in the mid-1990s required more than 20 tablets a day and incurred a range of damaging side effects, the single, relatively low cost tablet of today generates minimal side effects and drug resistance if taken properly. Such treatment can reduce a patient's infectiousness by 96%¹⁴ and so the more people are treated, the less the disease will spread.

Patients receiving Anti-Retroviral Therapies 2002 – 2010



UNAIDS 2011

13 million people now receive anti-retroviral drugs in lower-income countries, 40% of infected people, when in the early 2000s such treatments in these countries were virtually unknown. Treatment has gradually reduced the number of global HIV infections from its mid-1990s peak, and 25 countries in sub-Saharan Africa reported a 50% decline in new HIV infections in 2013. **The end of AIDS can now be contemplated** if infected people can be identified and treated to reduce the rate of transmission.

Research aggregates a range of basic, clinical, social and operational approaches. While basic research into retrovirology in the 1970s laid the foundations for anti-AIDS drugs, public health surveillance to identify and notify infected people and informed, effective public health campaigns also played important roles in stemming the disease. However, behavioural interventions alone cannot halt the spread of HIV. Clinical research is vital for any new drug, but **the rapid establishment of multi-site, global networks involving low-income countries were**

unique in the development of anti-retroviral medications. Such networks now extend across Africa and Asia, and a generation of investigators have now been trained to lead studies and roll out treatments around the world. Social and operation research continues to inform the response to the epidemic and highlight where best to invest in care.

Partnerships, community engagement and energetic advocacy were also instrumental in making early progress in the fight against AIDS. Consumers in high-income countries pushed for accelerated drug development, clinical trials and drugs to come to market through cohesive, articulate community groups and then urged global agreements on pricing to reduce their costs. Doctors and scientists alone could not have achieved the cultural and political impact such groups enjoyed. There are countless examples of inspiring leadership from around the world, from local action to major donations by the Gates Foundation, while President George W. Bush drove the roll out of anti-retroviral therapy in Africa through the President's Emergency Plan for AIDS Relief in 2008.

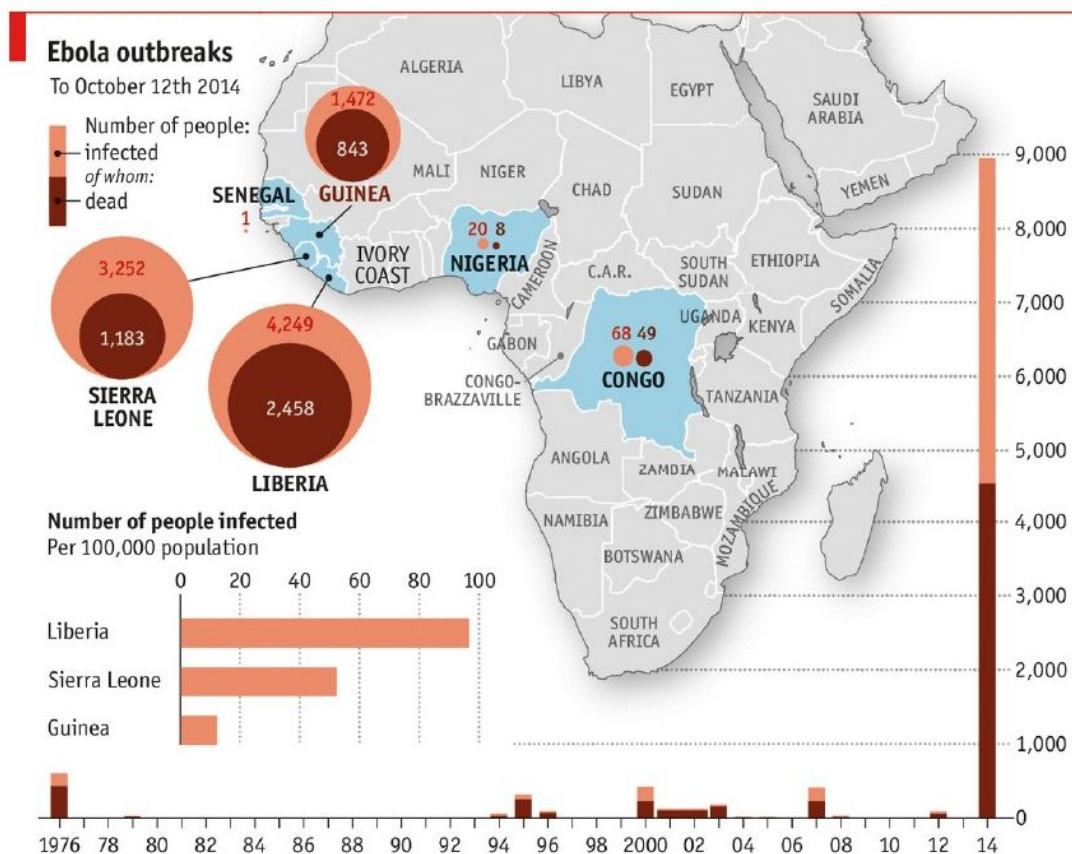
The battle is not yet won. There are still 2.5 million new infections every year and 35 million people living with HIV. Discrimination against high-risk groups persists and the need to diagnose and treat people early remains, with perhaps a fifth of Australian cases remaining undiagnosed. **A vaccine against HIV remains elusive**, and there is still no cure for the disease, meaning treatment must be maintained for life at considerable cost to the health system.

Ebola has emerged as a new infectious threat in West Africa, and lessons from HIV should inform the response of the international community. Ebola was first identified in the mid-1970s, but the current epidemic is the largest to date. Earlier outbreaks were short lived and isolated, affecting 200 - 400 people, but the 2014 outbreak has caused 13,000 infections already.

The epidemic currently affects countries without the resources, health infrastructure and cultural knowledge required to contain it. **There are few health professionals in Guinea, Liberia and Sierra Leone, for example, with only one or two doctors per hundred thousand people.** These countries have a turbulent history of regional conflict, mistrust in government and porous borders, and the current outbreak is now affecting densely populated urban areas, rather than isolated rural villages. Traditional burial practices have increased exposure to the virus and fuelled transmission rates, although Ebola's death toll remains a small fraction of the numbers dying from AIDS in the region.



Ebola outbreaks to 12 October 2014



WHO, UN, *The Economist*

Several strategies for combatting Ebola have been proposed in recent years, including vaccines, man-made antibodies, blood transfusions and antiviral drugs, but none have been commercialised due to **a lack of profit incentive**. Although the current epidemic will encourage the development of treatment strategies, Prof Lewin agreed with Tony Fauci, head of the National Institute of Allergy and Infectious Diseases, that Ebola will be defeated by sound public health practices, engagement with affected communities and international assistance, rather than any miracle cure¹⁵.

How Investments in Health are Tracking Across the Global Market

Mr Andrew Goodsall, Head of Healthcare Research at UBS Wealth Management Australia, discussed the role of equity markets in the health sector. The stock market is a key source of capital for private health care companies, and access to private capital is crucial to their success. Private equity markets have funded medical research around the world, and Mr Goodsall argued that government and other purchasers can extract greater efficiency alongside a strong private sector system.

Australian health firms on the Australian Stock Exchange (ASX) 200 have a market capitalisation of \$64 billion, while the global pharmaceutical industry is worth over \$4 billion. The health sector attracts investors who perceive it as non-discretionary, non-cyclical, relatively defensive and less risky than other parts of the market.

The Australian economy declined in relative terms last year, due to a fall in commodity prices; however, **Australia's health care index performed well, exhibiting robust and consistent growth**. The Standard & Poor's (S&P) 500 has also grown strongly in comparison to the overall US economy.

The Asian health market is developing quickly in the light of increasing individual prosperity and ageing populations. Singapore's over-65s are increasing at 5.2% per annum, compared to Australia's 2.6%, while Japan has the oldest population in the region and high health spending as a result. Market investment will tend to follow these opportunities, given the wealth held by older people, but this may misalign resources from the areas of greatest need, as in the case of Ebola. Governments in India and China face significant challenges due to their massive populations, but increasingly affluent individuals in these countries are allocating more of their income to their own health care. Singapore also encourages individual financial responsibility for medical services.

Major pharmaceutical companies are enjoying the benefits of a research and development (R&D) 'surge' as part of the decade-long cycle which brings new products to market. Several oncology drugs have emerged recently, although their affordability and efficacy in extending life is disputed. **The mapping of the human genome a decade ago prompted companies to trawl through their R&D portfolio to find drugs which were abandoned as ineffective for the general population, but can help genetically identifiable individuals.**

Most governments have tried to control growth in health spending in recent years to place it in line with growth with GDP or as a result of the GFC. Many economies are approaching a 'tipping point' where their capacity to finance future growth may be overwhelmed by growing demand from an ageing population. Health care consumption can increase two or three times with age, and Australia's post-war baby boomers are reaching retirement age.



49% of Australians have private health insurance, but while over 65s represent 16.5% of the insured population, they incur 49% of the benefits paid to private hospitals. Developments in drugs and technology and increasing demand from older people will intensify cost pressures across the OECD. Australia's health expenditure has increased towards the OECD average over the last decade. Spending by private health insurers and consumers has also increased, in contrast to the government pullback, and personal spending on health tends to increase with personal wealth. It is easier to align public health spending and economic growth if individuals are given price signals in public health care.

Collaboration in Policy Development and Interventions: Ensuring Wise Investment

Assoc. Prof Brian Owler, President of the AMA, called for collaboration in policy development. He maintained the argument that health spending should be viewed as an investment and rejected any assertion that current health expenditure is unsustainable, given the current budget deficit. **Political discussion of health and education centre on reducing their cost, when it should focus on improving their outcomes.**

Although it faces future challenges, Australia enjoys one of the most efficient and productive health systems in the world and it is worth protecting. Life expectancy for Australians continues to increase, and boys and girls born in 2012 can expect to live to 79.9 and 83.3 years respectively, ranking Australia 6th and 7th among the 34 OECD countries.

Wise investment in health requires collaboration and consultation with general practice, and fiscally driven policies developed in isolation and thrust upon the community will not work, as exemplified by the \$7 co-payment proposal.

It is easy to take Australia's health system and the benefits it brings for granted, but the AMA is committed to defending it and the interests of patients. **The AMA supports universal access to affordable health care, with equity particularly important in general practice and primary care.** The independence of the doctor-patient relationship is also under threat, but GPs must be free to exercise their clinical judgement and refer patients without interference from a third party or payer. The AMA supports the community rating system for private health insurance, although Prof Owler accepted that waiting periods may be involved.

Improvements must always be sought, however, and Prof Owler called for policy makers to **harness the 'creative dissatisfaction' of clinicians through genuine consultation.** Australia has seen a raft of health reform in recent years, particularly in public hospitals, but there has been little engagement with primary care and GPs feel ignored as a result. Wise investment in health

requires collaboration and consultation with general practice, and fiscally driven policies developed in isolation and thrust upon the community will not work, as exemplified by the \$7 co-payment proposal. Prof Owler was puzzled by moves to raise barriers in primary care when it should be bolstered to treat **Australia's epidemic of non-communicable diseases**.

All stakeholders agree on a reorientation towards primary care, but successive governments have failed to deliver on this aspiration. The previous Labor administration introduced Medicare Locals and GP Super Clinics, but got the formula 'horribly wrong'. General practice is the cornerstone of primary care, providing high-quality, comprehensive and cost efficient service. The most recent National Primary Health Care Strategic Framework¹⁶ also highlighted the importance of **the 'medical home'** - something many Australians already enjoy through their relationship with their GP or medical practice.

All stakeholders agree on a reorientation towards primary care, but successive Australian governments have failed to deliver on this aspiration.

The management of chronic and complex disease comprises more than a third of GP activity. Such disorders include hypertension, depression and anxiety, diabetes, cholesterol-related disorders, chronic arthritis, oesophageal disease and asthma. Many patients suffer from two or more chronic complaints, complicating diagnosis and management. The OECD reports that Australia's GPs are doing an excellent job in managing diabetes in the community, and the country's hospital admission rates of 6.9 per 100,000 for uncontrolled diabetes are the best in the OECD - significantly better than Canada's 15.8, the UK's 22.8 and Germany's 55.8.

GPs are increasingly working with practice nurses and other health professionals in **structured team care** supported by Medicare, but more needs to be done. The AMA supports the adoption of a broad programme, similar to the Department of Veteran Affairs' coordinated care scheme¹⁷, to fund **GP provision of comprehensive, planned and coordinated care** and so reduce avoidable hospital admissions. Private health insurers could adapt such programmes for their members, and the AMA has discussed a more prominent role for general practice in private insurance arrangements with a number of companies. Most private insurers already offer customers with chronic problems telephone coaching, exercise and diet advice and physiotherapy, but these services are employed in isolation from the GP who best understand their patient's needs. Cooperation could be explored through wellness programmes, electronic health records and *Hospital in the Home* and GP-directed hospital avoidance schemes. These should be carefully negotiated to maximise patient outcomes without compromising the independence of the doctor/patient relationship.



Investment to improve Indigenous health remains a priority, and the AMA is committed to closing the current 'health gap'. Health expectancy is 10.6 years less for Indigenous men and 9.5 years less for Indigenous women, although it has improved by 1.6 and 0.6 years respectively in the last five years. The child death rate fell by 30% between 2001 and 2012, although it remains too high.

The Prime Minister has pledged to improve Indigenous health by bolstering school attendance and adult employment rates, while the Assistant Minister for Health is working on implementing a health plan in consultation with Indigenous leaders and health experts. The AMA's 2013 Aboriginal and Torres Strait Islander Health Report Card¹⁸ stressed the importance of the early years and ensuring a good start to life. Gains have been made in the Pitjantjatjara Lands of South Australia's far north-west, for example, where 75% of all pregnant women see a medical practitioner in the first trimester, a higher rate than many metropolitan centres. The proportion of children under three with significant growth failure in that area has fallen from 25% in the 1990s to less than 3% today, and its immunisation rates approach 100%. These outcomes have not been easy to achieve, but will greatly benefit these remote communities. The AMA's Indigenous Health Taskforce highlights the organisation's commitment to working in partnership with Indigenous Australians to find solutions and highlight success.

As a first world nation with a temporary seat on the UN Security Council, Australia's contribution to global health furthers its own interests, as well as humanitarian ideals.

For all the challenges facing the system, most citizens are able to access exceptional care. The same cannot be said for many parts of the world and so global investment should be considered alongside domestic spending. As a first world nation with a temporary seat on the UN Security Council, Australia's contribution to global health furthers its own interests, as well as humanitarian ideals. Lifting the health and living standards of poorer nations will benefit the global economy as those nations trade more and contribute to the global economy. Australia plays a key role in its region and supports the health systems of Pacific nations, such as Papua New Guinea and the Solomon Islands.

West Africa may seem a long way from Melbourne, but **the Ebola outbreak demonstrates why Australia and other developed nations cannot retreat into isolationism**. Although the AMA criticised the Australian Government's initial response, it welcomes Canberra's donation of \$42 million to train and support health care volunteers in afflicted nations. Fears of Ebola's spread to developed nations have provoked discussions of border protection and quarantine, but, while sensible domestic precautions are important, the outbreak must be contained at source. Australia's funding of human and logistic resources abroad therefore delivers security and economic benefits to this country.

If the most pessimistic WHO predictions of 1.4 million infections by early 2015 come to pass, the impact on travel, trade and the global economy would be disastrous. The International Monetary Fund (IMF) encourages West African nation to borrow more funds to tackle these problems, but the developed world must make a significant contribution. Australia encourages immunisation programmes in Cambodia and Laos, for example, and a strategic approach is required to maximise value for money.

Dreaming or Reality: Investing in Health, Successful Research-Based Innovation

Dr Haikerwal quoted President John F. Kennedy's 1962 pledge to go to the moon 'not because it is easy, but because it is hard'¹⁹ in advocating vision and ambition in medical research, before introducing **Assoc. Prof Nick Barnes**, Senior Principal Researcher of the Computer Vision Research group at National ICT Australia (NICTA).

Prof Barnes traced the development of the bionic eye as an example of successful health research and innovation. Artificial heart augmentation was science fiction 60 years ago, but millions of people around the world now rely on pacemakers, just as cochlear implants help millions to hear, and visual prosthetics will offer a new frontier in implantable devices.

A 2010 Lancet survey of the global burden of disease²⁰ found that over 32 million people were blind around the world, often as a result of age-related macular degeneration. A consortium of researchers and clinicians from leading Australian research organisations are now developing a retinal implant to restore vision to people with Retinitis pigmentosa and age-related macular degeneration²¹. The University of Melbourne is developing a high-acuity device made from synthetic diamond, while the University of New South Wales is working on a wide-view camera to facilitate patient mobility. The National ICT Australia (NICTA), the Centre for Eye Research Australia and the Bionics Institute worked closely on a 24 electrode prototype which underwent patient trials from 2012 to 2014, and NICTA will participate in another clinical trial in 2015.

The bionic eye involves a head-mounted camera and a wearable processor which convert its images into 'patterns of stimulation' for an implant close to the retina. The prosthetic assembles the information in ways which relate to reality, allowing the wearer to interpret the world around them and so live more independently.

The NICTA vision-processing team works on ways to select the most important information from the camera's images relevant to the task in hand. Prof Barnes showed a video of a patient who has been blind for 25 years, walking between randomly placed obstacles using the camera, its backpack mounted processor and a depth sensor. The trials showed that



augmented subjects performed at chance in a standard low-vision test, but passed when using the retinal implant with minimal image processing. More intensive processing enhances depth and contrast to help patients perceive objects and obstacles more clearly.

This work has attracted both domestic and international attention and shows **the value of cooperation between leading research institutions, health practitioners and clinicians** – none of whom could have achieved these results alone.

Value-Based Health Care - Improving Outcomes that Matter to Patients

Dr Neil Soderlund, Senior Adviser at the Boston Consulting Group and Head of Healthcare Practice in Australia and New Zealand, spoke on value-based health care and improving outcomes which matter to patients. He argued that measuring the outcomes which patients experience offers a powerful tool for physicians to direct care and produce better value for money.

He acknowledged that health spending has outstripped economic growth in many countries, but argued this was not a problem if people chose to spend money in this way. Spending on smartphones, for example, has increased by even more because users gain utility from their devices in ways unimaginable a decade ago. Additional health spending has been criticised as outcomes have plateaued over recent years for every extra dollar spent, but a sharper focus on outcomes in policy, research and clinical practice could maximise its value.

Care originates with patient need and then flows through a range of processes and activities which in turn generate clinical indicators and patient outcomes. A great deal of time is usually spent on managing the process by people who are administrators, rather than clinicians. They therefore try to standardise processes to reduce costs under the guise of ‘clinical guidelines’ and ‘evidence-based medicine’, but, although such measures can be useful, they are limited by the reluctance of frontline clinicians to be managed at that level of detail. **The value-based health care proposition offers a more workable alternative by focusing on patient need and health outcomes.** Process is left to administrators, policy makers, health payers and insurers to ensure patient needs are met appropriately.

Medicine employed this mode of operation through much of its history – with barber surgeons only paid if their patients survived their operation. Modern IT should disseminate research to inform every day clinical management, rather than moulder in journals. **Valuable clinical data remains underused, but is the most important part of the value-based health care endeavour.** Collecting and feeding back best practice to clinicians is useful, as is the evidence base it generates for long-term planning, but **presenting doctors with the outcomes they were responsible for drives immediate and significant change and improvement.**

Individual, institutional and national data can only be compared across borders if it is standardised, and the International Consortium for Health Outcomes Measurement²² encourages standardised measurement to enable this international comparison of data.

The digitisation of health information allows the efficient gathering, storing and sharing of data. Without much fanfare, virtually every GP now maintains a full electronic record of their patients' health experience and status, something which would have been hailed as an impressive achievement 15 years ago. After a slow start, digital record keeping is also spreading in the specialist realm, and most clinical specialists under the age of 45 maintain electronic records which will create a valuable store of information in the near future.

Individual, institutional and national health data can only be compared across borders if it is standardised.

Experience in Sweden shows **the value of collecting and feeding back individual outcome data to clinicians**. The development of clinical outcomes registries over the last 20 years by Swedish clinical craft groups, at first on paper, but now by electronic means, has enabled outcomes to be discussed with doctors on a one-to-one basis to improve results. 30-day mortality rates after a heart attack are now a third better in Sweden than the UK²³, for example, after starting from a similar base, with variation between the best and worst hospitals narrowing considerably. Both countries have assiduously collected acute myocardial infarction (AMI) mortality data, but in Britain the information is published in aggregated league tables, while Swedish doctors discuss their personal results with a senior clinician or cardiologist familiar to them. This individual attention has driven the change in practice required to improve results. It requires no heroic measures as improvements are based on the prescription of standard, low-cost and long-established post-heart-attack drugs such as beta blockers, aspirin and calcium channel blockers, rather than any expensive cure. Their administration should be a matter of routine, but recording and confronting Swedish physicians with their results has ensured it becomes reality. If the Swedish improvements had been replicated in the UK over the seven year study period, 11,263 lives would have been saved. If a new drug generated similar benefits, it would be approved quickly and used universally, regardless of cost.

The measurement of the most meaningful outcomes is as important as the notion of measurement itself. While mortality is an obvious indicator in heart attacks, the most important outcomes for prostate cancer operations, for example, are less clear cut. The Martini Clinic²⁴ in Germany performs more radical prostatectomies than any other institution and attracts many patients from abroad. Its popularity stems not from its five-year survival rate (95% compared to the average of 94%), but because it achieves a lower rate of the two most common complications – severe erectile dysfunction and incontinence. The Clinic has rigorously recorded its outcomes from its inception and employs 15 specialist neurological surgeons who do nothing but radical



prostatectomies. They are debriefed on their individual outcomes every month, and effective innovations, no matter how minor, are identified and shared.

There is interest in these strategies from both provider and payer communities around the world, but they are particularly powerful when driven from the grassroots by clinicians. Dr Soderlund encouraged Summit delegates to investigate similar approaches in their own institutions.

QUESTION & ANSWER

Questions were then taken from the floor. **Dr Xavier Yu**, a radiology trainee at St Vincent's Hospital, asked whether 'medical tourism' - patients travelling to other countries for treatment - would remain a niche activity or become a booming market which Australia could take advantage of.

Dr Neil Soderlund saw two distinct types of travelling consumers, with people seeking plastic surgery or IVF treatment in lower-wage economies or, in a less publicised aspect, seeking better quality of care. Singapore's high reputation has created a major export, with foreign patients spending US\$3 billion in its hospitals, for example. This has allowed the Singaporean health system to drive still higher quality from volume it could not achieve from just its local population. Major opportunities exist for Australian entrepreneurs to offer high-quality services to foreign patients.

Dr Frank Jones of the Royal Australian College of General Practitioners (RACGP) thanked Prof Owler for emphasising the importance of primary care. Primary health research is poorly funded, with a recent inquiry showing it accounts for just 3% of the total. Most research is hospital-based, and Dr Jones called for reflection on redressing the balance.

Prof Owler said Americans are accustomed to travelling around their country to receive the best treatment, while Australians are rather reluctant travellers. However, he thought this would change over time as facilities differentiate themselves by provision or performance. He did not see doctors as the obstacle to performance tracking, saying he had lobbied for 14 years to create a registry for shunts – the highest value device on the market. Such registries exist all over the world, but the Australian Government has been reluctant to fund one, despite its cost effectiveness and clinical support. Private health insurers would also benefit from such data gathering, but doctors must lead the lobbying for the resources required to do it.

Mr Graham Brown, a retired public and global health practitioner, noted the USA's failure to improve life expectancy in line with other OECD nations, despite its much higher spending on health. He called for the reasons to be analysed and hoped Australia would not follow its

direction. While investment in a privatised health system might increase profits for companies and investors, he called for evidence to prove that turning health into a commodity created better patient outcomes.

Dr Robert Wah said the USA had remained an outlier in OECD statistics for several reasons. The USA has a very heterogeneous society and, given the importance of social determinants of health, faces more challenges than other countries, with additional issues including gun and drug use. Such factors reduce life expectancy independently of the quality of care delivered by physicians, although Dr Wah acknowledged that some major expenditures in the USA fail to produce immediate gains. However, the USA does undertake much of the world's health research and development and pays for it through higher medication, procedure and equipment costs, inflating its health spending figures. The rest of the world criticises its health record while enjoying the benefits of its research without contributing to the cost.

Dr Mzukisi Grootboom said South Africa may be a middle-income country, but has a similar profile to America when compared to its peers. It invests 8.5% of its GDP in health, but its outcomes are poor - no better than lower-income countries in the rest of sub-Saharan Africa. Evidence shows that public health interventions aimed at low-income groups are effective as such people have the most to gain. The privatisation of health care can reduce its availability to poorer communities and they suffer disproportionately from its results. Private health care has swollen from 40% to 60% of the total in South Africa over the last twenty years without delivering any benefits.

**DAY ONE****AFTERNOON SESSION – GLOBAL HEALTH AND INVESTMENT****OPENING ADDRESS****Health and Development: From “Patient of Asia” to “Giant of East” (1949-2030)**

After a break, **Ms Anne Trimmer** opened the session on global health and investment. **Dr Haikerwal** offered thoughts arising from the morning’s discussion and introduced **Prof Angang Hu**, a Professor and Dean at Tsinghua University, who discussed China’s five-year health plans.

Health is an important national development goal for China’s 1.36 billion people. Its 11th five-year plan, covering 2006 to 2010, included core health indicators, such as life expectancy, for the first time. The new rural cooperative medical care system increased coverage from 23.5% in 2005 to over 80% in 2010 and now reaches 96% of rural inhabitants. By 2010, over 90% of the population were inoculated, while infant mortality declined to 13 per 1,000 births and life expectancy reached 76. The 17th Congress of the Chinese Communist Party pledged further medical reform in both rural and urban areas.

A billion Chinese lacked medical insurance a decade ago, but coverage increased to 42% during the 11th five year plan and reached 93% in 2012. The Government increased spending to cover a third of the cost, and while other countries cut health expenditure in the wake of the GFC, the Chinese increased spending 24.2% over their growth in GDP.

The 13th five-year plan will aim to increase life expectancy to 77.5, close to that enjoyed in more developed countries. China is catching up to the USA in terms of GDP, life expectancy and other indicators from a low base. The country is undergoing rapid modernisation and urbanisation and now has 200 million people aged 60 or more, a fifth of the world’s total. Reducing health poverty and smoking are public health priorities, and China aims to become the best performing developing country by 2015. By 2020, it plans to equal the median level of developed countries and by 2030 rank with the best, including Australia. China is keen to learn from the Australian health care system as it improves.

16 years ago, China was the ‘patient of East Asia’, but is now the ‘giant of the eastern world’. Improving the nation’s health provision has greatly increased its economic capacity and the welfare of its citizens, and Prof Hu agreed that investment in health is ‘the best investment’ as it lays a firm foundation for wider development.

PANEL DISCUSSION

Importance of Global Health and Investment

Dr Haikerwal then led a panel discussion on the importance of global health and investment with **Prof Heather Yeatman**, President of the Public Health Association of Australia, **Mr Roger Kilham**, Director of Kilham Consulting and **Dr Mark Peterson**, Chair of the New Zealand Medical Association.

Prof Yeatman said disparate organisations should cooperate to advocate greater investment in health. She offered several topics for consideration, including prioritising ‘the health perspective’, taking a holistic approach to the health of the planet as well as its population, understanding the social determinants of health, strengthening prevention and primary health and finding new areas for investment.

In common with other speakers, **Mr Kilham** rejected the idea that the current Australian system is unaffordable. All public and private spending decisions are choices, and more is spent on legal and illegal gambling than hospitals in Australia. About 19% of total national health spending is met out of pocket by households, but they spend as much on the alcohol and tobacco which damage their health. Indeed, more is spent on caring for pets in Australia than goes to GPs.

Mr Kilham discussed *The Price of Inequality*, a book by Prof Joseph Stiglitz which offers a critique of the economic status quo and argues that increasing inequality in wealth and income leads to poor economic performance. As money moves from the bottom and middle of society to the wealthiest elite, human assets are underutilised, growth is curtailed, GDP is reduced, economic instability is exacerbated and democracy, fairness and justice degrade. Although the book focuses on the USA, Mr Kilham believed much of it applies to Australia.

Indigenous health remains poor despite attempts to ‘close the gap’, and the Australian Government is still to ‘connect the dots’ between the social determinants of health and health provision. **Health and work are interconnected**, for example, **as sick people are less able to work and unemployment is associated with illness**. Mr Kilham underlined the importance of measuring outcomes as many public policies are considered only in terms of costs or potential savings to the budget, instead of their benefits to health. Roads would never be built if only their costs were examined, for example, rather than their wider benefits. Costs are known and factual, while benefits are more difficult to define and articulate, and more effort must be made to create a proper framework for decision making.

Dr Peterson agreed that health spending should be viewed as a wise investment, rather than an increasingly unaffordable expense, and with the health benefits of employment. Studies²⁵ by Dame Carol Black in the UK indicate that employment is beneficial for individual health and



that healthy people are more likely to be in work. New Zealand's health service aims to be 'best for patient, best for population health status and best for cost effective interventions', and its programmes and targets are assessed against these three criteria. Such targets have made a huge difference in China, and Dr Peterson found it interesting that their merit is still debated in a developed country such as New Zealand. New Zealand's Integrated Performance Incentive Framework²⁶ sets cross sectional health targets across individual general practices, primary health organisations (PHOs) – networks of general practice teams – and District Health Boards.

Health disparities and inequities remain an issue in New Zealand. Maori males live eight years less than average, even after statistical correction for socio-economic status. New Zealand is looking to expand the use of primary care, although it levies a co-payment - a topical issue in both the UK and Australia. However, these co-payments are subsidised, with support targeted at those in need. Children from 0 to 6 incur no fees, and from July 2015 there will be fully subsidised primary care for all 6 to 13 year olds. New Zealand has near universal enrolment in general practice, and most GPs in the country would agree the registration process empowers its population health programmes.

Dr Haikerwal invited questions from the floor. The first speaker noted the need for efficiency, given decreasing funds and increasing demands, and called for **proper accounting to identify and control the sums spent on administration**, figures which currently remain opaque.

Assoc. Prof Mark Yates observed that a value can be put on estimated carbon dioxide emissions when building infrastructure, and wondered if **the health effects of the build environment** could also be valued and quantified.

Prof Heather Yeatman said a serious attempt to improve public health outcomes must involve investment in education, public transport and other infrastructure to improve the social determinants of health, rather than '**micro-shuffling**' of the health system. She called for **research into the health impacts of new infrastructure**, including pollution and exercise, and stressed the need for more holistic planning.

Mr Kilham said he had tried and failed to calculate how much is spent on health administration as the existing data is completely impenetrable. Administration costs are factored into everything, from surgical services to electricity, and while input/output tables can be produced, their calculations owe more to imagination than reality. He sought a more constructive framework and differentiated between cost effectiveness - the cheapest way of achieving a goal among alternatives – and cost/benefit analysis which weighs the value of outcomes against their cost. Both methods can be employed, but the public sector tends to look only at cost effectiveness, rather than cost/benefits. Lobby groups are left to point to the benefits of improved quality of life and lower future health costs, and more work must be done

to make more sensible public policy decisions. Australia is prone to 'political monumentalism', with politicians favouring large infrastructure projects, while processes which may generate more value for society are more difficult to explain and so receive less attention and investment.

Mr Peterson called for **a health perspective in town planning** as building a motorway which reduces traffic accidents, or building a cycleway to encourage exercise, have clear effects on health. He reminded clinicians that public health schemes and better housing and sanitation have improved public health more than doctors treating disease.

KEYNOTE

International Effort in Health Systems, Development and Sustainability

Ms Trimmer introduced **Mr Ewen McDonald**, Deputy Secretary of the DFAT, to deliver the keynote speech on the development and sustainability of international health systems.

Mr McDonald outlined new directions in Australia's overseas aid programme and the nation's commitment to strengthening health systems and outcomes in the region. The programme promotes prosperity, reduces poverty and lifts living standards.

He acknowledged the medical, economic and social problems provoked by the Ebola outbreak and detailed Australia's contribution to the global effort to help its victims and limit its spread. Australia has offered \$42 million in aid, including the Prime Minister's commitment of over \$20 million over the next eight months towards a treatment facility in Sierra Leone as part of the UK-led effort in that country. This builds on earlier donations of \$10 million to the UN Trust Fund, \$3.5 million to the WHO, \$2.5 million to Australian NGOs and \$2 million to support the UK in the delivery of frontline services. Australia supports the UN's efforts to encourage contact tracing, safe burials and community education and will hone the Pacific region's readiness to tackle any imported cases. **The Ebola crisis has crystallised core development challenges which require sustained attention and assistance over the long term.** It reminds the world of its interconnections and the need for **ongoing global collaboration** to maintain robust and resilient health systems that deliver proper health care for all.

The context of aid has changed in recent years. Notwithstanding the current Ebola crisis, the facts show that global health is improving. Deaths from AIDS, tuberculosis (TB) and malaria have fallen by around 40% since 2000, while maternal mortality in the Asia-Pacific region has more than halved in the last twenty years. However, global and regional averages can mask major disparities, and many countries in this region still have underfunded health systems and outstanding health issues. Despite progress towards meeting the Millennium Development



Goals²⁷, the rise in non-communicable complaints and emerging infectious diseases are putting pressure on health systems which may be unable to cope.

The methods by which aid is provided have also evolved, with new players promoting development. The establishment and growth of the Global Fund and philanthropic organisations such as the Clinton Foundation and the Bill and Melinda Gates Foundation have added fresh focus and impetus. The provision of intergovernmental aid and the role of UN agencies and development banks remain important, but ongoing economic progress in the developing world means that Australia's bilateral partners are able to devote greater domestic resources to expand their own health sector.

Global aid funds are dwarfed by alternative sources of capital for developing nations. OECD figures from April 2014 show official development assistance amounted to US\$134 billion, while remittances were US\$400 billion and private capital flows topped US\$190 billion, dwarfing philanthropic aid of US\$70 billion. Aid funding will never replace a country's own efforts in safeguarding the health of its citizens. While there are some variations, **international health development assistance accounts for less than 1% of health expenditure in developing countries**. International support must therefore help such countries maximise the effectiveness of their own health resources, encourage political reform and drive systemic improvements.

The private sector has an increasingly significant role to play and now provides 60 -70% of health services in larger Asian countries, covering poorer people as well as the rich. It is an important financer of health services and innovator of medical products and technology. Mr McDonald reinforced the importance of partnerships with private sector firms and praised Australia's expertise in this sphere.

Asia has enjoyed rapid economic growth in the last decade, and Mr McDonald praised China's health goals and aspirations. South Korea is now an aid donor, and Indonesia is becoming a middle-income economy. Many Asian countries will therefore lose eligibility for aid in the near future, after relying on international contributions to combat HIV, TB and malaria and support childhood immunisation. However, large numbers of poorer people are at risk of being left behind. The World Bank estimates that 600 million people live on less than \$2 a day in East Asia and the Pacific, many of them in middle-income countries.

The Australian Government has integrated aid, trade and foreign policy into a single department. In June 2014, the Minister for Foreign Affairs announced its new development policy with the promise it would promote prosperity, reduce poverty and enhance regional stability.

Mr McDonald concurred with other speakers that health is essential to strong economic growth. Healthier adults are more able to earn an income, and only well-nourished, healthy children are able to learn the skills they need at school to break out of poverty. Healthier people are less susceptible to 'health shocks' which can plunge their household into poverty through loss of income and the cost of medicine, consultations and hospital stays.

Outbreaks of infectious disease can have serious national and regional consequences and, before Ebola, the economic and social impact of severe acute respiratory syndrome (SARS) and avian influenza was considerable. The links between health, poverty and growth are reflected in DFAT's investment to support healthy, productive and resilient Pacific populations and build a healthy, stable and secure region. Australia's overseas health spending increased from \$765 million in 2012 to \$785 million in 2014.

Flexible, responsive and sustainable health systems have the people, supplies and infrastructure they require to deliver timely and appropriate services to people in need. Weak health systems are exposed by the emergence of communicable trans-boundary threats such as Ebola. New strains of avian influenza, a resurgence of polio, drug-resistant TB and malaria are regional threats which expose the failings in routine services which leave people dying from lack of basic health care and threaten other nations.

Australia therefore concentrates on the 'unromantic, unremitting task' of sustaining all parts of a recipient's health system, from logistics to laboratories, with partners including NGOs, academia, the private sector and philanthropic organisations as well as national governments. NGOs, including faith-based organisations, have contributed to earlier detection and better treatment of TB and HIV, improved sanitation and ensured better health for mothers and newborns in many countries in the region. Australia's support for regional health systems will be complemented by investments which address the environmental and social factors affecting health and how people access health services. In addition to better nutrition, water and sanitation, empowering women and girls is a central objective of the overall aid programme, and particular attention will be given to women's health needs, including sexual and reproductive health.

The regional focus recognises the reality of Australia's geography and self-interest. **Aid is an investment in the future of the region, rather than charity.** Australia encourages the Solomon Islands to invest in its frontline health services and reform its procurement, for example, as better health outcomes will promote prosperity and reduce the risk of trans-boundary health issues.



It is in everyone's interest to build better health systems in the Indo-Pacific. Leaders from 18 countries in the region are considering an Australian-Vietnamese proposal to commit to the ambitious goal of a malaria-free Asia-Pacific by 2030, for example. Australia has addressed drug-resistant malaria in the region in recent years, demonstrating regional ownership of the problem and laying the foundation for further international collaboration to address regional and global health security.

Research continues to improve the impact of aid investments. The Minister for Foreign Affairs has announced that up to \$30 million will be invested every year to assess the impact of bilateral aid and build the lessons learned into future programmes.

Product development partnerships can address the gaps in medicines and vaccines for diseases afflicting poor people in developing countries. New TB and malaria treatments are urgently required to stay ahead of the resistance emerging to existing medicines. **The availability of powerful new treatments must be matched by the capability of health systems to deliver them to those in greatest need on an adequate scale**, and Australia is providing start-up funding for innovative ways to break the bottlenecks in regional health systems.

In conclusion, Mr McDonald shared the commitment of attendees to improve global health, praised their work and advocacy efforts to this end and expressed confidence that Australian aid will reduce poverty and lift health and living standards in the region and beyond.

ACKNOWLEDGMENT

Dr Otmar Kloiber, Secretary General of the WMA, stressed the importance of Australia remaining active in the international community. He praised the effectiveness of Australia's aid efforts and their emphasis on the social determinants of health and building resilient, sustainable care systems. If its social determinants are not improved, a nation's health will not change, regardless of other efforts.

Physicians support international cooperation and trade to support peace and equity. However, there is concern at trade negotiations 'behind closed doors', and Dr Kloiber hoped governments would negotiate 'with their people'. He then presented Mr McDonald a book commemorating the 50th anniversary of the Helsinki Agreement.

PANEL DISCUSSION

Reflection on Health Investment in Our Nations

Ms Anne Trimmer invited **Dr Haikerwal** to chair a panel discussion on international efforts to secure sustainable health systems. **Ms Melissa Tims**, a Senior Policy Advisor at National Australia Bank (NAB), praised the Australian health system's provision of free attention and treatment at any public hospital, albeit with waiting periods on occasion, but questioned its sustainability. The Australian Government has a AU\$5 billion funding gap, and faces major infrastructure outlays to support Australia's ageing population.

Ms Tims said the mindset of health consumers would have to change as a result and outlined the role organisations such as NAB can play, not least in keeping people in the workforce longer. More flexible arrangements can support older or disabled people in the workplace, and technological innovation may see a quarter of care delivered virtually by 2020. She called for a disciplined, holistic approach with cross-sector participation across public and private realms to deliver the reforms required. Victoria has seen successful public-private partnerships, and she noted the emergence of social impact investing in Australia.

50 to 69 year olds hold 40% of the nation's wealth and will spend more on health as their needs increase. Senator Mitch Fifield, Assistant Minister for Social Services in the Victorian Government, is considering an online 'trip advisor' for aged care, showing a willingness to listen to consumer concerns and for funding to follow the consumer in a more deregulated market. A blueprint²⁸ produced by NAB with National Seniors Australia and the Per Capita think tank reports that Australia's ageing population will create significant business opportunities for private firms to attend to its needs.

Dr Ozdemir Aktan, General Surgeon and President of the Turkish Medical Association, said that Turkey has seen major changes in health delivery and pointed to the specific issues facing his country. Turkey spends the least amount on health per capita - US\$900 – in the OECD and over the last decade its system has been increasingly privatised, despite the opposition of the Turkish Medical Association. About half the workforce is unregistered and does not pay insurance premiums and so are not eligible for medical help. Encouraged by the IMF and the World Bank, privatisation is being implemented in many middle-income countries, but 'one system will not fit all' and poorer people may lose access and incur higher out-of-pocket expenses as a result.

Turkey has received 1.5 million refugees from the war in Syria and Iraq and faces many issues. Only 200,000 are housed in camps, with the rest dispersed elsewhere in the country.



The refugees need food, health care and work, but many are being used as a cheap workforce and face greater occupational hazards, diseases and accidents as a result. **The best investment in health in Turkey would be regional peace, allowing a concentration on other priorities.**

Dr Mzukisi Grootboom, Orthopaedic Surgeon and Chair of Council at the South African Medical Association, underlined Mr McDonald's points about the social determinants of health. He stressed the importance of collaboration between government departments as **synergies from transport, housing, water, electricity and education are as important as the health system itself in improving public health outcomes.** He agreed with Dr Aktan that peace and stability are also vital. The Ebola outbreak has been fuelled by the fragility of sub-Saharan health systems, and lessons should be learned from the international collaboration which tackles AIDS and malaria. National interventions require harmonised approaches and the involvement of local communities. Former President Mbeki's rejection of medical consensus and the use of anti-viral AIDS drugs in South Africa was costly²⁹ and was only overturned by the community's use of the courts.

Although South Africa has invested heavily in health care, it 'has little to show for it' and every ministry is now being held accountable for its results to ensure effective action. The Department of Health has signed a performance agreement to guarantee measureable progress within five years, including increased life expectancy and interventions against AIDS. South Africa now has the world's largest rollout of anti-AIDS drugs and a programme encouraging male circumcision.

Health issues faced by South Africa during the apartheid era persist today, with the middle class enjoying more access to health care than poorer echelons of society. Dr Grootboom criticised poor governance and a lack of accountability in the public health system, but was also concerned by the growth of the private sector and its attraction of doctors, trained at public expense, away from the public sphere.

Health, education and the empowerment of women and girls are key pillars of the new South Africa. There is a strong focus on primary care and it has adopted the Brazilian system of ward-based community health workers who visit poorer families in their homes and trace contacts for TB and AIDS more effectively.

Although the international community has scaled back its aid efforts, there remains a strong commitment to improve global health and the economies of poorer countries to encourage their investment in domestic health care.

QUESTION & ANSWER

Dr Haikerwal invited comments from the floor. **Ms Tania Tanner** criticised current policy making for its focus on instant gratification at the cost of sustainability and asked how the balance could be shifted from the pursuit of immediate economic benefits towards ensuring long-term environmental and social stability.

Prof Michael Moore of the Public Health Association noted the Australian Institute of Health and Welfare's calculation that only 1.8% of Australia's health budget is spent on prevention, while international aid accounts for just 1% of Australia's budget overall. He called for the proportion spent on prevention and primary health care to be increased.

Dr Grootboom said a national development plan, drawn up by stakeholders and experts from a range of sectors and presented for broad community consultation, aimed to remedy 50% of South Africa's identified deficiencies by 2030 through inter-sectorial collaboration.

Dr Aktan noted agreement on the importance of primary health care and also supported investment in prevention rather than treatment. He agreed that war was a major cause of ill health, observing that polio was virtually eradicated before it reappeared in Afghanistan after jihadists murdered vaccinators and began to spread it themselves around the world. Sustainability must be built on primary health care run by governments to ensure universal coverage for their populations.

Ms Tims said Australia was fortunate to have private health insurers which are increasingly interested in primary health care to keep people out of hospitals.

Another delegate stressed that domestic health spending had to be both effective and sustainable.

Dr Grootboom said the cost of administration was an important issue in South Africa as the proportion of frontline health workers in the public service has slumped from 60% to 30% in recent years. The cost of the bureaucracy is hidden from the government struggling to control it, and the growing ranks of administrators mask the lack of qualified clinicians in the public sphere. He argued that no more than 5% of health system workers should be administrators.

Another attendee was pleased at the mention of Brazil's primary health strategy to engage the community in health policy and decision making.

Ms Tims said the Australian obsession with property encouraged banks and investors to favour infrastructure investments which generate a cash flow and return.



Dr Robin Coupland, of the International Committee of the Red Cross, admitted he courted unpopularity by raising the fact that many of the hospitals he had visited in the developing world were riven with corruption, with doormen having to be bribed to gain admittance, pharmacies selling counterfeit drugs and medical staff demanding payments to administer them. He called for ethics to be included in talk of budgets, accountability and governance.

Dr Grootboom agreed that greater investment in prevention and primary health is the cheapest and most effective way to improve health outcomes in poor communities. As banks will not invest in such provision, it must remain a government responsibility. He called for out-of-pocket costs to be reduced and the pooling of resources to share risks and rewards in guaranteeing health care for all.

CONCLUSION DAY ONE

Ms Anne Trimmer then invited **Prof Philip Davies**, Deputy Director-General of Health Commissioning Queensland Division at Queensland Health, **Dr Haikerwal** and **Dr Deau** to summarise the day's discussions.

Prof Davies drew three messages from the session, the first being attendee's challenge to the perceived wisdom that Australia's current health system and ongoing spending growth is unsustainable. He did note, however, that the Government does not pay for two thirds of the nation's smartphones, while it does pay for two thirds of health care. Nevertheless, health care is a service which richer individuals and nations choose to spend more on and, in a democracy, a nation will allocate its budgets as its population decrees. **More attention should be paid to the quality of health spending, rather than its quantity**, and a more informed dialogue should begin with consumers about priorities, given the tension between preventative and primary health and the acute sector raised by several speakers.

His second issue was **a lack of clarity surrounding the objectives of the Australian health system**. High life expectancy is not proof that health care is responsible if the country enjoys a strong economy, benign climate, few natural disasters and strict gun control. A health system must have a wider range of indicators, and while disability-adjusted life year offers a more rational benchmark, the health system can also aim for equity, choice, autonomy, confidentiality and the local provision of services. Health systems should be managed to deliver outcomes and achieve defined objectives. The Queensland Government funds results, not activities, and pays the NGOs and private firms it partners with accordingly.

Prof Davies traced the success of the crowdsourced taxi company Uber to prioritising pre-defined outcomes over processes and realising that the journey matters more than the method employed to achieve it. Uber has used the modern mobile technology which almost everybody already owns and carries at all times to overcome information asymmetry between drivers and passengers and break the monopoly of the traditional taxi industry. A health system which focused on outcomes, rather than process, and patient outcomes rather than demarcation and protection of producer interests, would be equally exciting and challenging.

The world is facing the challenges of chronic disease and new threats such as Ebola, but **improvements in health care will require systemic change as well as additional funding**. A fast-developing China now confronts the same issue of an ageing population as Australia, and countries such as Singapore now have a significantly higher per capita GDP. Advances such as the bionic eye and retroviral drugs are changing health care alongside social and economic pressures, but **while health has led technological and pharmaceutical change, it has lagged behind other sectors in organisational reform**.

Strong and effective government is a vital intermediary in the interaction of health and the economy. Managers and administrators are never popular, but just as health spending can be productive or wasteful, so there is efficient or obstructive bureaucracy. The World Health Report of 2006³⁰ showed that one in three health service workers are managers or support staff, with two thirds delivering treatment. In Africa as a whole, only 17% of employees are not frontline health workers, indeed some of the failings in that continent may stem from a lack of efficient administration and governance. Prof Davis believed that sound and transparent government is the 'silver bullet' which will improve health care in developing countries in the region and around the world.

Dr Deau called for clinicians and their associations to lobby for better health systems to increase human capital, improve productivity and promote wellbeing, before **Dr Haikerwal** thanked the Summit's organisers, speakers and attendees and drew the day to a close.

**DAY TWO****MORNING SESSION – NON-COMMUNICABLE DISEASES (NCDs) & THE SOCIAL DETERMINANTS OF HEALTH ACROSS THE COMMUNITY****INTRODUCTION**

Ms Frances Mirabelli welcomed attendees and introduced the day's topics of non-communicable and chronic disease, the social determinants of health and the threat of climate change.

Dr Otmar Kloiber said the previous day's discussion had offered fresh perspectives on the interrelationships of economics and health, and criticised politicians for marginalising the importance of health by portraying it as an expense, rather than the largest sector in service-oriented OECD economies. Huge sums were found to bail out spendthrift banks and insurance companies after they mismanaged their affairs, while tax payers benefit personally from government spending on health and support its prioritisation.

Research-driven innovations such as the bionic eye can generate significant commercial returns, but social benefits can also be secured without greater spending or developing new technology. Australia's introduction of plain packaging for cigarettes was a simple measure to reduce consumption at no cost to the taxpayer and succeeded despite inevitable and strident industry opposition. Health professionals must engage in debate about social determinants and climate change, and the WHO should pay more attention to NCDs and mental health issues.

Ms Anne Trimmer emphasised the corrosive effect of corruption in both health provision and government around the world. Transparency International estimated that more than 5% of the \$3 trillion spent on health in 2006 was lost to corruption. Ms Trimmer called for leaders in the health sector to acknowledge the problem and ensure that every health dollar is well spent.

KEYNOTE**Discovering the Future of Health Care: Reflections from Adjacent Sectors**

Dr Pradeep Philip, Secretary to the Victorian Department of Health, reflected on the future of health care through perspectives drawn from other sectors.

Health systems must evolve to meet the challenges of an ever more complex and changing world. As previously noted by several speakers, demand for health services is growing as populations age and chronic disease and co-morbidity increase. Other issues include increasing treatment costs, more intensive use of services, technological advances and changing patterns of disease and care. A general rise in incomes and wealth tends to increase health service consumption by every age group, and patient expectations are 'sky rocketing', fuelled in part by the accessibility of information on the internet. The rise of NCDs will change traditional understanding of who delivers health care and when and where it is delivered.

NCDs demand a different approach from the infectious challenges of the past, with a new focus on lifestyles and the social influences upon them. Their multiple and cumulative causation will require a radical re-imagination of the system in response.

The G20 Leaders' Summit in Brisbane will bolster international economic resilience by implementing new financial regulations, modernising international taxation, strengthening trade, reforming global institutions and addressing the perennial problem of corruption. These structural and macro-economic reforms aim to increase G20 economic growth by at least 2% over trend in the next five years. However, significant supply-side challenges remain as economies recover from the GFC of 2008 and world trade reorients towards new growth centres, including China, India and Brazil.

Given economic instability and poor growth in recent years, the ever growing demand for health services calls for 'dynamic system change and adaptation'. Transformational change in health care must leverage the technological and organisational innovations in other sectors to deliver better health outcomes at lower cost.

Health must go beyond the treatment of individuals to place people in their broader context. Population health and personalised medicine should be acknowledged as symbiotic, rather than mutually exclusive domains.

Dr Philip offered four economic and social trends which may shape the future of health care. New ways of looking at the world are emerging, replacing the historical focus on isolated components with a broader view of interconnections, networks and relationships.

Consideration of horizontal connections can offer insights inaccessible by drilling down into a narrow, vertical 'slice' of reality. Health must therefore go beyond the treatment of individuals to place people in their broader context. Studies which map the social environment of health inform both the health sector and the community about the causes and drivers of illness and infirmity. Population health and personalised medicine should be acknowledged as symbiotic, rather than mutually exclusive domains.



A focus on the 'business of illness', characterised by individual episodes of care delivered in acute settings, should give way to more holistic approaches, with a **continuum of care** offered by a number of multidisciplinary providers, often in the community or patient's own home. Patient choice and independence should be a key outcome in optimising their experience.

Wealthier and more sophisticated consumers are rejecting mass-produced products in favour of bespoke goods produced on demand and tailored to their individual requirements. Producers are adding value by turning commodity goods into personalised services which deliver complex yet seamless multi-faceted experiences. This '**experiential economy**' is changing the commercial world, and health care will not remain immune. The transformations wrought in the financial sector, manufacturing and retail have changed the focus of whole sectors towards the consumer experience. The private sector is innovating and competing by introducing customised platforms which interact with the consumer and adapt in response. Customised goods and personalised services are the keys to success in a hyper-connected world of **communication, choice and competition**, and health care must begin to exhibit similar sensitivity to customer preferences and experiences.

Patient choice and independence should be a key outcome in optimising their experience.

The traditional dynamic of expert clinicians lecturing and administering to passive patients is changing as people independently seek information on their own terms. The internet has democratised expertise, which is no longer seen to vest in a single authoritative source, transforming the asymmetry of knowledge which the health sector has traditionally embodied. The health sphere, along with every other sector, must find new ways to respond to consumer demands for personalised experience and expanded choice amid shattered information asymmetries.

This shift in production is empowered by the gathering and analysis of Big Data by companies to mine the behaviour and characteristics of their customers and personalise advertising, products and services in response. Just as retailers and supermarket exploit the data they collect on customer spending patterns to target products more efficiently, Big Data will help health providers identify their riskiest patients and cohorts, triangulate social, educational and employment data and integrate case notes from clinicians, pathology and imaging results. The future of Big Data in the health sector lies not in static data linkage, but the use of real-time feedback to inform decision making and health management.

The customisation of care will spawn a new industry of data-based technology in pursuit of ‘the quantified self’³¹. A patient’s interactions with the health system will increasingly involve a wide range of mobile and wearable devices, innovative apps and social networking. Smartphone-linked and cloud-enabled devices and apps, glucose sensors, blood pressure readers, implantable devices, smart drug infusion pumps, pill-based cameras and portable ultrasound will inform health consumers and help clinicians monitor their status and treat them in real time. The implications for the health workforce and the settings of care of such advances may be profound.

The future of Big Data in the health sector lies not in static data linkage, but the use of real-time feedback to inform decision making and health management.

The ‘quantified self’ is not a pipe dream. It will shape the near future and is grounded in the technology of today. Health consumers will increasingly expect the health system to stay in step with the state-of-the-art technology they use as a matter of course elsewhere in life. Patients will expect communication to occur in everyday language and treatment to deliver the outcomes they care most about. **Patient persuasion**, as well as mere engagement, will become ever more important in a consumer-centric world. As the system incorporates this new methodology, the state of practice within it will start to radically change.

An expanded community of mutual learning and peer relations is developing through the ever closer interconnections between geographies, communities and individuals driven by globalisation. Health system leaders are forging and benefiting from networks of peers around the world, sharing benchmarks for best practice and new ideas for progress. These horizontal peer connections help planners and providers understand their own performance and potential. Just as globalisation has changed the rest of our social and economic landscape, it is changing the sociology of health in radical ways and offers continuous opportunities for innovation, improvement and new modes of understanding. Practitioners in all domains must capitalise on these developments, and the H2O Summit itself is testament to this trend.

Health care will be reconceptualised as the supply-driven systems of today - focused on procedures, hospitalisations and clinicians - evolve into platforms organised around the patient experience. These will prioritise outcomes rather than activities, drive down costs and improve quality and safety. Learning and partnerships across the globe will help transform traditional domains to meet the challenges of the future.



In the face of uncertainty, constraint and change, physicians must ponder their purpose more than ever before. Such analysis must be grounded in the human experience to deliver what people need and demand. Today's understanding of processes, systems, analysis and spreadsheets must become springboards for progress tomorrow. Seemingly intractable problems cannot be solved by mere tinkering with the existing system, and **every stakeholder has a part to play in its transformation.**

ACKNOWLEDGEMENT

Dr Kloiber agreed that physicians must face the challenge of a health system changed by information technology. The WMA considered IT issues in its first policy document, released 41 years ago, on the networking of computers containing patient information, and is still exploring its fast-developing opportunities.

Dr Kloiber stressed the need to maintain **the integrity and rigour of medical standards** and opposed the trend for governments and standards bodies to adopt self-regulation or standards produced by self-selected groups, in which the companies which pays the most gets the rules they desire. He called for a 'professional and open process' which serves the needs of patients and a nation's population, rather than the commercial interest of competitors in the market place.

In introducing the next speaker, Dr Kloiber noted the growing number of attacks on facilities and health professionals around the world. Efforts to encourage the WHO to assess or draw attention to the issue have made little progress, as some of the governments which control it are part of the problem, rather than the solution. The WMA and Red Cross are promoting the **importance of medical neutrality** and respecting those who help the sick and wounded, a role the Red Cross has played since 1863.

KEYNOTE

Global Health and Health Care: The View of the International Committee of the Red Cross

Dr Robin Coupland, Chief Surgeon and Medical Adviser to the International Committee of the Red Cross, explained the ICRC's mandate to provide assistance and protection to victims of armed conflict around the world. It works in 79 countries, many of which have catastrophic health systems, and understands the profound link between ill health and armed conflict.

The ICRC offers first aid and surgical care in conflict areas, visits places of detention to monitor conditions and care for detainees and offers physical rehabilitation services. 8.2 million people were treated by the Red Cross in 2013, 750,000 detainees were visited and 6.7 million people received food.

Dr Coupland treated up to 5,000 wounded people in seven years of field surgery and related his experiences in Africa, Asia and the borders of Afghanistan. He highlighted recent outbreaks of violence in the Central African Republic, South Sudan, Gaza, Ukraine and elsewhere as a worrying resurgence of armed conflict and the health issues it creates. Developing problems of ageing populations and rising patient expectations are also complicating the work of the Red Cross, with more informed patients expecting higher standards of service. The difficult task of adapting traditional provisions to new demands can create serious security risks to the agency, but it can no longer adapt its standards to their context as once it did and provide care which is merely 'ok for Africa'.

The ICRC's *Health Care in Danger* project³² has explored new perspectives on **medical ethics in areas of armed conflict**. Ethical debate once centred on detainees and methods of interrogation, but a broader spectrum of issues must now take centre stage. Health professionals and their families naturally flee insecure and conflict-ridden areas, reducing service capacity just as the need for care increases.

The Red Cross is determined to 'do more and better' in the face of these growing challenges. It has set itself five objectives, the first of which is to build on its three core competences and generate standards for them. It must also widen its scope to embrace NCDs, the ever more reported incidence of sexual violence and assure a continuum of care. Instead of merely assisting a local hospital with surgical material and staff to treat a surge of war wounded, it must also support its routine surgery, pre-acute and primary care. It will focus more resources on vaccination, reproductive health, mental health and psycho-social support for the families of missing people, unaccompanied children and the victims of mistreatment and sexual assault.

Integrated health assistance is a priority - it is hard to support surgery in a community without clean water or give paediatric care to children who do not have enough to eat. The ICRC must also assure quality and accountability to its patients, host governments and donors to retain their support. The ICRC should also consider the social determinants of health, a provision added to its five strategies at the behest of Dr Coupland himself, given that 'health is a state of complete physical, mental and social wellbeing and not merely the absence of disease'³³.



The ICRC needs more and better staff, but suffers a recruitment problem. It needs more general surgeons at a time when almost all students are trained in specialities, meaning senior surgeons must remain in the field to receive new surgeons and train them. The ICRC must build and maintain a reservoir of institutional expertise and work on applying its standards to different contexts where it can.

The Red Cross also lacks a consistent decision making process to balance health and political considerations in deciding the allocation of scarce resources and, just as importantly, when those resources are withdrawn. Such decisions are still made on an ad-hoc basis. The ICRC must also strengthen partnerships with Ministries of Health, other NGOs and its national societies.

The ICRC has ambitious plans, but Dr Coupland was pessimistic about its ability to achieve them, given the spiralling violence, intimidation and looting it faces in the field. The *Health Care in Danger* project is examining ways to protect staff and facilities as without adequate security nothing else can be achieved. An ICRC study analysing 655 violent incidents around the world recorded attacks on hospitals and ambulances and the commonplace assault and intimidation of staff around the world. Incidents at check points are also common, and can reduce access to urgently needed care in ways which are seldom reported by the media. The entry of armed forces or police into hospitals in search of terrorists or criminals can bring health provision to a halt for the duration. If whole towns are insecure, medical staff cannot travel to work, meaning hospitals 'grind to a halt' in their absence. Dr Coupland recalled a terrorist attack on a graduation ceremony for medical students in Mogadishu³⁴ which not only killed doctors and students, but denied care to the thousands of people they would have treated in their careers. The Red Cross therefore views **the threads to health professionals and their work in war zones and unstable areas as the major global health issue.**

Some countries have developed national laws to safeguard health care workers, and the Red Cross has offered guidelines to protect ambulances and hospitals and regulate searches, checkpoints and targeting in urban areas. A series of workshops have also been held with non-state armed groups about respecting the security of humanitarian operations. The ICRC supports investment in global health, but this must be allied to investment in its protection. The solution to this issue lies in the hands of governments, militaries and armed groups as well as the health community.

In regard to Ebola, Dr Coupland hoped it would not take hold in a country undergoing conflict as this would greatly exacerbate its local impact and global threat.

OVERVIEW

The Global Challenge of Non-Communicable Disease

Dr Tony Bartone introduced **Emeritus Prof Stephen Leeder**, Chair of the Western Sydney Local Health District Board and Editor-in-Chief of the Medical Journal Australia (MJA), to discuss the global challenge of non-communicable disease. Prof Leeder praised the holding of the H20 Summit to coincide with the G20 meeting.

NCDs kill 40-50 million people in the world every year, dwarfing the 2 million who die from AIDS. NCDs affect younger people as well as the old, and heart disease and stroke remain significant health issues alongside other growing global threats to health. 780 million people lack access to clean water, for example, and a shift to meat rather than traditional vegetable-based diets in the developing world may exacerbate water shortages. A kilogram of rice requires 3,500 litres of water, but 1 kg of beef uses 15,000, as well as contributing to methane emissions and deforestation. Rising sea levels will also threaten coastal cities and reduce the availability of potable water.

Several '20' conferences were held alongside the G20 meeting, including events on civil society, labour, youth and business, but all these issues are relevant to reducing NCDs. Social and community factors influence their incidence, but social determinants are not responsible alone. The ways in which health care is delivered can also make a profound difference to their prevalence.

In 2001, WHO Commission on Macroeconomics and Health³⁵ examined the interplay of health and economics in relation to HIV, perinatal conditions, malaria and TB, but largely ignored NCDs. A subsequent report – *A Race against Time* – raised awareness of the NCD pandemic, and its second edition was released in 2014. Awareness of the importance of NCDs and their complex interplay with social factors has grown over the last fifteen years. In 2011, a UN meeting³⁶ saw 123 nations pledge action to reduce their risk and improve their treatment around the world. Former Australian health minister Nicola Roxon spoke at that meeting about Australia's proposals for the plain packaging of cigarettes.

Cardiovascular disease costs Russia, China, Brazil, India and South Africa 20 million years of productive life each year. NCDs account for half the disability in developing economies and 20% of total health care costs. The economic case for action must be made to secure the support of treasuries as well as health departments for investment in change.



While Australia has reduced its mortality from heart disease by over 70% and eliminated it as a major cause of death in under-65s, a third of coronary deaths in the developing world are people under 65. The developing world stands where the developed world did in the 1960s, and heart disease still robs low-income nations of productive workers and disrupts their families. Coronary disease is also a major, if underappreciated, factor in women's health and kills five times as many women of child bearing age as perinatal problems and HIV. Cardiovascular disease generates 30% of the world's disease burden, while mental illness accounts for 7%. The Lancet NCD Action Group has produced a series of reports on the issue³⁷ and identifies five areas for intervention - smoking, salt, alcohol and the use of proven drugs - to cut it by a quarter by 2025.

Expanding these aims, the medical profession should lobby for the prevention and better treatment of chronic disease in Australia and around the world. Integrated care is often advocated, although it is poorly understood, and should place the patient at the centre of a health care team. Clinicians should support state, national and international prevention programmes because, while Australia has a strong track record in this regard, it needs to do more. Professionals should look for preventative opportunities in the clinical setting, and Prof Leeder expressed alarm at the previous day's apparent separation of clinical care and prevention. Many cases of type 2 diabetes and heart problems could be prevented through attention by GPs and other health staff. Type 1 diabetes remains a global issue, as 500,000 children are born with it every year, but 100,000 will never receive insulin.

In the words of St Francis, Prof Leeder reminded attendees that if they first do what is necessary, then do what is possible, they will soon find themselves doing the impossible. He urged clinicians who **emphasise prevention in patient interactions** to move on to committee work and call for change on a national and international level.

International Action Addressing Mental Health: The “FundaMental SDG” Initiative³⁸

Prof Dinesh Bhugra, President of the World Psychiatric Association (WPA) and Professor of Psychiatry at Kings College in London, discussed the importance of international action on mental health as ‘there is no health without mental health’ and mental health is ‘everyone's business’.

Mental health is associated with higher educational attainment³⁹, better productivity⁴⁰, improved physical health and cognition⁴¹, reduced mortality⁴², greater social interaction⁴³, less criminal behaviour, lower rates of smoking⁴⁴ and increased resilience to adversity.

However, mental health is seldom mentioned as part of general health, a state Prof Bhurga blamed in part on Rene Descartes' notion of dualism between mind and body. In reality, **mental and physical health are inextricably intertwined**. Mentally ill people suffer higher levels of physical illness, while the physically ill tend to have lower levels of mental health. Depression is double the average in diabetics, for example, and three times more in those with renal failure. The mental health aspect of the Ebola crisis has also been ignored, despite many children losing their parents and widespread fear of the disease.

Figures from the WHO suggest that mental illness accounts for nearly a quarter the UK's total burden of disease, compared to 15.9% for cancer and 16.2% for cardio-vascular disease⁴⁵, and yet funding for mental health services is far from proportional. One in four people will experience mental illness during their lives, and one in six adults suffer some form of mental illness at any one time – with half of these episodes lasting more than a year. It is likely that every family in the land will know at least one person suffering mental illness.

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It affects individuals, families, communities and nations and drives risk-taking behaviour, health inequalities and reduced life expectancy. Its trans-generational effects can lead to educational failure in children and subsequent ill-health. Mental illness exacerbates social inequalities as well as being, to some extent, a product of them.

Mental illness costs the UK £110 billion – 7.8% of GDP – including £32 billion of lost productivity⁴⁶. Many people lost their jobs and grew depressed after the GFC when they found themselves unable to find work again. It is the largest cause of disability and cost to the National Health System (NHS), absorbing 10.8% of its budget. Total service costs – including NHS, social and informal care – were £22.5 billion in England in 2007. The annual costs of depression in Britain are £7.8 billion, while anxiety costs £8.9 billion⁴⁷, schizophrenia £6.7 billion⁴⁸, medically unexplained symptoms £18 billion⁴⁹ and dementia £17 billion⁵⁰. The total average costs per suicide are £1.3 million in Scotland⁵¹ and £1.5 million in Northern Ireland⁵². Annual costs of mental illness during childhood and adolescence vary between 13,000 and 65,000 Euros per child⁵³ in the UK. Childhood mental illness can affect the sufferers' future, and the cost of crimes committed by those with early conduct problems is £60 billion per year in England and Wales⁵⁴.

Mental health issues are often ignored by politicians, but in June 2013, 22 members of the British Parliament stood up in the House of Commons to discuss their personal experiences. These ranged from obsessive-compulsive disorder and alcohol problems to depression and post-natal depression and dementia suffered by their parents.



50% of psychiatric disorders in adulthood start before the age of 15 and 75% before the age of 24. Better prevention would reduce the economic, individual and social toll of poor mental health. It would enable more cost-effective use of resources, improve social functioning and boost social capital.

Risk factors for mental issues in childhood include parental behaviour such as child abuse, pre-natal alcohol consumption, smoking, cannabis, stress and violence as well as poor physical and mental health, single parent status and low incomes. Prof Bhurga noted that car drivers must undergo rigorous training, tests and certification – none of which are required to have a child. A family culture of unemployment, alcohol abuse and relationship problems can result in mental health problems tumbling down the generations. A range of groups facing social inequalities, including people with learning disabilities, ethnic minorities, LGBT people and prisoners, are also more exposed to high-risk factors. As noted elsewhere, such factors affect physical wellbeing too. On average, people in the poorest neighbourhoods die seven years earlier than those in richer suburbs and have 17 fewer disability-free years of life. High-income inequality degrades trust and social capital and is associated with higher mortality, violence and racism.

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The WPA's agenda over the next three years will look at gender-based domestic violence, child sexual, emotional and physical abuse, prisoner mental health care, the position of vulnerable minority groups and mental health promotion. 63% of inmates in American gaols, for example, have a psychiatric disorder. Prof Bhurga termed these institutions 'asylums without treatment' and highlighted the impact on their children, families and society.

Evidence suggests that early interventions can save six times their cost and reduce criminal behaviour. Interventions can include early parenting skills, school-based prevention programmes, treatment of childhood anxiety and phobias and help for psychosis and other issues. Children who are taught how to manage bullying suffer fewer mental problems, and programmes from Jamaica to Pakistan have helped children deal with issues in their communities ranging from gun violence to untreated epilepsy.

A range of policies to build social strength and resilience are vital. Suicides can be reduced by safety protection on bridges, alcohol consumption can be cut by duty increases and education, work-based stress can be tackled through reduction and management courses, and health promotion, such as Australia's plain packaging regulations, can cut smoking and support health. Smoking cessation schemes should be introduced into medical and psychiatric wards, where alcohol and substance misuse and sexual health issues should also

be addressed . Many patients are obese, due in part to side effects of large amounts of medication, and should be helped to manage their diet and exercise more.

Employment programmes, adult learning provision, debt interventions, housing improvements, better heating and insulation and green spaces in urban areas can also reduce stress and social pressures. Social policy should build cohesive communities, increase social capital and encourage positive connections between citizens.

Health professionals can help patients embrace meaning and purpose in life and learn new skills to cope with stressful situations. Intangible factors such as mindfulness, spirituality, learning, leisure, creativity and sleep can be as important as medication in learning to live with symptoms without an immediate cure. As exemplified by the MPs mentioned above, patients can still hold down significant jobs.

The profession must think of new ways to convey its message to the public and politicians. Professionals should go into schools and work with parents, teachers and educational psychologists to educate young people and help individuals in need. Sustainable development goals should prioritise mental health and acknowledge and address the co-morbidity of physical and mental issues. The UN has been asked to adopt a number of mental health goals, and Prof Bhurga urged nations to **increase investment in mental health to at least 5% of their total health budget by 2020 and 10% by 2030.**

The Value of Investing in Successful Ageing: Success in Health and Health Care

Assoc. Prof Mark Yates, a geriatrician and academic at the Deakin and Melbourne University Clinical School in Ballarat, discussed the need to invest in 'successful ageing', given that a quarter of Australians will soon be over 65, with many over 85.

People's decisions and life styles in middle age can influence how well they age, just as the early years influence a person's life chances. Doctors may be divided on whether dementia is a mental illness, but its burden is undeniably growing. However, assumptions that older people necessarily absorb more health resources can be mistaken. Issues of morbidity compression and extension should be considered, but if better lifestyles and medicines help people avoid disability for longer, they will absorb less health expenditure (although if this involves ever more expensive treatments and technologies, that reduction in disability will have a higher price tag). Prof Yates called for a focus on the degree of disability that people live with and the productivity they can maintain, rather than the cost of achieving it. An ageing society would mean a less productive one if employees continued to retire at 65, but if '50 is the new 30', people will be able to work into their 70s and investment in successful ageing will help maintain productivity.



It is often assumed that the rising number of older people will increase hospital costs; however, older people do not always spend a lot of time in hospital - although those that do are expensive. Indeed, the Productivity Commission suggests that the ongoing health costs of the elderly actually decrease, and people who die at 85 cost less in their last three years of life than those who die at 55. Accumulated data from the USA shows a person's Medicare and pharmaceutical costs do not incrementally increase after the age of 65 as might be expected. If people can age more successfully, their last few years of life should cost the health system less than currently expected.

The health system's treatment of dementia is a test of its overall effectiveness. The plight of dementia sufferers and those who care for them must always be considered together.

It is the growing need for long-term residential care, rather than medical expenses, which cost the public purse. Successful ageing which reduces disability and the need for residential care would save money and reduce the need for extra residential care staff. However, if high residential costs and a shortage of care workers mean more people with dementia are cared for by relatives at home, the effect on the working population will be significant. **13% of current carers permanently reduce their paid work, 20% take leave of absence and 8% have left work entirely.** The plight of dementia sufferers and those who care for them must always be considered together.

Prof Yates saw the health system's treatment of dementia as a test of its overall effectiveness. Dementia sufferers are rapidly increasing in numbers, and it is the second largest cause of disability after depression for over-65s in Australia. It runs a predictable course, has major impacts beyond the patient themselves and is unlikely to find a cure in the foreseeable future. However, there are opportunities for prevention, and work by Alzheimer's Australia shows that reducing age-specific incidence rates by 5% or 10% would have a significant impact.

The onset of Alzheimer's disease is affected by environmental and behavioural factors. Research suggests that 2% is caused by diabetes, 2% by midlife obesity, 5% by midlife hypertension, 10% by depression, 13% by physical inactivity, 14% by smoking and 19% by cognitive inactivity and poor education⁵⁵. An improvement in health, education and other social determinants could therefore reduce its incidence in the future. Exercise can improve the physical and cognitive performance of older people suffering symptoms, while dementia is declining in people with cardiovascular problems, even allowing for differences in diagnoses in the past, from better management of hypertension and diabetes and more exercise in middle age. However, **the growth of midlife obesity, which is closely linked to hypertension, diabetes and other risk factors for dementia, may wipe away the gains made in the recent past.**

Dementia cannot be cured, but its handicaps can be minimised. Ballarat's *Dementia Care in Hospitals* programme⁵⁶ sought to change perceptions of the disease and its paradigm of care. It is assumed that people can understand and perform the role of passive, obedient patients when they enter hospital, but up to 30% of adult admissions may exhibit cognitive impairment, requiring staff to change their communication strategies and the hospital environment. Communities themselves can become more 'dementia friendly', a subject already studied in Britain⁵⁷.

Successful ageing also demands understanding and successful management of 'medical futility'. Despite improvements in care and technology, people must accept when and why further medication becomes counterproductive. This is a debate which must involve all stakeholders and take a wide scope of patient capability into account. **Successful ageing requires research into dementia and related issues to intensify.** Despite recent boosts from Government, research resources dedicated to cancer and cardiovascular disorders is six to eight times greater than those devoted to dementia.

VIGNETTE

Consumers Advocating for their NCD Care

Mr Frank Quinlan, Chief Executive Officer of the Australian Mental Health Council, discussed consumer advocacy for mental health and NCD care. Mental health has been the subject of a government review in 29 of the last 30 years, the latest of which reported to the Australian Government in November 2014⁵⁸. Such reviews tend to emphasise efficiencies, savings, productivity and rationalisation of services, but the concerns of clients and carers focus on symptoms, diagnoses, treatment and compliance. Studies show that clients and carers want secure housing, financial security, stronger relationships and opportunities to participate, and though resources should be used efficiently, policy should concentrate on the needs of their users.

Mr Quinlan offered a number of indicators and targets built around six core principles, as advocated by an expert policy group for the Council. People with mental health issues suffer below-average physical health, and Mr Quinlan called for measures to encourage physical and mental wellbeing across the whole community. People with mental illness need respect and the opportunity to contribute in employment and society. **Patients want a positive experience of care, and it is regrettable health service customers are not routinely surveyed about their experience.** Steps should be taken to reduce avoidable harm and suicide, the use of seclusion and restraint should be re-examined and action taken to reduce social stigma and discrimination. Mental Health Australia found that people with mental issues were almost as likely to face discrimination by a staff member providing care as they were from the general public.



The public accepts the importance of mental health, and recent national and international campaigns have raised awareness. Mental Health Australia's *Seven Point Plan for Mental Health*⁵⁹ calls for agreement on the care systems, while funding responsibilities should be clarified as mental health frequently falls in the gaps between state and federal provision. There should be more participation from consumers and carers in the governance, design and evaluation of the system as all too often people are given services they do not want, while others fail to receive the services they need. Incentives must be properly aligned, as many activities are undertaken, but little funding is attached to the successful achievement of outcomes. Early interventions should also be emphasised to minimise problems in later life. Providers with an entrenched interest in the existing system must consider what they are willing to sacrifice to move forward.

VIGNETTE

Tobacco Control: Divesting from Tobacco

Dr Bronwyn King, a Radiation Oncologist at the Peter MacCallum Cancer Centre in Melbourne, discussed her campaign to end tobacco share holdings by investment funds. She began the *Tobacco-Free Investment Initiative* in 2010 after discovering her unwitting investment in the tobacco industry through her superannuation scheme, despite working at the largest cancer centre in the Southern Hemisphere since 2001.

Tobacco has a devastating impact on individuals, their families and the community, but the savings of other health professionals and the Australian community as a whole are commonly invested in tobacco by super funds, despite Australia's leading role in public measures to reduce its consumption. Most super funds buy into foreign indexes of major companies, and unless their customers opt for a 'green' or 'ethical' option, these will usually include major tobacco producers. In discussions with her super fund, Dr King found that BAT, the Imperial Tobacco Group, Philip Morris and the Swedish Match Company were four of her five largest holdings. Tobacco accounts for a very small percentage of a super fund's total assets – between 0.1% and 1.28% - however, just 0.5% of the \$1.7 trillion sector would mean \$8.5 billion is invested in tobacco, with most Australians remaining unaware of how their money is being used.

Dr King's discussions with her super fund, First State Super, made progress after a difficult start and she was invited to present her case to its board. A year later, after a merger with a larger Sydney-based fund, it banned tobacco from its portfolio and sold \$200 million of tobacco shares. Publicity around its decision and the support of its CEO provoked discussion

in the industry, and 21 super funds to date have followed suit, shedding \$1.3 billion in tobacco shares. Funds have cited a variety of reasons for their actions, from ethical and health concerns to the impossibility of engaging with the tobacco industry itself, given the nature of their business. Health-related funds were confident they would have the support of their members for this action, while government funds were able to align their holdings with state and federal anti-smoking policies. Other super funds moved before the introduction of disclosure legislation which will oblige them to declare their holdings, while others drew links to child labour or the behaviour of tobacco firms abroad which would be illegal in Australia.

The savings of other health professionals and the Australian community as a whole are commonly invested in tobacco by super funds, despite Australia's leading role in public measures to reduce its consumption.

Dr King is working with 35 more funds and aims to make a robust case study of Australia to take the campaign abroad. She is writing a publication for the WHO and will speak at a UN youth conference in 2015. She thanked health organisations for their support and offered to help attendees advance the campaign in the future.

The Role of Health Insurers in Supporting Chronic Disease Management

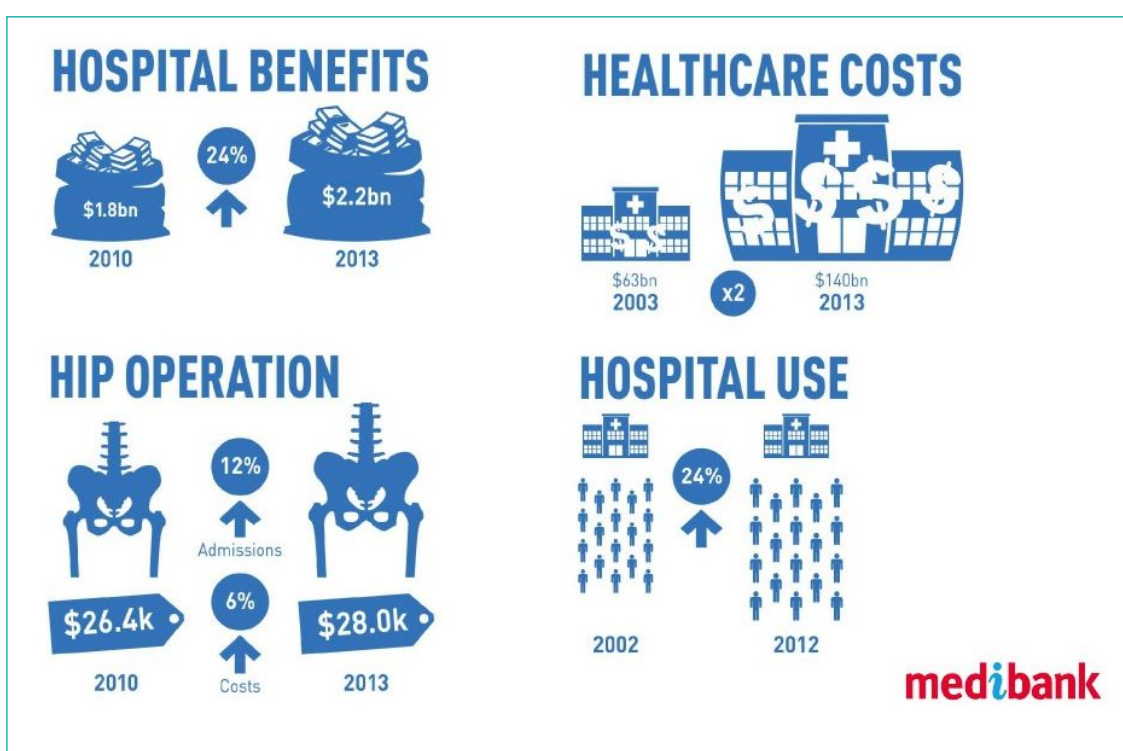
Dr Andrew Wilson, Head of Provider Relations and Integrated Care at Medibank, discussed the role health insurers can play in supporting the management of chronic diseases in partnership with primary health professionals.

Medibank was formed 38 years ago as a government insurer, but is now a commercial company about to be listed on the stock exchange. Health costs are rising, and although Medibank is 'comfortable' with paying for good quality health care for its members, it supports preventive measures to reduce expensive hospital admissions and treatment, particularly for chronic disease. It also wants activities which cost money but have no definable benefit identified and addressed.

Medibank aims to enhance patient experience, improve health outcomes and facilitate affordable and quality care. As most of its costs relate to hospital fees it is discussing outcome-based, rather than activity-based, funding with institutions and professionals. High fees are no guarantee of best outcomes, with Sydney's most expensive major hospital having the highest rate of preventable problems and 28-day readmissions.



2.2% of Medibank's 3.8 million members account for 35% of its expenditure in hospitals – a sum of \$1.1 billion. However, 70% of these people have underlying chronic complaints. Better primary care is required to keep them well and out of hospital, and although Medibank has no interest in directly funding primary care services, it does seek opportunities to support primary care practitioners. The less access people have to primary care, the more likely they are to go to hospital – a far more expensive option, given Australia's geography.



A qualitative survey of frequent health care consumers found they suffered problems caused by poorly handwritten prescriptions, the substitution of drugs and a general lack of coordination of services with GPs. People with complex and chronic health needs often experience psycho-social issues which can drive their hospital admissions as much as their physical complaints. Support to help such people keep medical appointments – or pay their electricity bills - is as critical as medication, and the survey highlighted the enormous burden faced by their carers and families.

In its efforts to coordinate primary care, improve health outcomes and so reduce hospital admissions, Medibank recently launched *CarePoint*⁶⁰ in partnership with the Victorian Department of Health in a trial due to run to 2017. It offers a new patient-centric integrated model of care for 2,200 people with chronic conditions and complex needs which is implemented across services and supported by collective funders. It acknowledges the critical role of the GP and involves care assessment, planning and navigation, home monitoring and

electronic plans and patient records. Up to a quarter of all hospital admissions are avoidable, and reducing these would save up to \$400 million dollars a year, some of which could be reinvested into other services.

*CareFirst*⁶¹, a pilot launched by Medibank with Queensland GPs, will improve patient behaviour and health literacy for the 10-20% of patients below the top 2% through additional support, including health coaching, telephone advice or a dosette box to organise medication.

A recent literature review identified five key traits of successful disease management programmes around the world. These include GP-initiated enrolment of patients, delivery of care by practice nurses, the development of care plans within clinical guidelines, disease-specific education sessions and regular review of medications. All were integrated in the CareFirst scheme.

Five key traits of successful disease management programmes around the world include GP-initiated enrolment of patients, delivery of care by practice nurses, the development of care plans within clinical guidelines, disease-specific education sessions, and regular review of medications.

Although the extent to which private insurers should involve themselves in primary care remains controversial, Dr Wilson called for medical professionals to welcome partners willing to invest to help some of society's sickest members. He accepted that GPs should remain the arbiters of care, but called for earlier intervention to prevent expensive 'train wrecks' in the future. He hoped Medibank would identify 100,000 more people who would benefit from preventative programmes in the next two years, including phone support to help them keep appointments and 'navigate' their care.

Rising to the Challenges with Action Now: How We Can ALL Act!

After a break, **Dr Bartone** welcomed **Dr Alessandro Demaio**, Global Health Fellow in NCDs and Assistant Professor at the Harvard Medical School and Copenhagen School of Global Health, to speak on action against NCDs.

The WHO defines NCDs as lung disease, mental illness, diabetes and heart disease and cancers. Dr Demaio stressed the importance of the drivers and risk factors behind these diseases, including social determinants, smoking, physical inactivity, alcohol and poor diet. He underlined the seriousness of the 'NCD epidemic' and debunked several common myths about them.



NCDs are not ‘diseases of tomorrow’, but the leading cause of global death today, accounting for 36 million of the 56 million deaths every year. NCDs are not limited to the richest people or nations, they cause and perpetuate poverty and are a major barrier to social and economic development around the world. NCDs threaten to reverse many of the gains made towards the Millennium Development Goals over the last 15 years.

NCDs are not a natural part of ageing as 50% of NCDs affect people under 70, while type 2 diabetes is increasingly seen in adolescents and children. NCDs comprise the largest threat to female health and development around the world. Helen Clarke of the UN Development Programme draws a close link between poverty, female health, maternal child health and NCDs. NCDs are responsible for 65% of female mortality and create a huge burden of care as women are forced from education or the workforce to look after family members.

Dr Demaio argued that if two thirds of all Australians are overweight or obese, factors beyond individual overindulgence must be at play. NCDs are not the result of individual laziness, as is often supposed, but the ‘canary in the coal mine of a broken system’. UN Secretary General Ban Ki Moon has said the issue of NCDs is ‘neither technical nor financial...not a medical or public health problem, but a political one’⁶². 80% of global diabetes and heart disease and a third of all cancers can be prevented with the technology of today.

If two thirds of all Australians are overweight or obese, factors beyond individual overindulgence must be at play.

Rather than equate health only with health care, Dr Demaio criticised growing Australian income inequality as the richest ten families own more than the poorest 1.73 million citizens. Affordable housing is a major issue in Sydney and Melbourne, and the speaker stressed the need for green spaces and educational opportunities in an increasingly privatised system.

Patients should not be scolded for becoming unwell in cities built for cars rather than people, and the challenge of NCDs should be used to propel a broader social agenda. In common with climate change, NCDs are a man-made problem with man-made solutions if we confront the problem, rather than ignore it, deny its existence or hope it goes away.

Dr Demaio called for a ‘zero tobacco future’, reductions in sugar consumption, the encouragement of exercise and praised people who become weekday vegetarians. Alcohol intake should be reduced and society’s ‘fundamentally strange relationship’ with this addictive drug should be questioned, alongside wider considerations of the social, economic, commercial and structural ‘causes behind the causes’ of NCDs around the world.

He urged health professionals to lobby on these issues for the sake of the poor and marginalised communities which are most affected by them and have the least resilience to cope. Social structures should be reformed, and the human toll of NCDs should be remembered amid the avalanche of statistics.

Medical students should also be taught humility, as most health improvements over the last 150 years were a product of economic growth, engineering innovations and public infrastructure such as clean water and sanitation, rather than the efforts of the medical profession. Many future improvements will also result in large part from changes in public policy, meaning physicians can do the most good for their patients by advocating for systemic change.

Health professionals must encourage urban planners to make the healthy choice the most convenient choice for the community. 40% of Copenhagen's workforce cycles to work, and its 12% obesity rate is half that of Australia. Dissuading car use through better public transport, more bike lanes and other measures should be designed into urban infrastructure. Health professionals should also work with parent groups. Dr Demaio favoured a ban on advertising for alcohol, soft drinks and junk food, particularly to children, and the sale of soft drinks in plain packaging similar to cigarettes.

Schools should teach children to have a healthy relationship with food, as a poor diet is the main risk factor for morbidity. Taxation should price unhealthy food out of people's shopping baskets, and doctors should work with scientists and psychologists – and not the food industry – to create packaging, labelling and retail environments which encourage healthy purchasing decisions. Consumers should not be confused by a bombardment of impenetrable information and then carry the blame for poor choices. The same psychology and behavioural science used by the food industry to entice people in the wrong direction should be used to make things better.

Doctors should help focus the health system on prevention and primary care, and tackle the perception that general practice remains the 'poor cousin' of the medical profession. Dr Demaio urged attendees to raise the profile of NCDs through social media and encourage transformative change, as was seen in the fight against HIV, in everything from education and urban planning to the production of food. A groundswell of public support for change is required to overcome the resistance of entrenched commercial vested interests in the status quo. Medical professionals should work with other sectors; however, the responsibility of large businesses remains to their shareholders rather than the public good, and an 'arm's length' relationship with big business should therefore be maintained. Health professionals must also engage the public in an inclusive dialogue.



NCDFREE⁶³, a social movement Dr Demaio cofounded which aims for a world free from preventable NCDs, has raised \$90,000 to make a series of short publicity films, organise boot camps for young leaders and run an international campaign which reached a million people. It aims to engage people born after 1980 and link the issue with poverty with a sense of global urgency.

Making IT Work: The Place of IT in Coordinating Care

Ms Ann Larkins, Chief Knowledge and Information Officer at Barwon Health, outlined the successful implementation of health IT in Victoria's largest regional health service over the last decade. Barwon Health serves 350,000 people over 21 sites with 400 acute, 100 rehabilitation and 400 aged care beds. Its range of services, including community and mental health, spread of population, demographic range and partnerships with other stakeholders make it an ideal test bed to show how coordinated, end-to-end care can work to improve service efficiency and patient outcomes.

Barwon began to plan for 'e-health maturity' in 2002, and the development of a data dictionary, data warehouse, e-health records and mobile care delivery continues today. It has produced point-to-point discharge summaries for GPs since 2011, alongside notifications for attendances and discharges, mental health care summaries and crisis and shared care plans, particularly for mental health.

Clinicians should be able to access a range of applications to suit their particular needs, connecting to other health providers to deliver coordinated care. **Over the next five years, Barwon will take advantage of consumer developments in IT which prioritise data, rather than applications, to pursue its aims of 'convergence', 'conformance' and 'collaboration'.**

Convergence of clinical systems and technology will support mobile workflows, while the conformity of data and systems to widely accepted standards will enable interoperable and secure messaging. **Collaboration with clinicians in the design of IT** will produce more appropriate systems and encourage physicians to use them.

The health region requires an infrastructure of 'fit for purpose' applications to support an increasingly mobile and distributed workforce across acute and community care and, just as importantly, support the use of patients' phones and mobile devices. Shared electronic patient records and reliable and affordable 3G and 4G coverage will empower all its partnerships and services. Barwon introduced thin/zero client solutions in 2012 to support remote care through a 'bring your own devices' programme, and a mobile device management solution is planned for early 2015. The health system can use the ubiquity of patient-owned devices to deliver better outcomes for everyone without unnecessary investment in proprietary technology.

Health offers a huge market, but vendors remain reluctant to build or support the clinical information systems which health providers need. Barwon's new platform will treat data as its core resource, and present a user interface which is almost disposable in nature.

The conformity of data and messaging to broadly accepted standards has been achieved by embedding national identifiers throughout Barwon's clinical information systems, with the south west region the last to be added in 2015.

PCEHR were integrated in October 2014 and offer benefits to women and children with their take up by maternity patients encouraged through Medicare Locals. Their use should be encouraged by emergency departments.

Collaboration must be encouraged throughout Victoria's system of devolved government to prevent local innovations creating a plethora of isolated information silos. Barwon partners with Deakin University, Medicare Locals and mental health and integrated cancer services and is talking to private health insurers to encourage interoperability. **Partnerships with people regarding life choices and care are a priority**, with 'information prescriptions' being considered to help patients navigate the minefield of information available. Information prescriptions offer personalised health and medical information about a patient's diagnosis, treatment and care plan and cover the key points of discussions held with their doctor.

Knowledge management is needed to treat NCDs, with information captured dynamically, managed in real time and shared generously in teams providing integrated care.

Prevention and health promotion are emphasised by Barwon, and telehealth capabilities and new models of care are being developed. Data analysis by Deakin University produced a list of hospital patients likely to relapse, for example, and a trial investigated the value of telehealth support and remote monitoring against a control group in reducing remittance. Knowledge management is needed to treat NCDs, with information captured dynamically, managed in real time and shared generously in teams providing integrated care.



VIGNETTE

Joining up the Dots: Secure Communications NOW!

Mr Jason Trethowan, CEO of Barwon Medicare Local, discussed secure communications. He traced the advantages which more integrated connections could offer various patients – from those with chronic conditions to parents of children with changed behaviour - as well as the needs of health professionals, including remote GPs requesting second opinions. Patients expect, and the medical profession wants, a well-connected health system delivering the best quality of care as close as possible to people's homes.

Barwon adopted its connected system in 2007, after consultations with GPs flagged the need to replace cumbersome faxes with electronic results. This collaboration encouraged a greater take-up by physicians than systems imposed by the government. **Rather than use the standard systems of the time, Barwon took what it learned from its health practitioners and looked for the most appropriate solution.** It adopted 'Referral Net' from Global Health and has continued to develop the system to meet its users' needs.

Barwon also worked with practice managers and senior receptionists, as they are the gatekeepers to the primary health care system. Sustainable and effective systems to support patient interests now connected doctors, allied health professionals, specialists and hospitals throughout the region at reasonable cost with strong professional support. Secure messaging carries 18,000 pieces of patient correspondence every month, 95% of which would have been posted or faxed seven years ago. Barwon understands the importance of working with clinicians to gain their support for PCEHR and deliver value from them.

Barwon is now introducing HealthPathways⁶⁴ to translate evidence-based practice to the local level through GPs and primary care. It discourages unnecessary referrals, while helping GPs link patients needing further attention to the specialists they need. HealthPathways is not a clinical protocol to force GPs into cost-saving decisions, but empowers their decision making and builds better relationships with their specialist colleagues.

VIGNETTE

Dr Yes: Additional Strategies to Support Care

Dr Rosanna Capolingua, a GP and former President of the AMA, chairs Healthway⁶⁵, a West Australian health promotion foundation which she termed more 'aggressive and dynamic' than VicHealth, its Victorian counterpart. It was created to buy out tobacco sponsorship of the arts

and sport and now replaces alcohol and junk food advertising as well, despite fierce industry opposition and a lack of political support.

Dr Capolingua emphasised the role which doctors can play in public health advocacy, and outlined the WA's 'Doctor Yes' programme, founded in 1996. Young people can feel invulnerable to health problems and engage in risky behaviour as a result. The programme trains young doctors to talk to young people about sex, drugs and other issues in the language they understand. There are now over 800 'youth friendly' doctors in Western Australia, and hundreds of thousands of high-school students have been involved since its inception. The issues facing adolescents continuously evolve, and the content of the scheme is revised as a result, with fresh cohorts of young, energetic and connected medical students from the University of Western Australia who can relate to young people and the problems issues facing them. Sexting, cyberbullying and artificial cannabis did not exist in 2001 while the rate of self-harm and suicide in young people have trebled in the last two years. The programme empowers young people to make healthy choices regarding diet, exercise, relationships and lifestyles. Messages are tailored to fit their target communities. 'Doctor Yes' is centred in Perth, for example, but reaches Aboriginal children in the far north west, and the sex education delivered to the girls in Kalgoorlie at 13 is very different to that given to private school girls in Perth of the same age.

International views of the NCDs

Dr Masami Ishi, a Japanese neurosurgeon and Vice-Chairman of Council at the WMA, said Japan's universal health coverage was established in 1961. It recently launched a new check system for NCDs backed by telehealth and supported by the Japanese Medical Association. The JMA supports investment in health, but while private stakeholders are increasingly investing in the area, their returns go to shareholders, rather than patients. Investment must be supervised by physicians and professional groups, and Dr Ishi hoped that new movement to encourage ethical investment and improve policy making would emerge.

QUESTION & ANSWER

Dr Haikerwal encouraged attendees to ponder the different perspectives offered in these talks and the emphasis on success, rather than intractable problems outlined.

Prof Owler agreed on the 'fascinating range' of subjects discussed and that success could be achieved in complex issues, just as with complex patients, by picking pathways to success, tackling specific problems and making direct differences to outcomes. He thanked the



Summit's international and local visitors for attending, Dr Haikerwal for his scrupulous attention to detail and Dr Bartone and others for their efforts.

Dr Haikerwal then invited **Dr Nathan Pinski**, chair of the Royal Australian College of GPs' Committee on Technology and Health, to comment on IT in Australian health. Australia had significantly increased its e-health capability in the last five years, however, much remains to be done. National infrastructure, including the healthcare identifier service and digital credentials to ensure secure messaging and electronic transfer of prescriptions, have been developed, but **the design of PCEHR has split between the needs of patients and physicians**. Patients see their record as a way to access their own health information, but they are still to be generally embedded into day-to-day clinical practice around Australia. Furthermore, with the exception of some parts of general practice, health professionals have not embraced electronic point-to-point messaging.

PCEHR were envisioned as the end point of a ten-year process of establishing a health communications network; however, their implementation was brought forward seven years, meaning the networks they rely upon do not exist or are not well established. Dr Pinski called for these foundation services to be built, delivered and made interoperable, given that there are a dozen secure messaging products in use which do not communicate with each other, despite the technical ability to do so.

He asked for electronic prescriptions to be given legal status to encourage their use, and for the political, cultural and commercial culture in health to catch up with today's technology. Open Note APIs in the USA give clinical information to patients after a consultation, and there are many other examples of success around the world.

Ms Jan Donovan of the Consumer Health Forum of Australia praised the morning's emphasis on NCDs and emphasised consumer concerns about obesity. She criticised a lack of public health campaigns or price signals for alcohol and junk food, given the success of action against tobacco. She advocated action against NCDs through preventative public health campaigns and agreed on the benefits of PCEHR. She had seen the success of electronic records in remote Aboriginal communities on a recent visit to the Northern Territory and wondered why they were not used across the country.

Linda Worrall-Carter, Professor of Cardiovascular Nursing at ACU and St Vincent's Hospital in Melbourne, said one in three women suffer a cardiovascular event and emphasised the importance of cardiovascular disease for women's health, alongside issues such as breast cancer.

DAY TWO

LUNCH SESSION - THE SOCIAL DETERMINANTS OF HEALTH

VIDEO ADDRESS

Chaired by **Dr Tony Bartone**, the discussion began with a video address by **Sir Michael Marmot**, a Professor at University College London and Chair of the WHO Commission on the Social Determinants of Health⁶⁶.

The Social Determinants of Health Agenda in the UK: SDH - Front and Centre in Health

Prof Vivienne Nathanson, Senior Director of Professional Activities at the British Medical Association (BMA), argued that social determinants should be 'front and centre' in discussions of health policy. She discussed their impact in the UK and the role medical professionals can play by using evidence to advocate for improvement.

Health inequalities exist within and between countries, and people in more privileged nations should work to reduce disparities between them as well as within them. Life expectancy at birth for boys in the UK can vary as much as 18 years in the same city, be it London or Glasgow, due to social conditions rather than any difference in access to the NHS.

Doctors must use medical evidence to present a compelling case for change and coordination in government policy outside the narrow health sphere.

Prof Nathanson wanted physicians to promote health in its broadest sense, rather than merely practise health care. Middle-class people understand health education and make use of services which poorer people do not, and she called for health professionals to venture into the 'discomfort zone' of looking at social determinants and involving themselves in issues of **housing and employment** as well as health. People who live in poor housing with little protection from damp and cold will become ill as a result, and doctors must campaign for better housing for all, rather than content themselves with helping individual cases.

Doctors must use medical evidence to present a compelling case for change and coordination in government policy outside the narrow health sphere. Attempts to reduce pension costs by increasing the retirement age will founder, for example, if most people are too disabled to work beyond 65. This would merely shift the burden on the public purse from the old age pension to disability allowances.



People from lower socio-economic groups are more likely to be disabled at an earlier age and are already the most dependent on state benefits, while doctors, lawyers and teachers are less likely to be disabled, more likely to have private pensions and accumulated wealth and less likely to be a burden on the state. The Treasury must talk to Health and other departments about these issues to consider them holistically. Discussions of alcohol in the UK focus on violence and policing rather than its health implications, for example, and higher duties should be contemplated to reduce its consumption.

The BMA supports **placing the social determinants of health at the heart of policy formation** to promote a holistic and effective approach. Everyone would agree that a child should have the best start in life, and so framing policy proposals in terms of their benefits for children makes it harder for decision makers to dismiss their importance. The BMA frames its social policy goals around health and wellbeing, rather than health care, and is careful to avoid the impression that doctors want to medicalise every aspect of life in pursuit of better health outcomes.

People from poorer areas will be more likely to attend appointments, stop smoking, reduce alcohol consumption and participate in health promotion programmes if they feel they have a stake in the future. Prof Nathanson urged other medical associations to place social determinants at the centre of their policy discussions and partner with other organisations and sectors in pursuit of change. Medical bodies should meet with teaching unions, for example, to discuss health promotion in education. Prof Nathanson praised the 'Doctor Yes' campaign and its equivalents in the UK and elsewhere for helping young people resist social pressure towards damaging behaviours. She told of the Liverpool Fire Brigade's willingness to help local young people by sharing its fitness facilities and running community sports events and vegetable gardens. She urged health professionals to be equally imaginative and proactive in the community, as well as using evidence in partnerships to lobby for wider social and political change.

Developing New Patient Centred Care Initiatives and the Health Literacy Agenda

Mr Roy Batterham, Senior Research Fellow at Deakin University, discussed his work with Thailand's Ministry of Health in developing grassroots, patient-centred care initiatives and boosting health literacy. Thailand's health outcomes rank between the USA and Australia, despite spending just 4% of GDP on health. It has a well-developed system of community nurses and health volunteers, and Mr Batterham was both inspired and humbled by their intimate knowledge of the communities they worked in and their commitment to their patients.

The country has tremendous strengths in its community-oriented culture, but has much to do to deal with industries promoting alcohol, tobacco and sugar. Per capita sugar consumption, for example, has increased 15-fold since the mid-1970s. Thailand's road traffic accident rates are four times that of Australia, and over 2,500 children drown every year in a country with many bodies of water, but little tradition of teaching children to swim.

Social inequalities in health can be addressed by strengthening the capacity of local communities, agencies and service personnel to respond creatively to local needs. **Health literacy** can help achieve these goals, and its measurement offers a tool to inform local planning and give local communities and health providers a voice. The structure of health services can militate against the achievement or even the pursuit of equity within it and hamper creative debate with local communities. Health literacy, by contrast, offers a framework for sharing local wisdom and good practice and stimulates discussions among families and peer groups in meaningful and constructive ways.

Health literacy affects people's ability to access and use health care, interact with health service providers, care for their own health and the health of their families, participate in health debates and discuss issues with others.

Health campaigns tend to target groups within easy reach, rather than those in greatest need. Phrases such as 'readiness for change' and 'capacity to benefit' are designed to pursue effectiveness and value for money, but can be used to justify a failure to act in creative and flexible ways to pursue health equity. A strict focus on standardisation and averages in research without understanding local variance can also be counterproductive. An emphasis on top-down management, uniformity and vast sets of performance indicators often inhibits the capacity of local agencies and services to respond flexibly and appropriately to the varying needs of their constituencies.

Health literacy affects people's ability to access and use health care, to interact with health service providers, to care for their own health and the health of their families and the ability to participate in health debates and discuss issues with others. These notions of functional, interactive and critical health literacy are well understood, but it should be seen as a problem solving tool, rather than a relationship between abstract constructs. **A flexible range of strategies is required to help people with different needs make healthy decisions.**

There are any number of studies on 'parts of the elephant', but simplistic measurements rarely offer insight into effective steps to improve things. A number of multidimensional tools can offer more guidance and acknowledge the tendency of patients with stigmatising conditions



such as back pain, obesity and HIV to lose trust in health professionals and avoid contact with them for fear of being judged and lectured. As an alternative, Mr Batterham conducts focused surveys and cluster analysis of patient groups to produce descriptive health profiles with additional input from qualitative data and interviews. Such surveys can reveal why certain groups underuse health provision or map the many influences on individual and collective health decisions. Stress can be a useful marker in many Asian countries for mental health issues, for example, as people are reluctant to discuss them openly. Workshops are then held with local health providers to pool existing solutions and brainstorm new ones, with trials launched to test their efficacy. This work can progress across multiple sites in multiple countries to develop an online knowledge base to guide practitioners and service planners wanting to respond more flexibly to client needs.

VIGNETTE

“Sons of the west”

Dr Vanda Fortunato, Chief Executive Officer of Macedon Ranges and North Western Melbourne Medicare Local, introduced a video on the ‘Sons of the West’⁶⁷, a men’s health programme launched by the Bulldogs AFL club. The Bulldogs had tried to partner with other health organisations for 18 months without securing support, but the success of a *Dads and Lads* football programme in Liverpool in tackling smoking, obesity and poor attendance at cancer screening programmes encouraged the Medicare Local to support it.

1,075 men registered with the Sons of the West and 831 completed its online health questionnaire. 95% reported improved health knowledge as a result and 20% said their health had improved. 13% saw an improvement in blood pressure and 75% continued to participate in some form of physical activity after the programme’s end. It will be expanded into a new 18-week scheme at the start of the next AFL season.

Dr Bartone commended the scheme, noting the Bulldogs also began a prostate cancer awareness foundation.

VIGNETTE

Holistic Approaches to Health and Welfare from Alzheimer's Australia

Ms Carol Bennett, incoming CEO of Alzheimer's Australia, discussed holistic approaches to Alzheimer's care. She offered a case study of an elderly woman in a nursing home suffering from end-stage dementia, and challenged the system to improve the experience of people in her situation. Over 330,000 Australians have been diagnosed and live with dementia, a number which may climb to 900,000 by 2050. 44 million people suffer from dementia around the world, a figure which could swell to 135 million by 2050. 1.2 million Australians care for dementia sufferers, and there are over 100 million carers worldwide. **The rate of dementia diagnoses is increasing rapidly, with another case logged every six minutes in Australia.** By 2050, there will be one new case diagnosed every 95 seconds - over 7,400 new cases per week. The economic implications are considerable, dementia's global cost reached \$600 billion in 2010 alone, a sum which would make it the world's 18th largest economy, and this sum is rapidly increasing.

Ms Bennett asked for better aged care and improved prevention and primary care across the system. People with dementia and their carers must be supported and given choices about the help they wish to receive. Clients are often expected to fit in with whatever services are on offer, rather than those services being tailored to client need. A more responsive health system should focus on the patient's experience of care, as well as its delivery by clinicians, and engage more closely with its communities.

Dementia degrades the ability to connect with others as well as the function of the brain, and **more 'dementia friendly' communities** and **better public understanding** could help change the experience for millions of sufferers. Everyone can contribute in their own small ways to improve the lives of people with dementia. Research should continue to explore treatment options, and Ms Bennett praised the Australian Government's assignment of more resources to this end.

She emphasised that most people will not suffer dementia as they age and it should not be seen as an inevitable part of ageing. In common with other chronic diseases, there is evidence that lifestyle factors can increase or decrease its risk and severity. Around half of Alzheimer's cases are potentially attributable to amendable factors such as diabetes, hypertension, obesity, smoking, depression, and cognitive and physical inactivity. Early intervention and engagement across a broad range of domains could help slow the decline which sufferers experience from forgetfulness to confusion to incapacity, and reduce the financial burden of hospital admissions and residential care.



PANEL DISCUSSION

Social Determinants of Health: Words into Action

A panel discussion on the social determinants of health featured **Prof Frank Jones**, President of the RACGP and a representative of the World Organization of Family Doctors (WONCA), **Prof Michael Moore**, CEO of the Public Health Association of Australia and President Elect of the World Federation of Public Health Associations, and **Mr Andrew McAuliffe**, Senior Director of Policy and Networks at the Australian Healthcare and Hospitals Association.

Mr McAuliffe said that despite Australia's reputation as a healthy country, some groups within it are significantly more at risk and experience a greater burden of disease. He had seen a 'glimmer of hope' two years ago when an Australian Senate inquiry considered a national response to the WHO's report on social determinants⁶⁸; however, despite support from both sides of politics and sensible recommendations on the integration of health into wider policy discussions, the report was not acted upon.

Mr McAuliffe recalled similar frustrations from his experience as a bureaucrat in the Queensland Health Department writing cabinet submissions to the budget committee. The economic and trade implications for the State were considered for each funding submission, as were its effects on employment and the environment, but health was not a factor. Politicians contest for votes with promises of hospitals and beds, rather than consider the holistic integration of health and other policies.

Prof Jones believed GPs understand the importance of social determinants and public health provision, but, working on the front line, they must deal with the patients in front of them, 70% of whom suffer from chronic disease. GPs work in teams and understand the importance of integrated care. They are experts in diagnosis, therapeutics and the continuity of care which improves health outcomes and reduces hospital admissions. GPs deal with increasing numbers of complex presentations, rather than people with a single complaint, but nearly all Australian research is based in hospitals, with less than 3% dedicated to primary health. Australia has 64 medical sub-specialties, but this is not a record it should be proud of. More attention should be given to the health service as a whole and general practice.

GPs are conscious of the social and personal contexts behind their patients' presentations, with issues of alcohol, unemployment or difficult relationships underlying many visits to the doctor. GPs should sell their message more effectively to politicians, journalists should be educated to write in more informed ways, and primary care should be expanded to reduce the

problems of chronic disease. Prof Jones read a brief statement from the President of the World Organisation of General Practitioners which argued for global investment in primary care and family medicine, particularly in low- and middle-income nations.

Prof Moore said despite the oft-cited *Economist* survey which regards Melbourne as the world's most liveable city, the OECD holds Canberra as the best place in the world for citizen wellbeing. Melbourne is 'liveable' because it is prosperous, and politicians from comfortable backgrounds on both sides of politics fail to understand the social barriers faced by less fortunate Australians. As chair of the Social Determinants of Health Alliance, he emphasised the social context of health and urged medical professionals to use their knowledge and the respect in which they are held to influence the government and advocate for change.

Professor Yates said that people suffering from dementia can wait three years to be diagnosed and urged GPs to use specialists in complex cases. However, Australia lacks a large enough network of specialists to provide proper support, and a clearer pathway of diagnosis must extend beyond primary care.

Prof Jones said incentives in the health system encouraged a quick throughput of patients and 'lazy medicine' by which GPs refer patients straight away. He agreed that referral pathways are 'problematic' and called for more use of information technology to help GPs hold video consultations with specialists. Rural doctors are particularly isolated, and IT should empower their practice and referrals.

Dr Kieren Le Plastrier of HealthDirect said half the Commonwealth's \$10-billion spend on mental illness is paid out as Disability Support. He asked what could be done to convince politicians to address social determinants and invest in services outside the major hospitals. **Prof Moore** considered \$10 billion to be an underestimate, taking into account the prisons which incarcerate many people with mental health issues.

Mr McAuliffe said responsibility was being devolved through the health system, but managers are still pressured to produce 'year-to-year deliverables' rather than plan 'the big picture'. A GP criticised the government for planning to 'slash and burn' rebates for GPs, pathology and radiology, while **Prof Moore** criticised its apparent antipathy to action on social determinants and the proposed \$7 co-payment for GP consultations. **Mr McAuliffe** said the Government's policies were founded on misinformation and dismissed its figures regarding GPs' utilisation. He criticised any reductions of primary care and called for the removal of ineffective drugs and treatments to save resources, rather than increasing out-of-pocket expenses for people least able to pay. **Prof Jones** said the medical community should take responsibility for not getting its message across to the politicians while **Prof Moore** called for a reappraisal of fiscal reforms which reduce tax for mining, and big business, but may increase recessive taxes on the public such as GST.



DAY TWO

AFTERNOON SESSION - CLIMATE AND HEALTH

OVERVIEW

Climate Change and Health: Can We Safely Reach the Future?

Assoc. Prof Mark Yates, a board member of AMA Victoria, introduced **Prof Lynne Madden**, Assoc. Dean of Learning and Teaching at the University of Notre Dame, who urged health professionals and students to take action on climate change. She dedicated her address to the late Tony McMichael, Professor of Climate Change and Health at the University of Copenhagen, and praised his work on the Intergovernmental Panel on Climate Change (IPCC) and his conviction that preservation of the planet's biosphere is essential to human health.

'.....we've started to disrupt the world's climate system and very many other of the great natural systems that are this planet's life support system, we are actually beginning to change the conditions of life on earth. And that's a big deal...There will be a whole range of adverse health effects.' -

Prof A.J. McMichael in a podcast for the NHMRC in 2009

A recent UN meeting, attended by 124 heads of state, increased political momentum towards the Paris talks which will agree coordinated, transformative action to meet meaningful targets to address climate change. World leaders have agreed to limit temperature rises to less than 2°C above pre-industrial levels, but without significant emission cuts from all parties, that window of opportunity will soon close. Demonstrations around the world before the UN meeting saw over a million people take to the streets, with over 300,000 at a march in New York.

Climate stability since the last age has allowed human civilisation to flourish, but the burning of fossil fuels and wholesale deforestation has increased carbon dioxide in the atmosphere by 40%, trapping more of the sun's energy and increasing global temperatures in the infamous 'greenhouse effect'.

Atmospheric temperature has increased by almost 1°C in recent decades and will rise between 4 °C to 7 °C by 2100 at current rates of emission. Limiting the increase to less than 2 °C requires the rapid decarbonisation of economies over the next 10 to 15 years.

Climate change will affect health in a variety of ways, from the direct health consequences of extreme climate events such as storms and heatwaves to its effects on ecosystems, infectious diseases, food supplies and fresh water and the social disruption engendered by climate refugees and resource wars. Air pollution from fossil fuels already kills a million people a year, but a rise of 4 °C to 7 °C could cause billions of deaths as areas are rendered uninhabitable and the ecosystems on which we depend collapse.

Climate change is therefore the biggest global health threat of the 21st century, and while mankind can adapt to some degree, the elimination of its source is urgently required. Health professionals must find their voice and use their credibility with the public to call for urgent action.

The health system can reduce its carbon footprint and rethink its delivery of care and sources of energy. The investments of its substantial pension funds should also be ethically appraised and redirected where appropriate. The Sustainable Development Unit⁶⁹ of Britain's NHS has driven evidence-based reform, for example, and Oxford University's Centre of Sustainable Health care⁷⁰ works on further strategies for change. Medical colleges should integrate the health effects of climate change into their curricula, and institutions active on the issue, including the AMA and BMA, should be supported by professionals.

Climate change is the biggest global health threat of the 21st century. Health professionals must find their voice and use their credibility with the public to call for urgent action.

Intersectional cooperation should reinforce the work of others and emphasise the health benefits to their actions to reduce emissions. As outlined in the recent New Climate Economy Report⁷¹, cities must be redesigned, low-carbon energy sourced and the wholesale destruction of forests and bio-diversity arrested. Citizens must bring pressure to bear on politicians, business and institutions, and Prof Madden encouraged attendees to write to politicians and newspapers about the Paris talks and support climate charities and advocacy organisations.

Pathways to Deep Decarbonisation in 2050: Climate Action is Good For You!

The Hon. John Thwaites, Professorial Fellow at the Monash Sustainability Institute and Chair of ClimateWorks Australia, offered pathways to 'deep decarbonisation' by 2050. He was interested in the extent of discussions at the G20 in Brisbane on the issue, given the recent and historic emissions agreement between the USA and China.

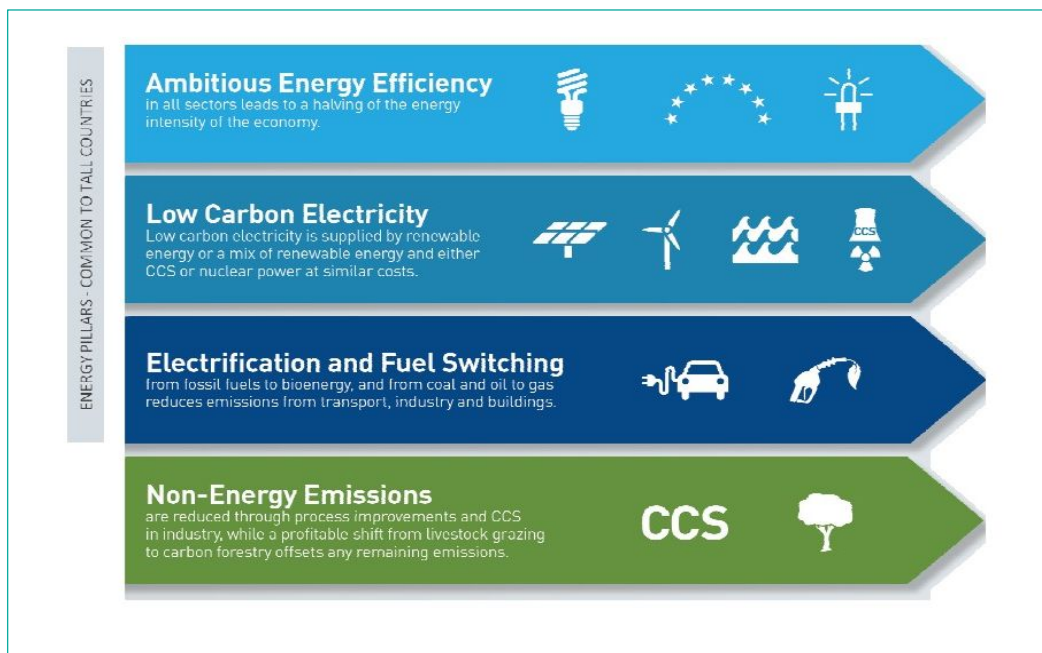


The IPCC report presents the world with a stark choice between cataclysmic temperature increases in the 21st century, or limiting change to a more manageable 2 °C.

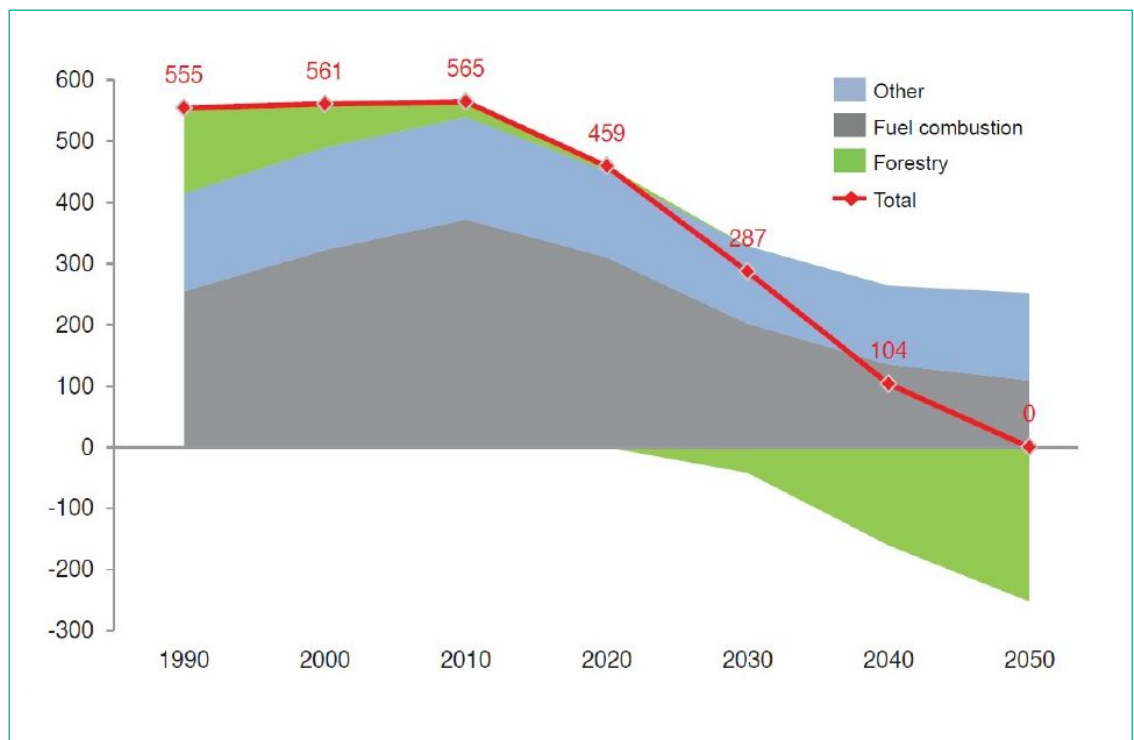
The primary impacts on health of heat waves, rising sea levels and extraordinary weather events, indirect impacts of drought, mosquito-borne diseases and malnutrition, and the tertiary risks posed by economic disruption will vary according to the vulnerability of individuals, communities and nations, with Africa and southern Asia worst affected.

Although every major country has agreed to limit the damage to 2 °C, no country has identified how they will achieve it. Australia can slash its carbon emissions while maintaining growth of 2.4%, a similar rate to the past five years⁷².

The Deep Decarbonisation Project⁷³ involves the 15 major emitting countries and outlines ways to limit global warming to 2 °C. Produced by the Sustainable Development Solutions Network, the project was launched by the UN Secretary General at the recent UN climate summit.



Australia's Pathway to Deep Decarbonisation



35 billion tonnes of carbon is released around the world every year, and to achieve even a 50% chance of limiting global warming to 2 °C, this must be reduced to 15 billion by 2050, despite a projected higher global population of 9 billion. This means reducing emissions from 5 to 1.6 tonnes per head, a particular challenge for Australians who are responsible for 17 tonnes per head due to land clearing and the nation's reliance on coal for electricity generation.

Prof Thwaites outlined a four-pronged strategy to achieve this goal. Energy efficiency must reduce the energy required to produce every dollar of GDP by 2030 through replacing halogen lights with LEDs, more efficient heating, ventilation and cooling systems and modernised transport. Coal-fired power stations can be replaced by renewable energy, notably solar power, with Australia opting to use 100% renewables, or 70% with the balance made up by nuclear power or carbon capture and storage. Electric cars should supersede petrol and diesel and mining trucks could be replaced by conveyer belts. There are also significant opportunities for Australia to capture carbon through reforesting land cleared for pasture.



Cutting carbon emissions will reduce the threat of bushfires, droughts and heatwaves and ease pressure on food supplies. Energy efficiency will create healthier buildings, with insulation reducing heating costs, heat stress and impacts from cold spells. The replacement of coal and transport fuels with solar generated electricity will cut air pollution, and more walking, cycling and use of public transport will cut obesity and diabetes.

Prof Thwaites noted potential downsides to the response to climate change – nuclear power is controversial and has its dangers, although far fewer people have died in nuclear accidents than in coal mines. Biofuels can also reduce food production, particularly in developing countries. He urged attendees to use a ‘health lens’ to view potential action on climate mitigation.

Although the ‘Black Saturday’ bushfires killed dozens of people in a day, 374 people died from heat stress elsewhere in Victoria. Research on excess deaths from higher temperatures reveals **a threshold of around 28 °C for Melbourne, after which there is a jump of 17% in mortality**. Given the nonlinear relationship between temperature and excess deaths, even a slight reduction in temperature rise above that threshold will save a significant number of lives. Planting trees in the urban environment can reduce the impact of very hot days by up to 15 °C by providing shade, and the provision of water features, woodland, green roofs and gardens can all reduce the risk of morbidity and mortality through heat stress.

Climate action: Our Planet our future- Students’ leading community Action!

Ms Grace Davies, the National Student Representative for Doctors for the Environment in Australia, and **Ms Alice McGushin** of the Australian Medical Students Association (AMSA) discussed action by medical students on climate change.

Human health relies on a healthy environment and so to undermine the environment is to undermine health. Clinicians, medical students and associations therefore have a responsibility to take action at this crossroads in human history. Medical students have been engaging and educating their peers, liaising with teaching institutions to add climate change to the curriculum and running ‘code green’ events to engage people in solutions, from bike riding and tree planting to carbon neutral parties.

The AMSA have held a series of discussion and educational events, while medical students have also engaged the medical profession through the annual ‘*Doctors for the Environment*’ conference and events run by other professional organisations. Students also have raised awareness with the public, politicians and media and framed ongoing energy discussions as urgent health concerns.

Students have called for divestment from fossil fuels by banks, universities and superannuation funds, but ongoing subsidies for fossil fuels in Australia and around the world present a \$7.7 billion a year barrier to progress.

The Paris Conference of December 2015 will see countries agree to firm carbon reductions, and ambitious targets should be set to secure better health and a safer world. Engagement by health professionals and their organisations should advocate meaningful targets and strong national policies to achieve them. The climate crisis can be turned into a health opportunity, and medical networks and influence must be mobilised to take it.

PANEL DISCUSSION

Climate and Health

Dr Stephen Parnis, Vice Chairman of the AMA, chaired a panel discussion on climate change and health which featured **Prof Vivienne Nathanson**, **Dr Robert Wah**, WMA President, **Mr Jonathon Kruger** of the Australian & New Zealand College of Anaesthetists and **Dr Tim Malloy**, President, Royal New Zealand College of General Practitioners.

Prof Nathanson said medical professionals and the health system as a whole should set a good example and reduce carbon footprints where possible. Physically active transport and disinvestment in fossil fuels should be pursued, although legal stipulations to maximise returns for members may complicate the actions of pension funds. As doctors face difficult decisions every day and understand both resource limitations and the difficulties of securing behavioural change, **Dr Parnis** believed they would make excellent advocates on climate issues.

Dr Wah emphasised the economic importance of doctors in the economy and stressed this financial clout could be used to secure political support for social, health and climate issues. The American Medical Association estimates that doctors created \$1.6 trillion of economic activity in 2012 in the USA alone and sustained 10 million jobs. The average American physician generates \$2.2 million of economic output every year and supports almost 14 jobs, pumping \$1.1 million in wages into their local economy.

The American Medical Association is teaming with the YMCA to prevent 60 year olds transitioning from pre-diabetes to diabetes in a programme which works in 70% of cases. 30 million patients in the USA still have uncontrolled hypertension, a figure the Association



aims to reduce by 10 million by 2017. Doctors can have a major impact if they join in partnerships to tackle issues in their communities as well as with individual patients.

Dr Parnis said that doctors translate complex questions of pathology and treatment into everyday language for their patients and could play a similar role for complex issues in the public domain. **Mr Kruger** said strong professional associations were required to drive change, but such efforts could have as much impact as clinical treatment. He called for cooperation between groups and sectors and for the necessary media and communication skills to be emphasised and developed. Medical groups should engage with education and the justice system, for example, as well as health departments.

Dr Parnis agreed that leadership and advocacy was as important as research or administration and encouraged attendees to participate and encourage colleagues to play similar roles. **Dr Malloy** emphasised the threat faced by Pacific Islands from rising sea levels and called for clinicians to take the lead in their own locality. While running a general practice in rural New Zealand, he has also planted woodland, produced fuel from forestry waste and created a vegetable garden to encourage healthy eating in his community. Doctors should use their spheres of local influence to make a tangible difference, as well as advocate for national and international action. **Dr Parnis** reiterated his point that understanding and persuasion presented in everyday language were needed rather than lectures from above. The Australian medical profession is aware of the issues of climate change and is determined to act.

CLOSING REMARKS

The H2O Summit was closed by **Ms Tana Wuliji**, lead of the Health Workforce Development Unit at USAID. Although the Summit was subtitled *Healthy People – Successful Economies*, a successful economy does not necessarily generate better health for its population. Health professionals are the mediator between a strong economy and better health. The world's environmental, economic and social systems are more interconnected than ever before, which creates both opportunities and vulnerabilities, as a weakness anywhere can affect people everywhere. The rate of change is accelerating and, despite areas of progress, health impacts from environmental damage, social inequities, geopolitical conflict and demographics remain. 80% of population growth, for example, will be in Africa by the end of the century while developed nations age. Resilience is the focus of the G20, but it can only be enabled by strong public health. Policies and systems should pursue sustainable development and be continuously recalibrated to meet changing needs.

The G20 should be encouraged to improve health investment to foster growth and stability, while social inequality can be addressed through reforms in health, trade, climate, education, infrastructure, justice and security. Private investments aim for profit, but their effect on the environment, society and sustainability present additional challenges. Sustainable growth and resilience cannot be secured, if short-term profit is achieved at their expense.

Health professionals must engage with the investments, policies and actions of others which affect health, and Ms Wuliji applauded the WMA and doctors worldwide for taking up these issues. The interdependence of the modern world has been exposed by Ebola, whose economic fallout cannot be quarantined. Global networks should be used in positive ways to examine other perspectives, share innovations and lend collective weight to sustainable progress. Ms Wuliji challenged attendees to assess what outcomes they valued and whether they were vested with processes or results. If the health profession truly values its patients' welfare over its own entrenched interests, it will reduce barriers and embrace fresh solutions. She praised the 'ripples' created by the H20 Summit and hoped the WMA would help turn them into 'waves' around the world.

Dr Haikerwal asked for support for a short statement, based on the Summit's discussions and previous research, to be sent from the WMA to the G20. He hoped the event would lead to further functions and thanked its organisers and members of the AMA, WMA, BMA and other speakers and attendees for their contributions, passion and support.

Dr Pradeep Philip thanked Dr Haikerwal for his unstinting efforts and urged for attendees to use their considerable influence to encourage change. Health should be repositioned in the public debate as an economic driver, with spending seen as an investment not a cost. Health affects everyone and remains an intensely personal experience despite all the advanced technology around it. Health is instrumental to productive lives, strong societies and human flourishing. Dr Philip asked attendees to consider what they could contribute to these issues, hoped they had enjoyed their time in Melbourne and said their presence demonstrated their commitment to helping people across the world. The real work will begin once the event is over as attendees absorb its lessons and implement them in people's lives. He thanked the Summit's organisers, sponsors and contributors, hoped the G20 would listen to their message and drew the event to a close.



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