Community & Public Sector Union
Civil Service Association of WA

Community & Public Sector Union
SPSF Group, WA Branch
Civil Service Association of WA Inc

www.cpsucsa.org

UnionLink: 1300 733 800
Email: help@cpsucsa.org
Reception: 08 9323 3800
Fax: 08 9323 3878

Address: 445 Hay St, Perth WA 6000
Mail: PO Box X2252, Perth WA 6847

ABN: 78 678 313 448

26 October 2017

Robyn Kruk AM
Sustainable Health Review Panel Chair
Sustainable Health Review Secretariat
189 Royal Street
EAST PERTH WA 6004

Dear Robyn

Re: CPSU/CSA Submission to the Sustainable Health Review

I am writing to you following our productive discussion held on 20 September at 189 Royal Street relating to your role as Panel Chair of the West Australian Sustainable Health Review. This review is of high importance to the entire CPSU/CSA membership as it addresses one of the most complex and challenging areas of funding and service delivery for Western Australia. I am pleased to submit a brief but detailed submission for your consideration. This submission is made in conjunction with the role the union will fulfil on the Review's Workforce and Culture Working Group.

CPSU/CSA members working within the Department of Health fulfil an important role as the planners of the delivery of health services across the state. They are highly educated, working at the forefront of public health, project management and service delivery strategies. The CPSU/CSA also represents public Dental Health Services, a public health success story for many West Australians. In addition, the CPSU/CSA represents a range of state agencies which closely interact with the Department, such as Department of Communities, Department of Justice and Department of Education, to list just a few. We have been fortunate enough to consider these perspectives and shared opportunities in our attached submission.

The CPSU/CSA submission recommendations can be divided into three broad themes identified from engagement with our membership:

- Budget savings measures must not compromise the ongoing long-term strategy to retain Department system managers resourced to improve our service delivery models
- The Review must examine current funding arrangements and delivery of preventative health outcomes to identify and rectify any flaws found
- Department staff must be empowered to identify savings through reform of service delivery and the latest public health research

I wish you the best in your ongoing work to build a more sustainable health system and look forward to working with you at the upcoming Working Group meetings.

Yours sincerely

Toni Walkington
Branch Secretary

Sustainable Health Review

Submission by the CPSU/CSA

“The science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society”
-Sir Donald Acheson defining public health, World Health Organisation 1988

CPSU/CSA Submission to the Sustainable Health Review

The Community and Public Sector Union / Civil Service Association (CPSU/CSA) is a West Australian union representing 630 occupations in over 130 public sector agencies. We make work life better for over 38,000 people in WA. We represent public sector staff at the agencies under consideration of the Sustainable Health Review, including but not limited to the Department of Health, the Department of Communities, Health Services National Occupational Calling (NOC) – Corrective Services and the West Australian Mental Health Commission.

- We believe that robust, dynamic and quality public services are the foundation of a fair and just society.
- We are vehemently opposed to the privatisation of public services.
- The CPSU/CSA accepts the findings of multiple studies which demonstrate that a preventive health approach greatly reduces the future health care costs as well as preventing high amounts of suffering and economic disadvantage caused by lifelong health conditions.
- In formulating this report, we have consulted as widely as possible with members given the restrictions of the tight timeline.
- The CPSU/CSA would welcome the opportunity to serve on the future Working Groups of the Sustainable Health Review.

Key Recommendations

- The four divisions reporting directly to the Director General, known colloquially as ‘Royal Street’ must retain their collective role as the “System Manager” of the West Australian healthcare system. The role must include maintaining a highly educated and experienced staff contingent responsible for the future planning, procurement, public health programme delivery and overarching strategic policy directions for the Department of Health.
- Royal Street’s “System Manager” role must include dedicated constant improvement and reform, as outlined under Recommendation 85 of the Reid Report.
- Department of Health must ensure population health scientists and qualified epidemiology experts are represented in managerial and leadership roles to ensure strategy is informed by the latest relevant research.
- The Sustainable Health Review should be empowered to examine the roles of the Area Health Services and eliminate any duplication detected between Area Health Services and Royal Street. Future planning roles must rest with Royal Street staff in order to maintain a unified, whole-of-state strategy.
- The Sustainable Health Review should issue honest and impartial advice to the State Government for undertaking alterations to the Executive Structure in a method not informed by any long-term strategy for the provision of health services to West Australians aside from a simple desire for budget savings.
- In order to maximise preventative health outcomes, the Department of Health must improve delivery of workforce planning for non-frontline Department of Health staff, including the staffing requirements of the Public & Aboriginal Health Division, particularly Environmental Health.
- Department of Health should carefully examine and assess the current rules and guidelines around clinical incident reporting for duplication. This assessment will inform amendments to Department policy if duplication or wasted staff time is detected.
- Department of Health should renew attempts to sign a memorandum with the West Australian Local Government Association around a whole-of-state strategy and agreement for the funding and provision of Environmental Health Officers across the state.
- Department of Health must immediately undertake a red-tape reduction process for the Intergovernmental Relations Unit in order to optimise staff ability to win federal funding. Where possible, federal institutions should also be invited to engage in red tape reduction exercises as well.
- Department of Health should be commended for funding health research grants for Western Australian health researchers. Where possible, this funding should be targeted to research into the Western Australian healthcare systems most pressing challenges.

- Department of Health must immediately audit growth in School Dental Services demand and provide permanent FTE and infrastructure to reduce the unacceptable waitlists in rural and regional Western Australia.
- Key Performance Indicators should be formulated to actively reduce the use and systematic reliance on expensive private health service providers.
- Greater cost savings can be achieved via research and implementation of Recommendation 22 of the Reid Report, pertaining to the roll-out of telehealth and digital healthcare strategies.
- The CPSU/CSA recommends the McGowan Government proceed with the WA NDIS bilateral agreement as agreed by the previous government, which is bolstered by a successful model informed by 20 years of continual reform and improvement.
- Recommend the immediate review and reform of service delivery options with a view to shift services to professionals with lower training costs and greater supply.
- Propose the creation of a standalone centralised service for the provision of interpreter services across Government, using a pool or pools of such workers employed as Public Service Officers, or Government Officers.

Public & Aboriginal Health Division

The CPSU/CSA has become concerned about the systematic removal of managers with significant epidemiology and public health science backgrounds in this division. Over the past decade, this division has seen a number of managers with impressive resumes in health systems scientific research and enquiry lost. Notably, the most recent departing talents have included WA Health Medical Epidemiologist Dr Gary Dowse and prevention control experts. These losses are a clear indication of the propensity for Voluntary Severance Schemes to lead to a "dumbing-down" of the population health capacity of the agency and a lack of succession planning when it comes to recruiting high calibre research specialists in these fields. The loss of clinical prevention experts informing the Department's direction will have a real impact in terms of West Australian lives saved from disease.

In responding to the significant Senior Executive Service changes in the Department of Health, the CPSU/CSA believes it is critical the Department of Health retains scientific officers in leadership roles. Having scientists with decision-making capacity, providing advice to high levels of leadership will ensure the Department can confidently plan ahead for the safety and health of the wider community.

The CPSU/CSA is currently monitoring the loss of a direct reporting line from the Aboriginal Health Unit to the Director General. This decision runs against a number of policy positions agreed upon for the wider public service recently. It is important to ensure that any changes in executive reporting do not lead to a decrease in timely action on Aboriginal health challenges within Western Australia. The union is also monitoring closely the new structure's interaction between Aboriginal Health and Environmental Health. There are opportunities to link the two units collaborative work in monitoring safe water, wider health initiatives, Close the Gap targets and disease control in remote and regional communities. However, any strategy to address the lower rates of immunisation coverage for Aboriginal infants aged 12 months and two years requires a focused approach (p31, 2015/16). The CPSU/CSA notes that in 2013/2014 only 90.2 per cent of West Australian children were fully immunised, suggesting work on Aboriginal Health Outcomes would be beneficial for already existing health Key Performance Indicators.

The CPSU/CSA has strongly argued against the continued defunding and deskilling of the Environmental Health Unit of the Department. In the last ten years, this unit has shrunk by approximately 33 per cent at a time when the population of Western Australia has grown from 2 million to 2.5 million. Given the scarcity of the state's potable water supply, the importance of water quality for the purposes of hygiene, measurement of levels of hormones in water sources and algal outbreaks, the growing workload involved with state food safety and the threats posed by pesticides, insecticides and by surges in vermin and disease, this unit has a very broad area of responsibility to contend with. Some recent examples of the critical role this unit was involved in include measurement of the potential health impacts of climate change and lead and nickel poisoning in the state's South West.

Case study: heat wave management

Extreme heatwaves are one of Australia's most common natural disasters which can create substantial cost to our health system (Policy Guidance Briefing No 9), including ambulance, emergency departments, Intensive Care Unit, primary care services and affecting significant numbers of vulnerable people. Under the State Emergency

Management Plan 'WESTPLAN – Heatwave', the Department of Health is the prescribed hazard management agency for Western Australia.

This submission raises three key concerns in relation to the Sustainable Health Review and extreme heat events:

- Concerns over loss of staff positions in the Disaster Management Planning & Regulation and Communications teams within Health;
- Impacts of cuts in other agencies on their ability to effectively participate in a response to an extreme heatwave; and
- Review of the current Heatwave State Emergency Management Plan to reflect structural changes and to bring the plan in closer alignment with emerging best practice around Australia.

For more detail on the CPSU/CSA's investigation of heatwave management, please refer to Appendix 1.

Restructuring concerns

Although there have been significant restructures within Department of Health, including the potential impact of 3,000 sector wide redundancies and Service Priority Review revisions, the legislation maintains robust expectations around services delivered. For instance, the *Food Act 2008* and the *Public Health Act 2016* still requires that the Department of Health, as well as Local Government, maintain an active force of authorised officers. These officers must make multiple assessments based on the recommendation of the Australian Pesticides and Veterinary Medicines Authority.

Medical genetic technologies have considerable benefits that can be demonstrated through public health strategies. In order to support the work of Genetic Services of Western Australia and the genetic testing services provided by PathWest, the Genomics unit will only have a larger role to play in Western Australia's health system in the years to come. In addition to the developing understanding of disease, including many rarer diseases, the genomics unit creates a far wider array of opportunities for the population health outcomes of Western Australia.

Recently, the union has developed major concerns about the move of the Sexual Health and Blood-borne Virus Program to Royal Street. The nature of this service means that the staff employed often need to liaise and counsel West Australians who have an established history of irresponsible and dangerous spread of sexually transmitted or blood-borne infections and disease. Some of these clients are acquainted with the prison system and can react violently to an authorised officer delivering bad news to them. Ideally these clients should have access to an external, self-contained meeting room, where a discussion about sexual health or sexual history can occur with some privacy. The current nature of Royal Street is that of an open plan office, which is highly inappropriate for this level of client interaction. It is difficult to imagine this service being hosted in Royal Street without the risk of breaches of confidentiality or potential occupational safety and health risks to Department of Health staff. The union will continue monitoring the restructure to ensure safe, external and confidential facilities are supplied to staff.

The 1990s saw the widespread privatisation of public health promotion campaigns in Western Australia. Today, Department of Health (Public Health Division) staff primarily work via liaising with Non-Government Organisations to oversee the delivery of health campaigns. The most recent statistics suggest 27 per cent of West Australians aged 16 or over are obese, while 40 per cent are overweight. Western Australia has a smoking population of approximately 10 per cent. It seems clear there are a number of reasons to invest more heavily in public health promotion, while there is little in the way of staff left to cut. The CPSU/CSA also notes the significant successes of programmes such as *Quitline*, the *Make Smoking History* campaign and the Public Sector's leadership in the *Smoke Free WA Health System Policy*. The Department of Health also holds significant statutory duties under the *Tobacco Products Control Act 2006*. The CPSU/CSA has received reports from members that the Chronic Disease Unit has been downsized from a Full Time Equivalent workforce of 12 down to just 3.6 Full Time Equivalents currently, with two Full Time Equivalent staff currently on maternity leave. These shocking figures demonstrate a short-sighted lack of resourcing for preventative health strategies.

Department of Health KPIs, (Annual Reports 2013-2016)

	Per cent of children who did not undertake sufficient physical activity	Per cent of children who did not eat two serves of fruit and five serves of vegetables	Cost of providing health services to WA (billions)
2013/14	51	93.4	$7.4

2014/15	58	92.8	$8.039
2015/16	59.9	92.7	$8.420

"Within the WA community there are high levels of unhealthy lifestyle and risk-taking behaviours that contribute towards potentially avoidable illnesses and injuries."
-Annual Report, September 2014.

State-based public health campaigns have evolved to an impressive level of outcome delivery. This year's published widespread review of 2957 reports from developed nations (including Australia) list a return-on-investment of $14.3 for every dollar invested for state-based campaigns (Masters et al, 2017). Additionally, federal campaign return on investment was $27.20 for every dollar invested. This demonstrates the power of a small element of prevention saving our health system huge amounts in the long-term. It also seems evident that there could be exciting possibilities for more investment made in federal public health campaigns being funded federally but run and managed by the Western Australian Department of Health. Any attempt to cut expertise and budget from this area is highly likely to add to additional service pressures in the long-term.

At the time of drafting this submission, the CPSU/CSA has a number of enquiries around the future work of the Disaster Preparedness and Management Unit. Under the Senior Executive Service cuts and executive structure changes, this unit does not seem to have a separate unit and is likely to be subsumed under the Deputy Chief Health Officer. The union will be monitoring the new structures closely in the weeks ahead to provide advice on whether members report the new reporting structures are limiting the efficiency of the important work of the Disaster Preparedness and Management Unit.

While emergency management is coordinated by the State Emergency Management Committee, there is a real need for the Department of Health to maintain a strong and proactive staff presence in this area to ensure West Australian hospitals, and the wider health system, are ready and prepared for disasters and emergencies. Given the increasing rate of bushfires in Australia, as well as changing weather patterns, it would seem this Unit deserves its own executive presence, which has since been lost. The new executive structure is not clear on the position and placement of the State Health Coordinator within Department of Health. This role plays a significant role during Health responses to natural disasters, including environmental events such as heatwaves and greater clarification is sought. The most recent example of a disaster which required a robust response was the West Australian incidence of Swine Flu in 2009, which took the lives of 200 West Australians. The health challenges presented by international threats such as Zika virus and meningococcal have since presented detailed preparedness work for this unit.

The need for central coordination

"The System Manager will be responsible for the overall management, performance and strategic direction of WA Health… It will also allow for more robust system wide policy and standards that will be aligned to national and international best practice."
–p.28, WA Health Reform, Department of Health Annual Report 2015/26

The CPSU/CSA believes the West Australian health service is built on a solid foundation of a well-resourced, central leadership hub which then has the ability to empower all other health networks to deliver informed, excellent clinical services. For this reason, the CPSU/CSA supports any structures which empowers the Clinical Excellence Division of the Department to continue monitoring, empowering and resourcing the State's Area Health Services.

The Department of Health has an established responsibility to:

- Establish the strategic direction for the WA Health system to improve health outcomes for all Western Australians
- Provide policy oversights and high level advice in relation to a range of clinical and related issues across WA Health and the broader community
- Manages resourcing, finance and performance issues with all budget holders including Health Services and the Department of Health Executive
- Ensures leadership in innovation, advice, information and guidance on health services for mental health patients, older people and Aboriginal people
- Develops, coordinate and delivers a wide range of state-wide public health policy and programs

In the view of CPUS/CSA members, it would be a costly mistake to allow variation in what should be core, shared deliveries across the wider health service, measured in:

- Quality improvement outcomes and aims
- Development of shared Key Performance Indicators for services
- Patient Safety measures
- Operational structures of patient safety surveillance across the state
- Regulation development
- Health service licensing
- Health provider accreditation
- Central collection point of revenue raised through licensing

Three years ago the *Mental Health Act 2014* and the *Public Health Bill 2014* were passed, with an expansion of roles in tackling preventable disease. This came as the Department of Health asserted the role of system manager for the state. The CPSU/CSA is disappointed that the Department is yet again undertaking Executive Structure reform when restructures occurred just three years ago specifically to align leadership of the Department of Health to be customised for the best delivery of the 'system manager' role. The current restructures are motivated by budget savings measures, rather than long-term goals for the service delivery of the Department. This decision was made with the guidance that the role required a strong focus on monitoring performance of the system with high level planning and resource allocation duties.

Western Australia's Activity Based Funding Model (ABF/M) is relatively young, having been implemented in 2009 with deliveries focused on West Australian experience of care provision. The relative youth of the model, coupled with application to a field that is constantly evolving and changing, means there are ways of improving the model. In 2014, the Performance management framework operated under an Outcome Based Management performance framework. The key performance indicators measured the effectiveness and efficiency of the service. Simply put, a constant evaluation and action cycle is required to ensure Western Australia's public hospitals can meet targets set by the National Efficient Price.

Clinical Excellence Division also includes the Director of Research, with the staff required to continue to manage and oversee the FutureHealth WA Research Grant Support Scheme. The CPSU/CSA believes it is incumbent on the government to continue to fund Department of Health directed research conducted in Western Australia, to find better ways of treating West Australians. The benefits of a scheme which supports West Australian health research delivers flow-on effects to our higher education sector, boosting the research achievements of our universities, while tackling the most complex health challenges faced in our health system.

Department of Health KPIs, (Annual Reports 2013-2016)

FINANCIAL YEAR	AMOUNT DISPERSED TO WA HEALTH RESEARCH (MIL)
2012/2013	$15,000,000
2013/2014	$11,710,000
2014/2015	$14,000,000
2015/2016	$18,000,000

The CPSU/CSA is aware of the chronic underfunding of the National Health and Medical Research Council annual grant allocations. The lack of resources for National Health and Medical Research Council grants means there is a clear and valuable connection made here by the Health Department to support talented West Australian medical researchers in connecting directly with Department staff to identify solutions and inform reform. CPSU/CSA members have reported that the message shared by the Australian Society for Medical Research has been fair when it warns that the lack of funding may contribute to Australian health researchers being lost to pursue research careers abroad (ABC June 2016). The 2015 figure of 13.73 per cent of National Health and Medical Research Council grant applications being successful shows the worrying disparity between numbers of health researchers and lack of funds to initiate worthy health initiatives (The Conversation, 2016). The potential for world-changing medical products and breakthroughs has also meant the Department has a robust intellectual property and patenting support area available for West Australian researchers and institutions. In summary, the work this unit completes presents a fantastic

investment for Western Australia, addresses an area of high demand and delivers long-term benefits to the health of the state population.

"People are WA Health's greatest asset and attracting and retaining the best people into the workforce is vital to maintaining a quality health system."
-Professor Bryant Stokes, September 2014.

It is the view of CPSU/CSA members that the Department's Strategy and Governance Division should be given the responsibility for determining the allocation of tertiary services to hospitals across the state. These decisions cannot be made without the long-term planning of the Planning and Modelling units and the Department risks a 'turf war' if executive decisions are diluted and become more open to funding pressures. This unit works the closest with research and long term planning, maintaining a continuous dialogue.

The CPSU/CSA has been encouraged by reports of smarter procurement practices adopted by the Department of Health following from the 'System Manager' reforms. It is important to note that the Department's Chief Procurement Officer role was only formed in 2013-2014 and that there is still many opportunities available in creating a smoother, more effective procurement system. This development on procurement reform has been intrinsically linked to the Corruption and Crime Commission '*Report on Fraud and Corruption in Procurement in WA Health: Dealing with the Risks*'. In one year the Department must field approximately 5,900 procurement enquiries and train over 1,000 participants in procurement education and training workshops. In 2016, the development of a new contract management model, leveraging from group buying strategies, was found to have saved the Department more than $6.6 million in one year.

Much has been written about the uneasy relationship between state and federal governments in providing health services. CPSU/CSA membership believes more work should be conducted at measuring and analysing the governance and responsibilities shared between the Department of Health and Local Government Authorities, particularly in the provision of a strong workforce of Environmental Health Officers. Contaminated food is estimated to cost Australia $1.249 billion annually and generate 2.1 million days of lost work – a major impact to Australia's health budget and productivity. Members report too much independence given to local government in hiring Environmental Health Officers, which results in a patchwork approach to the statutory duties held by both Department of Health and Local Government Authorities.

These concerns are not new. Ten years ago the Australian Institute of Environmental Health reported:
• Regulatory requirements are not being met by government agencies
• There is no broad national information on and response to the Environment Health Office workforce and future workforce planning
• Employers (state and local governments) not valuing a generalist Environment Health Office workforce
• Government and particularly local government restructures have tended to categorize environmental health as purely a regulatory function and thus preclude participation in strategic planning and wider community planning activities (AIEH, 2007)

The CPSU/CSA recommends renewed efforts for a Memorandum of Understanding to be drafted between Department of Health and the West Australian Local Government Authority which should include:

- Guidance around minimum staffing of Environment Health Office s
- Clear delineation of roles and responsibilities
- Data reporting and flow of timely information for Department of Health

Funding Agreements

The Department of Health must swiftly develop long-term equitable funding arrangements for divisional, holistic health service delivery across the state. Our members report too many arrangements have been developed based on what staff describe as a 'gentleman's handshake' and not on a long-term Memorandum of Understanding on the future of service provisions for the health consumer. For instance, for two years the union has been waiting for a conclusion of negotiations between Graylands Mental Health Services, the North Metropolitan Area Health Service and Dental Health Services on the question of which agency is compensated for dental service delivery to eligible patients attending Graylands from the entire state (not just the North Metro region). The CPSU/CSA would support a renewed strategic focus and appropriate resourcing for the Department of Health to renegotiate and draft long-term, sustainable funding agreements.

The lack of clear funding agreements can also cause dilemmas for the provision of health services to individuals within the corrective services system. Members have reported that the dental team for Casuarina prison has remained at the same Full Time Equivalent workforce despite the population they are responsible for growing from 350 to 1000 in a few years. Similarly, Hakea prison's population has grown from 500 to 1,100, with no additional staff or increase in their staffing hours. Please also find comments later in this submission regarding the current situation for School Dental Service in the State's South West.

During consultation for this submission, the CPSU/CSA received multiple reports of the onerous processes and red tape involved with dealing with the Intergovernmental Relations unit, particularly when matters of federal funding were involved. Members felt any successes in lobbying for and winning new federal funds for West Australian health outcomes were met with the disincentive of budgetary reporting and adjustments via the relations unit due to the complexity in federal funding agreements. This is of concern to the Union as it should be reasonable to expect Department staff to be empowered to achieve a greater share in federal health funding.

This complex funding red tape problem is unlikely to be solved by any one solution. The CPSU/CSA recommends the Department allocates a goal of red tape reduction to the Temporary Special Projects unit, with allowances to work in partnership with experienced red tape reduction/economic reform staff in Department of Finance. Reform should be achieved through completion of a Rapid Assessment Tool (Department of Finance, 'Red Tape Tools' 2017) revision of processes. Finally, conversations must be had with federal partners to see if there is an appetite to simplify the current processes around intergovernmental funding, or to better plan for changes to overly rigid budget plans.

Another complaint made to the union involved the slow and onerous processes around resolving Information and Communications Technology. Members complained that Department of Health databases were allowed to become out of date and inaccurate. Reported errors were allowed to continue for months before they were resolved. Any recommended changes involving Information and Communications Technology involved seven layers of sign-off and onerous barriers created by the Department becoming particularly risk-averse. This is potentially the result of security measures following well publicised controversies in Department of Health Information and Communications Technology contracting in the past few years, currently under investigation by the concurrent Commission of Inquiry. The union recommends swift and independent review of these processes, with the ultimate consideration to consider the end outcome for the health consumer.

Time, data and Key Performance Indicators

Comparison of separations and hospitals, Round 7 (2002-03) to Round 18 (2013-14), Independent Hospitals Pricing Authority.

	2002-03	2006-07	2007-08	2008-09	2011-12	2012-13	2013-14
Average number of separations per participant	10,977	15,819	14,749	14,991	16,905	17,377	17,680
Average number of separations per population hospital	8,615	9,573	9,818	10,304	10,902	11,286	12,034

Key efficiency indicator: Average cost of public admitted patient treatment episodes in private hospitals (2013-2014)

TARGET	ACTUAL
$2,927	$2,785

Emergency Department Jurisdiction – Public Hospitals (2013-2014)

	Hospital no.	Presentation no.	Cost ($M)	Average Cost Per Presentation ($)
NSW	59	2,043,503	1,205	590
Vic	37	1,501,050	805	536

Qld	107	1,728,261	1,035	599
SA	13	445,699	274	614
WA	29	665,092	397	598
Tas	4	148,205	86	582
NT	5	145,083	65	449
ACT	2	125,838	108	857
National ED	256	6,802,731	3,976	584

While deeper analysis of data subsets is best left to State and Federal department staff, Independent Hospitals Pricing Authority data above makes it clear that private hospitals are steadily gaining a larger proportion of patient treatments. There are a range of reasons for this trend, most notably Australia's private health insurance system, the considerable profits generated by the major private health players in Australia and the keen interest in private equity to see Australian healthcare as an area of strong returns. This is occurring despite public health seeing real results in lowering average cost per episode.

There has been much public discontent over media reports of private firm Ramsay Healthcare paying its Chief Executive Officer, Chris Rex, a fully-realised sum (considering share benefits) of thirty million dollars a year for delivering the staggering feat of raising a share price of $26 in 2012 to $78 in 2016. This made him the highest paid Chief Executive Officer in the ASX top 100 and renewed questions around the role of private enterprise in healthcare (AFR, 2015). Colin Goldschmidt, Chief Executive Officer of Sonic Healthcare, has also had his $13.4 million pay packet scrutinised by shareholder activists.

Duplication

Looking at measures of success defined by safety, CPSU/CSA membership has concerns around the end benefits of some Key Performance Indicators (KPI) and the West Australian Clinical Incident Management System (CIMS) for Area Health Services. Under the CIM system, a staff member must report the incident, which is categorised and given a Severity Assessment Code of 1 (highest severity), 2 or 3 (lowest severity). These important areas of data collection are the responsibility of the Clinical Excellence Division, and the results are fed into annual and quarterly reports which are later made public.

The procedures and processes involved with managing a clinical incident are understandably detailed and robust. The formal process of reporting an event to the CIM system alone involves over 20 separate actions in response to the clinical incident, not including application of the SMARTA (Specific, Measureable, Accountable, Realistic, Time-Related, Action) tool. CPSU/CSA members report that our current health system has proven itself effective in the primary and decisive, first-round response to some of these mandatory reported incidents. While this is excellent in terms of our public health system adapting and changing to minimise patient harm in most reported fields, it has unintended consequences in terms of duplication of efforts and the lack of timeliness for others.

The union holds concerns that by the time the incident/KPI is due for reporting with clear evidence of actions taken to remove the risk, much of the efforts had already occurred. This can mean valuable staff time is spent repeating an investigation for an incident which occurred three months ago, as this process has been fed by data which is not meaningful. If there is a requirement for a "third pair of eyes" and a formal validation process, consideration must be given to a system wide streamlined approach and a stronger utilisation of the reporting and management process that already exist within the department.

Data with value

In 2013/2014 the Department produced the *Medical Workforce Report*, which delivered a clear and detailed profile of the state's current medical workforce, future demands, key challenges and priorities for the next year. The report gave the State Government a concerning early warning relating to Western Australia's status as having the second lowest specialist to population ratio in Australia. This document was also critical in informing the Policy and Planning Division production of the *WA Health Workforce Strategy 2016-2020*, which gave State Government a plan to address the challenge of supply and retention of a skilled health workforce across the state.

"The conclusion is made that reform is needed now if WA is to have an adequate specialist workforce to meet future demand… models are mentioned in this report but require further in-depth research and analysis to determine their applicability to WA Health."
-Executive Summary, Medical Workforce Report 2013/14.

Of interest to this Review, since 2014 the Department has managed a Central Referral Service in order to boost the significant cost savings measures generated by specialist outpatient referrals. With 379,000 referrals in one year, this strategy has saved hundreds of thousands through more efficient use of the state hospital's points of care. These measures need to be properly funded and staffed to realise further savings.

Dental Health

Dental Health frontline practitioners have raised issues with their union about the expenditure generated by referring patients to private providers when the backlog of patients for a region becomes too high. Multiple worksites confirmed for the union that if the Department more effectively resourced their dental workforce, progress could be made on these waitlists. In particular, a bottleneck had been created preventing swift and efficient patient flow due to the lack of Dental Clinical Assistants employed by the Department who provide chairside assistance. The CPSU/CSA understands significant savings could be made if the Department properly planned for and resourced Dental Clinic Assistant numbers across the state, allowing presentations to be handled at the primary, public level. This would ensure more cases are dealt with internally and efficiently with a lower cost per presentation than private referrals, saving the Department a significant amount over the long term.

School Dental Services have provided free general dental care to Western Australia's school children since 1973. Over 25 mobile units travel to remote communities to service school children. In 1977, a 12 year old child enrolled in the School Dental Service had, on average, four decayed, missing or filled teeth (a separate measure to decayed tooth surfaces). This has reduced to just 0.6 in 2016, with over 163,951 children receiving care in one year. The scheme is able to increase revenue streams to Department of Health by over $2 million per year via the Commonwealth Child Dental Benefits Schedule (p.7 DHS Annual Report).

Importantly, the current service delivery statistics of Dental Health Services demonstrate high efficiency – treating an additional 16,500 patients in a single year, over the Commonwealth's activity targets (p.3 DHS Annual Report). In 2015/16 74,000 adults received care at a general dental clinic through 142,206 occasions of service.

This public service also plays a significant role in providing access to dental health directly to children from low income households. These children are ordinarily priced out of private dental services, but are most at risk of decayed tooth surfaces.

Household income and dental health, West Australia

FAMILY ECONOMIC BACKGROUND	Average number of decayed tooth surfaces
Low income household child	2.0
Medium income household child	1.0
High income household child	0.6

While family income is also a factor, members advise that the Department of Health is also keenly aware of 'Close the Gap' commitments for dental health. The National Child Oral Health Study 2012-2014 found more Indigenous children had received a filling (36.1 per cent) compared to non-Indigenous children (25.7 per cent). This was seen in the 7–8 years (40.9 per cent versus 29.4 per cent) and 9–10 years (45.9 per cent versus 33.1 per cent) age groups (p.103, National Child Oral Health Study).

CPSU/CSA Dental Health members are confident that any analysis will show that private sector dental health services resolve fewer presentations at a higher cost than the public sector. What creates risk, however, is the relative high performance of the West Australian dental sector which can then open up the service to budget cuts – it is easier to cut funds when there is not a current public health crisis.

This situation also serves as an illustration of the perverse outcomes that Key Performance Indicators can sometimes deliver. Because the Department wishes to report positive outcomes in number of patients treated and progress

through a waitlist, additional money is expended on bringing in private providers when, with proper planning and analysis, better staffing could ensure positive Key Performance Indicator deliveries and lower costs.

The CPSU/CSA would like to draw attention to page 20-21 of the Dental Health Services Annual Report 2015/2016. In consulting widely with our membership, many dental health practitioners spoke of the ongoing concerns raised including population growth, increased awareness of dental benefits schemes (higher patient turnout), retention of rural and regional staff and the continued impacts felt by the poorly considered whole of health employment freeze. For a selective listing of comments received by Dental Health members in response to this Review, please refer to Appendix Four.

The future of the National Disability Insurance Scheme

Western Australia is in the unique position of having signed a bilateral agreement in relation to the delivery of the National Disability Insurance Scheme which is now being renegotiated. This has caused much disruption to both people with disabilities and those providing services to them.

The CPSU/CSA supports a recommendation for the Western Australian Government and Australian Government to put in place arrangements for Western Australian to transition to the National Disability Insurance Scheme. Any decision to join the national scheme should be made public as soon as possible. The CPSU/CSA also recommends the West Australian Government proceed with the bilateral agreement as agreed by the previous government which provides for local service delivery by State Government employed Local Coordinators who will be local and not hold issues around any conflict of interest. For further details on the CPSU/CSA's position on the future of the WA NDIS, please review Appendix 2 and 3, attached to this submission.

Frontline care delivery reform

Although the CPSU/CSA has a limited role in representing non-specialist care providers, this submission would not be honest and complete without making mention of the urgent need for reform in service delivery. Crisis breeds action, and the current state of WA's ballooning expenditure on health should from an impetus for strong and lasting reforms in determining the most cost-effective methods of delivering services. CPSU/CSA members in Department of Health are acutely aware of ongoing 'turf wars' in determining which healthcare practitioner is positioned to deliver a common yet expensive service.

Department of Health Annual Report – FTE costs

Year	2013/14	2014/15	2015/16
Approved full time equivalent staff level (billions)	$4.2	$4.594	$4.7

Australia is currently enjoying real reform in the roll-out of optometrists who have achieved therapeutic endorsement to prescribe and deliver pharmaceuticals which were previous limited to more highly qualified, and drastically scarce specialist ophthalmologists. From a health consumer perspective, it is far easier and more affordable to gain access to ocular medicine from an optometrist (4,700 nationally) than an ophthalmologist (2010 data showed a total of 895 ophthalmologists in Australia and New Zealand combined), with a grand total of ten new ophthalmologists entering practice every year. This specialist role is also highly regulated and constrained in their ability to meet demand. For instance, in 2015 across Australian and New Zealand, only 36 individuals completed the Vocational Training Program for ophthalmology provided by the Royal Australian and New Zealand College of Ophthalmologists. The supply of health services is tightly constrained, limiting the affordability of the service and the ability of professional associations and lobby groups to control access to state and federal health budgets.

The CPSU/CSA is similarly aware of lobbying efforts by nursing and midwifery unions across developed countries arguing for governments to take advantage of the considerable skill set of nurse practitioners. This has included efforts presented by the Australian Nursing and Midwifery Federation. United States research has found nurse practitioners cost 20 to 25 per cent less to train than an equivalent doctor (Cooke 2015).

Researchers have also found nurse practitioners in managed care deliver care at 23 per cent below the average cost associated with other primary-care providers (AANP 2013). A 2015 British Medical Journal study into cost savings

measures for outpatient/ambulatory care found: “Nurse practitioners in alternative provider ambulatory primary care roles have equivalent or better patient outcomes than comparators and are potentially cost-saving. Evidence for their cost-effectiveness in alternative provider specialised ambulatory care roles is promising, but limited by the few studies.” Similarly, the final results of the M@NGO randomised controlled trial found women at low risk of pregnancy complications, when receiving clinical support via caseload midwifery care, saved the public health system $566.74 per woman (Lancet 2013).

These lessons apply equally to the supply of dental care. The CPSU/CSA represents dental therapists and is aware of the current campaign occurring in the United States involving the American Dental Association lobbying strongly against the use of this profession to alleviate areas of unmet need in Alaska and Minnesota. In the US, the dental therapist role has grown as a response to a healthcare model built on the foundation of highly unaffordable private dental care. It is entirely predictable that competition arises to offer a similar product when a necessary service is too expensive for the healthcare consumer and the taxpayer. Economic analyses have concluded: “A dental therapist may be the answer in some isolated areas where a full-time dental practice cannot be fully utilized. In addition, dental therapists may be employed (as a less expensive input for a subset of dental procedures, part-time or full-time) by dentists who want to reduce their work hours or dental practices that employ associate dentists.” (Beazoglou, 2012)

Too often the term “quality care” has been used a defensive barrier to prevent any workforce or healthcare delivery reform which is sorely needed. This needs to change. In the view of the CPSU/CSA, considering the increasing areas of unmet need in Western Australia, the lack of funding and resourcing, as well as the challenges of remote service delivery, there is high potential to reassess the strategic use of dental therapists to improve oral health outcomes in WA.

Centralised Interpreter Services

As part of the Service Priority review process, the CPSU/CSA and Health Services Union of Western Australia’s (HSUWA) have both canvassed the provision of Interpreter Services. The HSUWA proposed the creation of a standalone centralised service for the provision of interpreter services across Government. Following an extensive review in Victoria, the Victorian Government implemented a Victorian Interpreting and Translating Service which provides: telephone interpreting, on-site interpreting (spoken languages and AUSLAN), translations and video remote interpreting. The CPSU/CSA supports the employment of a pool or pools of such workers employed as Public Service Officers, or Government Officers.

Justice Health Project

In order to ensure this submission considers the potential future operations of the Department of Health, we are happy to attach comment on the Department of Justice and Department of Health ‘Justice Health Project’, supplied on Appendix Five.

Conclusion

The CPSU/CSA seeks the opportunity to work with the Sustainable Health Review to further discuss the items raised in this submission, as well as any further lines of inquiry or areas of reform raised by the Review. Our final list of recommendations is listed in the introduction to this document. We would welcome the opportunity to serve on an ongoing Working Group formed by the Review, and continue to draw upon the considerable insights of our membership to inform the Interim Report and the Final Report due in March 2018.

Contact

Toni Walkington
Branch Secretary

Appendix 1 – Heat Wave Case Study

Loss of staff positions – Health

Over the past 12 months, staffing in the Disaster Management Planning & Regulation and the Communications team appear to have reduced by around 25 per cent (DMRC: 16 to approximately 12 people; Communications: 24 to 16-18). Under WESTPLAN – Heatwave, section 4.8, communications is a key component of the response. The greatest impact of staffing cuts has been in the staff responsible for new media. In a health-related disaster emergency, the Department needs to be able to provide around the clock communications.

Loss of staff positions – Other agencies

There have been significant changes in terms of closure of services, privatisation, reduced staffing and structural changes to key agencies. These are serious concerns considering the last heatwave hit in February 2016, recording three days in a row where the temperature was above 40 degrees Celsius. Anticipated impacts include:

- fewer experienced public sector workers to respond to the needs of vulnerable people.
- longer or more complex communication chains to privatised services to vulnerable populations, particularly disability services.
- hardware breakdowns and higher potential disruptions to public transport networks.
- gaps in staff coverage in key agencies, especially over the holiday period.

Review of WESTPLAN - Heatwave

The current plan is due for review by December 2017. Evidence from other States indicates heat health action plans that cover longer term adaptive responses in addition to emergency responses reduce the adverse impacts, including morbidity and mortality. The current plan does not address these long-term measures of disaster preparedness.
It is noted that disaster management is not reported separately in the budget and has no KPIs associated with it. This is a factor that should be addressed as part of the plan revision.

Although these comments refer to extreme heatwaves, the same concerns apply equally to the ability to respond to other health-related disasters such as pandemics.
Extreme heatwaves are acknowledged as Australia's most deadly form of natural disaster and the mortality and morbidity place enormous stresses on the health system. Under WESTPLAN – Heatwave, the Department of Health is the prescribed hazard management agency for WA. WESTPLAN – Heatwave outlines the potential impacts of heatwaves on vulnerable communities, infrastructure, services, industry and finance and the steps necessary for preparedness, mitigation, response and recovery.

Appendix 2 – NDIS Model Comparisons

The CPSU/CSA has recommended that the McGowan Government proceed with the bilateral agreement as agreed by the previous government. The CPSU/CSA has long taken a position that the decision in relation to the NDIS should be based on the evaluation of the trials currently underway and should include significant input from people with disabilities. In the evaluation report conducted by Stanton's International titled 'WA NDIS Trial' evaluation of the WA NDIS model is compared highly favourably with the NDIA model with equal or better outcomes in most areas.

The WA NDIS model is based on over 20 years of reform and has an established base in Western Australia. The WA NDIS model has been found to deliver early engagement of providers in plan development and an ongoing service commitment. Researchers found the model delivered three-way engagement between the planner/coordinator, the participant and provider to ensure maximum service value, minimal overheads and a better chance at plan outcomes. This model is also functional when decentralised. The WA NDIS model delivers prompt negotiations, responses and issue resolution.

Importantly, the current model in WA ensures all services assigned in a plan are viable prior to approval. There are appropriate incentives and monitoring procedures to protect the participant. The public servants involved safeguard the participant from exploitation or poor service delivery and can ensure value for money. These protections set the foundation to the Disability Services Commission, the consumer/participant and the provider having a healthy relationship which fosters good will, respect and cooperation in negotiation.

There are areas of potential reform for the WA NDIS model to support rolling adjustments to service and provider changes to a plan during its operation. However, it is expected that any provider change would lead to a disruption and an experience Local Area Coordinator is able to keep a plan flexible enough to adapt and survive.

Page 6, WA NDIS Trials Evaluation Report, Stantons International:

Action Type	WA NDIS	NDIA
Policy Change Required	2	4
Process Change Required	1	8
In Place (No Action Required	9	0

The WA NDIS model is compares highly favourably with the NDIA model in the Stantons report, with equal or better outcomes in most areas. The report compares and contrasts each of the models, using an industry standard "cross-functional business model" analysis, used to generate a comprehensive business model combining all the processes for both NDIA and WA NDIS operations in the WA trial sites. The results indicate that at almost every area of measurement, the WA NDIS model has better outcomes.

Appendix 3 – Case Study: A NDIS Local Coordinator Perspective

Andrea works as a Local Coordinator delivering the WA NDIS for the Disability Services Commission in Western Australia and she has also worked in the NDIS in the New South Wales.

Andrea is committed to her work here in Western Australia and genuinely believes that the WA NDIS is a better model for service delivery for people with a disability. Having worked in both systems, Andrea feels that she is better able to deliver a higher standard of service as part of the WA NDIS as the model is more personable. Andrea believes that the WA NDIS saves money in the long run because the localised model gets to the crux of what's going on.

"When you go to someone's home you can pick up a lot more than what is said on the phone or in the office. Being able to see what is needed and offer a more direct relationship has the effect of reducing support needed in the future. Face to face makes all the difference."

Andrea has concerns about conflict of interest issues when private providers develop plans for people with disabilities with providers delivering a business model, not a care model and with no disincentive for providers not to push people with disabilities to services they provide with little regard for what is best for the individual, their family and the community.

Appendix 4 – Dental Health Comments

This appendix lists comments received electronically from members working in Dental Health Services. These comments have been selected to represent views and reports that the union receives frequently from members and delegates.

Q: What is working well in Western Australia's Dental Health Services?

A: Accreditation processes – staff are quick to accept and implement.

A: Each person in the team has a specific and specialised role to allow the smooth running of the clinic (e.g. clinicians performing the work, dental clinical assistants helping chairside, reception staff dealing with registrations and accounts, lab technicians finishing the work based on clinical information given to them by clinicians). Because dentistry is a very technically specific job, it requires these particular specialised roles to be executed efficiently, which they are under the current structure.

A: Cross infection protocols are currently highly sound.

A: The School Dental Services in Western Australia run a highly efficient operation.

Q: What is not working currently?

A: There is too many staff on contract, acting in positions, which then has a flow-on effect to substantive positions.

A: General waiting list removals. When extra funding is available, Head Office removes a group from the general waitlist to outsource to private dentists. This group is not taken from longest waiting. Sometimes those selected have only been waiting one to two months, while there are patients who are still waiting and have been on list for more than six months.

A: There is not enough clinical time due to too much administration time. We need receptionists.

A: Removing patients off the general waiting list and long waiting list for dentures. The waiting times are long because a lot of manpower is rostered for emergency sessions. There are insufficient numbers of dental chairside assistants. Also, we have insufficient reception staff considering the number of patient contacts. We have insufficient computers and telephones (that can dial out) for staff to contact medical practitioners/interpreters. We have a hurried and demanding workplace environment with increasing workload and bureaucracy.

A: There is a lack of relief staff – it is always an issue getting relief dental clinical assistants despite having a pool. There are no pools for relief dentists, dental therapists or dental technicians, so if one calls in sick it is a day's work

lost and patients have to be individually phoned to cancel appointments on the day or appointments are pushed back further past expected completion date as the lab work will not be completed on time. Why is there a lack of funding or structure for this system?

Q: What short-term improvements would you make to Dental Health Services?

Uniformly, the responses to this question came in three common responses.
1. Create permanent positions for suitable, talented staff that have clearly demonstrated that they have met JDF requirements.
2. Strategic focus on retention of dental support staff for the public sector.
3. Patients removed from the general waitlist should be served in a first on, first off process.

Q: What long-term improvements would you make?

For the most part, responses repeated the suggestions made under short-term recommendations. However, the following suggestions were raised.

A: Strategic focus on developing tactics to reduce the waiting list.

A: Consider School Dental Services conducting more prevention work.

A: Paediatric dentists within Dental Health Services should be able to provide treatments under general anesthetic.

A: Develop combined adult and children clinics outfitted with fully computerised digital records keeping, and the latest technical equipment available. Consider also more opportunities for dentists and dental therapists to work cooperatively rather than separately.

Appendix 5 – Justice Health Project

This project is a collaboration between the Department of Justice, Department of Health and the Mental Health Commission to assess responsibilities around health provision to West Australians within the justice system in early 2018. These services include general practitioner services, nursing, mental health assessments, addiction medicine, psychiatric assessments, dental care and a range of services from allied health professions. Over 170 FTE are affected in WA. Due to the high proportion of Aboriginal prisoners, as well as a cohort of physically disabled and older men, the profile of prisoners is complex.

In 2006, the thematic Review of Offender Health Services recommended the transfer of health services in the then Department of Corrective Services to be transferred to the State Department of Health. This recommendation followed the World Health Organisation policy position that prisoner health services are best provided by independent health organisations.

In July 2008, Queensland Health Offender Health Services moved their services from their Department of Corrective Services to their Department of Health. Two motivating factors for this decision was speculation around a lack of resources to ensure clinician competence as well as safety of practice. The State of Victoria has adopted a hybrid model. Under the Western Australian *Prisons Act 1981*, the State has a duty of care to each prisoner, with section 95 requiring the CEO to provide medical services to each prisoner. This duty is being adequately fulfilled currently.

In June 2010, the assessment and report drafted by Dr Margaret Stevens concluded that the continued employment of health practice workers by Corrective Services would "mean that the risks and problems identified in this report will continue to be problematic, despite the best attempts to fix them. These problems are not necessarily related to funding, but to the structural and functional constraints of the organisational arrangements." (p32, Health Services Assessment Report) At this time, members of the CPSU/CSA expressed concern about the lack of consultation and on-the-ground investigation that had informed the report.

To date, CPSU/CSA members still hold reservations that the concluding comments of the report were a foregone conclusion. Without adequate supporting evidence, the report implied transfer of services to health would overcome key service gaps, provide leadership and professional support, and improve staff satisfaction and provide a stable work environment. CPSU/CSA members were surprised to see concerns about Department of Health staff becoming redeployed and reallocated by the Department of Health whenever required would create service delivery issues for the prisoner population were not adequately addressed in the report.

In addition, to date the CPSU/CSA has not received access to a commissioned KPMG financial report detailing the potential financial costs of transfer of staff. We understand the costs of the project could be in the millions of dollars and may not alleviate concerns about the loss of a specialised health service for a complex population cohort. The union would appreciate access to this research in order to develop a full response to the Justice Health Project as work develops in early 2018.

References

Australian Institute of Environmental Health. 'National Local Government Environmental Health Workforce Summit.' July 2007. Available from:
https://www.eh.org.au/documents/item/358

American Association of Nurse Practitioners (AANP) (2013) Nurse practitioner cost-effectiveness. Available from: https://www.aanp.org/aanpqa2/images/documents/publications/costeffectiveness.pdf

Beazoglou, T., et al. 'Dental Therapists in General Dental Practices: An Economic Evaluation.' Journal of Dental Education. Vol. 76, No. 8. August 1, 2012. Pp1082-1091. Available from:
http://www.jdentaled.org/content/76/8/1082.long

Burgio, G. 2 November 2016. 'Is the NHMRC funding process fair?' *The Conversation*. Available from: http://theconversation.com/is-the-nhmrc-funding-process-fair-67778

Carey, M G, Monaghan, M and F J Stanley, 2017 Extreme Heat Threatens the Health of Australians, *Medical Journal of Australia*: Vol 207 (6): 1-3.

Chenoweth, N. 'Meet Chris Rex, the $100m man.' Australian Financial Review, September 2, 2015. Available from: http://www.afr.com/news/economy/employment/meet-chris-rex-the-100m-man-20150902-gjd5in

Cohen, J.T., Neumann, P.J., Weinstein, M.C. The New England Journal of Medicine. 'Does Preventive Care Save Money? Health Economics and the Presidential Candidates.' June 26, 2008.
Available from: http://www.nejm.org/doi/full/10.1056/NEJMp0708558#t=article

Cooke, C. Managed Healthcare Executive. 'Ten ways NPs reduce costs, improve quality'. August 20, 2015. Available from: http://managedhealthcareexecutive.modernmedicine.com/managed-healthcare-executive/news/ten-ways-nps-reduce-costs-improve-quality

Dental Health Services. Annual Report 2015-2016. December 2016. Available from:
http://www.dental.wa.gov.au/about/Signed%20DHS%20Annual%20Report%202015-2016.pdf

Department of Treasury (2017) Tools to assist with Red Tape Reduction. Available from:
https://www.treasury.wa.gov.au/Economic-Reform/Reducing-Red-Tape/Red-Tape-Tools/

Government of Western Australia. Department of Health. 'Closing the Loop Program: SAC 1 Implementation and Evaluation of Recommendations, Strategies and Action Plan.' 2016. Available from:
http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/Quality/PDF/Closing-the-Loop-plan.ashx

Government of Western Australia. Department of Health, Patient Safety Surveillance Unit. 'Clinical Incident Management System (CIMS) Data Request Process. (2014) Available from:
http://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/patient%20safety/PDF/CIMS_Data_Request_Process.ashx

"Health Impacts of Climate Change: Adaptation Strategies for Western Australia" Government of Western Australia, 2008.

Independent Hospital Pricing Authority. '2013-2014 Australian Public Hospital Cost Report.' Available from: https://www.ihpa.gov.au/sites/g/files/net636/f/publications/nhcdc-round18.pdf

International Council of Ophthalmology 'Number of Ophthalmologists in Practice and Training Worldwide'. June 2012. Available from: http://www.icoph.org/ophthalmologists-worldwide.html

"January 2009 Heatwave in Victoria: An Assessment of Health Impacts". Government of Victoria, 2009.

Martin-Misener R, Harbman P, Donald F, et al. Cost-effectiveness of nurse practitioners in primary and specialised ambulatory care: systematic review. *BMJ Open*. 2015;5(6):e007167. doi:10.1136/bmjopen-2014-007167.

Masters, R., Anwar, E., Collins, B., Cookson, R., Capewell, S. 29 March 2017. 'Return on investment of public health interventions: a systematic review.' Journal of Epidemiology & Community Health. Available from: http://jech.bmj.com/content/early/2017/03/07/jech-2016-208141

Memorandum of Understanding. Local Government Association of South Australia. Available from: https://www.lga.sa.gov.au/webdata/resources/files/img-318150511.pdf

Medical Workforce Report 2013/14, Profiling, Performance, Programs and Priorities: Office of the Chief Medical Officer, Department of Health, Western Australia; 2015. Available from: http://ww2.health.wa.gov.au/~/media/Files/Corporate/Reports%20and%20publications/Medical%20Workforce/Medical-Workforce-Report-201314.ashx

National Climate Change Adaptation Research Facility: Policy Guidance Briefing No 9: Managing Heatwave Impacts under Climate Change https://www.nccarf.edu.au/sites/default/files/attached_files_publications/HEATWAVE_A4-Webview.pdf

"Off the Charts: Extreme Australian Summer Heat" Australian Climate Commission, January, 2013. http://climatecommission.gov.au/wp-content/uploads/CC_Jan_2013_Heatwave4.pdf

Reid, P. Western Australian Department of Health. 'A Healthy Future for Western Australians' Report of the Health Reform Committee. March 2004.

Royal Australian and New Zealand College of Ophthalmologists. Annual Report 2015-2016. Available from: https://ranzco.edu/ArticleDocuments/227/Annual%20Report%202015_2016_revised_low%20res.pdf.aspx?Embed=Y

Stevens, M. Assessment of Clinical Service Provision of Health Services of the Western Australian Department of Corrective Services. June 2010.
Available at: http://www.correctiveservices.wa.gov.au/_files/about-us/statistics-publications/students-researchers/hs-assessment-report.pdf

Tracy, Sally K et al. Caseload midwifery care versus standard maternity care for women of any risk: M@NGO, a randomised controlled trial. *The Lancet* , Volume 382 , Issue 9906 , 1723 - 1732

Virtue, R. 13 June 2016, Medical researchers warn Australia will lose scientists if funding is not boosted. ABC News Newcastle. Available from:
http://www.abc.net.au/news/2016-06-03/medical-researchers-call-for-further-funding/7474194