GOVERNMENT OF WESTERN AUSTRALIA

Sustainable Health Review

Public Submission Cover Sheet

Please complete this sheet and submit with any attachments to the Sustainable Health Review Secretariat

Your Personal Details ***This information will be used only for contacting you in relation to this submission***	
Title	Mr ☐ Miss ☐ Mrs ☐ Ms X Dr ☐ Other ☐
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Publication of Submissions

Please note all Public Submissions will be published unless otherwise selected below

☐ I do not want my submission published

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Submission Guidance

You are encouraged to address the following question:

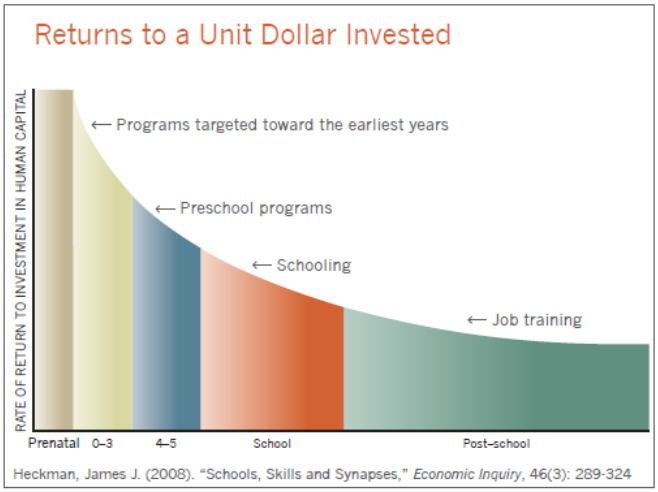
In the context of the Sustainable Health Review Terms of Reference listed below, what is needed to develop a more sustainable, patient centred health system in WA?

- Leveraging existing investment in Primary, Secondary and Tertiary healthcare, as well as new initiatives to improve patient centred service delivery, pathways and transition;
- The mix of services provided across the system, including gaps in service provision, sub-acute, step-down, community and other out-of-hospital services across WA to deliver care in the most appropriate setting and to maximise health outcomes and value to the public;
- Ways to encourage and drive digital innovation, the use of new technology, research and data to support patient centred care and improved performance;
- Opportunities to drive partnerships across sectors and all levels of government to reduce duplication and to deliver integrated and coordinated care;
- Ways to drive improvements in safety and quality for patients, value and financial sustainability, including cost drivers, allocative and technical efficiencies;
- The key enablers of new efficiencies and change, including, research, productivity, teaching and training, culture, leadership development, procurement and improved performance monitoring;
- Any further opportunities concerning patient centred service delivery and the sustainability of the WA health system.

Submissions Response Field

Please type your response into the field below. Alternatively you may provide your submissions as a separate attachment (Suggested Maximum 5 pages).

The Child and Adolescent Community Health (CACH) vision is to improve health outcomes for WA children by providing early identification and effective early interventions at critical periods in a child's life to increase the likelihood of children achieving their social, educational and personal aspirations.



There is an overwhelming body of evidence demonstrating the critical importance of providing preventive community child health services in the early years. Frequently cited cost-benefit ratios from the US suggest that for every dollar invested in services for preschool age children, there will be a $2 to $2.60 return to society.[1,2] Investment before birth and during early childhood yield the highest lifetime return, with later investments yielding an ever diminishing rate of return.

Children who experience significant adversity during the early years are at increased risk of poor health outcomes in adulthood, including heart disease, chronic pulmonary disease, cancer, substance abuse, depression and other mental health conditions.[3] The potential lifetime costs to the health system of failing to address these causative factors during early childhood are enormous.

There is wide recognition, both nationally and internationally, of the enormous potential to influence a child's health, educational and social outcomes through effective, preventative interventions aimed at reducing stress-inducing burdens on families that are beyond the capacity of the medical care system alone to address. All high-income countries, including Australia, implement early identification and intervention community based services to all children, adolescents and families.

Child and Adolescent Community Health (CACH) offers a comprehensive range of early identification and intervention community based services to all children, adolescents and families. Service delivery includes universal programs (offered to all), and a range of more intensive support services targeted toward children who are at risk of poorer health and developmental outcomes. In 2016-17, CACH provided 735,554 occasions of service to children and families in areas including universal child health, specialist (targeted) child health, school health and child development.

Source: Telethon Kids Institute

Core CACH programs contributing to a sustainable health system

Through effective, preventative interventions aimed at reducing stress-inducing burdens on children and families, CACH services play a pivotal role in reducing lifetime healthcare costs for individuals and the broader community. Some examples of core CACH services and programs contributing to a sustainable health system include:

Immunisation Services. A recently released study undertaken by the US Centers for Disease Control and Prevention estimated that for every $1 spent in direct vaccination costs, savings of $4 in direct health care costs and a further $15 in indirect (societal) costs could be achieved.[4]

- CACH provides free vaccinations for children aged 0-7 years under the Childhood Immunisation Program and to school aged children under the School Based Immunisation Program.
- As the largest single provider of the childhood program in metropolitan Perth, CACH delivered 67, 347 vaccines to 19,028 children across 50 sites during 2016-17.
- As the majority provider of the school based immunisation program in metropolitan Perth, CACH delivered 75,187 vaccines to 31,031 students in more than 150 secondary schools during 2016-17.

Adolescent Mental Health Assessments. The 2015 Australian Child and Adolescent Survey of Mental Health and Wellbeing estimated the prevalence of mental disorder among 12-17 year olds at 14.4%.[5] Access Economics estimated direct health expenditure on youth (15-25yo) mental illness to be in the order of $1.4 billion in 2009, and estimated that best practice treatment (prevention and early intervention) could deliver a cost benefit ratio of 5.6 to 1.[6]

- CACH School Health Services are offered to all government and non-government primary schools and to all government secondary schools. Secondary services include a range of early intervention, health promotion and specialist expertise, including mental health assessment and intervention.
- In 2016-17, mental health issues accounted for 3,528 or 12% of all individual service encounters at metropolitan secondary schools. 78% of these encounters resulted in referral or further review.

Postnatal Depression Screening. Postnatal depression is estimated to affect one in seven Australian mothers and one in 25 fathers. In 2012, Deloitte Access Economics estimated the direct costs to the health system to be in the order of $78 million per annum ($42 million hospital costs). [7]

- CACH plays a pivotal role in early identification and intervention for postnatal depression (PND) through PND screening, which is a core component of the child health schedule.
- The offer of PND screening is mandated at 8 week and 4 month contacts, with screening offered to both mothers and fathers. Screening may also occur at other contacts, if warranted.
- In 2016/17 CACH child health nurses working across both universal and specialist child health programs completed 47,540 PND screens.

Screening and Early Intervention for Childhood Obesity. Childhood obesity is a serious public health challenge and is becoming an increasing problem in very young children. This is important, not only because of tracking to poorer health outcomes in later life but also because, at a health system level, overweight and obesity represents a major economic burden. The Australian Bureau of Statistics National Health Survey 2014-15 reported the rate of obesity in 2-4 year olds at 8.7%.[8] A recent Australian study tracked health costs and health service utilisation for a cohort of overweight and obese children aged 2-4 years, reporting that over a three year period, obese children **2-3 times** more likely to be hospitalised and their healthcare costs were **1.6 times** those of healthy weight children weight.[9] There is a well-established link between bottle-feeding and obesity in adulthood, with breastfed children less likely than their bottle-fed counterparts to be obese as adults

- As a key point of entry to the health system in early childhood, CACH has an important role to play in

early identification of children at risk of overweight and obesity.

- Through the CACH school entry screening program, children are screened for overweight and obesity at school entry (4 years) and from 1 July 2017, child health nurses also began screening at age 2 years. In addition to specific assessment of BMI at age 2 and 4 years, child health nurses measure height and weight at each scheduled encounter and provide parental education and guidance where children are at risk, or in more extreme cases, refer to a GP or nutritionist.
- CACH child health nurses also play a pivotal role in promoting breastfeeding and in supporting mothers to continue breastfeeding where difficulties arise.

Positive Parenting Program. Family environments of young children are major predictors of cognitive and socioemotional abilities, as well as longer term health and economic outcomes. Positive, nurturing relationships and responsive parents lay the foundations for better overall life course outcomes. Conversely, dysfunctional relationships can cause toxic stress which sees poorer capacity to self-regulate behaviour and emotions, increased risk of social, emotional and behavioural difficulties, risk of being abused and other adverse experiences.[10]

Parenting programs, such as Triple P, focus on teaching parents how to positively engage with their children to promote pro-social behaviour, self-regulation and effectively reduce aggression and anti-social behaviour using non-violent, sensitive discipline strategies; all within the context of empowering parents and improving their own and their family's health.

- A fifteen year follow-up of children participating in the Triple P program in Perth found positive long-term results on children's education outcomes and reduced paediatric hospital admissions.[11] The Triple P has also been estimated to achieve a 1,283 percent return on investment, based on projected increased tax contributions, reduced educational and welfare payments and reduced contact with the criminal justice system.[12]
- In 2016-17, CACH delivered 140 Triple P group sessions to 1,643 parents.

Child Development Services. Very rapid brain development occurs in the years before school, with 80% of occurring in the first three years. The brain of a three year old has three times more neural connections than that of an adult. Beyond this age, the brain undergoes 'pruning'. Connections that are being used through environment and experiences are retained and those that are not being used are pruned away. Early brain development influences how we are 'wired' for life.

Developmental delay occurs in up to 15% of children under five years of age.[13] Failure to identify and provide interventions to mitigate developmental delays during early childhood has significant flow on implications for paediatric hospital services (including Emergency Departments), as CDS manages cases that would otherwise present through the acute sector. Failure to invest in early identification and intervention for developmental delay also has significant follow on implications for other services such as education, disability services, justice and child protection, with more resources required by these departments to manage more severe and complex lifelong difficulties.

- The Child Development Service provides a range of free allied health and developmental paediatric services for children with or at risk of developmental difficulties, and their families.
- In 2016-17, the Child Development Service accepted 25,366 referrals (some referrals are for multiple disciplines) provided 180,260 service occasions to 22,797 children

Leveraging existing investment as well as new initiatives to improve patient centred service delivery, pathways and transition

A number of initiatives are aimed at better supporting children and families through client centred care, improved pathways and better integration of services.

Improving client centred care and pathways through strategic facilities planning. CAHS community based services are decentralised and are dependent on WA Area Health Services and other government and non-government agencies for the provision of facilities. Inadequate facilities and insecure tenure is the number one issue that CAHS community based services face both now and into the future. Many facilities are at or beyond capacity and do not adequately support the provision of family centred, quality and cost effective services to the community.

Planning and analyses over the last two years have highlighted emerging service gaps, with facilities concentrated in inner metropolitan suburbs and population growth greatest in outer metropolitan regions. Modelling indicates a requirement for up to 12 integrated service hubs within the four major metropolitan growth corridors to maximise access for children and families. Hubs will integrate child and school health services, immunisation, specialist Child Development Service, and community-based Tier 3 and Tier 4 specialist CAMHS services.

The net present cost (NPC) of the current community health facilities model is $249.6 million. An investment in a new model, whereby 12 new community health hubs will be established and up to 50 per cent of the current facilities stock is relinquished, will produce savings of more than $33.3 million over the current facilities model.

Evidence about the importance of integrated working is increasing including the importance of hub and spoke, 'place based', child and parent centre based approaches. Investment in a new facilities model will:

- Enable appropriate, flexible and contemporary co-located clinical services to be provided, meeting consumer expectations.
- Provide ease of access to areas of high consumer demand and population growth.
- Provide value for money to the State.
- Improve workforce productivity by allowing clinical space in sufficient facilities to house new FTE.

Improving client centred care and pathways for CDS clients. Arising from feedback provided by families as part of the CDS Voice of Consumers Project, the CDS Service Planning Initiative engages families earlier in the client journey, aiming to provide an appointment within 8 weeks of referral to involve parents in prioritisation, service planning and goal setting around their child's developmental journey. The initiative ensures that:

- Clients receive the right service at the right time
- Services are more family centred, giving greater voice to the needs and wishes of families
- Outcomes are improved through better engagement and partnering with parents in the care of their child.

In 2016/17, CDS completed 6,264 service planning appointments with families, delivering 90% within 8 weeks of referral.

Improving client centred care and pathways across immunisation services. A number of initiatives are planned or in place to improve client centred care and pathways.

- The SmartVax SMS system sends a text message to the mobile number of parents of children and clients who were immunised through CACH clinics to identify those who experienced any reactions following an immunisation. Clients who notify of a reaction are provided with a link to provide further details. The system enables monitoring of vaccine safety and rapid response to adverse events.
- Accessible services for Aboriginal families. Immunisation coverage rates for Aboriginal children are historically lower than for non-Aboriginal children. CACH has implemented a number of strategies over the past four years to improve immunisation coverage for Aboriginal children, including expansion of targeted, culturally secure immunisation clinics; improved data capture to ensure early identification and follow up with Aboriginal families; improved integration of care for Aboriginal families through increased collaboration and communication between mainstream immunisation and child health services and Aboriginal child health services;

- Mapping and gapping immunisation service delivery CACH provides free childhood vaccinations across 50 metropolitan sites. General practitioners are the majority provider in metropolitan Perth, providing an estimated 75-80% of all childhood vaccinations. Access and cost of GP services vary across the metropolitan area. Work is currently underway to map GP and CACH immunisation services across metropolitan Perth to better target CACH services to areas of lower service coverage.

The mix of services provided across the system to deliver care in the most appropriate setting and to maximise health outcomes and value to the public

CACH Child Development and Child Health Services recently commenced major service reform initiatives aimed improving service efficiency and health outcomes through improved service mix. By supporting all children and families during the early years, these key reforms will play a pivotal role in reducing lifetime healthcare costs for individuals and the broader community.

Child Development Services. CDS has experienced a 20% increase in referrals over the past five years, with demand expected to continue due to increasing population of children and high prevalence of developmental delays and disorders. In response to this, in order to promote the sustainability of the service, CDS has:

- Introduced service planning appointments to ensure the right service is provided at the right time
- Completed demand and capacity modelling and developed standard clinical pathways for various clinical cohorts
- Developed a suite of group-based services for high-volume clinical cohorts.
- Future strategies include a review of scope of practice for allied health, medical and nursing roles to ensure the right service is being provided by the right person

Community child health services. To ensure high quality services can continue to be delivered in an environment of increasing demand for services, the recently introduced New Community Child Health Program aims to better align services with family needs through improved service mix, including:

- Increased availability of high quality groups to support new parents
- Increased availability of drop-in sessions, which offer a flexible, accessible alternative to appointment-based individual consultations. Drop-in contacts provide for more efficient use of nursing resources for non-complex consultations – the average time is 15 minutes, compared to 30 minutes for individual consultations by appointment. Between 2015-16 and 2016-17, total number of drop-in sessions increased by 40%, contributing to a reduced demand for 'unscheduled' appointments and a 6% increase in total clinical contacts.
- By increasing accessibility of services to 'low risk families' through drop-ins and groups, resources can be re-directed to providing additional support for higher risk families, where the greatest impact can be achieved through reducing stress-inducing burdens on children and families, leading to reduced lifetime healthcare costs for individuals and the broader community.

Ways to encourage and drive digital innovation, the use of new technology, research and data to support patient centred care and improved performance

CACH has a number of initiatives around technology, research and data planned or in place, including:

Integrated client medical record. Beginning in late 2009, an integrated electronic client record (CDIS) has been progressively rolled out across CACH program and service areas. CDIS enables clinical staff across CACH to provide the best care for clients through streamlined work processes and access to an integrated record.

Online registration for child health appointments. The online registration system for child health appointments, introduced in 2016, is available 24 hours a day, 7 days a week. It makes centralised booking more convenient and more accessible to parents and improves parent engagement through

streamlining the booking process.

E-prescribing system for CDS paediatricians. Currently in development, this system will improve medication management and allow for fast, efficient reporting around medication use.

Automated birth notifications. In 2016-17, CACH received almost 28,000 notifications of births from the Maternal and Child Health Unit. Historically, new client records have been created in the CDIS database by manually entering demographic and clinical information contained in birth notifications. System enhancements are currently in development to facilitate automated electronic transfer of birth notification data into CDIS.

Opportunities to drive partnerships across sectors and all levels of government to reduce duplication and to deliver integrated and coordinated care

In the early years of a child's life, the health care system plays a pivotal role as the first point of contact for families. Community health services serve as a gateway to a range of other early childhood services, such as early childhood development services, parenting and carer support, primary health care, social protection. To enable strong working relationships and efficiencies in and across social services and health systems, CACH have partnered with a number of other Government departments and non-Government organisations. Our partnerships include:

Child and Parent Centres Child and Parent Centres (CPCs) are a partnership between the Department of Education, CACH, WACHS and Community Service Organisations. Recognising the key to building a solid foundation in the early years is to make sure that families know about and have ready access to affordable support services within their immediate communities, the CPCs were identified as a model for improving access to a range of programs and services to support vulnerable families to provide a better start in life for their young children. There are now 12 CPCs located on selected public school sites in vulnerable communities across metropolitan Perth. CACH provides child health, child development and immunisation services across these sites. CPC

Goodstart Early Learning Pilot One of the many strategies that CACH is exploring to make child health services more accessible to the community includes flexibility in location of service delivery. The Goodstart pilot co-located child health services in the Goodstart Baldivis Early Learning Centre. The program was well-received by families attending the centre and by the broader community, providing a conveniently located, accessible service in a high growth area. CACH is currently exploring further opportunities for co-location of child health and immunisation services.

Partnering with consumers. As well as partnering with other sectors and other organisations, CACH has a number of structures in place for partnering with consumers, including an active consumer network, known as the Parent and Family Network; consumer representative with membership on CACH Executive; and three-yearly consumer feedback survey cycle across key services. The CACH Consumer Partnership Strategy and Implementation Plan (CPSIP) establishes six key strategic priorities for CACH for the period July 2016 to June 2018:

- Establishing mechanisms for consumer input into governance systems and ensure ongoing partnerships with consumers at all levels of the organisation.
- Strengthening consumer partnerships in planning, designing and reforming services.
- Measure, evaluate, monitor and improve the consumer experience.
- Improving engagement with hard-to-engage consumers and those who do not usually provide feedback.
- Strengthening knowledge and understanding of consumer perspectives within the CACH workforce.
- Exploring the role of technology in developing and maintaining consumer partnerships.

Ways to drive improvements in safety and quality for patients, value and financial sustainability, including cost drivers, allocative and technical efficiencies

Promoting and facilitating a culture of safety and quality CACH has implemented a number of initiatives aimed at embedding a continuous quality improvement culture and improving safety and quality of care across our service and programs, including:

- A Quality Management Steering Committee, a Quality Improvement Steering Group and a Quality Management Walk-around program
- Safety and quality education sessions
- Safety and quality standing agenda items and CQI monthly updates for managers to discuss at team meetings
- A one-stop CQI intranet page and standardised Quality Improvement Activity forms
- Attesting to the success of the campaign to embed safety and quality improvement practices across the workforce, 31 Quality Improvement proposals have been submitted to date in 2017, up 72% on 2016.

Driving improvements through allocative and technical efficiencies. A number of recent initiatives have been implemented or planned to improve efficiency of service delivery. By better targeting resources toward children and families most in need of support, these early interventions can reduce stress-inducing burdens on families that are beyond the capacity of the medical care system alone to address, ultimately improving long term health and social outcomes and reducing lifetime healthcare costs.

- CDS developmental workshops for teachers Evidence suggests that when referrals are initiated by schools, parent engagement is significantly poorer compared to referrals made by other agencies/professionals or initiated by the parent. Data indicates that up to 70% of clients who were referred by a school did not respond to an offer of an appointment with CDS. This is in comparison to an overall 20% 'did not respond' rate across all ages/referral sources. The aim of this initiative is to enhance the capacity of education staff to support child development within an education environment, and to improve parent engagement in school-initiated referrals to CDS. During the first half of 2017, 206 workshops were delivered to 1,558 participants.
- Reducing opportunity costs due to client Did Not Attend (DNA). A trial of SMS reminders for booked child health appointments in 2015 achieved a 25% reduction in DNA rate, with projected net savings conservatively estimated at more than $20,000 per annum. The SMS reminder system was retained beyond the period of the trial and the 25% reduction in DNA rate has been maintained. A follow up project will investigate families at risk of DNA and investigate avenues to further reduce DNA rates across child health and child development services.
- Child Health workforce skill-mix. Historically, child health services have been delivered by child health qualified Level 2 nurses. During 2016-17, work commenced on defining the scope of practice of Level 1 and Level 2 nurses and modelling of the required skill-mix to meet population needs. Planning for a progressive realignment of skill-mix is underway with a view to reducing the cost burden in the face of continued growth in demand for services.
- Matching resource allocation to population needs. Historical modelling of child health nursing allocation has been based largely on population projections with a weighting for sociodemographic indicators as a predictor of variable needs. During 2015-16, for the first time, service activity data was incorporated into modelling, providing more reliable population data, as well as indicators of client acuity. In 2017-18, modelling will be further refined by inclusion of client level data on risk factors from CDIS and the midwives database. The use of client level data on demographic and clinical risks will ensure allocation of resources supports the provision of a more comprehensive service to vulnerable

Perth children and families, leading to improved population health outcomes and more equitable access to services.

The key enablers of new efficiencies and change, including, research, productivity, teaching and training, culture, leadership development, procurement and improved performance monitoring

Using performance monitoring and reporting to drive efficiencies and change. The progressive roll-out of an integrated electronic client record (CDIS) has provided CACH with a valuable, up-to-date data source, which has and will continue to be interrogated extensively to better understand service utilisation patterns, service performance and the many factors contributing to performance. Since 2014, CACH has invested significant resources in developing performance dashboards for key service and program areas. The dashboards provide meaningful performance metrics around service performance; enable early identification of performance risks; set clear accountabilities and provide opportunities to share best practice. Coupled with regular interrogation and reporting from comprehensive human resource and finance datasets, the clinical datasets provide a critical resource to better understand our business, counter misconceptions around factors contributing to poor performance and ultimately drive business improvements. Examples of improvements achieved through effective use of data include:

- Child health nursing individual productivity targets set in July 2014 – 9% increase in individual output achieved over two years.
- Child health drop-in session targets set in June 2016 – 40% increase in drop-in contacts achieved in one year

[1] Heckman JJ. Skill formation and the economics of investing in disadvantaged children. Science 2006; 312(5782): 1900-2.

[2] Heckman JJ, Stixrud J, Urzua S. The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. Journal of Labor Economics 2006; 24(3): 411-82.

[3] Shonkoff, JP, Boyce, WT, McEwen, BS. Neuroscience, Molecular Biology, and the Childhood Roots of Health Disparities. Building a New Framework for Health Promotion and Disease Prevention. Journal of the American Medical Association 2009; 301 (21): 2252-2259.

[4] Whitney CG, Zhou F, Singleton J, Schuchat A. Benefits from Immunization During the Vaccines for Children Program Era — United States, 1994–2013,Morbidity and Mortality Weekly Report 2014: 63(16): 352-355.

[5] Lawrence D, Johnson S Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR (2015) The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Department of Health, Canberra.

[6] Access Economics. The economic impact of youth mental illness and the cost effectiveness of early intervention, 2009.

[7] Deloitte Access Economics. The cost of perinatal depression in Australia, 2012.

[8] Australian Bureau of Statistics. 4364.0.55.001 - National Health Survey: First Results, 2014-15, Canberra, 2015.

[9] Hayes A, Chevalier A, D'Souza M, Baur L, Wen LM and Simpson J. Early Childhood Obesity: Association with Healthcare Expenditure in Australia, Obesity (2016) 24, 1752-1758.

[10] Biglan A. The Nurture Effect: How the science of human behaviour can improve our lives and our world. New Harbinger Publications. 2015.

[11] Smith G. 15 Year follow-up of WA Triple P Trial. Perth: Telethon Kids Institute on behalf of Department of Health, Western Australia; 2015.

[12] Centre for Excellence and Outcomes. Grasping the nettle: early intervention for children, families and communities. 2011

[13] National Health and Medical Research Council. Child health screening and surveillance: a critical review of the evidence. Canberra: NHMRC, 2002.