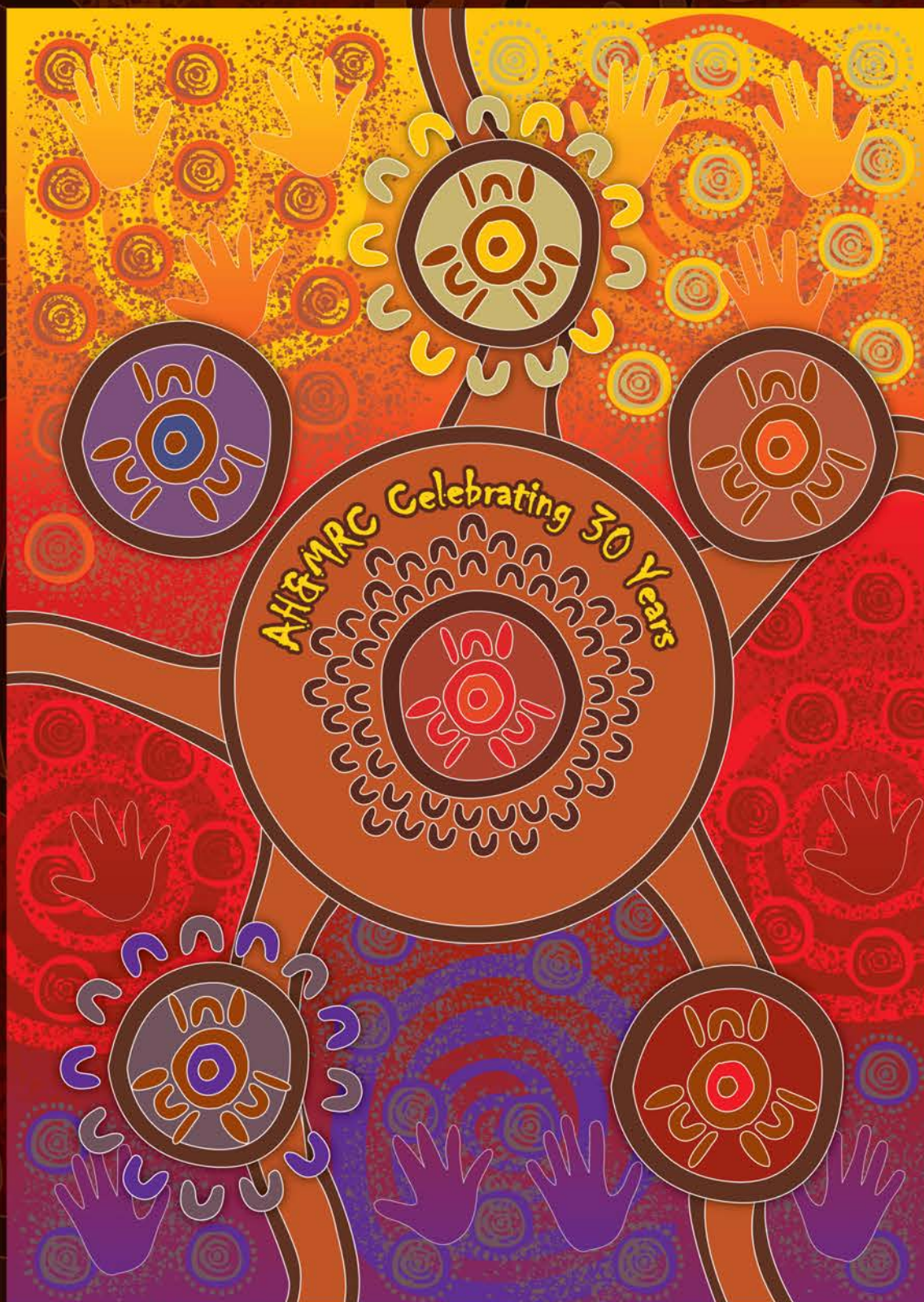


ABORIGINAL COMMUNITIES IMPROVING ABORIGINAL HEALTH

An evidence review on the contribution of Aboriginal Community Controlled Health Services to improving Aboriginal health



2015

ABOUT THE ARTWORK

This artwork was created by Aboriginal Graphic Designer Carissa Paglino, Newcastle NSW. Carissa is a descendant of the Gamilaroi and Wonaruah nations, also having Italian heritage.

The artwork was created to celebrate the AH&MRC 30th Anniversary in 2015 and represents the journey of the AH&MRC over 30 years and into the future, the diverse areas of work of the AH&MRC, and the relationship between the AH&MRC and its member services and Aboriginal communities.

ACKNOWLEDGEMENTS

This report was prepared by Dr Megan Campbell, with support from Dr Jenny Hunt, in their roles as AH&MRC Public Health Medical Officers.

The majority of the targeted research for the report was undertaken by Dr Campbell. This built on a long term and ongoing project of collating and reflecting on evidence about the role of ACCHSs in improving Aboriginal health, that has involved many AH&MRC staff and others within and outside the ACCHS sector over many years.

Drafts of this report were reviewed by AH&MRC staff, including Kerri Lucas (Public Health Manager) and Jo Coutts (Senior Project Officer), and publication of the report was endorsed by the AH&MRC Board of Directors.

The AH&MRC would like to acknowledge and thank Dr David Scrimgeour and Dr Maureen Davey who reviewed drafts and provided comment and other input during the preparation of this report.

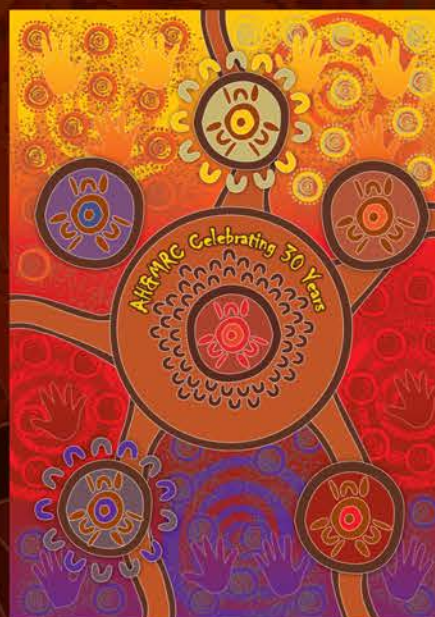
The AH&MRC would like to acknowledge Aboriginal Community Controlled Health Services and Aboriginal communities for their continued efforts to improve the health of Aboriginal peoples. We also acknowledge the Aboriginal peoples who are the traditional custodians of New South Wales, and pay our respects to Elders past and present.

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FOREWORD

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Aboriginal Community Controlled Health Services (ACCHSs) have long been working to promote, advocate and support improved health and health care for Aboriginal peoples in Australia. ACCHSs have always been at the heart of Aboriginal communities, grounded in local values and culture, and providing a place for engagement, activism, employment and safe haven, in addition to delivering high quality evidence-based health care. The health care offered by ACCHSs is comprehensive and culturally appropriate and it is this model of health care that is regarded as the most effective in addressing the poor health faced by Indigenous communities around the world.

This review considers the published literature documenting the contribution ACCHSs have made to the health and wellbeing of Aboriginal communities. A key strength of the review is that it takes a broad perspective of the ways in which ACCHSs impact on the health of Aboriginal peoples, and explores the scope of possibilities for their contribution to improving health. It is essential that the information in this review, and its holistic conceptual approach, be considered when making funding and policy decisions that affect the health and wellbeing of Aboriginal communities.

It is important to note that individual ACCHSs are making many contributions to improving the health and wellbeing of local Aboriginal peoples and communities that are not reflected in the published literature. I encourage ACCHSs to consider publishing accounts of their experiences and achievements, so that all can benefit from their insights and these sources of evidence.

It gives me great pleasure to introduce this report.



Ms Sandra Bailey
Chief Executive Officer
Aboriginal Health and Medical Research Council of NSW

EXECUTIVE SUMMARY

Aboriginal communities have a long history of working to address the needs of Aboriginal peoples. Since the first Aboriginal Community Controlled Health Service (ACCHS) was established in Redfern, NSW in 1971, more than 150 ACCHSs have been established around Australia. While the Aboriginal community controlled health sector has long argued that ACCHSs are a vital part of Australia's health care system, there has been little in the published literature acknowledging and supporting their roles and recognising their contributions to improving Aboriginal health. This review aims to provide a comprehensive collation and analysis of the available evidence about the different ways in which ACCHSs contribute to improving the health of Aboriginal peoples.

Several methods were used to undertake this literature review including a systematic and structured review of peer-reviewed articles and a search of key organisation websites and databases to locate grey literature. Publications were included if they evaluated an ACCHS service or activity and considered the impact on health outcomes or health related outcomes. In addition, qualitative studies were included if they described attributes of ACCHSs and the relationship of these attributes to health and health care outcomes or if they described the impacts of ACCHS activities on the broader Australian health system.

The reviewed literature demonstrates that ACCHSs contribute to improving the health of Aboriginal peoples through several pathways. As community controlled organisations, ACCHSs are practical expressions of Aboriginal peoples' self-determination, and this is reflected in ACCHS governance and health care models. The community-controlled model has been demonstrated to be associated with improved psychological wellbeing and reduced hospitalization rates for Indigenous groups in other countries.

ACCHSs address other social determinants of health directly. As employers and trainers, ACCHSs contribute to improving the socioeconomic contexts in which Aboriginal people live by providing employment and educational opportunities, as well as providing an important setting for non-Aboriginal health professionals to increase their understanding of

culturally appropriate care. ACCHSs contribute further to the broader health system by acting as partners and advocates to other organisations to support them to address the health needs of Aboriginal communities.

As primary health care providers ACCHSs directly contribute to improving Aboriginal health through increasing access to, and delivering, best practice comprehensive primary health care. ACCHSs increase Aboriginal peoples' access to primary health care across a variety of locations and health areas, and among hard to reach sub-populations of Aboriginal people, including those with mental illness and alcohol and drug issues. ACCHS impacts on access to primary health care are also evident in areas where alternative primary health and other services operate; multiple studies describe a preference among Aboriginal peoples for ACCHS delivered care. Qualitative studies suggest that this preference is because ACCHS delivered care is flexible and responsive, culturally appropriate and delivered by trusted staff in a safe setting.

ACCHSs deliver a broad range of primary health care services that are highly integrated and coordinated. Studies exploring consultations occurring at ACCHSs and general practice identify important differences between the models of care offered. ACCHSs are more likely to provide holistic care and involve a range of health professionals and services. The ACCHS primary health care model has been associated with improved population level indicators, such as mortality, as well as improvements in a range of specific health outcomes, in child and maternal health, chronic disease, mental health and sexual health in particular.

There are important gaps in the evidence base, including a lack of studies on the ACCHS primary health care model as a whole and its impacts in some health areas. However, the evidence that is available provides a solid foundation supporting the roles and contributions of ACCHSs. Consideration of this evidence is vital to ensure programs and policies are appropriate and effective in improving the health of Aboriginal peoples.

1 | BACKGROUND

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Aboriginal* communities have a long history of working to address the needs of Aboriginal peoples. In 1971 the first Aboriginal Community Controlled Health Service (ACCHS) was established in Redfern in response to the high burden of disease experienced by the local Aboriginal community and the failure of the health system to address these needs. At this time, Aboriginal peoples' fight for self-determination was growing and the establishment of ACCHSs allowed Aboriginal peoples' participation in, and control over, their health care. Since 1971, more than 150 ACCHSs have been established by Aboriginal communities around Australia (Alford K, 2014, p. 178).

The Aboriginal community controlled health sector has long argued that ACCHSs are a vital part of Australia's health care system. However, there is little in the published literature that recognises the contribution of ACCHSs in improving Aboriginal health. Several government and non-government reviews have collated evidence for what works in improving Aboriginal health (Black A, 2007; Deeble Institute, 2014; Dwyer J, Silburn K, & Wilson G, 2004; Griew R, Tilton E, Cox N, & Thomas D, 2008; Halliday D & Segal L, 2012; Herceg A, 2005; Shannon C, Wakerman J, Hill P, Barnes T, & Griew R, 2002). Only some of these reviews focused on the role of the primary health care sector, and none have fully considered the broad range of contributions of ACCHSs to improving Aboriginal health.

The Aboriginal Health & Medical Research Council (AH&MRC) is the peak body and voice of Aboriginal communities on health in New South Wales and represents around fifty Aboriginal Community Controlled Health (ACCHSs) and health related services. The AH&MRC supports ACCHSs to deliver health care and advocates on their behalf, and on the behalf of Aboriginal communities, at a state and federal level.

The AH&MRC has undertaken this review to address the evidence gap that currently exists, about the range of contributions ACCHSs are making to improve Aboriginal health. This evidence is needed to inform the development of policy and programs, and decisions about funding, in Aboriginal primary health care and other efforts to improve Aboriginal health. It is also important for the Aboriginal community controlled health sector to know about the size and strength of

the evidence base regarding the contribution of ACCHSs to improving health so that they are able to draw and build on this information.

The purpose of this literature review is to present the evidence supporting the contributions of ACCHSs to improving the health of Aboriginal peoples, so that this information is available for the Aboriginal community controlled health sector, funders, policy makers and others with an interest in improving Aboriginal health. The review aims to provide a comprehensive collation and analysis of the available evidence about the range of different pathways through which ACCHSs contribute to improving Aboriginal health, by addressing the following questions:

1. How do ACCHSs contribute to improving the health of Aboriginal peoples?
2. What is the available evidence supporting the contribution of ACCHSs to improving Aboriginal health?

1.1 Structure of this document

This review is divided into five sections:

- **Section 1** provides background information outlining why this evidence review was undertaken.
- **Section 2** describes important contextual information to frame the review findings. Information on primary health care and organisations in Australia is provided, including the role and history of ACCHSs. A discussion on the pathways through which ACCHSs can contribute to health is also included.
- **Section 3** outlines the methods used to undertake the literature review.
- **Section 4** contains the results of the review, grouped into several subsections that reflect the earlier consideration of pathways for ACCHS contributions to improving health (Section 2).
- **Section 5** discusses the findings of the review, and their relevance for funders and policy makers.

* The term Aboriginal has been used throughout this document in recognition that Aboriginal peoples are the first inhabitants of NSW and may refer to both Aboriginal and Torres Strait Islander peoples.

2 | CONTEXT

2.1 Primary care, primary health care and primary health care services

The terms primary care and primary health care are used in different ways in an Australian context (Hurley C, Baum F, Johns J, & Labonte R, 2010). 'Primary care' generally refers to primary medical care, a medical model approach to delivering care. Primary medical care is commonly defined as the health care provided to an individual at the first point of contact with the health system (Commonwealth of Australia, 2009) and is typically focused on clinical interventions for individuals.

'Primary health care' is a broader approach to considering health and providing care, and is defined in the Declaration of Alma Ata:

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination (World Health Organisation, 1978).

The concept of health underpinning this definition of primary health care has two important aspects. First, health is framed holistically, with biological, social, cultural, economic and environmental influences. Second, health, and therefore access to primary health care, is considered a human right. Primary health care, as defined here, involves integrated and coordinated primary medical care as well as social support (for a range of health and related needs) and population health strategies; it is responsive to community need and works to address inequities and disadvantage (Keleher H, 2001).

This definition of primary health care is also known as 'comprehensive primary health care'. In contrast, selective primary health care has been advocated as providing a more economically rationalist approach to improving health outcomes (Rogers W & Veale B, 2000).

Selective primary health care lies between primary care and comprehensive primary health care and focuses on particular health services to improve population health. Like primary medical care, selective primary health care emphasises medical interventions and the role of health professionals, rather than taking a multidisciplinary approach controlled by the community; it does not espouse the philosophical principles of comprehensive primary health care. For the purposes of this review, the term primary health care is used to refer to comprehensive primary health care.

Internationally, there is consensus that services providing comprehensive primary health care can lead to improved population health outcomes, reduced health inequities (Keleher H, 2001), reduced hospital admissions and reduced overall health care utilisation (Browne AJ et al, 2012). Primary health care services are particularly important for marginalised and disadvantaged populations where the greatest gains in health can be made (World Health Organisation, 1978). The involvement of Indigenous communities in the delivery of community health care is a principle upheld in the United Nations Declaration on the Rights of Indigenous Peoples (United Nations, 2008). Primary health care approaches and services, that integrate accessible, high quality and responsive services with structural and policy changes to improve the social determinants of health, have been described as one of the most effective means of achieving greater equity and closing the gap in health outcomes between different populations (Browne AJ et al, 2012).

In Australia, primary medical care is provided in a variety of settings, including general practice, emergency departments, community health centres, government-run Aboriginal health services and Aboriginal Community Controlled Health Services. Primary health care, as described here, is provided by a much smaller subset of these services. A range of barriers to providing primary health care have been identified, the most significant being the complex funding arrangements for health organisations that create barriers to integrating providers and services within and between organisations (Hurley C et al, 2010).

2 | CONTEXT

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In particular, the business model underpinning general practice, where funding is primarily derived from the Medicare Benefits Schedule, has been described as fragmenting care into “short episodes of discrete service delivery” (Boxall AM & Gillespie J, 2013), and this may limit integration and coordination of health care.

Much of the literature on Aboriginal health care refers to “mainstream services”. This term is typically used to define those health care services that do not specifically target Aboriginal people. These services are diverse, and include fee for service private general practices and government-run services that are not specifically targeting Aboriginal people. There are also government-run services that do target Aboriginal people and these are a diverse group of services with some sharing features with ACCHSs, such as community participation and salaried general practitioners (Hayman NE, White NE, & Spurling GK, 2009). It is important that when making comparisons between ACCHSs and other services that there is explicit consideration of the specific types of services being compared, and their likely similarities and differences.

2.2 Aboriginal Community Controlled Health Services (ACCHSs)

ACCHSs are primary health care services that have been initiated, and are operated, by local Aboriginal communities to deliver holistic, comprehensive and culturally appropriate health care to the community which controls it (National Aboriginal Community Controlled Health Organisation, 2014). ACCHSs first arose in the early 1970s in response to the failure of the health system to meet the needs of Aboriginal peoples (National Aboriginal Community Controlled Health Organisation, 2012) and the aspirations of Aboriginal peoples for self-determination. Since then, the number of ACCHSs has expanded and there are now 150 ACCHSs around Australia.

ACCHSs have developed a comprehensive model of primary health care that is consistent with, yet predates, the definition of primary health care outlined in the Declaration of Alma Ata (World Health Organisation, 1978). ACCHSs were the first organisations

to offer comprehensive primary health care in Australia and are acknowledged as the best example in recent times (Couzos S & Murray R, 2007; Hurley C et al., 2010). The ACCHS model is based on the Aboriginal concept of health, as articulated in the National Aboriginal Health Strategy:

“Aboriginal health means not just the physical well-being of an individual but refers to the social, emotional and cultural well-being of the whole community in which each individual is able to achieve their full potential as a human being (NAHSWP, 1989).

By definition ACCHSs are incorporated Aboriginal organisations, initiated and based in local Aboriginal communities (Couzos S & Murray R, 2007). An Aboriginal board of directors is elected by the local Aboriginal community to govern each ACCHS. This unique governance model makes ACCHSs directly operated by, and accountable to, the local Aboriginal community (Couzos S & Murray R, 2007). ACCHSs vary in terms of size, funding, infrastructure, workforce and governance, and consequently in the range of services they offer. The services provided by each ACCHS are also a reflection of the unique health needs of the community in which they are based.

ACCHSs have many common features, including the expression of comprehensive primary health care through team-based multidisciplinary and holistic care (Larkins SL, Geia LK, & Panaretto KS, 2006). The National Aboriginal Community Controlled Health Organisation (NACCHO) describes the ACCHS model of comprehensive primary health care as including:

- Clinical services for the prevention and management of acute and chronic disease
- Illness prevention services including immunisation, antenatal screening and environmental health programs
- Specific programs for health gain such as antenatal care, nutrition, physical activity, social and emotional wellbeing, oral health and substance misuse
- Access to secondary and tertiary health services and community services including aged and disability care

- Community assistance and advocacy services (NACCHO, 2013).

Aboriginal Health Workers are central to the ACCHS model of care. The primary role of Aboriginal Health Workers is delivering health care. In addition to this, Aboriginal Health Workers provide an important cultural brokerage role, assisting Aboriginal and non-Aboriginal health care providers and organisations to communicate better and overcome cultural barriers (Abbott P, Gordon E, & J, 2008). Other roles depend on training, interest and local need, and may include health promotion, clinical care (such as immunisations, pap smears and health assessments), education and cultural mentoring to non-Aboriginal health professionals. Registered Aboriginal Health Practitioners, a subset of Aboriginal Health Workers, assess and manage patients' healthcare including supplying medications. Other health organisations, in particular general practices, are much less likely to involve Aboriginal Health Workers (Australian Medical Association, 2011).

ACCHSs have been established and operate in the context of significant historical, political and social challenges (Australian Indigenous Health InfoNet, 2014). The health disadvantages experienced by Aboriginal peoples reflect the history of colonisation and poor government policy as well as contemporary structural and social factors. Aboriginal peoples continue to be less likely to have the economic opportunities, physical infrastructure and social conditions necessary for health. Despite the considerable need for health care for Aboriginal peoples, ACCHSs are limited by complex and inadequate funding arrangements (Couzos S & Murray R, 2007). Government policies regarding ACCHSs have varied from lack of acknowledgement and funding, to support for self-determination and Aboriginal specific services, to an expectation that Aboriginal people will access services that are not Aboriginal-specific (Scrimgeour M & Scrimgeour D, 2007).

The context in which ACCHSs arose and continue to operate means that ACCHSs have community functions which extend beyond health care delivery (Couzos S & Murray R, 2007). ACCHSs are key sites for

Aboriginal community development and provide broad benefits to the community through employment, advocacy and leadership. ACCHSs are an important domain of the Aboriginal community sector, which has an integral role in Aboriginal civil society (Sullivan P, 2010). Community organisations such as ACCHSs are also the primary means for Aboriginal people to make themselves visible as citizens within the Australian polity (Rowse T, 2005). ACCHSs therefore have several important roles within Aboriginal communities: community representatives in Aboriginal affairs; health care service providers; local level governance; and a major expression of Aboriginal civil society (Sullivan P, 2010). ACCHSs are both drivers of positive social and health change and manifestations of such change.

2.3 A framework for considering the contributions of ACCHSs

In order to undertake this review, the different activities and functions of ACCHSs, and the pathways through which these might influence health directly and indirectly, have been considered. ACCHSs are more than just clinical service providers and the different functions of ACCHSs have been described in the document Core functions of primary health care: a framework for the Northern Territory (Tilton E & Thomas D, 2011). This document groups core ACCHS functions into the following five domains:

1. Community engagement, control and cultural safety
2. Advocacy and Aboriginal knowledge
3. Corporate services and infrastructure including clinical governance, quality improvement, and employment and training
4. Health promotion including creating supportive environments, supporting community development, orienting health services and providing health education, and
5. Clinical services from prevention and early intervention to treatment and rehabilitation.

2 | CONTEXT

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Many of these functions and the ways in which the functions may influence health are interrelated. In particular, community engagement and control is central to how ACCHSs undertake other core functions. The Aboriginal community informs what and how clinical services and health promotion programs will operate, how corporate services will function and what knowledge and expertise will inform advocacy and partnership efforts. Community control may also influence health more directly. Self-determination has been argued to be an important determinant of health among Aboriginal peoples (*Reading CL & Wien F, 2009; Scrimgeour D, 2014*) and ACCHSs are a practical expression of self-determination. In addition, ACCHSs are recognised as a source of community pride and resilience, which may contribute to individual and community health and wellbeing (*Couzos S & Murray R, 2007*).

The other ACCHS core functions may influence health either directly or indirectly. ACCHSs are authorized to speak on behalf of the communities they support and represent and through advocacy efforts they may influence local and state level policies in health and related areas (*Couzos S & Murray R, 2007*). ACCHSs frequently partner with other organisations and in doing so work to achieve improved health care and health outcomes for Aboriginal people. This may include addressing barriers in access to care and ensuring services provided by other organisations are culturally appropriate. These roles are likely to contribute to improving the quality of care available to Aboriginal peoples from other parts of the health system, thereby contributing to improving Aboriginal health.

ACCHS corporate services, or infrastructure, may also contribute to health. Employment and education are widely recognised as important and proximal social determinants of health (*Reading CL & Wien F, 2009; Wilkinson R & Marmot M, 2003*) and ACCHSs are significant employers and trainers of Aboriginal people. In addition, ACCHSs provide training to non-Aboriginal health professionals. Cultural immersion of non-Aboriginal health professionals in Aboriginal community settings, such as ACCHSs, has been identified as an important strategy in cultural appropriateness training and addressing the institutionalised racism in the

health system (*Henry BR, Houston S, & Mooney G, 2004*).

Clinical services and health promotion programs provide the most direct impact on the health of individuals and populations. The performance or quality of health services (both clinical services and health promotion programs) is conventionally considered as multidimensional, incorporating attributes such as accessibility, effectiveness, appropriateness, efficiency, relevance and equity (*Maxwell R, 1984*). The Australian Government has applied these dimensions to the context of Aboriginal health in the Aboriginal and Torres Strait Islander Health Performance Framework (*Commonwealth of Australia, 2012*). This document describes several domains for assessing the performance of the Australian health system as a whole, which can also be used to consider the performance of individual services, or parts of the health system, in improving Aboriginal health. The Framework describes quality care as care that is:

- Effective, appropriate and efficient (measured through indicators such as immunisation, chronic disease management, procedures and avoidable admissions)
- Responsive (measured through indicators such as discharge against medical advice, access to mental health services and number of Aboriginal people in the workforce)
- Accessible (measured through indicators such as access to prescription medicines and after hours care)
- Continuous (measured through indicators such as having a regular general practitioner or health service and chronic disease care planning)
- Capable (measured through accreditation and the number of Aboriginal people in training for health disciplines)
- Sustainable (measured through expenditure and recruitment and retention of workforce).

Many of these dimensions are interrelated. Access is an essential component of the performance of health services; services cannot be effective if they are not used. Access depends on a range of factors including that care is affordable, available and appropriate. For

Aboriginal people, appropriate care is not just care that is needs and evidence based. Appropriate care depends on the service and approach being informed by Aboriginal peoples' beliefs and values. Appropriate services are those that are regarded by Aboriginal people as culturally appropriate and safe.

For the purposes of this review, a broad perspective of the pathways through which ACCHSs might contribute to Aboriginal health has been taken. A framework has been developed for considering the contribution of ACCHSs for this review (see Figure 1). This framework has been informed by the core functions of ACCHSs and quality components most relevant to the review question.

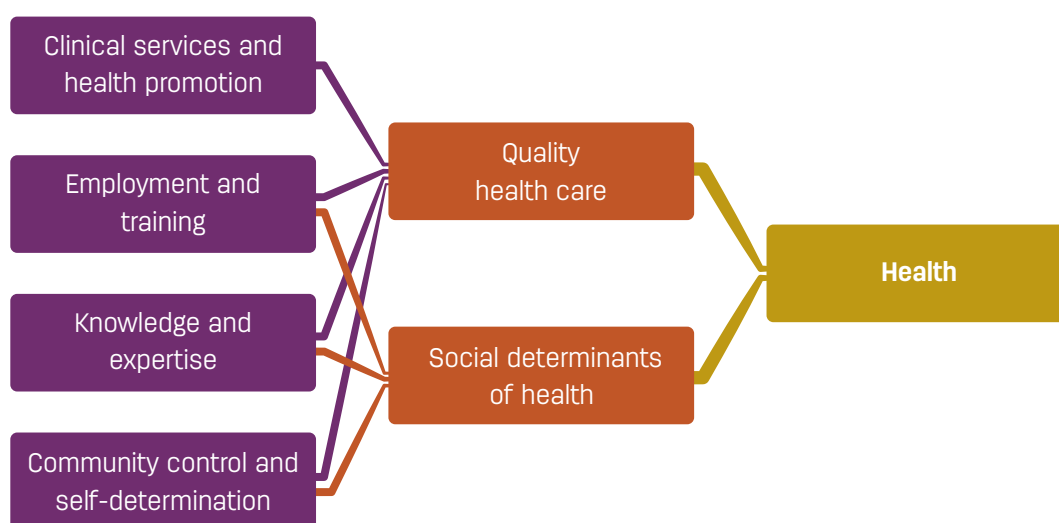


Figure 1

A framework for considering the ways ACCHSs contribute to health for Aboriginal peoples



3 | METHODS

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Several methods were used to undertake this literature review. Initially, a systematic and structured literature search was undertaken of published, peer-reviewed studies. Medline was searched in January 2014 using key word searches including “Aboriginal Community Controlled Health Services” and “Health Services, Indigenous”. The search was restricted to English language articles and no publication date was set.

The same search terms were used in January 2014 to identify grey literature from the following key organisations and databases:

- Closing the Gap Clearinghouse
- Indigenous HealthInfonet
- Lowitja Institute
- Primary Health Care Research and Information Service
- Department of Health
- National Aboriginal Community Controlled Health Organisation and its state and territory affiliates.

Reference lists of peer-reviewed articles and grey literature were manually checked for additional publications relevant to the review questions. Publications on the evidence supporting Indigenous health services in the United States, Canada and New Zealand were also sought using online search engines.

Abstracts of peer-reviewed articles and executive summaries of grey literature were reviewed by the lead author to identify results relevant to the literature review questions. There were several criteria for inclusion in this review. Firstly, publications were included if they evaluated an ACCHS service or activity and considered its impact on health outcomes, health care use or other outcomes where there is general consensus of a relationship with health. Secondly, qualitative publications were included if they described attributes or functions of ACCHSs and related these attributes or functions with health or health care outcomes. Thirdly, qualitative publications were also included if they described the impact of ACCHSs on other parts of the health system or on health policy.

Over the course of undertaking this review additional peer-reviewed articles that were published later in 2014 were also considered. A reference group, comprising experts within the Aboriginal community controlled health sector, reviewed the results and identified additional peer-reviewed and grey literature publications.

Of the 2003 peer reviewed articles returned in the initial Medline search, 19 were relevant to this literature review. An additional 22 peer reviewed articles were identified through snowballing or by the reference group, or were published over the course of the review. Nine grey literature publications were identified that met the inclusion criteria.

Publications were analysed and grouped by the two lead authors using the Framework outlined in Section 2. Analysis is presented using narrative synthesis and tabular representation.

4 | RESULTS

4.1 Impact of community control on health

Adoption of the community-controlled model has been associated with improved health outcomes for Aboriginal peoples in international studies. A study by Lavoie and colleagues (*Lavoie JG et al., 2010*) explored the relationship between First Nation community health service characteristics and rates of hospitalisation in Canada. This study found that communities who transitioned from government control to local community control of health services (including managing and administering health resources) experienced a 30% reduction in hospitalisation rates. This was in contrast to communities that either transitioned to shared responsibility for delivering health services or continued government control of health services. In this study, hospitalisation rates decreased each year following the implementation of community control agreements. The authors attributed the lower hospitalisation rates to improved psychological wellbeing due to self-determination.

Other studies support this association between community control and psychosocial wellbeing. Another Canadian study (*Chandler MJ & Lalonde CE, 1998*) explored the relationship between community attributes and suicide rates among Aboriginal communities in British Columbia. The study found that suicide rates varied widely across 196 Aboriginal communities and that the variable incidence rates were strongly associated with the degree to which the communities were engaged in practices that control their own services. These cultural practices included local control of traditional lands, educational services, police and protection services and health delivery. The authors concluded that having control over community affairs vouchsafed cultural continuity and protected psychological wellbeing.

While similar studies have not yet been undertaken in Australia, the published literature suggests that ACCHSs contribute to positive health and wellbeing for Aboriginal peoples (*Baba JT, Brolan CE, & Hill PS, 2014*). ACCHSs are described in the literature as an important expression of self-determination and self-reliance for

Aboriginal people, as well as being a source of pride and cultural integrity for communities (*Weightman M, 2013*). One qualitative study relates to the impact of the community control model on health outcomes. Baba and colleagues explored self-perceived health determinants among Aboriginal peoples (*Baba JT et al., 2014*) and found that participants considered ACCHSs to be community empowering and a positive determinant of health. Participants connected ACCHSs with improved healthcare seeking rates and improved mental health and wellbeing among themselves and their communities.

4.2 Contribution of ACCHS knowledge and expertise through partnerships and advocacy

ACCHSs contribute to improving the performance of the broader health system through partnerships with other health professionals and organisations and through informing health policy (*Laugharne J, Glennen M, & Austin J, 2002; Longstreet DA et al., 2005; Marley J et al., 2010; Nel P & Pashen D, 2003; Simmons D, 2003*). Several studies described partnership models involving ACCHSs and other organisations that improved the quality of care available to Aboriginal peoples. These partnership models typically involved ACCHSs and government service providers working together to establish new programs located at ACCHSs and staffed by both partners. These included in the areas of haemodialysis (*Marley J et al., 2010*), antenatal care (*Nel P & Pashen D, 2003; Panaretto KS et al., 2005*), diabetes (*Simmons D, 2003*), and mental health (*Laugharne J et al., 2002*). Studies were consistent in illustrating an increase in service utilisation and an improvement in health outcomes for Aboriginal peoples accessing the services (further detail is provided in Section 4.4.4).

ACCHSs advocate on behalf of Aboriginal communities and in doing so have contributed to health policy. Bartlett and Boffa describe the contribution ACCHSs have made to Aboriginal affairs policy through advocacy efforts (*Bartlett B & Boffa J, 2001, 2005*).

4 | RESULTS

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The authors note that ACCHSs have a long history of advocacy and have informed policies aimed at addressing Aboriginal health disadvantage. These include clarification of state and federal responsibilities in Aboriginal health and the development of policies aimed at increasing ACCHS access to Medicare funding. The authors noted that these efforts are often undertaken in the context of inadequate resources when compared with other government partners.

ACCHS advocacy efforts have contributed to addressing alcohol related harm in Aboriginal communities (Boffa J, George C, & Tsey K, 1994; Hogan E, Boffa J, Rosewarne C, Bell S, & Ah Chee D, 2006). A study by Hogan and colleagues outlines the success of the Central Australian Aboriginal Congress in advocating for alcohol restrictions in Alice Springs (Hogan E et al., 2006). These restrictions were associated with a reduction in alcohol-related assaults and a reduction in presentations to primary care organisations and hospitals for alcohol related complaints. ACCHSs have also been effective in campaigning for greater regulation of licensed venues in the Northern Territory (Boffa J et al. 1994). In this case the local ACCHS and community was concerned that licensed venues were using entertainment to encourage alcohol consumption that was leading to high rates of alcohol related harm, including violence. Advocacy efforts by the ACCHS led to greater regulation of licensed premises and the establishment of a local women's refuge.

4.3 Contribution of ACCHSs as employers and trainers

ACCHSs contribute to improving Aboriginal health through directly addressing the social determinants of health (Alford K, 2014). Employment is an important and proximal determinant of health, improving psychological wellbeing and increasing access to resources that promote health (Osborne K, Baum F, & Brown L, 2013). In 2014, the National Aboriginal Community Controlled Health Organisation (NACCHO) undertook a review of the economic value of ACCHSs and found that ACCHSs are major employers of Aboriginal people (Alford K, 2014). An estimated 3,215 Aboriginal people are employed at ACCHSs, comprising

55% of the total ACCHS workforce. This makes the Aboriginal community controlled health sector the largest employer of Aboriginal people in Australia. In addition to providing employment, ACCHSs contribute to the broader skilled Aboriginal workforce through providing training pathways in a range of management, administrative and health careers.

ACCHSs employ Aboriginal and non-Aboriginal people and as employers and trainers of non-Aboriginal people ACCHSs contribute to improving the performance of the broader health system (Alford K, 2014). ACCHSs provide employment and training for a range of non-Aboriginal health professionals including medical students, general practice registrars (Martin ME & Reath JS, 2011), medical specialists (Alford K, 2014), nurses and allied health trainees. These efforts are described in the literature as contributing to the cultural competency of health professionals and organisations and this contributes to improving the availability of culturally secure care for Aboriginal peoples (Martin ME & Reath JS, 2011).

4.4 Contribution of ACCHSs as primary health care providers

4.4.1 Impact of ACCHSs on access to primary health care

As primary health care providers, ACCHSs directly contribute to improving Aboriginal health. Access to quality health care is vital for healthy populations and ACCHSs increase Aboriginal peoples' access to quality primary health care (Adams K, Halacas C, Cincotta M, & Pesich C, 2014; Department of Health and Aged Care, 2001; Dimer L et al., 2013; Dwyer J et al., 2011; Eades S, 2004; Laugharne J et al., 2002; Nel P & Pashen D, 2003; Panaretto KS et al., 2005; Parker EJ et al., 2012; Turner AW, Xie J, Arnold AL, Dunn RA, & Taylor HR, 2011). Government reports suggest that ACCHSs deliver health services to approximately 50% of the Aboriginal and Torres Strait Islander population (Office for Aboriginal and Torres Strait Islander Health and National Aboriginal Community Controlled Health Organisation, 2008). Other studies have found higher rates of ACCHS use, including a study in Victoria that estimated that 70% of the Victorian Aboriginal population regularly accessed ACCHSs (Adams K et al., 2014).

The NACCHO review mentioned above found that Aboriginal peoples' demand for ACCHS delivered care is also increasing, at a rate of 6.3% annually, exceeding growth in demand for other health care services (Alford K, 2014).

Evaluations of ACCHS programs consistently illustrate increases in service utilisation with the introduction of the program. The Townsville Aboriginal and Islander Health Service's Mums and Babies project involved the ACCHS partnering with local government services to integrate previously autonomous antenatal care providers and deliver a service at the ACCHS (Panaretto KS et al., 2005). Evaluations of this program reveal that it led to improved antenatal attendance and improved health outcomes for local Aboriginal women and their babies (see Section 4.4.4). Between 1998-99 (prior to the program) and 2000-2005 the average number of antenatal visits among local pregnant women increased from three to six. A similar program at Yapatjarra Medical Centre was shown to have led to an increase in the proportion of women receiving antenatal care and an improvement in perinatal health outcomes (Nel P & Pashen D, 2003). In these studies, the ACCHS setting was noted to be an important factor in the accessibility of the program.

ACCHSs have been effective in increasing Aboriginal peoples' access to other areas of primary health care, including cancer and chronic disease prevention. An ACCHS in Katherine developed and implemented a targeted campaign to increase participation of local Aboriginal women in preventive health activities including pap smears (Department of Health and Aged Care, 2001). The campaign evaluation illustrated a reduction in the proportion of local women who had never had a pap smear from 44% before the campaign to 28% after the campaign. Two ACCHSs, one in Western Australia and one in Tasmania, developed cardiac rehabilitation programs after recognising that local Aboriginal people were not accessing the mainstream programs available in the area (Davey M, Moore W, & Walters J, 2014; Dimer L et al., 2013; Stoneman A, Atkinson D, Davey M, & Marley JV, 2014). Evaluations of these programs found that the programs were well attended by Aboriginal people and were associated with improvements in health outcomes (see Section 4.4.4). The authors of both

studies concluded that the ACCHS setting and culturally appropriate approach contributed to the high attendance rates.

Similarly, ACCHSs have responded to barriers to accessing mental health services for local communities. A Western Australian ACCHS developed a mental health program in response to perceived inadequate local mental health services and high rates of evacuation to tertiary centres for care (Laugharne J et al., 2002). The program involved establishing an ACCHS run clinic with psychiatrists and local health workers. An evaluation of the program illustrated increased service utilisation and engagement with local Aboriginal people, including among those who had not previously engaged with mental health services. The success of the program in increasing access to mental health services was attributed to the clinic being operated by the local ACCHS and the existing relationships between the ACCHS and the community.

Some studies focused on service utilisation and did not consider improvements in health outcomes; however, these still provide important information on the impact of ACCHSs as there is consensus that improved access to these primary health care components is associated with improved care and health outcomes (Dwyer J et al., 2011). This is particularly so for populations with a high burden of disease and who experience barriers to accessing health care. A before and after study of the antenatal and postnatal service at Congress Alukura found that the proportion of local women having a first trimester antenatal visit increased from 23% to 38% after the service began (Carter E, Lumley J, Wilson G, & Bell S, 2004). Similarly, an evaluation of the Daruk Aboriginal Community Controlled Medical Service antenatal care program found that the introduction of the ACCHS program increased utilisation of antenatal care for local women and had favourable access when compared to other local providers (Eades S, 2004). Among women attending Daruk for antenatal care, 36% presented in the first trimester compared with 21-26% of those attending other services.

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Women attending Daruk for antenatal care also had a higher number of antenatal visits and were more likely to complete routine antenatal tests when compared with women attending other services.

ACCHSs have also improved Aboriginal peoples' access to dental care and specialist care (*Parker EJ et al., 2012; Turner AW et al., 2011*). Parker and colleagues describe the development of a dental service for Aboriginal children based in a South Australian ACCHS and staffed by ACCHS and non-ACCHS dental staff (*Parker EJ et al., 2012*). This led to a substantial increase in participation rates of Aboriginal children in local dental services from 53% to 70%. A similar study by Turner and colleagues explored factors that increased Aboriginal peoples access to eye services. The authors found that providing eye services through ACCHSs led to improved service utilisation by Aboriginal people (*Turner AW et al., 2011*).

ACCHSs increase Aboriginal peoples' access to primary health care even where alternative services exist (*Davey M et al., 2014; Dimer L et al., 2013; Jan S et al., 2004; Scrimgeour M & Scrimgeour D, 2007*). A review of the literature regarding health care access for Aboriginal people living in urban areas found that ACCHSs are an important provider of health care for urban Aboriginal peoples (*Scrimgeour M & Scrimgeour D, 2007*). The reviewers found that ACCHSs reduce a range of barriers to accessing health care including affordability and through offering an appropriate model of care for Aboriginal people.

The ACCHS setting is integral to improving access and studies consistently describe ACCHSs as being familiar and welcoming with trusted staff and ways of delivering care. A qualitative study explored Aboriginal peoples' perspectives on why Aboriginal peoples access ACCHSs over other locally available services (*Jan S et al., 2004*). Study participants stated that there were several characteristics that made ACCHSs accessible, citing relationships and trust, the flexible approach, transport and informal child care, clear and appropriate information, continuity of care, empowerment and family centred care. In the evaluation of the Western Australia cardiac rehabilitation program described above, participants were asked about their preferred setting for such

programs (*Dimer L et al., 2013*). Of the 49 participants, 46 stated that ACCHSs are their preferred setting for rehabilitation programs citing strong relationships between community members and the ACCHS, and the culturally safe setting.

Aboriginal peoples are more likely to describe positive health care experiences from ACCHSs than other types of health services (*Aspin C, Brown N, Jowsey T, Yen L, & Leeder S, 2012; Govil D et al., 2014; Jowsey T et al., 2012*). A qualitative study undertaken in Western Sydney explored enablers and barriers to accessing health care for chronic disease (*Aspin C et al., 2012*). Aboriginal people with a chronic disease, and their carers, were recruited through two ACCHSs. Participants described strong support for ACCHS delivered care stating that they felt accepted at ACCHSs, that their health needs were taken seriously by ACCHS staff, and that they could approach ACCHSs with confidence that their health needs would be addressed in a culturally appropriate manner. Participants cited the presence of Aboriginal staff as evidence that services are committed to improving Aboriginal health and described Aboriginal Health Workers as having an important role in providing information and minimising anxiety and confusion among patients. The positive experiences at ACCHSs described by participants contrasted with negative experiences at other health organisations.

These findings are consistent with other qualitative studies exploring the health care experiences of Aboriginal peoples. Jowsey and colleagues compared Aboriginal patient and carer experiences at ACCHSs and other organisations (*Jowsey T et al., 2012*). Participants were recruited through the ACCHS and reported positive experiences in ACCHSs that reflected both their relationships with ACCHS staff as well as the physical environment. Participants described feeling comfortable and safe in ACCHS waiting areas and consulting rooms. In contrast, other health care organisations were constructed as 'quiet and formal sick spaces' that deterred participants from accessing them. Govil and colleagues undertook a study exploring the experiences of ACCHS patients with coronary heart disease and found that participants had a strong preference for attending the local ACCHS for their health management (*Govil D et al., 2014*).

The reasons for this preference provided by participants were greater trust in ACCHS staff, availability of multiple services, confidence in staff expertise and proximity to the community.

An important limitation of the studies described above is that participants were recruited through ACCHSs and this may contribute to both sampling and information bias. However, studies with other sampling methods have reported similar results. Ward and colleagues recruited young Aboriginal people at sporting and cultural events in NSW to explore the use of health services for sexually transmissible infections, blood borne viral infections and drug and alcohol issues (Ward J *et al.*, 2013). Over half of those who reported having a sexual health test in the previous 12 months reported doing so at an ACCHS, compared with 29% who reported doing so at a general practice. ACCHSs were the most common clinical location for seeking sexual health advice (69%) and this was consistent across different age groups and gender. In addition, participants identified preferring ACCHSs over other types of health services for accessing sexual health related care. The authors noted that ACCHSs have an important advantage over other providers of sexual health services because they are culturally appropriate and this is likely to be especially important for sensitive issues such as sexual health. A study by Mooney-Somers and colleagues (2009) supports these findings. In this study, young Aboriginal people recruited in community locations were asked about their experiences accessing sexual health services. Participants described high levels of satisfaction with ACCHS care and valued the sense of care, integrated services, holistic approach and personal relationships with staff (Mooney-Somers J *et al.*, 2009).

4.4.2 Evidence that ACCHSs provide best practice comprehensive primary health care

Comprehensive primary health care delivered by ACCHSs has been identified as a best practice model (Griew R *et al.*, 2008). Hurley and colleagues (2010) undertook a review of the nature of primary health care being delivered by different services in Australia. They found that comprehensive primary health care, as defined in the Declaration of Alma Ata (WHO 1978),

is uncommon in the Australian health system and ACCHSs are one of the few settings where comprehensive primary health care exists. The authors noted several enabling factors for achieving comprehensive primary health care, including culturally appropriate and accessible services and community participation (Hurley C *et al.*, 2010).

A range of functions and activities are undertaken by ACCHSs as part of their primary health care model. The following activities and services are documented in the published literature:

- Clinical care including child and maternal health, mens health, chronic disease, sexual health, mental health and drug and alcohol services (Wakeman J *et al.*, 2008)
- Population health programs including immunisation, health promotion and environmental health programs (Campbell MA, Finlay S, Lucas K, Neal N, & Williams R 2014; Shannon C & Longbottom H, 2004)
- On-site pharmaceutical dispensing and affordable medicines programs (Couzos S, Sheedy V, & Thiele DD, 2011)
- Specialist services including haemodialysis (Marley J *et al.*, 2010) and optometry (Turner AW *et al.*, 2011)
- Family violence, family reunion, child protection and child care programs (Dwyer J, O'Donnell K, Lavoie J, Marlina U, & Sullivan P, 2009)
- Anger management courses, counseling and bereavement services (Dwyer J *et al.*, 2009)
- Support for local sporting teams and community events (Malseed C, Nelson A, Ware R, Lacey I, & Lander K, 2014)
- Accommodation for homeless people (Dwyer J *et al.*, 2009)
- Transport services (Dwyer J *et al.*, 2009; Jan S *et al.*, 2004; Panaretto KS *et al.*, 2005)
- Dental services including outreach, dental surgery and school screening programs (Parker EJ *et al.*, 2012)
- Aged and disability care programs including accommodation (Dwyer J *et al.*, 2009)
- Outreach services including home visits (Nel P & Pashen D, 2003; Rowley KG *et al.*, 2008)

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This broad range of services and activities are highly integrated and coordinated. A study by Ong and colleagues (2010) compared consultations at ACCHSs with those at general practice and found several areas of difference between the two models of care (Ong K, 2010). Consultations at ACCHSs were more likely to involve a range of health professionals, including Aboriginal Health Workers and nurses, in addition to general practitioners. ACCHS consultations were also more likely to involve strategies to improve compliance, including medication dosing, appointment recalls and seeing family members as part of routine consultations. ACCHS consultations were also more likely to involve home visits, case conferencing and managing complex medical conditions when compared with consultations at general practices. These differences illustrate the integrated and coordinated nature of the ACCHS primary health care model.

Other studies provide further support that the ACCHS model of primary health care is integrated and coordinated. Larkins and colleagues in Townsville (2006), and Thomas and colleagues in Darwin (1998), compared consultations at local ACCHSs with local and national general practice data from the Bettering the Evaluation and Care of Health (BEACH) surveys (Larkins SL et al., 2006; Thomas DP, Heller RF, & Hunt JM, 1998). Both studies found that a greater number of problems were managed per consultation by the ACCHS when compared with consultations with Aboriginal people at general practices in the local area and nationally. The authors of both studies suggested that this is likely to reflect different case mix between the types of health organisations as well as ACCHSs being more responsive and better able to provide coordinated care for the range of health issues facing each patient.

4.4.3 Contribution of the ACCHS primary health care model

The ACCHS primary health care model contributes to improved health outcomes for Aboriginal peoples (Rowley KG et al., 2008). Rowley and colleagues (2008) explored cardiovascular morbidity and mortality in a remote Northern Territory community where the sole provider of health care is an ACCHS. The community

under study had lower all-cause mortality, lower cardiovascular mortality, lower prevalence of diabetes, and lower prevalence of other cardiovascular risk factors (smoking, hypertension, obesity) when compared with the average for all Aboriginal people in the Northern Territory. The authors commented that this is likely to be due to the outstation lifestyle of the community and the ACCHS model of primary health care, in particular how the ACCHS responds to the community's lifestyle through outreach and flexible services.

4.4.4 Contribution of ACCHS primary health care components

ACCHS primary health care components have contributed to improving health outcomes in a range of areas and the published literature supporting this is primarily in five key areas of primary health care: maternal health, child health, chronic disease prevention and management, sexual health and mental health. Table 1 summarises the key findings from these studies.

Author	Description of program	Key findings	ACCHS factors noted in success of program
Maternal and child health			
(Panaretto KS et al., 2005) – (1) (Eades S, 2004) - (2) (Dwyer J et al., 2004) - (3)	Townsville Aboriginal and Islander Health Service established a Mums and Babies project to integrate local antenatal care providers (both ACCHS and government) that had previously operated autonomously. The project involves maternal and child health clinics delivered at the ACCHS and staffed by ACCHS and government employees. These clinics offer antenatal and postnatal care, immunisation, child health monitoring, childcare and transport.	<ul style="list-style-type: none"> • Significant increase in smoking cessation • Significant reduction in perinatal mortality (1) • Significant decrease in premature births • Significant decrease in low for gestation weight births (2) 	<ul style="list-style-type: none"> • The collaborative model and “safe” environment of an ACCHS noted to increase access (1,2,3) • Relationships between ACCHS and community members noted to increase appropriateness and responsiveness of the service and community awareness (1).
(Nel P & Pashen D, 2003)	The Yapatjarra Medical Centre established an antenatal clinic that included outreach visits, shared care and free ultrasounds.	<ul style="list-style-type: none"> • Reduction in perinatal mortality 	<ul style="list-style-type: none"> • ACCHS setting noted to contribute to improved attendance and health outcomes.
(Aspery W, Jarrett J, & Donovan I, 1998)	Durri Aboriginal Corporation developed a child and maternal health program that involved education classes, antenatal care, birth support, postnatal home visits and immunisation clinics.	<ul style="list-style-type: none"> • Increase in immunisation rates • Increase in breastfeeding among attending women on discharge and at six weeks (30% in 1993-4 to 44% in 1995-6) 	
Child health			
(Warchivker I & Hayter A, 2001)	A Northern Territory ACCHS developed a nutrition program that involved providing meals to families, monitoring child growth and providing feedback to mothers through workshops on nutrition and child development.	<ul style="list-style-type: none"> • Reduced hospital admissions • Improved growth and nutritional status 	

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Author	Description of program	Key findings	ACCHS factors noted in success of program
Child health			
(Black A et al., 2013)	Bulgarr Ngaru ACCHS established a nutrition program involving subsidised weekly fruit and vegetable boxes and cooking and nutrition education sessions to local Aboriginal Families	<ul style="list-style-type: none"> • Reduced oral antibiotic prescription use • Significant increases in mean 	<ul style="list-style-type: none"> • High level of community governance and control noted to be factor in success.
Chronic disease			
(Rowley KG et al., 2008)	Cardiovascular risk factors and mortality were compared between a Northern Territory community where the sole provider of primary health care is an ACCHS and the broader Northern Territory population over a ten-year period.	<ul style="list-style-type: none"> • Reduced all-cause mortality • Reduced cardiovascular mortality • Reduced rate of diabetes • Reduced rate of hypertension • Reduced obesity • Reduced smoking 	<ul style="list-style-type: none"> • Improved health outcomes were attributed to the nature of the primary health care provided by the ACCHS, in particular the provision of outreach and the community's role in controlling and delivering its own health care.
(Longstreet DA et al., 2005)	Townsville Aboriginal and Islander Health Service documented quality improvement processes undertaken to improve diabetes care. Service changes included establishing a multidisciplinary diabetes team, developing community resources and establishing a diabetes register.	<ul style="list-style-type: none"> • Proportion of patients achieving good blood pressure control improved from 29% to 44% • Proportion of patients achieving good diabetic control improved from 22% to 25% • Proportion of patients receiving appropriate medication use increased 	
(Simmons D, 2003)	Rumbalara Aboriginal Health Service established a diabetes care service that involved weekly specialist diabetes clinics integrated with the primary health care team.	<ul style="list-style-type: none"> • Improved metabolic control among patients with diabetes • Significant increase in self-glucose monitoring and insulin use • Significant reduction in blood pressure 	
(Marley J, Nelson C, O'Donnell V, & Atkinson D, 2012)	Derby Aboriginal Health Service undertook continuous quality improvement activities for diabetes care over a ten-year period.	<ul style="list-style-type: none"> • Reduced blood pressure • Reduced cholesterol levels • Reduced HbA1c levels 	<ul style="list-style-type: none"> • ACCHS governance and provision of outreach services noted to be important factors in improving diabetes care.

Author	Description of program	Key findings	ACCHS factors noted in success of program
Chronic Disease			
(Marley J et al., 2010)	The Kimberley Aboriginal Medical Service partnered with Royal Perth Hospital to establish a dialysis centre, operated by the ACCHS.	<ul style="list-style-type: none"> • Comparable adjusted mortality rates among Aboriginal patients attending the ACCHS dialysis service when compared with non-Aboriginal patients on the Australian and New Zealand Dialysis and Transplant Registry 	<ul style="list-style-type: none"> • Adherence to treatment and improved clinical outcomes attributed to patient satisfaction with care and effective communication.
(Dimer L et al., 2013)	A Western Australian ACCHS established a cardiac rehabilitation program that involved weekly exercise and education sessions in a 'yarning' style for Aboriginal people with or at risk of cardiovascular disease.	<ul style="list-style-type: none"> • Reduced body mass index • Reduced blood pressure • Reduced waist girth • Increased 6 minute walk distance 	<ul style="list-style-type: none"> • ACCHS noted to be the ideal location for managing cardiovascular health because they are culturally secure, have established trust and relationships between staff and community members and take a holistic approach to health management.
(Davey M et al., 2014)	Tasmanian Aboriginal Corporation established a cardiopulmonary rehabilitation program for local Aboriginal people after recognising that non-Aboriginal specific local programs were not being utilised.	<ul style="list-style-type: none"> • Significant improvement in weight • Significant improvement in waist circumference • Significant improvement in BMI • Improved exercise capacity including increased 6 minute walk distance • Significant improvement in quality of life 	<ul style="list-style-type: none"> • Culturally appropriate approach, familiar and trusted setting and staff noted to be factors in success.
(Turner AW et al., 2011)	Access to, and utilisation of, eye health services was explored through community eye health services and prevalence of eye disease in 30 communities across Australia.	<ul style="list-style-type: none"> • Reduction in vision impairment where eye services were located within an ACCHS 	<ul style="list-style-type: none"> • ACCHS setting noted to optimise access and health outcomes.
(Abbott PA, Davison JE, Moore LF, & Rubinstein R, 2012)	The Aboriginal Medical Service Western Sydney developed a program of nutrition classes for patients with diabetes.	<ul style="list-style-type: none"> • Increased knowledge of healthy eating and cooking skills • Healthier eating behaviours 	<ul style="list-style-type: none"> • The success of the program was attributed to the ACCHS setting and culturally appropriate staff and approaches.

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Author	Description of program	Key findings	ACCHS factors noted in success of program
Chronic Disease			
(Malseed C et al., 2014)	ACCHSs worked with communities to run 'Deadly Choices' community events to increase knowledge of chronic disease and healthy behaviours and increase engagement between community members and local ACCHSs.	<ul style="list-style-type: none"> • All knowledge scores significantly improved between baseline and follow up (chronic disease, nutrition, physical activity and smoking) 	
Sexual health			
(Huang RL, Torzillo PJ, Hammond VA, Coulter ST, & Kirby AC, 2008)	A central Australian ACCHS developed a sexual health program that focused on increasing opportunistic testing and annual population wide screening of 14-40 year olds.	<ul style="list-style-type: none"> • Reduction in chlamydia infections by 67% • Reduction in gonorrhea infections by 58% between 1996 and 2003 	
(Su JY & Skov S, 2008)	An ACCHS in the Tiwi Islands established a sexual health program to increase screening and treatment of sexually transmissible infections.	<ul style="list-style-type: none"> • Reduction in chlamydia by 95% • Reduction in gonorrhoea by 60% • Reduction in syphilis by 89% • Decreases did not occur in nearby regions over same period 	
Mental health			
(Laugharne J et al., 2002)	A Western Australian ACCHS partnered with other mental health providers to establish a mental health clinic at the ACCHS and staffed by visiting psychiatrists and Aboriginal Health Workers.	<ul style="list-style-type: none"> • Reduction in psychiatric admissions by 58% 	<ul style="list-style-type: none"> • Program links with, and endorsement by, the local ACCHS noted to increase community acceptability and accessibility of the program.

5 | DISCUSSION

This literature review has demonstrated that there is substantial evidence supporting the contributions of ACCHSs to improving Aboriginal health through:

1. Offering community control of health services, which contributes to improved health and wellbeing of individuals and communities
2. Providing opportunities for training and employment for Aboriginal people
3. Enhancing the capacity of the broader health system to respond to the needs of Aboriginal peoples through partnerships, advocacy and increasing the cultural safety of individuals and organisations
4. Improving access to comprehensive primary health care for Aboriginal people
5. Delivering effective primary health care services

These findings are consistent with the international literature (*Browne AJ et al., 2012; Keleher H, 2001*) and declarations from the World Health Organisation (*WHO, 1978*) that this model of comprehensive primary health care, which is integrated and responsive, addresses the social determinants of health, and involves a high level of community participation, is the most effective means of improving population health and reducing health inequities.

Reviewing the evidence supporting the role of ACCHSs and their contribution to improving the health of Aboriginal peoples poses several challenges. First, there is a small body of evidence relevant to our review question. In part this reflects the relative scarcity of evidence on Aboriginal health in general (*Derrick GE et al., 2012*). ACCHSs face significant barriers in evaluating and publishing ACCHS programs and activities, including having limited resources to meet high community need for health care (*Couzos S & Murray R, 2007*), and complex funding streams with a large reporting burden (*Dwyer J et al., 2009*). This means that there are often competing priorities between service delivery, reporting requirements and evaluation and research. Acknowledgement of the barriers ACCHSs face in evaluating and documenting their

activities, and greater support from research partners and funders to address these barriers, would facilitate increased evaluation and research from ACCHSs.

Second, the existing studies vary in approach, scope and quality. Studies typically focused on a single ACCHS for a limited period of time and therefore provide a local snapshot. This makes it difficult to generalize findings to the Aboriginal community controlled health sector more broadly. In addition, local studies typically comprise a small sample and this limits the likelihood of significant findings.

Third, the published evidence is skewed towards studies evaluating the impact of one or a set of clinical interventions on health outcomes and this is primarily in the areas of child and maternal health, chronic disease, sexual health and mental health. However, it is likely that ACCHSs are also improving Aboriginal health in other, undocumented areas. This focus on the impact of one or a set of clinical interventions is likely to reflect the relative ease in evaluating direct causal pathways (*Lawless A, Freeman T, Bentley M, Baum F, & Jolley G, 2014*) as well as the focus of peer-reviewed journals (*Lee KP, Boyd EA, Holroyd-Leduc JM, Bacchetti P, & Bero LA, 2006*), but leaves an important gap in the evidence regarding the impact of the primary health care model as a whole. Only one study (*Rowley KG et al., 2008*) considered the impact of the ACCHS primary health care model. This gap is not unique to the ACCHS setting and the challenges inherent in evaluating comprehensive primary health care are documented (*Lawless A et al., 2014*).

While these limitations are important to note, the existing evidence provides valuable lessons that have important implications for funders, policy makers, the Aboriginal community controlled health sector and other stakeholders. Government and the broader primary care sector can learn much from the ACCHS model of primary health care. Health services have been estimated to account for 25% of population health, and the social, cultural and economic determinants are responsible for a far greater proportion of 50% (*Standing Senate Committee on Social Affairs Science and Technology, 2001*).

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The ACCHS model of primary health care addresses both the direct health needs of Aboriginal peoples as well as the socioeconomic contexts in which Aboriginal people live.

The unique attributes of the ACCHS model of primary health care facilitate a high level of community participation that is essential for providing comprehensive primary health care. ACCHSs can provide valuable lessons regarding community participation and control of health services that are likely to be beneficial to other population groups and the broader Australian population. Similarly, the ACCHS model places ACCHSs in the vanguard of clinical governance in Australia and input from the Aboriginal community controlled health sector could inform the implementation of clinical governance in other health care services (*Phillips C et al, 2010*).

The available evidence provides a solid foundation supporting the role of ACCHSs in improving Aboriginal health. The existing ACCHS model is effective in improving the health of Aboriginal peoples through providing quality health care, addressing the social determinants of health and adding value to the broader health system. ACCHSs are strategic organisations for the continued wellbeing of Aboriginal peoples and Aboriginal civil society (*Sullivan P, 2010*). When considering the role and value of ACCHSs in the context of policy and funding decisions it is important that all of the pathways through which ACCHSs contribute to improving the health of Aboriginal peoples are recognised.



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