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**title** The relative effectiveness of Aboriginal Community Controlled Health Services compared with mainstream health service

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**policy issue** The health status of Aboriginal and Torres Strait Islander people is much poorer than the population as a whole. In order to address this disparity, the Australian Government, through the Department of Health's Indigenous and Rural Health Division (IRHD), funds Aboriginal Community Controlled Health Services (ACCHS)<sup>1</sup> to provide a range of primary health care services to Aboriginal people.<sup>2</sup> In addition, the Government funds mainstream primary health care services for Aboriginal people through the Medicare Benefits Scheme and the Pharmaceutical Benefits Scheme, as well as through other specific programs such as the outreach and preventive health programmes.

This Evidence Brief examines the evidence on the effectiveness of ACCHS found in the academic literature, assesses its quality, and analyses the implications for policymakers.

**what does the evidence say?** The literature review underpinning this brief found a dearth of evidence on the relative effectiveness of ACCHS compared with mainstream health services.<sup>3</sup> However, a range of studies have been conducted which indicate that services provided by ACCHS are valued by their Aboriginal clients. In addition, there is some evidence that innovative models of care, such as partnerships with mainstream health services, may be beneficial. The relevant literature on ACCHS is canvassed briefly below, mapped against several of the key aspects of effectiveness: clinical outcomes, sociocultural outcomes, cost-effectiveness and innovation in models of care.

***Clinical outcomes***

From the available evidence, it is impossible to say whether or not the quality of clinical care provided by ACCHS is better than that in mainstream health services. Some small-scale, localised studies have reported health benefits for Aboriginal people attending ACCHS, while others have found no such distinction between

ACCHS and mainstream health services. Other studies suggest that ACCHS may have a more complex caseload than mainstream health services, making it difficult to accurately compare the performance of the two different types of services.

#### Increased health benefits compared with mainstream services

One study, published in 2004 but using data collected between 1990 and 1996, compared outcomes from an ACCHS midwifery service antenatal program in Western Sydney with outcomes for Aboriginal women in the same area who used mainstream antenatal care. It found access and service utilisation were significantly higher in the ACCHS, with more antenatal visits, earlier attendance, and more health monitoring undertaken. This led to some small health gains for Aboriginal women, evidenced by the birth-weights of their babies being similar to those of non-Aboriginal women even though they were generally considered to be higher risk pregnancies.<sup>4</sup>

Another study evaluated the effectiveness of a maternal and child health service delivered at a Queensland ACCHS.<sup>5</sup> It found that after these services were introduced at the ACCHS, the number of pre-term births reduced substantially, to levels that were significantly lower than those for Aboriginal women in Queensland overall, and very similar to those for non-Aboriginal women in Queensland. However other outcome measures (low birth weight and perinatal mortality) for Aboriginal women treated in ACCHS did not show a statistically significant improvement.

A further study suggests that delivering health services through ACCHS, as opposed to mainstream general practice, provides greater health benefits to Aboriginal people (the study was not an intervention trial but modelled the potential health outcomes achievable when delivering services through ACCHS and mainstream services).<sup>6</sup> However the study also found that services provided in ACCHS tend to be more comprehensive than those provided through mainstream services. ACCHS often, for example, treat other family members as part of routine consultations, they sometimes provide transport to and from appointments, and provide outreach and out of hours services to Aboriginal populations. This means that delivering services through ACCHS often comes at a higher cost.

#### Importance of local leadership

A study of a sexual health program provided in the Tiwi Islands analysed the occurrence of STI diagnoses over time and compared them to nearby similar regions.<sup>7</sup> Over the four years the program was running, notification rates of chlamydia, gonorrhoea, and syphilis decreased by 94.9 per cent, 60.2 per cent and 88.5 per cent respectively, with no similar trends in notification rates occurring in nearby regions. During the same time, the number of positive laboratory tests for gonorrhoea and chlamydia decreased by 33.9 per cent and 94.2 per cent respectively. The reduction in STI rates was maintained for two years after the ACCHS Board relinquished control of the service to the Northern Territory Health Department, but once the dedicated coordinator left, service activity was not maintained. This study suggests that local leadership can be an important component of success in ACCHS.

#### Impact of a more complex patient load

A study that examined an opioid replacement program run by an ACCHS found that it achieved a retention rate of 81 per cent three months into the program, and low

levels of heroin use among people receiving opioid replacement therapy.<sup>8</sup> These results were generally comparable to those of mainstream treatment programs, particularly in relation to retention rates, but the ACCHS treated patients that might otherwise be considered to be a more difficult group.<sup>9</sup>

Another study, which examined records from 583 consultations at an ACCHS, found that the caseload was more clinically complex than in mainstream services.<sup>10</sup> For example, the ACCHS:

- saw a greater proportion of young patients
- treated a greater proportion of new patients
- provided more home visits
- managed more problems per client, and
- had a greater proportion of consultations that led to emergency hospital admission.

Another study reported similar results.<sup>11</sup> The differences in the caseloads of ACCHS and mainstream services mean that it is difficult to directly compare the outcomes of each service type.

#### No significant difference in clinical outcomes compared with mainstream services

In 2009, researchers examined childhood vaccination records from 2006 and 2007 in 24 different health services across four different states and territories, most of which were ACCHS.<sup>12</sup> They found no significant differences in immunisation status attributable to the type of health service. This suggests that ACCHS are no more or less effective than mainstream services in immunising local children.

The results of an earlier study contradict this. In this study of 199 Aboriginal infants in north Queensland, published in 2003, researchers undertook a direct comparison of the effectiveness of ACCHS and mainstream services by examining pneumococcal vaccination rates for Aboriginal infants.<sup>13</sup> The study found that vaccination rates at 7 months of age were higher in babies seen in ACCHS compared to those seen in general practice. However, completion rates of timely vaccination were found to be highest at community health centres and/or Royal Flying Doctor Service clinics.

In another study that looked more generally at preventive health services, researchers examined quality improvement activities undertaken by ACCHS and mainstream health services in four jurisdictions.<sup>14</sup> It found that after adjustments were made for certain factors (for example patient and service characteristics), ACCHS, including those in remote locations, were significantly more likely to adhere to delivery schedules for preventive services. However, follow up rates of abnormal screening results were similar across ACCHS and mainstream services.

The Indigenous Chronic Disease Package (ICDP) evaluation reports noted that improvements in service delivery as a result of the Practice Incentives Payments Indigenous Health Incentive (PIP IHI) programme were lower for ACCHS than for the mainstream services. Under the PIP IHI programme, incentives are paid to the primary health care services for improving quality of care provided to Aboriginal and Torres Strait Islander people with chronic disease. Analysis of national data for 2010–2012 indicated that about a third of patients registered with ACCHS (compared to about a quarter of patients registered with the mainstream services) did not receive any additional Medicare Benefits Schedule (MBS) services and did not even attend the service regularly. Data also suggested that a lower percentage

of the patients registered with ACCHS received additional care or additional care planning/review related items of service compared to those registered with the mainstream services.

The ICDP evaluation reports have also highlighted substantial increase in the utilisation of mainstream primary health care services by Aboriginal and Torres Strait Islander patients over 2010–2012, based on the analysis of MBS data. These reports have also noted qualitative evidence of improving cultural awareness in the mainstream sector and improving access of Aboriginal and Torres Strait Islander people to the mainstream services.

### ***Sociocultural outcomes***

Several studies published over the last decade indicate that services provided by ACCHS are valued by their Aboriginal clients. They also tend to improve sociocultural outcomes such as patient satisfaction, preferences for attending an ACCHS, confidence in the service, and adherence to treatment regimens. These benefits are evident in a range of service areas, including maternity and child health services, chronic disease and sexual health.

#### Maternity and child health services

The 2004 study of an ACCHS midwifery service antenatal program for Aboriginal women in Western Sydney (mentioned earlier) found that Aboriginal clients were strongly positive about their experience of the ACCHS in terms of:

- relationship and trust
- accessibility
- flexibility
- provision of clear and appropriate information
- continuity of care
- empowerment, and
- family-centred care.<sup>15</sup>

Similar findings were reported in a study that explored the views and experiences of women attending an ACCHS maternity clinic in rural Victoria<sup>16</sup> and also by a study that evaluated the effectiveness of a maternal and child health service delivered at an ACCHS in Townsville, Queensland.<sup>17</sup>

#### Chronic disease services

Several studies have examined the issue of where Aboriginal people prefer to receive chronic disease care. All reported that Aboriginal people tend to prefer ACCHS to mainstream services.<sup>18,19,20</sup> Reasons included that ACCHS are more accessible and responsive to their needs, they had more trust in staff at ACCHS, services were more comprehensive, and delivered closer to home.

#### Sexual health

A recent study that surveyed young Aboriginal people's knowledge of blood borne virus (BBV) and sexually transmitted infections (STIs), associated risk behaviours and health service access found that just over half of those surveyed (53 per cent) said that an ACCHS was the best place to get help on STI-related issues.<sup>21</sup> The study surveyed 293 young Aboriginal people living in New South Wales who were aged between 16 and 30.

Another study of sexual health investigated young Aboriginal people's use of mainstream and ACCHS for preventing and treating BBV/STI.<sup>22</sup> Researchers found that ACCHS were widely used and Aboriginal people reported:

- high levels of satisfaction
- experiencing a sense of care and holistic care
- personal relationships with staff, and
- comfort and understanding.

### ***Cost-effectiveness***

Limited evidence was found on the cost-effectiveness of ACCHS. One study that did examine cost-effectiveness was the one that looked at a midwifery service delivered through an ACCHS in Western Sydney (mentioned earlier). It found that when downstream cost savings were calculated, savings accrued to the mainstream antenatal care health service rather than the ACCHS because mothers who had attended the ACCHS had shorter hospital stays.<sup>23</sup> This finding suggests that the goal of reducing tertiary costs through primary health care investment was achieved.

Another recent study modelled the impact of a clinical intervention delivered through both ACCHS and mainstream services, and evaluated cost effectiveness. It found that while delivering health services through ACCHS rather than mainstream general practice is thought to provide greater health benefits to Aboriginal people, it also costs more because ACCHS tend to provide more holistic and comprehensive services.<sup>24</sup>

### ***Innovative models of care***

There is some evidence that innovative models of care, such as partnerships between ACCHS and mainstream service providers, may help improve access to care and outcomes for Aboriginal people.

#### Partnership: dialysis services

A 2010 study conducted in the Kimberley region investigated clinical outcomes for patients receiving haemodialysis within an ACCHS: the Kimberley Satellite Dialysis Centre (KSDC). It was the first dialysis unit to be managed by an ACCHS in collaboration with a tertiary hospital dialysis service.<sup>25</sup> After making appropriate adjustments for age, sex, and health status, the data suggested that patients receiving care from the KSDC generally had favourable outcomes. Patients receiving care from KSDC reportedly had excellent adherence to treatment, and outcomes were comparable to those seen in non-Aboriginal patients.

#### Partnership: optometry services

A recent survey of optometry services provided in local areas with a significant Aboriginal population has found collaboration between mainstream health providers and an ACCHS to be beneficial.<sup>26</sup> The study found that when eye health coordinators worked in particular areas, more optometry and ophthalmology services were provided by ACCHS, resulting in significant improvements in patients' eyesight. Eye health coordinators were thought to be important in establishing links between ACCHS, the community and visiting health professionals, although the reasons for success were not examined in the study.

#### Partnership: dental services

In a 2012 study, researchers evaluated the impact of establishing a culturally

appropriate dental service for Aboriginal preschool and school children. The service was based in an ACCHS, but staffed jointly by the mainstream dental provider (dentist and dental therapists) and the ACCHS.<sup>27</sup> After three and a half years:

- the participation rate for dental care among the target population increased from 53 to 70 per cent
- the mix of services provided changed (due to a decrease in the backlog of restorative work), and
- the volume of services provided increased.

## what is the quality of the evidence available?

Most of the available evidence on the relative effectiveness of ACCHS is observational, which means the findings are not particularly robust. Because many of the studies are of local health services, which often have unique features or set ups, results are not easily generalisable to other ACCHS, particularly those operating in different jurisdictions or geographic settings.

In addition, discussion in the previous section has shown that only a few of the studies were designed to directly compare outcomes achieved in ACCHS and mainstream health services. While there are some studies that show the benefits and achievements of ACCHS, the design of most does not allow them to shed any light on the relative effectiveness of ACCHS and mainstream services.

Some studies contained very small numbers of participants and some suffered from limitations of a biased sample as their samples consisted of people who chose to attend ACCHS. Some studies did not provide the information needed to satisfy criteria for rigour in qualitative research. Some qualitative studies, for example, lacked information on key details, including:

- sampling
- how interviewees were approached
- the questions asked, and
- how the analysis was undertaken.

Another shortcoming of the available evidence is that the research questions asked, and the methodologies used, vary considerably. This means that it is not possible to pool results or generalise findings from the limited number of studies done on any particular topic.

It is important to note that these weaknesses are not unique to this field of research but are common in health services research more generally.

## what does this mean for policymakers?

Despite claims that ACCHS deliver the best results for Aboriginal and Torres Strait Islander patients<sup>28</sup>, there is currently a lack of evidence in the academic literature on the effectiveness of ACCHS compared with mainstream health services. This means that it is impossible to make categorical statements, one way or the other, about the effectiveness of ACCHS.

That said, a range of studies have been conducted which, while mostly small-scale, indicate that the services provided by ACCHS are valued by their Aboriginal clients. The available evidence is not robust enough to determine whether or not the quality

of clinical care provided by ACCHS is better than that provided by mainstream health services. There are, however, some studies showing that ACCHS are improving outcomes for Aboriginal people, and some showing that they achieve outcomes comparable to those of mainstream services, but with a more complex caseload.

The first National Key Performance Indicator report, published in May 2014, found high levels of variation in the performance of organisations (ACCHS and non ACCHS) funded by the Commonwealth to deliver comprehensive primary health care. These variations were not related to the organisations' location (remoteness) or size. Analysis indicated that performance variations are related to organisations' own characteristics such as proportion of health staff compared with non-health staff and the systems used to support the quality of care, monitoring and follow-up of patients. These findings are supported by the independent evaluations of Indigenous specific chronic disease activities<sup>29</sup>.

Generally, the improvements in outcomes for Aboriginal people can be attributed to sociocultural factors, including an apparent preference by Aboriginal people to attend ACCHS, as well as increased patient satisfaction, adherence and compliance with treatment regimens. These factors, therefore, are important because they have a positive influence on access to care and the quality of the services delivered. Given the high needs of the population increasing access and quality are central to achieving longer term improvements.

There is also some evidence that innovative models of care, in particular those where ACCHS partner with mainstream providers, may be beneficial. Although there are only a few, small-scale studies examining innovative models of delivering care to Aboriginal people, the ones that do exist show some benefits in terms of improving access to care and patient outcomes.

Because there is such limited high-quality evidence to draw on in this field, it can be tempting to think that results produced from small, local studies can be generalised to all ACCHS. Caution is required when doing this because the context in which services are delivered can have a major bearing on outcomes. The same results, for example, may not be seen in an ACCHS in a different state or territory, or in a different geographic location.

Because more data on the comparative effectiveness of ACCHS is needed to enable evidence-informed policy decisions, it is recommended that policymakers should further investigate:

- the factors that influence Aboriginal people's preferences when selecting where to access care (for example, do Aboriginal people use care heterogeneously across mainstream services and ACCHS?), and
- national patterns and variations in service use and delivery (for example, how generalisable are some of the findings reported in this review around factors such as caseload complexity of ACCHS compared with mainstream services and preference of Aboriginal people to attend ACCHS).

## references

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