Evaluating and Measuring Aboriginal and Torres Strait Islander Maternal and Infant Health Programs: A Literature Review for the Apunipima Baby Basket Evaluation

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Introduction

The underutilisation of maternal and infant health (MIH) care services by Aboriginal and Torres Strait Islander women, along with the lack of appropriate, culturally safe care, has been a driving factor behind creating Aboriginal and Torres Strait Islander MIH care programs such as the Baby Basket (BB) program. High quality evaluations of MIH programs are necessary for quality, evidence-based care. This literature review has been conducted to inform the evaluation design and ongoing quality improvement of the BB program. The review summarises previously used evaluation designs and available indicators for evaluating and monitoring Aboriginal and Torres Strait Islander MIH programs. An outline of the issues associated with these types of evaluation designs and indicators is provided, along with suggestions for improving data collection and evaluation quality.

Summary of previous reviews in the Aboriginal and Torres Strait Islander MIH literature

Previous reviews outline key health issues, responses and outcomes of Aboriginal and Torres Strait Islander MIH programs around Australia. Key MIH issues include low birth weight, pre-term birth, untreated genital infections, urinary tract infections (UTI's) and sexually transmitted infections (STI's), and tobacco and alcohol consumption during pregnancy [1]. Health promotion/education and advice/support was has been identified as the most common component of Aboriginal and Torres Strait Islander MIH programs, with home visiting and transport services also being widespread [2]. Reported outcomes include decreases in pre-term births, perinatal mortality and in the prevalence of low birth weight babies and sexually transmitted infections (STI's). Increases in mean birth weight and the diagnosis and treatment of genital infections were also reported, along with earlier and more frequent antenatal attendance [1, 3]. Gaps in the evidence base include: interventions targeting tobacco, alcohol and other drug use in pregnancy; social, emotional and mental health; Sudden Infant Death Syndrome (SIDS); effective health promotion interventions [3], and; reports on women's views and experiences [2]. Previous reviews also outline the need for higher quality evaluations and the collection of quality long-term data [2, 3]. One review of evaluations of Aboriginal and Torres Strait Islander MIH interventions found a lack of consistency in study designs, findings and reported outcomes [4]. Another review identified a lack of indicators targeting MIH care to remote-dwelling Aboriginal and Torres Strait Islander's and gaps in measures for important aspects of care [5].

Methods

A rapid review of peer-reviewed and grey literature sources was conducted to search for literature on Aboriginal and Torres Strait Islander MIH reviews, evaluations and indicators. Reference lists of search results were hand searched to identify further documents. Program evaluations previously reviewed [2] were used to obtain information on evaluation designs and strategies.

Results

This review found significant diversity in the evaluation designs and comparison groups used to assess the impact of MIH care programs. Comparisons used in evaluations include state or territory level statistics, Aboriginal and Torres Strait Islander women in the same area or community who did

not attend the service, separate communities and historical comparisons. Issues with such evaluation designs and comparison groups include the inability to differentiate program outcomes from changes in community health trends over time, potential systematic differences between women who attend services and those who don't, and difficulty demonstrating causality when using routinely collected pregnancy statistics. Multiple base line designs are suggested as a rigorous yet feasible alternative to randomised control trials for population-based health interventions.

A significant amount of indicators for measuring the impact of Aboriginal and Torres Strait Islander MIH programs were found. Some commonly used measures relate to antenatal coverage, infant birth weight, prevalence of tobacco and alcohol consumption during pregnancy, prevalence and duration of breastfeeding and prevalence of women receiving health education. The literature highlights gaps in available indicators to measure acceptability, cultural safety, continuity of care and postnatal care, and to assess women's experiences, preferences and perceptions of care. Issues are also raised around the uncritical use of certain accepted measures, namely antenatal attendance and birth weight.

Implications for the Baby Basket evaluation

Research evidence indicates that while education, health promotion, advice and support in MIH care has not been shown to reduce the prevalence of low birth weight babies, it can be effective in responding to key health behaviors such as tobacco consumption, and can contribute to improved outcomes by increasing engagement and cultural safety. However this approach needs to be situated within a broader antenatal program. There is a high need to address the current underutilisation of smoking cessation interventions with pregnant Aboriginal and Torres Strait Islander women. Considering there is currently no evidence to guide such interventions, potential strategies are provided. Attention also needs to be paid towards filling the current indicator gaps for measuring important aspects of care, undertaking high quality evaluations of MIH programs and collecting and reporting on good quality longitudinal data.

Conclusion

The review provides an overview of the literature relevant to the evaluation of the BB program. A focus on evaluation designs and data collection is provided to inform a high quality evaluation. The sustained collection of targeted and thorough data is likely to improve the current poor evidence base guiding Aboriginal and Torres Strait Islander MIH care programs.

Introduction

Aboriginal and Torres Strait Islander women attend later and less frequently for maternal and infant health (MIH) care than non-Indigenous women [6]. There has been concern that this underutilisation of MIH care can lead to undetected and untreated complications during pregnancy which can have adverse impacts on other birth outcomes. To try to address this inequality in health care access and to ensure that Aboriginal and Torres Strait Islander women are receiving appropriate and culturally safe care, many Aboriginal community controlled health services have MIH programs. Evaluations of these programs are necessary not only to ensure that positive health benefits are being achieved, but also to build and strengthen the evidence base for responding to the needs of Aboriginal and Torres Strait Islander women and their babies. The BB program is a MIH care program run by Apunipima Cape York Health Council to engage with and provide useful items and education to pregnant women from Cape York communities in far north Queensland. The aim is for the baskets to act as a medium for increasing the level of engagement between Aboriginal and Torres Strait Islander women and their families with the available health and related community services. The proposed evaluation aims to determine whether there has been a measureable improvement in relevant indicators for the mothers and infants in the communities engaged with the program. This review was conducted to discover what can be learnt from the literature on Aboriginal and Torres Strait Islander MIH care program evaluations and indicators that can inform the evaluation and ongoing quality improvement of the Baby Basket program.

Summary of previous reviews in the Aboriginal and Torres Strait Islander MIH literature

Literature reviews on Aboriginal and Torres Strait Islander MIH programs and services

A 2004 review of primary health care MIH responses highlighted key health issues and reported on case studies of standout Aboriginal and Torres Strait Islander maternal and child health programs. Focusing on the central health concerns of birth weight, pre-term birth, and maternal and infant mortality and morbidity rates, Eades [1] provided details of primary health care sensitive factors implicated in these outcomes, such as untreated genital infections, urinary tract infections (UTI's) and sexually transmitted infections (STI's), and tobacco and alcohol consumption during pregnancy. Several positive outcomes were reported from evaluations of standout Aboriginal and Torres Strait Islander maternal and child health programs. These included decreases in the proportion of babies of low birth weight, increases in mean birth weight, decreases in pre-term births and perinatal mortality, earlier and more frequent antenatal attendance, increases in the diagnosis and treatment of genital infections and reduction in the prevalence of sexually transmitted infections (STI's).

A year later, Herceg (2005) looked at evidence from programs which had been shown to improve health outcomes for Aboriginal and Torres Strait Islander mothers, babies and young children [3]. This review described similar improved impacts as those outlined by Eades [1] including increases in antenatal attendance, screening and immunisation rates, mean birth weights and decreased pre-term births. This review went further to identify a number of common factors present in successful Aboriginal and Torres Strait Islander MIH programs including things such as programs being community-based and/or community controlled, the presence of Aboriginal and Torres Strait Islander staff and gender-appropriate/women staff, flexibility in service delivery and appointment

times, outreach, home-visiting, and transport. Evidence gaps were identified for tobacco, alcohol and other drug use in pregnancy, social, emotional and mental health and Sudden Infant Death Syndrome (SIDS). There was also no evidence found on effective health promotion interventions for MIH. This review highlighted the lack of quality evidence on successful interventions, and stressed the need for high quality evaluations of programs that provide good descriptions of the processes of development and implementation.

A recent systematic review of the literature on Aboriginal and Torres Strait Islander child and maternal health programs in primary health care services, conducted by the authors of this review [2], found that Health promotion/education and advice/support was the most prevalent intervention component across studies. Health behaviours and issues targeted included nutrition and breastfeeding, tobacco smoking and substance misuse, sexual and reproductive health and early warning signs of pregnancy complications. Home visiting and transport services were also intervention components identified in a substantial number of studies. Yet more significant was the diversity of responses documented, demonstrating the range of initiatives being undertaken and the variety of responses utilised. However, due to the evaluation methods used and the lack of in-depth, quality evidence, it was impossible to determine the impact of specific program components on health outcomes. Similarly, while improved outcomes, such as those outlined in previous reviews, were reported in program evaluations, due to poor study quality the impact of programs could not assuredly be assessed. This finding was consistent with that of Eades (2005) and indicates that steps have not been taken to increase the quality of evaluations as recommended. This review also emphasised the gap in reported interventions targeting tobacco consumptions for pregnant Aboriginal and Torres Strait Islander women, as has previously been identified [3, 6]. There was also a lack of reports on women's views and experiences of MIH programs, despite literature which has stressed the importance of this [6]. This review echoed the findings of previous literature reviews, calling on the need for better quality evaluations and the collection of good quality longitudinal data to assess the impact of MIH programs on health outcomes for Aboriginal and Torres Strait Islander women, infants and children.

A review of Aboriginal and Torres Strait Islander MIH care program evaluations

The lack of high quality evaluations has been discussed by Rumbold and Cunningham [4] in a 2008 review of evaluations of antenatal care programs for Aboriginal and Torres Strait Islander women. While modest increases were found for care utilisation, particularly earlier antenatal access, along with decreased pre-term birth, low birth weight babies, and increases in mean birth weight in some of the care programs, there was a lack of consistency in the findings across all programs for many outcomes. The review found wide variations in the design, quality and reported outcomes of evaluations, meaning that the overall impact of Aboriginal and Torres Strait Islander antenatal care programs could not be established. This largely arose from the diversity in evaluation designs and the quality of reported data, including a lack of random allocation to interventions. Common issues were the use of historical control groups and comparisons with other Aboriginal and Torres Strait Islander women not attending the program. The authors reiterated the need to collect and report good quality longitudinal data about care programs to demonstrate clinically relevant differences in perinatal outcomes.

A review of MIH indicators for remote dwelling Aboriginal and Torres Strait Islander peoples

To collect the quality data needed for effective evaluations of Aboriginal and Torres Strait Islander MIH care programs, reliable and appropriate indicators and measures are needed. Steenkamp et. al. [5] identified that although many MIH health indicators exist, few are targeted towards remote Aboriginal and Torres Strait Islander MIH care and even fewer include measures for crucial but less tangible outcomes, such as acceptability and cultural safety. The authors undertook a review of existing MIH indicators and found forty two indicator sets, which included over 1,000 individual indicators. Common indicators and indicator topics that appeared consistently across sets reviewed included antenatal coverage (utilisation), birth weight, labour induction, perinatal mortality rates, maternal tobacco smoking and/or alcohol consumption during pregnancy and breastfeeding. This review also identified key gaps in the available indicators to measure things such as continuity of care, culturally appropriate care and postnatal care, all of which are fundamental to quality MIH care for Aboriginal and Torres Strait Islander women, particularly those living in remote areas.

Methods

The James Cook University library catalogue was searched for peer-reviewed literature and a Google search was used to access relevant grey literature. Search terms used included (Aboriginal and Torres Strait Islander OR Indigenous) and (antenatal care OR maternal and infant health care OR child and maternal health care) and (evaluation*) and (review*) and (measures OR indicators OR outcomes). Reference lists of search results were hand searched to identify further documents that did not show in the initial search. Program evaluations previously reviewed by the authors [2] were used to obtain information on evaluation designs.

Results

What we can learn from the evaluation other Aboriginal and Torres Strait Islander MIH programs

As found by Rumbold and Cunningham (2008), this review found significant diversity in the evaluation designs and comparison groups used to assess the impact of different care programs [4]. For quantitative analyses of clinical outcomes, program specific data on the women attending services has been compared with routinely collected State or Territory level statistics for Aboriginal and Torres Strait Islander and non-Indigenous women and babies [7-10]. Some studies have made comparisons between women attending the service and other Aboriginal and Torres Strait Islander women in the area or community who did not attend. In other studies, pre and post comparisons were made with different communities used as the control group to measure changes in the intervention communities against [10, 11]. Further evaluation designs included pre and post intervention comparisons with historical control groups [12, 13]. Interviews and focus groups were the main qualitative evaluation methods used [7, 8] with one study using a structured interview schedule based on a state wide survey, then contrasting the views and experiences of women using the service with those of other rural women who completed the survey [14]. One evaluation also used a time and motion audit to map the activity of service staff in areas such as clinical care,

education, transport, health promotion and prevention, advocacy, and community development and empowerment activities [7].

In their review, Rumbold and Cunningham [4] pointed out that when studies use historical comparison groups, it is difficult to differentiate the impact of a program from changes in underlying health trends over time unless these issues are controlled for. Comparisons with other Aboriginal and Torres Strait Islander women who gave birth in the same area and time period but did not attend the MIH care program are limited by potential systematic differences between women who chose to attend the program compared to those who did not. These differences could be eliminated by the use of random allocation, however this is not typically feasible in evaluations of population-based health interventions. Rumbold and Cunningham suggest that in the absence of random allocation, the baseline health risk factors in the populations under study would need to be considered along with other changes in local health services that may have occurred over the same period of time. Lastly, they identify that while the use of routinely collected pregnancy statistics may be necessary to demonstrate trends in birth outcomes, due to lack of availability or quality of data from individual health services, these data types cannot be used to demonstrate causality, especially when other MIH services are present in the same area.

Future directions for evaluating programs

For methodologically rigorous and practical evaluations of population-based health interventions such as localised Aboriginal and Torres Strait Islander MIH programs, Hawkins et.al. [15] recommend the use of multiple baseline research designs as an alternative to randomised control trials (RCT's) which can be costly, impractical and ethically inappropriate for such evaluations. In a multiple baseline design, several interrupted time-series studies are conducted across numerous populations, with each population receiving the intervention at a different point in time. The interrupted time-series design allows the one population to be compared to itself over time by repeatedly measuring and analysing data. In this study design the baseline measures of that population are used as the control comparison. The multiple baseline design has greater methodological rigour than single the interrupted time-series design due to its ability to differentiate the impact of other factors on the outcome of interest [15].

What the literature on MIH Indicators can teach us about measuring the impact of programs/services

There are many indicators available to measure the impact of Aboriginal and Torres Strait Islander MIH programs. Previous evaluations provide information on the range of measures that have been used by different programs. The literature on mainstream and Aboriginal and Torres Strait Islander specific MIH indicators confirms and expands on this evidence base. Furthermore, issues with certain accepted MIH measures are discussed and gaps in available indicators to measure important aspects of care are highlighted. In this way, the available literature not only lists appropriate, evidence-based indicators to measure progress in Aboriginal and Torres Strait Islander MIH programs, but also challenges researchers and practitioners to think critically about how to determine whether improvements have been achieved. Researchers and practitioners are also challenged to find ways to demonstrate that care programs meet the needs and expectations of Aboriginal and Torres Strait Islander women and aspects of care most important to them are being measured. Some of the most

common indicators and measures used in previous evaluations [8-14, 16-20]and seen in the literature on MIH indicators [5, 21-24] are included in table 1 (See Steenkamp et.al. [21] and Hancock [23] for two examples of relevant indicator frameworks).

Table 1: Commonly used indicators for Aboriginal and Torres Strait Islander MIH care

Quantitative Indicators	Qualitative Indicators
• Antenatal coverage (percentage receiving care, gestational age at first visit and number of antenatal visits per pregnancy) • Infant birth weight • Pre-term birth rates • Perinatal mortality rates • Maternal mortality and morbidity rates • Prevalence of maternal tobacco, alcohol and other drug use during pregnancy • Prevalence of untreated UTI's, STI's and gestational diabetes • Prevalence and duration of breastfeeding • Proportion of women who received screening and treatment for key health issues such as, STI's, UTI's, anaemia and gestational diabetes • Prevalence of women who received health education and advice or brief intervention for health behaviours	• Whether the service meets women's needs • Women's views, perspectives and experiences • Women's sense of control and choice in their pregnancy and childbirth

The literature on Aboriginal and Torres Strait Islander MIH indicators goes further to distinguish different types of indicators according to what they measure and the stage of a patients journey they relate to. Steenkamp et.al [5] differentiated three types of indicators: 1) *Process indicators*, which measure the content and processes of MIH care programs ("what is being done"), for instance the proportion of women who are offered appropriate education or interventions in relation to health behaviours such as smoking and alcohol consumption; 2) *Outcome indicators*, which provide quantitative data on health system related outcomes, such as the rate of infants born with a low birth weight, and; 3) *indicators related to determinants of health*, such as the percentage of women breastfeeding at discharge and 6 months. In their indicator framework for monitoring MIH care to remote-dwelling Aboriginal mothers and infants, Steenkamp et.al [21] identify health system performance indicators which they divided into *consumer response*, such as the time of first antenatal visit and number of antenatal visits, and the *care provider*, for example the percentage of women who had a urine test, how many tested positive for a UTI and the percentage subsequently prescribed antibiotics. Indicators can also be divided according to the different stages of the patient journey from antenatal, to birth and post-partum, and the first year of life. Such patient journey modeling provides an important women-centered perspective, can impact service redesign and improve stakeholder buy in [21].

Gaps and issues relating to MIH indicators

Despite the availability of many MIH indicators, recent research has identified gaps in measures for less tangible outcomes and aspects of care, key to quality health care delivery to Aboriginal and Torres Strait Islander women, such as the acceptability of care, cultural safety, continuity of care and postnatal care [5]. Recognising that an Indigenous consumer perspective is not reflected in current indicators, Steenkamp et.al. [21] propose the use of substitute measures such as out-of-hospital births to try to capture the views and responses of Aboriginal and Torres Strait Islander women to the MIH care system. Duckett and Ward [25] provide five critical elements for assessing 'patient-assessed value' in measuring health system performance, including timeliness of access, continuity of care, patient experiences of feeling respected as a person, whether patient expectations are met and costs sustained by the patient. This is one possible framework which could be used to ensure women's perspectives and experiences are included in routine data collection.

The need to consider and prioritise women's experiences, feelings and preferences in regards to their care during pregnancy is repeated throughout the literature [6, 22, 23], yet is a factor lacking in evaluations of Aboriginal and Torres Strait Islander MIH care programs. Evaluations often focus on easily quantifiable data such as those relating to antenatal utilisation and evidence-based outcomes such as infant birth weight. However there are issues with focusing solely on such measures. It is recognised that achieving equity in utilisation of antenatal care is important, however it should not be assumed that increased antenatal coverage will necessarily impact on other maternal and infant health outcomes [26]. Hunt (2006) discusses research which demonstrates that when programs of enhanced antenatal attendance have been rigorously evaluated, controlling for confounding factors such as socio-economic status, earlier and more frequent antennal care did not improve perinatal outcomes, such as low birth weight [6]. Equally important to antenatal utilisation is a focus on aspects of quality care, such as ensuring that recommended brief interventions, advice, screening procedures and treatments are adhered to [24]. Low birth weight is also a measure that requires further investigation. While pregnancy is important in determining the birth weight of babies, there are many other influencing factors, such as socio-economic status, generational maternal nutrition, health risk behaviours, maternal age and size, and medical conditions during pregnancy [23, 26]. The opinion that Aboriginal and Torres Strait Islander babies should weigh the same as non-Indigenous babies at birth is even questioned as not having been verified in anthropometric research [23].

The literature highlights the need for indicators which measure the nature and quality of antenatal care, how culturally appropriate care is, and qualitative measures which focus on the level of choice, control and empowerment that Aboriginal and Torres Strait Islander women have throughout their pregnancy, birth and postnatal journey. There is also recognition of the need for MIH care measures that are relevant to community health settings, such as the delivery of routine screening investigations and treatment of infections [24]. Because many common indicators require data from other health systems such as hospital data, there needs to be a consistent and coordinated approach to reporting MIH data across primary, secondary and tertiary health services to have a complete picture of the effect of maternity care [24].

Future directions for ongoing data collection and quality improvement

To improve the quality of the evidence base guiding Aboriginal and Torres Strait Islander MIH programs, there needs to be improvements in quality and collection of health service data. Steenkamp et.al. [21] outlines a comprehensive indicator set for ongoing data collection to monitor service delivery to remote-dwelling Aboriginal and Torres Strait Islander mothers and infants. This inclusive indicator framework includes measures for improvements in health outcomes, the determinants of health and the performance of the health care system. Gaps in indicators for continuity of care and postnatal care are ameliorated by considering the whole pregnancy period through to the first year of an infant's life. The indicator set also includes an Aboriginal and Torres Strait Islander consumer perspective.

Implications for the Baby Basket evaluation and beyond

There are several findings from this review that have important implications for the ongoing quality improvement of the BB program and its evaluation. Considering the Baby Baskets are primarily a tool for engagement and education, the finding by Jongen et.al [2], that health promotion/education and advice/support is the most common component of Aboriginal and Torres Strait Islander MIH programs, is worth exploring further. In their review, Jongen et.al. (2013) point out that while support and education has not been shown to reduce the prevalence of low birth weight babies [27], there is evidence supporting its effectiveness in responding to other key health issues such as tobacco and alcohol consumption during pregnancy [28]. Importantly, health promotion, advice and support, when situated within a broader antenatal program, has been reported to contribute to better health outcomes by improving engagement and cultural safety [28]. This discussion highlights that this approach has the potential to impact on MIH outcomes, however this needs to happen in conjunction with other components necessary for quality MIH care.

The underutilisation of smoking cessation interventions, despite evidence indicating that smoking in pregnancy is one of the only preventable factors strongly associated with low birth weight, pre-term birth and pregnancy complication [29], is a crucial issue in Aboriginal and Torres Strait Islander MIH care. A recent systematic review found that there is currently no evidence for effective smoking cessation interventions for pregnant Aboriginal and Torres Strait Islander women [30]. Potential strategies outlined by Passey et.al (2013) are as follows: tailoring interventions to local culture; the inclusion of routine assessment and support; provision of relevant information on risks of smoking and of benefits quitting; delivery of consistent smoking cessation support through all antenatal health care providers; involvement of family, household and community members in cessation efforts; incorporation of specific relapse prevention strategies; the use of contingency-based financial rewards; explicit response to other substance use through interventions, and; training of health providers and use of defined protocols. The urgent need to test and evaluate approaches to smoking cessation among pregnant Aboriginal and Torres Strait Islander women using methodologically rigorous studies is highlighted [30].

To have a thorough understanding of what the BB program has achieved to date and to rigorously measure program related outcomes of the BB and connected MIH programs into the future, attention needs to be paid to utilising the existing indicators outlined in the literature. Researchers,

practitioners and service users also need to work together to figure out ways to best measure important aspects of care that are not covered in current indicators. The key gaps in indicators outlined in the literature are for acceptability and continuity of care, cultural safety and post-natal care, nevertheless measures for content and quality of care and those which assess women's levels of choice, control and empowerment through their pregnancy journey are also needed. Along with this there needs to be a critical awareness of the strengths and limitations of some common indicators, namely antenatal attendance and low birth weight.

Lastly, but equally important, is the issue of evidence and evaluation quality. The lack of high quality intervention studies in health research for Aboriginal and Torres Strait Islander people and the subsequent poor evidence base is a persistent problem not only in MIH care [31]. The need for high quality evaluations of MIH programs and good quality longitudinal data to build a strong evidence base was a message that rang clear throughout the literature. This review provides details of the common issues with evaluation designs typically used to measure health outcomes for Aboriginal and Torres Strait Islander women attending MIH care programs. It also provides a suggestion for an appropriate and rigorous evaluation design and information on available indicator frameworks for ongoing monitoring of health outcomes. To address this gap in available quality evidence there needs to be a commitment from primary health services, the government and funding bodies to develop and support long-term research partnerships. Research needs to be a priority on the Aboriginal and Torres Strait Islander MIH care agenda, as does a commitment to ongoing quality improvement along with support for the necessary participatory processes and organisational change.

Conclusion

This review provides an outline of some of the relevant literature on MIH care for Aboriginal and Torres Strait Islander people's to inform the evaluation and ongoing quality improvement of the BB program. Previous reviews of the literature on Aboriginal and Torres Strait Islander MIH established an evidence base on key health issues, responses, outcomes and measurement tools. The multiple base line design is suggested as a methodologically sound evaluation design suitable for population-based health interventions which could address the lack of methodological rigour common in evaluation designs. There are many appropriate indicators for measuring changes in MIH outcomes available, however more work needs to be done to fill the gaps in available indicators for measuring important aspects of care. There also needs to be a critical examination of the limitations of certain accepted MIH outcomes and a greater focus on the views, experiences and choices of the women using these services. The role of education, health promotion, advice and support as well as the lack of effective responses for tobacco consumption during pregnancy are important considerations for the implementation of the BB program. The review highlights the substantial body of literature calling for better quality evidence, which includes more rigorous evaluations and better collection of long-term data. This needs to be a research and practice priority if we are to improve the evidence base of MIH responses for Aboriginal and Torres Strait Islander women, families and children.

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