

Initiation of maternity care for young Māori women under 20 years of age

Charrissa Makowharemahihi, Beverley A Lawton, Fiona Cram, Tina Ngata, Selina Brown, Bridget Robson

Abstract

Aim To explore the lived realities of pregnant Māori women <20 years through pregnancy and motherhood, to identify barriers to, and facilitators of, access to maternity care.

Method Using a Kaupapa Māori research paradigm, 44 pregnant or recently pregnant Māori woman <20 years of age were recruited in two case study sites. Participants completed a series of interviews during different stages of pregnancy and motherhood. Interview transcripts were read, re-read and cross-compared by the two interviewing researchers to identify emergent themes, and organised using the software programme Nvivo. Thematic data was grouped, and re-grouped into topic areas for further analysis.

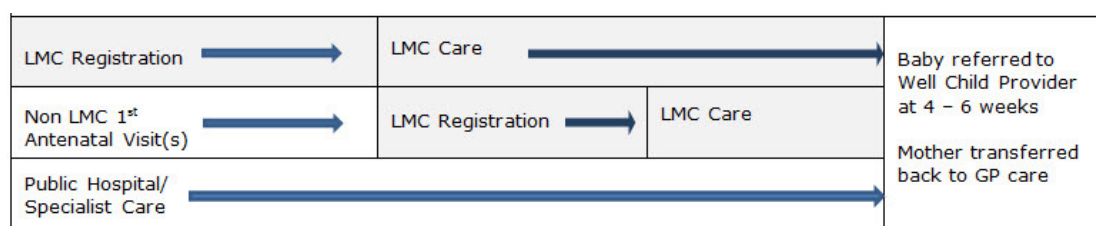
Results Participants engaged early with health care services both to confirm their pregnancy and to initiate maternity care. Barriers to access occurred at the first contact with a lack of information, and support along the maternity care pathway to mainly community based midwifery care. Many participants felt inadequately supported to be able to identify, confirm, and enrol with a midwife or hospital care. Participants who received proactive support at the first interaction with health services had an appropriate maternity care pathway toward obtaining early and seamless maternity care.

Conclusion Interviews with participants identified that contrary to published literature young Māori women are engaging early with health services (GP services, school and community based youth health services) for maternity care, but system barriers from this first health contact lead to avoidable delays to them accessing a seamless maternity care pathway. There is a lack of sufficient and appropriate information and support for this young population group who have limited resources and experience to navigate through health services. These inequities in access to maternity care could be reduced through an integrated model of care that sees maternity care beginning at the first interaction with health care services. The service, primarily general practitioners, would then take responsibility for first trimester screening and navigation to a lead maternity carer.

Maternity care in Aotearoa New Zealand is publicly funded and free to all eligible women. The provision of primary maternity care services is set out in Section 88 of the New Zealand Public Health and Disability Act 2000.¹ Under Section 88, primary maternity care services can be delivered by a community-based lead maternity carer (LMC), a non-LMC health practitioner (doctor or midwife), or a District Health Board (DHB)-funded primary care provider.

A LMC can be a general practitioner, a midwife, or an obstetrician.¹ Pregnant women can enter the maternity care pathway at a number of points (Figure 1) and choose a maternity care practitioner(s) who will provide health care during pregnancy, delivery and the postnatal period. Where appropriate, shared care arrangements can occur. Non-LMC general practitioners and midwives are funded to provide first trimester care. Health services and health professionals play a pivotal role in ensuring women receive appropriate and optimal maternity care throughout their pregnancy.

Figure 1. Provision of funded primary maternity services in Aotearoa New Zealand



Even with this universal provision of maternity care, the infants of Māori women are more likely to die in their first year of life than non-Māori infants,^{2,3} and are more likely to have avoidable hospitalisations with gastroenteritis, skin infections and respiratory admissions.^{4,5} In 2013, the Perinatal and Maternal Mortality Review Committee (PMMRC) reported that the babies of Māori women were almost twice as likely to have a potentially avoidable perinatal death compared to babies of New Zealand European mothers (22% vs 12%).⁶

Māori are a young population with 35% aged less than 15 years, compared to only 19% of non-Māori.⁷ In the December 2010 year, the fertility rates for Māori mothers under 25 years of age were more than double the fertility rates for the total population in the same age groups.⁸ Young women giving birth (under 25 years) were more likely to live in deprived areas, and almost half of all Māori women giving birth (45%) lived in the most deprived areas (quintile 5) of this country.⁹

Local and international evidence suggests that being young and pregnant is a risk factor for poor health outcomes for both mother and baby.^{6,10} Teenage pregnancies have been associated with increased mortality of babies before and after birth, and with low weight gain of the mother and premature births.¹¹

In Aotearoa New Zealand, teenage mothers <20 are at higher risk of stillbirth and neonatal death compared to older mothers.⁶ These differences in health outcomes cannot be explained solely by socioeconomic status. Rather they are part of a larger picture of health disparities that suggests there are system and health service factors contributing to differential health outcomes for Māori.^{5,12}

Reducing inequalities in maternal and child health is necessary to avoid the burden of further disadvantage and ill-health of Māori children through childhood, adolescence and adulthood, and to also ensure a health system that is equitable. To develop

strategies that will improve maternal and infant health outcomes it is essential to identify where inequities in access to health care are occurring.

The E Hine research is about exploring the lived realities of 44 pregnant Māori women aged under 20 (and their infants) including their journey through maternity care services. The research is appropriately named to denote the importance of young Māori women and their babies. E Hine is an ancient term meaning Goddess, and is used in Māori culture to express the divinity of women.

In this study, E Hine is used to recognise and understand the importance of womanhood and motherhood. The vision of the research is a society that supports young Māori women, their right to health care, and their right to health, as recognised obligations of the Crown under the Treaty of Waitangi.

Recent work by Ratima et al identifies persistent inequalities in access to antenatal care and intrapartum and labour care for Māori.¹³ In the E Hine research we aim to identify factors that contribute to, or mitigate, health inequalities. This paper examines barriers to and enablers of access to maternity health care for pregnant Māori teenagers. Not attending or inadequate antenatal care (<5 antenatal appointments) is associated with adverse health outcomes (e.g. low birth weight, higher rates of fetal and neonatal death,¹⁴ and women <20 years are more likely to attend maternity services later and attend less frequently.¹⁵⁻¹⁷

Early pregnancy assessment and care planning is essential to screen for clinical and social risk factors that may increase the likelihood of perinatal mortality or other harm.¹⁸ Indeed, international evidence suggests that women aged under 20 years are more likely to attend maternity services later in pregnancy and less frequently.^{14,17} Local reporting suggests Māori or Pacific women <25 years are more likely to “book” late.^{19,20} The majority of Māori women who registered with a lead maternity carer (LMC) in 2010 did so in the second or third trimester of pregnancy (55.5%).²¹ This late registration with an LMC adds to the framing of Māori teen pregnancy as a ‘problem’²² due to ‘late presentation’ and ‘failure’ to attend early antenatal care.

Too often the risks associated with young mothers are significantly and negatively over-represented.²³ Not all teenage mothers experience poor outcomes, but there is little focus on the capabilities and positive outcomes of teen mothers.²³ This present research does not frame pregnancies to Māori women <20 years as inherently problematic. Rather, in the context of a Māori worldview, this research values the voice of pregnant Māori women <20 and uses their experiences to identify where and at what point the system and services are not working well for this group of women.

Increasing our knowledge about the circumstances and range of needs of pregnant Māori women <20 is necessary to avoid increasing health inequalities for an already disadvantaged population group.

The findings presented here are from data collected at the first interview with 44 participants about their experience of finding out about their pregnancy, and how they found an LMC. The aim is to describe what happens along the maternity care pathway from when they confirm their pregnancy, and how well (or not) their needs were met.

Methods

A qualitative study to explore the lived realities of pregnant Māori women <20 through a Kaupapa Māori research paradigm that avoids victim blaming, sees beyond negative stereotypes, and promotes a structural analysis.^{24,25} It was from this standpoint that we, a group of Māori health researchers supported by *kaumatua* (elders) and our non-Māori colleagues, expand understandings, beyond negative stereotypes, of the lived realities of young Māori women becoming pregnant, having their babies, and becoming mothers.

Case study sites—Participants were recruited from two case study sites: Wellington and Hawkes Bay, chosen because of their social, geographical, and tribal relevance.

Eligibility—Eligible women were:

- young women who identify as Māori,
- aged less than 20 years at the time of giving birth, and
- living in the case study sites.

Recruitment and participants—Participants were primarily identified and recruited through local health, education, and social service providers. The age of participants (at the time of giving birth) ranged from 14 years to 20 years old. The recruitment of pre-birth participants (prospective cohort n22) enabled the examination of the journey as it occurred. The recruitment of post-birth participants (retrospective cohort n22) enabled a retrospective look at the journey that was not biased by the research process.

Data collection, analysis, and ethics—Participants in the prospective cohort were interviewed 4 to 5 times over a 20-month period. Participants in the retrospective cohort were interviewed 2–3 times over a 9-month period. In total, 160 interviews were conducted with 44 participants from two case study sites. The data presented here relates to the first baseline interview and participants' dialogue about how they found out about their pregnancy, and their first interactions with health care and maternity services.

The themes of interest were identified through multiple methods. Prior and during the data collection phases common issues emerged through our engagement with community and sector stakeholders, the study steering and advisory groups. All interviews were transcribed verbatim and read, re-read and cross-compared by the two interviewing researchers to identify emergent themes.

Transcripts were entered into the software programme Nvivo for coding and data extraction using a comparative analysis. Once thematic data was extracted from the main body of transcripts, it was grouped, and re-grouped into topic areas for further analysis. This analysis was then presented back to the Steering and Advisory Groups for further discussion and feedback.

Ethics approval was obtained from the Central Region Ethics Committee and the Royal New Zealand Plunket Society (Inc) Ethics Committee.

Results

The majority of participants had a community based midwife as their Lead Maternity Carer (41), with a small number receiving public hospital midwifery care (1), and specialist only care (2).

Confirmation of pregnancy

Early interaction with health services—Participants engaged early with primary health care services to confirm their pregnancy. Despite their youth and the possible implications of finding out they were pregnant most participants were very proactive in taking steps to confirm their pregnancy, most often accessing primary care services such as a youth specific health service, or general practice.

Participants commonly used home pregnancy tests to confirm initial pregnancy suspicions prior to seeing a health professional.

I'm like 'oh my god I didn't get my period all this month'...so I came to course and I took a pregnancy test. She [the nurse] said 'oh well, you're pregnant', and I said 'oh my god am I', and she goes 'yes there's two lines', and I started crying (CAHB03).

I just had a feeling that I was pregnant. So I just went to our school nurse to just check up and stuff. I went and had one and she just showed me it. Then I just cried; I was shocked as (CDHB05).

The findings suggest that although pregnancy was often unexpected, confirming the pregnancy happened quickly for the majority of participants.

Points of entry – where and who to see—The availability of youth specific health services was an important facilitator of early confirmation of pregnancy. It was common for participants to access school based or community based youth health services.

It wasn't until I knew that my period had passed...I knew straight away that I was pregnant. I was with my best friend and I went in there [school health clinic] to get checked (CBHB01).

I used to go and see a nurse [at the community based youth health service] all the time. I used to go and talk to her about my contraception and stuff so, I went back to her cause I didn't really have a GP (CCWN01).

These participants were often long-term users of such services and had established relationships with the doctors and nurses. Prior interactions between the participants and their primary health care provider influenced the decision about which service they were going to engage.

Participants avoided providers with whom they had previously had negative encounters, or where they foresaw the provider being negative toward them; for example, "*it wasn't my GP that I saw. I didn't want him to growl me...cos he's quite scary, so I went to a locum doctor* (CCWN02); and another participant who chose to attend her youth service because, '*my doctors a wanker*' (CAHB01).

A lack of options forced one participant to visit the local midwifery service because she could not access her previous GP, '*I didn't have a doctor. I come back here and they said I couldn't sign up with the same doctor or anything. They didn't have room. That's why I didn't go to the doctor*' (CCHB02).

Of the 44 participants, seven participants did not access care in the first trimester because they did not realise they were pregnant. However once they became aware of the possibility that they could be pregnant, they followed similar patterns to the other participants.

Moving along the maternity care pathway

Participants commonly visited their primary health care provider (i.e. youth health service, school nurse, GP) to confirm their pregnancy, and begin their pregnancy journey. However transitioning to a Lead Maternity Carer was often fragmented and inhibited a seamless pregnancy pathway.

One of the main barriers was the lack of adequate information about the process.

[the doctor] didn't give me much information. He just said ring a midwife and gave me a book with three people on it (CAHB04).

...[the doctor] told me to get a midwife...yeah just did a check and stuff. Yeah that's about it. She just gave me a list of numbers (CBWN01).

Primary care providers often missed opportunities to assist these young women to make their journey less complicated and, ultimately, provide a better health service. One participant had numerous interactions with health and social services before she eventually found a midwife herself.

I went to go sign up to do ante-natal classes at the doctors...and they said their books are closed but I could go talk to Family Start...then I was on a waiting list, then they go 'have you got a midwife?' and they recommended [a midwife]...I contacted her...then I didn't go see her for a month or so, so then I went to [a youth health service] to go get my STI check-up and they said, 'have you got a midwife' and I said no, then they've got this big list out of midwives (CBHB06).

At each point of contact, despite knowing the participant was pregnant, no one was pro-active about properly explaining the process of what to do next or to help her to find a midwife. The fragmentation and lack of communication between services made the process of finding the midwife unnecessarily difficult for this young woman and many others on the study.

Participants most commonly relied on the lists of midwives they received from the primary care provider. However those who followed this maternity pathway were more likely to face barriers to accessing a lead maternity carer and, consequently, experienced delays in receiving early antenatal care.

[The doctor] gave this paper with a list on it and I tried to get in contact with some of them but they said they weren't working around Christmas...and I went up to [local town] to find one...but no-one got back to me and I haven't had a midwife since (CAWN05).

...I couldn't get hold of her for ages. Like five weeks, yeah five or six weeks. And leaving messages, but she wasn't getting back [to me] (CBWN01).

Not all participants had or were able to access a community-based midwife so many self-referred or were referred by their GP to hospital based midwifery services.

[The doctor] just gave me the pamphlet... I was ringing up a few of them and they were all taken. So I was like, 'oh I've had enough' and left it for about a week and I just walked into the maternity ward and said 'I need a midwife... I really need one cause I don't know how far I am (CAWN06).

The 'one-way' process of communication, where the participant was dependent on the midwife to return her call, created barriers and often left participants with limited options when deciding who was going to provide their maternity care. In some situations the lists of midwives were unhelpful because they were all unavailable. Some participants were forced to go to extraordinary lengths to find a midwife and subsequently had to settle upon whoever was available.

What works well

The role of a primary care practitioner (GP, Primary Care nurse) and their assistance (or not) of young pregnant women had a considerable influence on their pregnancy journey. Some health professionals went beyond pregnancy testing and provided additional antenatal support such as ascertaining the circumstances and needs of

participants. When this happened participants were more likely to experience a continuous maternity care pathway.

[The nurse] kind of rang around and seen what kind of midwives were available around for me and, she came back with a couple and, so I chose to go with a midwife, it was one out in Porirua' (CCWN01).

In another situation a smear nurse asked a participant if she had a midwife and any support, to which the participant replied '*no I don't have a midwife, and I don't know how to get one*' (CCHB04). The nurse went on to help identify, contact, and organise a midwife for this participant.

Participants with good support networks often turned to whānau (family) to assist them to navigate through the process of finding a midwife. Participants sought advice from whānau or friends who had recently had a baby, and asked about their midwife.

Acting upon these recommendations, participants would make a decision about whether they wanted that same midwife as their lead maternity carer.

My friend that goes to this school, I asked for the number of her midwife cause I heard she's really good (CDWN01).

She used to be my mum's midwife that's why I asked for her cause, my mum said she's real good (CBWN02).

Discussion

The initiative shown by the young women in this study to seek maternity care early is contrary to the perception that young pregnant women present late, and fail to access antenatal care in the first trimester.^{15 16} Despite their youth, and the prospect of finding out they might become a mother, the findings in this study show participants to be decisive and engaged with primary care services early on in the first trimester to confirm their pregnancy and seek advice.

Participants in this study often relied on whānau to assist them about how, where and who they were going to access to confirm their pregnancy. The availability and access to school and community health clinics was also an important point of entry to confirm their pregnancy. Youth specific services are reportedly less frequented options for young people;²⁶ however the findings in this study show that these services worked well for this group of young women as a facilitator for confirming pregnancy early on in the first trimester.

The young women in this study were deliberate about who they chose to engage with about their pregnancy, and previous interactions were an important part of this decision making process. Participants were unwilling to use services where they perceived they would receive a poor response from the provider.

This positive health seeking behaviour was often met with inadequate information and support for young pregnant women navigating the next steps in their maternity care journey. The main source of information participants received once they confirmed their pregnancies was a list of local maternity providers. This proved insufficient for transitioning these young women to an LMC as many lacked the resources to navigate this stage of the pathway.

These experiences were similar to young women in Copland et al's (2011) study who also reported poor access to health care, with knowledge about how to access health

care and lack of transport the two leading barriers.²⁶ Even the co-location of primary health care services with maternity care providers did not necessarily improve access to first trimester care or guarantee enrolment with an LMC.

This disruption of their maternity care journey is a system and service failure that contributed to unnecessary and avoidable delays in participants accessing appropriate first trimester care. The potential repercussions of a lack of first trimester care are found in the latest PMMRC report (2013)³; one in four women whose babies died in 2010 of a potentially identifiable congenital abnormality were not offered screening by their primary care health provider.

The Growing Up in New Zealand cohort study also found gaps in first trimester care with only 39 percent of women taking pre-pregnancy folic acid supplementation and Māori and those less than 20 years were less likely to have taken supplementation.²⁷ The PMMRC recommends that primary care providers should offer first trimester screening and facilitate expeditious registration with an LMC.³ Improving first trimester care and navigation to an LMC will improve access for young Māori women to appropriate maternity care.

The current way the system works does not take into account the vulnerability and higher risk of poor health outcomes for young mothers and Māori infants. Participants in this study had limited control over deciding when to access, and who would provide, maternity care services.

The current model of maternity care disempowers young women by failing to provide an appropriate level of access to maternity care, and then blames them for not accessing care. There is a range of resources (knowledge, information, language, support) that people are expected to mobilise, yet ethnic minority and socio-economically deprived people may be disadvantaged in their access to these resources.²⁸

Limitations—Participants were recruited through many channels within the two regions. While it is possible that they are somehow different from young pregnant Māori women more generally, we are confident (from talking with them and their whānau, the Roopū Mama, and a wide range of stakeholders) that their journey is representative of the experiences of their peer group.

Conclusion—Young Māori women aged under 20 in this study engaged early with health services to both confirm their pregnancy and initiate maternity care but system barriers delayed timely access to finding and enrolling with a lead maternity carer.

Despite a publicly funded maternity system, the fragmentation between primary non-LMC maternity care and LMC services had a negative impact on the pregnancy journey for many of these young women, disrupting access to early antenatal care. Primary care practitioners who took the time to provide additional information and support made a considerable improvement to the maternity care pathway.

Disruptions in access to maternity care could be addressed through emphasising an integrated seamless model of care with maternity care beginning at the first interaction with health care services. The health care service, primarily general practitioners, would then take responsibility for first trimester screening and navigation to a lead maternity carer.

Competing interests: Nil.

Author information: Charrissa Makowharemahihi, Research Fellow, Women's Health Research Centre, Department of Primary Health Care and General Practice, University of Otago, Wellington; Beverley A Lawton, Associate Professor and Director, Women's Health Research Centre, Department of Primary Health Care and General Practice, University of Otago, Wellington; Fiona Cram, Director, Katoa Ltd, Auckland; Tina Ngata, Research Assistant, Women's Health Research Centre, Department of Primary Health Care and General Practice, University of Otago, Wellington; Selina Brown, Senior Research Nurse, Women's Health Research Centre, Department of Primary Health Care and General Practice, University of Otago, Wellington; Bridget Robson, Director, Te Rōpū Rangahau Hauora a Eru Pōmare, Department of Public Health, University of Otago, Wellington

Acknowledgements: Funders: Health Research Council of New Zealand, and Ministry of Youth Development; E Hine advisory groups: Kāhui Kaumatua, Roopu Māmā, Expert Advisory Group; and Dr Russell Wills (Children's Commissioner) for his contribution to the protocol and direction of this research.

Correspondence: Dr Beverley Lawton, Director, Women's Health Research Centre, Department of Primary Health Care and General Practice, University of Otago, Wellington, PO Box 7343, Wellington South 6242, New Zealand. Fax: +64 (0)4 9185473; email: bev.lawton@otago.ac.nz

References

1. New Zealand Gazette. Maternity Service: Notice Pursuant to Section 88 of the New Zealand Public Health and Disability Act 2000. Issue No 41. Wellington, 2007.
2. Ministry of Health. Fetal and Infant Deaths Wellington: Ministry of Health, 2010.
3. PMMRC. Seventh Annual Report of the Perinatal and Maternal Mortality Review Committee: Reporting Mortality 2011. In: Commission HQS, editor. Wellington, 2013.
4. Craig EAJ, Oben G, Reddington A, et al. Te Ohonga Ake: The Health status of Māori Children and Young People in New Zealand: NZ Child and Youth Epidemiology Service 2012.
5. Robson BHR. Hauroa: Maori Standards of Health IV. A study of the years 2000-2005. . Wellington: Te Ropu Rangahau Hauora a Eru Pomare, 2007.
6. PMMRC. Fifth Annual Report of the Perinatal and Maternal Mortality Review Committee: Reporting Mortality 2009. In: 2011 HQSC, editor. Wellington, 2011.
7. Ministry of Health. Tatau Kahukura: Māori Health Chart Book 2010, 2nd Edition. Wellington: Ministry of Health, 2010.
8. Statistics New Zealand. Demographic Trends: 2012 Reference Reports. Wellington, New Zealand: Statistics New Zealand, 2013.
9. Ministry of Health. Report on Maternity, 2010. Wellington: Ministry of Health, 2012.
10. Coren EBJ, Stewart-Brown S. The effectiveness of individual and group-based parenting programmes in improving outcomes for teenage mothers and their children: a systematic review. *Journal of Adolescence*. 2003;26(1):79–103.
11. Chen X WS, Fleming N, Yang Q, Walker M. Increased risks of neonatal and postneonatal mortality associated with teenage pregnancy had different explanations. *Journal of Clinical Epidemiology*. 2008;61(7):688-94.
12. Blakely TM, Atkinson J, Yeh L-C, Huang K. Tracking Disparity: Trends in Ethnic and socioeconomic inequalities in mortality 1981-2004. Wellington: Ministry of Health, 2007.

13. Ratima M, Crengle S. Antenatal, Labour, and Delivery Care for Māori: Experiences, Location within a Lifecourse Approach, and Knowledge Gaps. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health* 2013;10(3):353-66.
14. Raatikainen K, Heiskanen N, Heinonen S. Under-attending free antenatal care is associated with adverse pregnancy outcomes. *BMC Public Health* 2007;7:268.
15. Allen J GJ, Stapleton H, Kildea S. Does the way maternity care is provided affect maternal and neonatal outcomes for young women? A review of the research literature. *Women and Birth*. 2011(0).
16. McCaw-Binns A, La Grenade J, Ashley D. Under-users of antenatal care: A comparison of non-attenders and late attenders for antenatal care, with early attenders. *Social Science & Medicine*. 1995;40(7):1003-12.
17. Allen J, Gamble J, Stapleton H, Kildea S. Does the way maternity care is provided affect maternal and neonatal outcomes for young women? A review of the research literature. *Women and Birth* 2011(0).
18. Paterson R CA, Lilo S, McCowan L, et al. External Review of Maternity Care in Counties Manukau District: Counties Manukau District Health Board: Counties Manukau District Health Board, 2012.
19. Craig E, McDonald G, Reddington A, Wicken A. The determinants of health for children and young people in Counties Manukau. Dunedin, New Zealand: New Zealand Child and Youth Epidemiology Service, 2009.
20. Paterson R, Candy A., Lilo S, et al. External Review of Maternity Care in the Counties Manukau District. In: Board CMDH, editor, 2012.
21. Ministry of Health (MoH). Report on Maternity, 2010. Wellington: MoH, 2012.
22. Pihama L. Overview of Māori teen pregnancy: Maori and Indigenous Analysis Ltd, 2011.
23. Collins B. Resilience in teenage mothers: A follow up study. Wellington, 2010.
24. Lawton B, Cram F, Makowharemahihi C, et al. Developing a kaupapa Maori research project to help reduce health disparities experienced by young Maori women and their babies. *AlterNative: An International Journal of Indigenous Peoples* 2013;9(3).
25. Pihama L, Cram F, Walker S. Creating methodological space: A literature review of Kaupapa Maori research. *Canadian Journal of Native Education* 2002;26(1):30-43.
26. Copland RJ, Denny SJ, Robinson EM, et al. Self-reported pregnancy and access to primary health care among sexually experienced New Zealand high school students. *Journal of Adolescent Health* 2011;49(5):518-24.
27. Morton SMB, Grant CC, Atatoa Carr PE. Too many left at risk by current folic acid supplementation use: evidence from Growing Up in New Zealand. *Australian and New Zealand Journal of Public Health*. 2013;37(2):190-91.
28. Dixon-Woods M, Kirk D, Agarwal S, et al. Vulnerable groups and access to health care: a critical interpretive review. . In: (NCCSDO) NC-oCfNSDaORD, editor. London, 2005.