### In this issue:

- Immunisation coverage factors in NZ Asians
- Systematic reform of refugee health inequalities
- Maternal-child health: population interventions for migrant women
- Midwifery-led care embedded within primary care
- Pain relief during labour for Japanese women in NZ
- GDM: Challenges for different ethnic groups
- GDM self-management in socially deprived groups
- Ramadan fasting by pregnant women
- Ramadan fasting effect on amniotic fluid index
- Pregnancy: ethnic discrimination, health and stress
- Pregnancy glycaemia and infant fat mass

#### Abbreviations used in this issue

**BMI** = body mass index

CALD = Culturally and Linguistically Diverse

**GDM** = gestational diabetes mellitus

**GP** = general practitioner **LMC**= lead maternity carer

### Welcome to the fourteenth issue of Asian Health Research Review.

In the last decade there has been a significant increase in births to Asian women. Currently, in the Auckland District Health Board region, 29% of births are for Asian women, in Waitemata 25% and 19% in Counties Manukau. Nationally, 11% of births are to Asian women. As a proportion, Asian births in Auckland are expected to rise to 32% by 2025 in Waitemata/Auckland DHBs and 22% in Counties Manukau. The median age for Asian women giving birth is 30 years and women have higher induction rates (11%). Language and unfamiliarity with the New Zealand health system mean that Asian migrant women and babies are likely to experience inequalities in health outcomes. The most recent Perinatal and Maternal Mortality Review Committee Report shows that Indian women along with Maori and Pacific women experience a higher rate of perinatal death than NZ European women. With Indian women having a disproportionately high rate of stillbirth and neonatal deaths.

Asian women prefer to receive care from healthcare professionals from their own ethnic background, or if that is not possible, from professionals who understand their culture and are able to provide culturally (and religiously) sensitive care. It is often not possible for women from Asian, Middle Eastern and African backgrounds to find a suitable LMC in and outside the Auckland region. We need to ensure that we work towards maternity services that are responsive to women from Asia and other ethnically diverse women by ensuring that our workforce is CALD culturally competent.

Kind regards,

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### Independent commentary by Dr Annette Mortensen and Dr Geeta Gala



Dr Annette Mortensen has worked to improve the health of newcomers to New Zealand from ethnically diverse backgrounds for the last 15 years. Since 2007 Annette has worked as the Asian, Refugee and Migrant Health Programme Manager for the Northern Regional Alliance on behalf of the Auckland region District Health Boards.

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Dr Geeta Gala is a Public Health Physician. She leads and advises on many of the cancer projects led by the Northern Cancer Network and is active in advocacy for improvement of Asian health in New Zealand.

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The Asian Health Review has been commissioned by the Northern Regional Alliance (NRA), which manages the Asian, migrant and refugee health action plan on behalf of the Waitemata, Auckland and Counties Manukau District Health Boards.

### Asian Health Review

## Factors contributing to high immunisation coverage among New Zealand Asians

Authors: Pal M et al.

**Summary**: In a qualitative NZ study (using in-depth, semi-structured interviews), researchers attempted to identify attitudes, values, experiences, knowledge, behaviour and perceived barriers among NZ Asian parents that contributed to the decision to immunise their children. The key themes were a general positive attitude towards immunisation, being well informed on the value of immunisation, accepting of governmental encouragement of immunisation service use, and a perception of minimal access barriers to immunisation services.

Comment: (AM) Childhood immunisation is a well established social norm, with the highest rates of immunisation in Asian families compared to all other New Zealand groups. The group surveyed included many new migrants, had high health literacy and were well informed about the benefits of immunisation programmes. Grandparents played a key role in reminding parents of due dates for immunisation, highlighting their inter-generational influence as decision-makers for their grandchildren's health care. Families found access to childhood immunisation was easy and free childhood immunisations were appreciated compared to the costs occurred in home countries. While the study cites the availability of information in multiple languages, a check of the Ministry of Health Health Education website https://www.healthed.govt.nz/ shows translations in Simplified and Traditional Chinese and Hindi only. Further translations into Korean, Japanese, Vietnamese, Thai, Burmese etc would be of value. Additionally, research with non-English speaking parents, in particular sub-groups from refugee backgrounds, would be of interest.

Reference: J Prim Health Care 2014;6(4):304-11 Abstract





### Bridging the gap: using an interrupted time series design to evaluate systems reform addressing refugee maternal and child health inequalities

Authors: Yelland J et al.

**Summary:** Bridging the Gap is a multi-phase, quasi-experimental study of an innovative programme for quality improvement and reform in public health services in Melbourne that aims to improve access to universal health care for refugee families, and to build the organisational and systemic capacity to address modifiable risk factors for poor maternal and child health outcomes. The quality improvement initiatives are iterative using the Plan Do Study Act framework in four maternity hospitals and two local government maternal and child health services.

**Comment: (AM)** This quality improvement initiative which aims to improve refugee maternal and child health outcomes in Melbourne, Australia has significance for New Zealand Maternal and Child Health Services, Child Birth Educators and Well Child Providers. The study found that Australian women of refugee backgrounds had higher rates of stillbirth, foetal death in utero and perinatal mortality, and low attendance at antenatal check ups. An Auckland study of the health status of Middle Eastern, Latin American and African Peoples (Perumal, 2011), suggests that women from refugee backgrounds have high intervention rates in hospital deliveries and higher child mortality rates compared to other New Zealand populations. A New Zealand study of childbirth education found that of the refugee women interviewed, none had attended childbirth education or had been offered classes by their LMC (Dwyer, 2009). Workforce training to improve cultural competency is considered central to improving engagement and access for refugee women to maternal and child health services (see <a href="https://www.ecald.com">www.ecald.com</a> for CALD cultural competency training for the health workforce in New Zealand).

Reference: Implement Sci. 2015;10:62 Abstract

### Developing population interventions with migrant women for maternal-child health: a focused ethnography

Authors: Gagnon AJ et al.

**Summary:** This Canadian study involving 16 international migrant women living in Montreal or Toronto who had a high psychosocial risk profile and had been classified as vulnerable or resilient based on indicators of mental health, sought to determine: 1) what processes are used by migrant women to respond to maternal-child health and psychosocial concerns during the early months and years after birth; 2) which of these enhance or impede their resiliency; and 3) which population interventions they suggest best respond to these concerns. It was found that migrant women drew on a wide range of resources and coping strategies to respond to psychosocial and maternal-child health issues and that vulnerable and resilient mothers differed in their use of certain coping strategies. The overarching factor for enhancing resilience was social inclusion and study participants identified social processes and corresponding facilitators relating to this feature (more social processes were identified by the vulnerable group). Within each of the categories of interventions identified (income and social status, social support network, education, personal health practices and coping skills, healthy child development, and health services) the most common suggestions were related to creating supportive environments and building healthy public policy.

**Comment: (AM)** We rarely hear the voices of Asian, Middle Eastern, Latin American or African (MELAA) women in qualitative New Zealand studies of maternal-child health although Asian and MELAA peoples are a quarter of the Auckland region population. This Canadian study of refugee and migrant women using maternal and child health care services, identifies the factors that support resilience. Many factors such as income support, transport and language acquisition are beyond the control of health care. However, other key factors were eligibility for refugee and migrant pregnant women to publicly provided health services. New Zealand is more generous than Canada in this respect. The availability of midwives and Well Child nurses who visit at home was highly valued, as were interpreting services, which are available for primary health care providers (including midwives and Well Child providers) in the Auckland region. It would be informative for maternal and child health service planning in New Zealand to have more consumer input from growing refugee and migrant communities.

Reference: BMC Public Health 2013;13:471

**Abstract** 



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Medidata Prescription Pad service

### Asian Health Review

## Midwifery-led care embedded within primary care: consumer satisfaction with a model in New Zealand

Authors: Pullon S et al.

**Summary:** This NZ pilot study investigated the use of focus groups and interviews to determine maternity care consumer satisfaction among 11 high-needs women (2 New Zealand European, 6 Cambodian and 3 Samoan), and their perceptions of a midwifery-led service embedded in primary care. Thematic analysis identified key themes including issues with survey forms, the importance of accessibility and information, and relationships and communication with the midwifery team. The interviews and focus groups were well received, and indicated endorsement of the care model as well as revealing hitherto unrecognised concerns.

**Comment: (AM)** Asian women represent a quarter of all births in the Auckland region. DHB studies show that Asian women are more likely to book early. However, studies show that language access is a significant concern for Asian women (26% of those surveyed in the Waitemata DHB study by Bartholomew, 2014) This Wellington study of midwifery services for high-needs women in primary care demonstrates that focus groups and interviews (with interpreters for non-English speaking women) are a successful way to include the views of Asian women on the quality of their maternity care. Due to cultural differences, Cambodian women found LMCs difficult to relate to. It would be good to see qualitative studies of this kind replicated for Chinese, Indian, Korean and other Asian sub-groups. The study showed that language access is critical for women with limited or no English language skills, as is having a CALD culturally competent workforce. In the Auckland region, LMCs are able to use free primary health interpreting services through their DHB interpreting service.

Reference: J Prim Health Care 2014;6(4):319-23

**Abstract** 

### Japanese women's experiences of pharmacological pain relief in New Zealand

Authors: Doering K et al.

**Summary:** This study investigated the use of pharmacological pain relief during labour by 13 Japanese women who had given birth in New Zealand. The women were interviewed either in a focus group or individually and the conversations analysed using thematic analysis. Despite the infrequent use of pain relief during labour in Japan, 9 of 11 women in the New Zealand cohort who experienced labour pain received epidural and/or Entonox®. Some of the women reported subsequent personal conflict, resulting from the contrast between their Japanese cultural expectations and their birth experiences. There appeared to be an influence of Japanese women's cultural perspectives and passive attitudes in the decision-making process concerning pain relief.

Comment: (AM) The voices of Asian women are under-represented in New Zealand women's experiences of birth. This is the first study to document Japanese women's birth experiences in New Zealand. I share Jackie Gunn's view (Issue 5 of Midwifery Research Review) that "New Zealand's increasing ethnic diversity brings increasing diversity in childbirth traditions and practices. Individualised approaches to midwifery practice can support such rich diversity". Further to this, the study highlights the need to understand the differences between collectivist and individualist cultures. Women who have migrated from collectivist cultures, such as Japan will value interdependency, will communicate in a more indirect manner and will avoid open conflict to preserve harmony. The relationship with the LMC whether a midwife, GP or obstetrician, will be characteristically "high-power distance", that is the perceived higher status and rank of the health professional will be valued and they will be expected to be in charge. The CALD 1 Culture and Cultural Competency training available to all midwives (including self-employed midwives), GPs, obstetricians and gynaecologists in New Zealand is helpful in addressing cultural differences between health practitioner's and their clients.

Reference: Women Birth 2014;27(2):121-5

**Abstract** 

### Gestational diabetes mellitus: Challenges for different ethnic groups

Authors: Yuen L and Wong VW

**Summary/Comment: (GG)** This review summarises the differences in gestational diabetes mellitus (GDM) prevalence, management and outcomes amongst women from diverse ethnic and cultural backgrounds. The prevalence of GDM is particularly high among women from Asian communities, with the highest prevalence in South Asian women. It is interesting to note that Asian women had GDM despite having a normal or low BMI. The study highlights the major challenges in providing diabetes education and medical nutrition therapy, as these have to be individually tailored and culturally sensitive. Although Asian women had lower adverse pregnancy outcomes, they had a higher rate of developing diabetes in the future, particularly the migrant Asian women. In Auckland, the GDM prevalence is 2-3 times higher than the European population. The antenatal services will have to accommodate and plan optimal care for these women from diverse ethnic backgrounds.

Reference: World J Diabetes 2015;6(8):1024-32

<u>Abstract</u>

## Women's experiences of factors that facilitate or inhibit gestational diabetes self-management

Authors: Carolan M et al.

**Summary:** Factors that facilitate or inhibit GDM self-management by women in socially deprived areas were explored in this Australian study involving 15 pregnant women (28-38 weeks' gestation) with GDM who participated in qualitative semi-structured interviews and a focus group. A number of barriers complicating their task of GDM self-management were identified by the women: (1) time pressures; (2) physical constraints; (3) social constraints; (4) limited comprehension of requirements, and (5) insulin as an easier option. Factors identified as facilitating GDM self-management included thinking about their baby and psychological support from their partners and

**Comment: (GG)** This qualitative study from Melbourne explored barriers and enablers for GDM self-management in women from low socioeconomic and migrant background. As these women are most at risk of developing GDM and mismanaging the condition, the risk of GDM complications are also highest in this group. The study found limited understanding of the importance of blood glucose control and dietary self-management. Although the study has a small sample size and only recruited women who spoke English, the findings echo the available evidence that women from low socio-economic background and migrant backgrounds struggle to comprehend GDM self-management and will require additional educational and supportive services that are culturally sensitive and aimed at a low level of literacy.

Reference: BMC Pregnancy Childbirth 2012;12:99

**Abstract** 



Time spent reading this publication has been approved for CME for Royal New Zealand College of General Practitioners (RNZCGP) General Practice Educational Programme Stage 2 (GPEP2) and the Maintenance of Professional Standards (MOPS) purposes, provided that a Learning Reflection Form is completed. Please **CLICK HERE** to download your CPD MOPS Learning Reflection Form. One form per review read would be required.



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### Asian Health Review

## Ramadan fasting and maternal perspectives in healthy pregnant women: Systematic review

Authors: Sultan IE et al.

Summary/Comment: (GG) This review demonstrated strong and consistent evidence of Ramadan fasting by pregnant women. Of the 3828 pregnant women included in this review, 85% experienced fasting; 76% fasted the whole month or ≥20 days. Although, they can be exempt from fasting, the majority of the Muslim pregnant women surveyed showed a strong sense of religious obligation and chose to fast. There is sufficient evidence that fasting in pregnant women can cause accelerated starvation, especially in late pregnancy as manifested with low blood glucose, elevated beta hydroxybutyrate, ketosis and ketonaemia. However, there is still no definite evidence that it can adversely affect maternal health. Additional research is required to understand the impact of lifestyle and metabolic changes in pregnant women due to Ramadan fasting. Due to the large numbers of women expected to fast during Ramadan, guidelines need to be developed to help clinicians monitor and manage fasting during pregnancy.

Reference: B J Medcine & Medcal Res. 2015;6(6):573-86 Abstract

### Effect of ramadan fasting on amniotic fluid index in last month of pregnancy

Authors: Khalaf M et al.

**Summary:** This cross sectional observational study involving 221 pregnant women beyond 36 weeks' gestation examined the effect of fasting in the month of Ramadan on amniotic fluid index, measured at days 3 and 27 in 97 fasting and 124 non-fasting women. Analysis revealed that the amniotic fluid index was less affected by fasting, although a significant difference existed in the index between fasting and non-fasting pregnant women with oligohydramnios (4.00 vs 2.64, respectively). There was a positive relationship between gravidity and amniotic fluid index with the index increasing with the increase of gravidity in pregnant fasting women; there was a variable non-significant relationship between the amniotic fluid index and gravidity in pregnant non-fasting women.

**Comment: (GG)** This study from Egypt investigated the effect of fasting in Ramadan on the amniotic fluid index, which expresses the amniotic fluid volume. The study was undertaken during later summer to determine the possible adverse effects of fasting on the long hot days of summer. As fasting induces dehydration, are these pregnancies at increased risk of oligohydramnios? Pregnancies associated with oligohydramnios are at increased risk of foetal distress and are associated with a high rate of operative delivery and meconium aspiration. The study demonstrated no effect of fasting on the amniotic fluid index, rather fasting was found to improve the amniotic fluid index. An interesting finding! We probably need more robust studies to accept this conclusion.

Reference: Middle Eastern Fertility Soc J. 2015;20(1):54-6 Abstract

**Disclaimer:** This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

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### Ethnic discrimination predicts poor selfrelated health and cortisol in pregnancy: Insights from New Zealand

Authors: Thayer ZM and Kuzawa CW

**Summary:** The relationship between perceived discrimination, self-rated health, and the stress hormone cortisol measured in late pregnancy (34-36 weeks) among a diverse sample of 55 women recruited from two antenatal care clinics in Auckland was evaluated, along with stress reactivity in a subset of 19 offspring (cortisol reactivity assessed at 6 weeks of age). The women undertook a prenatal stress questionnaire and collected saliva samples morning and evening for two days. Overall, 34% of women had experienced ethnic discrimination and compared with NZ-born women of European descent, minority and immigrant women were more likely to report being angry or upset in response to discrimination experience.

**Comment: (GG)** This Auckland study demonstrated that pregnant women who reported ethnic discrimination had worse self-rated health, higher evening cortisol and gave birth to infants with higher cortisol reactivity, suggesting that ethnic discrimination experienced by the mother has biological effects in pregnancy and across generations, potentially contributing to an ethnic gradient in health. In this study, immigrants, Asian, Pacific and Maori women were significantly more likely to report discrimination than NZ European women. Similar findings were reported in the 2006/07 and 2012/13 NZ Health Survey data.

Reference: Soc Sci Med. 2015;128:36-42

**Abstract** 

# Pregnancy glycaemia and cord-blood levels of insulin and leptin in Pakistani and white British mother-offspring pairs: findings from a prospective pregnancy cohort

Authors: Lawlor DA et al.

**Summary:** A prospective pregnancy cohort of 1415 women and their singleton live-born infants, 629 white British and 786 Pakistani, were investigated to determine the extent to which gestational fasting and post-load levels of glucose explain differences in infant fat mass between these two groups. Maternal oral glucose tolerance testing at 26-28 weeks' gestation revealed that Pakistani women had higher fasting and post-load glucose levels and a greater incidence of GDM than white British women. An association was also found between higher fasting and post-load glucose levels and higher cord-blood levels of insulin and leptin in all participants, irrespective of ethnicity; cord-blood leptin levels were 16% (95% CI 6-26) higher in Pakistani than in white British infants.

**Comment: (GG)** This UK study determined the effect of pregnancy glycaemia on infant fat mass between the UK-born Pakistani and white British infants. The Pakistani women had higher fasting and post-load glucose levels and a greater incidence of GDM than white British women. This was associated with higher cord-blood levels of insulin and leptin, reflecting greater birth fat in Pakistani infants, despite their lower birth weight. Given the rising prevalence of GDM and diabetes in the South Asian population, the research findings warrant an aggressive identification and management of hyperglycaemia in South Asian women.

Reference: Diabetologia. 2014;57(12):2492-500

**Abstract** 

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