



Making Education Easy

Issue 5 - 2013

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Abbreviations used in this issue

- BMI** = body mass index
- CALD** = culturally and linguistically diverse
- RTI** = road traffic injury
- T2DM** = type 2 diabetes mellitus



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Welcome to the fifth issue of Asian Health Review.

With wintry showers and woolly jackets giving way to warmer weather and longer days, Elsie and I have brushed the dust off a few 'seasonal' topics with an Asian flavour! So, delve into this issue to check out some facts about sun-avoidance behaviour among East Asian women, physical activity (or lack thereof) among migrant communities, and the bone health of about 770,000 people in seven Asian countries. To this we add a generous sprinkling of studies on perennial challenges – just in case you think we've gone 'soft' on disease and injury!

We hope you enjoy the selected articles and look forward to receiving any feedback you may have.

Kind Regards,

Professor Shanthi Ameratunga

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Acculturation and obesity among migrant populations in high income countries – a systematic review

Authors: Delavari M et al.

Summary: This systematic review aimed to assess the evidence for a relationship between acculturation and overweight/obesity among adult migrants moving from a low/middle income country to a high-income country. An initial search of six EBSCOhost databases identified 1135 publications, of which only nine met the selection criteria defined by the Centre for Reviews and Dissemination's Guidance for Undertaking Reviews in Health Care. All were US studies of eight different migrant populations. Bi-directional acculturation scales were used in six studies and uni-directional scales in three. Six of the studies reported positive associations between BMI and higher acculturation, while three reported that higher acculturation was associated with lower BMI, an observation applying mainly to women.

Comment: (Elsie) The findings of this systematic review generally indicate an overall positive association between acculturation and overweight/obesity. These findings suggest that the 'healthy immigrant effect' may diminish with greater acculturation. The findings are likely to also be related to the nutritional transition, which occurs as populations move from reliance on staple-based diets to a more obesogenic diet of fatty and processed foods. This nutrition transition would occur more rapidly for immigrants from low- and middle-income to high-income countries (such as for immigrants from Asian countries to New Zealand). However, the relationship appears more complex for women than for men, as both negative and positive relationships between acculturation and overweight/obesity were found for women. The mixed findings observed for women may be due to the influences of the Western norms on body image and physical activity, which may counteract the obesogenic food environment in high-income countries. Further research is required to unpack the complex relationship between obesity and acculturation, and to inform potential intervention to prevent unhealthy weight gain and obesity-related diseases like diabetes in these immigrant populations.

Reference: *BMC Public Health* 2013;13:458

<http://www.biomedcentral.com/1471-2458/13/458>

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Asian Health Review

Independent commentary by Professor Elsie Ho.

Associate Professor Elsie Ho is Director of Population Mental Health and Director of the Centre for Asian and Ethnic Minority Health Research at the School of Population Health, the University of Auckland. Her major research interests are in the areas of migration, diversity and Asian health and wellbeing. She has a firm commitment to developing inclusive societies that value diversity and optimise human potential and resources.



Type 2 diabetes prevalence varies by socio-economic status within and between migrant groups: analysis and implications for Australia

Authors: Abouzeid M et al.

Summary: This Australian study used diabetes data from the National Diabetes Services Scheme and population data from the Australian National Census to identify groups at high risk of type 2 diabetes mellitus (T2DM) in Victoria. Diagnosed T2DM occurred in 98671 men (prevalence 4.1%) and 87608 women (3.5%). For both sexes, T2DM odds were higher in all migrant groups than in the Australian-born population. Among those with T2DM, 20% of those born in Oceania and in Southern and Central Asia were aged <50 years. After adjustment for age and socioeconomic status, odds of T2DM were 6.3- and 7.2-fold higher for men and women born in the Pacific Islands, and 5.2- and 5.0-fold higher for those born in Southern and Central Asia.

Comment: (Shanthi) This study is an example of what can be achieved when national databases systematically collect 'country of birth' information. Using data for the State of Victoria drawn from the National Diabetes Services Scheme (funded by the Australian Government), these authors found the prevalence of T2DM was disproportionately higher among people born in Pacific Islands and Southern and Central Asia compared with their Australian-born peers. While 'country of birth' information is typically incomplete or missing in NZ databases, the situation with T2DM is likely to be similar. Unless preventive strategies are considered proactively, the pressures on the communities involved and national health services are likely to be considerable.

Reference: *BMC Public Health* 2013;13:352

<http://www.biomedcentral.com/1471-2458/13/252>

Breastfeeding by Chinese mothers in Australia and China: the healthy migrant effect

Authors: Chen S et al.

Summary: This comparison between Chinese-Australian migrants and mainland Chinese mothers aimed to examine the initiation and duration of breastfeeding and validate the "healthy migrant effect" commonly reported in epidemiology, using a survey of 239 Chinese mothers (response rate 96.7%) based in Perth and 1844 mothers living in Chengdu, China (87.8%). In Chinese-Australian mothers the breastfeeding initiation rate was 94.1% versus 86.2% in China ($p < 0.001$). Breastfeeding duration was longer, the "full breastfeeding" rate was greater at 6 months, and "any breastfeeding" rates at 6 and 12 months were also greater in Chinese-Australian mothers. Binary logistic regression analysis indicated that the mother's location was significantly associated with breastfeeding practices. Mothers in Chengdu were both less likely to initiate breastfeeding (OR = 0.47; 95% CI 0.25-0.89) and to be breastfeeding at 12 months (OR = 0.48; 95% CI 0.33-0.69) than Chinese mothers in Perth.

Comment: (Elsie) The findings from this study suggest that migration to another country has potential influences on breastfeeding practices. Better breastfeeding education and information in Australia may contribute to the higher breastfeeding initiation and longer breastfeeding duration of Chinese mothers in Australia compared to those living in China. The results could also be explained partly by the "healthy selection process", when mothers in Perth might be healthier and have a healthier lifestyle than mothers in Chengdu, which would affect their breastfeeding practices. As New Zealand's population has a high proportion of immigrants, this topic clearly also requires attention in this country.

Reference: *J Hum Lact.* 2013;29(2):246-52

<http://jhl.sagepub.com/content/29/2/246.abstract>

Ethnic, socioeconomic and geographical inequalities in road traffic injury rates in the Auckland region

Authors: Hosking J et al.

Summary: This study examined the effect of differences in age, gender, prioritised ethnicity and small area deprivation (New Zealand Index of Deprivation) on rates of road traffic injury (RTI) in Auckland using Poisson regression across 21 local board areas. These analyses indicate that RTI rates increase with deprivation across all age groups, with the gradient of increase being steepest among children (9% increase/decile) and 25-64 year old adults (11% increase/decile). Across all age groups, the risk of RTI was highest amongst Māori. Compared with those classed as NZ European/Other, Pacific children also had an elevated risk, but a lower risk was observed in Pacific youth (15-24 years) and adults (25-64 years). Generally, RTI rates were higher in rural local board areas, although the highest rates were observed in the southern Auckland urban area.

Comment: (Shanthi) At risk of 'blowing one's own trumpet', this paper published with my colleagues at the School of Population Health and Auckland Transport, is included as a reminder of the risks of complacency. In general (and there's the rub!), rates of road crashes among 'Asian' communities are considered reassuringly low, especially compared with the high rates among Māori and Pacific communities. However, many studies (and this analysis is not an exception) do not have sufficient data to distinguish specific groups within 'Asian' communities that may have rates that could (and should) be in the spotlight. Recent preventable road deaths in the region have raised increasing concerns regarding risks borne by new migrants, international students, and young Asians who engage in risky driving/riding. This could be a marker of attitudes and behaviours accompanying the stress of marginalisation experienced by some minority youth.

Reference: *Aust N Z J Public Health* 2013; 37(2):162-7

<http://tinyurl.com/kolpa7d>

Auckland Regional Settlement Strategy Migrant Health Action Plan



Making a healthy difference to the community



The Asian Health Review has been commissioned by the Northern DHB Support Agency (NDSA) on behalf of the Auckland Regional Settlement Strategy Migrant Health Action Plan Programme which represents Waitemata, Auckland and Counties Manukau District Health Boards.

The Migrant Health Action Plan is available on this website: <http://www.ssnz.govt.nz/publications/AuckRSS.pdf>

'Where do I go from here'? A cultural perspective on challenges to the use of hospice services

Authors: Frey R et al.

Summary: This study aimed to identify challenges to hospice service access among Māori, Asian and Pacific patients by conducting qualitative interviews with 37 self-identified Māori, Pacific and Asian cancer patients, their whānau/family, and 15 health professionals (GPs, oncologists and allied health professionals). Those interviewed included users and non-users of hospice services identified by a health professional as having palliative care needs. Barriers to hospice service utilisation include lack of awareness of available services and misconceptions of the nature of hospice services. Language issues were reported for Asian patients and families. Issues were also raised concerning the ethnic representativeness of hospice services staff.

Comment: (Elsie) The findings of this study highlight the importance of patient and family knowledge of hospice care for utilisation of services. Within Asian communities, many patients and their families have never heard about palliative care, have stigma attached to hospice service use, or have misinformation or misunderstandings about the nature of palliative care and hospice services. These barriers are created, in part through issues with language, and by the cultural presumptions held by some healthcare providers. The study supports the need for increasing the cultural responsiveness of hospice services, including providing educational programmes designed to reflect the cultural diversity of the communities they serve.

Reference: *Health Soc Care Community* 2013;21(5):519-29

<http://onlinelibrary.wiley.com/doi/10.1111/hsc.12038/abstract>

Bone health comparison in seven Asian countries using calcaneal ultrasound

Authors: Kruger MC et al.

Summary: This study by New Zealand researchers used Lunar Achilles (GE Healthcare) heel ultrasound scanners to assess bone health in 598,757 women and 173,326 men aged >21 years from seven Asian countries (Singapore, Vietnam, Malaysia, Taiwan, Thailand, Indonesia and the Philippines). Stiffness index (SI) was measured and T-scores generated against an Asian database. Men exhibited a higher mean SI than women. SI and T-scores were found to decline slowly and steadily in men, reaching a mean of -2.0 to -2.5 at around 81-85 years of age. In women these scores declined slowly until approximately 45 years of age, then declined rapidly to reach a mean T-score of <-2.5 at around 71-75 years of age. Significant between-country differences in the rate of decline were seen for women, with Vietnam having the fastest decrease for both SI and T-Score (this country exhibited the poorest bone health of all countries at older ages). For both sexes, the lowest T-scores amongst all age groups were seen among individuals residing in Vietnam and Indonesia; these countries also exhibited the lowest SI in both men and women aged 46-85 years. It is estimated that more than 50% of women aged over 70 years in Vietnam and Indonesia could be at risk of osteoporosis and related fractures, while in the Philippines and Thailand this rate was estimated in those >80 years.

Comment: (Shanthi) Osteoporosis and poor bone health result in hip fractures and multiple insults to the quality of life, especially as people get older. Bone density screening to identify and treat osteoporosis is reasonably common practice in NZ – although the costs are not minimal. This study, funded by Fonterra Brands (Singapore) Ltd, uses a relatively low-cost heel ultrasound scan to assess bone health in the general population of seven Asian countries. While the results cannot be considered diagnostic (this is a screening test), the findings suggest osteoporosis is common, especially among people aged in their 50s and older. This seemingly 'silent' condition requires greater attention, especially given increasing rates of hip fracture among Asian people.

Reference: *BMC Musculoskelet Disord.* 2013;14:81

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602652/>

Chewing tobacco use among South-East Asian men in Auckland

Authors: Lokhande S et al.

Summary: Ten South East Asian men who regularly partook in chewing tobacco participated in semi-structured interviews. All of the men attributed their introduction to tobacco chewing to the influence of their friends and society. All of the men wanted to quit their habit and were aware that chewing tobacco could increase their risk for oral cancer.

Comment: (Elsie) This paper draws attention to the use of chewing tobacco in the South East Asian communities in New Zealand. Although New Zealand law prohibits the import and sale of oral tobacco, the respondents in this study were still able to get chewing tobacco via friends and family bringing it into the country. Restricting access to chewing tobacco is one way to encourage users to stop. Besides, the study found that problems related to language, cultural norms and not knowing how to access cessation information or support specific to chewing tobacco use were key barriers preventing users to quit. Further research is needed to identify effective chewing tobacco cessation methods and culturally appropriate approaches to work with this Asian subgroup.

Reference: *Int J Migr Health Soc Care* 2013;9(1):46-52

<http://tinyurl.com/p3ft9cr>

Asian Health Review

Independent commentary by Professor Shanthi Ameratunga.



Professor Shanthi Ameratunga has a personal chair in Epidemiology at the University of Auckland. A paediatrician and public health physician by training, Shanthi's research focuses on trauma outcomes, injury prevention, disability and youth health. She is the Project Director of the Traffic Related Injury in the Pacific (TRIP) Study, a collaboration with the Fiji School of Medicine, funded by The Wellcome Trust and the Health Research Council of New Zealand.



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Culture and sun exposure in immigrant East Asian women living in Australia

Authors: Jang H et al.

Summary: Cultural and attitudinal factors possibly related to sun-exposure behaviours among East Asian women living in Australia were investigated in this qualitative study involving 20 Chinese and 16 Korean immigrant women who participated in a larger cross-sectional quantitative study looking at vitamin D blood levels. The following factors relating to attitudes and behaviours with regard to sun exposure were reported; a preference for fair skin, a tradition of covering skin when outdoors and a no-sunbathing culture. Overall, beauty was the reason for their active avoidance of sunlight exposure. Among the cohort, there was a lack of knowledge regarding the benefits of sun exposure for adequate vitamin D levels.

Comment: (Elsie) This study identified prevailing cultural beliefs and attitudes associated with sun-avoidance behaviour among East Asian immigrant women living in Australia. Their negative attitudes toward sun exposure were, to a certain extent, also influenced by public health campaigns regarding the need for sun avoidance due to skin cancer risk. However, excessive sun protection means that people may not achieve enough sun exposure to maintain adequate vitamin D levels. Hence, advice on balancing the risk of skin damage and skin cancer against the risk of vitamin D deficiency is clearly necessary. In New Zealand, a consensus statement on vitamin D and sun exposure was released by the Ministry of Health in 2012 to provide clinical guidelines on the subject (reviewed in [Issue 4](#)). Although East Asian people are not identified as a high-risk group, the findings from this Australian study draws attention to the need to develop specific health promotion programmes to raise awareness of the importance of vitamin D for the growing East Asian population in NZ.

Reference: *Women Health. 2013;53(5):504-518*

<http://tinyurl.com/onggf5l>

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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Perceived barriers to initiating and maintaining physical activity among South Asian and White British adults in their 60s living in the United Kingdom: a qualitative study

Authors: Horne M et al.

Summary: This UK study used an exploratory qualitative approach with 15 focus groups and 40 in-depth interviews in order to explore the barriers to initiating and maintaining regular physical activity among UK-dwelling South Asian (Pakistani and Indian) and White British adults in their 60s. Both groups expressed misunderstandings about the value of exercise in later life and this was more evident in those with ongoing healthcare problems. Both men and women in these groups believed that physical activity could exacerbate pre-existing health problems and result in physical harm. It was found that ethnic-specific factors, such as religious beliefs, cultural practices and language barriers could act as additional barriers to undertaking and maintaining physical activity among older UK South Asian adults.

Comment: (Shanthi) The health benefits of physical activity are widely assumed to be self-evident. But physical inactivity remains one of the leading risks to global population health. The qualitative study from the UK reminds us that while some ethnic-specific factors require focussed attention in community-based health promotion strategies, perceived barriers among South Asian people share much in common with their White British counterparts. It is likely that in a highly car-dependent country like NZ, the barriers to physical activity among Asian ethnic groups would be even greater. Eliminating barriers to active modes of travel, especially for older pedestrians and people who use assistive devices, should be an indicator of social quality and equity in 'age-friendly' communities.

Reference: *Ethn Health 2013;Jul 8 [Epub ahead of print]*

<http://tinyurl.com/ptuvtua>

A systematic literature review of sport and physical activity participation in culturally and linguistically diverse (CALD) migrant populations

Authors: O'Driscoll T et al.

Summary: This systematic review examined 72 published articles (6 interventions, 18 qualitative and 48 quantitative studies) and identified 44 correlates of sport and physical activity participation in culturally and linguistically diverse migrant groups, highlighting complexities inherent in working with migrants. These correlates were grouped into four general themes; acculturation, demographic, psychosocial and environmental/organisational. While some generalisable correlates, such as social support and safety, were identified by the social-ecological model used in the analysis, many diverse and unique correlates (and complex interactions between these correlates) were also identified. The complexity of these relationships can only be understood in the context of a deep understanding of the culture and acculturation of the migrant group.

Comment: (Shanthi) While the theories, research concepts and methodological challenges in this article make for some heavy reading, one simple fact stood out for me. Despite their 'exhaustive' search, the authors found only six studies that investigated the effectiveness of strategies designed to promote the participation of CALD communities in sport and physical activity. And we don't know much about what works yet. I was heartened by some enthusiastic discussions on this topic at the Diversity Forum hosted by the Human Rights Commission at Te Papa recently. Perhaps that infectious 'can do' attitude will stimulate and mobilise CALD communities in NZ to show what works.

Reference: *J Immigr Minor Health. 2013;Jun 15 [Epub ahead of print]*

<http://link.springer.com/article/10.1007%2Fs10903-013-9857-x>



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