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Māori Health Review™

Making Education Easy

Issue 56 – 2015

In this issue:

Abbreviations used in this issue
BMI = body mass index
CVD = cardiovascular disease
SCC = squamous cell carcinoma

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Tēnā koutou katoa

Nau mai ki tenei Tirohanga hou Hauora Māori. He rangahau tuhi hou e paa ana ki nga hau ora a ki te oratanga o te Māori. No reira noho ora mai raa i o koutou waahi noho a waahi mahi hoki. Ngā mihi mahana ki a koutou katoa. Noho ora mai.

Greetings

Welcome to this issue of the Māori Health Review. Each issue attempts to bring you research relevant to the health and wellbeing of Māori. I welcome feedback and suggestions for papers/research to include in future issues and I'm pleased to hear and read about the excellent work being undertaken in Hauora Māori.

Nga mihi
Matire
Dr Matire Harwood
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Removal of Special Authority requirements for clopidogrel improved optimal care following percutaneous coronary intervention across sociodemographic groups

Authors: Mehta S et al.

Summary: These researchers investigated whether optimal clopidogrel therapy following percutaneous coronary intervention (PCI) differed systematically by sociodemographic characteristics during and after Special Authority funding restrictions, which required hospital-specialist approval for full funding. The study population included all New Zealanders with publicly-funded admissions for PCI who were discharged between 1 July 2009 and 31 December 2009 (while SA criteria for clopidogrel were applicable) and from 1 September 2010 to 28 February 2011 (after removal of SA requirements). Data were analysed from 2146 patients discharged following PCI during the last 6 months of 2009 and from 2347 patients discharged in the 6 months immediately following removal of SA restrictions. During the first discharge period, an overall 74% of patients had optimal clopidogrel dispensing (i.e., a medicine possession ratio [MPR] ≥0.8). After funding restrictions were lifted, optimal clopidogrel therapy following PCI improved to 81% across all sociodemographic groups. In both discharge periods, 2–3% of patients received no therapy. Irrespective of funding restrictions, almost all eligible patients received some clopidogrel therapy and there were few differences in optimal clopidogrel use between men and women, younger and older people and more and less deprived groups However, optimal clopidogrel-dispensing was 13–14% less likely among Māori and Pacific peoples relative to non-Māori/non-Pacific/non-Indian patients during funding restrictions. These findings for ethnic differences did not change appreciably once funding restrictions ended, despite absolute increases in dispensing.

Comment: A stimulating paper that presents an example of 'unequal treatment' in cardiovascular disease management – which disappears when funding barriers are removed, except for Māori, Pacifica and Indian people.

Reference: N Z Med J. 2015;128(1411):34-42
Abstract

Sociodemographic differences in the incidence of oropharyngeal and oral cavity squamous cell cancers in New Zealand

Authors: Chelimo C, Elwood JM

Summary: New Zealand cancer registry data were retrospectively analysed from all incident cases with a histological diagnosis of invasive squamous cell carcinoma (SCC) in the oral cavity or oropharynx. The study sought to determine whether the incidence of oropharyngeal and oral cavity squamous cell cancers differs by sub-site, age, gender, ethnicity and social deprivation. Between 1981 and 2010, rates of oropharyngeal cancers and oral cavity cancers were higher among males and increased with age. A rapid rise in male oropharyngeal cancers was observed among those aged ≥40 years. Overall and by gender, Māori had higher oropharyngeal cancer rates but lower oral cavity cancer rates than European/other ethnicities, whereas the inverse was apparent among Pacific Peoples. An upward trend in oropharyngeal cancer and oral cavity cancer rates with increasing deprivation was observed both overall and by gender. The study researchers point out that the strong association between the human papillomavirus (HPV) and the development of oropharyngeal SCC suggests that HPV vaccination and public health awareness may help to prevent oropharyngeal cancer. HPV-related oropharyngeal cancers respond to radiotherapy, which is expected to improve survival rates.

Comment: Great that the paper has not only described the 'statistics' but also the implications for management from these findings.

Reference: Aust N Z J Public Health. 2015;39(2):162-7
Abstract

Overweight and obesity in 4–5-year-old children in New Zealand: Results from the first 4 years (2009–2012) of the B4School Check programme

Authors: Rajput N et al.

Summary: This paper presents results from the first 4 years (2009 through 2012) of the B4School Check programme, a free health and development check for 4-year-olds that is part of the Well Child Tamariki Ora schedule of services. Demographic and body mass index (BMI) data were extracted for all children. Overweight and obesity rates were estimated using International Obesity Task Force (IOTF) 2012 standards and the 85th (overweight) and 95th (obese) percentiles for BMI-for-age of the World Health Organisation (WHO) 2006, Centers for Disease Control and Prevention 2000 and UK 1990 reference standards. The analysis included 168,744 BMI measurements, with a coverage rate of 66.5%. Mean BMI was 16.30 kg/m^2 in girls and 16.44 kg/m^2 in boys. Mean BMI z-score (WHO 2006 standards) was 0.601 in girls and 0.785 in boys. Prevalence of overweight and obesity varied between different reference standards. Using WHO 2006 standards, 16.9% of girls and 19.6% of boys were overweight and 13.8% of girls and 18.7% of boys were obese. Using IOTF standards, 18.3% of girls and 16.2% of boys were overweight and 5.7% of girls and 4.7% of boys were obese. Prevalence of overweight and obesity was higher in Pacific and Māori children and those living in more socioeconomically deprived areas than other children. No definite time-trends were observed over the study duration.

Comment: Dr Rhys Jones and others were recently on Media Take, Māori Television, discussing the wider context of obesity in NZ including the role of obesogenic environments and the discrimination faced by overweight people. It is well worth a watch http://www.maoritelevision.com/tv/shows/media-take/S02E004/media-take-series-2-episode-4

Reference: J Paediatr Child Health. 2015;51(3):334-43
Abstract

Independent commentary by Dr Matire Harwood

Dr Matire Harwood (Ngapuhi) has worked in Hauora Māori, primary health and rehabilitation settings as clinician and researcher since graduating from Auckland Medical School in 1994. She also holds positions on a number of boards, committees and advisory groups including the Health Research Council. Matire lives in Auckland with her whānau including partner Haunui and two young children Te Rangiura and Waimarie.

CONGRATULATIONS
to Hariata Vercoe of Korowai Aroha Heath Centre, Rotorua, winner of an iPad mini for subscribing to Māori Health Review.

Feasibility of an after-school group-based exercise and lifestyle programme to improve cardiorespiratory fitness and health in less-active Pacific and Māori adolescents

Authors: Chansavang Y et al.

Summary: These researchers evaluated the feasibility of a 6-week after-school exercise and lifestyle programme designed to improve cardiorespiratory fitness, health and usual activity in less-active Pacific and Māori adolescents. The programme recruited 18 less-active secondary school students (13 were Pacific ethnicity and 5 were Māori), who participated in 3 x 1.5 hour exercise and healthy lifestyle sessions per week. An average of just over 50% of students attended each session. Outcomes data are reported for 16 participants who completed the 6-week follow-up. At baseline, the mean age of all study participants was 16.3 years, BMI 35.2 kg/m^2, VO_2max 31.5 mL/kg/min, systolic blood pressure (BP) 125.0 mm Hg, glycated haemoglobin (HbA_{1c}) 39.9 mmol/mol, and fasting serum insulin 28.3 µU/mL. At follow-up, improvements had occurred in VO_2max (3.2 mL/kg/min; p=0.02), systolic BP (–10.6 mm Hg; p=0.003), HbA_{1c} (–1.1 mmol/mol; p=0.03) and weekly vigorous (4 hours, p=0.002) and moderate (2 hours, p=0.006) physical activity, although waist circumference increased (p=0.005). Comments were mostly positive.

Comment: A completion rate of 89% for an after-school, exercise programme with adolescents is commendable. The full details of the programme are provided in the paper and would be useful for people designing similar programmes at school, or through marae, churches or sports clubs.

Reference: J Prim Health Care. 2015;7(1):57-64
Abstract

Who attends Dunedin's free clinic? A study of patients facing cost barriers to primary health care access

Authors: Loh L, Dovey S

Summary: Dunedin's free clinic ('Free Clinic') is a not-for-profit primary health care clinic that opened in January 2010, providing medical, nursing, counselling and occupational therapy services at no charge to patients. These researchers distributed a written survey to waiting room patients at the Free Clinic and a nearby traditional (fee-charging) general practice clinic. Patient records were accessed to determine health services utilisation rates at both clinics and the discounting rate at the traditional clinic. Surveys were completed and returned by 126 patients at the Traditional Clinic and by 65 at the Free Clinic. Significantly more respondents at the Free Clinic identified as Māori as compared with those at the Traditional Clinic (24.1% vs 9.2%; p=0.011). At the Traditional Clinic, nearly half the respondents had no deprivation characteristics and 13.3% had ≥5 deprivation characteristics (p<0.001). In contrast, 65.5% of the Free Clinic participants had ≥5 deprivation characteristics, and only 2% had no deprivation characteristics. Moreover, all enrolled Free Clinic respondents held a Community Services Card, compared with 35.0% of the Traditional Clinic participants. The NZDep2006 profile of the Traditional Clinic participants mirrored that of Dunedin residents, with 15.8% residing in NZDep2006 quintile 5, as compared with 41.4% of participants at the Free Clinic (p<0.001). Emergency department presentation rates were high for Free Clinic patients, despite free primary care access and high general practitioner consultation rates. Among Traditional Clinic respondents, 31.7% reported deferring health care because of cost in the previous 12 months. The equivalent figure for Free Clinic respondents was 63.8%.

Comment: It may be worthwhile undertaking a similar project for after-hours primary care and dental care.

Reference: J Prim Health Care. 2015;7(1):16-23
Abstract

Health and economic impacts of eight different dietary salt reduction interventions

Authors: Nghiem N et al.

Summary: These researchers developed a Markov macro-simulation model to perform epidemiological modelling and a cost-utility analysis of detailed individual-level health system cost data, in order to compare the impact of 8 sodium reduction interventions in New Zealand. Some interventions were voluntary (e.g., dietary counselling, a labelling programme and a campaign undertaken in the UK) and others were mandatory (requiring national laws for: legal limits on sodium in processed foods, a salt tax, and a "sinking lid" on the supply of salt to the New Zealand market). The largest health gain was from the potential intervention of a sinking lid in food salt released to the market to achieve an average adult intake of 2300 mg sodium/day (211,000 quality-adjusted life-years [QALYs] gained, 95% uncertainty interval: 170,000 to 255,000). This QALY benefit was followed in descending order by that from: (i) a salt tax (195,000 QALYs gained); (ii) mandatory 25% reduction in sodium levels in all processed foods (110,000); (iii) the package of interventions performed in the UK; (iv) mandatory 25% reduction in sodium levels in bread, processed meats and sauces (61,700); (v) media campaign (as per a previous UK one) (25,200); (vi) voluntary food labelling as currently used in NZ (7900); (vii) dietary counselling as currently used in NZ (200 QALYs gained). All the interventions produced net cost savings (except counselling – albeit still cost-effective). Cost savings were especially large with the sinking lid (NZ$1.1 billion, US$0.7 billion). Moreover, the salt tax would raise revenue (up to NZ$452 million/year). Health gain per person was greater for Māori (indigenous population) men and women compared to non-Māori.

Comment: A great example of the need for political leadership to tackle 'nutrition'-related policies, with much to gain for Māori health.

Reference: PLoS One. 2015;10(4):e0123915
Abstract

For more information, please go to http://www.maorihealth.govt.nz

Movers and stayers: The geography of residential mobility and CVD hospitalisations in Auckland, New Zealand

Authors: Exeter DJ et al.

Summary: This study investigated the association between residential mobility and cardiovascular disease hospitalisations in Auckland, New Zealand. The study researchers used an encrypted National Health Index number to link individual-level data recorded in routine health datasets (e.g., Primary Health Organisation [PHO] registrations, pharmaceutical dispensing, hospitalisations and mortality) to construct a cohort of approximately 670,000 patients aged ≥30 years old living in Auckland, between 1 January 2006 and 31 December 2012. Residential mobility was measured by changes in the census Meshblock of usual residence, obtained from the PHO database for every calendar quarter of the study period. The NZDep2006 area deprivation score at the start and end of a participant's inclusion in the study was used to measure deprivation mobility. In multivariable binomial regression models that controlled for age, gender, deprivation and ethnicity, movers were 1.22 times more likely than stayers to be hospitalised for CVD. Using the 5 × 5 deprivation origin-destination matrix to model a patient's risk of CVD based on upward, downward or sideways deprivation mobility, movers within the least deprived (NZDep2006 Quintile 1) areas were 10% less likely than stayers to be hospitalised for CVD, while movers within the most deprived (NZDep2006 Quintile 5) areas were 45% more likely than stayers to have had their first CVD hospitalisation in 2006–2012 (RR 1.45). Participants who moved upward also had higher relative risks of having a CVD event, although their risk was lower than those observed for participants experiencing downward deprivation mobility.

Comment: The Auckland population seems to be very mobile, in my experience as a researcher and GP here. If my experience is 'real', then this study is particularly interesting and would perhaps support calls for 'virtual' medical records that patients and their providers can access from anywhere.

Reference: Soc Sci Med. 2015;133:331-9
Abstract

Preliminary findings from the Oranga Niho dental student outplacement project

Authors: Anderson VR et al.

Summary: This study examined stakeholder perspectives of the University of Otago Bachelor of Dental Surgery 2012–2013 clinical outplacement programme, involving 6 Māori Oral Health Providers (MOHPs) in the North Island (NZ). Pre- and post-outplacement online questionnaires were completed by 68 students; clinical supervisors from all 6 MOHPs were surveyed twice over a 12-month period (31 responses were received). Paper questionnaires were used to survey adult clients and caregivers of child clients that the students treated; 426 client and 130 caregiver questionnaire responses were received from 5 MOHPs. The majority (79%) of students felt well prepared for outplacement and 75% indicated that they would consider working for a MOHP in future. Nearly all of the clinical supervisors (93%) indicated that the students were adequately prepared for outplacement and 68% stated that they would recommend one or more students for employment. However, 58% associated the outplacements with decreased productivity. Almost 98% of adult clients and caregivers of child clients were pleased with the care that the students provided. The study researchers conclude with recommendations intended to inform and strengthen the programme's ongoing development: increase communication between the Faculty, MOHPs and students; address the financial cost of the programme to the MOHPs; and provide more support for clinical supervisors.

Comment: An excellent evaluation of a programme that would support not only Māori providers, but importantly, their clientele as well.

Reference: N Z Dent J. 2015;111(1):6-14
Abstract

Looking Māori predicts decreased rates of home ownership: Institutional racism in housing based on perceived appearance

Authors: Houkamau CA, Sibley CG

Summary: These researchers used data from a large national postal sample of 561 self-identified Māori who completed the New Zealand Attitudes and Values Study Time 4 Māori Focus questionnaire. A statistical model assessed whether reliable differences exist in rates of home ownership within the Māori population, that is, the extent to which some Māori are more likely to own their own home (partially or fully) relative to other Māori. Specifically, the study researchers tested whether Māori who perceive themselves as appearing more stereotypically Māori are less likely to own their own home relative to those who believe they appear less stereotypically Māori. The study's analyses indicated that self-reported appearance as Māori, or the extent to which people thought they personally displayed features which visibly identified them as Māori to others, significantly predicted decreased rates of home ownership. This association held when adjusting for numerous other possible demographic covariates that might account for the association, such as education, level of deprivation of the immediate area, household income, age, relationship status, region of residence, amongst others. The study researchers conclude that their findings suggest there is, or at least has been in the recent past, institutional racism against Māori in New Zealand's home lending industry based on *merely appearing more Māori*.

Comment: Reading this paper actually bummed me out. Despite the glaringly obvious point of interest here, I want to also highlight the fact that the researchers have looked at a defined outcome – home ownership. Previous studies into the link between racism and housing have relied on subjective experience and so it is worth adding this paper to the ever-increasing body of knowledge about the impacts of racism in Aotearoa.

Reference: PLoS One. 2015;10(3):e0118540
Abstract

Long-term effectiveness of a community-based model of care in Māori and Pacific patients with type 2 diabetes and chronic kidney disease: A 4-year follow-up of the DElay Future End Stage Nephropathy due to Diabetes (DEFEND) study

Authors: Tan J et al.

Summary: In the DEFEND study, Māori and Pacific patients (aged 47–75 years) with type 2 diabetes, hypertension, stage 3/4 chronic kidney disease and proteinuria (>0.5 g/day) were randomised to receive community-based care (n=33) or usual care (n=32) for 12 months. The community-based intervention was associated with lower BP, proteinuria and less end-organ damage than usual care. After the intervention ended, all patients reverted to usual care, and were followed-up thereafter until death, end-stage renal disease (ESRD; estimated glomerular filtration rate [eGFR] ≤10 mL/min/1.73m^2)/dialysis or 1 February 2014. The median post-trial follow-up was 49 months and similar in both groups. The median eGFR decline was –3.1 and –5.5 mL/min/year in the intervention and usual care groups, respectively (p=0.11). Similar numbers of deaths, renal and vascular events were observed in both groups. At the end of the 4-year follow-up, the mean number of prescribed antihypertensive medications was similar (3.4 vs 3.3, respectively; p=0.78). The median number of hospital days was 8 with the intervention compared with 15.5 days with usual care (p=0.03).

Comment: An important project showing that a Māori-led intervention in the community can have long-term impacts. This may be something that DHBs should consider, given higher rates of ESRF for Māori.

Reference: Intern Med J. 2015 Apr 14. [Epub ahead of print]
Abstract

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