CONFERENCE PRESENTATIONS
(from 2012 – presentation results/conclusion are included for information)
(183 presentations so far)

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SUBMITTED

Metabolic syndrome is associated with residential-area crime rates for men and perceived crime for women:
Gender differences in social vulnerability to metabolic syndrome. 5th International Congress on Prediabetes and
the Metabolic Syndrome, Vienna, Austria, Apr 2013.

RESULTS: The prevalence of MetS was, for men (n=680), 41.9% (95%CI=38.2-45.7), and for women (n=764), 29.1% (95%CI=25.9-32.4). For men, MetS was associated with rates of violent crime (OR=1.22, 95%CI=1.01-1.47) and total crime (OR=1.21, 95%CI=1.01-1.46), but not perceived crime. For women, MetS was associated with perceived crime (OR=1.26, 95%CI=1.05-1.50), but not reported crime.

CONCLUSIONS: Crime is an adverse social exposure. MetS is associated with perceived crime in women and reported crime rates in men. These differentials suggest gender-specific causal pathways by which awareness and perception of adverse social exposures relate to MetS independent of socioeconomic factors.

2012

ORAL PRESENTATIONS


RESULTS: In univariate models, gender, marital status, level of education and gross annual household income were statistically significant with adaptive behaviour. After controlling for confounders in a multivariate model, level of education and gross annual household income were statistically significant with adaptive behaviour. CONCLUSION: These predictor variables should be taken into account when authorities and health promotion professional are designing programmes to reduce heat-related morbidity and mortality.


RESULTS: No evidence was found of associations between participants’ local food environment or POS, and change in central obesity over 10 years. CONCLUSION: These results do not support a longitudinal association between the built environment and central obesity. Research considering the dynamic nature of the built environment and assessing how both the environment and obesity co-vary over time is necessary, however, before ruling out built environmental effects on changes in obesity status.


RESULTS: Among all MAILES participants, n= 184 (11.3%) self-reported a previous diagnosis of OSA on a sleep study [mean age:62.0 (sd 10.1), prevalence of diabetes:24%, metabolic syndrome:63%, hypertension:61%, and abdominal obesity:66%]. Sleep study participants (no prior diagnosis of OSA) did not differ from the rest of the cohort in anthropometry, co-morbidities or socio-economic status. Mean age was 59.6 (sd 10.8) years. Among the sleep study participants, n=451 (53%) had an AHI >10: AHI 20-29, and AHI ≥30 were demonstrated in 14.0% (n=119) and 12.3% (n=105) respectively. OSA prevalence increased significantly with age (<50 yrs 41.2%, >70 yrs 63.2%), and was significantly more likely in those with financial stress, lower incomes, and perceived dissatisfaction at work. Among those with OSA (AHI >10),
n=198 (51%) had a score on the Pittsburgh Sleep Questionnaire >5, and n=83 (9.8%) had an Epworth scale score >10. Those with previously undiagnosed OSA were significantly more likely to have diabetes (age adjusted OR 1.8, 95% CI 1.1, 2.7), metabolic syndrome (OR 1.9, 95% CI 1.4, 2.6), depression (OR 2.2, 95% CI 1.4, 3.3), hypertension (OR 1.9, 95% CI 1.4, 2.5), waist-to-hip ratio >1 (OR 1.5, 95% CI 1.1, 2.0).

DISCUSSION: OSA is highly prevalent in men aged over 40 years, with most being undiagnosed. Men with undiagnosed OSA have concurrent metabolic conditions similar to those expected in OSA. The burden of undiagnosed OSA is substantial and demands innovative methods to extend screening and diagnosis in the community.


RESULTS: For all age groups (35-44, 45-54, 55-64, 65-74) except the 75+ group, there were non-significant decreases in angina and CVD between baseline and follow-up. These age-specific changes weren’t evident in overall rates. All CVD 10.9% (9.7-12.1) to 11.3 (9.9-12.7). There were trends to increasing anti-hypertensive use for all age groups and reductions in CVD risk factors (waist circumference >100cm, hypertension, and glucose > 7.0mmol/L) for all age groups except the 75+ group. Reductions in current smoking and low HDL cholesterol (<0.9mmol/L) were observed in all age groups, significantly so for HDL in all age groups <65. Conclusions: CVD and CVD risk factor rates were reduced in all but the eldest age group. Reductions in CVD risk factors including smoking suggest a possible reduction in future CVD burden with ongoing pharmacological management of blood pressure and cholesterol.


RESULTS: RLI (relative location index) resulted in a detailed property based SES measure for health and social research. As the RLI is based upon property location, the measure can be used to analyse SES variation within spatial units or with detailed address geocoded health data. CONCLUSION: RLI provides a household level property status measure that provides a SES measure for health research that can supplement or substitute for SEIFA. RLI provides the basis for SES and health research accounting for ecological fallacy and MAUP (modifiable areal unit problem).


RESULTS: Participants who moved (mean 0.09) within the same quintile of IRSD had better self-reported health than their ‘non-mover’ (mean -0.17, p=0.003) counterparts. Self-reported health did not differ in relation to ‘non-mover’ counterparts for those participants who moved into more or less deprived areas. CONCLUSIONS: This study indicates that self-reported health does not change when moving into more or less deprived areas and is positively impacted only by moving within the same socio-economic context. The health impact of movement requires further research that accounts for the complexity of mobility processes. KEY MESSAGE: Longitudinal health studies should account for mobility patterns to provide insights into place and health relationships over time.


RESULTS: Overall, over 50% of respondents reported pain and/or stiffness in at least one of the following areas: shoulder, hip, knee, foot, hand and back. Logistic regression analysis adjusting for age and sex indicated that there was a significant association between current smoking and ever having self-reported hip (OR 1.7, 95% CI 1.2-2.5) and shoulder pain (OR 1.4, 95% CI 1.1-1.9) while a non-significant associated existed for the other joint areas. Adjustment for various other covariates such as socioeconomic status also impacted on the association. CONCLUSIONS: There is a positive association between the presence of musculoskeletal pain and smoking in a community based cohort. This association is however impacted by various other factors highlighting a complex relationship between smoking and pain.

RESULTS: Incremental daily traffic density was associated with significant decreases in lung function in all subjects with atopic asthma and in males. Exposure-response relationships in all COPD cases and in males were found across categories of traffic density for lung function parameters. For example, in all COPD cases, average predicted preFEV1% was 72% in the low exposure (<7179 cars) and 63% in the high exposure group (>15269 cars) (p <0.05). Regression analysis indicated significant decrements for all and for male subjects with COPD across a range of lung function parameters in association with increasing traffic density.

CONCLUSION: People with pre-existing respiratory conditions are affected by where they live in relation to traffic density. This has repercussions for planning, where increasing density of cities alongside major transport routes is the current concept for the future.


RESULTS: Participants had a good understanding about the effects of heat waves and the study found that there are certain emotional responses were associated with heat waves. Interviews revealed that heat waves could result in skin cancer, heat exhaustion, heat stroke, disruption in social life, stress, tiredness, depression, sleeplessness, moodiness, irritability. In addition, fear and anxiety were among the emotional responses cited by the participants. During a heat wave, participants are concern and worried about the safety of their grandparents, their pets, garden, their health, fitness, the cost of running an air conditioner and the threat of bush fires. CONCLUSION: This paper highlights the fact that the community is aware about the effects of heat waves and that heat waves are a major public health concern. It further draws attention to the fact that emotional responses are associated with impacts associated with climate change.


RESULTS: Dog walking is not a strong predictor of physical activity even after accounting for breed of dog and typical breed energy requirements but dog owners still exercise more in non-dog walking forms of exercise than non-dog owners. CONCLUSION: These results do not support a clear association between dog ownership, type of dog and physical exercise, at least partly because most people do not exercise their dogs enough and partly because people with high energy breeds do not walk them more than people with small or sedentary breeds. The time dog owners spend exercising is not correlated with the time spent exercising via dog walking, suggesting that active people are more likely to have a dog, but not necessarily more likely to walk it. The direction of causality needs further research.


RESULTS: Most of the participants did not associate recent heat waves with global warming, although a few acknowledged the fact that there have been observable changes in weather pattern in recent years. Among those who did not believe global warming was the cause of heat waves, ozone layer depletion, air pollution, the geographic location and urbanisation was mentioned as the cause of heat waves in Adelaide. While some participants agreed with scientific projections that heat waves will likely increase in the future, others disagreed maintaining that scientists were not “super human beings” to predict what would happen in the future. Participants’ adaptive behaviour to heat waves was not influenced by their scientific understanding and views about global warming. The most significant barrier to adapt to heat waves was the financial cost of running an air conditioner. CONCLUSION: This study highlights differences in expert and lay knowledge on scientific aspects regarding heat waves. Individuals understanding of heat waves depends on human judgement and may equally be influenced by information they get from the media, friends and family. The paper concludes by suggesting some policy options to facilitate adaptation to heatwaves in Adelaide.

14. Buckley J. Baby boomers: planning for a healthy old age or just letting it ‘all hang out’? 11th Global Conference of the International Federation of Aging Prague (Czech Republic), May/Jun 2012.

RESULTS: A strong discrepancy was observed between health beliefs and behaviours across the cohort, however, structural and psychosocial constraints were more common in at-risk subgroups while time constraints were more common in mainstream groups. Gender differences in relation to physical activity were also notable. CONCLUSION: Health policies need to take diversity within the cohort into account and programme development should incorporate an awareness of how barriers to healthy lifestyles vary by gender, age and subgroup.


RESULTS: Initial results show a substantial increase in lifestyle risk factors such as obesity and alcohol but a reduction in smoking. In the baby boomer sub-cohort there is also a gender convergence of smoking and alcohol risk that was not present for the previous generation, suggesting the impact of social change on women’s lifestyles. Significant increases were also observed for arthritis, diabetes, hearing loss, migraine, asthma and back problems. CONCLUSION: These results have broad relevance to developed countries in the international community and have implications for health policy, government strategies on mature age participation and workplace health and wellness policies.


RESULTS: Initial results show a positive association between reduced labour participation and poor-fair self-rated health and/or chronic conditions, with this association varying by age and gender. In addition, job strain, low job satisfaction and variable work conditions were negatively associated with good-excellent self-rated health. CONCLUSION: The results from this study have significant policy implications for how health is managed in the workplace both in Australia and in other Western developed nations.


RESULTS: MetS was associated with both crime rate (OR 1.33, 95% CI 1.02, 1.72) and perceived crime (OR 1.18, 95% CI 1.03, 1.34), accounting for individual-level age, sex, education and income. Actual crime rate was associated with perceived crime (estimate=0.35, 95% CI 0.09, 0.60). Perceived crime was a statistically significant mediator linking crime rate to MetS (estimate=0.056, 95% CI 0.005, 0.129). The association between crime rate and MetS became non-significant after adjusting for area-level socioeconomic indicators. CONCLUSION: MetS is related to local-area perceived and actual crime, and perceived crime accounts for some of the relationship between actual crime and MetS. That area-level socioeconomic status removed the association between actual crime, but not perceived crime, and MetS, indicates an underlying complexity of social environmental influences.


RESULTS: The mean number of CMRS risk markers was 2.2 (SD=1.5). In multi-variable analyses, walkability was statistically significantly associated with cardio metabolic risk score (RR: 0.94 [0.91, 0.98]) for the 1600m buffer. CONCLUSION: Walkability was positively associated with cardio metabolic health.


RESULTS: In subjects with self-reported asthma (n=281, 11.3%), eosinophilia was present in 42.4% (n=118) and neutrophilia in 30.1% (84). Asthma control was significantly associated with ICS use, age <60, university education, higher household income and normal body mass index but not with sex, atopy or smoking status. Well-controlled asthma varied by blood granulocyte patterns, and was identified in the following patterns EOS low/NEU low 77.4%, EOS low/NEU high 43.8%, EOS high/NEU low 40.0%, EOS high/NEU high 32.1%, respectively (p<0.001). In multivariable logistic regression, well-controlled asthma was significantly associated with the EOS low/NEU low pattern (OR 5.23, 95%CI 1.76-15.5), female sex, overweight and age <60 years and inversely with ICS use. CONCLUSION: Measures from routine blood tests of granulocytes were strongly associated with recent asthma control. Studies to assess the value of therapy guided by blood testing may be warranted.

**RESULTS:** Study 1: Differences between mean Morris LA (Lung Age) and mean Newbury LA were approximately 20 years, with Morris under predicting LA in both healthy never smokers and current smokers compared with actual age. Study 2: Regression analysis confirmed significant differences between the 2 oldest and the 4 newest equations (NWAHS as comparison). Study 3: Preliminary analysis shows the FEV1/FVC LA equation results in greater variance in all subgroups (smokers/healthy never smokers) than the equations based on FEV1 alone. CONCLUSION: LA estimates differ with each equation used, apparently due to date of raw data collection, reflecting both cohort and period effects. International guidelines recommend updating predictive equations every 10 years. Our results support the use of recently-developed equations that are relevant to the population being studied. We hypothesise that more recently developed LA equations might have greater clinical utility for smoking cessation quit attempts.


**RESULTS:** The prevalence of asthma and wheeze was 18.1% (n=447) and 30.3% (n=727). Compared to the highest quintile of VitD, there was an increased prevalence of asthma (19.7% vs 13.6%, OR, 95% CI: 1.6, 1.1-2.3), wheeze (36.8% vs 28.0%, OR: 1.4, 1.1-1.9) and moderate-severe symptoms (11.0% vs 4.6%, OR: 3.0, 1.7-5.4) in the lowest VitD quintile and atopy prevalence decreased (60.5% vs 70.0%, OR: 0.6, 0.5-0.8) which persisted in multivariable analyses adjusted for age, sex, smoking, body mass index, household income. The relationship between VitD and wheeze was modified by smoking status, but otherwise associations of VitD, asthma and wheeze were not modified by atopy, age or smoking. **CONCLUSION:** VitD supplementation trials have been suggested to improve respiratory health however longitudinal studies are required to further investigate these relationships.

**POSTER PRESENTATIONS**


**RESULTS:** Agreement was poor between objective and perceived accessibility measures for supermarkets (kappa=0.09), greengrocers (kappa=0.04), and physical activity resources (kappa=0.10). Metabolic syndrome was associated with both objectively measured (OR=1.17, 95% CI 1.02-1.36) and perceived (OR=1.36, 95% CI 1.12-1.66) greater distance to the closest supermarket, and perceived greater distance to the closest greengrocer (OR=1.23, 95% CI 1.02-1.48) and physical activity resource (OR=1.25, 95% CI 1.01-1.54). **CONCLUSION:** Perceptions of local fresh food retailer and physical activity resource accessibility demonstrated superior predictive ability in relation to metabolic syndrome over objective measures. Environmental strategies aimed at improving population health might consider targeting residents’ perceptions of local-area resource accessibility, to enhance the effectiveness of such interventions.


**RESULTS:** Day time sleepiness (Epworth ≥10) was present in 17.7% (150). Mean age was 58.0 (SD=10) compared with 60.0 (SD=11) in non-sleepy men (p=0.03). Sleepiness was significantly associated with PSQI >5 (adjusted OR, 95% CI: 1.78, 1.22-2.60), but no associations with OSA (AHI≥10), oxygen desaturation index or socio-demographic factors were observed. Sleepiness was significantly associated with depression (age adjusted OR: 2.40, 1.53-2.77) lower urinary tract symptoms (LUTS, OR: 1.83, 1.23-2.71) and abdominal obesity (waist to hip ratio>1.0, OR 1.43, 1.00-2.07). As shown in the table, the presence of OSA exacerbates the rates of comorbidities including hypertension, diabetes and the metabolic syndrome (MetS). **DISCUSSION:** There is a significant burden of untreated daytime sleepiness in men aged over 40 years that was related to depression and LUTS and is. The comorbidity burden is increased with men with sleepiness and concomitant OSA.

RESULTS: Sleep study participants did not differ from the rest of the cohort in anthropometry, co-morbidities or socio-economic status. Mean age was 59.6 (sd 10.8) years. Among 451 (53%) men with OSA (AHI ≥10) there were modest, significant (p<0.01) decreases in scores across all SF-36 scales compared to no OSA (z-score difference range 0.06-0.19) except pain. SF-36 scores declined significantly with severity of OSA, with z-scores differences between mild (AHI ≥10-20) and severe (AHI >30) ranging from 0.09-0.25. Compared to men without OSA or sleepiness (ESS ≥10), men with both (n= 83, 9.8%) had significantly lower scores (p<0.01) across all SF-36 scales except bodily pain, with z-scores for mental health (MH) 0.62, general health (GH) 0.57 and Physical Functioning (PF) 0.42 lower. Men with OSA and disturbed sleep quality (Pittsburgh >5) (n=198, 23.3%) also had significantly lower scores in all scales except pain, with z-scores in MH 0.73, GH 0.47, PF 0.45 and Vitality 0.72 lower. DISCUSSION: The burden of undiagnosed OSA on HRQL among men in the community is substantial. The effect of OSA on HRQL is mostly seen in men who report sleepiness or decreased sleep quality, with moderate to large effect sizes reported that are comparable to other major chronic conditions.


RESULTS: Forty separate consumer information documents were examined which dealt with information regarding sleep conditions, sleep lifestyle factors, treatment of sleep disorders, and sleep in other health problems or states. Titles, subtitles, references, weblinks and advertising text were excluded from the analysis, with only body text and bullet point text included. The average percentage of complex sentences identified was 19%, (range 14-25). The table shows the distribution of information sheets by USDHHS classification and grade level. Comparison was also made with 7 consumer information sheets from the same website sourced in 2010, when 6 of 7 (86%) had reading levels at >12 grade. CONCLUSION: Although improvements have been made since 2010, the majority of information documents on the ASA website are written above the capabilities of the average adult and none complied with the USDHHS maximum recommended grade level.


RESULTS: 739 (87% of 841) sleep studies had >4 hrs total sleep time and technically adequate signals, including posture all night. %Supine sleep time was; mean±SD 30±26%, median 24% [IQR 9 to 45%]. 650 participants showed ≥5 min of both supine and non-supine sleep. 176 of 328 participants with AHI ≥10 /hr (54%; 95%CI 48 to 59%) showed supine-predominant OSA (supine:non-supine AHI ≥2 and non-supine AHI<10 /hr). Prevalence was similar with a cut-off of 20 /hr; 86 of 149 participants (58%; 95%CI 50 to 66%). Using less stringent criteria, 263 of 328 (80%; 95%CI 76 to 85%) and 110 of 149 (74%; 95%CI 67 to 81%) participants showed supine:non-supine AHI ≥2 using AHI cut-offs for OSA of ≥10 and ≥2 /hr respectively.

DISCUSSION: Supine-predominant OSA is remarkably common in older males in the community. If proven effective and acceptable to patients, simple supine avoidance strategies could benefit a large community group.


RESULTS: MetS was associated with total crime rate (OR 1.15, 95% CI 1.01, 1.30), crimes against the person (OR 1.15, 95% CI 1.02, 1.31), and perceived crime (OR 1.20, 95% CI 1.05, 1.37), but not property crimes (OR 1.12, 95% CI 0.99, 1.27), in analyses accounting for participant age, sex, income and education. Associations between reported crime rates and MetS lost their statistical significance once perceived crime was entered into models. CONCLUSION: Perceived crime was statistically significant in mediating relationships between crime rates and MetS. KEY MESSAGE: MetS is related to local-area reported and perceived crime, and perceived crime accounts for the relationship between actual crime and MetS.

Updated: 19/12/2012
2011

ORAL PRESENTATIONS


PUBLISHED ABSTRACTS


POSTER PRESENTATIONS


### 2010 (11 in total)

#### ORAL PRESENTATIONS


#### POSTER PRESENTATIONS


### 2009 (16 in total)

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**POSTER PRESENTATIONS**


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### PUBLISHED ABSTRACTS


### 2007 (14 in total)

#### ORAL PRESENTATIONS


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2006 (21 in total)

**ORAL PRESENTATIONS**


POSTER PRESENTATIONS


2005 (27 in total)

ORAL PRESENTATIONS


138. Gill T, Taylor A, Ruffin R. Costs associated with chronic conditions in the NWAH Cohort Study. Health Outcomes Canberra, Aug 05.


POSTER PRESENTATIONS


2004 (12 in total)

ORAL PRESENTATIONS


162. Phillips P. NWAH Study information. The Directions in Diabetes Medical Conference Adelaide, Mar 2004

POSTER PRESENTATIONS


169. Chittleborough C, Burke, Taylor A, Dal Grande E, Grant J. Why should we reduce obesity in the population? Health resource use implications. 18th World Conference on Health Promotion & Health Education Melbourne, Apr 2004.

2003 (8 in total)

**ORAL PRESENTATIONS**


**POSTER PRESENTATIONS**


2002 (5 in total)

**ORAL PRESENTATIONS**


**POSTER PRESENTATIONS**
