P2-166 RELATIONSHIPS OF RISK FACTORS FOR PRE-ECLAMPSIA WITH BLOOD PRESSURE CHANGES DURING NORMAL TERM PREGNANCY: THE AVON LONGITUDINAL STUDY OF PARENTS AND CHILDREN (ALSPAC)

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[1]C Macdonald-Wallis,* [1]K Tilling, [1]A Fraser, [2]S M Nelson, [1]D A Lawlor. *[1]University of Bristol, Bristol, UK; [2]University of Glasgow, Glasgow, UK*

Objective It is unclear whether established risk factors for pre-eclampsia are related to blood pressure (BP) changes across pregnancy in women who do not develop pre-eclampsia. We investigated these associations.

Methods We studied routine antenatal BP measurements for 11 789 women (median 14 per woman) in ALSPAC who had a live term birth without pre-eclampsia or previous hypertension. Linear spline random effects models with knots at 18, 30 and 36 weeks gestation described changes in BP with gestational age.

Results On average systolic BP (SBP) and diastolic BP (DBP) decreased until 18 weeks and then rose, with increasing rate at 30 and then again at 36 weeks. BP was higher at 8 weeks for obese women compared with normal weight women, nulliparas compared with multiparas, and for never-smokers compared with women who smoked throughout pregnancy or in the first trimester only. Women who smoked throughout pregnancy had consistently lower BP while women who smoked only in the first trimester attained a similar BP trajectory to never-smokers in late pregnancy. BP rose more slowly between 18 and 30 weeks and more rapidly between 30 and 36 weeks in obese women than in normal weight women. Nulliparous women had faster rises in DBP from 30 weeks and SBP from 36 weeks than multiparous women and twin pregnancies were associated with faster rises in BP from 30 weeks.

Conclusion Established pre-eclampsia risk factors are associated with the pattern of BP changes in healthy pregnancy, suggesting that they affect BP change across the whole distribution.

P2-167 MENTAL ILLNESS RELATED DISPARITIES IN DIABETES PREVALENCE, QUALITY OF CARE AND OUTCOMES: A POPULATION-BASED LONGITUDINAL STUDY IN WESTERN AUSTRALIA FROM 1990 TO 2006

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Q Mai,* D Holman, F Sanfilippo, J Emery, D Preen. *The University of Western Australia, Crawley, Western Australia, Australia*

Introduction To compare the prevalence of diabetes, quality of care and outcomes between mental health clients (MHCs) and non-MHCs.

Methods Population-based longitudinal study of 139 208 MHCs and 294 180 matched non-MHCs in Western Australia (WA) from 1990 to 2006, using linked data of WA State mental health registry, electoral roll registrations, hospital admissions, emergency department attendances, deaths, and Commonwealth Medicare and pharmaceutical benefits claims. Diabetes was identified from hospital diagnoses, prescriptions and diabetes-specific primary care claims (17 045 MHCs, 26 626 non-MHCs). Prevalence of diabetes; likelihood of receiving recommended pathology tests for ongoing diabetes monitoring; risks of hospitalisation for diabetes complications, diabetes-related mortality and all-cause mortality.

Results Age-sex-standardised point-prevalence of diabetes in those aged 20 years was higher in MHCs than in non-MHCs (9.3% vs 6.1%, p<0.001). The OR was 1.40 (95% CI 1.36 to 1.43) after controlling for sociodemographics and case mix. Receipt of recommended pathology tests (HbA_{1c}, microalbuminuria, blood lipids) was suboptimal in both groups, but was even lower in MHCs (at 1 year, adjusted OR, 0.81; 95% CI 0.78 to 0.85; during the entire follow-up, adjusted rate ratio (RR), 0.86, 95% CI 0.84 to 0.88; for all tests combined). MHCs also had increased risks of hospitalisation for diabetes complications (adjusted RR, 1.20, 95% CI 1.17 to 1.24), diabetes-related mortality (1.43, 1.35 to 1.52) and all-cause mortality (1.47, 1.42 to 1.53). The disparities were most marked for alcohol/drug disorders, schizophrenia, affective disorders, other psychoses and personality disorders.

Conclusion MHCs require improved prevention and control of diabetes, especially at the primary care level.

P2-168 MENTAL ILLNESS RELATED DISPARITIES IN POTENTIALLY PREVENTABLE HOSPITALISATIONS: A POPULATION-BASE COHORT STUDY FROM 1990 TO 2006

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Q Mai,* D Holman, F Sanfilippo, J Emery. *The University of Western Australia, Crawley, Australia*

Introduction Emerging evidence indicates the association between mental illness and poor quality of physical healthcare. To test this, we compared mental health clients (MHCs) with non-MHCs for the quality of primary care, using potentially preventable hospitalisations (PPHs) as an indicator.

Methods Population-based retrospective cohort study of 139 208 MHCs and 294 180 matched non-MHCs in Western Australia from 1990 to 2006, using linked data of electoral roll registrations, mental health registry, hospital admissions and deaths. We used the electoral roll as the sampling frame for both cohorts to enhance internal validity and the mental health registry to separate MHCs from non-MHCs. Rates of first PPHs (overall and by PPH categories and conditions) were compared between MHCs, type of mental disorders and non-MHCs. Both unadjusted and adjusted analyses controlled for sociodemographic factors and case mix were performed using Cox regression models.

Results PPHs accounted for >43% of all hospital admissions in both cohorts, predominantly chronic PPHs (88% in MHCs and 90% in non-MHCs). MHCs with any mental disorders were more likely to be hospitalised for any PPH conditions than non-MHCs (overall adjusted rate ratio (ARR), 1.14; 95% CI 1.13 to 1.16). ARRs were highest for chronic PPHs (1.18, 1.16 to 1.21), especially congestive heart failure (1.27, 1.21 to 1.32), chronic obstructive pulmonary disease (1.24, 1.18 to 1.31) and diabetes complications (1.19, 1.15 to 1.23); and highest for other psychoses (1.51, 1.46 to 1.56), alcohol/drug disorders (1.34, 1.29 to 1.39), schizophrenia (1.15, 1.09 to 1.21) and depressive disorders (1.14, 1.08 to 1.19).

Conclusion People with mental illness deserve special attention in improving the quality of physical healthcare at primary care level.

P2-169 DO MENTAL HEALTH CLIENTS LACK ACCESS TO GENERAL PRACTITIONER SERVICES?

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Q Mai,* D Holman, F Sanfilippo, J Emery. *The University of Western Australia, Crawley, Australia*

Introduction Emerging evidence indicates an association between mental illness and low-intensity of physical healthcare. To test this, we compared rates of visits to a general practitioner (GP) between mental health clients (MHCs) and non-MHCs.

Methods Population-based retrospective cohort study of 204 727 MHCs and 294 076 matched non-MHCs in Western Australia from 1

January 1990 to 30 June 2006, based on linked records of the use of mental health services, hospital admissions, Medicare claims for GP and specialist services, electoral roll registration and deaths. Adjusted rate ratios (ARRs) for the number of visits to GPs by MHCs relative to non-MHCs, and for different categories of mental disorders.

Results Relative to non-MHCS, the ARR of visits to GPs by MHCs was 1.622 (95% CI 1.613 to 1.631) overall, and was elevated in each separate category of mental illness. ARRs were highest for alcohol/drug disorders, schizophrenia and affective psychoses (2.404, 1.834 and 1.798, respectively). The results were not changed by location (metropolitan, rural or remote addresses). However, the 4% of MHCs with no fixed address had a very low ARR of visits to GPs (0.058; 95% CI 0.057 to 0.060).

Conclusion MHCs visit GPs substantially more often than non-MHCs, with the exception of those with no fixed address who seldom see a GP at all.

P2-170 DIRECT ESTIMATION OF TOBACCO-ATTRIBUTABLE CANCER MORTALITY IN POLAND

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M Manczuk.* *Cancer Center and Institute of Oncology, Warsaw, Poland*

Introduction The aim of the present study was to estimate the number cancer deaths, and their proportion over total deaths in that age ranges, attributable to tobacco in Poland.

Methods The calculation of tobacco-attributable mortality was based on the combination of RRs and prevalence of exposure. The selection of tobacco-related diseases and causes of death relied on recent comprehensive reviews by the International Agency for Research on Cancer [IARC, 2004] and the U.S. Government [USDHHS, 2004]. The set of RRs was derived from the Cancer Prevention Study II (CPS-II). Data on smoking prevalence come from national survey studies. Data on cancer mortality separately for 11 cancer sites related to tobacco were obtained form National Cancer Registry. To introduce into the model the latency effect demonstrated for most chronic health effects of tobacco, period of 20 years latency between exposure and death was implemented.

Results In 2005 in Poland there were 24 222 cancer deaths among men (197.3/100 000) and 5177 among women (35.8/100 000) attributed to active tobacco smoking. Among eleven cancer sites attributed to tobacco, the biggest killer was lung cancer with 15 478 deaths among men (60.4/100 000) and 3538 deaths among women (10.7/100 000).

Conclusion Direct estimations (based on smoking prevalence) can be successfully used to calculate tobacco burden. In Poland in tobacco-related cancers kill substantial number of men and women every year. Quantifying the size of tobacco burden gives arguments for evidence-based tobacco control intervention.

P2-171 PAIN AMONG OLDER PEOPLE AND ITS IMPACT ON DISABILITY: A 10/66 CROSS-SECTIONAL POPULATION-BASED SURVEYS IN LATIN AMERICA, INDIA AND CHINA

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[1]P Manzolli,* [2]D Acosta, [3]M Guerra, [4]Y Huang, [5]K S Jacob, [6]J Rodriguez, [7]A Salas, [8]A L Sosa, [9]J Williams, [10]M Prince, [10]C Ferri. *[1]Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; [2]Universidad Nacional Pedro Henriquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic; [3]Psychogeriatric Unit, National Institute of Mental Health "Honorio Delgado Hideyo Noguchi", Lima, Peru; [4]Peking University, Institute of Mental Health, Beijing, China; [5]Christian Medical College, Vellore, India; [6]Facultad de Medicina Finlay-Albarran, Medical University of Havana, Havana, Cuba; [7]Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela; [8]National Institute of Neurology and Neurosurgery of Mexico, National University Autonomous of Mexico, Mexico City, Mexico; [9]Department of Community Health, Voluntary Health Services, Chennai, India; [10]Centre for Public Mental Health, Health Services & Population Research Department, Institute of Psychiatry, King's College London, Health Services & Population Research Department, London, UK*

Introduction Pain is an important indicator of health mainly among older adults. The aim of the present study is to describe the prevalence of pain and to examine the relationship between pain and disability in elderly.

Methods One-phase cross-sectional surveys of all residents aged 65 years and over (n=15 177) living in eight low- and middle-income countries. Pain was measured using three questions, about frequency, severity and extent of limitation associated with pain in the previous 4 weeks. Disability was assessed using the 12 item WHODAS 2.0. We calculated the crude and standardised prevalence of pain and used Poisson regression prevalence ratios, to estimate the association between pain and severe disability, and to generate population attributable prevalence fractions (PAPF).

Results The overall prevalence of pain—defined as any type of pain in the last 4 weeks - ranged between 15.1% (China) and 46.0% (Peru) in urban sites and between 33.5% (Peru) and 58.8% (India) in rural sites. Pain was associated with severe disability, prevalence ratio pooled estimate was 1.49 (95% CI 1.21 to 1.78), adjusted for depression, number of impairments and chronic disease diagnoses. The adjusted PAPF showed that 39.2% of severe disability could be explained by pain.

Conclusion The results show that the prevalence of pain in the elderly is high. Pain seems to be an important contributor to disability among older people. Pain in older people is an increasingly important health issue worldwide, and one that requires urgent worldwide attention from the public health and clinical perspectives.

P2-172 ADVERSE HEALTH EVENTS DURING OCCUPATIONAL EXPOSURE TO PESTICIDES, IN CORDOBA, ARGENTINA. AN ESTIMATION OF ITS IMPACT ON AGRICULTURAL APPLICATORS HEALTH

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[1]B Mariana,* [2]F Ricardo, [1]S M Ines, [1]L M Josefina, [1]B Marcelo, [1]B Mariano, [1]M A Lia, [1]D M del Pilar. *[1]Universidad Nacional de Córdoba, Córdoba, Argentina; [2]Universidad Católica de Córdoba, Córdoba, Argentina*

The use of pesticides undeniably comes with some risks. It is understood that people who work with pesticides typically have much higher exposure than general public. The present work evaluated the prevalence of adverse events occurring during occupational exposure as an estimation of health impact. Also associations with several demographic characteristics, lifetime exposure years, working practices and protection level, considering a personal protection equipment (PPE) index, were investigated. Our results shown that the study population is relatively young (34.9±11.04 y); 71% have up to 10 years of exposure and 80% are under 45 years of age, being 11.8% illiterate or with incomplete primary school. PPE is not adequate used in around 70% of the workers. Agrochemical prescription, indicated by an agricultural engineer, is only used by 38% of workers and the percentage of use of modern technologies (such as crop sprayers equipped with cabs and activated charcoal filter) is low. Forty four percent answered to have irritative symptoms (skin, eyes, nausea and vomiting) frequently, 35% requiring medical consultation and 5.4% hospitalisation. Other symptoms such as headache, tiredness, nervousness or depression were also reported. The lifetime exposure is associated with irritative signs,