022 HEALTH IN SMALL PLACES: DERIVING AND VALIDATING ESTIMATES OF COMMON MENTAL DISORDERS AT THE LOWER SUPER OUTPUT AREAS USING MICROSIMULATION PROCEDURES

doi:10.1136/jech.2010.120956.22

[1]D Smith, [2]M Riva. *[1]Department of Geography, Queen Mary University of London, London, UK; [2]Department of Geography, Durham University, Durham, UK*

Background There are few data sets that provide detailed population health data at a geographic scale below Government Office Region, and few estimates at a finer scale are validated against real-world data. The focus of the paper is on testing the validity of a methodological approach to create small area population health profiles that may be used in academic and policy research to explore the spatial patterning of health, and repeated as new data become available. The objectives of the study are to 1) simulate estimates of common mental disorders (CMD) in adults at a small area-level and 2) to validate estimates against small area health and socio-economic measures.

Methods A deterministic reweighting methodology assigns probabilities of respondents from the 2004–6 annual Health Survey for England (HSE) to live in small areas (Lower Super Output Areas, or LSOAs) based on matching sociodemographic attributes available in both the HSE and the 2001 Population Census. These attributes are chosen because they are strong predictors of CMD (measured by GHQ-12). Gender, social class, economic activity and marital status were used to create estimates of people reporting CMD for each LSOA. These estimates were correlated to LSOA indicators composing the "health domain" of the Index of Multiple Deprivation 2007 (IMD2007) and to other socio-economic information. LSOA estimates were then aggregated at the Local Authority (LA) level and proportions of people reporting CMD were computed; these were then compared to observed prevalence of CMD at the LA level (based on 30 304 HSE respondents nested in 352 LA).

Results LSOA CMD estimates were correlated at 0.68 ($p<0.001$) with adults suffering from mood or anxiety disorders and at 0.83 ($p<0.001$) with comparative illness and disability ratio. Significant positive correlations between CMD estimates and overall, and domain specific, scores of the IMD2007 were observed. In 90.6% of LA, discrepancies between microsimulated and observed prevalence of CMD were less than 10%. LA where discrepancies were greater than 10% were mostly characterised by small HSE sample size, which may explain why estimates were more inaccurate in these localities.

Conclusion The findings indicate that spatial microsimulation might be an appropriate methodological approach for replicating social and demographic patterns of mental health in order to create a small-scale spatial data set. The validation of simulated area-based estimates of mental health presents a viable and cost-effective alternative to local level surveys.

023 PREVALENCE OF SELF-HARM AND HELP-SEEKING BEHAVIOURS AMONG YOUNG PEOPLE IN NORTHERN IRELAND

doi:10.1136/jech.2010.120956.23

[1]M McCann, [2]D Schubotz, [1]C McCartan, [1]P McCrystall. *[1]ICCR, Queen's University Belfast, UK; [2]ARK, Queen's University Belfast, UK*

Background Compared to other parts of the British Isles, until recently there has been little information on rates of self-harm in Northern Ireland.

Objectives To investigate the rates of self-harming among adolescents, help seeking behaviour among self-harmers, and risk factors associated with these behaviours in Northern Ireland.

Design Two large scale surveys based on the Northern Ireland adolescent population were undertaken that contained questions on self-harm: the 2006/07 Belfast Youth Development Study (BYDS), a school based longitudinal study of adolescents, and the 2008 Young Life and Times survey, a postal survey of 16-year olds using the Child Benefit Register to identify the target population. Both surveys included questions asked in the CASE (Child and Adolescent Self-harm in Europe) study. Logistic regression models were used to analyse the association of personal characteristics with the odds of reporting having self-harmed. We also assessed the association between these characteristics and help seeking behaviour for those participants who had self-harmed.

Setting/participants In total there were 3178 respondents. The 2249 (71%) BYDS respondents were 17 or 18 years of age at the time of the study. The 929 (29%) YLT respondents 16 years old when surveyed. Around 59% were female, 99% had used alcohol, 37% had used drugs, and 22% had mental health problems.

Results 333 (10.4%) respondents reported self-harm, with similar proportions in both surveys. Females were 84% more likely to self-harm than males (OR 2.31 95% CI 1.93 to 2.78), but were also 70% more likely to seek help before self-harming (OR 1.70 95% CI 1.12 to 2.57). Smoking, using illegal drugs, and poorer mental health were more likely to be associated with those reporting self-harm. People who reported having smoked (OR 3.41 95% CI 2.66 to 4.37) or having used illegal drugs (OR 2.40 95% CI 1.97 to 2.94) were more likely to self-harm than those who did not. Poor mental health was associated with a greater likelihood of seeking help before self-harming (OR 1.81 95% CI 1.11 to 2.93).

Conclusion The relative association of gender with self-harm was low compared to other countries. Males reported much higher relative rates of self-harm compared to other regions of the UK, suggesting there may be risk factors for poor adolescent mental health specific to Northern Ireland. Reasons for these differences should be further investigated.

024 PROSPECTIVE COHORT STUDY OF UNEMPLOYMENT AND CLINICAL DEPRESSION IN EUROPE AND CHILE: THE PREDICT STUDY

doi:10.1136/jech.2010.120956.24

[1,2]B J Jefferis, [1,2]I Nazareth, [1]L Marston, the Predict Core Study Group, [2,3]M King. *[1]Research Department of Primary Care and Population Health, UCL Medical School, London, UK; [2]MRC General Practice Research Framework, London, UK; [3]Research Department of Mental Health Sciences, UCL Medical School, London, UK*

Objective Unemployed individuals have poorer mental health than the employed, but the direction of this association is not clear. Our objective was to examine the links between major depression and unemployment in a European cohort of general practice attenders.

Design Prospective cohort.

Setting General practices in UK, Estonia, The Netherlands, Portugal, Slovenia, Spain and Chile.

Participants Consecutive general practice attendees aged 18 to 75 years recruited April 2003-September 2004 (n=9793), followed up at 6, 12 and, in a subset (n=3259), 24 months.

Main outcome measure The Depression Section of the Composite International Diagnostic Interview was completed at baseline, 6, 12 and 24 months. Employment status was self-reported at baseline, 6 and 24 months.

Methods Random effect regression models or robust standard errors were used to account for clustering at General Practice level. Multinomial logistic regression models investigated whether unemployment (at baseline or 6 months) predicted onset of depression at 12 months. Logistic regression models investigated whether major depression (at baseline or 6 months) predicted onset