

**Results** The cohort consisted of 535,801 children aged 18 years or less in NI during 2015. Over 1 in 6 (17.6%, n=94,232) were previously or currently known to social services. There was a clear stepwise association between level of interaction with social services and mental ill-health. Compared to children never known to social services LAC were nearly 9 times more likely to be in receipt of antidepressants (OR=8.93, 95%CI 7.06, 11.29), 10 times more likely to be in receipt of anxiolytics (OR=10.06 95%CI 7.28, 13.92) and over 40 times more likely to be receipt of antipsychotics (OR=42.59, 95%CI 32.85, 55.23). Likelihood of presenting with self-harm and psychiatric hospital admission were also significantly higher in LAC (OR=24.42, 95%CI 17.16, 34.73 and OR=86.26, 95%CI 42.58, 174.75 respectively).

**Conclusion** Children known to social services have poorer mental health compared to those not known. The relationship is graded, with prevalence lowest for those never known, higher for children known as CIN, and highest for LAC. Additional analysis is underway exploring variations in mental health based on care pathways and reason known to social services.

OP10

#### SELF-REPORTED MENTAL HEALTH VERSUS PSYCHOTROPIC MEDICATION RECORD AS A PREDICTOR OF SUICIDE: A RECORD LINKAGE STUDY

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**Background** Both the rates of self-reported mental ill-health and the number of individuals in receipt of psychotropic medications are increasing across the UK. Research suggests that poor mental health is a major predictor of death by suicide, but measuring individual level mental ill-health can be difficult. Population-wide prescription medication records are available in many countries and could provide useful information on indicators of suicide risk, however, the association between self-reported mental health, medication record and suicide has not been well explored. This study aimed to assess if self-reported mental health, psychotropic medication record, or both in combination better predict risk of death by suicide.

**Methods** Data from the 2011 Northern Ireland Census on all individuals living in the community aged 18–74 years (n=1,098,967) were linked to the Enhanced Prescribing Database (EPD) and death registrations and followed up until end of 2015. Mental health status was ascertained through a single-item self-reported mental health question from the Census and/or a record of psychotropic medication in the EPD. Deaths by suicide were identified using ICD-10 codes. Logistic regression models were used to examine the association between measures of mental health and death by suicide, with adjustment for census-based individual attributes known to be associated with mental ill-health and suicide.

**Results** A total of 857 out of the 1,098,967 individuals died by suicide during the study period. The proportion who died by suicide was 0.05% in those without mental ill-health, 0.21% in those who self-reported poor mental health, 0.16% in those in receipt of psychotropic

medication, and 0.38% in those with both self-report and psychotropic medication record. In the unadjusted logistic regression model, having both self-report and psychotropic medication record was the strongest predictor of suicide (OR=8.23, 95%CI: 6.97–9.72). Upon adjustment for socio-demographic characteristics and physical health morbidities, having both self-report and psychotropic medication record remained the strongest suicide predictor (OR=6.13, 95%CI: 4.94–7.61), followed by psychotropic medication record only (OR=4.00, 95%CI: 3.28–4.88) and self-report only (OR=2.88, 95%CI: 2.16–3.84).

**Conclusion** Individuals with both self-reported poor mental health and receipt of psychotropic medication had the highest likelihood of death by suicide. Of the two measures individually, receipt of psychotropic medication was associated with a higher likelihood of suicide mortality compared to self-reported mental health. Understanding which measures are the best indicators of suicide risk is vitally important for the effective targeting of interventions.

OP11

#### ETHNICITY AS A KEY DRIVER OF SYSTEM-WIDE HEALTH AND CARE SERVICE COSTS IN PATIENTS WITH SERIOUS MENTAL ILLNESS: A LINKED ELECTRONIC HEALTH RECORD COHORT STUDY

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**Background** Improving care for people with serious mental illness (SMI) is a policy priority in England, yet little is known about service use patterns across the broader health and care system outside of acute and mental health care. We sought to investigate individual- and practice-level features associated with health and care system costs (as a comparable marker of use) for patients with SMI using a system-wide linked patient-level dataset that has been developed in Barking and Dagenham (B&D), with the aim of driving improved inter-organisational working and financial sustainability.

**Data** This retrospective cohort study includes patients registered and resident in B&D in financial years 2016/17 and 2017/18. GP electronic health records were linked with administrative data from community, acute and mental health Trusts serving the area for both years, and local authority-funded social care records for 2016/17 (with costs imputed for 2017/18). The study population was adults on the SMI Quality and Outcomes Framework register, with comparator groups (1) matched on age, gender, and number of long term conditions (LTCs), and (2) the general adult population. Cost analyses took three forms: descriptive, regression at individual-level (generalised linear model using a Tweedie distribution), and funnel plots at GP practice-level.

**Results** SMI patients had three-fold greater system costs than matched patients. Increased spending was concentrated in mental health Trust outpatient and social care settings. Increased spending was not observed in primary care and emergency departments. Apart from LTC count, ethnicity was the main driver of spending, particularly within social care. Spending per White British patient per year (£10,181) was almost twice that of Asian or Black patients (£5,442