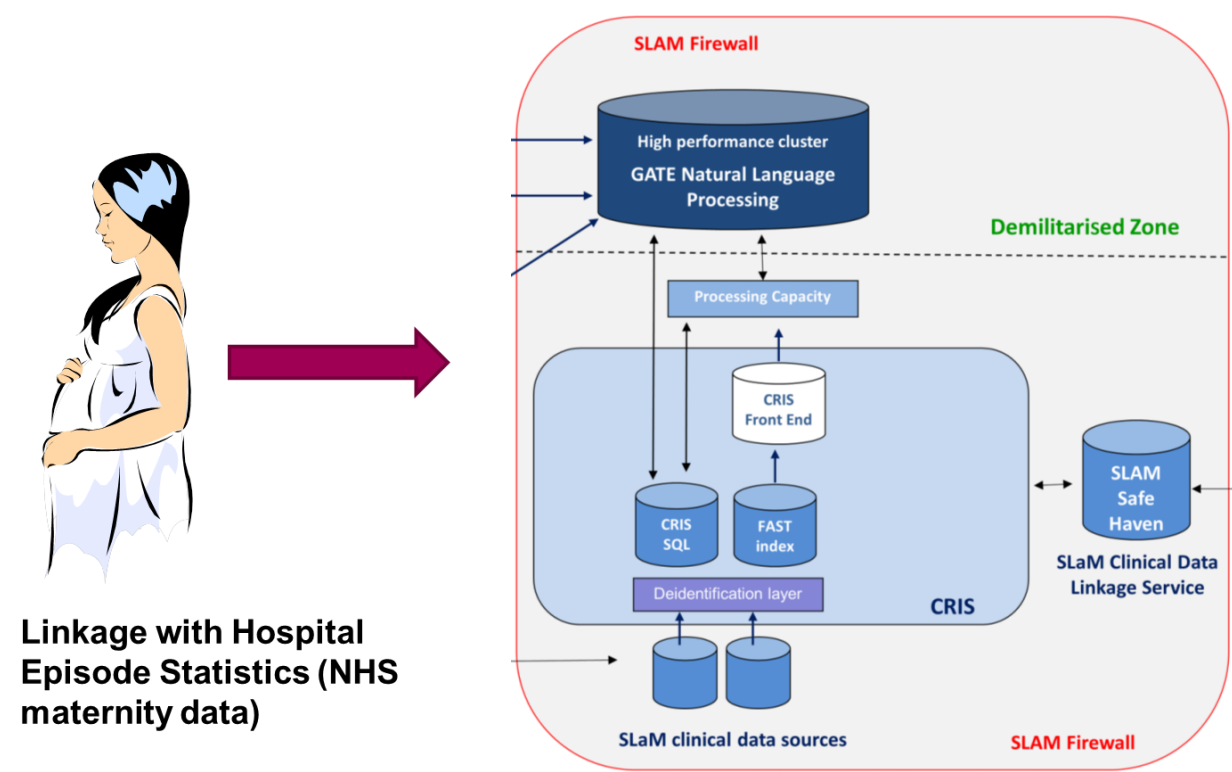


Use of Electronic Healthcare Records in Women’s Mental Health Research

Section of Women’s Mental Health, Health Service and Population Research Department
Professor Louise Howard, Dr Karyn Ayre, Dr Abigail Easter, Dr Hind Khalifeh, Dr Clare Taylor & Emma Yapp

Background

- ❑ The Section of Women's Health are undertaking a programme of research using the to Case Register Interactive Search (CRIS), a unique anonymised secondary care mental health care database, linked with Hospital Episode Data (HES) and Maternity Records to investigate women’s mental health.
- ❑ Research projects aim to provide evidence on self-harm, medication use and risk of relapse during pregnancy, as well as severe obstetric complications and domestic abuse among women with mental illness.

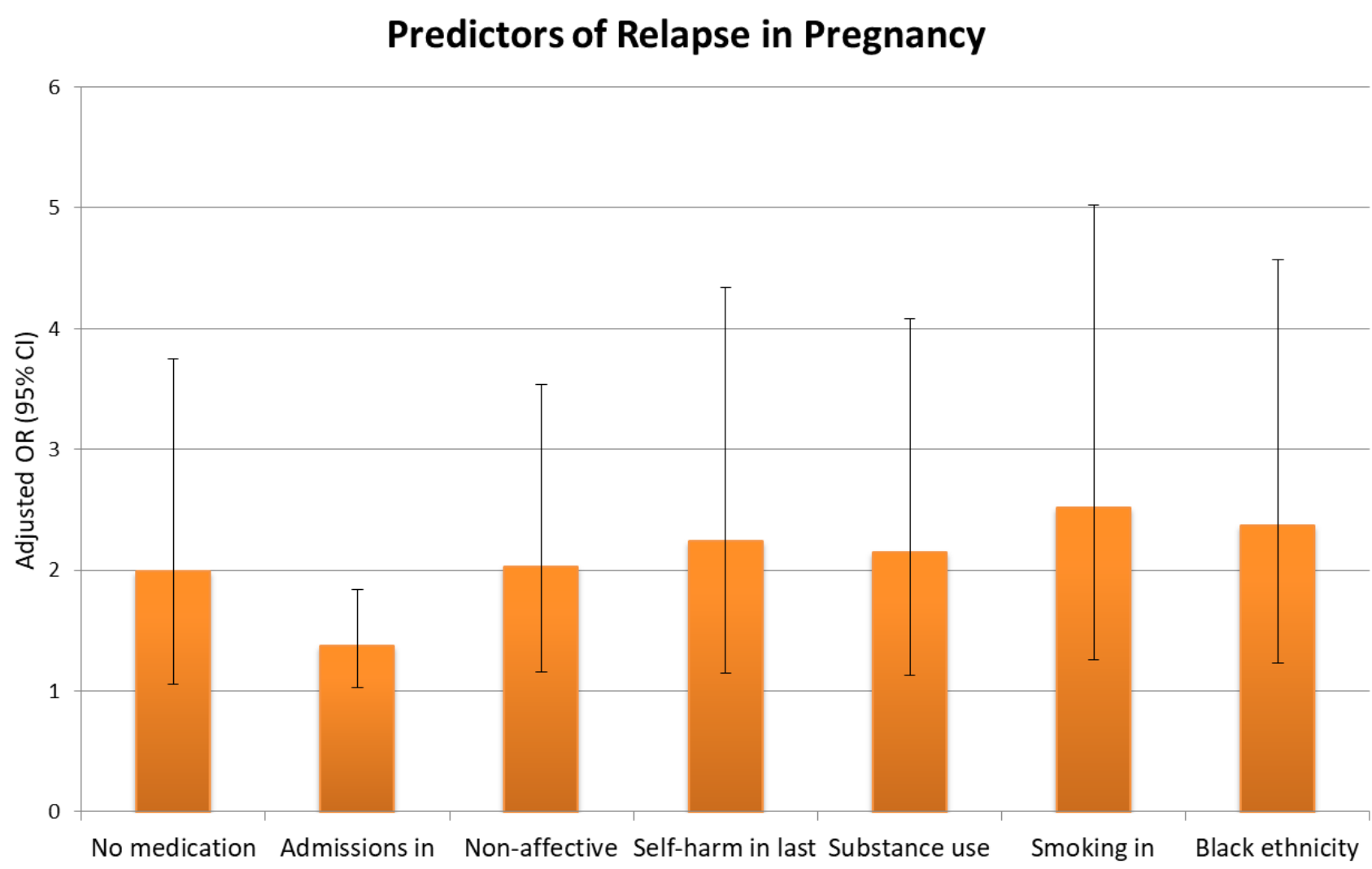


Linking Abuse and Recovery through Advocacy for Victims and Perpetrators (LARA-VP): A Natural Language Processing Application – Emma Yapp, Dr Sian Oram & Professor Louise Howard

- ❑ **Aims:** To develop a Natural Language Processing (NLP) application to identify and categorise instances of violence and abuse, particularly domestic violence and abuse, recorded in electronic medical records.
- ❑ **Methods:** Case notes and correspondence sections of electronic mental health records in CRIS were used to develop the application. Keywords were defined using relevant Cochrane and systematic reviews and consultations with clinicians, and selected on the basis of their prevalence and relevance within clinical notation.
- ❑ **Results:** Preliminary estimates of application performance indicate a precision (positive predictive value) of 0.80 and a recall of 0.85. Evaluation and development of the application is ongoing, and the processing of contextual content (e.g. type of violence) aims to be completed by March 2019.
- ❑ **Conclusions:** The performance of the NLP application will indicate whether it is feasible to use CRIS to generate data for the analysis of the effectiveness and cost-effectiveness of a future cluster randomised controlled trial of an intervention for mental health service users who have experienced domestic violence and abuse.

Predictors of severe relapse in pregnant women with psychotic or bipolar disorders – Dr Clare Taylor, Professor Robert Stewart & Professor Louise Howard

- ❑ **Aims:** To investigate the prevalence and predictors of severe relapse (defined as an admission to acute care or self-harm) in pregnancy among women with a history of serious mental illness (SMI).
- ❑ **Methods:** Pregnant women with a history of SMI (2007–2011), and in remission at the start of pregnancy were identified in CRIS. Severe relapse and predictors of relapse were analysed using random effects logistic regression.
- ❑ **Results:** In 454 pregnancies there were 58 (24%) relapses in women with non-affective psychoses and 25 (12%) in women with affective psychotic or bipolar disorders. Multivariate predictors of relapse in pregnancy are shown in Figure 1.
- ❑ **Conclusions:** Women with SMI have multiple risk factors for adverse pregnancy outcomes. Continuation of medication in women with severe mental illness who become pregnant may be protective against relapse.



Ongoing Projects

- ❑ **Dr Karyn Ayres, Dr Rina Dutta & Professor Louise Howard** – Self-Harm in the Perinatal Period: Prevalence, Correlates and Completed Later Suicide In Mental Healthcare Service-Users
 - ❖ Aim: To estimate the prevalence and correlates of acts of self-harm occurring within the perinatal period, and to investigate whether acts of perinatal self-harm are associated with later completed suicide in this cohort.
- ❑ **Dr Hind Khalifeh & Professor Louise Howard** – The Benefits and Risks of Antipsychotic Use in Pregnancy
 - ❖ Aim: To investigate the risks of maternal psychiatric relapse, obstetric morbidity and neonatal morbidity in women who use antipsychotics in pregnancy, compared to women who use these medications before but not during pregnancy.
- ❑ **Dr Abigail Easter, Professor Jane Sandall & Professor Louise Howard** – Near fatal self-harm in the perinatal period
 - ❖ Aim: To investigate the prevalence, warning signs and care management of women with near fatal self-harm during the perinatal period.