

## **R021: Evaluation of Maternal diseases & medications recorded in the NIMATS database compared to the NI EPD – UU Jordanstown**

Administrative datasets, holding routinely collected patient health records, require assessment of data quality to ensure that the data are suitable for research as they were not developed for this purpose. The aim of this study is to evaluate the quality of data on maternal diseases and medication exposures during the first trimester of pregnancy as recorded in the Northern Ireland Maternity System (NIMATS) database compared to the NI Enhanced Prescribing Database (EPD).

NIMATS data, for all NI resident mothers who gave birth between 2011 and 2016, will be linked to EPD data using the mother's Health and Care Number (HCN). The EPD data extract will include prescriptions issued from 1st April 2010 to 30th June 2016 to cover the first trimester exposure period for mothers who gave birth between January 2011 and December 2016. Agreement between the two data sources and sensitivity/ specificity estimates will be calculated for each therapeutic class of medications. Maternal diseases recorded in NIMATS will also be cross-validated with EPD data to assess completeness, consistency and accuracy i.e. a mother with a chronic condition such as epilepsy would be expected to have a prescription for an antiepileptic medication.

Awareness of the quality of NIMATS medication and maternal diseases data is essential if these data are to be used in data linkage studies assessing medication safety in pregnancy. This validation study will inform a larger NI/ UK-wide data linkage study exploring child developmental and educational outcomes following maternal medication exposure during pregnancy.