**Project Title: Me-D-Links: metformin for diabetes in pregnancy – an analysis of health and education outcomes using linked administrative data**

**Project Team:**

Given, Joanne. Institute of Nursing and Health Research, Ulster University, Research Associate – Data Analysis and Methodology.

Coates, Vivien. Institute of Nursing and Health Research, Ulster University, Florence Nightingale Foundation Professor of Clinical Nursing Practice Research.

Bunting, Brendan. Psychology Research Institute, Ulster University, Professor of Psychology.

Loane, Maria. Institute of Nursing and Health Research, Ulster University, Reader.

Garne, Ester. Paediatric Department, Hospital Lillebaelt, Consultant Paediatrician.

O’Connor Bones, Una. Institute for Research in Social Sciences, Ulster University, Lecturer.

McCance, David. Regional Centre for Endocrinology and Diabetes, Royal Victoria Hospital, Consultant Endocrinologist.

Dolk, Helen. Institute of Nursing and Health Research, Ulster University, Professor of Epidemiology & Health Services Research.

**Abstract**

Traditionally insulin has been considered the ‘gold standard’ for the treatment of diabetes in pregnancy but since 2015 the UK guidelines have also recommended metformin, an oral blood glucose lowering drug. The routine use of metformin in pregnancy is however controversial. Metformin has been shown to cross the placenta and we do not know if it affects the growth or long term development of children who were exposed in the womb. With increasing numbers of women in the UK taking metformin during their pregnancy more research is needed to determine its potential harms or benefits.

This study aims to use routinely collected administrative data to explore the effect of metformin on maternal and infant health and early childhood educational achievement.

As metformin is not commonly used in pregnancy, and some of the pregnancy complications in which we are interested are rare, it is necessary to use data from as large an area as possible. Through the Administrative Data Research Network (ADRN) we aim to access prescribing records, mother and child health records and educational records from all 4 regions of the UK. The outcomes among pregnant women, or infants, who were exposed to metformin will then be compared to those who were not.

The findings of this research will help women and their health care providers make more informed decisions about their care. As one of the first, if not the first, projects conducted within the ADRN using data from all 4 regions of the UK this project will also help to clarify the processes involved and assist in the design and conduct of future UK wide projects.