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### HEALTH SERVICE USE AND ASSOCIATED COSTS ATTRIBUTABLE TO DIABETES IN THE MITCHELSTOWN COHORT STUDY

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**Background** The number of people living with diabetes is increasing globally and with evidence of rising medical expenditure per person, the growth in economic burden will continue in coming years. Accurate cost of illness estimates are urgently needed to inform national policy and identify potential cost savings. With this in mind, this study aims to estimate health service use and associated costs attributable to diabetes.

**Methods** Diabetes was defined using self-report doctor-diagnosis, HbA1c and fasting plasma glucose levels. Health service use in the previous 12-months included; number of general practitioner (GP) visits, emergency department visits, hospital admissions, outpatient visits, and day procedures. Multivariable negative binomial regression was used to estimate the association between diabetes and frequency of visits. Frequency of visits and average marginal effects were applied to unit costs for each health service, calculating mean costs per person with and without diabetes and excess costs attributable to diabetes.

**Results** Out of 1,328 patients analyzed, the prevalence of diabetes was 10.5% [95% Confidence Interval (CI): 8.9, 12.2]. The prevalence of diagnosed diabetes was 7.4% (95% CI: 6.1, 8.9) and the prevalence of undiagnosed diabetes was 3.1% (95% CI: 2.3, 4.2). In fully adjusted models, diabetes was associated with a 38% increase in GP visits. Diabetes was not associated with additional hospital admissions, emergency department visits, outpatient visits or day procedures. The annual mean cost of health service use among those with diabetes was € 1,620.51 per person compared with € 1,340.63 for those without. The excess health service costs attributable to diabetes were € 513.57 and the national incremental healthcare costs attributable to diabetes were € 54,823,500.25.

**Conclusion** While diabetes was associated with additional GP visits, it was not associated with additional service use in secondary care. These low levels of health service utilization, among those with diabetes, may be attributable to a lack of access to endocrine services in the Munster region. It is also possible that structured diabetes management in primary care may contribute to reduced health service use and costs attributable to diabetes.

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### IMPROVING CARE FOR WOMEN WITH TYPE 1 AND TYPE 2 DIABETES AFTER A BABY LOSS: A QUALITATIVE EXPLORATION OF HEALTHCARE PROFESSIONAL AND PATIENT EXPERIENCES

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**Background** Women with pre-existing Type 1 and Type 2 diabetes are around four times more likely to experience baby loss: miscarriage, stillbirth, neonatal death or termination of pregnancy for medical reasons. Careful pre-pregnancy preparation can reduce the risk of loss. However, pre-pregnancy

information does not talk about the challenges of becoming pregnant again after a baby has died, and uptake of pre-pregnancy care is low. Approximately 50% of women with diabetes do not prepare for pregnancy - even after baby loss. There is a gap in understanding of how postnatal bereavement support should consider the context of diabetes and link with pre-pregnancy support for a subsequent pregnancy.

**Aim** To explore and better understand: (i) what it was like for women with diabetes to become pregnant again after baby loss; (ii) healthcare professional perspectives of providing pre-pregnancy care to this group.

**Key Objective** Develop recommendations for good practice to improve the support provided after a baby loss and improve preparation for future pregnancies among women with diabetes.

**Methods** Health professionals and women with diabetes were recruited for an interview through social media and professional networks. Recruitment is ongoing, with an anticipated sample size of 15–20 participants per group. Semi-structured interviews were used to gain in-depth experiential insights from both patient and healthcare perspectives. Interview transcripts were systematically analysed and synthesised using Thematic Analysis. Data collection and analyses are ongoing.

**Results** Early findings suggest individual needs differ depending on the type of diabetes and the type of loss. The influence of physical and social environments, such as living and working conditions, education level, employment status and access to transport, impact both the accessibility of care and the level of agency women with diabetes have to make the required lifestyle changes to prepare for pregnancy. Easy access to timely pre-pregnancy support from a multidisciplinary team and a sensitive discussion of pregnancy plans could reduce the risk of loss in a subsequent pregnancy. It is unclear who is responsible for supporting women in the interval between baby loss and subsequent pregnancy, and care varies across providers. Primary, community and secondary care all play a role in ensuring women with diabetes can access the care they need.

**Conclusion** These preliminary findings shine a new light on the challenges of becoming pregnant after a baby loss and the health service requirements for this group. Further interviews and analysis will help inform care development for women with diabetes and develop social science understanding of baby loss more generally.

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### THE ROLE OF THE SERUM METABOLOME IN DRIVING GDM IN WHITE EUROPEANS AND HIGH-RISK PAKISTANI WOMEN: A MULTIVARIATE ANALYSIS OF THE BORN IN BRADFORD COHORT

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**Background** Women of South Asian descent are three times as likely to develop gestational diabetes mellitus (GDM) as white European (WE) mothers, independent of BMI status. This study aims to identify serum-metabolite drivers of GDM within WE and British Pakistani (PK) women from the Born in Bradford (BIB) cohort.