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.

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

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.