Discussion Births to women with records of fertility problems have significantly increased between 1991 and 2013. Changes in maternal age explain much of the population-level trends, but less of the observed increase among first-time mothers. Declining births after OI prescribed in primary care may reflect changing management of patients.

Medical advice must continue to highlight the effect of age on fertility, and the implications for secondary infertility. GPs and service commissioners should be aware that time trends indicate continuing growth in demand for fertility treatment in England.

Health services research

OP14 A SYSTEMATIC REVIEW OF COST-EFFECTIVENESS EVALUATIONS OF PSYCHOLOGICAL THERAPIES FOR SCHIZOPHRENIA AND BIPOLAR DISORDER

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Background Schizophrenia and bipolar disorder (BD) are among the top twenty causes of disability. Costs of treatment and to society are substantial. NICE guidelines recommend psychological/psychosocial interventions are considered in response to acute episodes/recovery promotion. This review aims to assess cost-effectiveness of psychological interventions, determine robustness of the current evidence base, and identify evidence gaps. The key research question is: which psychological interventions are cost-effective, compared to usual care/alternative interventions, in schizophrenia or BD?

Methods Electronic searches of PsycINFO, MEDLINE and Embase identified economic evaluations relating incremental cost to outcomes in an Incremental Cost-Effectiveness Ratio (ICER) published in English since 2000. Studies had to include: probability of cost-effectiveness at explicitly-defined thresholds; adults with schizophrenia/BD; any psychological intervention (e.g. psychological therapy, Improving Access to Psychological Therapies, integrated/collaborative care). Comparators could be routine practice, no intervention, or alternative psychological therapies. Searches were performed in August 2015 (updated January 2017). There were two screening stages with explicit inclusion criteria applied by 2 reviewers at each stage. Pre-specified data extraction/critical appraisal were performed. Results were summarised qualitatively. The review is registered on the PROSPERO database of systematic reviews.

Results Of 3785 studies identified, 11 were included. All were integrated clinical and economic randomised controlled trials. All used cost-effectiveness and/or cost-utility analysis. The commonest intervention was CBT (6/11 studies). Measures of health benefit included QALYs (5/11), QLS 1/11), PANSS (2/11), MANSA (1/11), GAF (3/11), days with normal functioning (1/11), a working memory subscale (1/11), full vocational recovery (1/11), days with a bipolar episode (1/11). Follow-up ranged from 6 months to 5 years. 6/11 studies used provider perspectives for the primary analysis; the remainder considered societal perspectives. Interventions were cost-effective in most identified studies (9/11): ICERs ranged from dominant

(intervention is cost-saving AND more effective) to £18 844 per QALY; the probability of cost-effectiveness ranged from 50% to 99.5% at chosen thresholds. The two studies deemed not cost-effective involved art/body psychotherapy and noted significant uncertainty in the data as a limitation. All studies had limitations, including missing data, sample sizes and challenges controlling for other medications/treatments received outside the trial intervention.

Conclusion Although recommended in clinical guidelines, there was limited evidence about the cost-effectiveness of psychological therapy for schizophrenia/BD. Most included studies concluded psychological interventions for schizophrenia/BD are cost-effective. However policy implications are unclear due to methodological limitations and heterogeneity in populations and settings between studies. The review had some limitations including potential for English-language bias and limited time-horizon.

OP15 LONG TERM OUTCOMES AND MORTALITY AMONG PATIENTS ENROLLED IN A STRUCTURED PRIMARY CARE-LED DIABETES PROGRAMME

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Background Limited data exists, internationally and in Ireland, on long-term outcomes among people with diabetes who are managed in primary care. The Midlands Diabetes Structured Care Programme encompasses evidence-based strategies to structure diabetes management within general practice: patient registration and recall, regular diabetes review visits, active role of the practice nurse in ongoing management, multidisciplinary specialist access, professional education, and remuneration. Our aim was to examine clinical outcome targets, complications and mortality among patients with diabetes enrolled in the programme since its establishment in 1998.

Methods Data were collected in 1999, 2003, 2008 and 2015, on outcomes (clinical parameters, complications and mortality) among patients with diabetes (≥ 18 years) registered with participating practices. Data were extracted from patient notes by clinical nurse specialists using a paper-based data collection form. Cause and date of death were obtained from national death records. Using Stata, chi-square tests were used to test differences in clinical outcomes over time. Cox proportional hazards regression was used to examine the association of baseline factors and mortality.

Results Patients from 1999 (n=376), were followed up in 2003 (n=229), 2008 (n=96) and 2016 (n=376). The proportion of patients with a recommended blood pressure target ($<130/80$ mmHg) increased from 9% in 1999 to 26% in 2016 ($p<0.001$), as did the proportion with a total cholesterol of <4.5 mmol/L (22% vs. 71%, $p<0.001$), and triglycerides <2.0 mmol/L (47% vs. 81%, $p<0.001$). The percentage achieving optimal glycaemic control ($HbA1c \leq 7.0\%$) declined (52% vs. 34%). Between 1999–2016, 22% (n=81) of patients had ever experienced a macrovascular complication; primarily CVA (n=21, 6%), MI (n=16, 4%). In 1999, 18% (n=33) had retinopathy, increasing to 57% (n=59) by 2016. In total, 184 (49%) had died. Between 1999–2013 mortality was higher than background rates in the general population (SMR=2.2, 95% CI 1.9, 2.6). Only 25% (n=46) had cause of

death recorded in their GP record. Where cause of death was obtained from national records (n=163), primary causes were MI (n=29, 17.8%) and pneumonia (n=23, 14%). Mean age at death was 77.7±9.3 years. Mortality was significantly higher among patients who were older at baseline. Gender, diabetes type, smoking status and clinical parameters at baseline were not significant predictors of mortality.

Discussion Improvements in the clinical profile of patients enrolled in the programme since its introduction suggests primary-care-led integrated diabetes management can perform favourably in the long-term. However, the high incidence of macrovascular complications, prevalence of retinopathy and mortality rate indicates the importance of effective management.

OP16

CHALLENGES EXPERIENCED BY COMMUNITY-BASED CLINICAL NURSE SPECIALISTS IN SUPPORTING THE DELIVERY OF INTEGRATED DIABETES CARE: A QUALITATIVE STUDY

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Background In Ireland, more Diabetes Nurse Specialists (DNSs) have been introduced into the community as part of a national programme to standardise and improve diabetes care. DNSs support the delivery of a new model of care whereby uncomplicated type 2 diabetes (T2DM) is managed in primary care, and complicated T2DM is managed between primary and secondary care. Historically diabetes care in Ireland has often been delivered in an unstructured way, lacking integration between primary and secondary care. Given this context we wanted to understand the challenges faced by community-based DNSs in delivering a standardised service.

Methods We purposively sampled DNSs from community-based respondents to a national survey (n=25) according to four administrative regions of the national health service. We conducted focus groups and interviews using a semi-structured topic guide. Interviews were digitally recorded and transcribed into NVivo V.11 software for coding and analysis. Data analysis is on-going using thematic analysis.

Results Sixteen DNSs participated in 2 focus groups, and 8 interviews. Preliminary analysis suggested elements of the role presented a challenge. As DNSs require their Collaborative Practice Agreement to be signed off by each GP using their service, they were currently unable to prescribe in the community. Despite describing this as 'frustrating', DNSs suggested that prescribing could remove opportunities for relationship-building with GPs through discussion of medications. In the community, DNSs lacked the safety net of the hospital team to check things with, and had to work more autonomously, described as 'daunting'. Role understanding by other staff was another challenge; DNSs felt managers did not understand how the community role should work, which created difficulty when negotiating aspects of the role, including flexible working hours. The lack of a shared record between settings meant patient information from hospital appointments was not readily accessible by DNSs at GP practices and vice versa. This made patient follow-up and case discussion difficult when DNSs were off-site. The absence of administrative support in the role, considered 'crucial', was also highlighted. Further interviews with community DNSs are ongoing.

Conclusion Community-based DNSs faced challenges presented by aspects of their role, their relationship with other staff, their work environment, and the available organisational infrastructure and resources. Although recent policy reforms in Ireland have focused on improving the integrated management of diabetes in the community, findings from this study suggest DNSs may need to be better supported to ensure delivery of a standardised model of diabetes care.

Ethnicity 1

OP17

ETHNIC DIFFERENCES IN ILL HEALTH AND IN SOCIOECONOMIC INEQUALITIES IN HEALTH: POPULATION STUDY USING 2011 SCOTTISH CENSUS

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Background Much has been written about high rates of poor health and health inequalities in Scotland, increasingly it is shown how these outcomes vary by ethnicity. Scottish Government has made a policy commitment to understand and address inequalities in health among minority ethnic groups. This study contributes to this by comparing health outcomes and socioeconomic inequalities in health across ethnicities

Methods Two self-reported health measures, poor general health and limiting long-term illness (LLTI), by 5 year age groups, ethnicity and area (Datazones; population mean=815, sd=275) from the 2011 Scottish Census were examined. Ethnicity was self-reported and grouped into 9 main categories. This paper focused on the 5 largest groups: White Scottish (n=4,445,678), White British (n=417,109), White Irish (n=54,090), Other White (n=167,530) and Asian (n=140,678) and ages 0–64. Deprivation was measured using Census based indices and SIMD. Age standardised rates of ill health per 1000 people were calculated for these groups and by deprivation quintiles. Inequalities by area deprivation were measured using the slope index of inequality (SII).

Results For ages 0–64 the standardised rates are lowest for Other Whites and highest for White Scottish for both measures of ill health (LLTI rates respectively 89.1 and 134.9). Differences are greatest for younger adults, LLTI rate for Other Whites aged 15–29 is 32.4, but for White Scottish 71.7, for ages 30–44 these rates are 63.6 and 124.2 respectively. On average White Scottish had poorer health than White British and Irish, both of who are also least likely to live in the most deprived areas. For ages 0–64 inequalities in health were highest for White Scottish (for LLTI the SII=164.4, 95% CI=163.1–165.7), but not much lower for White British (SII=150.8, CI=146.2–155.4) and Irish (SII=145.2, CI=133.6–156.8). Inequalities were much lower among Asians (SII=74.2, CI=64.1–84.1) and among Other Whites (SII=59.3, CI=51.3–66.9). Differences in health inequalities between ethnicities were greatest for ages 30–44. Ill health and inequalities among Asians increased more rapidly for older ages and were similar to White Scottish for those 60+.

Results White Scottish have poorer health compared to other ethnicities, but are also more likely to live in deprived areas compared to White British and Irish. Deprivation affects the health of all ethnicities, but much less so for some groups.