

Data supplement: Diabetes in Cambridgeshire **July 2015**

Introduction

This is one in a series of Data Supplements providing intelligence to inform future health and social care planning for the resident population of Cambridgeshire produced in support of *Cambridgeshire JSNA: Long Term Conditions Across the Lifecourse (2015)*.

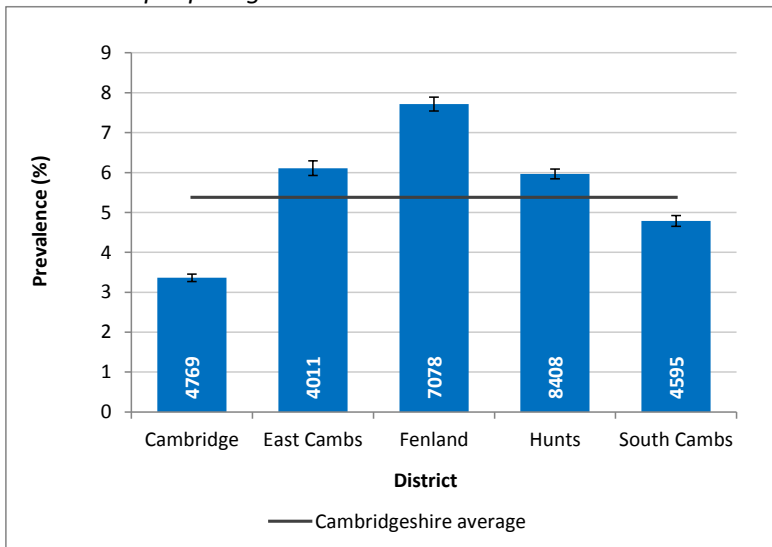
Background

Diabetes is a lifelong metabolic condition in which the body does not produce sufficient insulin to regulate blood glucose levels. The two main types of diabetes, that account for about 98% of all diagnosed patients, are Type 1^a and Type 2.^b

What is the prevalence and who is at risk?

The risk of diabetes increases with age. In 2010 the national prevalence of all types of diabetes was 0.4% for people aged 16 to 24 years, rising to 15.1% for people aged 70 to 84 years old. The higher prevalence of diabetes among older people is due to a higher risk of developing Type 2 diabetes at older ages.¹

Diabetes in people aged 17 and over



Number on the register stated at the base of each bar
 Error bars represent 95% confidence intervals
 Source: Quality and Outcomes Framework (QOF) 2013/14

Nearly 29,000 people aged 17 and over are recorded on disease registers for diabetes in general practices across Cambridgeshire.

The prevalence of diabetes is lower in the county as a whole compared with the England average (5.4% vs 6.2%). However, in Fenland, prevalence is higher than both the county and national averages. In East Cambridgeshire and Fenland prevalence is higher than the county average. In Cambridge City prevalence is significantly lower than the national and county averages.

It is important to note, however, that these prevalence data are not age-standardised and so areas with a higher proportion of older people will be expected to have higher prevalence of diabetes.

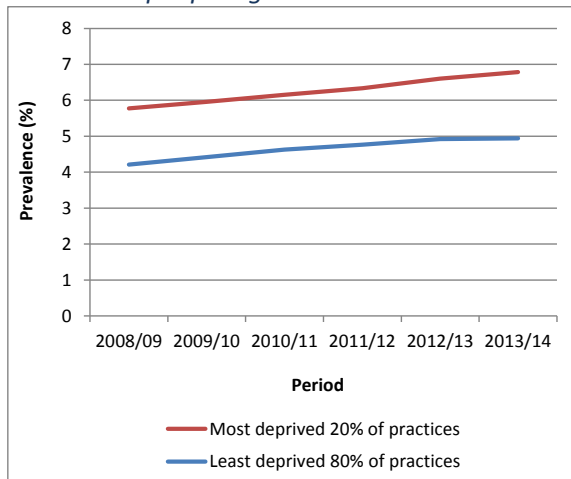
^a Type 1 diabetes is an auto-immune condition in which the cells that produce insulin are destroyed and require lifelong treatment with insulin. About 10% of people with diagnosed diabetes have Type 1 diabetes.

^b Type 2 diabetes occurs when the body stops producing enough insulin for its needs and is usually accompanied by resistance to the effect of insulin. The condition is progressive requiring lifestyle management (diet and exercise) at all stages, and possibly medication or insulin.

The number of adults who have been diagnosed with diabetes in Cambridgeshire has increased by 28% from 22,720 in 2008-09 to 28,860 in 2013-14. Prevalence has increased from 4.6% in 2008/09 to 5.4% in 2013/14. This is because more people with undiagnosed Type 2 diabetes are being identified, along with an increase in the underlying prevalence of diabetes together with an ageing population. The increasing burden of diabetes in the UK is driven by the rising prevalence of obesity as well as demographic changes in the age and ethnic structure of the population. ²

The prevalence of diabetes is higher in the most deprived neighbourhoods and lower in the least deprived areas.

Diabetes in people aged 17 and over



The recorded prevalence of diabetes has increased across the county since 2008/09. Rates are consistently higher in the most deprived 20% of practices in the county compared with the least deprived 80%.

The prevalence of diabetes is 37% higher in the most deprived 20% of GP practices in the county compared with elsewhere.

30% of people on diabetes registers in the county are registered with the most deprived 20% of GP practices.

Source: Quality & Outcomes Framework (QOF) 2013/14

What are the complications of diabetes?

Diabetes can lead to long term complications that affect small blood vessels (microvascular – coronary heart disease, stroke, peripheral artery disease) and large blood vessels (macrovascular – retinopathy, nephropathy, neuropathy).

People with diabetes are:³

- 48% more likely to have been admitted to hospital for a myocardial infarct (heart attack) ;
- 65% more likely to have a hospital admission related to heart failure;
- 25% more likely to have a hospital admission for a stroke than the general population;

Diabetes is also a major risk factor for the development of peripheral artery disease (PAD) and patients with diabetes are four times more likely to develop PAD.⁴

How many deaths are related to diabetes in Cambridgeshire?

There is considerable under-recording of diabetes as an underlying cause of death, because deaths in people with diabetes are often attributed to other conditions for which diabetes is a complication or risk factor, such as kidney or cardiovascular disease.⁵ This means that there is a large number of additional deaths where diabetes is not the main cause, but is a significant contributing factor. Diabetes increases the risk of cardiovascular and kidney disease which are associated with higher death rates.

Between 2012-14 there were 164 deaths (an average of 55 deaths annually) in Cambridgeshire where the primary cause of death was a diabetic emergency. 27% of deaths occur in people aged under 75 and 56% of diabetes deaths in the county are in women. Although not statistically significantly so, rates of diabetes mortality appear to be higher in Fenland and Cambridge.

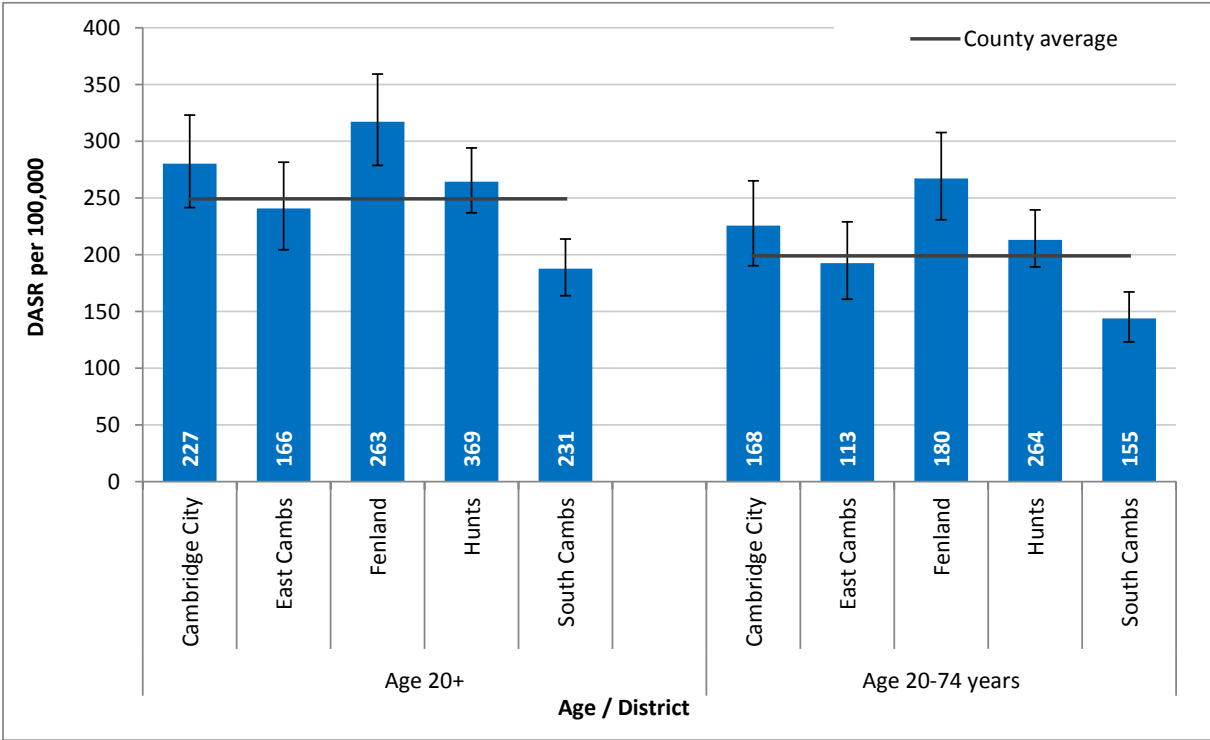
Hospital admissions and episodes of care

People resident in Cambridgeshire (based on LSOA), 2013/14, aged 20 and above

- Coding in hospital episode data at discharge records the primary diagnosis (the underlying reason for the admission), a subsidiary diagnosis and up to 12 other contributory causes/diagnoses. Coding is known to be variable between hospital trusts.
- A diagnosis of diabetes (ICD10: E10-14) was recorded in any diagnostic code in over 6,200 emergency admissions which resulted in over 45,300 bed days and a total cost of £1.6m.
- In 1,280 admissions (21%), diabetes was recorded as the primary or subsidiary diagnosis. These admissions resulted in 6,000 emergency bed days and a total cost of £2.4m.
- 70% of these emergency admissions were in people aged under 75 of whom 54% were male.
- 75% of diabetic emergency admissions (primary and subsidiary diagnoses) were in non-insulin-dependent diabetics (Type 2), admitted for complications related to their diabetes.

In Fenland, the age-standardised emergency admission rate is significantly higher than the county average in people aged 20 and over and in people aged 40 to 75 years. Rates in South Cambridgeshire are significantly lower than the county average in both age groups.

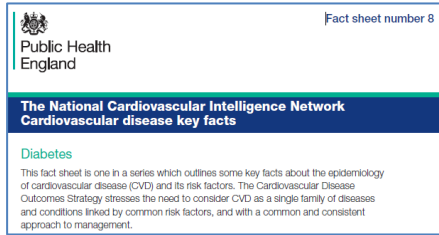
Emergency hospital admissions for diabetes as primary or subsidiary diagnosis, Cambridgeshire, 2013-14, all ages (20+) and under 75



Number of emergency admissions per year stated at the base of each bar. Admissions to All Hospital Trusts. Error bars represent 95% confidence intervals. DASR - directly age-standardised rate. Diabetes defined by primary or subsidiary diagnosis of ICD10: E10-E14. Sources: Inpatient Commissioning Dataset. FHS Registration System (Exeter) registered population.

Further Resources

Key facts PHE – CVD Series



<http://www.yhpho.org.uk/default.aspx?RID=185796>

Key Facts series produced by Public Health England (PHE) with headline epidemiological and comparator data.

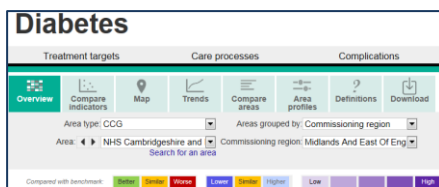
Each factsheet summarises information about a cardiovascular disease (CVD) risk factor or disease area.

PHE - Longer Lives



<http://healthierlives.phe.org.uk/>

Information at CCG and GP practice level on prevalence, risk factors, treatment targets, care processes and complications of diabetes.



<http://fingertips.phe.org.uk/diabetes#gid/1938132727/page/44/at/19/page/0/par/E4000002/are/E38000026>

Prevalence, risk factors, treatment targets, care processes and complications of diabetes.

In addition, the PHE Knowledge and Information Gateway <http://datagateway.phe.org.uk/> contains many more links on Diabetes and other Long Term Conditions.

Acknowledgement of source material

This supplement uses information from Public Health England (PHE), the Health and Social Care Information Centre (HSCIC) and other publications shown above. More detailed information is available from each of the Key Resources described above.

Where to find the local data

Cambridgeshire JSNA

<http://www.cambridgeshireinsight.org.uk/jsna>

Cambridgeshire Insight and Atlases

www.cambridgeshireinsight.org.uk/

References

¹ Health and Social Care Information Centre. National Diabetes Audit 2009/10: executive summary, 2011 Available at: <https://catalogue.ic.nhs.uk/publications/clinical/diabetes/nati-diab-audi-09-10/nati-diab-audi-09-10-exec-sum.pdf>

² Gatineau M, Hancock C, Holman N et al. Adult obesity and type 2 diabetes. Public Health England, 2014. Available at: http://www.noo.org.uk/NOO_pub/briefing_papers

³ Health and Social Care Information Centre. National Diabetes Audit 2010 – 11: report 2 complications and mortality, 2012. Available at: <https://catalogue.ic.nhs.uk/publications/clinical/diabetes/nati-diab-audi-10-11/nati-diab-aud-10-11-comp-and-mort-v3.pdf>

⁴ Newman ABV et al, Gregg EW et al cited in Department of Health. Cardiovascular Disease Outcomes Strategy, 2013. Available at: <https://www.gov.uk/government/publications/improving-cardiovascular-disease-outcomes-strategy>

⁵ Health and Social Care Information Centre. Mortality from diabetes. Available at: <https://indicators.ic.nhs.uk/webview/>