PUBLIC HEALTH intelligence

Cambridgeshire County Council

Data supplement: Cardiovascular disease 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*).

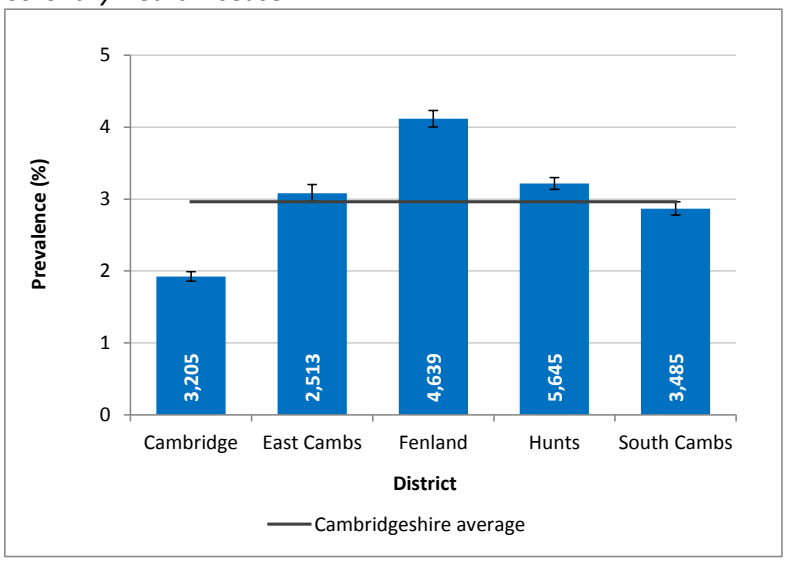
Background

Cardiovascular disease (CVD) is an overarching term that describes a family of diseases sharing a common set of risk factors resulting from atherosclerosis (furring or stiffening of the walls of arteries), particularly coronary heart disease, stroke and peripheral arterial disease. It also covers other conditions such as vascular dementia, chronic kidney disease, cardiac arrhythmia (irregular heartbeat), sudden cardiac death and heart failure, because they share common risk factors or have a significant impact on CVD mortality or morbidity.[1]

What is the prevalence and who is at risk?

In 2011 in England, 13.9% of men and 13.4% of women reported a diagnosis of a cardiovascular condition. The prevalence of any CVD condition increases with age, rising from 3.3% of men and 4.8% of women aged 16 to 24 to 53.8% and 31.1% respectively aged 85 and over. The increase with age is much steeper in men than in women.[2]

Coronary Heart Disease

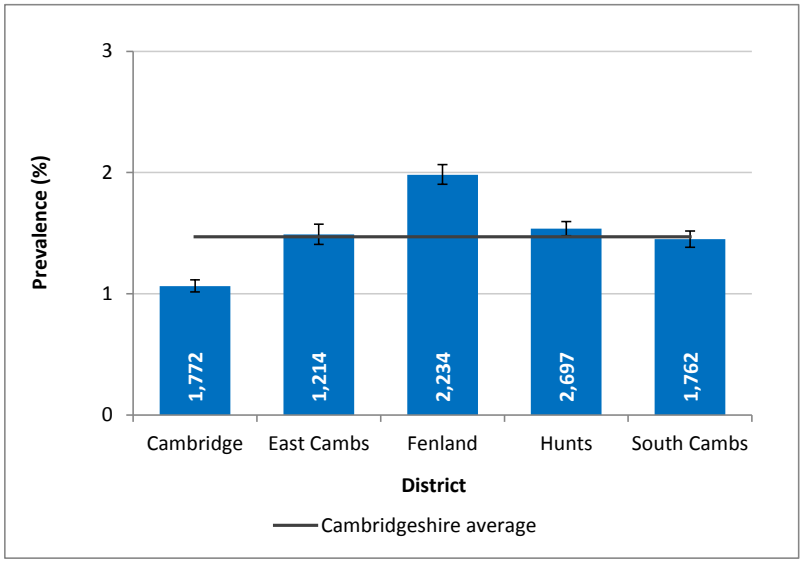


Number on the register stated at the base of each bar
Error bars represent 95% confidence intervals
Source: Quality and Outcomes Framework (QOF) 2013/14

Around 19,500 people are recorded on disease registers for coronary heart disease (CHD) in general practices across Cambridgeshire. The prevalence of CHD is lower in Cambridgeshire as a whole compared with the England average (3.0% vs. 3.3%). However, prevalence is higher than both the county and national averages in Fenland and higher than the county average in Huntingdonshire. In Cambridge City, prevalence is significantly lower than the county and national 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 a higher prevalence of CHD.

Stroke



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

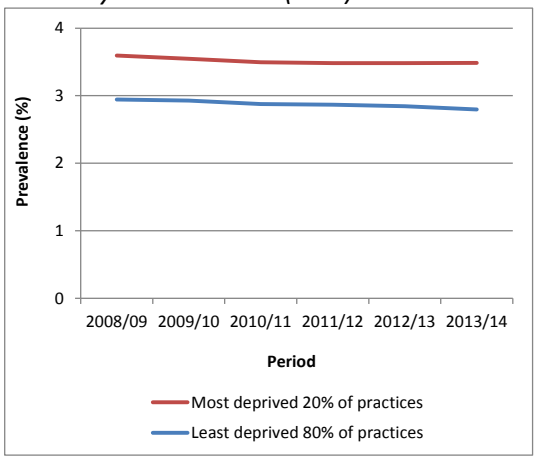
Around 9,700 people are recorded on disease registers for stroke/transient ischaemic attack (TIA) in general practices across Cambridgeshire.

The prevalence of stroke is lower in Cambridgeshire as a whole compared with the England average (1.5% vs 1.7%). However, in Fenland, prevalence is higher than both the county and the national average. In Cambridge City, prevalence is significantly lower than the county and national 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 a higher prevalence of stroke/TIA.

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

Coronary heart disease (CHD)

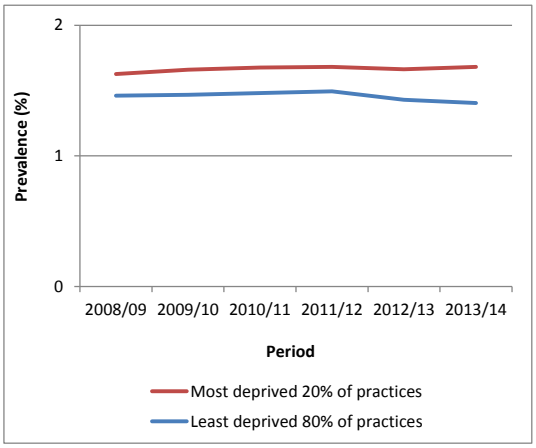


The prevalence of CHD has fallen slightly across Cambridgeshire since 2008/09. However, rates remain higher in the most deprived 20% of GP practices in the county compared with the least deprived 80%.

The prevalence of CHD is 25% higher in the most deprived 20% of GP practices compared with elsewhere in Cambridgeshire.

29% of people on CHD registers in the county are registered with the most deprived 20% of practices.

Stroke



The prevalence of stroke/TIA has remained relatively stable across the county since 2008/09. Rates are higher in the most deprived 20% of GP practices in the county compared with the least deprived 80%.

The prevalence of stroke is 20% higher in the most deprived 20% of GP practices in Cambridgeshire compared with elsewhere and the gap between the two has widened slightly.

28% of people on stroke/TIA registers in the county are registered with the most deprived 20% of practices.

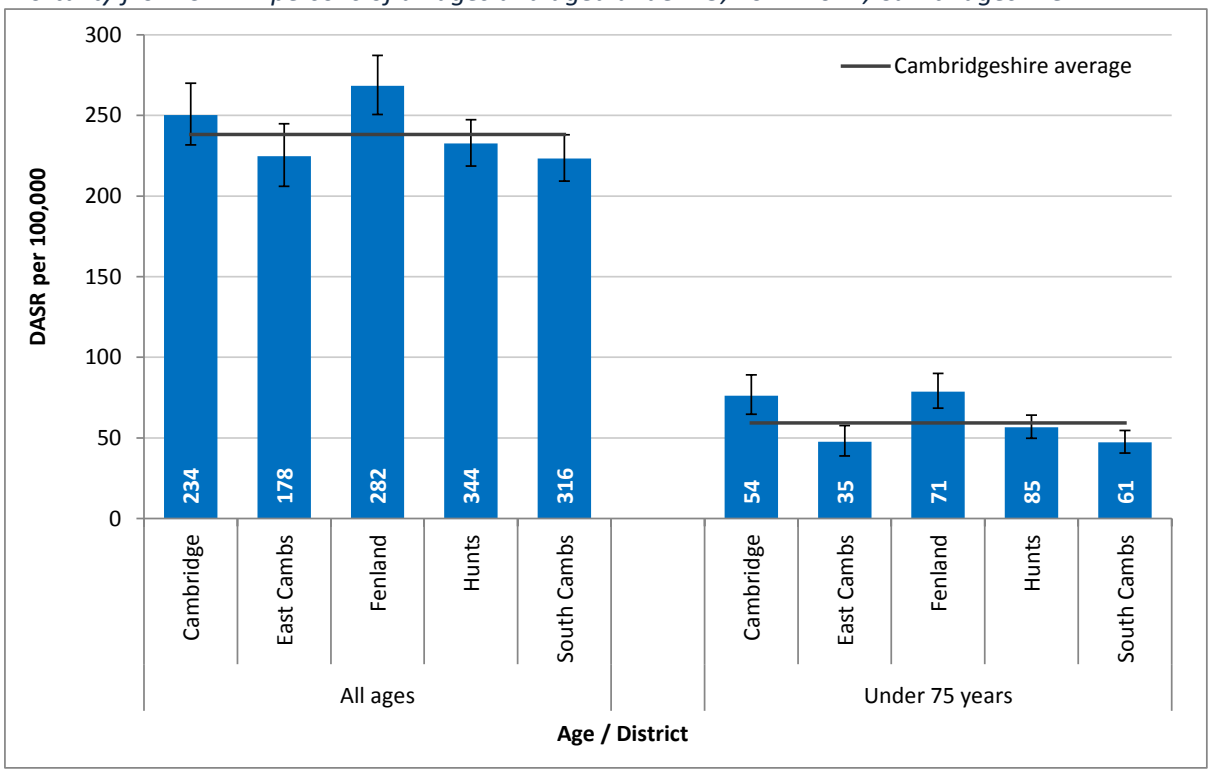
Source: Quality & Outcomes Framework (QOF) 2013/14

In addition to CHD and stroke, general practices also maintain registers of people with other CVD conditions. Around 85,000 people are recorded as having hypertension, 12.9% of the population. This is slightly lower than the England average of 13.7%. Around 10,500 people are recorded as having atrial fibrillation (an irregular heartbeat), 1.6% of the population, the same as the national average. Just over 4,000 people are recorded as having a history of heart failure, 0.6%, lower than the national average. Nearly 3,500 people are recorded with peripheral artery disease (PAD), 0.5%, lower than the national average.

How many deaths are related to CVD?

Around 1,350 deaths occur due to cardiovascular disease in Cambridgeshire each year, 23% in people aged under 75. All age and under 75 mortality is significantly higher than the county average in Fenland. Under 75 mortality is also significantly higher than the county average in Cambridge. All age and under 75 mortality is significantly lower in Cambridgeshire compared with the England average (2011-13 data).

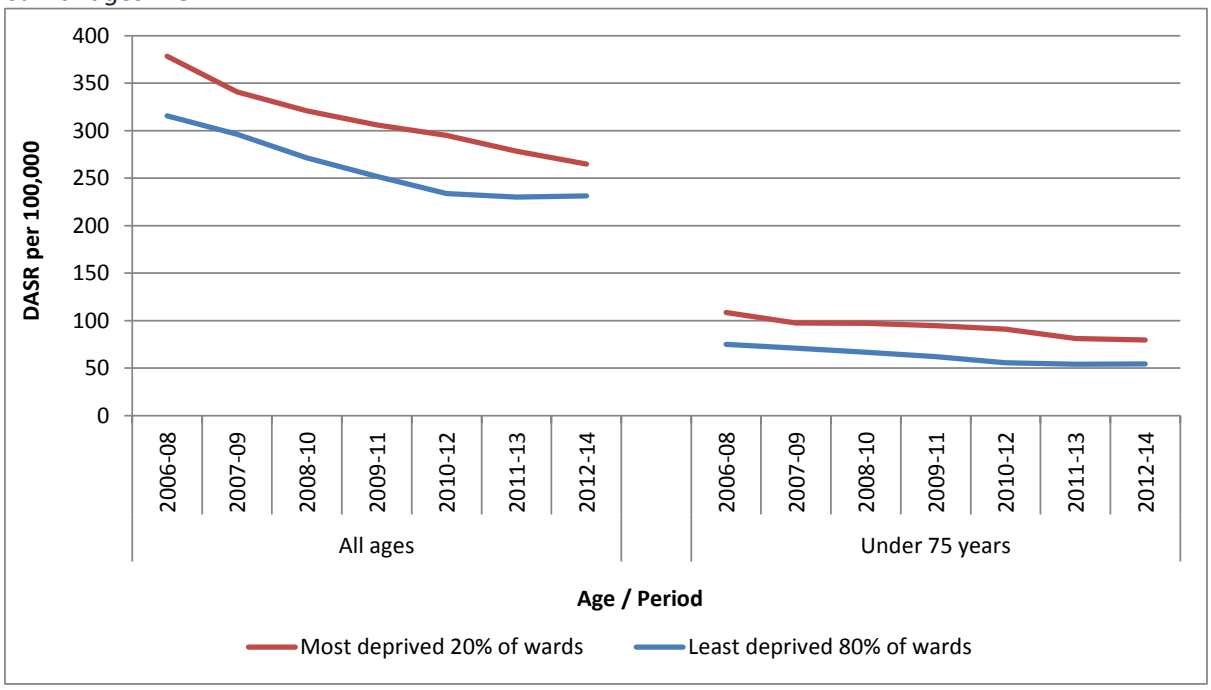
Mortality from CVD in persons of all ages and aged under 75, 2012-2014, Cambridgeshire



Average number of deaths per year stated at the base of each bar. Error bars represent 95% confidence intervals. DASR - directly age-standardised rate. CVD defined by ICD10: I00-I99.
Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates

There is a social gradient in CVD mortality, with more deprived areas experiencing higher death rates than less deprived areas. Rates of cardiovascular disease mortality have fallen in people of all ages, and in those aged under 75 years. However, rates remain higher in the most deprived 20% of wards in the county compared with the remaining 80%. Rates of premature mortality (in under 75s) are 47% higher in the most deprived 20% of wards compared with elsewhere. 27% of under 75 deaths occur in people resident in the 20% most deprived wards.

Mortality from CVD in persons of all ages and aged under 75 by deprivation, 2006-08 to 2012-2014, Cambridgeshire



Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates. CVD defined by ICD10: I00-I99

Cause of death

43% of cardiovascular deaths in Cambridgeshire (2012-14) are due to coronary heart disease and 24% due to stroke. Other major causes are aortic aneurysm, atrial fibrillation, and heart failure and hypertensive diseases.

Hospital admissions and episodes of care

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

- In 2013/14, 10,000 hospital episodes occurred due to cardiovascular disease for people resident in Cambridgeshire. In 2013/14 this resulted in over 47,500 bed days and a cost of £26.7 m.

- Emergency admissions account for 58% of total and 64% of total cost. Day cases account for 28% of admissions and 13% of the cost. Elective (planned) admissions account for 14% of admissions and 22% of the cost. Elective episodes include diagnostic procedures and operations, such as coronary artery revascularisation, heart valves and cardiac pacemakers.

- Around 5,800 emergency admissions occur due to cardiovascular disease in Cambridgeshire residents each year. In 2013/14 this resulted in 42,700 emergency bed days and a total cost of £17.2m.

- 45% of emergency admissions were due to CHD and 24% due to stroke, with a further 14% due to other heart disease.

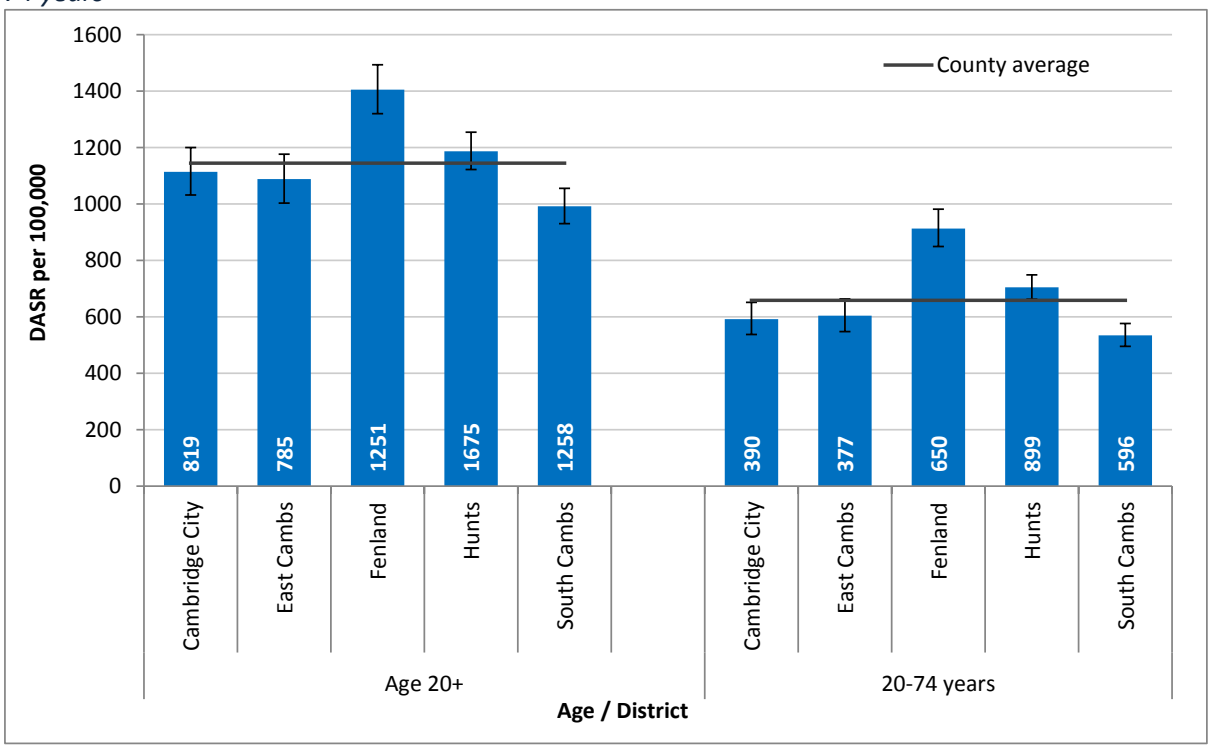
- 50% of emergency admissions occur in people aged under 75.

- In the under 75s, males account for 64% of emergency admissions whereas for all ages, 56% are male.
- 76% of emergency admissions are via A&E and a further 7% from GP or Consultant outpatient clinics.

- Whilst 71% of people who had been discharged returned to their 'usual place of residence', 3% were recorded as having been discharged into nursing or residential care and 9% to another hospital. This is likely to be an under-estimate of discharge into care homes due to coding issues in the data including when a care home is considered usual place of residence.

At both all ages and in people aged under 75, the age-standardised emergency admission rate is significantly higher than the county average in Fenland.

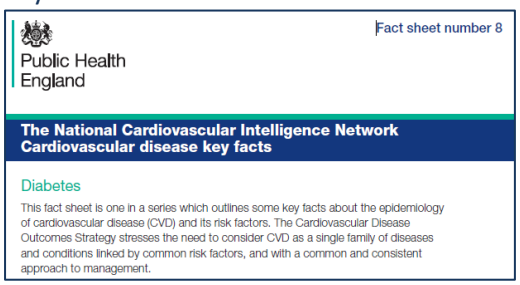
Emergency hospital admissions for cardiovascular disease, Cambridgeshire, 2013-14, people aged 20+ and 20 – 74 years



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. CVD conditions defined by primary diagnosis of ICD10: I00-I99. Sources: Inpatient Commissioning Dataset. CCC RP&T 2012 based forecasts for resident population 2013/2014 (ave)

Further Resources

Key facts PHE – CVD Series


Fact sheet number 8

Public Health England

The National Cardiovascular Intelligence Network
Cardiovascular disease key facts

Diabetes

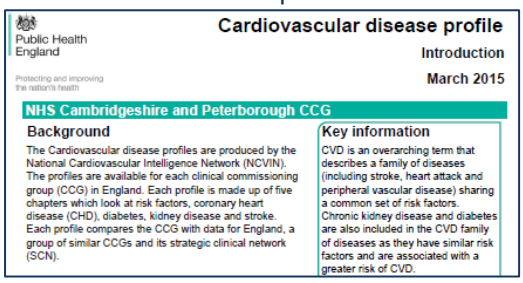
This fact sheet is one in a series which outlines some key facts about the epidemiology of cardiovascular disease (CVD) and its risk factors. The Cardiovascular Disease Outcomes Strategy stresses the need to consider CVD as a single family of diseases and conditions linked by common risk factors, and with a common and consistent approach to management.

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.

Cardiovascular disease profile


Public Health England

Protecting and improving the nation's health

Cardiovascular disease profile

Introduction

March 2015

NHS Cambridgeshire and Peterborough CCG

Background

The Cardiovascular disease profiles are produced by the National Cardiovascular Intelligence Network (NCVIN). The profiles are available for each clinical commissioning group (CCG) in England. Each profile is made up of five chapters which look at risk factors, coronary heart disease (CHD), diabetes, kidney disease and stroke. Each profile compares the CCG with data for England, a group of similar CCGs and its strategic clinical network (SCN).

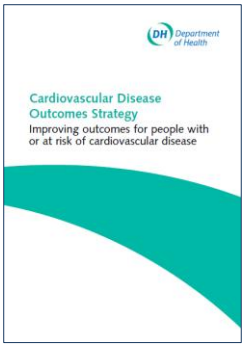
Key information

CVD is an overarching term that describes a family of diseases (including stroke, heart attack and peripheral vascular disease) sharing a common set of risk factors. Chronic kidney disease and diabetes are also included in the CVD family of diseases as they have similar risk factors and are associated with a greater risk of CVD.

http://www.yhpho.org.uk/default.aspx?RID=203617

Profiles for each clinical commissioning group (CCG) summarising data about cardiovascular prevalence, care processes and treatment targets, variation and complications. Local Authority profile at: http://www.sepho.org.uk/NationalCVD/docs/12_CVD%20Profile.pdf

Cardiovascular disease outcomes strategy


DH Department of Health

Cardiovascular Disease Outcomes Strategy

Improving outcomes for people with or at risk of cardiovascular disease

https://www.gov.uk/government/publications/improving-cardiovascular-disease-outcomes-strategy

Provides advice to local authority and NHS commissioners and providers about actions to improve cardiovascular disease outcomes.

In addition, the PHE Knowledge and Information Gateway http://datagateway.phe.org.uk/ contains many more links on Cardiovascular Disease 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 data

Cambridgeshire JSNA — http://www.cambridgeshireinsight.org.uk/jsna

Cambridgeshire Insight and Atlases — www.cambridgeshireinsight.org.uk/

References

[1] Department of Health. Cardiovascular disease outcomes strategy, 2013. Available from: https://www.gov.uk/government/publications/improving-cardiovascular-disease-outcomes-strategy

[2] Oyebode O. Cardiovascular disease. In: Craig R, Mindell, J, editors. Health survey for England 2011: volume 1: health, social care and lifestyles. Available from: http://www.hscic.gov.uk/catalogue/PUB09300

PUBLIC HEALTH intelligence

Cambridgeshire County Council

Data supplement: Chronic Kidney Disease 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

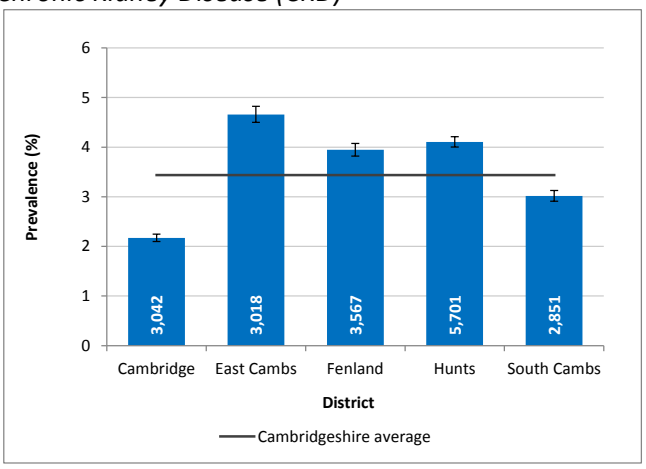
There is a wide spectrum of kidney disease, which can be rapid onset (acute) or longer term (chronic). Chronic Kidney Disease (CKD) is closely related to cardiovascular disease (CVD) and the two pathologies often co-exist.[1] CKD describes abnormal kidney function and/or structure. It is divided into five stages according to severity. Stages 3 to 5 are classified as moderate to severe CKD and stage 5 may require renal replacement therapy (RRT). It is common, frequently unrecognised and often exists together with other cardiometabolic conditions.[2]

What is the prevalence and who is at risk?

The estimated prevalence of CKD stages 3 to 5 varies by age and gender (based on patients with CKD amongst those tested for kidney function in the Health Survey for England, 2011). In the 16 to 24 age group the prevalence is less than 1%; this increases to more than 29% in males and 35% in females for the 75 and over age group. The prevalence of CKD is higher in women compared to men in most population based studies. The overall prevalence of CKD stages 3 to 5 in people aged 16 and over was 7% in women and 6% in men.[3]

There are known coding issues with CKD prevalence noted in QOF for 2013/14. Within the national dataset, a coding issue led to under-reporting of this condition at the extraction stage. This will not be corrected in QOF until the 2014-15 data are extracted. These data are provided for reference only and we would recommend against using these figures in any other publication without this disclaimer or basing any decisions on these figures.

Chronic Kidney Disease (CKD)



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

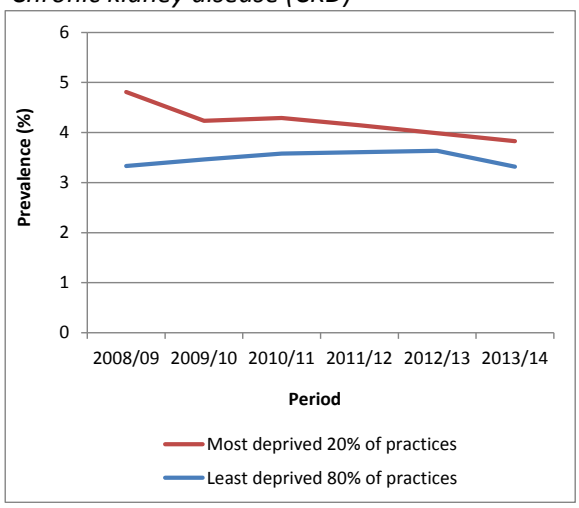
Based on 2013/14 QOF data, around 18,200 people are recorded on disease registers for CKD in practices across Cambridgeshire.

The prevalence of CKD is lower in the county as a whole compared with the England average (3.4% vs 4.0%). However, in East Cambridgeshire, prevalence is higher than the county and national averages. In Fenland and Hunts prevalence is higher than the county average. In South Cambridgeshire and Cambridge City, prevalence is lower than the county and national 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 a higher prevalence of CKD.

National sources state that there is a higher incidence and prevalence of CKD in more deprived populations in developed countries.[4] However, in the local QOF data presented below, a reverse pattern is observed. CKD is known to be under-diagnosed and modelled estimates for CKD suggest prevalence to be 5.9% in the CCG.[5] It is possible that there is more under-diagnosis in the most deprived areas. There is no suggestion from national sources that there is a true fall in prevalence of CKD.

Chronic kidney disease (CKD)



The prevalence of recorded CKD has remained stable in the least deprived 80% of practices in the county but has fallen in the most deprived 20%. Data shown to 2012/13 due to the QOF coding issue referred to in the previous section.

The prevalence of CKD remains 15% higher in the most deprived 20% of practices in Cambridgeshire compared with elsewhere but the gap has reduced

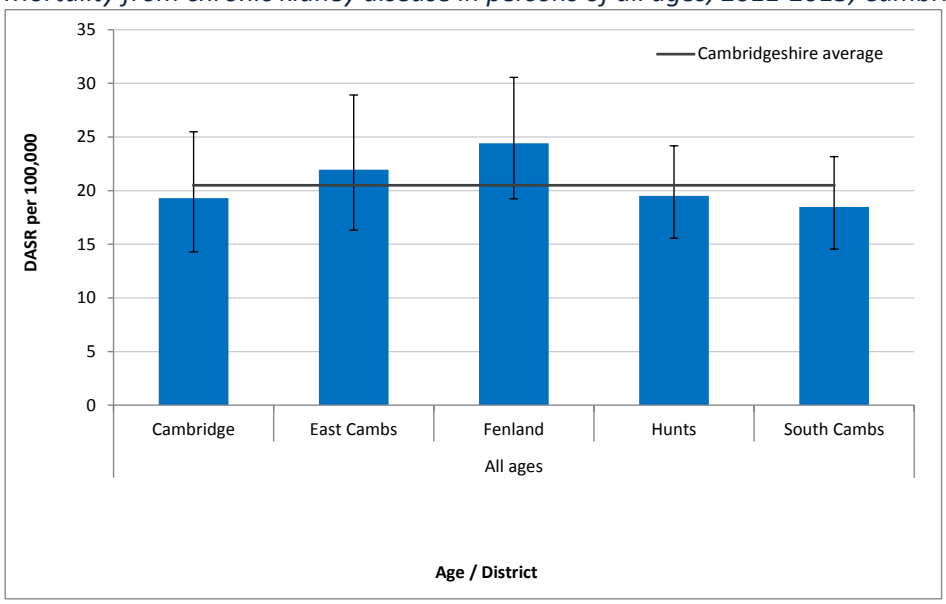
Source: Quality & Outcomes Framework (QOF) 2013/14

How many deaths are related to chronic kidney disease?

Routine mortality statistics of death related to chronic kidney disease are an under-estimate of the total number of deaths as it is not routinely recorded as the underlying cause of death, rather as a contributing factor. People with CKD are roughly 20 times more likely to die of CVD than to progress to end stage renal disease (ESRD).[6]

Between 2011 and 2013 there were 340 deaths (an average of around 110 deaths annually) in Cambridgeshire where either the underlying (primary) cause or a contributory cause of death was CKD (ICD10: N18). 16% of deaths occur in people aged under 75 and 47% of CKD deaths are in women. Comparable figures for England are not currently available. Mortality rates are similar to the county average across all districts.

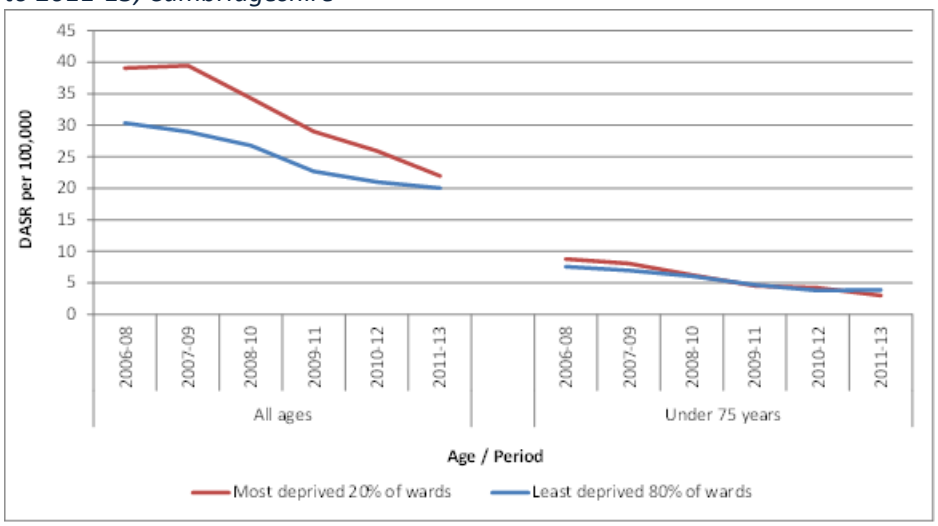
Mortality from chronic kidney disease in persons of all ages, 2011-2013, Cambridgeshire



Error bars represent 95% confidence intervals. DASR - directly age-standardised rate.
CKD defined by ICD10: N18.

Rates of CKD mortality have fallen in people of all ages and people aged under 75 in both the most deprived 20% of wards and the least deprived 80%. In people of all ages, rates are higher in the most deprived 20% compared with the least deprived 80% though the gap has reduced. There is no difference in mortality rates in people aged under 75.

Mortality from chronic kidney disease in persons of all ages and aged under 75 by deprivation, 2006-08 to 2011-13, Cambridgeshire



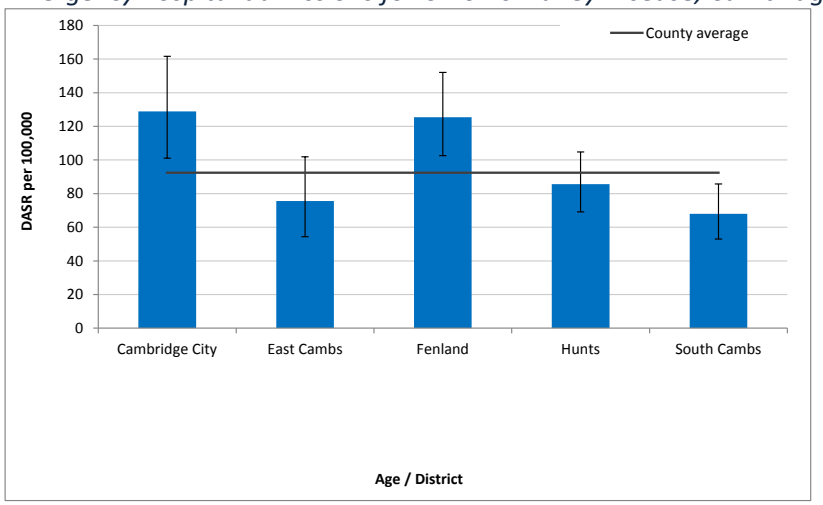
Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates. CKD defined by ICD10: N18.

Hospital admissions and episodes of care

People resident in Cambridgeshire (based on LSOA), 2013/14, aged 30 and above

In 2013/14, there were nearly 400 emergency admissions where CKD was recorded as the primary or subsidiary diagnosis. These admissions resulted in 3,000 emergency bed days and a total cost of £1.1m. In Fenland and Cambridge City, the age-standardised emergency admission rate for CKD is significantly higher than the county average. Rates in South Cambridgeshire are significantly lower than the county average. There may be differences in coding of CKD between hospital trusts.

Emergency hospital admissions for Chronic Kidney Disease, Cambridgeshire, 2013-14, all ages (30+)



Admissions to All Hospital Trusts. Error bars represent 95% confidence intervals. DASR - directly age-standardised rate. CKD defined by primary or subsidiary diagnosis of ICD10: N18. Sources: Inpatient Commissioning Dataset. FHS Registration System (Exeter) registered population.

- 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.

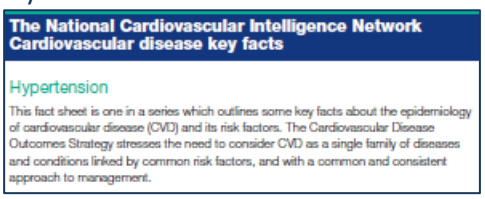
- In 2013/14, a diagnosis of chronic kidney disease (ICD10: N18) was recorded in any diagnostic code in over 3,200 emergency admissions which resulted in over 30,300 emergency bed days and a total cost of £9.3m.

- 75% of these emergency admissions were in people aged 75 and over and 53% were in men.

- In emergency admissions where chronic kidney disease was recorded as a diagnosis, 18% had a primary diagnosis of cardiovascular disease (CVD), primarily coronary heart disease, other forms of heart disease and stroke.

Further Resources

Key facts PHE – CVD Series

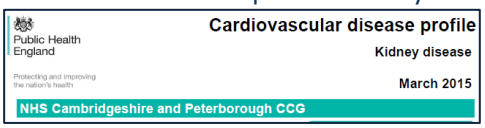

The National Cardiovascular Intelligence Network
Cardiovascular disease key facts

Hypertension

This fact sheet is one in a series which outlines some key facts about the epidemiology of cardiovascular disease (CVD) and its risk factors. The Cardiovascular Disease Outcomes Strategy stresses the need to consider CVD as a single family of diseases and conditions linked by common risk factors, and with a common and consistent approach to management.

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 – Cardiovascular profile: Kidney disease


Public Health England
Protecting and improving the nation's health
Cardiovascular disease profile
Kidney disease
March 2015
NHS Cambridgeshire and Peterborough CCG

http://www.yhpho.org.uk/ncvincvd/default.aspx
The profile compares the CCG with data for England, a group of similar CCGs and the strategic clinical network (SCN). Information on risk factors, care process and treatment indicators are included.

Acknowledgement of source material

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Cambridgeshire Insight and Atlases — www.cambridgeshireinsight.org.uk/

References

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[1] NICE. Clinical Guideline 73: chronic kidney disease: early identification and management of chronic kidney disease in adults in primary and secondary care, 2008. Available at: http://www.nice.org.uk/Guidance/CG73
[2] NICE. Quality standard 5: chronic kidney disease, 2011. Available at: http://guidance.nice.org.uk/QS5
[3] Roth M, Roderick P, Mindell J. Health Survey for England 10: respiratory health: chapter 8: kidney disease and renal function, 2011, Available at: http://www.hscic.gov.uk/catalogue/PUB03023 Page 23
[4] Public Health England. Chronic Kidney Disease. Fact sheet No 9. See Further Resources.
[5] Public Health England. Cardiovascular profile: kidney disease. See Further Resources.

PUBLIC HEALTH intelligence

Cambridgeshire County Council

Data supplement: Chronic Obstructive Pulmonary Disease 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*).

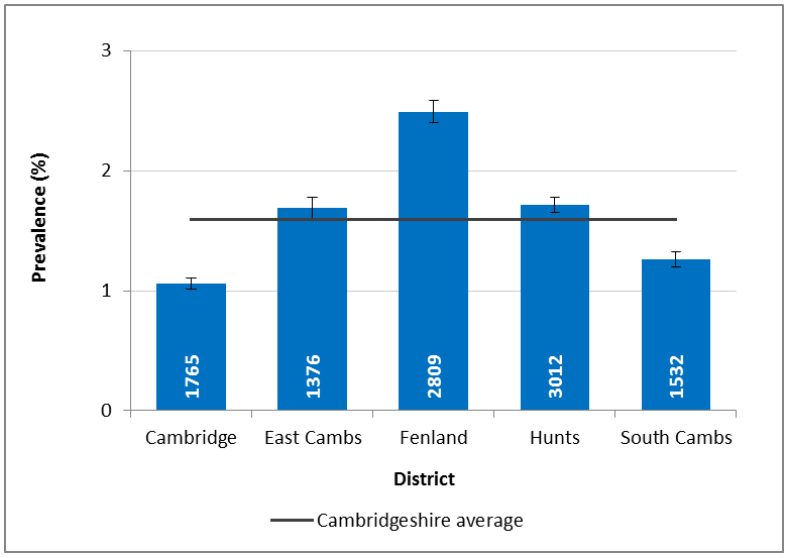
Background

Chronic obstructive pulmonary disease (COPD) describes lung damage that is gradual in onset and results in progressive airflow limitation. The principal cause of COPD is smoking. Other factors include workplace exposure (eg to dusts, gas/fumes or chemicals), genetic make-up and general environmental pollution. COPD is a progressive illness, and the likelihood of people dying as a result of COPD increases with age. It is not curable, but it is treatable. Its progress can be halted and can be managed to minimise its burden.[1]

What is the prevalence and who is at risk?

Current and ex-smokers are most at risk of contracting COPD. The picture is even worse for smokers from the most disadvantaged sectors of society, where in some cases (eg for people with schizophrenia) smoking prevalence can reach 74%. External factors such as air pollution can also exacerbate conditions. 40% of people with lung disease are below retirement age (1.4 million based on 3.5 million cases nationally) and a quarter of those below retirement age are unable to work at all (400,000 people nationally).[2]

Chronic Obstructive Pulmonary Disease (COPD)



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

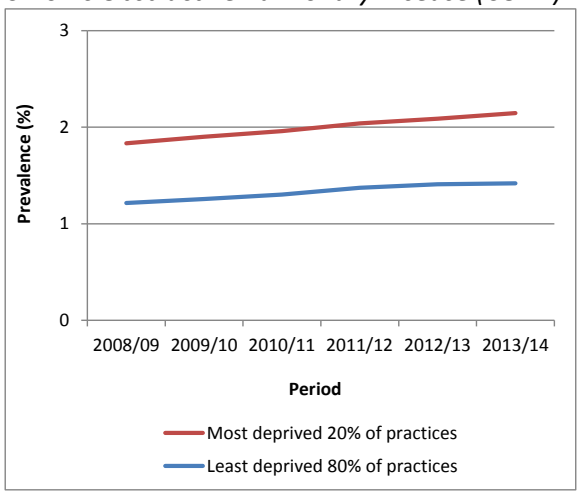
Around 10,500 people are recorded on disease registers for chronic obstructive pulmonary disease (COPD) in general practices in Cambridgeshire.

The prevalence of COPD is lower in Cambridgeshire as a whole compared with the England average (1.6% vs 1.8%). However, in Fenland prevalence is higher than the county and national averages and in Huntingdonshire, prevalence is higher than the county average. In Cambridge City and South Cambridgeshire, prevalence is lower than the county and national averages.

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

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

Chronic Obstructive Pulmonary Disease (COPD)



The prevalence of people on COPD registers has increased across the county since 2008/09. However, rates remain consistently higher in the most deprived 20% of GP practices in the county compared with the least deprived 80%.

The prevalence of COPD is 51% higher in the most deprived 20% of GP practices in Cambridgeshire compared with elsewhere.

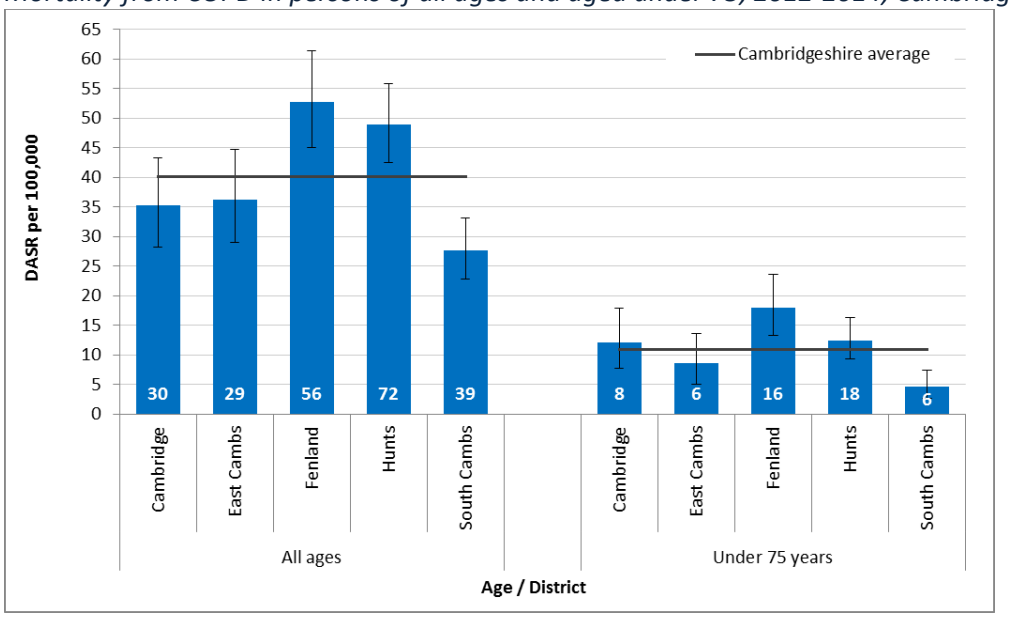
33% of people on COPD registers in the county are registered with the most deprived 20% of practices.

Source: Quality & Outcomes Framework (QOF)

How many deaths are related to COPD?

Around 220 deaths occur due to COPD in Cambridgeshire each year. 56% of COPD deaths are in men and 24% occur in people aged less than 75 years. In Fenland, all age and under 75 mortality is significantly higher than the county average. Note that the number of deaths annually is relatively small and the confidence intervals are wide. All age mortality is significantly lower in Cambridgeshire compared with the England average (2011-13 data).

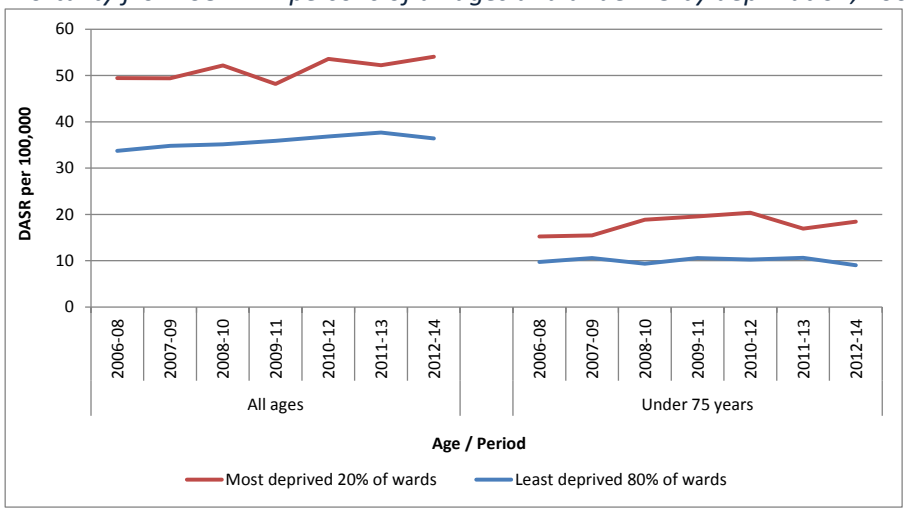
Mortality from COPD in persons of all ages and aged under 75, 2012-2014, Cambridgeshire



Average number of deaths per year stated at the base of each bar. Error bars represent 95% confidence intervals. DASR - directly age-standardised rate. COPD defined by ICD10: J40-J44.
Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates.

There is a social gradient in COPD mortality, with more deprived areas experiencing higher death rates than less deprived areas. Rates of COPD mortality have increased in people of all ages, and in those aged under 75 years. Rates remain higher in the most deprived 20% of wards in the county compared with the remaining 80%. Rates of premature mortality (in people aged under 75) are twice as high as the rates in the rest of the county. 35% of deaths in people aged under 75 occur in people resident in the 20% most deprived wards.

Mortality from COPD in persons of all ages and under 75 by deprivation, 2006-08 to 2012-14, Cambridgeshire



Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates. COPD defined by ICD10: J40-J44

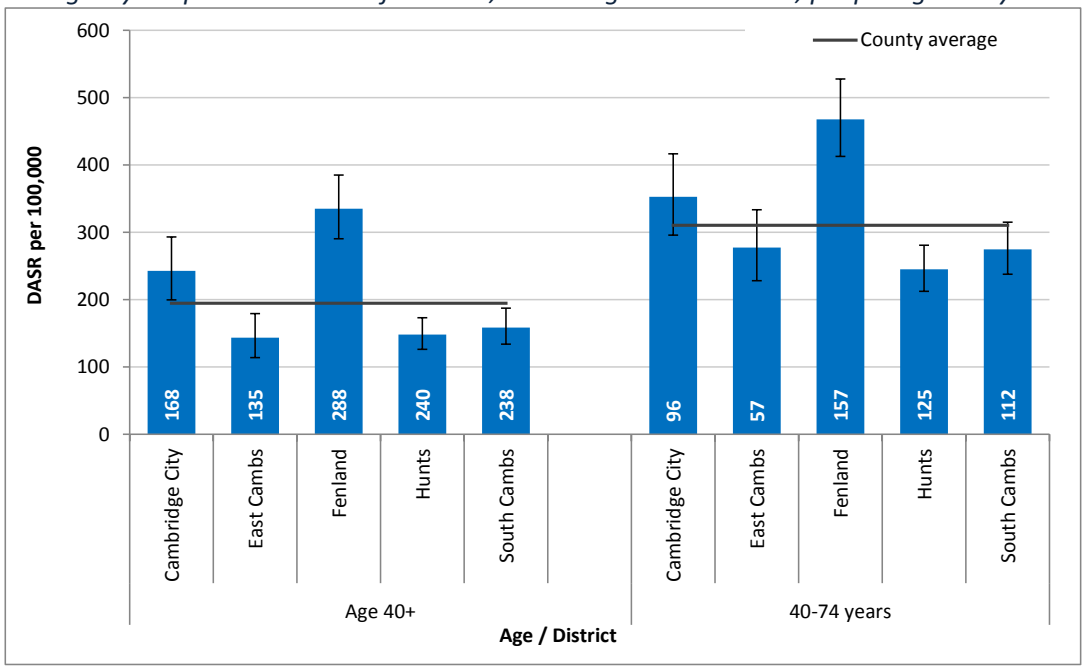
Hospital admissions and episodes of care

People resident in Cambridgeshire (based on LSOA), 2013/14, aged 40 and above

- In 2013/14, of the 1,220 hospital episodes in Cambridgeshire where COPD was the primary diagnosis (ie the main reason for the hospital episode) 1,070 (88%) were emergency admissions.
- Emergency admissions with COPD as primary diagnosis resulted in 6,800 bed days and a cost of £2.6m.
- 52% of emergency admissions occur in people aged under 75, 48% of whom are male.

In Fenland, the age-standardised emergency admission rate is significantly higher than the county average in people of all ages (40+) and in people aged 40 to 74 years. In East Cambridgeshire and Huntingdonshire rates are significantly lower than the county average in people of all ages (40+) and in Huntingdonshire rates are significantly lower in people aged 40 to 74 years.

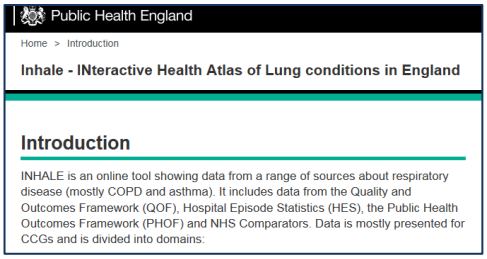
Emergency hospital admissions for COPD, Cambridgeshire 2013-14, people aged 40 years+ and 40 to 74 years



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. COPD defined by primary diagnosis of ICD10: J40-J44. Sources: Inpatient Commissioning Dataset. FHS Registration System (Exeter) registered population.

Further Resources

Public Health England - INHALE



http://fingertips.phe.org.uk/profile/inhale

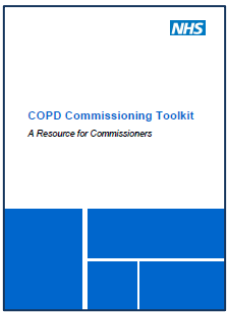
INHALE – interactive Health Atlas of Lung Conditions in England

NHS Atlas of Variation in Healthcare for Respiratory Disease

http://www.rightcare.nhs.uk/index.php/atlas/respiratorydisease/

http://www.sepho.org.uk/extras/maps/NHSatlasRespiratory/atlas.html

COPD Commissioning Toolkit



https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212876/chronic-obstructive-pulmonary-disease-COPD-commissioning-toolkit.pdf

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] COPD Commissioning Toolkit (2015) See Key Resources .

[2] An Outcomes Strategy for Chronic Obstructive Pulmonary Disease (COPD) and Asthma in England Department of Health, 2011. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216139/dh_128428.pdf

PUBLIC HEALTH intelligence

Cambridgeshire County Council

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*).

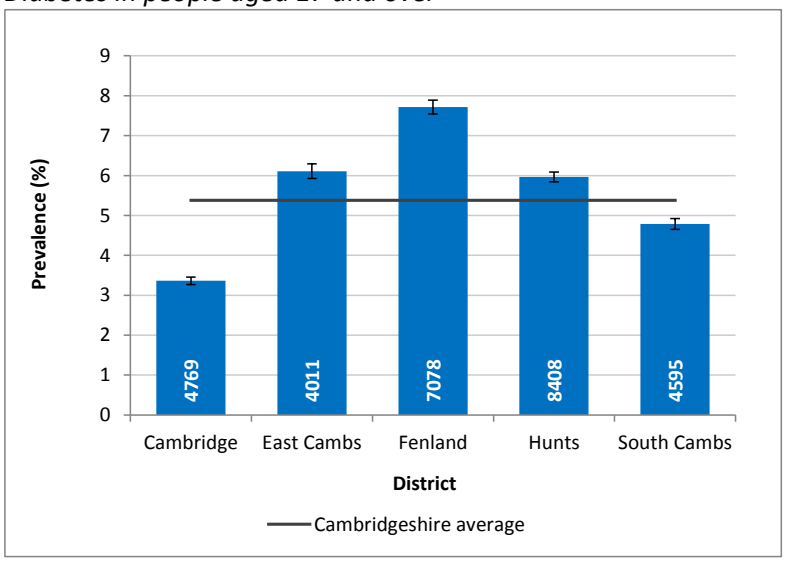
Background

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.

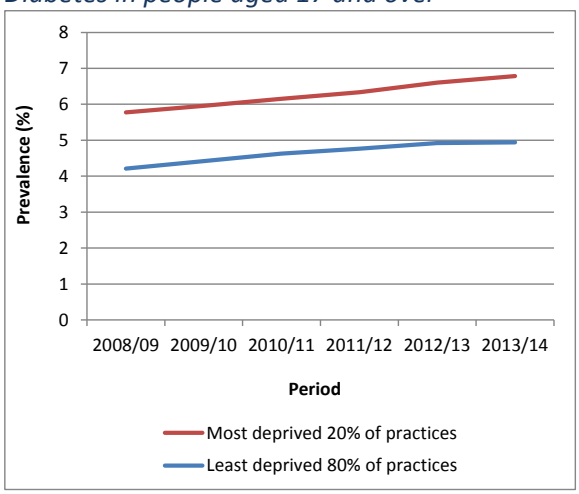
It is important to note, however, that these prevalence data are not age-standardised and so areas with a higher proportion of older people will be expected to have higher prevalence of diabetes.

[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.

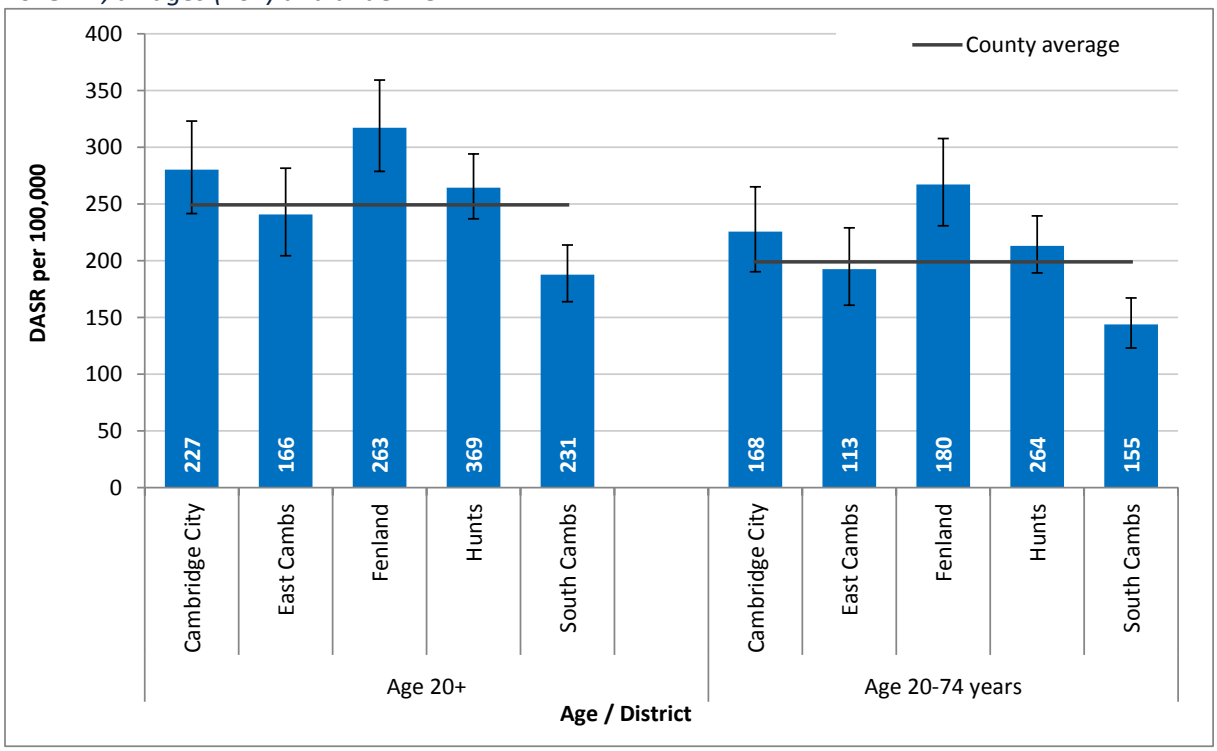
Hospital admissions and episodes of care

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.

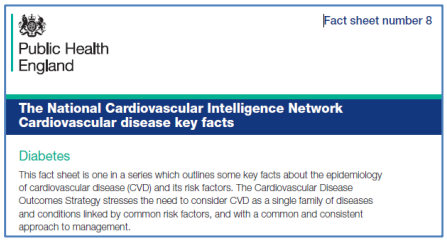
Emergency hospital admissions for diabetes as primary or subsidiary diagnosis, Cambridgeshire, 2013-14, all ages (20+) and under 75



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


Fact sheet number 8

Public Health England

The National Cardiovascular Intelligence Network
Cardiovascular disease key facts

Diabetes

This fact sheet is one in a series which outlines some key facts about the epidemiology of cardiovascular disease (CVD) and its risk factors. The Cardiovascular Disease Outcomes Strategy stresses the need to consider CVD as a single family of diseases and conditions linked by common risk factors, and with a common and consistent approach to management.

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


Healthier Lives: Diabetes

Diabetes affects 6% of adults in England

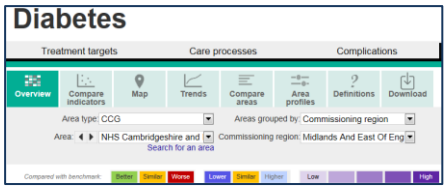
Adults with diabetes have excess risk of a range of complications including major vascular disease (heart attack and stroke) and microvascular disease (kidney disease, amputation, retinopathy).

December 2014 - updated with 2013/14 QOF data.

See how your GP practice or CCG compares

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/pat/44/ati/19/page/0/par/E40000002/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

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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-summ.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/

PUBLIC HEALTH intelligence

Cambridgeshire County Council

Data supplement: Hypertension 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*).

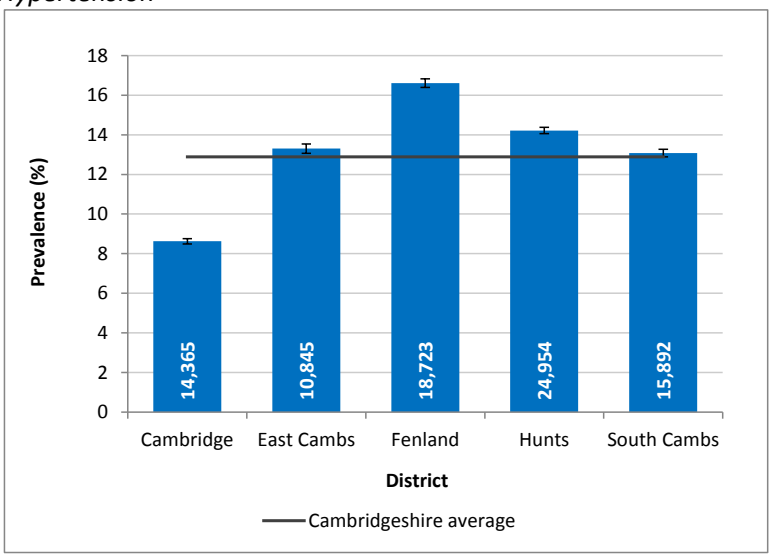
Background

Hypertension, persistently high blood pressure, is a major risk factor for stroke, heart attack, heart failure, aneurysms and chronic kidney disease. It can also lead to early death.[1] Known as 'the silent killer,' it is often preventable yet is a leading cause of cardiovascular disease, chronic kidney disease and cognitive decline.[2]

What is the prevalence and who is at risk?

Hypertension affects more than one in four adults, and is the second biggest risk factor for premature death and disability in England. The risk of hypertension increases with age. In England in 2011 the prevalence of hypertension was 7.4% among people aged 16 to 24 years. This rose to 44.0% among those aged 55 to 64 years and 72.6% in people aged 75 years or older. The prevalence of hypertension was higher among men than women (31.1% for men compared to 28.0% for women). [3]

Hypertension



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

Around 85,000 people are recorded on disease registers for hypertension in general practices across Cambridgeshire.

The prevalence of hypertension is lower in the county as a whole compared with the England average (12.9% vs 13.7%). However, in Fenland prevalence is higher than both the county and national averages. In Hunts prevalence is higher than the county average. In Cambridge prevalence is lower than the county and national average.

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 hypertension.

Hypertension is most common among individuals from low income households and those living in deprived areas.[3] In England, the proportion of people from black African and black Caribbean ethnic groups who have hypertension Is higher than in the general population.[4]

Hypertension

The prevalence of recorded hypertension has increased slightly since 2008/09 in the least deprived 80% of practices in the county but has remained relatively stable in the most deprived 20%.

Rates of hypertension are 16% higher in the most deprived 20% of practices compared with elsewhere.

37% of people on hypertension registers are registered with the 20% most deprived practices.

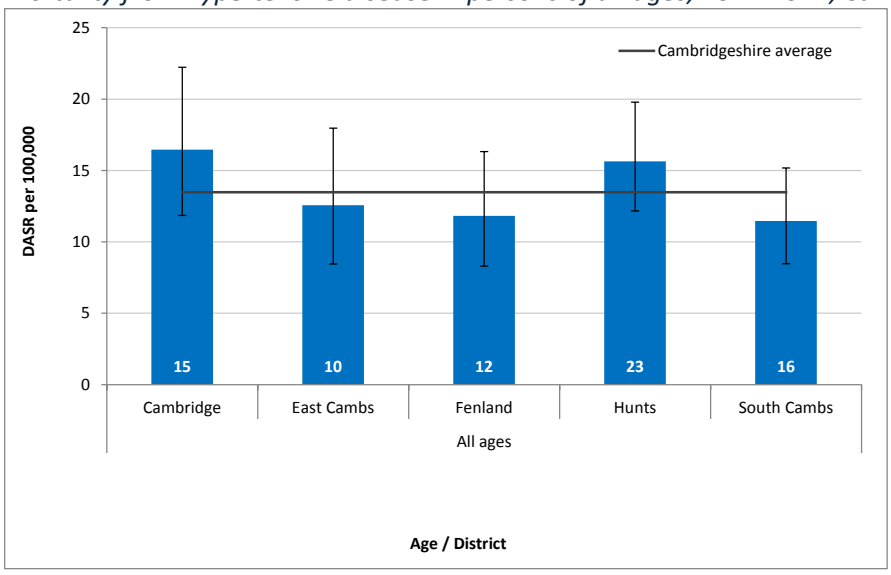
Source: Quality & Outcomes Framework (QOF) 2013/14

How many deaths are related to hypertension?

Routine mortality statistics of death from hypertension are an under-estimate of the total number of deaths as it is not routinely recorded as the underlying cause of death, rather as a contributing factor. High blood pressure is a major risk factor for other conditions such as stroke, heart attack, heart failure and chronic kidney disease, and there will be further deaths associated with hypertension not included in the figures below.[5]

Between 2012-14 there were 230 deaths (an average of around 77 deaths annually) in Cambridgeshire where the underlying cause of death was hypertensive disease. 29% of deaths occur in people aged under 75 and 60% of hypertensive disease deaths are in women. All-age mortality is significantly higher in Cambridgeshire compared to the national average (although this is comparing 2012-14 data for the county to 2011-13 data for England (2012-14 not available)). At district level, no rates are significantly higher than the county average.

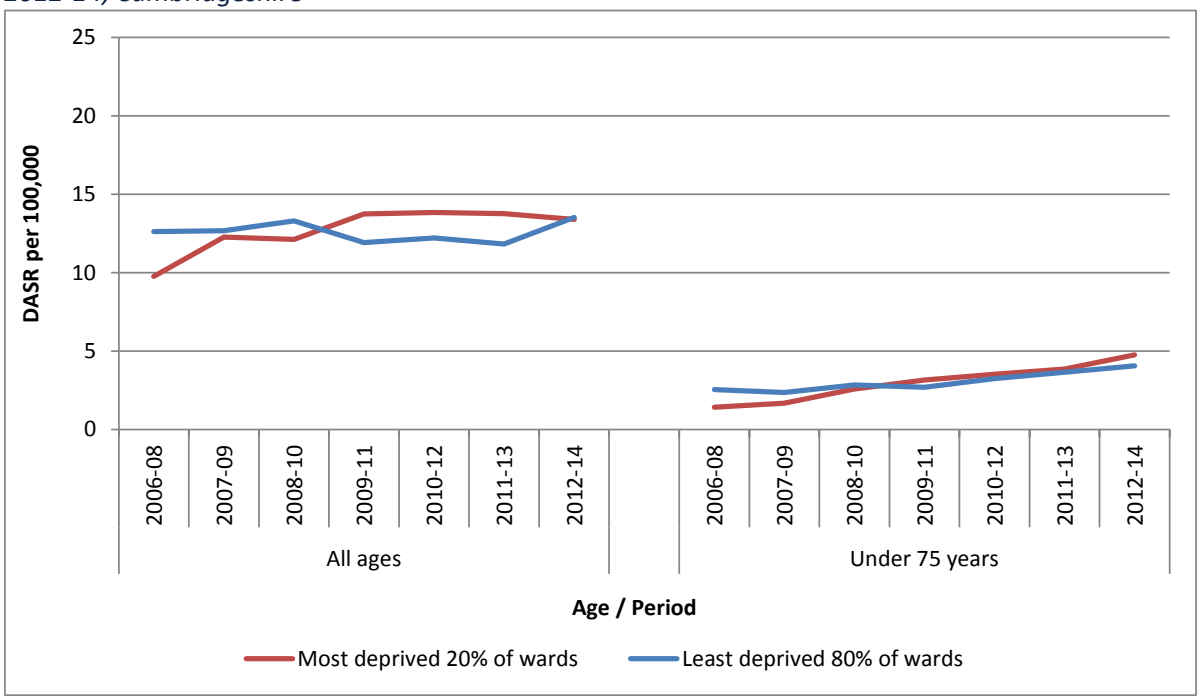
Mortality from hypertensive disease in persons of all ages, 2012-2014, Cambridgeshire



Error bars represent 95% confidence intervals. Average number of deaths per year is small and confidence intervals are wide. DASR - directly age-standardised rate. Hypertensive disease defined by ICD10: I10-I15.

Current literature suggests there is a social gradient in mortality from hypertensive disease, with more deprived areas experiencing higher death rates than less deprived areas. Rates of mortality from hypertensive disease have increased slightly among people of all ages with increases in both the most deprived 20% and the least deprived 80%. Rates are similar in both deprivation groups. 21% of deaths in people aged under 75, occur in people registered with the 20% most deprived wards.

Mortality from hypertensive disease in persons of all ages and aged under 75 by deprivation, 2006-08 to 2012-14, Cambridgeshire



Sources: Health and Social Care Information Centre Primary Care Mortality Database and Office for National Statistics mid-year population estimates. Hypertensive disease defined by ICD10: I10-I15

Hospital admissions and episodes of care

People resident in Cambridgeshire (based on LSOA), 2013/14, aged 30 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.

- In 2013/14, a diagnosis of hypertension (ICD10: I10-I15) was recorded in any diagnostic code in over 13,000 emergency admissions, which resulted in over 95,000 emergency bed days and a total cost of £33.7m.

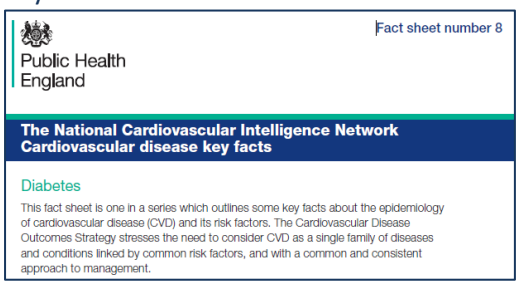
- 42% of these emergency admissions were in people aged under 75 and 52% were in women.

- In emergency admissions where hypertension was recorded, 20% had a primary diagnosis of CVD, primarily stroke and coronary heart disease.

- In 2013/14, there were 123 hospital episodes in Cambridgeshire where essential (primary) hypertension was the primary diagnosis (ie the main reason for the hospital episode). Emergency admissions accounted for 75 (61%), 71% of which were in people aged under 75 and 57% were in women.

Further Resources

Key facts PHE – CVD Series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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 - Healthier Lives


Healthier Lives: High Blood Pressure

High blood pressure is the second biggest risk factor for premature death and disability in this country

Known as the "silent killer", high blood pressure affects more than 1 in 4 adults. It is often preventable, yet is a leading cause of cardiovascular disease, kidney disease and cognitive decline.

December 2014 - updated with 2013/14 QOF data.

See how your GP practice or CCG compares

enter postcode, town or CCG

http://healthierlives.phe.org.uk/topic/hypertension
Interactive Atlas describing prevalence, expected prevalence, risk factors, treatment and care and complications
Find more detailed comparison tools, at GP practice level, on National General Practice Profiles.

Faculty of Public Health Toolkit


easing the pressure:
tackling hypertension

A toolkit for developing a local strategy to tackle high blood pressure

The Faculty of Public Health's Toolkit for developing a local strategy to deal with high blood pressure is a comprehensive resource, giving local partners useful information, tools, templates and checklists to help develop effective strategies on high blood pressure prevention, detection and control.

Acknowledgement of source material

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Cambridgeshire Insight and Atlases	www.cambridgeshireinsight.org.uk/

References

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