Diabetes Profile

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1. Introduction

This summary needs assessment has been requested by the Cambridgeshire and Peterborough CCG (C&P CCG) in order that key data for diabetes can all be found in one place.

Diabetes is a health condition where the amount of glucose in the blood is too high because the pancreas doesn't produce enough insulin. Insulin is a hormone produced by the pancreas that allows glucose to be used as a body fuel and other nutrients to be used as building blocks.[1]

There are two main types of diabetes: Type 1 diabetes (no insulin); Type 2 diabetes (insufficient insulin). This assessment reports on both types and distinguishes between them where the data allow it.

Diabetes is estimated to affect around 3.8 million people in England aged over 16 years, almost 9% of the adult population. The same data source estimates prevalence in Cambridgeshire and Peterborough CCG to be 5.9% of the adult population. This is almost 45,000 people[2].

2. Prevalence and trends

The prevalence of diabetes has increased across C&P CCG in recent years. This is due to more people with undiagnosed diabetes being identified, an ageing population, and an increase in the underlying prevalence of the disease and some associated risk factors. Key sources of diabetes prevalence and trends are identified in this section.

2.1 General practice (GP) recorded diabetes prevalence: Quality and Outcomes Framework (QOF) and the National Diabetes Audit

Quality Outcomes Framework (QOF)

The Quality and Outcomes Framework (QOF) calculates the prevalence of diabetes using the number of patients recorded on practice diabetic disease registers as a proportion of the relevant GP registered population. QOF data includes all types of diabetes except gestational diabetes. Locally, the quality of QOF recording is thought to be good and fairly consistent in recent years. However, there are a few considerations to make when interpreting the QOF data in the following tables:

- QOF data are based on the registered GP of each patient, and hence the location of the general practice) and not necessarily the place of residence of the patient.
- QOF data are not available by age. As the prevalence of most diseases varies with age, differences in prevalence between areas may be due to differences in the age structures of populations rather than true differences in disease prevalence. In general most disease prevalence increases with age. To this effect, it is important to note that where an indicator is reported as statistically significantly lower than the England average, this does not necessarily mean that the prevalence reported is not of a concern locally, particularly given the age structure of the local population. It is recommended that QOF data findings are used sensitively and, where possible, alongside other local intelligence and knowledge about related services.

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[1] National Diabetes Audit, 2016-17: Care Processes and Treatment Targets short report
[2] Diabetes prevalence estimates for local populations https://www.gov.uk/government/publications/diabetes-prevalence-estimates-for-local-populations

- Recorded prevalence may not reflect true prevalence as some people may have undiagnosed disease or not be registered with GPs.
- The data are also reliant on the ascertainment and quality of recording within individual practices.

Table 1. GP recorded prevalence of diabetes* in patients aged 17 years and over by CCG Neighbourhood Team, financial year 2012/13 – 2016/17, Cambridgeshire and Peterborough CCG

Neighbourhood Team	Registrations					Prevalence (%)				
	2012/13	2013/14	2014/15	2015/16	2016/17	2012/13	2013/14	2014/15	2015/16	2016/17
01 NT - Cambridge East	1,682	1,691	1,683	1,723	1,778	5.1	5.1	5.0	5.1	5.2
02 NT - Cambridge City North	2,077	2,150	2,204	2,302	2,388	4.1	4.0	4.0	4.1	4.1
03 NT - Cambridge South Villages	1,913	1,992	2,086	2,157	2,241	4.4	4.6	4.7	4.8	4.9
04 NT - Cambridge North Villages	1,886	1,974	2,030	2,100	2,137	4.9	5.1	5.1	5.2	5.2
05 NT - Cambridge City South	1,236	1,250	1,326	1,373	1,427	3.2	3.0	3.1	3.0	3.0
06 NT - Cambridge City	1,298	1,369	1,413	1,435	1,498	3.0	2.9	2.9	2.8	2.9
07 NT - Huntingdon Central	2,981	3,085	3,166	3,273	3,388	6.1	6.3	6.4	6.4	6.6
08 NT - St Ives	2,370	2,463	2,568	2,624	2,676	5.8	6.0	6.1	6.2	6.2
09 NT - St Neots	2,310	2,406	2,493	2,594	2,709	5.4	5.5	5.6	5.7	5.9
10 NT - Isle of Ely	3,636	3,701	4,021	4,194	4,309	6.0	6.1	6.5	6.6	6.8
11 NT - Fenland	2,750	2,864	2,909	2,963	3,029	8.2	8.5	8.5	8.5	8.6
12 NT - Wisbech	2,684	2,813	2,930	3,085	3,199	7.1	7.3	7.5	7.7	7.8
13 NT - Peterborough City 1	3,493	3,658	3,842	4,053	4,260	6.1	6.0	6.1	6.1	6.1
14 NT - Peterborough City 2	3,313	3,426	3,554	3,697	3,869	7.2	7.3	7.5	7.7	7.9
15 NT - Borderline	2,491	2,641	2,749	2,914	3,046	6.3	6.7	6.8	7.0	7.2
16 NT - Borderline Central	2,391	2,519	2,695	2,809	2,907	5.4	5.5	5.8	6.0	6.1
C&P CCG	38,511	40,002	41,669	43,296	44,861	5.5	5.6	5.7	5.8	5.9
England	2,703,044	2,814,004	2,913,538	3,033,529	3,116,399	6.0	6.2	6.4	6.5	6.7

Statistically significantly lower than the C&P CCG average
Statistically similar to the C&P CCG average
Statistically significantly higher than the C&P CCG average

*From 2012/13, the diabetes register was expanded to include all types of diabetes except gestational diabetes.
Source: QOF 2016/17

Key points:
- In 2016/17 the GP recorded prevalence of diabetes for Cambridgeshire and Peterborough CCG was 5.9%, compared to 6.7% nationally.
- The GP recorded prevalence of diabetes (%) has been statistically significantly lower than the rate of England in C&P CCG since 2012/13.
- Prevalence of diabetes for C&P CCG has gradually increased from 5.5% in 2012/13 to 5.9% in 2016/17. The national trend is also a gradual, but steady, increase.
- Prevalence rates vary across different Neighbourhood Teams. In 2016/17 the highest prevalence was in Fenland (8.6%), Fenland was also statistically significantly higher than England. The lowest prevalence was in Cambridge City (2.9%).
- In 2016/17 there were 44,861 people GP registered with diabetes across C&P CCG.
- In terms of the number of registrations, the Neighbourhood Teams with the largest number of registrations are the Isle of Ely (4,309) and Peterborough City 1 (4,260).
- An important consideration is that OQF data are not age standardised. Therefore, differences in prevalence between areas may be partly due to differences in the age structures of populations rather than true differences in disease prevalence.

At a GP practice level prevalence of diagnosed diabetes varied between 13.3% and 1.2%.

Table 2. Practices with a GP recorded prevalence rate of diabetes in patients aged 17 years and over which is statistically significantly higher than the Cambridgeshire and Peterborough CCG average, 2016/17

Practice	Neighbourhood Team	Registrations	Prevalence (%)	CI lower	CI upper
Huntly Grove, Peterborough	14 NT - Peterborough City 2	206	13.3	11.72	15.11
Welland Medical Practice, Peterborough	13 NT - Peterborough City 1	298	9.8	8.82	10.94
Mercheford House, March	11 NT - Fenland	486	9.3	8.58	10.16
Dogsthorpe Medical Centre, Peterborough	13 NT - Peterborough City 1	300	9.2	8.26	10.24
Cornerstone Practice, March	11 NT - Fenland	689	9.2	8.56	9.87
Minster Practice, Peterborough	14 NT - Peterborough City 2	312	9.2	8.25	10.19
Riverside Practice, March	11 NT - Fenland	585	9.0	8.32	9.71
Parson Drove	12 NT - Wisbech	478	8.9	8.17	9.69
Fenland Group Practice	11 NT - Fenland	517	8.9	8.19	9.65
Ramsey Health Centre	07 NT - Huntingdon Central	510	8.9	8.16	9.63
Clarkson Surgery, Wisbech	12 NT - Wisbech	832	8.8	8.28	9.43
Jenner Health Centre, Whittlesey	15 NT - Borderline	554	8.7	8.06	9.45
Thomas Walker, Peterborough	14 NT - Peterborough City 2	510	8.6	7.91	9.34
Boroughbury Medical Centre	14 NT - Peterborough City 2	1729	8.4	8.02	8.78
Westwood Clinic, Peterborough	13 NT - Peterborough City 1	325	8.2	7.39	9.11
North Brink, Wisbech	12 NT - Wisbech	1296	8.0	7.57	8.40
St George's	10 NT - Isle of Ely	675	7.8	7.22	8.34
Church St, Somersham	08 NT - St Ives	140	7.6	6.47	8.90
George Clare, Chatteris	11 NT - Fenland	752	7.5	6.98	8.01
Park Med Centre, Peterborough	14 NT - Peterborough City 2	532	7.4	6.83	8.04
Moat House, Warboys	08 NT - St Ives	402	7.4	6.73	8.13
Paston	13 NT - Peterborough City 1	788	7.4	6.89	7.88
Queen St, Whittlesey	15 NT - Borderline	1073	7.3	6.92	7.76
Sutton	10 NT - Isle of Ely	348	7.3	6.62	8.10
Haddenham	10 NT - Isle of Ely	420	7.2	6.58	7.91
Thorney	15 NT - Borderline	463	7.2	6.57	7.82
Soham	10 NT - Isle of Ely	1220	7.2	6.77	7.55
Bretton Medical Practice	13 NT - Peterborough City 1	651	7.1	6.63	7.68
The Grange Medical Centre, Peterborough	13 NT - Peterborough City 1	152	7.1	6.06	8.23
Spinney, St Ives	08 NT - St Ives	574	7.0	6.44	7.54
Nene Valley Medical Practice	16 NT - Borderline Central	683	6.9	6.42	7.42
St Mary's, Ely	10 NT - Isle of Ely	851	6.8	6.41	7.30
Wellside Surgery, Sawtry	07 NT - Huntingdon Central	411	6.8	6.20	7.47
Bottisham	04 NT - Cambridge North Villages	326	6.8	6.10	7.52
Old Fletton	16 NT - Borderline Central	664	6.8	6.29	7.29
Priory Fields, Huntingdon	07 NT - Huntingdon Central	663	6.7	6.19	7.17
Cedar House, St Neots	09 NT - St Neots	693	6.6	6.18	7.14
Yaxley	16 NT - Borderline Central	815	6.6	6.18	7.05
Wansford	15 NT - Borderline	402	6.5	5.96	7.19
Oundle	15 NT - Borderline	554	6.5	5.97	7.02
Eaton Socon	09 NT - St Neots	610	6.4	5.94	6.93
C&P CCG		44,861	5.9	5.80	5.91
England		3,116,399	6.7	6.66	6.68

Note: CI lower/upper – Confidence Intervals (95%) lower and upper limits to determine statistical significance to C&P CCG rate.

Source: QOF 2016/17

Key points:
- The practice with the highest GP recorded prevalence (in percentage terms) is Huntly Grove, Peterborough (14NT – Peterborough City 2). The prevalence rate recorded is 13.3% of the population (206 registrations).
- 27% (eleven of the forty-one) of GP practices with recorded prevalence higher than the C&P CCG are in Peterborough City 1 and 2 Neighbourhood Teams.

- It is worth noting that practices with the highest recorded prevalence in percentage terms are not necessarily the practices with the highest recorded number of registrations.
  - The three GP practices with the highest recorded prevalence in terms of number of registrations are Boroughbury Medical Centre (1,729, 8.4%), Granta Medical Practices (1,484, 5.2%) and North Brink, Wisbech (1,296, 8.0%). Notably, Granta Medical Practices does not appear in the table above as it does not have a high prevalence of diabetes in percentage terms.

Table 3. GP recorded prevalence of diabetes in patients aged 17 years and over, Cambridgeshire and Peterborough CCG and its most similar CCGs (nearest neighbours[4]), 2016/17

CCG	Neighbour Rank	Count	Prevalence (%)
NHS Cambridgeshire and Peterborough CCG		44,861	5.9
NHS Oxfordshire CCG	1	29,469	5.0
NHS Nene CCG	2	35,084	6.5
NHS Gloucestershire CCG	3	34,395	6.7
NHS Northern, Eastern, and Western Devon CCG	4	51,087	6.8
NHS Herts Valleys CCG	5	28,188	5.6
NHS Southern Derbyshire CCG	6	31,197	7.1
NHS East and North Hertfordshire CCG	7	27,279	5.8
NHS Dorset CCG	8	41,492	6.3
NHS Somerset CCG	9	31,544	6.8
NHS Bedfordshire CCG	10	24,196	6.3
England		3,116,399	6.7

Source: QOF 2016/17

Key points:
- Oxfordshire CCG is the most similar CCG 'neighbour' to Cambridgeshire and Peterborough CCG. In comparison to Oxfordshire CCG, Cambridgeshire and Peterborough CCG has a higher prevalence rate of diabetes (5.9% compared to 5.0%).
- Significance is not tested, but in the main the prevalence of diabetes in C&P CCG in comparison to its nearest statistical neighbours is generally lower.

National Diabetes Audit

The National Diabetes Audit (NDA) is one of the largest annual clinical audits in the world, integrating data from both primary and secondary care sources. Prevalence data is captured through GP practice registrations for all ages. [5] A local summary of what the NDA shows for Cambridgeshire and Peterborough has been produced and is available online at Cambridgeshire Insight[6].

In 2016/17, 97.1% of Cambridgeshire & Peterborough CCG practices participated in the National Diabetes Audit (93.3% in 2015/16). This is higher than national participation rate (95.0%). In total, only 3 of the 103 practices did not participate in the audit.

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[4] Nearest Neighbours, or most similar CCGs, are CCGs which have been assessed as being most similar through a series of variables and weighting. Identifying C&P CCGs nearest neighbours allows comparison of health outcomes to other similar CCGs. For further details about the methodology used click on the 'More Information' tab on this link: https://fingertips.phe.org.uk/search/diabetes#page/3/gid/1/pat/46/par/E39000031/ati/152/are/E38000026/iid/241/age/187/sex/4/nn/nn-4-E38000026
[5] National Diabetes Audit: https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit
[6] National Diabetes Audit 2015-16 / 2016/17 Local Summary – Cambridgeshire and Peterborough CCG https://cambridgeshireinsight.org.uk/health/topics/diabetes/

Table 4. National Diabetes Audit total registrations by diabetes type, all ages, 2015/16 and 2016/17

Audit period	Area	Type 1		Type 2		Total registrations	
		Number	%	Number	%	Number	%
2016/17	C&P CCG	3,855	8.8	40,195	91.2	44,050	100.0
	England	221,620	7.5	2,721,580	92.5	2,943,200	100.0
2015/16	C&P CCG	3,627	9.1	36,047	90.9	39,674	100.0
	England	192,505	8.0	2,263,484	92.0	2,530,561	100.0

Source: National Diabetes Audit, NHS Digital

According to the National Diabetes Audit, C&P CCG continues to have a higher percentage of type 1 registrations than England (8.8% compared to 7.5%), and conversely a lower percentage of type 2 registrations (91.2% compared to 92.5%). The total number of registrations across C&P CCG grew by 11.0% between 2015/16 and 2016/17, whilst in England the increase over this period was 16.3%.

The QOF and National Diabetes Audit datasets have slight differences in both their collection periods and definitions of indicators used, meaning the figures are not directly comparable. It is worth also highlighting that the QOF includes people aged 17 and over, whereas the NDA captures all ages.[7] However, both sources identify an increase in diabetes at a national and CCG level. In 2016/17 both data sources recorded a prevalence of around 44,000 registrations for C&P CCG. This gives an indication of the size of the issue to be addressed.

2.2   Modelled diabetes prevalence estimates, C&P CCG, East of England and England – diagnosed and undiagnosed

Diabetes prevalence estimates for C&P CCG are the estimated number of people aged 16 years and above who have diabetes (**diagnosed and undiagnosed**) and are registered at a GP practice in the Cambridgeshire and Peterborough CCG.[8] The age group differs slightly from the QOF data, which is based on ages 17 years and over.

Table 5. Diabetes prevalence estimates (modelled) ages 16 years and over, for Cambridgeshire and Peterborough CCG, East of England, and England, for the CCG registered population, 2015-2035

Area	Diabetes prevalence (%)								
	2015	2016	2017	2018	2019	2020	2025	2030	2035
C&P CCG	7.4%	7.5%	7.6%	7.6%	7.7%	7.8%	8.1%	8.4%	8.7%
East of England	8.3%	8.3%	8.4%	8.5%	8.5%	8.6%	8.9%	9.2%	9.4%
England	8.4%	8.5%	8.5%	8.6%	8.7%	8.7%	9.1%	9.3%	9.5%

Source: PHE 2016; Health Surveys for England 2012, 2013, 2014, NHS Digital.

Key points:
- GP registered population based estimates show a steady increase in prevalence in diabetes in future years for C&P CCG, the East of England, and England.

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[7] http://content.digital.nhs.uk/media/10992/Reporting-On-Annual-Healthcare-Checks-For-People-With-Diabetes/pdf/Differences_between_NDA_and_QOF_report_Jan_2013.pdf

[8] Diabetes prevalence estimates for CCGs by ONS resident populations

https://www.gov.uk/government/publications/diabetes-prevalence-estimates-for-local-populations

- The 2018 C&P CCG estimate of diagnosed and undiagnosed diabetes in those aged 16 years and over is 7.6%[9], and is estimated to increase by 1.1 percentage points by 2035 for C&P CCG. This compares to 0.9 percentage points nationally.
- In the short term to 2020 the prevalence of diabetes is estimated to be 7.8% of C&P CCG registered population, compared to 8.7% for England. In 2035 estimates increase to 8.7% and 9.5% respectively. A diabetes prevalence of 8.7% in 2035 equates to an estimated 75,250 people in C&P CCG with the disease.

Figure 1. Diabetes prevalence estimates (modelled), ages 16 years and over, for Cambridgeshire and Peterborough CCG, East of England, and England, for the CCG registered population, 2015-2035
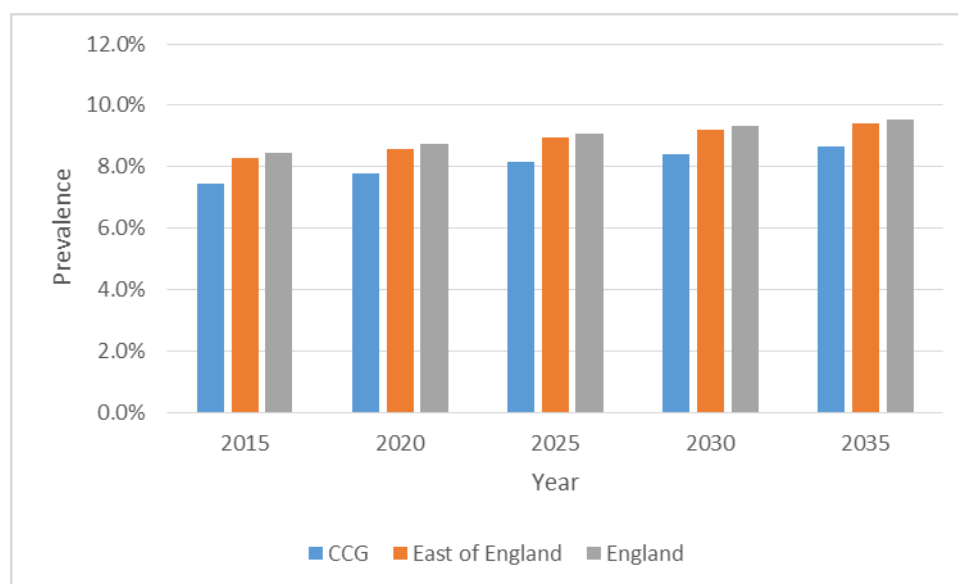
Source: PHE 2016; Health Surveys for England 2012, 2013, 2014, NHS Digital.

Key points:
- CCG registered population based estimates show a steady increase in prevalence in diabetes in future years for C&P CCG, the East of England, and England.
- Prevalence of diabetes is forecast to increase to 8.7% for C&P CCG by 2035.
- The estimated prevalence of diagnosed and undiagnosed diabetes is forecast to be lower in the CCG than England between at each time point between 2015 and 2035. The gap between the CCG and the England prevalence is generally maintained, with a decrease in the gap of 0.2 percentage points by 2035.

2.3   Comparison of recorded and modelled diabetes prevalence

Comparisons of the recorded diabetes prevalence in those aged 16 years and over (QOF) and modelled estimated diabetes prevalence (Health Surveys for England, NHS digital) for C&P CCG and its nearest[10] neighbours.

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[9] Recorded prevalence in section 2.1 gives estimates of diabetes prevalence of approximately 5.9% for those 17 years and over

[10] Nearest Neighbours, or most similar CCGs, are CCGs which have been assessed as being most similar through a series of variables and weighting. Identifying C&P CCGs nearest neighbours allows comparison of health outcomes to other similar CCGs. For further details about the methodology used click on the 'More Information' tab on this link:

Table 6. QOF recorded prevalence of diabetes (2016/17) and modelled estimated prevalence of diabetes (undiagnosed and diagnosed), 2017, C&P CCG and its nearest neighbours

QOF recorded prevalence 2016/17, 17 years and over			Modelled diagnosed and undiagnosed 2017, 16 years and over		
	Prevalence			Prevalence	
CCG	Count	%	CCG	Count	%
NHS Oxfordshire CCG	29,469	5.0	NHS Oxfordshire CCG	42,755	7.2
NHS Southern Derbyshire CCG	28,188	5.6	**NHS Cambridgeshire and Peterborough CCG**	**57,338**	**7.6**
NHS Herts Valleys CCG	27,279	5.8	NHS East and North Hertfordshire CCG	37,413	7.8
NHS Cambridgeshire and Peterborough CCG	**44,861**	**5.9**	NHS Herts Valleys CCG	39,653	7.8
NHS Dorset CCG	41,492	6.3	NHS Nene CCG	43,722	8.2
NHS West Hampshire CCG	24,196	6.3	NHS West Hampshire CCG	38,053	8.3
NHS Nene CCG	35,084	6.5	NHS Gloucestershire CCG	44,457	8.4
NHS Northern, Eastern, and Western Devon CCG	34,395	6.7	NHS Southern Derbyshire CCG	38,677	8.7
NHS Gloucestershire CCG	51,087	6.8	NHS Northern, Eastern, and Western Devon CCG	67,301	8.9
NHS Somerset CCG	31,544	6.8	NHS Dorset CCG	59,692	9.0
NHS East and North Hertfordshire CCG	31,197	7.1	NHS Somerset CCG	42,714	9.2

Source: QOF 2016/17   Source: PHE 2016; Health Surveys for England 2012, 2013, 2014, NHS Digital

Key points:

- Prevalence rates for all CCGs shown are higher in the modelled diagnosed and undiagnosed prevalence rates. This supports the likelihood that a proportion of diabetes remains undiagnosed.
- Recorded prevalence is 5.9% for C&P CCG (QOF). This compares to an estimated prevalence of undiagnosed and diagnosed diabetes of 7.6% for C&P CCG.
- C&P CCG compares well to its nearest neighbours in terms of diabetes prevalence. The CCGs have a different ordering for recorded prevalence and modelled data, however C&P CCG has lower prevalence levels overall.
- Oxfordshire CCG has the lowest levels of recorded diabetes and modelled diabetes.

https://fingertips.phe.org.uk/search/diabetes#page/3/gid/1/pat/46/par/E39000031/ati/152/are/E38000026/iid/241/age/187/sex/4/nn/nn-4-E38000026

3.   Risk factors

Analysis of diabetes data and intelligence by different indicators can begin to identify contributing risk factors for diabetes. Type 1 and Type 2 diabetes differ in prevalence and in terms of those who are affected. Some of the risk factors are related, e.g. those related to relative levels of deprivation.

3.1   Age and sex

The 2016/17 National Diabetes Audit shows that, broadly, Cambridgeshire and Peterborough CCG has a similar demographic profile of those registered with diabetes as England.

Table 7. Demographic breakdown of diabetes GP registrations by age and sex, National Diabetes Audit 2016/17

Indicator		Period	C&G CCG	England
Age (%)	type 1 diabetes aged under 40	2016/17	44.4	44.8
	type 1 diabetes aged 40 to 64	2016/17	39.8	40.0
	type 1 diabetes aged 65 to 79	2016/17	10.0	10.4
	type 1 diabetes aged 80 and over	2016/17	2.2	2.1
	type 2 diabetes aged under 40	2016/17	3.7	3.9
	type 2 diabetes aged 40 to 64	2016/17	41.6	42.8
	type 2 diabetes aged 65 to 79	2016/17	38.3	38.0
	type 2 diabetes aged 80 and over	2016/17	14.4	13.8
Sex (%)	type 1 diabetes - male	2016/17	56.3	56.7
	type 1 diabetes - female	2016/17	43.7	43.3
	type 2 diabetes - male	2016/17	56.5	55.8
	type 2 diabetes -female	2016/17	43.5	44.2

Source: National Diabetes Audit, NHS Digital

Key points:
- Type 1 diabetes has a younger age profile; 44% of those registered with Type 1 diabetes in the C&P CCG were under 40 years old, and just 12% were 65 years and over.
- In comparison, only 4% of Type 2 diabetes registrations were under 40 years old. The age group with most Type 2 registrations were the 40-64yrs old age group (42%). People with Type 2 diabetes are older on average.
- Type 1 and Type 2 diabetes were slightly more prevalent in males (around 56% of registrations were male).

As expected, hospital admissions data (HES) for diabetes also identifies fewer admissions were for people in the younger age groups. In 2016/17 39% of diabetes hospital admissions (as a primary or subsidiary diagnosis) were for those 75 years and over (see section 5 for further detail).

3.2   Deprivation and diabetes prevalence

GP recorded prevalence data suggests that people living in the most deprived areas appear to be disproportionally affected by the prevalence of diabetes. Diabetes prevalence rates have been consistently

higher in the most deprived GP practices in C&P CCG over recent years (QOF, CCC PHI[11]). Deprivation groups relate to the geographic location of practices and not patient residence.

Table 8. Diabetes prevalence in Cambridgeshire and Peterborough CCG, by Index of Multiple Deprivation (IMD) 2015 quintile

| Deprivation Quintile	Count	Prevalence (%)
1 - Most deprived	11,953	7.2
2	10,180	7.1
3	9,183	5.2
4	6,294	4.9
5 - Least deprived	7,251	4.8
CCG total	44,861	5.9
England	3,116,399	6.7

Note: Quintile – where the population is divided into five equal groups, with the most deprived 20% (fifth) appearing in the 'most deprived' quintile and so on
Source: QOF 2016/17, NHS Digital and Index of Multiple Deprivation 2015, DCLG

Key points:
- For C&P CCG there appears to be a relationship between levels of deprivation and the prevalence of diabetes, with the highest prevalence in the two most deprived IMD groups (quintiles 1 and 2).
- Diabetes prevalence in the two most deprived quintiles in C&P CCG is statistically significantly higher than the national prevalence, as well as the average for the CCG.

Figure 2. Diabetes prevalence 2012/13 – 2016/17, Cambridgeshire and Peterborough CCG for the least and most deprived groups (IMD 2015) in C&P CCG, for C&P CCG and for England
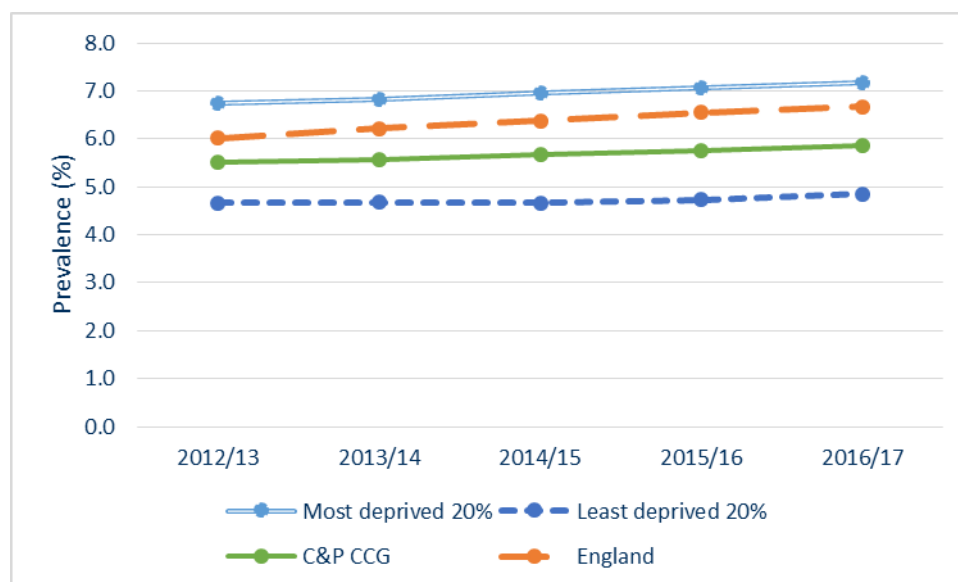
Source: QOF, NHS Digital and Index of Multiple Deprivation 2015, DCLG

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[11] JSNA Data Supplement: Diabetes in Cambridgeshire. https://cambridgeshireinsight.org.uk/wp-content/uploads/2017/08/CCC-Data-Supplement-Diabetes-2015.pdf

Key points:
- The prevalence of diabetes has been consistently higher in the most deprived 20% of GP surgeries in C&P CCG. Over time, the prevalence rates in this most deprived group are higher than the rates in the least deprived 20%, the CCG average and England.
- Prevalence in the least deprived 20% of GP practices in C&P CCG is lower than the rate of England, and has been since 2012/13.
- Prevalence has increased from 6.7% in 2012/13 to 7.2% in 2016/17 in the most deprived 20% of GP surgeries.
- Prevalence across all areas is increasing slightly.

3.3   Ethnicity

It is widely documented that ethnicity can impact a person's risk of diabetes, and that there is a higher risk of diabetes amongst people from South Asian communities.[12, 13, 14, 15]

7.8% of the population of England identified their ethnicity as Asian or Asian British in the 2011 Census, the corresponding figure for C&P CCG was 5.7% (47,712).[16] This varies across the area. In Peterborough, 11.7% identified themselves as Asian or Asian British. Whereas the figure was 4.1% in Cambridge City.

Table 9. Demographic breakdown of diabetes registrations by ethnicity, National Diabetes Audit 2016/17

Indicator		Period	C&G CCG	England
Ethnicity (%)	type 1 diabetes - white	2016/17	88.7	76.3
	type 1 diabetes - minority ethnic origin	2016/17	5.8	8.4
	type 2 diabetes - white	2016/17	81.4	64.4
	type 2 diabetes - minority ethnic origin	2016/17	10.4	19.3

Source: National Diabetes Audit, NHS Digital

Key points:
- 88.7% of Type 1 registrations, and 81.4% of Type 2 registrations, in C&P CCG were from people from White ethnic groups.
- This is higher than the rate for England, but reflects the underlying local demographics. Although there are less people from ethnic minority groups registered with diabetes in C&P CCG, this does not mean that diabetes is not an issue for these groups.

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[12] NICE 2017, *https://pathways.nice.org.uk/pathways/preventing-type-2-diabetes#path=view%3A/pathways/preventing-type-2-diabetes/encouraging-people-to-have-a-risk-assessment-for-type-2-diabetes-and-identifying-those-at-risk.xml&content=view-index*

[13] PHE 2016, *https://www.gov.uk/government/news/38-million-people-in-england-now-have-diabetes*

[14] NHS 2016*, https://www.nhs.uk/Livewell/SouthAsianhealth/Pages/Overview.aspx*

[15] South Asian Health Foundation 2009, Diabetes UK and South Asian Health Foundation recommendations on diabetes research priorities for British south Asians, *https://www.diabetes.org.uk/resources-s3/2017-11/south_asian_report.pdf*
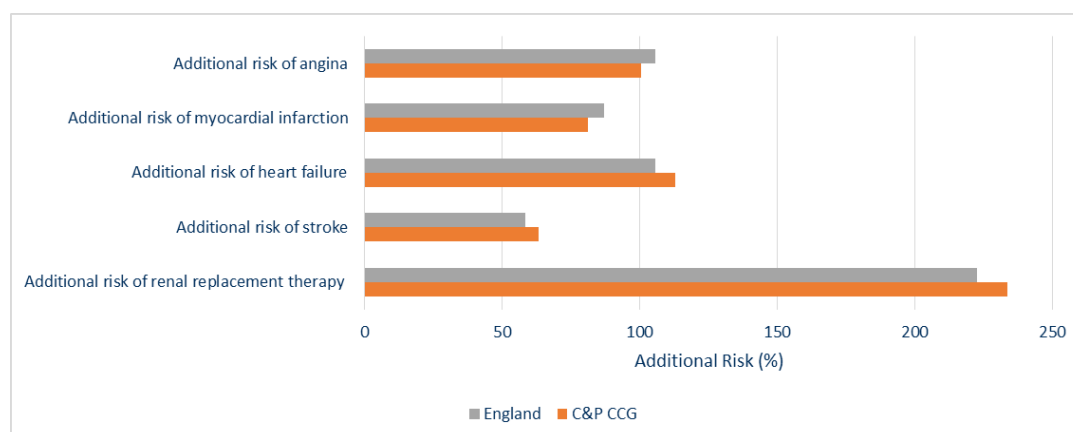
[16] ONS, 2011 Census

3.4   Obesity

Obesity (Body Mass Index) is a commonly documented risk factor for Type 2 diabetes.[17][18] 8.5% of registered patients (aged 18+ years) in C&P CCG have a BMI greater than 29. This equates to 64,380 people.[19]

Prevalence of obesity is estimated as 9.7% for England and 8.5% for C&P CCG. The CCG rate is statistically significantly lower than the national rate. Levels of obesity vary across the C&P CCG area. The AEP Neighbourhood team with the highest prevalence of obesity is Fenland (16.9%). Wisbech (11.8%), Huntingdon Central (11.5%), and Peterborough City 1 (10.3%) also have high rates of obesity, rates which are statistically significantly than the rate for England.[20] Levels of obesity are linked to deprivation.[21][22]

3.5   Additional Risks

A person with diabetes has a higher risk of several other health related conditions and complications, including heart attack, angina, hearth failure and stroke[23].

Figure 3. Additional risk of complications for people with diabetes, 2015/16

Source: National Diabetes Audit, NHS Digital

[17] PHE 2016, *https://www.gov.uk/government/news/38-million-people-in-england-now-have-diabetes*
[18] PHE 2017, https://healthierlives.phe.org.uk/topic/diabetes#par/E92000001/ati/153/iid/201/sexId/4/gid/1938132727/pat/153/are/E38000026
[19] QOF 2016/17
[20] QOF 2016/17. QOF estimates are for people aged 17+ years.
[21] RSPH 2015, Tackling the UK's childhood obesity epidemic [online] Available from: https://www.rsph.org.uk/uploads/assets/uploaded/de21cde9-a77d-4ce6-bf9342c51f2beb08.pdf (Accessed 13 June 2018)
[22] British Dietetic Association, Policy Statement: UK Government's Childhood Obesity Strategy [online] Available from: https://www.bda.uk.com/improvinghealth/healthprofessionals/Policy_Statement_Childhood_Obesity.pdf (Accessed 13 June 2018)
[23] PHE, Diabetes Profiles, NHS Cambridgeshire and Peterborough CCG – Feb 2018

Key points:

- The National Diabetes Audit calculates additional risk of complications in people with diabetes by comparing rates of conditions with rates of the same conditions in people without diabetes, the non-diabetic population (complication ratios) [24]
- The risk of having a stroke was 63.3% higher for people with diabetes in C&P CCG (58.5% for England).
- The risk of having a heart attack (myocardial infarction) was 81.1% higher for people with diabetes in C&P CCG (86.9% for England).

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[24] National Diabetes Audit, 2015-16 Report 2a: Complications and Mortality (complications of diabetes) 2017 [online] Available from: https://www.hqip.org.uk/wp-content/uploads/2018/02/TIwCJZ.pdf (Accessed 25 June 2018).

4. Treatment in primary care

4.1 Diabetes Care Processes

Every person aged 12 years and over with diabetes should receive each of nine NICE recommended diabetes care processes annually. When diagnosed, they should also attend a structured education programme[25].

Figure 4. Diabetes Care Processes

Nine Annual Care Processes for all people with diabetes aged 12 and over	
Responsibility of Diabetes Care providers (included in the NDA 8 Care Processes)	
1. **HbA1c** (blood test for glucose control)	5. **Urine Albumin/Creatinine Ratio** (urine test for early kidney disease)
2. **Blood Pressure** (measurement for cardiovascular risk)	6. **Foot Risk Surveillance** (foot examination for foot ulcer risk)
3. **Serum Cholesterol** (blood test for cardiovascular risk)	7. **Body Mass Index** (measurement for diabetes management)
4. **Serum Creatinine** (blood test for kidney function)	8. **Smoking History** (question for cardiovascular risk)
Responsibility of NHS Diabetes Eye Screening (screening register drawn from practices)	
9. **Digital Retinal Screening** (photographic eye test for diabetic eye disease)	

Source: National Diabetes Audit, 2016-17: Care Processes and Treatment Targets short report[26]

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[25] National Diabetes Audit, NHS Digital

[26] National Diabetes Audit, 2016-17: Care Processes and Treatment Targets short report. Available at: https://files.digital.nhs.uk/publication/g/3/national_diabetes_audit_2016-17_short_report__care_processes_and_treatment_targets.pdf

Table 10. Percentage of people receiving care processes for type 1 and type 2 diabetes, Cambridgeshire and Peterborough CCG, audit years 2015/16 and 2016/17

Care Process		Type 1 diabetes Year		Type 2 diabetes Year	
		2015-16	2016-17	2015-16	2016-17
HbA1c	Number receiveing treatment	3,188	3,420	34,419	38,575
	Total on register	3,627	3,855	36,047	40,195
	Percentage	87.9	88.7	95.5	96.0
Blood Pressure	Number receiveing treatment	3,188	3,270	34,702	38,125
	Total on register	3,492	3,550	36,038	39,380
	Percentage	91.3	92.1	96.3	96.8
Cholesterol	Number receiveing treatment	2,796	2,900	33,386	36,850
	Total on register	3,492	3,550	36,038	39,380
	Percentage	80.1	81.7	92.6	93.6
Serum Creatinine	Number receiveing treatment	2,893	3,050	34,418	37,845
	Total on register	3,492	3,550	36,038	39,380
	Percentage	82.8	85.9	95.5	96.1
Urine Albumin	Number receiveing treatment	1,986	2,110	26,722	27,905
	Total on register	3,492	3,550	36,038	39,380
	Percentage	56.9	59.4	74.1	70.9
Foot Surveillence	Number receiveing treatment	2,671	2,410	32,085	27,735
	Total on register	3,492	3,550	36,038	39,380
	Percentage	76.5	67.9	89.0	70.4
BMI	Number receiveing treatment	2,894	2,935	31,670	34,650
	Total on register	3,492	3550	36,038	39380
	Percentage	82.9	82.7	87.9	88.0
Smoking	Number receiveing treatment	2,783	2,865	31,776	34,960
	Total on register	3,492	3550	36,038	39380
	Percentage	79.7	80.7	88.2	88.8
All Eight Care Processes	Number receiveing treatment	1,586	1,455	22,981	19,015
	Total on register	3,627	3,855	36,047	40,195
	Percentage	43.7	37.7	63.8	47.3

Statistically significantly higher than the England average

Statistically similar to the England average

Statistically significantly lower than the England average

Source: National Diabetes Audit, NHS Digital

Key points:
- Cambridgeshire and Peterborough CCG doing well overall, with many indicators fairing statistically significantly higher than England, with higher proportions of people getting the care they need locally.
- However, for the CCG as a whole foot surveillance is of a concern as rates of patients being checked are statistically significantly lower than the England average and this has been maintained for the last two audits.
- Cholesterol checks in Type 1 patients and smoking status recorded in Type 1 patients are statistically similar to England (amber).
- The percentage of diabetes patients receiving all eight care processes is 37.7% for type 1 patients, this is statistically significantly higher (better) than England at 34.4%. However, the C&P CCG

percentage has decreased from 43.7% in 2015-16. This decline has also occurred at a national level (37.3% in 2015-16 to 34.4% in 2016-17).

- The percentage of diabetes patients receiving all eight care processes is 47.3% for type 2 patients, which is statistically similar to England. However, the percentage has decreased from 63.8% in 2015-16. This decline has also occurred at a national level (53.9% in 2015-16 to 47.7% in 2016-17).

Table 11. Practices where Type 1 patients receiving all eight care processes is 'lower than expected'[27], audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	Banding
Acorn Surgery, Huntingdon	07 NT - Huntingdon Central	10	50	20.0	Lower than expected
Cornerstone Practice, March	11 NT - Fenland	5	45	11.1	Lower than expected
East Barnwell, Cambridge	02 NT - Cambridge City North	5	40	12.5	Lower than expected
North Brink, Wisbech	12 NT - Wisbech	15	85	17.6	Lower than expected
Wellside Surgery, Sawtry	07 NT - Huntingdon Central	5	30	16.7	Lower than expected
C&P CCG		1,455	3,855	37.7	As expected

Source: National Diabetes Audit, NHS Digital

Key points:
- The percentage of Type 1 diabetes patients receiving all eight care processes was recorded as 37.7% for the C&P CCG in 2016/17. This rate is statistically significantly higher than the national rate (34.4%) and banded 'as expected'.
- Five GP practices were banded 'lower than expected' for this indicator.
- If a general practice has a banding of 'lower than expected', this shows that the practice is not achieving as high a rate of completion for the care process as would be expected. This does not necessarily mean that the practice is underperforming, but may indicate that further investigation could be beneficial.

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[27] National Diabetes Audit care process bandings how whether a service is achieving care process delivery levels expected for their patient population. The bandings take into account age, gender, ethnicity, duration of diabetes and social deprivation. Further details can be found at: : https://files.digital.nhs.uk/pdf/s/k/national_diabetes_audit_2016-17_report_1__care_processes_and_treatment_targets.pdf

Table 12. Practices where Type 2 patients receiving all eight care processes is 'lower than expected',[28] audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	Banding
281 Mill Road, Cambridge	06 NT - Cambridge City	70	185	37.8	Lower than expected
Acorn Surgery, Huntingdon	07 NT - Huntingdon Central	110	375	29.3	Lower than expected
Almond Road, St Neots	09 NT - St Neots	5	305	1.6	Lower than expected
Botolph Bridge, Peterborough	16 NT - Borderline Central	75	195	38.5	Lower than expected
Burwell	10 NT - Isle of Ely	115	365	31.5	Lower than expected
Cambourne	03 NT - Cambridge South Villages	45	180	25.0	Lower than expected
Cathedral Medical Centre, Ely	10 NT - Isle of Ely	165	365	45.2	Lower than expected
Clarkson Surgery, Wisbech	12 NT - Wisbech	345	765	45.1	Lower than expected
Cornerstone Practice, March	11 NT - Fenland	100	625	16.0	Lower than expected
Doddington	11 NT - Fenland	130	350	37.1	Lower than expected
Dogsthorpe Medical Centre, Peterborough	13 NT - Peterborough City 1	100	285	35.1	Lower than expected
East Barnwell, Cambridge	02 NT - Cambridge City North	35	300	11.7	Lower than expected
George Clare, Chatteris	11 NT - Fenland	285	715	39.9	Lower than expected
Huntly Grove, Peterborough	14 NT - Peterborough City 2	95	200	47.5	Lower than expected
Manea	11 NT - Fenland	55	165	33.3	Lower than expected
Mercheford House, March	11 NT - Fenland	195	425	45.9	Lower than expected
Nene Valley Medical Practice	16 NT - Borderline Central	285	645	44.2	Lower than expected
North Brink, Wisbech	12 NT - Wisbech	220	1,200	18.3	Lower than expected
Northcote House, St Ives	08 NT - St Ives	30	150	20.0	Lower than expected
Old Exchange Surgery, St Ives	08 NT - St Ives	50	155	32.3	Lower than expected
Park Med Centre, Peterborough	14 NT - Peterborough City 2	155	505	30.7	Lower than expected
Parson Drove	12 NT - Wisbech	130	450	28.9	Lower than expected
Paston	13 NT - Peterborough City 1	345	710	48.6	Lower than expected
Queen St, Whittlesey	15 NT - Borderline	395	905	43.6	Lower than expected
Royston Health Centre	03 NT - Cambridge South Villages	225	435	51.7	Lower than expected
Sawston	01 NT - Cambridge East	710	1,315	54.0	Lower than expected
Shelford	01 NT - Cambridge East	10	270	3.7	Lower than expected
Soham/Staploe Medical Centre	10 NT - Isle of Ely	525	1,110	47.3	Lower than expected
Spinney, St Ives	08 NT - St Ives	210	500	42.0	Lower than expected
The Grange Medical Centre, Peterborough	13 NT - Peterborough City 1	45	155	29.0	Lower than expected
Thistlemoor Road, Peterborough	13 NT - Peterborough City 1	170	690	24.6	Lower than expected
Wansford	15 NT - Borderline	145	365	39.7	Lower than expected
Westgate Surgery, Peterborough	14 NT - Peterborough City 2	225	555	40.5	Lower than expected
C&P CCG		19,015	40,195	47.3	Lower than expected

Source: National Diabetes Audit, NHS Digital

Key points:
- The percentage of Type 2 diabetes patients receiving all eight care processes was recorded as 47.3% for the C&P CCG in 2016/17. This rate is statistically similar to the national rate (47.7%) and banded 'lower than expected'.
- 33 GP practices were banded 'lower than expected' for this indicator.
- If a general practice has a banding of 'lower than expected', this shows that the practice is not achieving as high a rate of completion for the care process as would be expected. This does not necessarily mean that the practice is underperforming, but may indicate that further investigation could be beneficial.

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[28] As per note 27

4.2   Foot Surveillance

67.9% of Type 1 diabetes patients in C&P CCG received foot surveillance[29] according to the National Diabetes Audit 2016/17. This is statistically significantly lower than the England average (70.1%).

70.4% of Type 2 diabetes patients in C&P CCG received foot surveillance according to the National Diabetes Audit 2016/17. This is statistically significantly lower than the England average (79.4%).
For these reasons a specific section on foot surveillance hospital admission rates is included in Section 6 below.

Table 13: Practices where Type 1 diabetes patients who received foot surveillance was 'lower than expected',[30] audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	Banding
Old Fletton	16 NT - Borderline Central	25	55	45.5	Lower than expected
Oundle	15 NT - Borderline	20	40	50.0	Lower than expected
Over	04 NT - Cambridge North Villages	5	15	33.3	Lower than expected
Roysia Surgery, Royston	03 NT - Cambridge South Villages	10	25	40.0	Lower than expected
Spinney, St Ives	08 NT - St Ives	30	60	50.0	Lower than expected
Thistlemoor Road, Peterborough	13 NT - Peterborough City 1	25	55	45.5	Lower than expected
Westgate Surgery, Peterborough	14 NT - Peterborough City 2	15	35	42.9	Lower than expected
C&P CCG		2,410	3,550	67.9	Lower than expected

Source: National Diabetes Audit, NHS Digital

Key points:
- The percentage of Type 1 diabetes patients receiving foot surveillance was recorded as 67.9% for the C&P CCG in 2016/17. This rate is statistically significantly lower than the national rate (70.1%) and banded 'lower than expected'.
- Seven GP practices were banded 'lower than expected' for this indicator.
- If a general practice has a banding of 'lower than expected', this shows that the practice is not achieving as high a rate of completion for the care process as would be expected. This does not necessarily mean that the practice is underperforming, but may indicate that further investigation could be beneficial.

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[29] **Foot check** - this examination checks the blood supply and sensation (feeling) in the feet. Loss of either is a risk for foot disease

[30] National Diabetes Audit care process bandings how whether a service is achieving care process delivery levels expected for their patient population. The bandings take into account age, gender, ethnicity, duration of diabetes and social deprivation. Further details can be found at: : https://files.digital.nhs.uk/pdf/s/k/national_diabetes_audit_2016-17_report_1__care_processes_and_treatment_targets.pdf

Table 14: Practices where Type 2 diabetes patients who received foot surveillance was 'lower than expected'[31], audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	Banding
281 Mill Road, Cambridge	06 NT - Cambridge City	115	185	62.2	Lower than expected
63 Lincoln Road, Peterborough	14 NT - Peterborough City 2	1,060	1,580	67.1	Lower than expected
Acorn Surgery, Huntingdon	07 NT - Huntingdon Central	260	370	70.3	Lower than expected
Botolph Bridge, Peterborough	16 NT - Borderline Central	105	195	53.8	Lower than expected
Bretton Medical Practice	13 NT - Peterborough City 1	410	615	66.7	Lower than expected
Burwell	10 NT - Isle of Ely	235	365	64.4	Lower than expected
Cambourne	03 NT - Cambridge South Villages	105	170	61.8	Lower than expected
Cathedral Medical Centre, Ely	10 NT - Isle of Ely	235	350	67.1	Lower than expected
Cedar House, St Neots	09 NT - St Neots	375	625	60.0	Lower than expected
Charles Hicks, Huntingdon	07 NT - Huntingdon Central	370	565	65.5	Lower than expected
Church St, Somersham	08 NT - St Ives	90	135	66.7	Lower than expected
Clarkson Surgery, Wisbech	12 NT - Wisbech	460	765	60.1	Lower than expected
Cornerstone Practice, March	11 NT - Fenland	390	620	62.9	Lower than expected
Cornford House, Cherry Hinton	05 NT - Cambridge City South	310	440	70.5	Lower than expected
Doddington	11 NT - Fenland	215	345	62.3	Lower than expected
Dogsthorpe Medical Centre, Peterborough	13 NT - Peterborough City 1	185	280	66.1	Lower than expected
George Clare, Chatteris	11 NT - Fenland	360	695	51.8	Lower than expected
Hampton Health	16 NT - Borderline Central	130	200	65.0	Lower than expected
Hodgson Medical Centre	13 NT - Peterborough City 1	130	195	66.7	Lower than expected
Huntly Grove, Peterborough	14 NT - Peterborough City 2	130	200	65.0	Lower than expected
Jenner Health Centre, Whittlesey	15 NT - Borderline	350	515	68.0	Lower than expected
Kimbolton	09 NT - St Neots	155	220	70.5	Lower than expected
Lensfield Road, Cambridge	05 NT - Cambridge City South	170	260	65.4	Lower than expected
Littleport	10 NT - Isle of Ely	400	595	67.2	Lower than expected
Maple Surgery, Bar Hill Health Centre	04 NT - Cambridge North Villages	85	130	65.4	Lower than expected
Millfield Medical Centre, Peterborough	13 NT - Peterborough City 1	235	370	63.5	Lower than expected
Minster Practice, Peterborough	14 NT - Peterborough City 2	185	275	67.3	Lower than expected
North Brink, Wisbech	12 NT - Wisbech	850	1,170	72.6	Lower than expected
Nuffield Road, Cambridge	02 NT - Cambridge City North	435	590	73.7	Lower than expected
Old Exchange Surgery, St Ives	08 NT - St Ives	95	155	61.3	Lower than expected
Old Fletton	16 NT - Borderline Central	405	600	67.5	Lower than expected
Orchard Surgery, Melbourn	03 NT - Cambridge South Villages	190	285	66.7	Lower than expected
Orton Bushfield Medical Practice	16 NT - Borderline Central	150	240	62.5	Lower than expected
Oundle	15 NT - Borderline	360	500	72.0	Lower than expected
Park Med Centre, Peterborough	14 NT - Peterborough City 2	340	485	70.1	Lower than expected
Parson Drove	12 NT - Wisbech	250	425	58.8	Lower than expected
Paston	13 NT - Peterborough City 1	440	700	62.9	Lower than expected
Priory Fields, Huntingdon	07 NT - Huntingdon Central	395	585	67.5	Lower than expected
Queen St, Whittlesey	15 NT - Borderline	630	895	70.4	Lower than expected
Riverside Practice, March	11 NT - Fenland	390	555	70.3	Lower than expected
Roysia Surgery, Royston	03 NT - Cambridge South Villages	175	265	66.0	Lower than expected
Royston Health Centre	03 NT - Cambridge South Villages	295	430	68.6	Lower than expected
Sawston	01 NT - Cambridge East	850	1,295	65.6	Lower than expected
Soham	10 NT - Isle of Ely	705	1,100	64.1	Lower than expected
Spinney, St Ives	08 NT - St Ives	245	495	49.5	Lower than expected
St Mary's, Ely	10 NT - Isle of Ely	520	740	70.3	Lower than expected
The Grange Medical Centre, Peterborough	13 NT - Peterborough City 1	80	150	53.3	Lower than expected
Thistlemoor Road, Peterborough	13 NT - Peterborough City 1	290	680	42.6	Lower than expected
Thomas Walker, Peterborough	14 NT - Peterborough City 2	305	465	65.6	Lower than expected
Thorney	15 NT - Borderline	290	410	70.7	Lower than expected
Thorpe Road Surgery, Peterborough	13 NT - Peterborough City 1	145	230	63.0	Lower than expected
Trinity Surgery, Wisbech	12 NT - Wisbech	390	540	72.2	Lower than expected
Trumpington St, Cambridge	05 NT - Cambridge City South	105	160	65.6	Lower than expected
Wansford	15 NT - Borderline	215	350	61.4	Lower than expected
Welland Medical Practice, Peterborough	13 NT - Peterborough City 1	210	280	75.0	Lower than expected
Westgate Surgery, Peterborough	14 NT - Peterborough City 2	320	525	61.0	Lower than expected
Westwood Clinic, Peterborough	13 NT - Peterborough City 1	205	305	67.2	Lower than expected
Willingham	04 NT - Cambridge North Villages	185	265	69.8	Lower than expected
Yaxley	16 NT - Borderline Central	515	750	68.7	Lower than expected
C&P CCG		27,735	39,380	70.4	Lower than expected

Source: National Diabetes Audit, NHS Digital

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[31] As per note 30

Key points:
- The percentage of Type 2 diabetes patients receiving foot surveillance was recorded as 70.4% for the C&P CCG in 2016/17. This rate is statistically significantly lower than the national rate (79.4%) and banded 'lower than expected'.
- 59 Seven GP practices were banded 'lower than expected' for this indicator.
- If a general practice has a banding of 'lower than expected', this shows that the practice is not achieving as high a rate of completion for the care process as would be expected. This does not necessarily mean that the practice is underperforming, but may indicate that further investigation could be beneficial.

4.3   Treatment Targets

NICE defines targets for three treatments for people with diabetes to reduce risk of complications for people with diabetes. These are:
- **HbA1c** – the closer this is to normal (less than 42mmol/mol) the lower the risk of all long term complications of diabetes.
- **Cholesterol** – reducing cholesterol levels lowers the risk of heart attacks and strokes.
- **Blood Pressure** – high levels are a risk for heart attacks and strokes; they also drive progression of eye and kidney disease.

Table 15. Treatment target achievement rates for Type 1 and Type 2 diabetes, all ages, C&P CCG percentage, NDA

Diabetes Type	Area	Period	All three treatment targets		
			Numerator	Denominator	Percentage
Type 1	CCG	2015/16	492	2,739	18.0
	CCG	2016/17	525	2,905	18.1
	England	2015/16	25,990	141,839	18.3
	England	2016/17	30,945	162,530	19.0
Type 2	CCG	2015/16	11,811	32,534	36.3
	CCG	2016/17	12,810	36,280	35.3
	England	2015/16	821,282	2,031,644	40.4
	England	2016/17	999,755	2,434,835	41.1

Source: National Diabetes Audit, NHS Digital

Key points:
- In C&P CGG during 2016/17 18.1% of people with Type 1 diabetes achieved all three treatment targets. This is similar to the previous year and is numerically lower than the England rate of 19.0%.
- In C&P CCG during 2016/17 35.3% of people with Type 2 diabetes achieved all three treatment targets. This is numerically lower than the previous year, and also numerically lower than the national rate (41.1%).
- This indicator does not apply a statistical test of significance and, hence, the stated numerical differences may or may not be statistically important.
- At a GP practice level, the treatment target achieved varied between 18.9% and 54.5% for type 1 diabetes, and 0% and 100% for type 2 diabetes.

Table 16. Practices where the rate of Type 1 diabetes patients receiving all three treatment targets was statistically significantly lower than the C&P CCG rate, audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	CI lower	CI upper
North Brink, Wisbech	12 NT - Wisbech	5	65	7.7	3.3	16.8
Welland Medical Practice, Peterborough	13 NT - Peterborough City 1	0	20	0.0	0.0	16.1
C&P CCG		525	2,905	18.1	16.7	19.5

Note: CI lower/upper – Confidence Intervals (95%) lower and upper limits to determine statistical significance to C&P CCG rate
Source: National Diabetes Audit, NHS Digital

Key points:

- The percentage of Type 1 diabetes patients receiving all three treatment targets was 18.1% for the C&P CCG in 2016/17. This rate is statistically similar to the national rate (19.0%).
- Two GP practices were statistically significantly lower than the C&P CCG for this indicator for Type 1 diabetes patients.

Table 17. Practices where the rate of Type 2 diabetes patients receiving all three treatment targets was statistically significantly lower than the C&P CCG rate, audit year 2016/17

Practice	Neighbourhood Team	Number receiving treatment	Total on register	Percentage	CI lower	CI upper
Acorn Surgery, Huntingdon	07 NT - Huntingdon Central	75	315	23.8	19.4	28.8
Almond Road, St Neots	09 NT - St Neots	75	265	28.3	23.2	34.0
Cornerstone Practice, March	11 NT - Fenland	155	535	29.0	25.3	33.0
Cornford House, Cherry Hinton	05 NT - Cambridge City South	125	410	30.5	26.2	35.1
Hodgson Medical Centre	13 NT - Peterborough City 1	35	185	18.9	13.9	25.2
Huntly Grove, Peterborough	14 NT - Peterborough City 2	50	190	26.3	20.6	33.0
North Brink, Wisbech	12 NT - Wisbech	285	1,095	26.0	23.5	28.7
Parson Drove	12 NT - Wisbech	115	390	29.5	25.2	34.2
Paston	13 NT - Peterborough City 1	175	640	27.3	24.0	30.9
Queen St, Whittlesey	15 NT - Borderline	260	825	31.5	28.4	34.8
Red House, Cambridge	06 NT - Cambridge City	80	290	27.6	22.8	33.0
Spinney, St Ives	08 NT - St Ives	135	470	28.7	24.8	33.0
St Neots Health Centre	09 NT - St Neots	25	120	20.8	14.5	28.9
The Grange Medical Centre, Peterborough	13 NT - Peterborough City 1	35	135	25.9	19.3	33.9
Thomas Walker, Peterborough	14 NT - Peterborough City 2	110	430	25.6	21.7	29.9
Thorney	15 NT - Borderline	100	385	26.0	21.8	30.6
Welland Medical Practice, Peterborough	13 NT - Peterborough City 1	65	250	26.0	21.0	31.8
Wellside Surgery, Sawtry	07 NT - Huntingdon Central	70	335	20.9	16.9	25.6
C&P CCG		12,810	36,280	35.3	42.1	54.1

Note: CI lower/upper – Confidence Intervals (95%) lower and upper limits to determine statistical significance.
Source: National Diabetes Audit, NHS Digital

Key points:

- The percentage of Type 2 diabetes patients receiving all three treatment targets was 35.3% for the C&P CCG in 2016/17. This rate is statistically significantly lower than the national rate (41.1%).
- Two GP practices were statistically significantly lower than the C&P CCG for this indicator for Type 1 diabetes patients.

5. Secondary Care (Hospital admissions)

Hospital Episode Statistics (HES) is an NHS Digital database containing details of all admissions, A and E attendances and outpatient appointments at NHS hospitals in England.[32]

Table 18. Hospital admissions episodes for diabetes as a primary (only) or a primary or subsidiary diagnosis, all ages, C&P CCG Area Executive Partnerships (AEP) Neighbourhood Teams, 2016/17

AEP Neighbourhood Team	Period	Primary diagnosis				Primary or subsidiary diagnosis			
		Episodes	DASR per 10,000	DASR 95% CI		Episodes	DASR per 10,000	DASR 95% CI	
				LL	UL			LL	UL
Borderline	2016/17	50	9.8	7.3	13.0	1,583	293.9	279.5	308.8
Borderline Central	2016/17	55	10.5	7.8	13.7	1,631	363.2	345.5	381.6
City	2016/17	48	8.6	6.0	11.8	889	255.7	238.6	273.7
City North	2016/17	60	12.7	9.6	16.5	1,403	326.7	309.5	344.7
City South	2016/17	29	7.9	5.2	11.6	879	252.9	236.1	270.7
East	2016/17	28	7.1	4.7	10.3	1,113	255.4	240.5	270.9
Fenland	2016/17	45	10.1	7.4	13.6	1,817	388.5	370.7	406.8
Huntingdon Central	2016/17	84	14.1	11.2	17.5	2,257	397.1	380.8	414.0
Isle of Ely	2016/17	88	12.0	9.6	14.8	2,437	333.4	320.2	346.9
North Villages	2016/17	44	8.9	6.5	12.0	1,257	261.5	247.1	276.5
Peterborough City 1	2016/17	86	11.8	9.2	14.9	2,134	416.7	398.3	435.6
Peterborough City 2	2016/17	70	12.4	9.6	15.6	2,108	384.9	368.4	401.8
South Villages	2016/17	45	8.3	6.0	11.2	1,356	262.9	249.0	277.3
St Ives	2016/17	59	11.5	8.7	14.9	1,616	314.1	298.9	329.8
St Neots	2016/17	73	13.5	10.5	16.9	1,617	301.2	286.6	316.3
Wisbech	2016/17	51	10.3	7.7	13.5	2,433	492.3	472.9	512.4
C&P CCG	2016/17	915	10.6	9.9	11.3	26,530	333.7	329.7	337.8

🟩 Statistically significantly lower than the C&P CCG average
🟧 Statistically similar to the C&P CCG average
🟥 Statistically significantly higher than the C&P CCG average

Notes: Admissions include emergency and elective admissions, and include type 1 and type 2 diabetes (ICD-10 E10-E14). DASR – Directly Age Standardised Rate, CI – Confidence Interval (95%) LL/UL – lower limit and upper limit of confidence interval to determine statistical significance.
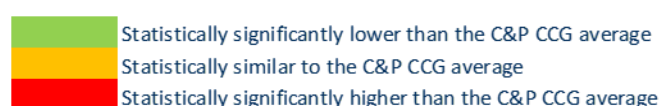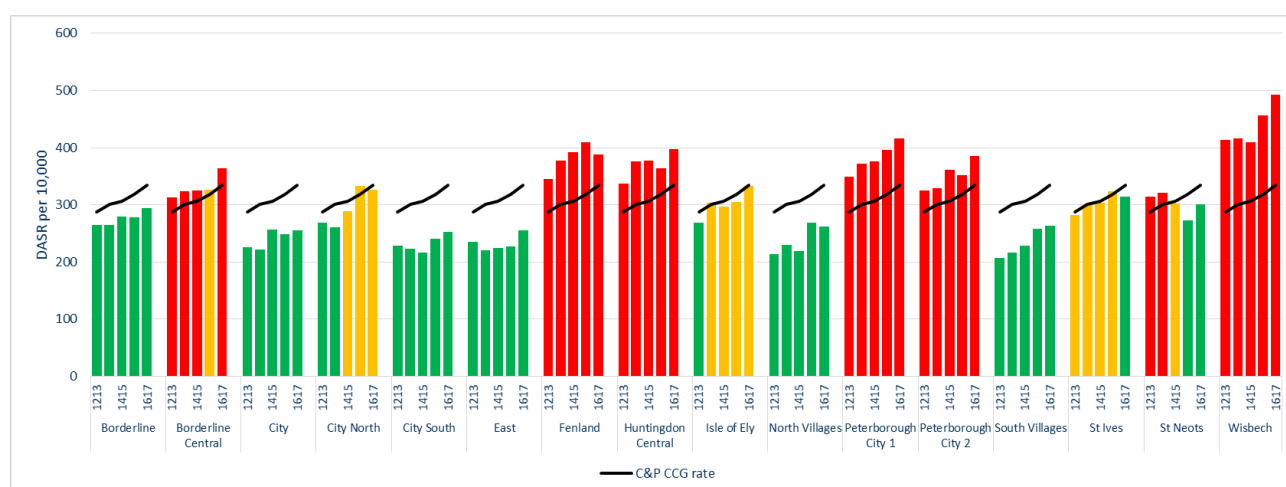Source: Hospital Episode Statistics (HES), NHS Digital

Key points:
- 915 hospital admissions were recorded with diabetes as the primary diagnosis for the C&P CCG. This gives an age standardised rate of 10.6 (DASR per 10,000).
- 26,530 hospital admissions were recorded with diabetes as the primary or subsidiary diagnosis for C&P CCG. This gives an age standardised rate of 333.7 (DASR per 10,000).
- Numbers of admissions for diabetes as a primary diagnosis range across the neighbourhood teams from 28 (East) to 84 (Huntingdon Central), giving a DASR for admission episodes ranging from 7.1 per 10,000 (East) to 14.1 per 10,000 (Huntingdon Central).
- The only neighbourhood team to have a DASR for admissions for diabetes as a primary (only) diagnosis statistically significantly lower than the C&P CCG rate was East (7.1 per 10,000).
- Numbers of admissions for diabetes as a primary or subsidiary diagnosis range across the neighbourhood teams from 879 (City South) to 2,437 (Isle of Ely).
- Statistically, the neighbourhood teams with DASRs that are statistically significantly higher than the rate for C&P CCG are Borderline Central, Fenland, Huntingdon Central, Peterborough City 1, Peterborough City, and Wisbech.

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[32] Hospital Episode Statistics (HES) [online] Available from: https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/hospital-episode-statistics (Accessed 13 June 2018)

Figure 5. Trends in total hospital admission episodes (DASR per 10,000) for diabetes as a primary or a subsidiary diagnosis, all ages, C&P CCG Area Executive Partnership Neighbourhood 2012/13 – 2016/17


Statistically significantly lower than the C&P CCG average
Statistically similar to the C&P CCG average
Statistically significantly higher than the C&P CCG average

Note: Admissions include emergency and elective admissions, and include type 1 and type 2 diabetes (ICD-10 E10-E14). DASR – Directly Age Standardised Rate
Source: Hospital Episode Statistics (HES), NHS Digital

Key points:
- DASRs for Borderline Central, Fenland, Huntingdon Central, Peterborough City 1, Peterborough City 2, and Wisbech are all statistically significantly higher (worse) than the rate for C&P CCG in 2016/17.
- The overall trend is a slight increase in the rate of admissions for diabetes in recent years.
- Borderline Central's admission rate moved from statistically similar to statistically significantly higher (worse) than C&P CCG's rate in 2016/17.
- The DASR for St Ives moved from statistically similar to statistically significantly lower (better) than the C&P CCG DASR in 2016/17.

Figure 6. Total number of hospital admission episodes for diabetes as primary or subsidiary diagnosis, all ages, C&P CCG Area Executive Partnership Neighbourhood 2012/13 – 2016/17
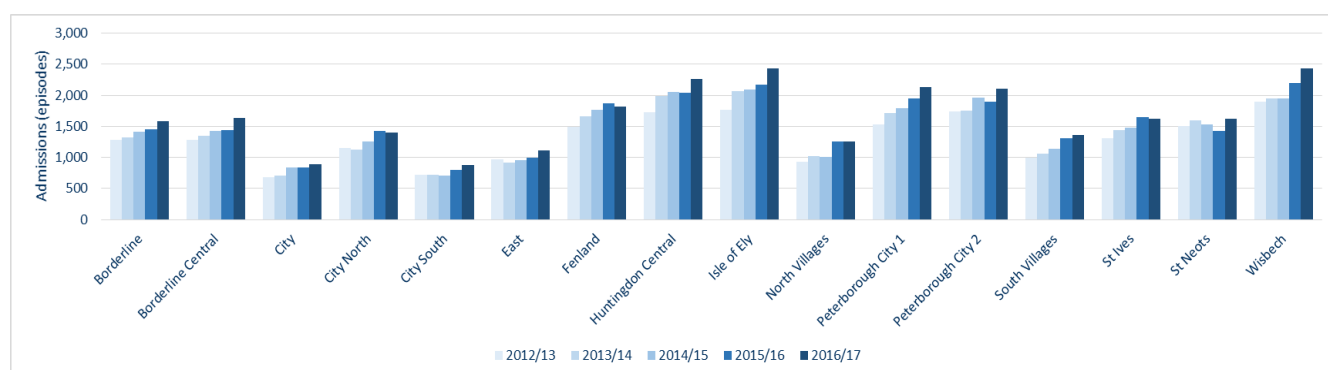
Note: Admissions include emergency and elective admissions, and include type 1 and type 2 diabetes (ICD-10 E10-E14). DASR – Directly Age Standardised Rate
Source: Hospital Episode Statistics (HES), NHS Digital

Key points:
- In 2016/17 there were 26,530 admission episodes for diabetes for C&P CCG.
- The AEP Neighbourhood areas of Wisbech, Isle of Ely, and Huntingdon Central each accounted for 9% of the total number of admission episodes.
- The overall trend is a slight increase in the number of admissions for diabetes in recent years.
- Isle of Ely had 2,170 admissions in 2015/16 and 2,437 in 2016/17. An increase of 267 admissions (12%).
- Wisbech had 2,200 admissions in 2015/16 and 2,433 in 2016/17. An increase of 233 admissions (11%).

Table 19. Practices in the C&P CCG with rates of hospital admission episodes (DASR per 10,000) for diabetes as primary or subsidiary diagnosis that are statistically significantly higher than C&P CCG rate, all ages 2016/17.

| Practice	Neighbourhood Team	Episodes	DASR per 10,000	95% CI	
				LL	UL
Welland Medical Practice, Peterborough	13 NT - Peterborough City 1	144	701.9	580.8	839.0
Central Medical Centre	13 NT - Peterborough City 1	235	637.3	552.3	731.0
Acorn Surgery, Huntingdon	07 NT - Huntingdon Central	292	586.4	513.8	665.6
Trinity Surgery, Wisbech	12 NT - Wisbech	451	565.5	512.9	621.9
Dogsthorpe Medical Centre, Peterborough	13 NT - Peterborough City 1	133	511.6	421.0	614.6
Clarkson Surgery, Wisbech	12 NT - Wisbech	639	498.2	459.9	538.7
The Grange Medical Centre, Peterborough	13 NT - Peterborough City 1	91	493.6	392.2	612.2
North Brink, Wisbech	12 NT - Wisbech	1,007	479.9	450.5	510.7
Huntly Grove, Peterborough	14 NT - Peterborough City 2	116	477.6	391.7	576.2
Hampton Health	16 NT - Borderline Central	138	472.2	387.9	567.8
Orton Bushfield Medical Practice	16 NT - Borderline Central	178	461.3	393.3	537.3
Hodgson Medical Centre	13 NT - Peterborough City 1	145	451.0	378.9	532.7
Ramsey Health Centre	08 NT - St Ives	348	441.3	395.8	490.6
Riverside Practice, March	11 NT - Fenland	347	436.0	390.9	484.7
Minster Practice, Peterborough	14 NT - Peterborough City 2	191	434.9	374.4	502.3
Parson Drove	12 NT - Wisbech	336	431.9	386.1	481.6
Nuffield Road, Cambridge	02 NT - Cambridge City North	466	425.9	386.9	467.7
Westwood Clinic, Peterborough	13 NT - Peterborough City 1	145	422.2	354.1	499.2
Cedar House, St Neots	09 NT - St Neots	543	421.1	386.2	458.3
Paston	13 NT - Peterborough City 1	418	417.2	377.1	460.3
St George's	10 NT - Isle of Ely	419	414.7	375.7	456.7
Bretton Medical Practice	13 NT - Peterborough City 1	358	408.7	366.2	454.8
Priory Fields, Huntingdon	07 NT - Huntingdon Central	453	407.8	370.8	447.4
East Barnwell, Cambridge	02 NT - Cambridge City North	208	400.0	346.5	459.2
Mercheford House, March	11 NT - Fenland	310	398.7	354.1	447.3
Westgate Surgery, Peterborough	14 NT - Peterborough City 2	283	398.4	352.2	448.8
Soham	10 NT - Isle of Ely	656	397.9	367.8	429.8
Doddington	11 NT - Fenland	230	397.0	347.0	452.2
Cornerstone Practice, March	11 NT - Fenland	412	393.0	355.6	433.2
Thomas Walker, Peterborough	14 NT - Peterborough City 2	259	391.3	344.6	442.5
Charles Hicks, Huntingdon	07 NT - Huntingdon Central	452	378.6	344.3	415.4
Boroughbury Medical Centre	14 NT - Peterborough City 2	998	377.2	354.0	401.6
CCG		26,530	333.7	329.7	337.8

Notes: Admissions include emergency and elective admissions, and include type 1 and type 2 diabetes (ICD-10 E10-E14). DASR – Directly Age Standardised Rate, CI – Confidence Interval (95%) LL/UL – lower limit and upper limit of confidence interval to determine statistical significance.
Source: Hospital Episode Statistics (HES), NHS Digital

Key points:

- The rate of hospital admissions due to diabetes (primary or subsidiary diagnosis) is 333.7 per 10,000 for 2016/17 for C&P CCG.
- 32 GP practices have a rate of hospital admissions due to diabetes (primary or subsidiary diagnosis) statistically significantly higher than C&P CCG rate.
- Welland Medical Practice as the highest rates of hospital admissions due to diabetes, at 701.9 per 10,000. This is notably statistically higher than the CCG rate.

Figure 7. Rates of hospital admission episodes (per 10,000) for diabetes as a primary or a subsidiary diagnosis, by age, 2016/17, C&P CCG
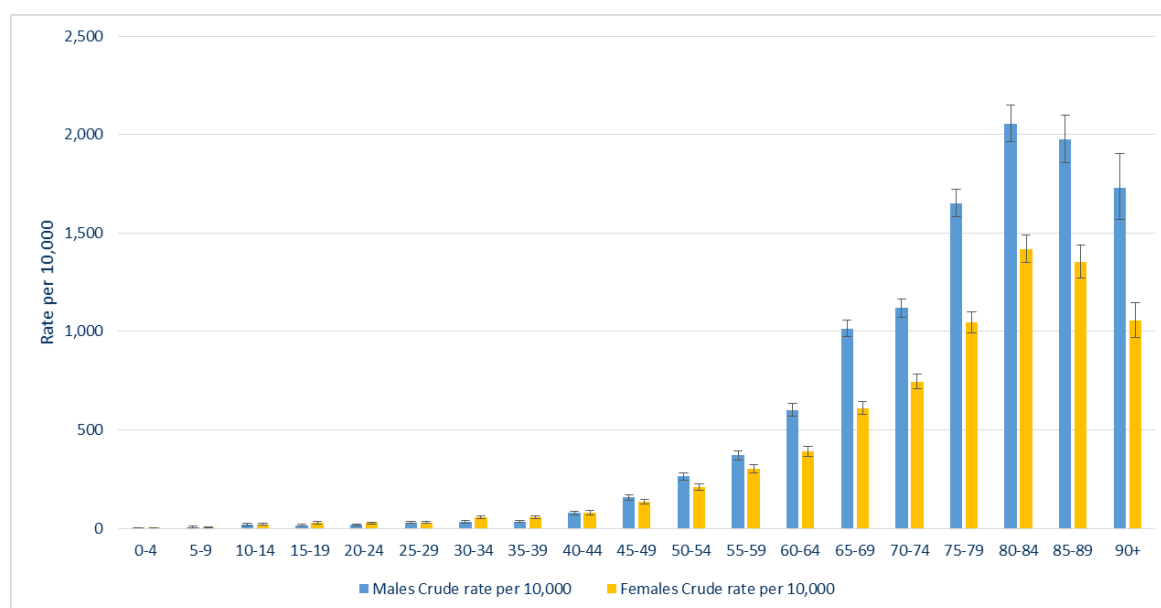
Note: Admissions include emergency and elective admissions, and include type 1 and type 2 diabetes (ICD-10 E10-E14). DASR – Directly Age Standardised Rate
Source: Hospital Episode Statistics (HES), NHS Digital

Key points:
- The rate of hospital admissions increases with age.
- The rate of hospital admissions is higher in males than females for most age groups. This is particularly apparent in the older age groups.
- Rates of hospital admissions are generally statistically significantly higher in males in older age groups.

Further analysis of HES also identified the following for the 2016/17 period;

Where diabetes is the primary or subsidiary diagnosis for admission;
- Fewer admissions were for people in the younger age groups.
- 55.9% (14,833) of diabetes hospital admissions were for males.
- Admissions appear to increase with age up to 70-74 years, and then decrease.
- The majority of hospital admissions are for people in older age groups, 65+ years.
- 67% (17,883) of these were in 65+ years.
- 52% (13,786) of all admissions were elective admissions, around two thirds (9,396) of these were in people aged under 75 years.
- 47% (12,382) of all admissions were emergency admissions. Just over half (6,516) of these were in people aged under 75 years.
- 58% of all hospital admissions in u75s were elective admissions
- 56% of all hospital admissions in those aged 75+ were emergency admissions

Where diabetes is the primary diagnosis for admission;
- 915 episodes for the CGG
- 77% (706) of these were in people aged under 75 years

- 9% (78) of all admissions were elective admissions
- 77% (60) of the elective admissions were for people aged under 75 years
- 90% (821) of all admissions were emergency admissions
- 78% (637) of the emergency admissions were for people aged under 75 years
- 90% of all hospital admissions in people aged under 75 years were emergency admissions
- 88% of all hospital admissions in people aged 75+ were emergency admissions

Note: elective and emergency admissions are the two principal admission types, but there are other admission types that are not included here. Therefore these two types combined will not necessarily add up to 100%.

6. Diabetic foot care – hospital based treatment

The National Diabetes Audit identifies that C&P CCG is performing statistically significantly worse than England for the number of diabetes patients who are receiving the NICE recommended annual foot surveillance care process. This is true for type 1 and type 2 diabetes patients.

Table 20. Hospital spells for diabetic[33] foot disease (crude rate per 10,000), C&P CCG, East, and England, 2010/11 - 2012/13 to 2014/15 - 2016/17

Period	C&P CCG		95% CI		East	England
	Number	Rate	LL	UL	Rate	Rate
2010/11 - 2012/13	1,413	128.4	121.8	135.3	132.9*	122.7
2011/12 - 2013/14	1,589	138.1	131.3	145.0	143.9*	126.1
2012/13 - 2014/15	1,731	144.0	137.3	151.0	154.9*	129.5
2013/14 - 2015/16	2,103	168.3	161.2	175.6	178.1*	138.2
2014/15 - 2016/17	2,237	172.3	165.2	179.6	163.8*	145.5

* Aggregated from all known lower geography values
Note: CI – Confidence Interval (95%) LL/UL – lower limit and upper limit of confidence interval to determine statistical significance.
Source: Hospital Episode Statistics, Quality and Outcomes Framework, PHE

Key points:
- In 2014/15 – 2016/17 period there were 2,237 hospital spells for diabetic foot disease in C&P CCG. The number has increased annually in recent years.
- C&P CCG's rates of hospital spells have been statistically significantly higher than the rates for England since 2011/12 – 2013/14.

Figure 8. Hospital spells for diabetic[34] foot disease (crude rate per 10,000), C&P CCG and England, 2010/11 - 2012/13 to 2014/15 - 2016/17
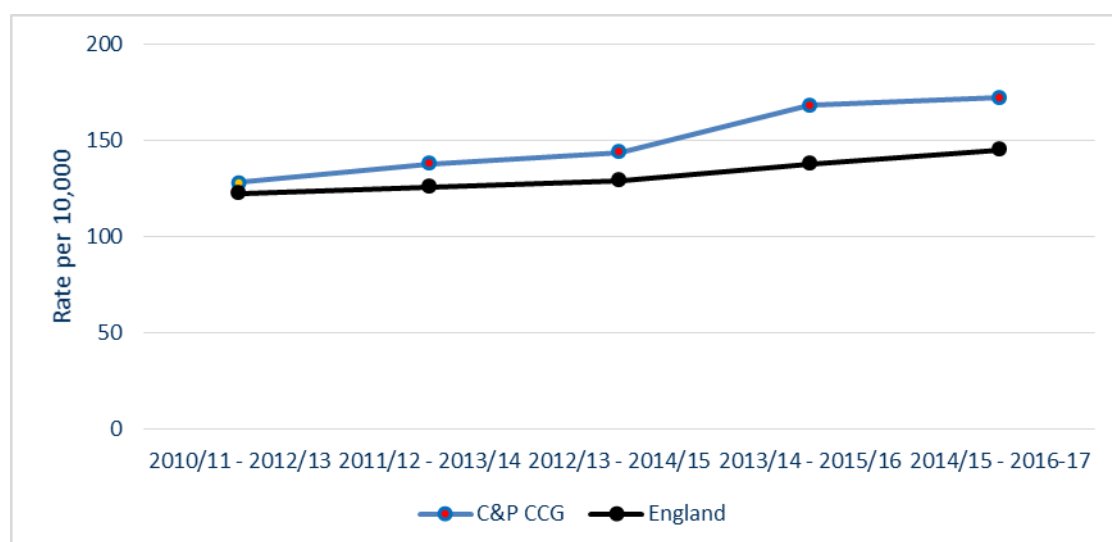
Source: Hospital Episode Statistics, Quality and Outcomes Framework

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[33] Diabetes using diagnosis coding E10-E14 in any position of the patients of Hospital Episode Statistics record
[34] Diabetes using diagnosis coding E10-E14 in any position of the patients of Hospital Episode Statistics record

Key points:
- Rates of hospital spells for C&P CCG have increased in recent years from 128.4 (per 10,000) in 2010/11 – 2011/12 to 172.3 (per 10,000) in 2014/15 – 2016/17. National rates have also seen a slight increase.
- Rates of hospital spells for C&P CCG have been statistically significantly higher than the rates for England since 2011/12 – 2013/14.

Table 21. Minor and major diabetic lower-limb amputations, C&P CCG and England, 2010/11 - 2012/13 to 2014/15 - 2016/17.

	Minor diabetic lower-limb amputation				Major diabetic lower-limb amputation			
	C&P CCG		95% CI		England	C&P CCG		95% CI		England
Period	Number	DASR per 10,000	LL	UL	DASR per 10,000	Number	DASR per 10,000	LL	UL	DASR per 10,000
2010/11 - 2012/13	199	16.4	14.2	18.9	19.5	93	7.7	6.2	9.4	9.1
2011/12 - 2013/14	198	16.1	13.9	18.6	20.1	93	7.2	5.8	8.9	8.6
2012/13 - 2014/15	189	14.8	12.7	17.1	20.4	95	7.3	5.9	9	8.3
2013/14 - 2015/16	194	14.9	12.8	17.3	21.0	102	7.6	6.2	9.3	8.1
2014/15 - 2016-17	198	14.2	12.3	16.4	21.2	98	7.2	5.8	8.8	8.2

Statistically significantly lower than the England average
Statistically similar to the England average
Statistically significantly higher than the England average

DASR – Directly Age Standardised Rate
Note: 95% Confidence Intervals (CI) lower limit (LL) and upper limits (UL) to determine statistical significance to England rate
Source: Hospital Episode Statistics, National Diabetes Audit, Quality and Outcomes Framework, PHE

Key points:
- In 2014/15 – 2016/17 198 minor diabetic lower-limb amputations were recorded in C&P CCG.
- The DASR for C&P CCG in 2014/15 – 2016/17 was 14.2 (per 10,000). This is statistically significantly lower (better) than the rate for England.
- The DASR for C&P CCG has decreased over recent years. It has been statistically significantly lower than England since 2010/11 – 2012/13.

Closer analysis of minor and major diabetic lower-limb amputation rates 2014/15 – 2016/17, per 10,000 population-years shows that rates increase with age, and that the rates for males are higher than rates for women[35].

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[35] Diabetes Foot Care Profile – NHS Cambridgeshire and Peterborough CCG, May 2018, PHE.

7. Deaths

There is significant under-recording of diabetes as an underlying cause of death. This is 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[36]. This means that there is a large number of additional deaths where diabetes is not the main cause, but is a significant contributing factor.

In the period 2015-17 there were 224 deaths (an average of 75 deaths annually) in C&P CCG where the primary cause of death was a diabetic emergency (type 1 or type 2 diabetes). 30% of deaths occurred in people aged under 75.

7.1 Deaths by local authority

Table 22. Number of deaths with diabetes as the primary underlying cause of death, by AEP Neighbourhood Team, C&P CCG

Neighbourhood Team	Diabetes as underlying cause of death (number)					DASR per 100,000
	2011-13	2012-14	2013-15	2014-16	2015-17	2015-17
Borderline	11	12	6	10	14	8.7
Borderline Central	7	10	12	18	15	12.7
City	8	9	8	5	5	5.1
City North	18	15	11	9	12	9.0
City South	23	20	15	19	15	14.8
East	5	11	13	11	9	6.8
Fenland	16	19	16	16	19	13.5
Huntingdon Central	16	15	14	14	14	8.5
Isle of Ely	15	16	20	19	18	8.3
North Villages	12	14	16	20	15	9.7
Peterborough City 1	21	20	15	16	16	12.2
Peterborough City 2	20	23	24	24	22	12.8
South Villages	7	8	6	10	6	4.0
St Ives	8	10	14	12	10	6.8
St Neots	11	7	7	8	11	7.7
Wisbech	16	15	15	20	23	16.4
CCG	216	225	215	231	224	9.5

*Diabetes (type 1 or type 2) is identified as the primary underlying cause of death
DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD), NHS Digital

Key points:
- In the period 2015-17, 224 deaths in C&P CCG had diabetes as the primary underlying cause of death. Numbers are small at neighbourhood team level.
- Although this represents less than 1% of all deaths, it is important to note that these data represent only deaths where diabetes was identified as the primary underlying cause of death.
- Death rates (DASR) from diabetes vary across each neighbourhood team. In the period 2015-17 Wisbech had the numerically highest DASR of 16.4 per 100,000. Wisbech also had the highest number of deaths from diabetes (23).

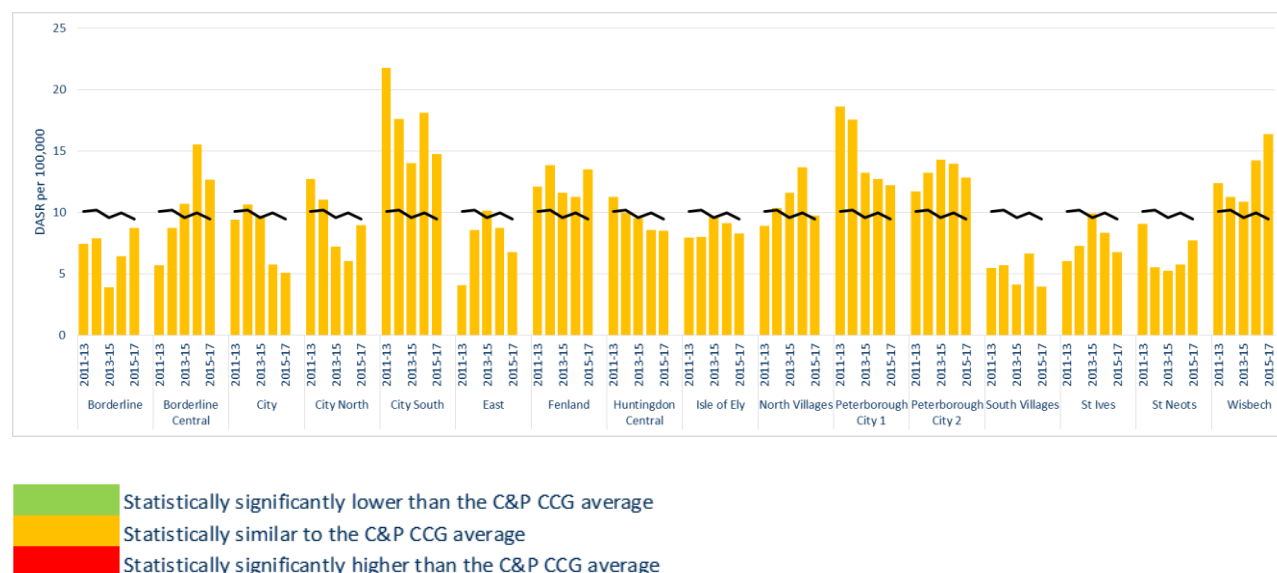[36] National Diabetes Audit, 2015-16 Report 2a: Complications and Mortality, 2017. https://files.digital.nhs.uk/pdf/4/t/national_diabetes_audit__2015-16__report_2a.pdf
CCC data Supplement: Diabetes in Cambridgeshire, 2015. https://cambridgeshireinsight.org.uk/wp-content/uploads/2017/08/CCC-Data-Supplement-Diabetes-2015.pdf

- Neighbourhood teams with a numerically higher DASR per 100,000 than C&P CCG are: Wisbech (16.4), City South (14.8), Fenland (13.5), Peterborough City 2 (12.8), Borderline Central (12.7), Peterborough City 1 (12.2) and North Villages (9.7). Though none are found to be statistically higher. Statistically none of AEPs have rates that are significantly different to the CCG rate for 2015-17.

Figure 9. Death rate for deaths where diabetes* is the primary underlying cause of death (DASR per 100,000), by Neighbourhood Team, all ages, Cambridgeshire and Peterborough CCG

Statistically significantly lower than the C&P CCG average
Statistically similar to the C&P CCG average
Statistically significantly higher than the C&P CCG average

*Diabetes (type 1 or type 2) is identified as the primary underlying cause of death
DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD)

Key points:
- The three year diabetes related death rate for the CCG has remained fairly stable over the last ten years or so, fluctuating around a DASR of 10.0 per 100,000.
- The rates of deaths caused by diabetes vary across the Neighbourhood Team areas within the CCG.
- In 2015-17 the numerically highest rate was in Wisbech (16.4 per 100,000) and the numerically lowest rate was in South Villages (4.0 per 100,000).
- The 95% confidence intervals do not indicate statistically significant differences. This is likely to be due to small numbers.

Table 23. Number of deaths with diabetes* as the primary or contributory underlying cause of death, by AEP Neighbourhood Team, C&P CCG

| Neighbourhood Team | Diabetes as underlying cause of death (number) | | | | | DASR per 100,000 |
	2011-13	2012-14	2013-15	2014-16	2015-17	2015-17
Borderline	128	140	128	152	181	111.7
Borderline Central	103	118	132	135	141	115.1
City	59	58	73	84	85	88.9
City North	120	134	140	151	149	112.9
City South	98	101	105	105	106	103.0
East	68	90	97	91	91	67.3
Fenland	129	145	154	168	189	129.8
Huntingdon Central	171	192	175	179	191	117.6
Isle of Ely	163	143	175	189	213	98.2
North Villages	119	137	144	152	148	98.7
Peterborough City 1	130	144	147	157	161	127.7
Peterborough City 2	163	178	202	227	245	142.3
South Villages	72	60	71	81	91	61.3
St Ives	72	82	92	87	98	66.4
St Neots	106	112	127	119	116	77.0
Wisbech	161	165	175	177	204	138.1
CCG	1,862	1,999	2,137	2,254	2,409	103.7

*Diabetes (type 1 or type 2) is identified as the primary or contributory underlying cause of death
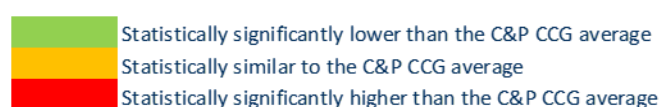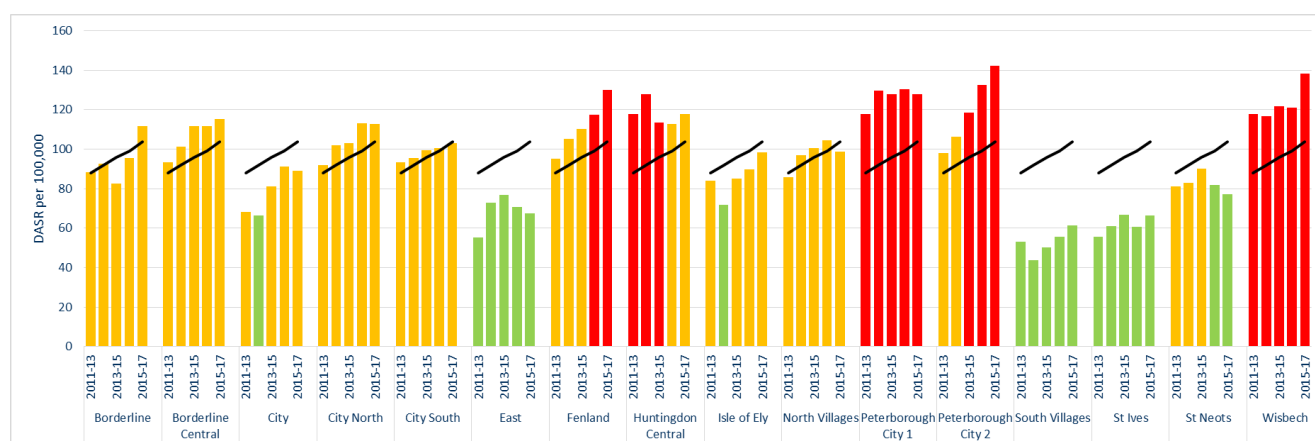DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD), NHS Digital

Key points:
- In the period 2015-17, 2,409 deaths in C&P CCG had diabetes as the primary or contributory underlying cause of death.
- Death rates (DASR) from diabetes vary across each neighbourhood team. In the period 2015-17 Wisbech had a DASR of 138.1 per 100,000, for deaths where diabetes was a primary or contributory cause.
- Peterborough City 2 was the neighbourhood team with the highest number of deaths from diabetes (245).
- Neighbourhood teams with a statistically significantly higher DASR per 100,000 than C&P CCG are: Fenland (129.8), Peterborough City 1 (127.7), Peterborough City 2 (142.3), and Wisbech (138.1).

Figure 10. Death rate for deaths where diabetes* is the primary or contributory underlying cause of death (DASR per 100,000), by Neighbourhood Team, all ages, Cambridgeshire and Peterborough CCG

*Diabetes (type 1 or type 2) is identified as the primary or contributory underlying cause of death
DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD)

Key points:
- The three year diabetes related death rate for the CCG, where diabetes is a primary or contributory cause of death, has gradually increased. In 2015-17 it was 103.7 per 100,000.
- The rates of deaths caused by diabetes vary across the Neighbourhood Team areas within the CCG.
- In the period 2015-17 the neighbourhood teams with statistically significantly higher rates than C&P CCG were Fenland (129.8), Peterborough City 1 (127.7), Peterborough City 2 (142.3), and Wisbech (138.1).

7.2 Deaths by deprivation (IMD[37])

Table 24. Death rate for deaths where diabetes* is the primary underlying cause of death, by IMD quintiles (deprivation), all ages, Cambridgeshire and Peterborough CCG

Deprivation quintile	DASR per 100,000								
	2006-08	2007-09	2008-10	2009-11	2010-12	2011-13	2012-14	2013-15	2014-16
1 - Most deprived	13.6	13.4	12.9	12.5	13.3	12.7	13.3	13.3	14.5
2	13.2	11.5	12.7	13.7	15.2	13.5	11.8	9.0	10.4
3	14.5	14.4	12.8	10.1	9.6	9.2	8.1	7.9	7.8
4	9.2	9.7	11.4	11.3	10.0	8.2	9.8	9.0	10.4
5 - Least deprived	8.6	8.5	10.0	8.6	6.3	6.7	8.1	8.8	7.7
C&P CCG	11.9	11.5	12.0	11.2	10.8	10.1	10.2	9.6	10.0

*Diabetes (type 1 or type 2) is identified as the primary underlying cause of death
DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD), NHS Digital and Index of Multiple Deprivation 2015, DCLG

Figure 11. Death rate for deaths where diabetes* is the primary underlying cause of death, by IMD quintiles (deprivation), all ages, Cambridgeshire and Peterborough CCG
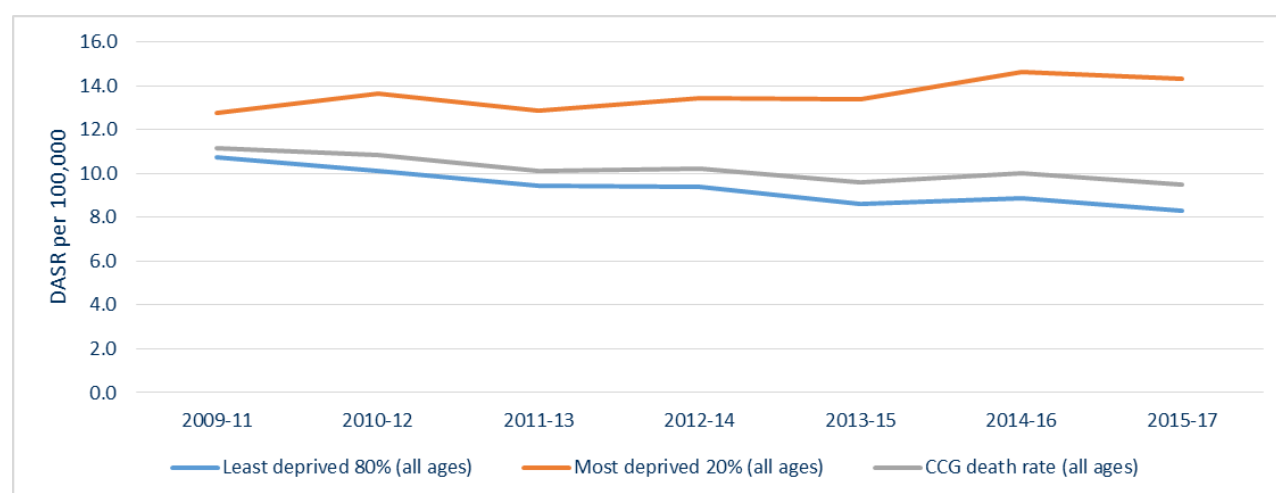
*Diabetes (type 1 or type 2) is identified as the primary underlying cause of death
DASR – Directly Age Standardised Rate
Source: Primary Care Mortality Database (PCMD), NHS Digital and Index of Multiple Deprivation 2015, DCLG

Key points:
- The rate of deaths for which diabetes is the underlying cause is higher in the more deprived areas within the C&P CCG.
- Recent trends show that C&P CCG and least deprived death rates are decreasing slightly, whereas the inverse is true of the most deprived 20%.

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[37] The Index of Multiple Deprivation, commonly known as the IMD, is the official measure of relative deprivation for small areas in England. Further details can be found at: The English Indices of Deprivation 2015 – FAQs [online] Available from:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/579151/English_Indices_of_Deprivation_2015_-_Frequently_Asked_Questions_Dec_2016.pdf (Accessed 26 June 2018)

- The 2015-17 rate of deaths from diabetes was 9.5 per 100,000 for the C&P CCG. The rate in the most deprived quintile was statistically significantly worse than the C&P CCG rate, at 14.3 per 100,000.