

Protecting and improving the nation's health

NCVIN tools and resources diabetes



Diabetes resources

Diabetes prevalence estimates

Analysis of the NHS Diabetes Prevention Programme

Diabetes Foot care activity profiles

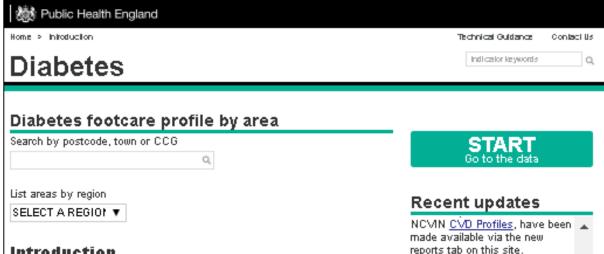
Non-diabetic hyperglycaemia prevalence estimates

Diabetes outcomes versus expenditure tool

Diabetes fingertips profile

Summary profiles of Cardiovascular disease

(coronary heart disease, chronic kidney disease, diabetes and stroke)



Introduction

Welcome to PHEs diabetes profile. This profile brings together a wide range of local, regional and national information related to both type 1 and type 2. diabetes and makes it accessible in one place.

The indicators and reports, available through this profile, can be used for a number of purposes including:

- Local needs assessment
- Informing commissioning decisions
- Supporting service improvements
- Programme evaluation

The data used for the indicators comes from different sources, including: routine primary care data, national survey data, national clinical audit data and hospital records.

The indicators provide information on the distribution and determinants of diabetes, measures of patient treatment and care and diabetes-related complications.

https://fingertips.phe.org.uk/ profile/diabetes-ft

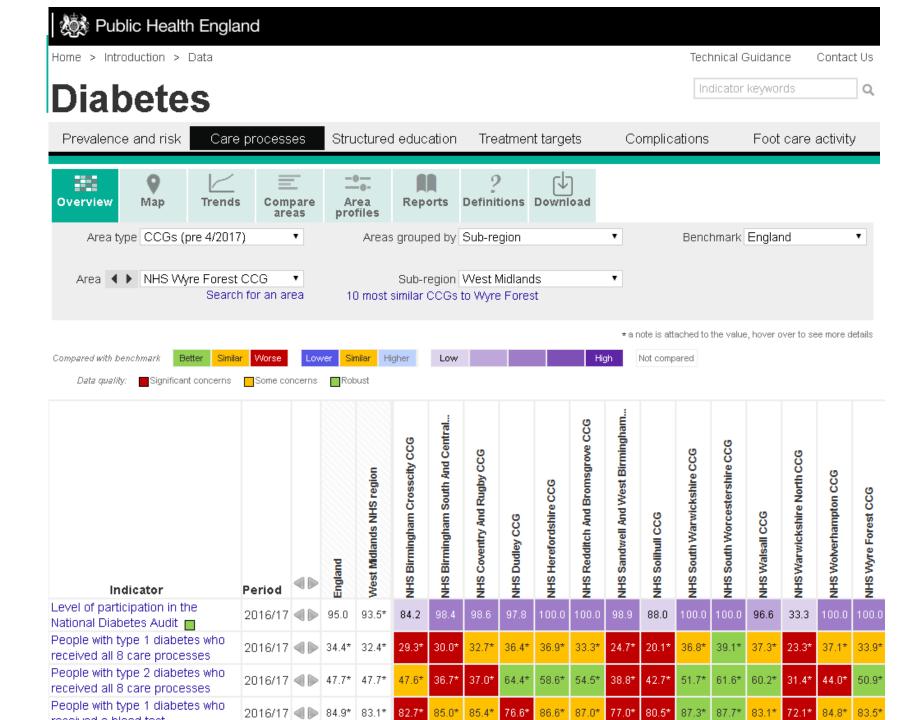
National Diabetes Audit data

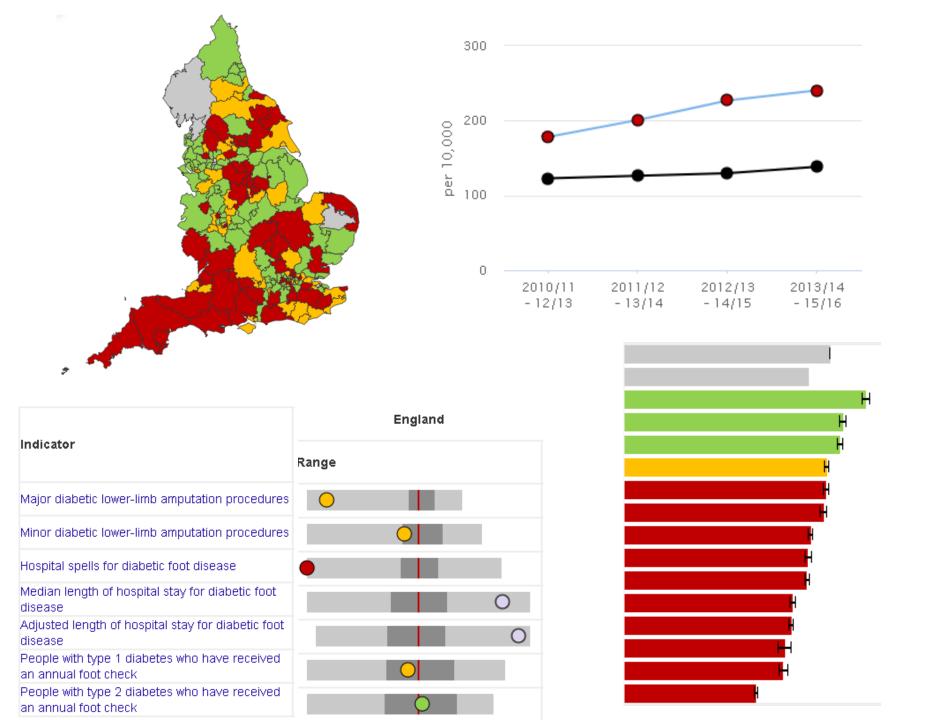
The National Diabetes Audit (NDA) is a major national clinical audit, which measures the effectiveness of diabetes healthcare against NICE Clinical Guidelines and NICE Quality Standards, in England and Wales. This site includes indicators from the National Diabetes Audit, to allow comparative analysis across both GP practices and CCGs in England in diabetes care, treatment and outcomes. This data is available by clicking the 'Start' button on the top right of this page.

Other diabetes data, tools and publications

Please find the links below to other useful diabetes data, tools and publications:

- Progress of the Healthier You: NHS Diabetes Prevention Programme: referrals, uptake and participant characteristics
- Using data to tackle the burden of amputation in diabetes
- Diabetes prevalence estimates for local populations
- Improving Diabetic Foot Care: A Guide for Commissioners
- Analysis of non-diabetic hyperglycaemia prevalence in England
- Diabetes outcomes versus expenditure (DOVE) in local population
- Diabetic eye screening data
- CVD Profiles: Diabetes Profile







Technical document for diabetes prevalence model for England 2018

Table 2. Multivariate model output

Variable	Coefficient	Duralina	Odds	95% CI	85% CI
Variable	COMMUNIC	r value			
			ratio	lower	higher
Age group (16-24)			1.0		
Age group (25-34)	.411	.081	1.509	0.634	3.590
Age group (35-44)	1.508	<0.0001	4.516	2.080	9.801
Age group (45-54)	2.606	<0.0001	13.551	6.452	28.464
Age group (55-64)	3.039	< 0.0001	20.887	10.021	43.536
Age group (65-74)	3.428	< 0.0001	30.818	14.706	64.582
Age group (75+)	3.901	<0.0001	49.457	22.540	484 836
Sex (Male)	1		1		
Sex (Female)	386	< 0.0001			
Ethnic group: White, Mixed, Other	1	l			
Ethnic group: South Asian & black	1.358	<0.0001	7		

Accounting for deprivation



Protecting and improving the nation's health

Technical document for the diabetes prevalence model for England 2016



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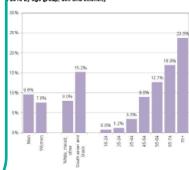
Diabetes Prevalence Model

Diabetes prevalence model

There is a clear association between increasing age and higher diabetes prevalence, from 9.0% aged 45 to 54 to 23.8% aged 75 years and over. It is estimated that approximately 2% of adults aged 16 to 44 have diabetes. This equates to 400,000 people of this age group with diabetes = 10% of total diabetes cases.

At CCG level, diabetes prevalence ranges from 6.5% to 11.5% (1.7-fold variation). CCGs with the highest estimated diabetes prevalence have high proportions of South ran and black eithic groups and high levels of deprivation, in addition, CCGs which igh estimated prevalence also have higher levels of deprivation and/or high ns of elderly people. CCGs with the lowest estimated diabetes prevalence er proportions of younger age groups and lower levels of deprivation.

> immary of expected diabetes prevalence (diagnosed and undiagnosed) for 2016 by age group, sex and ethnicity



parisons between estimates of diabetes for 2015 and the 2014/15 Quality and Outcomes framework (QIOF) suggest that 75% of adults who have diabetes are included on GP registers. It's is estimated that there are around \$40,000 adults with

n with the Quality and Outcomes Framework

The diabetes prevalence model provides estimates of total (diagnosed and undiagnosed) diabetes prevalence for people aged 16 years and older in England.

Public Health England

National Cardiovascular Intelligence Network

Protection and improving the nation's heal

Prevalence estimates of diabetes

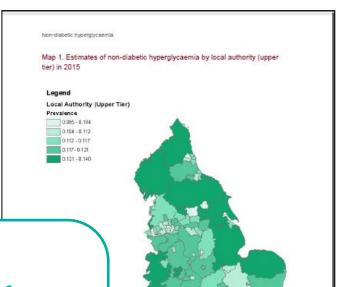
Published	2016
Produced by	Public Health England
Geography	Local authotity and whole of England
Age	16 years and over
Sex	Total
Data source	Health Survey for England 2012, 2013 and 2014
	2014-based Subnational Population Projections, mid-2012 to mid-2037, Population Projections Unit, ONS. Crown copyright 2014.
	Hospital Episode Statistics (HES), 2010/11 - 2013/14, Copyright © 2016, Re-used with the permission of NHS Digital. NHS Digital is the trading name of the
	Health and Social Care Information Centre. All rights reserved.
	English indices of deprivation 2015, Department for local communities and local governement



Non-diabetic hyperglycaemia

Table 4. Characteristics of people with non-diabetic hyperglycaemia and diabetes (diagnosed and undiagnosed)

		Non-diabetic hyperglycaemia				Diabetes (di	Diabetes (diagnosed and undiagnosed)			
			confid	% dence rval	Chi- square D-		95% confidence interval		Chi- square D-	
		Prevalence	lower	upper	value	Prevalence	lower	upper	value	
8ex	Male	10.5%	9.8%	11.2%	0.259	8.7%	8.1%	9.3%	0.000	
SEX	Female	10.8%	10.2%	11.5%		6.5%	6.0%	6.9%		
	16 to 39	2.6%	2.2%	3.1%	0.000	1.4%	1.1%	1.7%	0.000	
	40 to 49	7.8%	7.0%	8.7%		4.6%	3.9%	5.3%		
Age group	50 to 59	14.4%	13.2%	15.6%		10.0%	9.0%	11.1%		
	60 to 69	18.4%	17.1%	19.7%		13.7%	12.6%	14.9%		
	70 to 79	23.2%	21.4%	25.0%		20.3%	18.6%	22.0%		





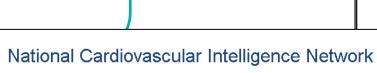
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NHS Diabetes Prevention Programm (NHS DPP) Non-diabetic hyperglycaemia

Produced by: National Cardiovascular Intelligence Network (NČVIN)

Date: August 2015

Prevalence estimates of nondiabetic hyperglycaemia for people aged 16 years and older in England.



urvey Data (c) Crown copyright and database right 2015

Public Health England

11

Protecting and improving the nation's health

Prevalence estimates of non-diabetic hyperglycaemia

Published	March 2016
Produced by	Public Health England
Geography	Clinical commissioning group (CCG) and whole of England
Age	16 years and over
Sex	Total
Data source	Health Survey for England 2009, 2010, 2011, 2012 and 2013
	2012-based Subnational Population Projections. Clinical commissioning groups in England, mid-2012 to mid-2037, Population Projections Unit, ONS. Crown copyright 2014
	Number of patients registered at a GP practice – April 2015 The Health and Social Care Information Centre
	Hospital Episode Statistics (HES), 2011/12 - 2013/14, Copyright © 2015, Re-used with the permission of The Health and Social Care Information Centre. All rights reserved
	Active people survey, Sport England, 2012



Prevalence of diabetes and non-diabetic hyperglycaemia

 3.1 million (6.7%) adults diagnosed with diabetes and included on GP registers in 2016/17

Quality and Outcomes Framework 2016/17

- 4.0 million (8.5%) adults estimated to have diabetes (diagnosed and undiagnosed)
- 900,000 people with diabetes that are undiagnosed

NCVIN diabetes prevalence model 2017

 5.0 million (11.4%) adults estimated to be at high risk of developing type 2 diabetes – i.e. non-diabetic hyperglycaemia,

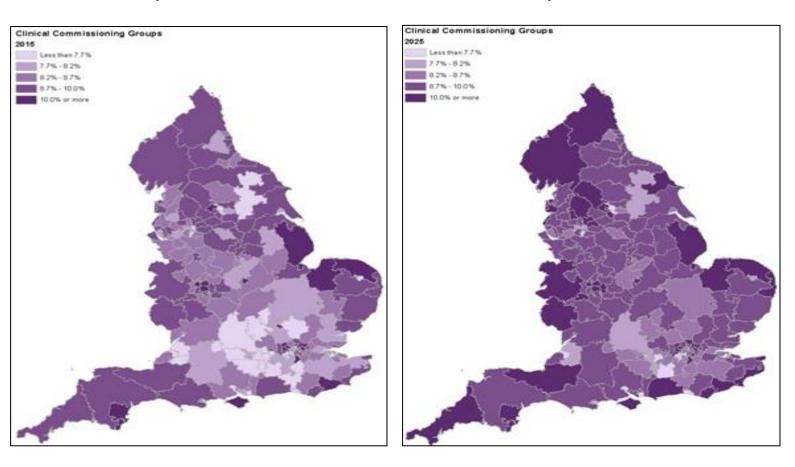
NCVIN non-diabetic hyperglycaemia prevalence model 2015



Diabetes prevalence projections

Diabetes prevalence 2015

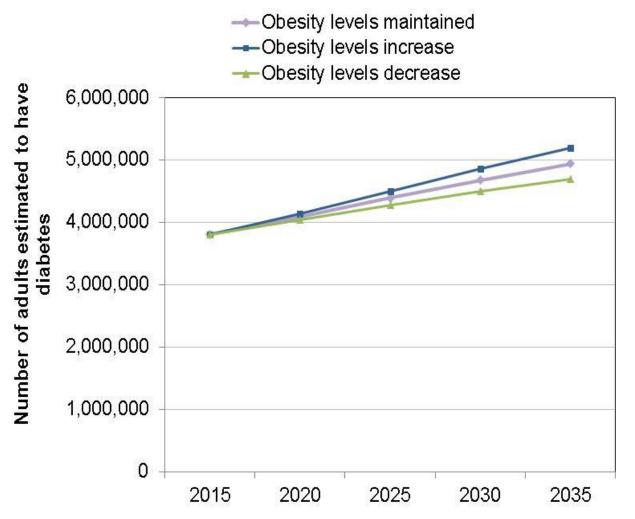
Diabetes prevalence 2025



If current trends continue then we estimate that by 2025 there will be over
 4.3 million (9.2%) people with diabetes



Estimating the impact of different levels of obesity on diabetes prevalence



- If obesity levels were to continue to rise, it is estimated there would be an additional 263,200 people with diabetes by 2035.
- were to decline, it is estimated there would be **240,550** fewer people with diabetes



NHS Diabetes Prevention Programme (NHS DPP)

Key findings from the **First progress report of the Healthier You: NHS Diabetes Prevention Programme for 2016/17** published in Diabetic Medicine December 2017

- 43,603 referrals were made into the programme, exceeding targets by 16%
- 49% have attended Initial Assessment, higher than the 40% modelled uptake
- A quarter of participants were from black, Asian and minority ethnic groups, 44% were male, and a higher proportion of participants came from the most deprived group of people in England compared to the least deprived.



Public Health England

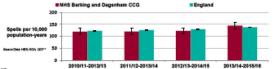
Public Health

England

NHS Barking and Dagenham CCG

Hospital spells for diabetic foot disease

The information below relates to hospital spells for diabetic foot disease - full details of the criteria used for defining diabetic foot disease can be found in the accompanying technical document, 271 patients from NHS Banking and Dagenham CCG had 482 inpatient spells for diabetic foot disease during 2013/14 to 2015/16. This is equivalent to 144.8 spells for every 10,000 population-years, compared to an England rate of 138.2 inpatient spells per 10,000 population-years. Of the 271 patients, 37% had more than one spell over the three years. Previously, in 2010/11 to 2012/13, the rate of inpatient spells for diabetic foot disease in NHS Barking and Danenham CCG was 119.7 per 10 000 population-years. This indicates a significant increase in the rate of inpatient spells for diabetic foot disease between the periods assessed, in England, there has been a significant



Of the 482 Identified diabetic foot disease spells 275 (57.1%) had an ulcer (pressure or non-pressure) coded as an underlying diagnosis on the hospital record. This compares to an England proportion of 56.5%.

During the period 2013/14 to 2015/16, patients from NHS Barking and Dagenham CCG spent a total of 5,926 days in hospital for diabetic foot disease.

Median Length of Stay

The median length of stay indicator is based on all available data and provides an average measure of how long patients spent in hospital over the period. The median length of stay for diabetic foot disease, for patients from NHS Banking and Dagenham CO3 during 2013/14 to 2015/16, was 7 days. This compares to an England median length of stay of 8 days.

Adjusted Length of Stay Indicator

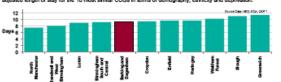
This is statistically similar when

benchmarked against the England rate

The adjusted length of stay indicator provides a measure of the length of stay for patients, after adjusting for the age and sex of those admitted. This adjusted indicator is useful for comparison between CCGs. For Ni-Barking and Dagenham CCG the adjusted mean length of stay indicator was 9.3 days. For England, the mean length of stay for patients was 9.5 days.

Similar CCG Comparison

The 2013/14 to 2015/16 adjusted length of stay indicator for your local CCG is shown below as well as the adjusted length of stay for the 10 most similar CCGs in terms of demography, ethnicity and deprivation."



Please note, due to methodological changes the data in this profile is not comparable to previous versions. However, backdated analysis of indicators (to 2010/11) has been provided on the final page to allow trend

Headline Indicators 2013/14 - 2016/16

NHS Barking and Dagenham

This profile presents information on patients

diabetes from NHS Barking and Dagenham

were admitted to hospital for foot disease. T

includes a range of analysis covering risk, fre

and outcomes relating to diabetic foot diseas

Where possible, indicators have been stands

relevant demographic characteristics of the id

diabetic population, allowing for comparison made between CCG areas. It is intended that indicators, and the variation they highlight be areas, will be useful in guiding equitable nati regional and local commissioning of diabetic services and other preventative interventions The information in the profile is compiled fro Episode Statistics (HES) and focuses on spiinpatient care between 1 April 2013 and 31 5 2016. In the analysis relating to amputations amputation procedures are used.

Indicator	CCG	England
Total spells in hospital for diabetic foot disease, per 10,000 population-years	144.8 (CI: 132.1-158.3)	138.2 (CI: 137.4-139.0)
Directly (age and ethnicity) standardised rate of major diabetic lower-limb amputations, per 10,000	7.4 (Cl: 4.2-12.0)	8.1 (CI: 7.9-8.3)
Directly (age and ethnicity) standardised rate of minor diabetic lower-limb amputations, per 10,000	33.3 (CI: 26.2-41.5)	21.0 (CI: 20.7-21.3)
Sex and age adjusted mean length of hospital stay for diabetic foot disease (days)	9.3	9.5

(C) = 95%, confidence interval)

The foot care activity profiles provide data and analysis on patients with diabetes who were admitted to hospital for foot disease

In particular minor and major lower limb amputations

Indicator	2010/11-2012/13	2011/12-2013/14	2012/13-2014/15	2013/14-2015/16	2010/11-2012/13 vs 2013/14-2015/16
Hospital stays for diabetic foot disease					
CCG total spells in hospital for diabetic fool disease	338	367	395	482	
ingland, total spells in hospital for diabetic foot disease	94,796	101,933	109,211	121,067	
CCG spells in hospital for dishetic foot disease, per 10,000 population-years	119.7 (Ct: 107.3-133.2)	120.9 (Cl: 108.9-134.0)	123.2 (CI: 111.3-135.9)	144.8 (CI: 132.1-158.3)	Rate Ratio: 1.21 (Cl: 1.05-1.39)
ingland, total spalls in hospital for disbetic foot disease, per 10,000 population-years	122.7 (Ct: 121.9-123.5)	128.1 (Cl: 125.3-128.9)	129.5 (CI: 128.8-130.3)	138.2 (CI: 137.4-139.0)	Rate Ratio: 1.13 (Cl: 1.12-1.14)
Length of stay					
CCS median days in hospital for disbatic foot disease (unadjusted)	7	7	7	7	
ingland median days in hospital for disbetic foot disease (unedjusted)	9	9	8	8	
CCG adjusted length of stay indicator (ALOS)	9.1	9.3	9.4	9.3	
ingland mean length of stay	10.5	10.2	9.9	9.5	
Major amputations					
CCS number of major emputations	11	16	16	18	
ongrand number of major emputations	7,017	6,935	6,957	7,119	
CCC directly (age & ethnicity) standardised rate of major amputations per 10,000 patients with liabetes	5.1 (CI: 2.3-9.5)	6.0 (CI: 3.1-10.3)	6.5 (CI: 3.4-10.9)	7.4 (CI: 4.2-12.0)	DSR Ruto: 1.46 (Cl: 0.62-3.70)
England directly (age & ethnicity) standardised rate of major emputations per 10,000 patients with	9.1 (CI: 8.9-9.3)	8.6 (Cl: 8.4-8.8)	8.3 (Cl: 8.1-8.4)	8.1 (Cl: 7.9-8.3)	DSR Reto: 0.89 (CI: 0.87-0.92)
Minor amputations					
CCS number of minor emputations	47	60	72	94	
ingland number of minor emputations	15,075	18,275	17,224	18,408	
CCG directly (age & ethnicity) standardised rate of minor emputations per 10,000 patients with labeles	23.2 (Ct: 16.6-31.3)	25.4 (Cl: 18.8-33.4)	27.8 (Cl: 21.1-35.8)	33.3 (CI: 26.2-41.5)	DSR Rato: 1.44 (Cl: 0.96-2.14)
England directly (age & ethnicity) standardised rate of minor emputations per 10,000 patients with liabetes	19.5 (Ct 19.2-19.8)	20.1 (Cl: 19.8-20.4)	20.4 (CI: 20.1-20.7)	21.0 (CI: 20.7-21.3)	DSR Reto: 1.08 (Cl: 1.05-1.10)

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* Data Sources: Hospital Episode Statistics (HES) Copyright © 2010/11-2015/16, Re-used with the permission of NHS Digital. All rights reserved, National Diabetes Audit (NDA) 2015/16, Healthcare Quality

Improvement Plantenship. All rights reserved. Quality and Outcomes Premiework (QOF) 2010/11-2015/16, NHS Digital.

" For information on the methodology used to calculate the 10 most similar CCGs please go to: www.england.nhs.uk/resource

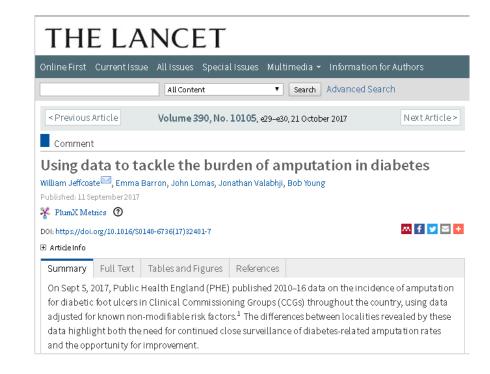
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Updated 7 September 2017



Foot care activity profiles

- Latest update published 5 September 2017
- Profile produced for every CCG
- Along with technical document, national summary of data, downloadable spreadsheet and commentary piece published in the Lancet
- STP level data made available in November
- Indicators also used by NHSE



- An update to previous profiles but significantly altered methodology
 - Count amputation procedures not episodes
 - Standardisation for non-modifiable risk factors (case-mix)



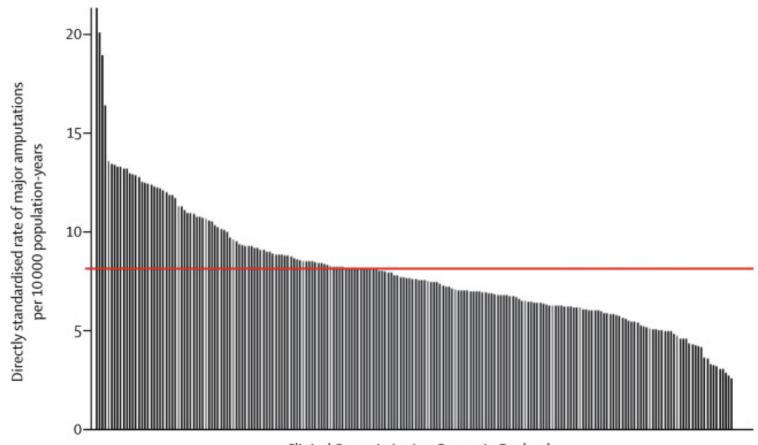
Foot care activity profiles key findings

During the three year period of 2013/14 to 2015/16:

- There were **121,067** hospital spells for diabetic foot disease
- The median length of stay in hospital was 8
- The total number of days spent in hospital for diabetic foot disease was
 1,688,699
- 73,388 individual patients were admitted for foot disease and 31% of these had multiple hospital stays
- There were 7,119 major amputation procedures
- There were **18,408** minor amputation procedures
- There has been a significant decrease in the rate of major procedures
- There has been a significant increase in the rate of minor procedures

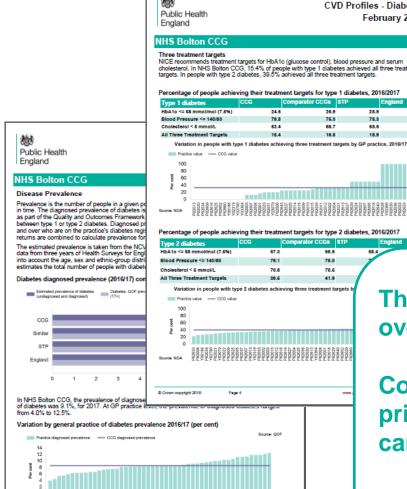


DSR of Major lower-limb amputations in people with diabetes per 10,000 for each CCG in England

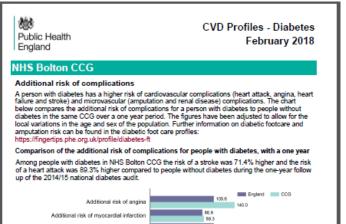


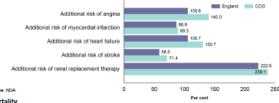
Clinical Commissioning Groups in England





www.gov.uk/bhe | http://fingertips.phe.org.uk





Mortality

People with diabetes rarely die as a direct result of diabetes. Most die from complications such as heart disease, stroke and kidney failure. People with diabetes are more likely to die than their peers of the same age and sex in the general population. The additional risk of mortality for people with

diabetes was 32.1% in NHS Bolton CCG; for England, the additional risk was 21.8%. Comparison of the additional risk of mortality in people with diabetes, with a one year followup, 2014/15

The diabetes profiles provide a 5 page overview of diabetes data for each CCG.

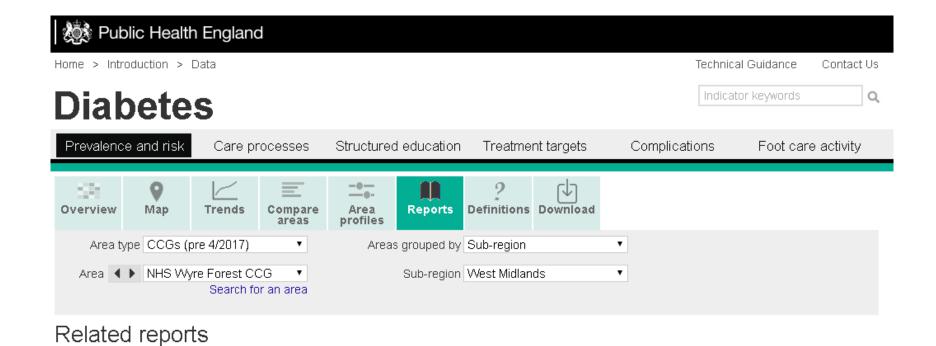
Cover the whole pathway; diagnosis, primary care management and secondary care/complications

Interactive and report based versions



Name

Diabetes profile report



Please select a CCG to get a narrative profile report on

download

Word

PDF

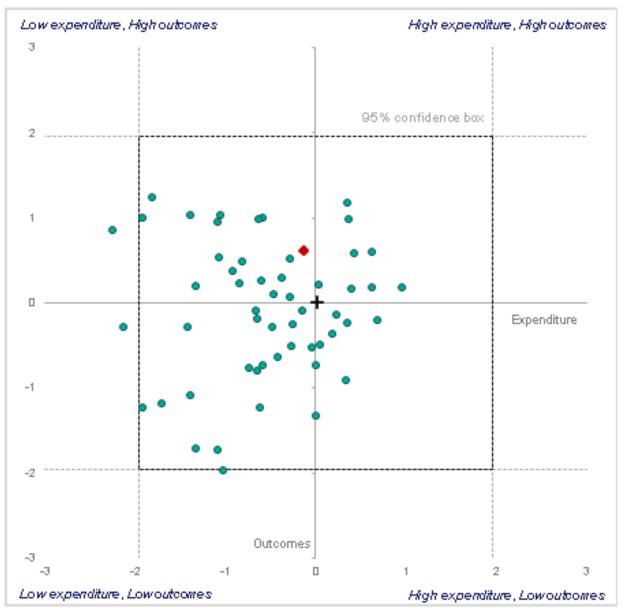
Please note reports open in a separate tab or window. Reports may take a minute or two to load.

Notes

Diabetes for this area

Public Health England

The DOVE tool





Questions?

 To subscribe to the NCVIN quarterly newsletter or to contact the NCVIN team please email: ncvin@phe.gov.uk