

## Nottingham and Nottinghamshire ICS PHM Diabetes Population Profiles by PCN and ICP

**Version 2.4 - 11/12/2019**

Data Type	Period	Source
GP Data	Oct-19	GPRCC (eHealthScope)
Prescribing (BNF 6.1)	July 2018 - June 2019	OpenPrescribing.net <i>EBM DataLab, University of Oxford</i>
Hospital Data	2018/2019	SUS+ (NHS Digital)
Deprivation Domains	Sep-19	GOV.UK

Population Segment	Page
Patients Not Diagnosed with any form of Diabetes	<a href="#">Page 2</a>
Patients Diagnosed with Type 1 Diabetes	<a href="#">Page 3</a>
Patients Diagnosed with Pre-Diabetes	<a href="#">Page 4</a>
Patients Diagnosed with Type 2 Diabetes	<a href="#">Page 5</a>
Patients Diagnosed with Type 2 Diabetes with Comorbidities	<a href="#">Page 6</a>
GP Prescribing Activity and Costs (all age groups)	<a href="#">Page 7</a>
Hospital Activity and Spend (all age groups)	<a href="#">Page 8</a>
Diabetes Diagnosis Rate (PHE estimates)	<a href="#">Page 9</a>
Type 2 Diabetes Risk Factors (Odds Ratios)	<a href="#">Page 10</a>



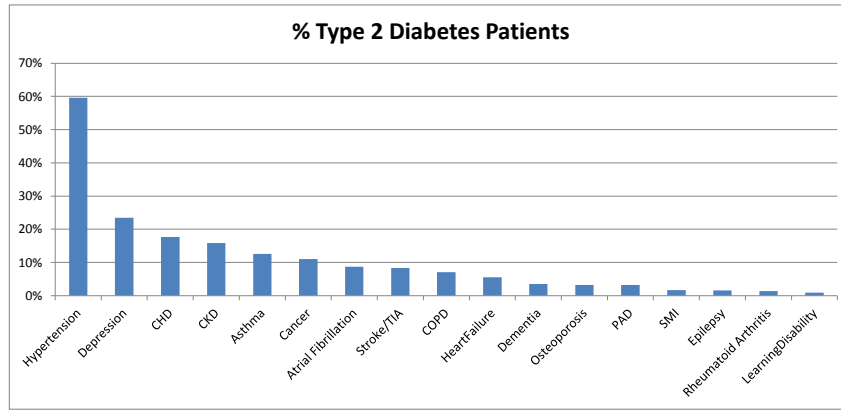






Population Segment:		All Patients Diagnosed with Type 2 Diabetes		Age 15+											
Snapshot		23-Oct-19		Number of Comorbidities											
ICP	PCN Code	PCN Neighbourhood	15+ Registered Population	Number Diagnosed Type 2	0	1	2	3	4	5	6+	2+	ICS Benchmark		
Mid Notts ICP	AN	Ashfield North	42,433	3,229	14.6%	30.0%	25.0%	16.0%	7.6%	4.0%	2.9%	55.4%	Higher		
Mid Notts ICP	AS	Ashfield South	32,191	2,427	17.1%	30.0%	26.1%	14.0%	7.3%	3.3%	2.2%	52.8%	Similar		
Mid Notts ICP	MN	Mansfield North	48,375	3,610	15.0%	31.8%	25.3%	15.3%	8.1%	2.7%	1.8%	53.2%	Similar		
Mid Notts ICP	MS	Rosewood	38,800	2,600	14.6%	32.0%	27.2%	14.5%	6.7%	2.5%	2.5%	53.4%	Similar		
Mid Notts ICP	NK	Newark	64,029	3,938	14.5%	29.4%	25.4%	15.5%	8.6%	4.1%	2.4%	56.1%	Higher		
Mid Notts ICP	SW	Sherwood	50,246	3,770	13.2%	28.2%	25.6%	16.9%	8.8%	4.3%	2.9%	58.6%	Higher		
<b>Mid Notts ICP Total</b>			<b>276,074</b>	<b>19,574</b>	<b>14.7%</b>	<b>30.2%</b>	<b>25.7%</b>	<b>15.5%</b>	<b>8.0%</b>	<b>3.5%</b>	<b>2.5%</b>	<b>55.2%</b>	<b>Higher</b>		
Nottingham City ICP	NC1	Bulwell And Top Valley	35,120	2,484	15.3%	31.8%	26.8%	14.5%	6.4%	3.3%	1.8%	52.9%	Similar		
Nottingham City ICP	NC3	BACHS	46,427	3,354	18.1%	31.1%	24.1%	14.4%	7.4%	2.8%	2.1%	50.8%	Lower		
Nottingham City ICP	NC4	Radford and Mary Potter	38,776	1,893	24.0%	33.8%	22.1%	12.2%	5.6%	1.6%	0.7%	42.2%	Lower		
Nottingham City ICP	NC5	Bestwood and Sherwood	40,694	2,450	20.3%	32.9%	22.3%	13.3%	6.2%	3.2%	1.8%	46.8%	Lower		
Nottingham City ICP	NC6	Nottingham City East	53,905	3,074	20.6%	32.7%	23.8%	12.6%	6.1%	2.8%	1.4%	46.8%	Lower		
Nottingham City ICP	NC7	Nottingham City South	30,102	1,793	19.1%	32.3%	23.5%	14.4%	6.6%	2.8%	1.2%	48.6%	Lower		
Nottingham City ICP	NC8	Clifton and Meadows	25,669	1,933	16.1%	29.5%	25.8%	15.0%	7.9%	3.7%	2.0%	54.4%	Similar		
Nottingham City ICP	NCU	Unity (Nottingham)	44,150	107	32.7%	37.4%	19.6%	5.6%	2.8%	0.9%	0.9%	29.9%	Lower		
<b>Nottingham City ICP Total</b>			<b>314,843</b>	<b>17,088</b>	<b>19.1%</b>	<b>32.0%</b>	<b>24.1%</b>	<b>13.7%</b>	<b>6.6%</b>	<b>2.9%</b>	<b>1.6%</b>	<b>48.9%</b>	<b>Lower</b>		
South Notts ICP	NNE1	Byron	30,196	2,071	15.4%	29.3%	25.6%	16.0%	7.9%	3.9%	1.9%	55.3%	Similar		
South Notts ICP	NNE2	Arnold and Calverton	28,141	1,800	14.9%	27.7%	26.9%	16.4%	8.5%	3.6%	2.0%	57.4%	Higher		
South Notts ICP	NNE3	Arrow Health	34,851	2,162	15.0%	31.9%	25.2%	15.2%	7.4%	3.3%	1.9%	53.1%	Similar		
South Notts ICP	NNE4	Synergy Health	24,331	1,358	15.8%	29.9%	26.8%	15.5%	7.4%	3.1%	1.5%	54.3%	Similar		
South Notts ICP	NW2	Eastwood	31,392	2,277	14.9%	30.4%	26.0%	15.1%	7.7%	4.1%	1.8%	54.7%	Similar		
South Notts ICP	NW1	Beeston	39,585	2,306	16.8%	30.3%	25.3%	14.9%	7.1%	3.7%	2.0%	52.9%	Similar		
South Notts ICP	NW3	Stapleford	17,749	1,177	16.2%	35.0%	24.6%	13.9%	6.5%	2.5%	1.3%	48.8%	Lower		
South Notts ICP	RU1	Rushcliffe Central	39,613	1,794	15.4%	29.5%	24.7%	15.9%	8.4%	4.2%	1.8%	55.1%	Similar		
South Notts ICP	RU2	Rushcliffe North	33,206	1,865	14.7%	27.8%	27.2%	15.9%	8.5%	4.1%	1.7%	57.4%	Higher		
South Notts ICP	RU3	Rushcliffe South	34,362	1,744	15.5%	32.4%	25.9%	14.8%	6.5%	2.7%	2.2%	52.1%	Similar		
<b>South Notts ICP Total</b>			<b>313,426</b>	<b>18,554</b>	<b>15.4%</b>	<b>30.3%</b>	<b>25.8%</b>	<b>15.4%</b>	<b>7.6%</b>	<b>3.6%</b>	<b>1.8%</b>	<b>54.3%</b>	<b>Higher</b>		
<b>ICS Total</b>			<b>904,343</b>	<b>55,216</b>	<b>16%</b>	<b>31%</b>	<b>25%</b>	<b>15%</b>	<b>7%</b>	<b>3%</b>	<b>2%</b>	<b>53%</b>			

Comorbidity	% Type 2 Diabetes Patients
Hypertension	60%
Depression	23%
CHD	18%
CKD	16%
Asthma	13%
Cancer	11%
Atrial Fibrillation	9%
Stroke/TIA	8%
COPD	7%
Heart Failure	6%
Dementia	4%
Osteoporosis	3%
PAD	3%
SMI	2%
Epilepsy	2%
Rheumatoid Arthritis	1%
Learning Disability	1%



Population Segment	GP Prescribing Items and Costs: BNF Chapter 6.1: Drugs Used in Diabetes	All Ages
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Period July 2018 - June 2019

GP Prescribing			All Diabetes Drugs					Insulin					Anti-Diabetic Drugs					Diagnostic & Monitoring Agents				
ICP	PCN Code	PCN Neighbourhood	Prescribed Items	Actual cost	Number of Items per Patients with Diabetes	Compared to ICS	Cost per Patient with Diabetes	Prescribed Items	Actual cost	Number of Items per Patients with Diabetes	Compared to ICS	Cost per Patient with Diabetes	Prescribed Items	Actual cost	Number of Items per Patients with Diabetes	Compared to ICS	Cost per Patient with Diabetes	Prescribed Items	Actual cost	Number of Items per Patients with Diabetes	Compared to ICS	Cost per Patient with Diabetes
Mid Notts ICP	AN	Ashfield North	58,302	£919,981	16	Higher	£256	9,315	£393,447	2.6	Higher	£110	39,622	£338,702	11.0	Similar	£94	9,010	£184,890	2.5	Similar	£51
Mid Notts ICP	AS	Ashfield South	49,054	£720,282	18	Higher	£270	6,363	£261,745	2.4	Similar	£98	34,874	£319,897	13.1	Higher	£120	7,669	£137,414	2.9	Higher	£52
Mid Notts ICP	MN	Mansfield North	74,047	£1,126,929	19	Higher	£285	9,750	£412,788	2.5	Higher	£104	54,184	£518,620	13.7	Higher	£131	9,825	£193,085	2.5	Similar	£49
Mid Notts ICP	MS	Rosewood	57,685	£933,081	20	Higher	£322	7,314	£307,916	2.5	Higher	£106	42,329	£455,982	14.6	Higher	£157	7,790	£166,343	2.7	Higher	£57
Mid Notts ICP	NK	Newark	70,352	£1,231,766	16	Higher	£284	10,474	£449,241	2.4	Higher	£103	49,547	£540,238	11.4	Higher	£124	9,960	£237,867	2.3	Lower	£55
Mid Notts ICP	SW	Sherwood	65,491	£1,158,665	16	Similar	£283	9,741	£433,152	2.4	Similar	£106	46,101	£516,097	11.3	Higher	£126	9,494	£208,174	2.3	Lower	£51
<b>Mid Notts ICP Total</b>			<b>374,931</b>	<b>£6,090,704</b>	<b>17</b>	<b>Higher</b>	<b>£283</b>	<b>52,957</b>	<b>£2,258,290</b>	<b>2.5</b>	<b>Higher</b>	<b>£105</b>	<b>266,657</b>	<b>£2,689,536</b>	<b>12.4</b>	<b>Higher</b>	<b>£125</b>	<b>53,748</b>	<b>£1,127,773</b>	<b>2.5</b>	<b>Similar</b>	<b>£52</b>
Nottingham City ICP	NC1	Bulwell And Top Valley	44,835	£728,024	16	Higher	£264	6,871	£294,073	2.5	Higher	£107	30,133	£276,164	10.9	Similar	£100	7,579	£155,211	2.8	Higher	£56
Nottingham City ICP	NC3	BACHS	62,950	£905,041	17	Higher	£246	8,099	£334,124	2.2	Lower	£91	44,178	£380,710	12.0	Higher	£104	10,402	£187,612	2.8	Higher	£51
Nottingham City ICP	NC4	Radford and Mary Potter	38,547	£513,857	19	Higher	£251	4,786	£198,364	2.3	Similar	£97	27,040	£211,000	13.2	Higher	£103	6,592	£103,333	3.2	Higher	£51
Nottingham City ICP	NC5	Bestwood and Sherwood	38,237	£612,573	14	Lower	£226	5,410	£232,357	2.0	Lower	£86	26,099	£236,980	9.6	Lower	£87	6,440	£140,599	2.4	Lower	£52
Nottingham City ICP	NC6	Nottingham City East	54,960	£850,862	16	Higher	£251	8,292	£341,848	2.4	Higher	£101	36,855	£303,840	10.9	Similar	£90	9,510	£202,494	2.8	Higher	£60
Nottingham City ICP	NC7	Nottingham City South	25,539	£419,107	13	Lower	£212	3,499	£158,200	1.8	Lower	£80	17,054	£153,574	8.6	Lower	£78	4,802	£105,490	2.4	Similar	£53
Nottingham City ICP	NC8	Clifton and Meadows	34,567	£509,195	16	Higher	£243	4,502	£187,700	2.1	Lower	£90	24,180	£210,235	11.5	Higher	£100	5,736	£109,714	2.7	Higher	£52
Nottingham City ICP	NCU	Unity (Nottingham)	2,861	£98,469	14	Lower		1,166	£55,588	5.7	Higher		849	£9,991	4.2	Lower		803	£32,266	4.0	Higher	
<b>Nottingham City ICP Total</b>			<b>302,496</b>	<b>£4,637,129</b>	<b>16</b>	<b>Higher</b>	<b>£246</b>	<b>42,625</b>	<b>£1,802,254</b>	<b>2.3</b>	<b>Lower</b>	<b>£96</b>	<b>206,388</b>	<b>£1,782,493</b>	<b>10.9</b>	<b>Similar</b>	<b>£95</b>	<b>51,864</b>	<b>£1,036,719</b>	<b>2.8</b>	<b>Higher</b>	<b>£55</b>
South Notts ICP	NNE1	Byron	34,775	£603,089	15	Lower	£262	5,720	£232,793	2.5	Higher	£101	23,638	£257,622	10.3	Lower	£112	5,250	£111,199	2.3	Lower	£48
South Notts ICP	NNE2	Arnold and Calverton	28,183	£503,169	14	Lower	£252	4,956	£218,336	2.5	Higher	£109	18,355	£181,685	9.2	Lower	£91	4,660	£101,419	2.3	Lower	£51
South Notts ICP	NNE3	Arrow Health	30,868	£500,219	13	Lower	£211	4,713	£203,338	2.0	Lower	£86	21,648	£206,177	9.1	Lower	£87	4,363	£89,611	1.8	Lower	£38
South Notts ICP	NNE4	Synergy Health	21,747	£424,523	14	Lower	£282	3,876	£175,353	2.6	Higher	£116	14,351	£175,492	9.5	Lower	£117	3,428	£72,927	2.3	Lower	£48
South Notts ICP	NW2	Eastwood	31,514	£639,473	12	Lower	£251	5,348	£246,687	2.1	Lower	£97	20,242	£264,436	7.9	Lower	£104	5,762	£126,703	2.3	Lower	£50
South Notts ICP	NW1	Beeston	35,990	£673,241	14	Lower	£269	5,667	£250,013	2.3	Lower	£100	24,629	£302,996	9.8	Lower	£121	5,379	£117,395	2.1	Lower	£47
South Notts ICP	NW3	Stapleford	14,171	£304,620	11	Lower	£235	2,484	£114,588	1.9	Lower	£88	9,273	£137,063	7.2	Lower	£106	2,340	£52,189	1.8	Lower	£40
South Notts ICP	RU1	Rushcliffe Central	29,994	£509,007	15	Lower	£255	4,708	£203,150	2.4	Similar	£102	20,351	£201,173	10.2	Lower	£101	4,798	£102,620	2.4	Lower	£51
South Notts ICP	RU2	Rushcliffe North	36,208	£584,205	17	Higher	£282	5,192	£224,346	2.5	Higher	£108	25,753	£253,007	12.4	Higher	£122	5,088	£105,387	2.5	Similar	£51
South Notts ICP	RU3	Rushcliffe South	29,701	£550,074	15	Lower	£282	4,958	£214,804	2.5	Higher	£110	19,374	£227,208	9.9	Lower	£116	5,125	£105,772	2.6	Higher	£54
<b>South Notts ICP Total</b>			<b>293,151</b>	<b>£5,291,619</b>	<b>14</b>	<b>Lower</b>	<b>£258</b>	<b>47,622</b>	<b>£2,083,407</b>	<b>2.3</b>	<b>Similar</b>	<b>£101</b>	<b>197,614</b>	<b>£2,206,860</b>	<b>9.6</b>	<b>Lower</b>	<b>£107</b>	<b>46,193</b>	<b>£985,222</b>	<b>2.2</b>	<b>Lower</b>	<b>£48</b>
<b>ICS Total</b>			<b>970,578</b>	<b>£16,019,452</b>	<b>16</b>		<b>£263</b>	<b>143,204</b>	<b>£6,143,951</b>	<b>2.3</b>		<b>£101</b>	<b>670,659</b>	<b>£6,678,889</b>	<b>11.0</b>		<b>£110</b>	<b>151,805</b>	<b>£3,149,713</b>	<b>2.5</b>		<b>£52</b>

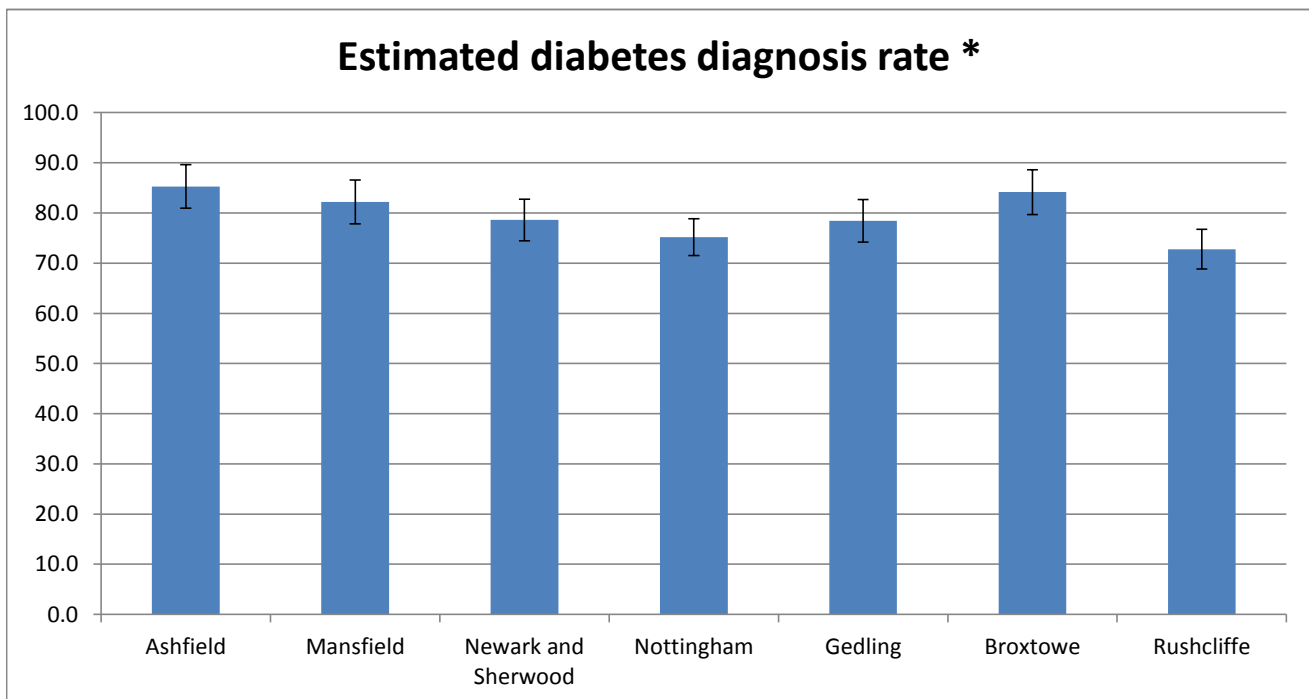
Source: OpenPrescribing (<https://openprescribing.net/bnf/0601/>)





Public Health England Estimates			
Local Authority Data Used	Estimated diabetes diagnosis rate *	Lower CI	Upper CI
Ashfield	85.3	81.0	89.3
Mansfield	82.2	77.8	86.2
Newark and Sherwood	78.6	74.5	82.5
Nottingham	75.2	71.5	78.0
Gedling	78.4	74.2	82.3
Broxtowe	84.2	79.7	88.5
Rushcliffe	72.8	68.8	76.5

*\* The estimated diabetes diagnosis rate, expressed as a percentage defined as the observed number of people with a formal diagnosis of diabetes as a proportion of the estimated number with diabetes*



**Odds Ratios from multivariate regressions models run in R**

- People aged 15+ who are ‘overweight’ are twice more likely to develop type 2 diabetes than people with healthy weight (OR 1.97 , 95% CI 1.92 - 2.03, p<0.001)
- People aged 15+ who are ‘obese’ are 5 times more likely to develop type 2 diabetes than people with healthy weight (OR 4.95 , 95% CI 4.82 - 5.08, p<0.001)
- Men aged 15+ have a 50% higher risk than women to develop type 2 diabetes (OR 1.57 , 95% CI 1.54 - 1.60, p<0.001)
- The risk of type 2 diabetes increases with age. People aged 65+ are 3 times more likely to develop type 2 diabetes than people aged 45-64 (OR 3.11, 95% CI 3.05 - 3.18 , p<0001)
- People aged 15+ who have family history of diabetes are almost twice as likely to develop type 2 diabetes than people without family history (OR 1.88, 95% CI 1.84 - 1.92 , p<0001)
- The risk of developing diabetes increases with increasing deprivation. The risk of developing diabetes in people aged 15+ living in the most deprived neighbourhoods (overall IMD most deprived decile) is 45% higher than those living in the least deprived areas (least deprived decile OR 0.55, 95% CI 0.53 - 0.57 , p<0001). The strongest association between deprivation and diabetes has been seen in the following deprivation ‘domains’:
  - employment deprivation, income deprivation and skills & education deprivation
- People aged 15+ from Indian, Pakistani, Bangladeshi and Black/African/Caribbean/Black British/Black Mixed ethnic groups are at significantly higher risk of developing type 2 diabetes than White British/White Other groups

<b>Ethnic Group</b>	<b>OR</b>	<b>Lower CI</b>	<b>Upper CI</b>	<b>p value</b>
Black/African/Caribbean/Black British/Black Mixed	1.35	1.26	1.44	< 0.001
Indian	2.66	2.49	2.83	< 0.001
Pakistani	3.5	3.31	3.7	< 0.001
Bangladeshi	4.79	4.02	5.72	< 0.001