



Public Health  
England

Protecting and improving the nation's health

# Hypertension variation in Cheshire and Merseyside

## About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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## Executive summary

This document is based on a presentation given to the Cheshire and Merseyside Blood Pressure Board on 4 May 2016. The purpose of the presentation, and of this document, is to give the board an understanding of the variation in diagnosis and treatment of high blood pressure both between CCGs in Cheshire and Merseyside, and between GP practices within each of these CCGs.

The key points were that, across Cheshire and Merseyside:

- The proportion of people with diagnosed hypertension is higher in 6 out of 12 CCGs in C&M than for England as a whole.
- Within each CCG, there is considerable variation in hypertension between GP practices.
- 7 of 12 CCGs have hospital admission rates for myocardial infarction that are higher than the rate for England.
- A third of Cheshire and Merseyside CCGs have higher hospital admission rates for stroke than England.
- All except two CCGs have higher death rates from myocardial infarction than England.
- 8 out of 12 CCGs have higher death rates from stroke than England.

## A note about sources

The presentation was primarily a brief summary of those sections of the PHE **CVD Intelligence Packs** that relate to hypertension. Some of the data also appears in the **NCVIN CVD Profiles**. Both these products were updated in April 2016 to include data from the 2014/15 Quality and Outcomes Framework. This was made clear at the start of the presentation in order to demonstrate that it was based on some of the most up to date readily available data.

The presentation was also intended to demonstrate how national PHE products can be used to inform decision making and actions at local level. This type of knowledge transfer activity is one of the three functions of the Local Knowledge and Intelligence Service (LKIS), part of the Knowledge and Intelligence division of PHE. The other functions of LKIS are the provision of local analysis (at PHE Centre geography and below) and training relating to public health intelligence. LKIS North West works closely with, but is distinct from, PHE's North West Centre.

Some of the tables included in the presentation combined in one place data and/or statements that appear separately in the intelligence pack for each of the twelve CCGs in Cheshire and Merseyside.

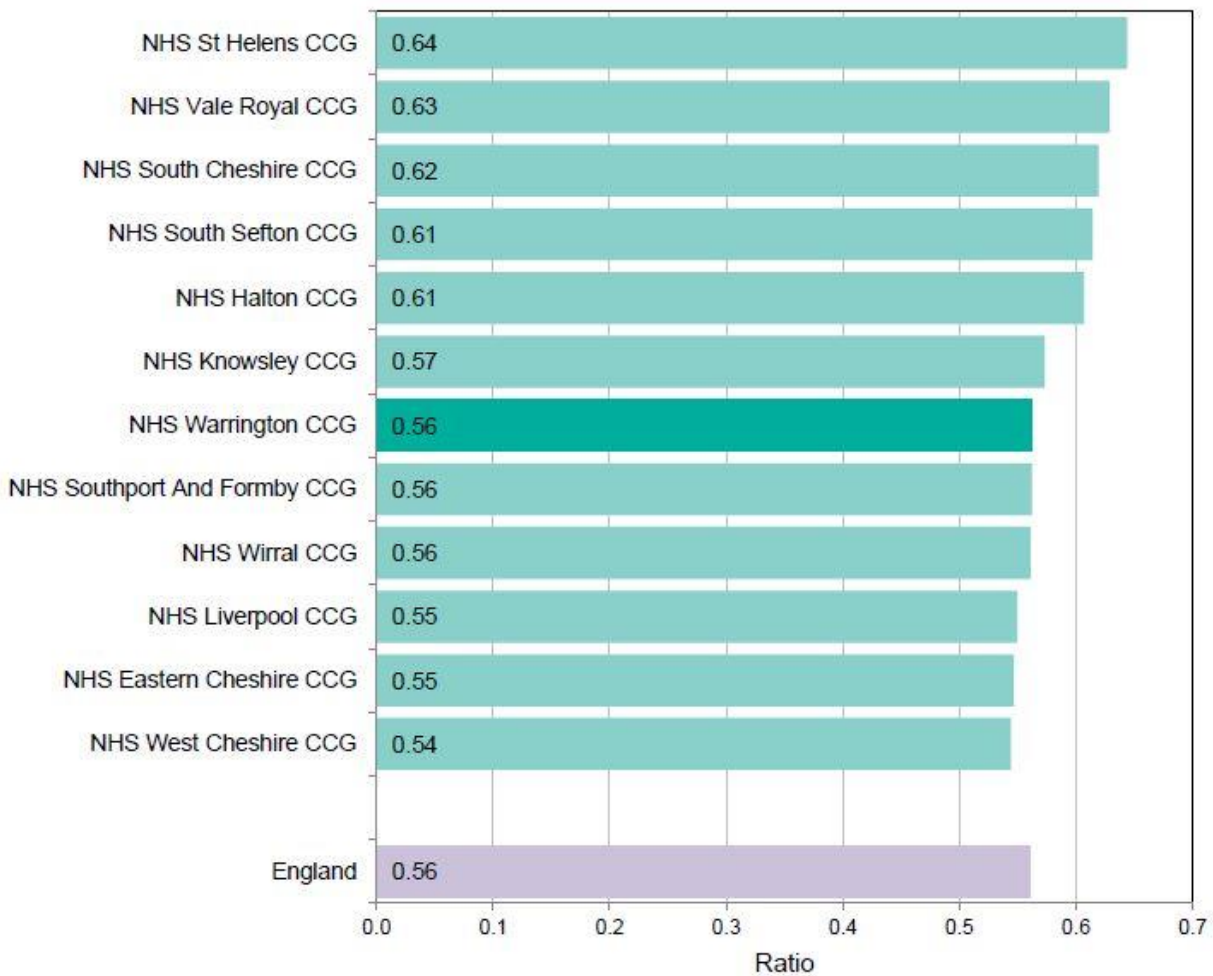
# Prevalence

## Ratio of observed to expected prevalence of hypertension

The ratio of observed to expected hypertension prevalence ranges from 0.64 in St Helens CCG (suggesting 64% of people with hypertension have been diagnosed) to 0.54 in West Cheshire CCG (where 54% are diagnosed).

Across England as a whole it is estimated that 56% of people with hypertension have been diagnosed. The proportion of people with hypertension that have been diagnosed is higher than for England as a whole in 6 of 12 CCGs.

**Figure 1. Hypertension observed prevalence 2014/15 compared to expected prevalence by CCG<sup>1</sup>**



<sup>1</sup> Observed prevalence from Quality and Outcomes Framework 2014/15. Chart from slide 19 of the CVD Intelligence Pack, April 2016.

The prevalence estimates used to calculate these observed:expected ratios date from 2011. These estimates were based on Health Survey England data from 2003/04.

The above chart appears in each CCG's version of the pack. The only difference is that the featured CCG is highlighted by a different coloured bar - Warrington in the example shown.

## Adults with undiagnosed hypertension

The table in Figure 2 shows the actual and observed prevalence figures by CCG, the proportion of adults that could have undiagnosed hypertension and the estimated number undiagnosed. It is sorted in descending order of the proportion undiagnosed.

**Figure 2. Hypertension prevalence and proportion of undiagnosed hypertension by CCG, 2014/15**

	Hypertension: QOF prevalence (all ages), 2014/15 <sup>2</sup>	Expected prevalence <sup>2</sup>	% of adults that could have undiagnosed hypertension <sup>3</sup>	Estimated number undiagnosed <sup>4</sup>
NHS Southport and Formby CCG	16.54	29.4	12.9	15,858
NHS Eastern Cheshire CCG	14.90	27.2	12.3	25,325
NHS Wirral CCG	15.23	27.1	11.9	39,710
NHS West Cheshire CCG	14.22	26.1	11.9	30,752
NHS Liverpool CCG	13.52	24.6	11.1	55,892
NHS Knowsley CCG	14.63	25.5	10.9	17,535
NHS Warrington CCG	13.66	24.3	10.6	22,639
NHS South Sefton CCG	16.42	26.7	10.3	15,218
NHS Halton CCG	15.24	25.1	9.9	12,567
NHS South Cheshire CCG	15.64	25.2	9.6	17,126
NHS St Helens CCG	17.15	26.6	9.5	18,058
NHS Vale Royal CCG	15.62	24.8	9.2 <sup>5</sup>	9,492
England	13.79	24.7	10.9	See note <sup>6</sup>

<sup>2</sup> Quality and Outcomes Framework 2014/15; NCVIN CVD Profiles.

<sup>3</sup> NCVIN CVD Profiles

<sup>4</sup> PHE CVD Intelligence Packs, slides 19 and 21

<sup>5</sup> In the CVD Profiles, Vale Royal's undiagnosed percentage is given as 9.1% rather than 9.2% (9.18 was rounded down rather than up).

<sup>6</sup> The estimated number undiagnosed across England is not reported in the CVD Intelligence Packs.

The highest proportion of potentially undiagnosed hypertension is in Southport and Formby CCG at 12.9%. The highest estimated number undiagnosed is 55,892 in Liverpool, whereas Vale Royal has the lowest number and proportion undiagnosed.

### Range of variation between GP practices within CCGs

There is considerable variation not only between different CCGs, but also between GP practices within the same CCG. Figure 3 shows that Liverpool has the greatest variation between those practices with the highest and lowest observed:expected prevalence ratios.. As well as having the lowest proportion of undiagnosed hypertension in Cheshire and Merseyside, Vale Royal also has the smallest variation in observed:expected ratios between its GP practices

**Figure 3. Range of variation in prevalence between GP practices in each CCG, 2014/15<sup>7</sup>**

	Lowest ratio observed : expected	Highest ratio observed : expected	Difference between highest and lowest
NHS Liverpool CCG	0.22	0.73	0.51
NHS South Sefton CCG	0.46	0.89	0.43
NHS Wirral CCG	0.44	0.86	0.42
NHS St Helens CCG	0.55	0.96	0.41
NHS Knowsley CCG	0.38	0.78	0.40
NHS Southport and Formby CCG	0.39	0.71	0.32
NHS West Cheshire CCG	0.43	0.73	0.30
NHS South Cheshire CCG	0.51	0.77	0.26
NHS Halton CCG	0.50	0.76	0.26
NHS Warrington CCG	0.42	0.67	0.25
NHS Eastern Cheshire CCG	0.45	0.66	0.21
NHS Vale Royal CCG	0.55	0.76	0.21

<sup>7</sup> PHE CVD Intelligence Packs, slide 21

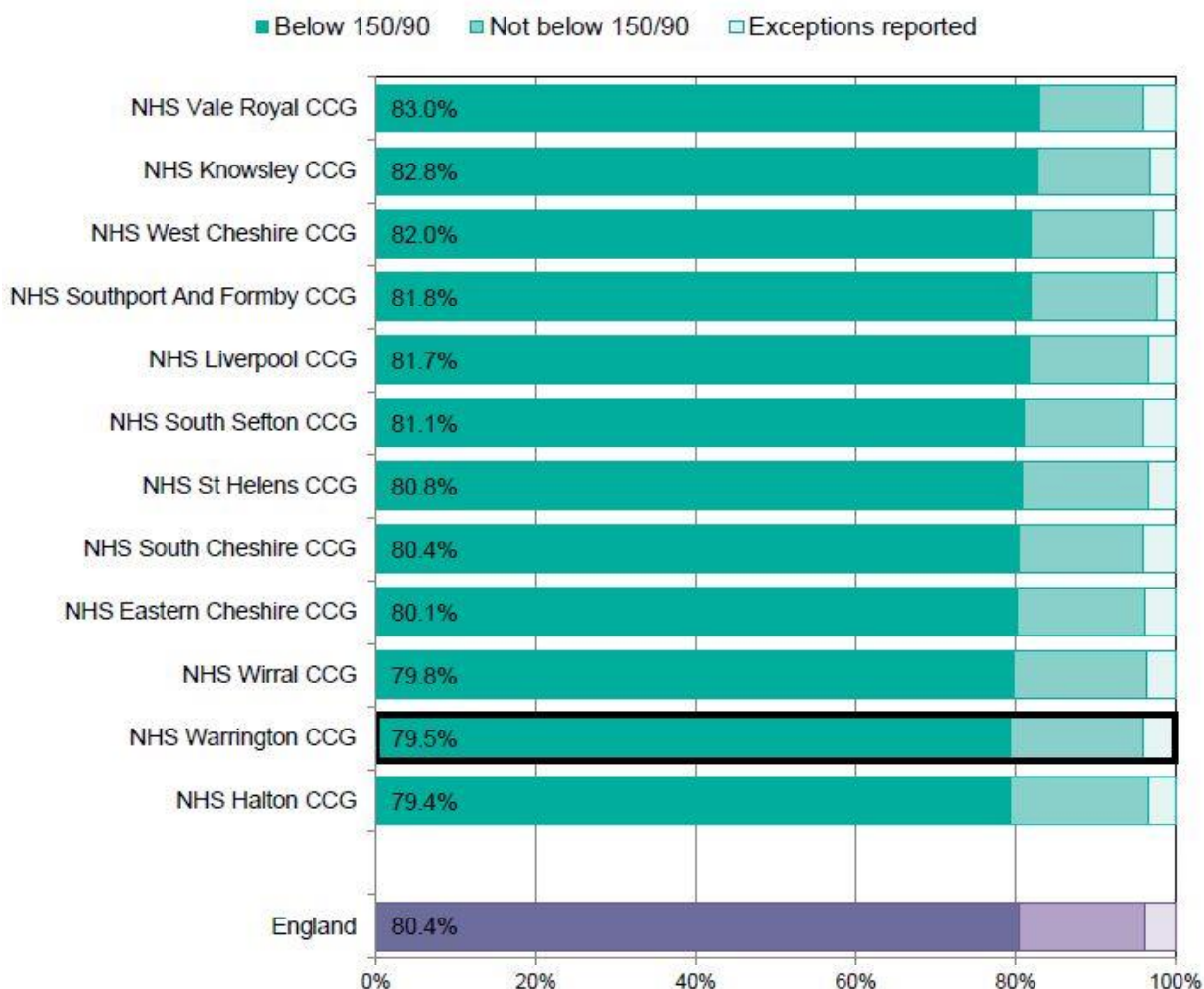


## Treatment and control

### Patients with hypertension whose last blood pressure reading is 150/90 mmHg or less

Across Cheshire and Merseyside, the percentage of hypertension patients with blood pressure readings of 150/90 mmHg or less ranges from 83% in Vale Royal CCG (higher than England as a whole) to 79.4% in Halton CCG (lower than England). A high proportion in this indicator is positive, since it suggests that blood pressure is being successfully controlled. Once again Vale Royal is a strong performer. The proportion for England is 80.4%. Seven out of 12 CCGs in Cheshire and Merseyside are doing better than the England average.

**Figure 4. Percentage of patients with hypertension whose last blood pressure reading (measured in the preceding 12 months and reported in 2014/15) is 150/90 mmHg or less by CCG<sup>8</sup>**



<sup>8</sup> PHE CVD Intelligence Packs, slide 22

## Blood pressure control: comparison with similar CCGs

The CVD Intelligence Packs compare each CCG with ten similar CCGs. These are CCGs that are similar in terms of demography, ethnicity and levels of deprivation. The similar CCGs are the same ten used in the NHS **Commissioning for Value** data packs and may be located anywhere in England.

Figure 5 summarises how Cheshire and Merseyside CCGs are ranked, when compared with their similar CCGs, by the proportion of hypertension patients whose last blood pressure reading was 150/90 mmHg or less. A CCG ranked 1 has the highest proportion of patients with blood pressure under control, whereas a CCG ranked 11 has the lowest proportion among its peers.

**Figure 5. CCG ranking for proportion of patients whose last blood pressure reading (reported in 2014/15) is 150/90 mmHg or less<sup>9</sup>**

	Rank compared with 10 similar CCGs
NHS Vale Royal CCG	1
NHS Knowsley CCG	2
NHS Liverpool CCG	2
NHS Southport and Formby CCG	4
NHS South Sefton CCG	5
NHS West Cheshire CCG	5
NHS South Cheshire CCG	7
NHS St Helens CCG	8
NHS Warrington CCG	9
NHS Wirral CCG	9
NHS Eastern Cheshire CCG	9
NHS Halton CCG	10

<sup>9</sup> PHE CVD Intelligence Packs, slide 23

## Blood pressure control: comparison between GP practices

The CVD Intelligence Packs include the additional number of people that would be treated if all practices were to achieve as well as the average of the top achieving practices. This is calculated by taking an average of the intervention rates in the best 50% of practices in the CCG and applying this rate to all practices in the CCG. The resulting number is an indication of the scale of the available opportunity rather than proof of a realisable improvement. An illustration of the method used for this calculation, showing practices in Warrington CCG as an example, can be found in Annex A.

Figure 6 shows the variation in blood pressure control between GP practices in each CCG, measured as the difference between the practice with the highest percentage of latest blood pressure readings over 150/90 (the worst) and the practice with the lowest percentage (the best). In the Intelligence Packs this is described in negative terms as latest reading “not 150/90 or less”. Liverpool has the greatest variation between practices and the largest number of additional people that would have their blood pressure controlled if all practices achieved as well as the best.

**Figure 6. Latest BP reading (measured in last 12 months and reported in 2014/15) not 150/90 or less: range of variation between GP practices within CCGs<sup>10</sup>**

	GP practice range		Percentage point difference between highest and lowest	Number of additional people that would have BP controlled if all practices achieved as well as the average of the best achieving practices
	Lowest % (best)	Highest % (worst)		
NHS Liverpool CCG	0.0	43.6	43.6	2,790
NHS Wirral CCG	10.5	31.6	21.1	1,746
NHS West Cheshire CCG	10.2	32.7	22.5	1,716
NHS St Helens CCG	7.2	37.7	30.5	1,575
NHS Warrington CCG	9.1	43.7	34.6	1,272
NHS Eastern Cheshire CCG	12.0	36.2	24.2	1,237
NHS Halton CCG	12.8	29.8	17.0	990
NHS South Cheshire CCG	14.3	29.6	15.3	865
NHS Southport and Formby CCG	11.1	32.3	21.2	862
NHS Knowsley CCG	10.4	34.7	24.3	777
NHS South Sefton CCG	12.4	25.3	12.9	744
NHS Vale Royal CCG	12.3	22.6	10.3	668

<sup>10</sup> CVD Intelligence Packs, slide 24.

## Outcomes


### Hospital admissions for people with cardiovascular disease

Figure 7 shows age standardised admission rates for myocardial infarction and stroke, and highlights those higher than the England rate.

Out of the 12 Cheshire and Merseyside CCGs, 7 have higher hospital admission rates for myocardial infarction than England and a third (4 out of 12) have higher hospital admission rates than England for stroke.

**Figure 7. Hospital admission rates for myocardial infarction and stroke, by CCG, 2014/15<sup>11</sup>**

	Hospital admissions for myocardial infarction, 2014/15. Age standardised rate per 100,000. (Sorted ↓)	Hospital admissions for stroke, 2014/15. Age standardised rate per 100,000.
NHS Knowsley CCG	735.1	192.4
NHS Halton CCG	710.6	171.9
NHS Liverpool CCG	676.0	188.0
NHS St Helens CCG	605.0	179.9
NHS South Sefton CCG	604.9	165.9
NHS Warrington CCG	590.7	165.9
NHS Wirral CCG	558.7	168.5
NHS West Cheshire CCG	532.7	131.5
NHS Vale Royal CCG	517.3	186.9
NHS Southport and Formby CCG	480.4	149.9
NHS South Cheshire CCG	467.0	149.3
NHS Eastern Cheshire CCG	403.6	158.8
England	539.7	171.9

 Higher than England


<sup>11</sup> CVD Intelligence Packs, slides 83 and 84.

## Mortality from cardiovascular disease

In Figure 8 CCGs with mortality rates higher than the England average are highlighted. This shows that, in Cheshire and Merseyside, all except two CCGs have higher death rates than England from myocardial infarction in under 75s and 8 out of 12 CCGs have higher death rates than England from stroke in under 75s.

**Figure 8. Mortality rates from myocardial infarction and stroke, by CCG, 2012-14<sup>12</sup>**

	Deaths from myocardial infarction, under 75s, 2012-14. Age standardised rate per 100,000. (Sorted ↓)	Deaths from stroke, under 75s, 2012-14. Age standardised rate per 100,000.
NHS Halton CCG	60.7	16.6
NHS Knowsley CCG	56.1	23.8
NHS Vale Royal CCG	51.3	12.3
NHS Liverpool CCG	50.7	19.3
NHS St Helens CCG	50.3	19.8
NHS South Sefton CCG	48.6	15.9
NHS South Cheshire CCG	45.6	14.4
NHS Southport and Formby CCG	45.3	12.6
NHS Warrington CCG	44.3	15.1
NHS Wirral CCG	44.0	17.0
NHS West Cheshire CCG	33.5	10.2
NHS Eastern Cheshire CCG	31.5	10.4
England	41.5	13.8

 Higher than England

<sup>12</sup> CVD Intelligence Packs, slides 86 and 87.

## Economic value of managing high blood pressure

### Potential economic value of increased hypertension diagnosis rates<sup>13</sup>

The most recent prevalence estimates for hypertension were produced in 2011.<sup>14</sup> Combining these estimates with the most recent QOF prevalence data for hypertension suggests that around 54% of individuals with hypertension have been diagnosed as such. The cost of treating hypertension is estimated at around £199 per person per year. The PHE report, 'Tackling High Blood Pressure: From evidence into action' reported the results of economic modelling which suggested that increasing hypertension diagnosis by 15% would produce health and social care cost savings of around £120 million and result in around 7000 QALYs gained over ten years. Valuing these QALYs at £20,000 per QALY would produce a total social value of £260 million or £26 million per annum for England. If we pro rata these results to CCG areas in proportion with their undiagnosed hypertension population, we see potential health and social care cost savings of £1.3 million and QALY gains worth £1.2 million.<sup>15</sup>

**Figure 9. Potential economic value of increased hypertension diagnosis rates<sup>16</sup>**

	Hypertension - diagnosed from QOF	Hypertension - estimated undiagnosed	Hypertension - value of extra 15% diagnosis per annum
Liverpool CCG	67,824	55,892	£251,677
Wirral CCG	50,655	39,710	£178,811
West Cheshire CCG	36,696	30,752	£138,473
Eastern Cheshire CCG	30,581	25,325	£114,036
Warrington CCG	29,092	22,639	£101,941
St Helens CCG	32,699	18,058	£81,314
Knowsley CCG	23,644	17,535	£78,959
South Cheshire CCG	27,907	17,126	£77,117
Southport & Formby CCG	20,354	15,858	£71,407

<sup>13</sup> This is based on section 4 of Collins/Wirral Council Public Health Intelligence Team, Economic Value of Public Health Opportunities in Cheshire, Mersey & Alliance Areas: A Rapid Review, June 2016. Available at: <http://info.wirral.nhs.uk/>

<sup>14</sup> Updated prevalence estimates are due for publication in Autumn 2016.

<sup>15</sup> Paragraph taken from 8 of the Wirral report (note 13) with minor amendments (eg rounding of values).

<sup>16</sup> The exact figures in this table vary slightly from the Wirral report (note 13) owing to differences in the diagnosis counts and undiagnosed estimate counts used. This table contains lower estimates of the value of extra diagnosis compared with the original report. The method used (described in the paragraph above the table) is the same.

Hypertension variation in Cheshire and Merseyside

	Hypertension - diagnosed from QOF	Hypertension - estimated undiagnosed	Hypertension - value of extra 15% diagnosis per annum
South Sefton CCG	24,236	15,218	£68,525
Halton CCG	19,403	12,567	£56,588
Vale Royal CCG	16,082	9,492	£42,742
Cheshire and Merseyside total	379,173	280,172	£1,261,589
<b>England</b>	<b>7,833,779</b>	<b>5,774,045</b>	<b>£26,000,000</b>

## Potential economic value of events prevented<sup>17</sup>

A series of CVD prevention opportunity tools<sup>18</sup> produced by PHE in 2016 give the potential financial opportunity from reducing unwanted variation in the proportion of people diagnosed with hypertension whose blood pressure is controlled to 150/90 mmHg or less. Figure 10 shows the potential economic benefits if all GPs in each CCG performed as well as the 75th percentile in terms of blood pressure control in people diagnosed with hypertension. This summarises the data from the opportunity tools in a form that allows for comparison between CCGs in Cheshire and Merseyside. The savings to social care are based solely on a reduced number of strokes.

**Figure 10. Potential economic value of events prevented over five years if all GP practices performed as well as the 75th best percentile**

	Events prevented over five years				One year cost savings	
	Stroke: 1 in 67	Heart attack: 1 in 100	Heart failure: 1 in 48	Deaths: 1 in 125	One year savings (NHS)	One year savings (social care)
<i>One year saving to NHS</i>	<i>£10,944</i>	<i>£8,727</i>	<i>£1,378</i>	<i>-</i>		
<i>One year saving to social care</i>	<i>£3,965</i>	<i>-</i>	<i>-</i>	<i>-</i>		
Liverpool CCG	38	25	53	20	£707,000	£151,000
West Cheshire CCG	22	14	30	11	£404,000	£87,000
Wirral CCG	20	13	28	10	£371,000	£79,000
St Helens CCG	17	11	24	9	£315,000	£67,000
Halton CCG	13	9	19	7	£247,000	£52,000
Eastern Cheshire CCG	13	8	18	7	£237,000	£52,000
Warrington CCG	13	8	18	7	£237,000	£52,000
Southport & Formby CCG	11	7	15	6	£202,000	£44,000
South Cheshire CCG	10	6	14	5	£181,000	£40,000
Vale Royal CCG	9	6	13	5	£169,000	£36,000
Knowsley CCG	9	6	13	5	£169,000	£36,000
South Sefton CCG	8	5	11	4	£146,000	£32,000
<b>Cheshire and Merseyside total</b>	<b>183</b>	<b>118</b>	<b>256</b>	<b>96</b>	<b>£3,385,000</b>	<b>£728,000</b>

<sup>17</sup> See note 13.

<sup>18</sup> CVD prevention opportunities: GP practice comparators. Available at: <http://www.yhpho.org.uk/default.aspx?RID=226091>



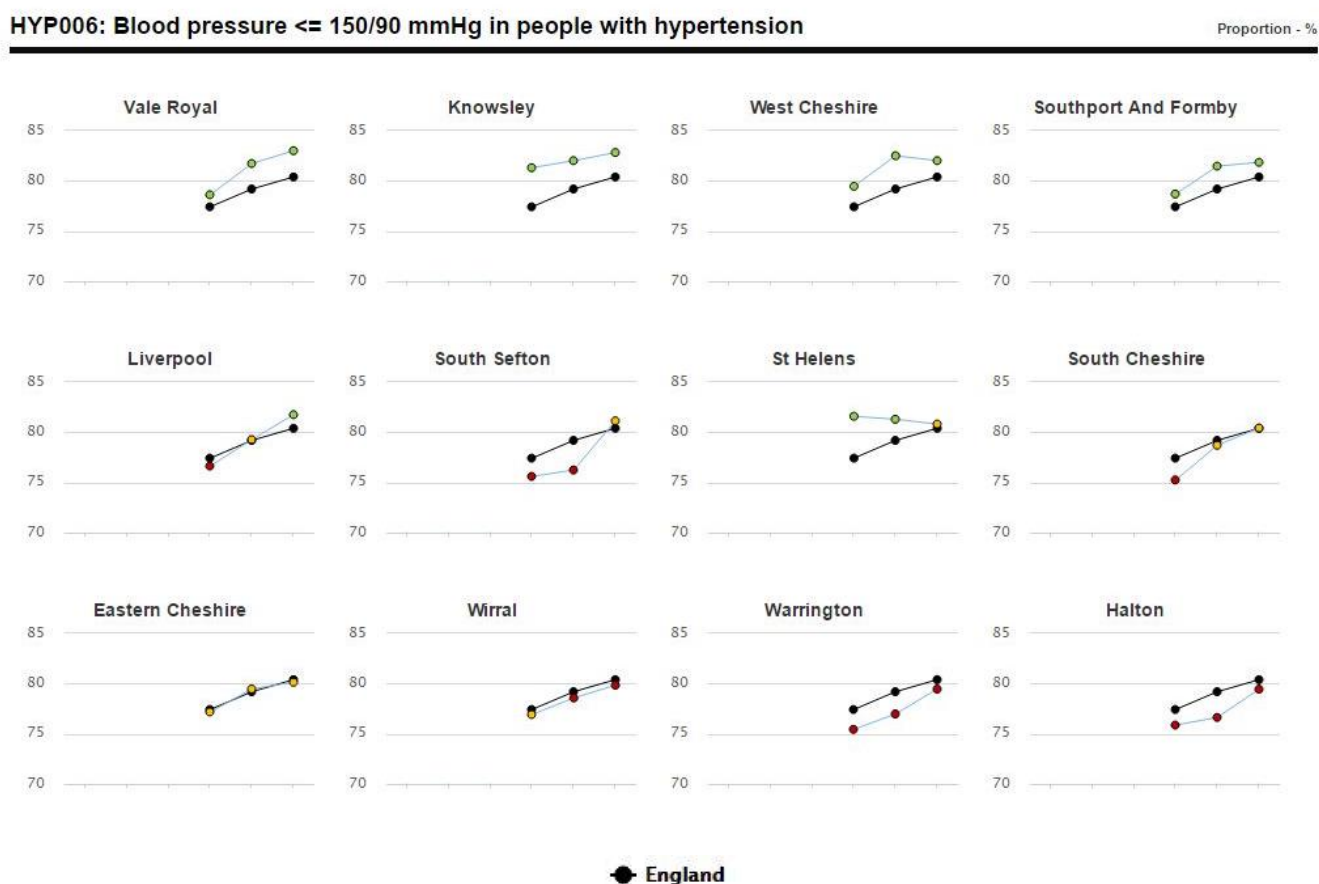
# Questions

Given the time lag between controlling blood pressure and reducing hospital admissions and mortality from CVD, what data is available showing change over time?

The National Cardiovascular Intelligence Network (NCVIN) **Cardiovascular Disease Profiles** contain trend data for several indicators relating to blood pressure, although in most of these indicators the trend is based on figures for only a small number of points in time and so do not yet show long term trends. Examples are shown in Figure 11 and Figure 12 below. These charts are designed to be viewed online within the profile tool. The year and value is displayed when you hover over a point on the chart.

**Figure 11. Trend in latest blood pressure reading  $\leq$  150/90 mmHg in people with hypertension, 2012/13 to 2014/15**

Compared with benchmark: ● Better ● Similar ● Worse  
○ Not Compared

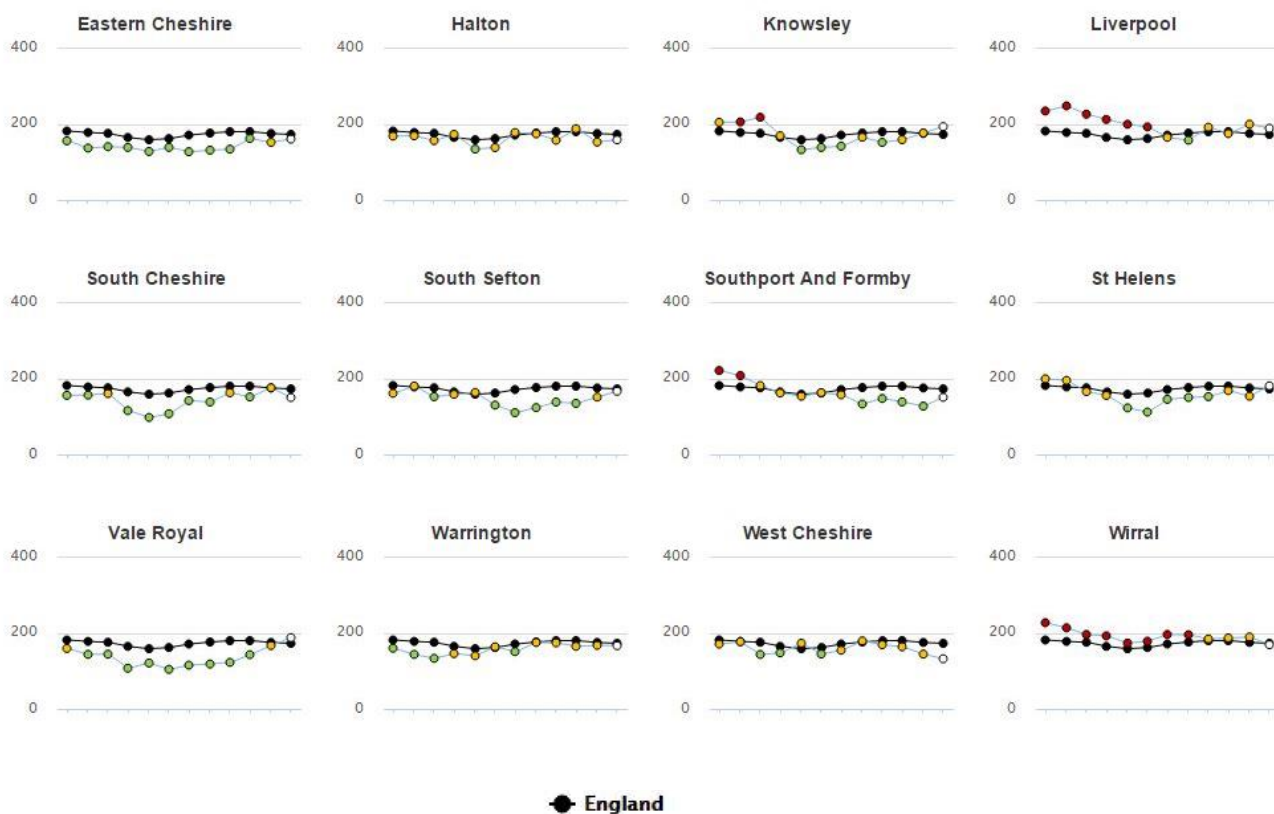


**Figure 12. Trend in all age stroke admissions, 2003/04 to 2014/15**

Compared with benchmark: ● Better ● Similar ● Worse  
  Not Compared

**Stroke all age admission trends**

Directly standardised rate - per 100,000



# Appendix A: How average intervention rate is calculated

	A	B	C	D	E	F	G	H	I	J	K	
1	NHS WARRINGTON CCG											
2												
3	From QOF										Calculations for illustration	
4	Hypertension HYP006: The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less											
5	Practice Code	Practice Name	Numerator	Denominator	Underlying achievement net of exceptions (per cent)	Exceptions	Exception rate (per cent)	Denominator plus exceptions	Percentage of patients receiving intervention	Percentage of patients whose latest reading is NOT 150/90 mmHg or less	Number that would be treated if all practices achieving average of top 50%	
6		<i>How column is calculated &gt;</i>	<i>Patients whose BP reading is 150/90 mmHg or less</i>	<i>Patients with hypertension</i>	<i>Col C / Col D (as %)</i>				<i>Col C / Col H (as %)</i>		<i>Col H multiplied by value from cell I37 (as decimal) ie 0.8383 in this example</i>	
7	N81645	4 SEASONS MEDICAL CENTRE	187	299	62.54	33	9.94	332	56.33	43.67	278	
8	N81109	PADGATE MEDICAL CENTRE	709	957	74.09	29	2.94	986	71.91	28.09	827	
9	N81020	PENKETH MEDICAL CENTRE	1945	2476	78.55	168	6.35	2644	73.56	26.44	2216	
10	N81014	BROOKFIELD SURGERY	781	1006	77.63	44	4.19	1050	74.38	25.62	880	
11	N81634	CCA CARE PARTNERSHIP	978	1222	80.03	71	5.49	1293	75.64	24.36	1084	
12	N81122	WESTBROOK MEDICAL CENTRE	941	1206	78.03	20	1.63	1226	76.75	23.25	1028	
13	N81628	ERIC MOORE PARTNERSHIP	680	837	81.24	38	4.34	875	77.71	22.29	733	
14	N81065	LATCHFORD MEDICAL CENTRE	540	666	81.08	22	3.20	688	78.49	21.51	577	
15	N81012	GUARDIAN MEDICAL CENTRE	1036	1223	84.71	94	7.14	1317	78.66	21.34	1104	
16	Y01108	FAIRFIELD SURGERY	266	333	79.88	5	1.48	338	78.70	21.30	283	
17	N81089	MANCHESTER ROAD PRACTICE	1115	1377	80.97	33	2.34	1410	79.08	20.92	1182	
18	N81028	CAUSEWAY MEDICAL CENTRE	732	879	83.28	45	4.87	924	79.22	20.78	775	
19	N81007	HOLES LANE SURGERY	1297	1603	80.91	26	1.60	1629	79.62	20.38	1366	
20	N81059	CULCHETH MEDICAL CENTRE	930	1155	80.52	10	0.86	1165	79.83	20.17	977	
21	N81114	BIRCHWOOD MEDICAL CENTRE	1156	1391	83.11	45	3.13	1436	80.50	19.50	1204	
22	N81108	LAKESIDE SURGERY	1014	1144	88.64	113	8.99	1257	80.67	19.33	1054	
23	N81623	STRETTON MEDICAL CENTRE	424	507	83.63	16	3.06	523	81.07	18.93	438	
24	N81083	PARKVIEW MEDICAL PRACTICE	634	746	84.99	35	4.48	781	81.18	18.82	655	
25	N81048	FEARNHEAD CROSS MEDICAL CENTRE	1635	1965	83.21	24	1.21	1989	82.20	17.80	1667	
26	N81075	STOCKTON HEATH MED CENTRE	1951	2224	87.72	139	5.88	2363	82.56	17.44	1981	
27	N81056	FOLLY LANE MEDICAL CENTRE	1310	1436	91.23	140	8.88	1576	83.12	16.88	1321	
28	N81041	HELSEBY STREET SURGERY	1063	1243	85.52	11	0.88	1254	84.77	15.23	1051	
29	N81036	SPRINGFIELDS MEDICAL CENTRE	829	946	87.63	13	1.36	959	86.44	13.56	804	
30	N81107	MANCHESTER ROAD SURGERY	309	347	89.05	6	1.70	353	87.54	12.46	296	
31	N81637	COCKHEDGE MEDICAL CENTRE	234	257	91.05	6	2.28	263	88.97	11.03	220	
32	N81097	DALLAM LANE MEDICAL CENTRE	419	455	92.09	6	1.30	461	90.89	9.11	386	
33												
34			Total	23115						Total	24387	
35												
36												
37			Average of best performing 50% of practices (the lowest percentages in column J). There are 26 practices in this CCG, so 50% of them means 13.							83.83		
38			Additional number that would be treated if all practices were achieving the same as the average rate of the top 50% (K34 minus C34)							1272		
39												

## Appendix B: Available data sources for conditions associated with hypertension

The following table summarises some of the main online tools and data sources covering conditions associated with hypertension.

<b>Tool / publication</b> (Red text denotes hyperlink to tool)	<b>GP practice</b>	<b>District/UA</b>	<b>County/UA</b>	<b>CCG</b>	<b>SCN<sup>19</sup></b>	<b>PHE centre (2013 and 2015)</b>	<b>PHE region</b>	<b>Region (NW)</b>	<b>England</b>
<b>Cardiovascular (CVD) intelligence packs</b> include hypertension prevalence compared with other CCGs and GP practices. Also include data on smoking prevalence and sections relating to stroke, diabetes, kidney and heart conditions.				Y					
<b>Cardiovascular disease profiles</b>	Y		Y	Y	Y	Y	Y	Y	Y
<b>Cardiovascular disease profiles (Fingertips)</b> include hypertension prevalence indicators and mortality rates for coronary heart disease.	Y		Y	Y	Y	Y	Y	Y	Y
<b>CVD prevention opportunities: GP practice comparators</b>				Y					
<b>Healthier lives: high blood pressure</b> Profiles contain indicators of prevalence and care (eg lifestyle advice provided by GPs).	Y		Y	Y					
<b>Hypertension Profiles (NCVIN)</b>		Y		Y					
<b>NHS Health Check (Fingertips)</b>			Y						
<b>Outcomes versus expenditure tool: cardiovascular</b>			Y						
<b>SPOT tool</b> (spend and outcomes) includes overall adult social care, mental health and respiratory disease.			Y	Y					

<sup>19</sup> North West SCNs included: Cheshire and Merseyside; Greater Manchester, Lancashire and South Cumbria; and Northern England (includes North Cumbria)