Hypertension prevalence estimates in England: Estimated from the Health Survey for England
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Background

Hypertension prevalence estimates have been created for areas in England based on Health Survey for England data from 2013 and 2014.

Estimates at GP level were created for both diagnosed hypertension and undiagnosed hypertension using a modelled approach by the Department of Primary Care & Public Health at Imperial College London and the undiagnosed estimates are presented here.

The estimates were developed using data from the following: Health Survey for England; Health and Social Care Information Centre for population estimates at practice level; Neighbourhood Statistics for level of educational attainment, employment status, and limiting long lasting illness; Office for National Statistics for ethnicity and Department of Communities and Local Government for Index of Multiple Deprivation.

Full details of the method and data sources used can be found in their ‘Technical document’ available from the ‘National Cardiovascular Intelligence Network’ (NCVIN). Please email ncvin@phe.gov.uk.

This document also shows estimates at clinical commissioning group (CCG), and for the whole of England using weighted averages of the GP estimates. All estimates are available to download at: www.ncvin.org.uk

Key information

It is estimated that 13.4 million people in England have either GP recorded or undiagnosed hypertension. This is equal to approximately 24% of the population.

At CCG level, estimated undiagnosed hypertension prevalence ranges from 9.4% to 14%. At GP level, it ranges from 3.8% to 20.4%.

Estimated undiagnosed hypertension prevalence is highest in CCGs in the East of England, but also in the the North East of England and in areas with older populations.

Estimated undiagnosed hypertension prevalence is lowest in CCGs in central London, Bradford and Manchester.

Comparisons with the estimates and the 2014/15 Quality and Outcomes Framework (QOF) suggest that approximately 59% of the expected number of people with hypertension are recorded on GP registers.

Across England, it is estimated that 5.6 million people are living with undiagnosed and untreated hypertension.
The estimated prevalence of undiagnosed hypertension in GP practices ranges from 3.8% to 20.4% with an interquartile range of 11% to 13%. Figure 1 shows the range of estimated undiagnosed hypertension prevalence in the 7,500 practices for which an estimate could be calculated.

**Figure 1. Estimated undiagnosed hypertension prevalence by GP practice in England, 2014/15**

CCG estimated undiagnosed hypertension prevalence estimates

At CCG level, undiagnosed hypertension prevalence ranges from 9.4% to 14% in the 209 CCGs in England. CCGs with the lowest undiagnosed prevalence of hypertension were Tower Hamlets, Camden and Wandsworth (Table 1). CCGs with the highest estimated prevalence were West Norfolk, Lincolnshire East and North Norfolk (Table 2).

The quintiles of estimated undiagnosed prevalence are shown in Map 1, with the highest quintiles mainly situated in the north and along the southern coastal and eastern coastal regions, and lowest quintiles in London and central England.

Hypertension prevalence is driven largely by the age structure of the population and hypertension is highest in CCGs that have high proportions of elderly people. However, other factors such as high BMI and deprivation contribute towards higher levels of hypertension in the population.
Comparison against QOF registers

Comparisons between the estimates and the 2014/15 Quality and Outcomes Framework (QOF) show the ratio of observed to expected hypertension is 0.59 in England. Approximately 59% of the expected number of people with hypertension are recorded. The expected number combines people recorded on QOF registers with the estimated number of people living with undiagnosed hypertension. The CCG variation of this ratio is shown in Map 2.

A number of CCGs with the lowest ratio are located in and around London, including Central London (Westminster), Wandsworth and Islington CCG.

The CCG with the highest ratio of observed to expected hypertension prevalence was NHS Dudley CCG where the ratio was 0.63; approximately 32,600 people undiagnosed.

Map 2. Ratio of observed (QOF) to expected hypertension in 2014/15

<table>
<thead>
<tr>
<th>CCG</th>
<th>QOF register hypertension prevalence (%)</th>
<th>QOF register hypertension cases</th>
<th>Estimated undiagnosed prevalence 16+ (%)</th>
<th>Estimated undiagnosed cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS North Norfolk</td>
<td>17.5</td>
<td>29,804</td>
<td>14.0</td>
<td>20,300</td>
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<td>NHS Lincolnshire East</td>
<td>17.6</td>
<td>43,128</td>
<td>13.7</td>
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<td>NHS West Norfolk</td>
<td>18.4</td>
<td>31,313</td>
<td>13.6</td>
<td>19,450</td>
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<td>NHS Scarborough And Ryedale</td>
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<td>19,523</td>
<td>13.5</td>
<td>13,450</td>
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<td>NHS Isle Of Wight</td>
<td>17.3</td>
<td>24,565</td>
<td>13.5</td>
<td>16,150</td>
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<td>NHS Herefordshire</td>
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<td>20,600</td>
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<td>NHS Hambleton, Richmondshire And Whitby</td>
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<td>23,024</td>
<td>13.5</td>
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<td>NHS Fylde &amp; Wyre</td>
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<td>NHS Kernow</td>
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<td>86,139</td>
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<td>62,950</td>
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<td>NHS Southport And Formby</td>
<td>16.5</td>
<td>20,354</td>
<td>13.3</td>
<td>13,850</td>
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