Inequalities in primary care: what can analysis of QOF data reveal?

Summary report for East Sussex Downs and Weald PCT
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Introduction

This project used Quality and Outcomes Framework (QOF) data in conjunction with practice-level deprivation scores (IMD 2007) to explore inequalities in provision of primary care. The summary report includes key findings, example of charts and conclusions. Excel files containing the complete analysis are also available. These results need to be interpreted in the light of local knowledge, especially that the conducted correlation analysis examined the relationship between QOF achievement (or prevalence) and deprivation without accounting for other co-factors such as age structure. Nevertheless, this project raises important questions about deprivation and quality of provision of primary care.

Throughout the summary report relationships are described in accordance to their strength (strong, medium, weak) and direction (positive as + and negative as –). Statistically significant relationships are highlighted. Where correlation between achievement (or prevalence) and deprivation exists but statistical significance is not achieved terms slightly lower or higher are used. Furthermore, proportion of variability in achievement (or prevalence) that can be explained by deprivation is provided as percentage value: higher value indicates a better relationship. The following colour key has been used throughout the report in the summary tables.

- Relationship indicates worse prevalence/achievement in more deprived areas that is statistically significant
- Relationship indicates worse prevalence/achievement in more deprived areas that is not statistically significant
- No relationship
- Relationship indicates better prevalence/achievement in more deprived areas that is not statistically significant
- Relationship indicates better prevalence/achievement in more deprived areas that is statistically significant
Coronary Heart Disease (CHD)

Key messages

- **How does QOF prevalence of CHD compare to modelled prevalence?**
  - CHD prevalence appears to be underestimated by QOF reporting – more than a quarter of the expected number of patients with CHD are not detected by GP practices.

- **Is there a correlation between CHD prevalence and deprivation, at practice level?**
  - There is a significant correlation between CHD prevalence (QOF-based and modelled) and deprivation.
  - The strength of the relationship suggests that more CHD patients are missed by deprived practices than those in more affluent areas.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  - Reported QOF achievement is similar, or slightly worse, in practices serving more deprived areas.

- **Does exception reporting alter the picture?**
  - Adding excepted patients back into the analysis reduces QOF scores for every CHD indicator, some by a few percentage points and others by more.
  - It also changes the relationship between deprivation and QOF achievement for many indicators, with deprived practices tending to achieve slightly higher scores rather than lower. This suggests that deprived practices exclude fewer patients from QOF reporting than those in more affluent areas, and that exception reporting masks better performance among deprived practices.

---

**CHD prevalence**

<table>
<thead>
<tr>
<th></th>
<th>PCT prevalence</th>
<th>Prevalence vs. IMD</th>
<th>% of variance in prevalence explained by IMD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>QOF 2008/09</strong></td>
<td>4.8%</td>
<td>medium (+)</td>
<td>12.6%</td>
</tr>
<tr>
<td><strong>Modeled Estimates 2008</strong></td>
<td>6.7%</td>
<td>strong (+)</td>
<td>27.6%</td>
</tr>
</tbody>
</table>

**prevalence for 16+ population**

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**CHD prevalence by quintile of deprivation**

![CHD prevalence by quintile of deprivation](image)
### CHD QOF achievement (2008/9) with/without exception reporting

| QOF* indicator (2008/09) | Achievement excluding exception data | Achievement including exception data | % of variance in achievement explained by IMD
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
<td>PCT achievement</td>
</tr>
<tr>
<td></td>
<td>% of variance in achievement explained by IMD</td>
<td>Achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>CHD02</td>
<td>95.6%</td>
<td>0.5%</td>
<td>88.4% weak (+)</td>
</tr>
<tr>
<td>CHD05</td>
<td>97.2%</td>
<td>0.3%</td>
<td>95.9%</td>
</tr>
<tr>
<td>CHD06</td>
<td>88.1% weak (-)</td>
<td>8.7%</td>
<td>84.9% weak (-)</td>
</tr>
<tr>
<td>CHD07</td>
<td>93.5%</td>
<td>0.2%</td>
<td>90.6% weak (+)</td>
</tr>
<tr>
<td>CHD08</td>
<td>83.0%</td>
<td>1.0%</td>
<td>75.8%</td>
</tr>
<tr>
<td>CHD09</td>
<td>93.4% weak (-)</td>
<td>1.5%</td>
<td>90.6%</td>
</tr>
<tr>
<td>CHD10</td>
<td>69.2%</td>
<td>0.0%</td>
<td>49.9% weak (+)</td>
</tr>
<tr>
<td>CHD11</td>
<td>86.7% weak (-)</td>
<td>1.9%</td>
<td>81.7%</td>
</tr>
<tr>
<td>CHD12</td>
<td>91.4%</td>
<td>0.3%</td>
<td>81.4% weak (+)</td>
</tr>
</tbody>
</table>

*For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

### QOF achievement vs. IMD by practice with/without exceptions, CHD 10

[Graph showing QOF achievement vs. IMD by practice with/without exceptions, CHD 10]
Atrial fibrillation

Key messages

There is no model with which to compare prevalence, but 2.0% of the local population is identified as suffering from atrial fibrillation on GP practice registers.

- **Is there a correlation between atrial fibrillation prevalence and deprivation, at practice level?**
  → There is a weak correlation, with practices in more deprived areas tending to have a slightly lower reported prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Reported QOF achievement is similar in practices serving more and less deprived areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores overall, but does not alter the relationship between deprivation and QOF achievement.

Atrial fibrillation prevalence vs. deprivation score, by practice
**Atrial fibrillation QOF achievement (2008/9) with/without exception reporting**

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>AF03</td>
<td>94.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>AF04</td>
<td>97.1%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

**QOF achievement vs. IMD by practice with/without exceptions, AF04**

**Heart Failure**

**Key messages**

There is no model with which to compare prevalence, but 0.8% of the local population is identified as suffering from heart failure on GP practice registers.

- **Is there a correlation between heart failure prevalence and deprivation, at practice level?**
  - There is no correlation between heart failure prevalence and deprivation at practice level.
- **Is there a correlation between QOF performance and deprivation, at practice level?**
  - With respect to QOF scores, practices serving more deprived areas perform slightly worse than do practices serving less deprived areas.
- **Does exception reporting alter the picture?**

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As expected, adding excepted patients back into the analysis reduces QOF scores for each heart failure indicator. Although the relationship is less strong, an analysis including excepted patients still indicates that practices serving more deprived areas perform slightly worse than do those serving less deprived areas.

### Heart Failure prevalence vs. IMD by practice

![Heart Failure prevalence vs. IMD by practice](image)

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>PCT achievement vs. IMD</td>
</tr>
<tr>
<td></td>
<td>% of variance in achievement explained by IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>HF02</td>
<td>97.0% weak (-) 2.8% 87.9%</td>
<td>87.9% weak (-) 1.0%</td>
</tr>
<tr>
<td>HF03</td>
<td>88.9% weak (-) 5.8% 81.2%</td>
<td>81.2% weak (-) 1.8%</td>
</tr>
</tbody>
</table>

*For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
Stroke

Key messages

• **How does QOF prevalence of stroke compare to modelled prevalence?**
  → Stroke prevalence is slightly (over 10%) underestimated by QOF reporting.

• **Is there a correlation between stroke prevalence and deprivation, at practice level?**
  → Modelled prevalence estimates predict a significantly higher prevalence of stroke in more deprived practices. This is not seen in prevalence data derived from QOF reporting.
  → This suggests that deprived practices tend to miss more stroke patients than those in more affluent areas.

• **Is there a correlation between QOF performance and deprivation, at practice level?**
  → For most indicators, practices serving more deprived areas achieve slightly lower QOF scores than those serving more affluent areas.

• **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores for every stroke indicator, some by a couple of percentage points and others by more.
  → It also alters the relationship between deprivation and QOF achievement, removing or reversing the association for most indicators and revealing no clear pattern overall. This suggests that deprived practices exclude fewer patients from QOF reporting, which tends to make their figures look worse.
### Stroke prevalence

<table>
<thead>
<tr>
<th></th>
<th>Stroke prevalence**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevalence vs. IMD</td>
</tr>
<tr>
<td>PCT prevalence</td>
<td>% of variance in prevalence explained by IMD</td>
</tr>
<tr>
<td>QOF 2008/09</td>
<td>2.6%</td>
</tr>
<tr>
<td>Modelling Estimates 2008</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

** prevalence for 16+ population

### Stroke prevalence by quintile of deprivation

![Graph showing prevalence by quintile of deprivation](image)

### Stroke QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>STROKE05</td>
<td>96.4%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE06</td>
<td>87.0%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE07</td>
<td>91.0%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE08</td>
<td>77.4%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE10</td>
<td>89.1%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE12</td>
<td>94.2%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>STROKE13</td>
<td>91.4%</td>
<td>weak (+)</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

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Hypertension

Key messages

- **How does QOF prevalence of hypertension compare to modelled prevalence?**
  → Hypertension prevalence appears to be seriously underestimated by QOF reporting – around half the expected number of patients with hypertension are not picked up by GP practices.

- **Is there a correlation between hypertension prevalence and deprivation, at practice level?**
  → Modelled prevalence estimates suggest that deprived practices are expected to have slightly higher prevalence. This relationship is not seen for QOF-recorded prevalence. This suggests that deprived practices miss more patients with hypertension.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Practices serving more deprived areas achieve slightly worse QOF scores than those serving more affluent areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis has little impact on QOF scores.
Hypertension prevalence

<table>
<thead>
<tr>
<th>Hypertension prevalence**</th>
<th>PCT prevalence</th>
<th>Prevalence vs. IMD</th>
<th>% of variance in prevalence explained by IMD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>QOF 2008/09</strong></td>
<td>18.4%</td>
<td></td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Modelled Estimates 2008</strong></td>
<td>36.1%</td>
<td></td>
<td>4.5%</td>
</tr>
</tbody>
</table>

** prevalence for 16+ population

Hypertension prevalence by quintile of deprivation

Smoking

Key messages
Smoking status is recorded for more than four-fifths of patients on GP practice registers.

- **Is there a correlation between recording of smoking status and deprivation, at practice level?**
  → There is a weak correlation, with practices in more deprived areas tending to be slightly worse at recording smoking status.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Practices in more deprived areas perform slightly worse on one indicator and slightly better on the other.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis has little impact on QOF scores for smoking.

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Smoking status recorded (RECORDS 23)**

<table>
<thead>
<tr>
<th>QOF 2008/09</th>
<th>PCT achievement</th>
<th>Achievement vs. IMD</th>
<th>% of variance in achievement explained by IMD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>82.5%</td>
<td>weak (-)</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

** patients over 15 years

Smoking QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>SMOKING 03</td>
<td>94.0%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>SMOKING 04</td>
<td>93.9%</td>
<td>weak (+)</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

Recording of smoking status, by practice

[Graph showing smoking status recorded vs. IMD score]

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Diabetes

Key messages
There is no model with which to compare prevalence, but 4.8% of the local population is identified as suffering from diabetes on GP practice registers.

- Is there a correlation between prevalence and deprivation, at practice level?
  → There is a significant correlation, with diabetes prevalence tending to be higher in practices serving more deprived areas.

- Is there a correlation between QOF performance and deprivation, at practice level?
  → Practices serving more deprived areas achieve similar or worse reported QOF scores than those serving more affluent areas. In two cases, deprived practices’ scores are significantly worse.

- Does exception reporting alter the picture?
  → Adding excepted patients back into the analysis reduces QOF scores across the board. It also slightly alters the relationship with deprivation; deprived practices do slightly better on two indicators.

Diabetes QOF achievement (2008/09) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>DM02</td>
<td>94.1%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM05</td>
<td>96.6%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM07</td>
<td>93.2%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM09</td>
<td>91.3%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM10</td>
<td>91.2%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM11</td>
<td>97.9%</td>
<td>medium (-)</td>
</tr>
<tr>
<td>DM12</td>
<td>78.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>DM13</td>
<td>89.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>DM15</td>
<td>86.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>DM16</td>
<td>95.8%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM17</td>
<td>84.6%</td>
<td>0.1%</td>
</tr>
<tr>
<td>DM18</td>
<td>90.7%</td>
<td>0.5%</td>
</tr>
<tr>
<td>DM20</td>
<td>73.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>DM21</td>
<td>91.7%</td>
<td>weak (-)</td>
</tr>
<tr>
<td>DM22</td>
<td>96.7%</td>
<td>medium (-)</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
Asthma

Key messages

There is no model with which to compare prevalence, but 6.2% of the local population is identified as suffering from asthma on GP practice registers.

- **Is there a correlation between asthma prevalence and deprivation, at practice level?**
  → There is a weak correlation, with practices in more deprived areas tending to have a slightly higher prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Reported QOF achievement is similar, or slightly better, in practices serving more deprived areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores overall and alters the relationship between deprivation and QOF achievement for some indicators: for two out of the three indicators deprived practices' scores are slightly worse when exception reporting is taken into account.
  → This suggests deprived practices exclude more patients from QOF reporting, raising the possibility that poorer QOF performance in deprived practices is partially masked by exception reporting.
Asthma prevalence by practice

![Graph showing asthma prevalence by IMD score]

Asthma QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>ASTHMA03</td>
<td>89.9%</td>
<td>0.1%</td>
</tr>
<tr>
<td>ASTHMA06</td>
<td>76.0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>ASTHMA08</td>
<td>88.2% weak (+)</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

* For details of indicators see [Appendix: QOF Indicators 2008/09: Clinical Domain](#)
Chronic Obstructive Pulmonary Disease (COPD)

Key messages

- **How does QOF prevalence of COPD compare to modelled prevalence?**
  → COPD prevalence appears to be seriously underestimated by QOF reporting – more than half of the expected number of patients with COPD are not picked up by GP practices.

- **Is there a correlation between COPD prevalence and deprivation, at practice level?**
  → The prevalence of COPD is significantly higher in deprived practices. This relationship is seen for both modelled and QOF prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Practices serving more deprived areas achieve similar or, in one case, slightly better QOF scores than those serving more affluent areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores quite substantially, but does not alter the relationship with deprivation.
### COPD prevalence**

<table>
<thead>
<tr>
<th>PCT prevalence</th>
<th>Prevalence vs. IMD</th>
<th>% of variance in prevalence explained by IMD</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF 2008/09</td>
<td>1.9%</td>
<td>medium (+) 9.5%</td>
</tr>
<tr>
<td>Modelled estimates 2008</td>
<td>3.4%</td>
<td>strong (+) 66.5%</td>
</tr>
</tbody>
</table>

** prevalence for 16+ population

### COPD prevalence vs. IMD by practice

![Graph showing COPD prevalence vs. IMD by practice](image)

### COPD QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>COPD08</td>
<td>90.7%</td>
<td>weak (+) 3.0%</td>
</tr>
<tr>
<td>COPD10</td>
<td>81.0%</td>
<td>weak (+) 3.0%</td>
</tr>
<tr>
<td>COPD11</td>
<td>91.2%</td>
<td>weak (+) 3.0%</td>
</tr>
<tr>
<td>COPD12</td>
<td>91.1%</td>
<td>weak (+) 3.0%</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

### Chronic Kidney Disease (CKD)

**Key messages**

- There is no model with which to compare prevalence, but 5.0% of the local population is identified as suffering from chronic kidney disease (CKD) on GP practice registers.

- **Is there a correlation between CKD prevalence and deprivation, at practice level?**

  → No, practices serving more and less deprived areas have a similar prevalence, although it is clear from the quintile chart below that CKD prevalence peaks in practices of middling deprivation.

- **Is there a correlation between QOF performance and deprivation, at practice level?**

  → Reported QOF achievement is similar, or slightly better, in practices serving more deprived areas.

- **Does exception reporting alter the picture?**

  → Adding excepted patients back into the analysis reduces QOF scores overall, but does not alter the relationship between deprivation and QOF achievement.

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CKD prevalence by quintile of deprivation

![CKD prevalence by quintile of deprivation graph](image)

CKD QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>CKD02</td>
<td>97.0%</td>
<td>0.4%</td>
</tr>
<tr>
<td>CKD03</td>
<td>72.3%</td>
<td>weak (+)</td>
</tr>
<tr>
<td>CKD05</td>
<td>89.8%</td>
<td>weak (+)</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
Cancer

Key messages
There is no model with which to compare prevalence, but 1.6% of the local population is identified as having a diagnosis of cancer on GP practice registers.

- **Is there a correlation between cancer prevalence and deprivation, at practice level?**  
  → There is a strong correlation: practices serving more deprived areas tend to have a lower recorded prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**  
  → There is only one QOF indicator for cancer. Reported achievement tends to be slightly lower in practices serving more deprived areas.

- **Does exception reporting alter the picture?**  
  → Adding excepted patients back into the analysis reduces QOF scores slightly, but does not alter the relationship between deprivation and QOF achievement.
Cancer prevalence by practice

![Cancer prevalence scatter plot with IMD score]

Cancer QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>CANCER03</td>
<td>93.5% weak (-)</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
Hypothyroidism

Key messages

There is no model with which to compare prevalence, but 4.0% of the local population is identified as suffering from hypothyroidism on GP practice registers.

- **Is there a correlation between prevalence and deprivation, at practice level?**
  
  → No, practices serving more and less deprived areas have similar recorded prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  
  → There is only one indicator for hypothyroidism, and average scores are high. Practices in more deprived areas tend to perform slightly worse than those in less deprived areas.

- **Does exception reporting alter the picture?**
  
  → Adding excepted patients back into the analysis reduces QOF scores very slightly, but does not alter the relationship with deprivation.
Prevalence of hypothyroidism, by practice

![Graph showing prevalence of hypothyroidism by IMD score](image)

Hypothyroidism QOF achievement with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THYROID02</td>
<td>95.8%</td>
<td>weak (–)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2%</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

Mental health

**Key messages**

NOTE that the analyses for mental health are less reliable than for some other domains because of the small numbers of patients in some practices.

There is no model with which to compare prevalence, but 0.8% of the local population is identified as suffering from a mental health problem on GP practice registers.

- **Is there a correlation between prevalence and deprivation, at practice level?**
  - There is a strong correlation, with practices in more deprived areas tending to have significantly higher prevalence. More than a quarter of the variation between practices is accounted for by deprivation.

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• **Is there a correlation between QOF performance and deprivation, at practice level?**
  → For most mental health QOF indicators, practices in more deprived areas perform better than those in less deprived areas.

• **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores, but does not alter the relationship between QOF scores and deprivation.

### Prevalence of mental health problems

![Prevalence graph with IMD score and MH prevalence QOF](image)

### Mental health QOF achievement with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>MH04</td>
<td>97.0% weak (+) 8.0%</td>
<td>94.7% weak (+) 2.9%</td>
</tr>
<tr>
<td>MH05</td>
<td>88.7% weak (+) 2.8%</td>
<td>83.6% weak (+) 7.8%</td>
</tr>
<tr>
<td>MH06</td>
<td>85.9% weak (+) 1.2%</td>
<td>75.0% weak (+) 6.8%</td>
</tr>
<tr>
<td>MH07</td>
<td>97.2% medium (+) 23.2%</td>
<td>90.7% medium (+) 15.5%</td>
</tr>
<tr>
<td>MH09</td>
<td>91.6% 0.0%</td>
<td>79.0% medium (+) 15.5%</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain

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### Depression

**Key messages**

There is no model with which to compare prevalence, but 9.1% of the local population is identified as suffering from depression on GP practice registers.

- **Is there a correlation between prevalence and deprivation, at practice level?**
  → There is a strong correlation, with practices in more deprived areas tending to have significantly higher prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Practices in more deprived areas perform slightly better for one indicator and slightly worse for another compared to those in less deprived areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores and weakens the relationship with deprivation.
Prevalence of depression, by practice

Depression QOF achievement, with / without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>DEP01</td>
<td>87.8% weak (−) 4.7%</td>
<td>84.4% weak (−) 3.9%</td>
</tr>
<tr>
<td>DEP02</td>
<td>94.6% weak (+) 1.2%</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

*For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
Dementia

Key messages

There is no model with which to compare prevalence, but 0.6% of the local population is identified as suffering from dementia on GP practice registers.

- **Is there a correlation between dementia prevalence and deprivation, at practice level?**
  → There is no correlation: practices in more and less deprived areas have similar prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Reported QOF achievement is slightly worse in practices serving more deprived areas.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores overall, but does not alter the relationship between deprivation and QOF achievement.

### Dementia QOF achievement (2008/9) with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement vs. IMD</td>
<td>% of variance in achievement explained by IMD</td>
</tr>
<tr>
<td>DEM02</td>
<td>74.7% weak (–) 1.4%</td>
<td>69.9% weak (–) 3.1%</td>
</tr>
</tbody>
</table>

* For details of indicators see [Appendix: QOF Indicators 2008/09: Clinical Domain](http://www.sepho.nhs.uk)
**Epilepsy**

**Key messages**

There is no model with which to compare prevalence, but 0.7% of the local population is identified as suffering from epilepsy on GP practice registers.

- **Is there a correlation between prevalence and deprivation, at practice level?**
  → There is a weak correlation, with practices in more deprived areas tending to have slightly higher prevalence.

- **Is there a correlation between QOF performance and deprivation, at practice level?**
  → Practices serving more deprived areas tend to perform worse than those in less deprived areas. Only for one indicator is the relationship statistically significant.

- **Does exception reporting alter the picture?**
  → Adding excepted patients back into the analysis reduces QOF scores and also reduces the strength of the association with deprivation.
Prevalence of epilepsy, by practice

Epilepsy QOF achievement with/without exception reporting

<table>
<thead>
<tr>
<th>QOF* indicator (2008/09)</th>
<th>Achievement excluding exception data</th>
<th>Achievement including exception data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCT achievement</td>
<td>Achievement vs. IMD</td>
</tr>
<tr>
<td>EPILEPSY06</td>
<td>94.4%</td>
<td>weak (−)</td>
</tr>
<tr>
<td>EPILEPSY07</td>
<td>93.6%</td>
<td>weak (−)</td>
</tr>
<tr>
<td>EPILEPSY08</td>
<td>77.4%</td>
<td>medium (−)</td>
</tr>
</tbody>
</table>

* For details of indicators see Appendix: QOF Indicators 2008/09: Clinical Domain
QOF score vs. IMD by practice, with/without exceptions, Epilepsy 08

![Graph showing QOF score vs. IMD score for Epilepsy 08, with and without exceptions. The graph includes trend lines for underlying achievement with and without exceptions, as well as the IMD score.](image-url)
Appendix: QOF Indicators 2008/09: Clinical Domain

Coronary Heart Disease
CHD 1: The practice can produce a register of patients with coronary heart disease.
CHD 2: The percentage of patients with newly diagnosed angina (diagnosed after 1 April 2003) who are referred for exercise testing and/or specialist assessment.
CHD 5: The percentage of patients with coronary heart disease whose notes have a record of blood pressure in the previous 15 months.
CHD 6: The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less.
CHD 7: The percentage of patients with coronary heart disease whose notes have a record of total cholesterol in the previous 15 months.
CHD 8: The percentage of patients with coronary heart disease whose last measured total cholesterol (measured in the previous 15 months) is 5mmol/l or less.
CHD 9: The percentage of patients with coronary heart disease with a record in the previous 15 months that aspirin, an alternative anti-platelet therapy, or an anticoagulant is being taken (unless a contraindication or side-effects are recorded).
CHD 10: The percentage of patients with coronary heart disease who are currently treated with a beta blocker (unless a contraindication or side-effects are recorded).
CHD 11: The percentage of patients with a history of myocardial infarction (diagnosed after 1 April 2003) who are currently treated with an ACE inhibitor or Angiotensin II antagonist.
CHD 12: The percentage of patients with coronary heart disease who have a record of influenza immunisation in the preceding 1 September to 31 March.

Heart Failure
HF 1: The practice can produce a register of patients with heart failure.
HF 2: The percentage of patients with a diagnosis of heart failure (diagnosed after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment.
HF 3: The percentage of patients with a current diagnosis of heart failure due to LVD who are currently treated with an ACE inhibitor or Angiotensin Receptor Blocker, who can tolerate therapy and for whom there is no contra-indication.

Stroke and Transient Ischaemic Attack (TIA)
STROKE 1: The practice can produce a register of patients with stroke or TIA.
STROKE 5: The percentage of patients with TIA or stroke who have a record of blood pressure in the notes in the preceding 15 months.
STROKE 6: The percentage of patients with a history of TIA or stroke in whom the last blood pressure reading (measured in the previous 15 months) is 150/90 or less.
STROKE 7: The percentage of patients with TIA or stroke who have a record of total cholesterol in the last 15 months.
STROKE 8: The percentage of patients with TIA or stroke whose last measured total cholesterol (measured in the previous 15 months) is 5mmol/l or less.
STROKE 10: The percentage of patients with TIA or stroke who have had influenza immunisation in the preceding 1 September to 31 March.
STROKE 12: The percentage of patients with a stroke shown to be nonhaemorrhagic or a history of TIA, who have a record that an anti-platelet agent (aspirin, clopidogrel, dipyridamole or a combination), or an anticoagulant is being taken (unless a contraindication or side-effects are recorded).
STROKE 13: The percentage of new patients with a stroke or TIA who have been referred for further investigation.

Hypertension

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BP 1: The practice can produce a register of patients with established hypertension.
BP 4: The percentage of patients with hypertension in whom there is a record of the blood pressure in the previous 9 months.
BP 5: The percentage of patients with hypertension in whom the last blood pressure (measured in the previous 9 months) is 150/90 or less.

Diabetes
DM 2. The percentage of patients with diabetes whose notes record BMI in the previous 15 months.
DM 5: The percentage of patients with diabetes who have a record of HbA1c or equivalent in the previous 15 months.
DM 7: The percentage of patients with diabetes in whom the last HbA1c is 10 or less (or equivalent test/reference range depending on local laboratory) in the previous 15 months.
DM 9: The percentage of patients with diabetes with a record of the presence or absence of peripheral pulses in the previous 15 months.
DM 10: The percentage of patients with diabetes with a record of neuropathy testing in the previous 15 months.
DM 11: The percentage of patients with diabetes who have a record of the blood pressure in the previous 15 months.
DM 12: The percentage of patients with diabetes in whom the last blood pressure is 145/85 or less.
DM 13: The percentage of patients with diabetes who have a record of microalbuminuria testing in the previous 15 months (exception reporting for patients with proteinuria).
DM 15: The percentage of patients with diabetes with a diagnosis of proteinuria or micro-albuminuria who are treated with ACE inhibitors (or A2 antagonists).
DM 16: The percentage of patients with diabetes who have a record of total cholesterol in the previous 15 months.
DM 17: The percentage of patients with diabetes whose last measured total cholesterol within the previous 15 months is 5mmol/l or less.
DM 18: The percentage of patients with diabetes who have had influenza immunisation in the preceding 1 September to 31 March.
DM 19. The practice can produce a register of all patients aged 17 years and over with diabetes mellitus, which specifies whether the patient has Type 1 or Type 2 diabetes.
DM 20: The percentage of patients with diabetes in whom the last HbA1c is 7.5 or less (or equivalent test/reference range depending on local laboratory) in the previous 15 months.
DM 21: The percentage of patients with diabetes who have a record of retinal screening in the previous 15 months.
DM 22: The percentage of patients with diabetes who have a record of estimated glomerular filtration rate (eGFR) or serum creatinine testing in the previous 15 months.

Chronic Obstructive Pulmonary Disease (COPD)
COPD 1: The practice can produce a register of patients with COPD.
COPD 8: The percentage of patients with COPD who have had influenza immunisation in the preceding 1 September to 31 March.
COPD 10: The percentage of patients with COPD with a record of FeV1 in the previous 15 months.
COPD 11: The percentage of patients with COPD receiving inhaled treatment in whom there is a record that inhaler technique has been checked in the previous 15 months.
COPD 12: The percentage of all patients with COPD diagnosed after 1st April 2008 in whom the diagnosis has been confirmed by post bronchodilator spirometry.

Epilepsy
EPILEPSY 5: The practice can produce a register of patients aged 18 and over receiving drug treatment for epilepsy.
EPILEPSY 6: The percentage of patients age 18 and over on drug treatment for epilepsy who have a record of seizure frequency in the previous 15 months.
EPILEPSY 7: The percentage of patients age 18 and over on drug treatment for epilepsy who have a record of medication review involving the patient and/or carer in the previous 15 months.
EPILEPSY 8: The percentage of patients age 18 and over on drug treatment for epilepsy who have been seizure free for the last 12 months recorded in the previous 15 months.
Hypothyroidism
THYROID 1: The practice can produce a register of patients with hypothyroidism.
THYROID 2: The percentage of patients with hypothyroidism with thyroid function tests recorded in the previous 15 months.

Cancer
CANCER 1: The practice can produce a register of all cancer patients defined as a ‘register of patients with a diagnosis of cancer excluding non-melanotic skin cancers from 1 April 2003’.
CANCER 3: The percentage of patients with cancer, diagnosed within the last 18 months who have a patient review recorded as occurring within 6 months of the practice receiving confirmation of the diagnosis.

Palliative Care
PC 3: The practice has a complete register available of all patients in need of palliative care/support irrespective of age.
PC 2: The practice has regular (at least 3 monthly) multidisciplinary case review meetings where all patients on the palliative care register are discussed.

Mental Health
MH 4: The percentage of patients on lithium therapy with a record of serum creatinine and TSH in the preceding 15 months.
MH 5: The percentage of patients on lithium therapy with a record of lithium levels in the therapeutic range within the previous 6 months.
MH 6: The percentage of patients on the register who have a comprehensive care plan documented in the records agreed between individuals, their family and/or carers as appropriate.
MH 7: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who do not attend the practice for their annual review who are identified and followed up by the practice team within 14 days of non-attendance.
MH 8: The practice can produce a register of people with schizophrenia, bipolar disorder and other psychoses.
MH 9: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses with a review recorded in the preceding 15 months. In the review there should be evidence that the patient has been offered routine health promotion and prevention advice appropriate to their age, gender and health status.

Asthma
ASTHMA 1: The practice can produce a register of patients with asthma, excluding patients with asthma who have been prescribed no asthma-related drugs in the previous twelve months.
ASTHMA 3: The percentage of patients with asthma between the ages of 14 and 19 in whom there is a record of smoking status in the previous 15 months.
ASTHMA 6: The percentage of patients with asthma who have had an asthma review in the previous 15 months.
ASTHMA 8: The percentage of patients aged eight and over diagnosed as having asthma from 1 April 2006 with measures of variability or reversibility.

Dementia
DEM 1: The practice can produce a register of patients diagnosed with dementia.
DEM 2: The percentage of patients diagnosed with dementia whose care has been reviewed in the previous 15 months.

Depression
DEP 1: The percentage of patients on the diabetes register and /or the CHD register for whom case finding for depression has been undertaken on one occasion during the previous 15 months using two standard screening questions.
DEP 2: In those patients with a new diagnosis of depression, recorded between the preceding 1 April to 31 March, the percentage of patients who have had an assessment of severity at the outset of treatment using an assessment tool validated for use in primary care.
Chronic Kidney Disease (CKD)
CKD 1: The practice can produce a register of patients aged 18 years and over with CKD (US National Kidney Foundation: Stage 3 to 5 CKD).
CKD 2: The percentage of patients on the CKD register whose notes have a record of blood pressure in the previous 15 months.
CKD 3: The percentage of patients on the CKD register in whom the last blood pressure reading, measured in the previous 15 months, is 140/85 or less.
CKD 5: The percentage of patients on the CKD register with hypertension and proteinuria who are treated with an angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blocker (ARB) (unless a contraindication or side effects are recorded).

Atrial Fibrillation
AF 1: The practice can produce a register of patients with atrial fibrillation.
AF 3: The percentage of patients with atrial fibrillation who are currently treated with anti-coagulation drug therapy or an anti-platelet therapy.
AF 4: The percentage of patients with atrial fibrillation diagnosed after 1 April 2008 with ECG or specialist confirmed diagnosis.

Obesity
OB 1: The practice can produce a register of patients aged 16 and over with a Body Mass Index (BMI) greater than or equal to 30 in the previous 15 months.

Learning Disabilities
LD1: The practice can produce a register of patients with learning disabilities

Smoking
SMOKING 3: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the previous 15 months.
SMOKING 4: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months.
This report has been compiled by

• Dr Rachel Crowther
• Dr Gabriele Price
• Dave Henckert

With acknowledgements

• Sergio Chrisopoulos
• Matthew Clarkson
• Isobel Perry
• Jo Frank

South East Public Health Observatory

DElivered BY

Solutions for Public Health

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