Quality and Outcomes Framework – prevalence, achievements and exceptions report

Data quality statement and frequently asked questions, 2016-17

Published 26 October 2017
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Data quality statement

Relevance

The Quality and Outcomes Framework (QOF) covers 19 clinical and six public health aspects of GP practice activity, and it represents one of the richest sources of information from primary care. QOF data are collected primarily to support payments to GP practices. QOF information is valuable for many secondary uses.

Some aspects of the NHS Digital published QOF information are also presented by the Care Quality Commission¹, NHS Choices, and other information dissemination routes.

Accuracy and reliability

The accuracy of QOF information depends on:

- Clinical case finding by GPs; for example, information from QOF diabetes registers or about QOF diabetes indicators depends on people with diabetes being diagnosed
- Clinical coding; for example, when patients are diagnosed with diabetes, the quality of QOF data about people with diabetes depends on the GP practice maintaining accurate and coded clinical records

Issues in 2016-17 data

A small number of practices are shown to have very small list sizes; this is because patient list sizes as at 1 April 2017 are used for the QOF publication, and practices may have participated in QOF during the reporting year but closed at or towards the end of the reporting year. This should be borne in mind when analysing disease prevalence.

A number of practices in Dudley CCG and Somerset CCG participated in an alternative payment scheme. During the validation exercise, NHS Digital were advised by sub-region validators to exclude those practices in Dudley CCG from the publication, and publish the available data for those practices in Somerset CCG. This should be taken into consideration when interpreting the 2016-17 QOF data.

QOF data are used to calculate annual payments to GP practices. GPs are therefore incentivised to maintain accurate and up to date patient records in respect of QOF information. In light of this, GP practices’ clinical information system suppliers deliver systems to maximise recording and quality of coding for information relating to QOF.

NHS Digital uses a snapshot of QOF data as available via CQRS some months after the financial year-end as the basis for QOF publications; for 2016-17, this extraction was made on 6 July. Practices were advised to sign-off QOF achievement before midnight on the 31st March 2017².

¹ http://www.cqc.org.uk/what-we-do/how-we-use-information/monitoring-gp-practices
² http://systems.digital.nhs.uk/gpcollections/qof/index_html
Validation exercise
Prior to publication, NHS Digital invites sub-regions to view the total QOF points for each of their practices, as held on CQRS at the point of extract for the QOF publication. Sub-regions are asked to advise NHS Digital of:
- Any practices whose final points total is subject to sign-off
- Any subsequent changes to QOF achievement (where known)
- Any practices missing from the extract
- Any practices that should not be included in the publication (for example services not receiving QOF payments due to practice closure or mergers)
- Notes on any practices whose QOF achievement should be viewed in a particular context – for example practices whose lists are specialised, and where not all QOF points can be achieved (e.g. university practices, asylum seeker services, services for the homeless, etc.)

In the 2016-17 validation exercise, all except two practices’ achievement totals were signed off and/or commented on. NHS Digital considers all comments received from sub-regions and annotates data in the QOF publications where this aids interpretation. A separate spreadsheet detailing all the comments by practice is included as part of this release; ’qof1617-practice-validation-comments’.

Timeliness and punctuality
QOF information relates to achievement over a financial year. QOF achievement can take some months after financial year-end to be agreed between practices and NHS England. The extract of QOF data for this publication was made from CQRS on 6 July 2017. This delay after the financial year-end maximises the number of practices whose achievement is signed-off, whilst still allowing publication in October.

There was no delay to the preannounced publication date of 26 October 2017.

Accessibility and clarity
This QOF release is available on the NHS Digital website at http://digital.nhs.uk/pubs/qof1617.

Included in this release is a written report and supporting information documents in .pdf format. Information at practice, clinical commissioning group (CCG), sub-regional, regional and national levels are presented in Excel spreadsheets. The underlying (‘raw’) data are available in .csv files.
We provide an online database https://qof.digital.nhs.uk/ which allows users to view detailed information about practices in a more visual format.

Where NHS Digital data are reused, NHS Digital should be clearly acknowledged as the data source. Please see https://digital.nhs.uk/article/235/Terms-and-conditions for further information.

3 http://digital.nhs.uk/pubs/qof1617
Coherence and comparability

QOF information is collected primarily to support QOF payment calculations under General Medical Services (GMS) contracts\(^4\), and this data collection is (for clinical information) based on detailed coded business rules\(^5\). QOF clinical registers may not match disease definitions used by epidemiologists, and may not cover all ages. As a result, QOF indicators may not be defined in the same way as similar measures from other sources.

It is important to take account of QOF definitions (including coding contained in QOF business rules\(^5\)) before comparing QOF information with other data sources, for example comparing QOF disease prevalence with expected prevalence rates based on public health models.

Individual QOF indicators or the business rules associated with them can change from year to year. Levels of achievement and exceptions rates therefore may not be directly comparable each year. Details regarding year-on-year changes to indicators are available on the NHS Employers website\(^6\).

Specific issues and caveats concerning the interpretation of QOF data are covered in the 'qof1617-technical-annex' which accompanies the QOF publication.

Trade-offs between output quality components

The data are published as soon after year end as possible. Time is allowed for NHS England verification, analysis of the data and production of the report and annexes.

Assessment of user needs and perceptions

During each publication cycle, data quality is assessed by the NHS Digital collection and publication teams, and where queries arise, data suppliers are contacted to validate and confirm data submissions.

Comments can be received via:
email: enquiries@nhsdigital.nhs.uk ;
technophone: 0300 303 5678;
the ‘Have Your Say’ link on the QOF publication page, available at http://digital.nhs.uk/pubs/qof1617
This feedback is used to assess users’ needs and determine whether they are met.

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\(^5\) [http://content.digital.nhs.uk/qofesextractspecs](http://content.digital.nhs.uk/qofesextractspecs)

Performance, cost and respondent burden

The QOF data downloaded from CQRS by NHS Digital are a secondary use of the data. The primary use of the QOF data is to support QOF payments to GPs. The sub-region validation exercise, which allows NHS England sub-region teams to confirm practice data ahead of the publication, does place some burden on participants. Participation in this validation exercise is voluntary and we estimate that validation takes less than 1.5 person-days to complete for each sub-region.

Confidentiality, Transparency and Security

Published QOF information is derived from the data available via CQRS. Users of CQRS (appropriate individuals from practices, CCGs and sub-regions) can monitor their own QOF information on a continuous basis throughout the year; they also have access to reports which provide the same level of information as that which is published by NHS Digital.

QOF publications are subject to risk assessments concerning disclosure. No personal identifiable data have been identified in this year’s QOF. Standard NHS Digital protocols around information governance are followed in the production of QOF publications.

The data contained in this publication are Official Statistics. The code of practice is adhered to from extraction of the data to publication: https://www.statisticsauthority.gov.uk/monitoring-and-assessment/code-of-practice/

Please see links below to the relevant NHS Digital policies:

Statistical Governance Policy:
http://content.digital.nhs.uk/media/1350/Publications-Calendar-Statistical-Governance-Policy/pdf/

Freedom of Information:
https://digital.nhs.uk/article/253/Freedom-of-Information
Frequently asked questions

Background

What is QOF?

The national Quality and Outcomes Framework (QOF) was introduced as part of the General Medical Services (GMS) contract on 1 April 2004. The QOF rewards practices for the provision of 'quality care' and helps to fund further improvements in the delivery of clinical care. QOF points are achieved based on the proportions of patients on defined disease registers who receive defined interventions.

Participation by practices in the QOF is voluntary, though participation rates are very high, with most Personal Medical Services (PMS) practices also taking part. In 2016-17, the QOF dataset includes data from 95.4 per cent of GP practices in England that were open and active at some point in the reporting period.

General background and QOF guidance can be found on the NHS Employers’ website, and specific information about the 2016-17 QOF can be found in the 2016-17 General Medical Services (GMS) contract Quality and Outcomes Framework (QOF) guidance document.

Where do the data come from / what is CQRS?

Previously, the Quality Management and Analysis System (QMAS) was used for the extraction of QOF data. In July 2013, QMAS was replaced by the Calculating Quality Reporting Service (CQRS), together with the General Practice Extraction Service (GPES). These are national systems developed and maintained by NHS Digital.

Relevant clinical data are extracted from GP practices' clinical systems via GPES, and the QOF data are then accessed via CQRS.

What is in QOF? What are 'domains'?

The QOF covers three domains. Each domain consists of a set of measures of achievement, known as indicators, against which practices score points according to their activity as defined by those indicators.

The three domains are:

- Clinical
- Public Health
- Public Health – Additional Services

QOF indicators are described in detail in the 2016-17 guidance document available on the NHS Employers website.

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Within the three domains, indicators are organised into groups. Table 1.1 provides a summary of the QOF domains in 2016-17.

### Table 1.1: summary of 2016-17 QOF indicator groups by domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator group code</th>
<th>Indicator group description</th>
<th>Number of indicators</th>
<th>Number of points available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AF</td>
<td>Atrial fibrillation</td>
<td>3</td>
<td>29</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>AST</td>
<td>Asthma</td>
<td>4</td>
<td>45</td>
<td>Respiratory</td>
</tr>
<tr>
<td>CAN</td>
<td>Cancer</td>
<td>2</td>
<td>11</td>
<td>High dependency and other long-term conditions</td>
</tr>
<tr>
<td>CHD</td>
<td>Secondary prevention of coronary heart disease</td>
<td>4</td>
<td>35</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>CKD</td>
<td>Chronic kidney disease</td>
<td>1</td>
<td>6</td>
<td>High dependency and other long-term conditions</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic obstructive pulmonary disease</td>
<td>6</td>
<td>35</td>
<td>Respiratory</td>
</tr>
<tr>
<td>DEM</td>
<td>Dementia</td>
<td>3</td>
<td>50</td>
<td>Mental health and neurology</td>
</tr>
<tr>
<td>DEP</td>
<td>Depression</td>
<td>1</td>
<td>10</td>
<td>Mental health and neurology</td>
</tr>
<tr>
<td>DM</td>
<td>Diabetes mellitus</td>
<td>11</td>
<td>86</td>
<td>High dependency and other long-term conditions</td>
</tr>
<tr>
<td>EP</td>
<td>Epilepsy</td>
<td>1</td>
<td>1</td>
<td>Mental health and neurology</td>
</tr>
<tr>
<td>HF</td>
<td>Heart failure</td>
<td>4</td>
<td>29</td>
<td>Cardiovascular</td>
</tr>
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<td>HYP</td>
<td>Hypertension</td>
<td>2</td>
<td>26</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>LD</td>
<td>Learning disabilities</td>
<td>1</td>
<td>4</td>
<td>Mental health and neurology</td>
</tr>
<tr>
<td>MH</td>
<td>Mental health</td>
<td>7</td>
<td>26</td>
<td>Mental health and neurology</td>
</tr>
<tr>
<td>OST</td>
<td>Osteoporosis</td>
<td>3</td>
<td>9</td>
<td>Musculoskeletal</td>
</tr>
<tr>
<td>PAD</td>
<td>Peripheral arterial disease</td>
<td>3</td>
<td>6</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>PC</td>
<td>Palliative care</td>
<td>2</td>
<td>6</td>
<td>High dependency and other long-term conditions</td>
</tr>
<tr>
<td>RA</td>
<td>Rheumatoid arthritis</td>
<td>2</td>
<td>6</td>
<td>Musculoskeletal</td>
</tr>
<tr>
<td>STIA</td>
<td>Stroke and transient ischaemic attack</td>
<td>5</td>
<td>15</td>
<td>Cardiovascular</td>
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<tr>
<td><strong>Public health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BP</td>
<td>Blood pressure</td>
<td>1</td>
<td>15</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>CVDPP</td>
<td>Cardiovascular disease - primary prevention</td>
<td>1</td>
<td>10</td>
<td>Cardiovascular</td>
</tr>
<tr>
<td>OB</td>
<td>Obesity</td>
<td>1</td>
<td>8</td>
<td>Lifestyle</td>
</tr>
<tr>
<td>SMOK</td>
<td>Smoking</td>
<td>4</td>
<td>64</td>
<td>Lifestyle</td>
</tr>
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<td><strong>Public health additional services</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CON</td>
<td>Contraception</td>
<td>2</td>
<td>7</td>
<td>Fertility, obstetrics and gynaecology</td>
</tr>
<tr>
<td>CS</td>
<td>Cervical screening</td>
<td>3</td>
<td>20</td>
<td>Fertility, obstetrics and gynaecology</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>77</td>
<td>559</td>
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**How do CQRS / QOF data relate to GP practice payments?**

Through the QOF, general practices are rewarded financially for aspects of the quality of care they provide. CQRS ensures consistency in the calculation of quality achievement and disease prevalence, and is linked to payment systems.

This means that payment rules underpinning the new GMS contract are implemented consistently across all systems and all practices in England.

For 2016-17 the value of a QOF point was £165.18.

Users of data derived from CQRS should recognise that CQRS was established as a mechanism to support the calculation of practice QOF payments. The QOF does not provide a comprehensive source of data on quality of care in general practice, but it is potentially a rich and valuable source of such information, providing the limitations of the data are acknowledged.
What is in the latest QOF publication?

The information published by NHS Digital relates to general practices in England.

The latest available information is for 2016-17, and is based on data for the period 1 April 2016 to 31 March 2017. The data were extracted from the national CQRS system on 6 July 2017 and incorporate any changes made up to 5 July 2017.

This publication covers three types of data for England:

- Disease prevalence
- Achievement
- Exception reporting

The 2016-17 QOF publication is available at [http://digital.nhs.uk/pubs/qof1617](http://digital.nhs.uk/pubs/qof1617), and consists of:

- A statistical report
- Annexes to support the main report (including technical annex and report tables and charts)
- A set of spreadsheets of QOF data at five levels:
  - NHS England Region and National
  - NHS England Sub-Region
  - Sustainability and Transformation Partnership (STP) footprint
  - NHS England CCG
  - GP practice level
- A frequently asked questions (FAQ) document and data quality statement
- A spreadsheet of all indicator definitions and their associated points
- A spreadsheet showing comments made by sub-regions during the validation process
- An online database at [https://qof.digital.nhs.uk/](https://qof.digital.nhs.uk/) that allows searches for individual practices, and which presents QOF results graphically
- .CSV files of the data, and accompanying data dictionary

Previous years and future changes

Where can I find QOF data for previous years?

On the NHS Digital web site you can find QOF information for the years 2004-05 to 2015-16: [http://content.digital.nhs.uk/qof](http://content.digital.nhs.uk/qof)

These data are also available through the QOF online search facility at [https://qof.digital.nhs.uk/](https://qof.digital.nhs.uk/)

Can I have QOF indicator information for years prior to 2004/05?

The Quality and Outcomes Framework was introduced in 2004/05. No QOF indicator information is available for previous years.
How is 2016-17 QOF different from previous years?

2004-05 and 2005-06

The QOF was introduced in 2004/05, the same indicator set was used in 2005/06. In 2004/05 and 2005/06 practices were able to achieve a maximum QOF score of 1,050 points.

2006-07-08

From April 2006 a revised QOF was introduced, including new clinical areas and revising some clinical indicators. The revised QOF continued to measure achievement against a set of evidence-based indicators, but allowed a possible maximum score of 1,000 points.

2008-09

Some changes were made at the start of 2008/09, with the most significant change being the introduction of two new indicators within the Patient Experience domain. The new indicators, PE7 and PE8, were derived from the results of the national GP Patient Survey, and rewarded practices for providing 48 hour appointments (PE7) and advanced booking (PE8). These two new indicators were worth a total of 58.5 QOF points, and their introduction coincided with the removal of some indicators (or points associated with indicators), so that the maximum QOF score remained at 1,000 points.

2009-10-11

Further changes to the QOF were made at the start of 2009/10, and remained in force for 2010/11. These included:

- The introduction of new indicators in the existing heart failure, chronic kidney disease, depression and diabetes clinical indicator sets;
- The introduction of two new indicators under a new cardio-vascular disease (primary prevention) clinical indicator set;
- The removal of some patient experience indicators; changes to contraception indicators within the Additional Services domain of the QOF; and
- Various changes to the points values of some QOF indicators.

Overall, the maximum QOF score remained at 1,000 points.

2011-12

Changes to the QOF at the start of 2011/12 included:

- The introduction of new indicators in the epilepsy, learning disability and dementia clinical indicator sets and the introduction of a new set of indicators measuring quality and productivity.

There were 12 indicators across a range of sets retired, 22 indicators were replaced, either due to changes to indicator wording or coding/business logic changes, five indicators had changes to point values or thresholds.

Overall, the maximum QOF score remained at 1,000 points

2012-13

Changes to the QOF at the start of 2012/13 included the retirement of seven indicators (including five from the Quality and Productivity area), releasing 45 points to fund new and replacement indicators. There were nine new NICE recommended clinical indicators introduced, including two new clinical areas (PAD and Osteoporosis) and additional smoking
indicators. There were three new organisational indicators for improving Quality and Productivity which focussed on accident and emergency attendances.

Sixteen other indicators were replaced, either due to changes to indicator wording or coding/business logic changes or to changes to point values or thresholds.

Overall, the maximum QOF score remained at 1,000 points.

2013-14

- Changes to the QOF at the start of 2013-14 included a reduction in the maximum number of points available to 900.
- The indicator codes have all been reset and re-ordered, starting with 001 for each set of indicators to reflect the flow of processes.
- The organisational domain was retired, adding to a retirement of a total of 38 indicators.
- A new public health domain was introduced (including a subset of additional services indicators), with some existing indicators reallocated to this new domain.
- There was an introduction of a new public health measure: blood pressure, introduction of a new clinical condition: rheumatoid arthritis and in total, twelve new indicators have been introduced.
- Thirteen indicators have been replaced along with changes to the wording where necessary; this was predominantly wording changing from ‘practice’ to ‘contractor’.
- There was removal of the current end-of-year overlap for most indicators by changing the indicator timeframe from 15 to 12 months or 27 to 24 months.

2014-15

- Changes to the QOF at the start of 2014-15 include a reduction in the maximum number of points available to 559.
- There has been retirement of two domains; the quality and productivity domain and the patient experience domain.
- Three groups of indicators; hypothyroidism, child health surveillance and maternity have been retired. There are 26 other individual indicators that have been retired, from within conditions that are still measured in the QOF.
- No new indicators or indicator groups have been added this year.
- Some minor changes to indicators have resulted in new indicator numbering. Epilepsy now has only one indicator, the presence of a register. Learning disability has had the age restriction removed, and is no longer for those aged 18 or over. Blood Pressure has also changed its age restriction from age 40 or over to age 45 or over.

2015-16

- There has been no change to the maximum number of points available (559). However, the total number of indicators has fallen from 81 to 77; some indicators have been retired or replaced, and the number of points assigned to some indicators has been changed. The number of points available in each domain has remained the same.
- No indicator groups have been added or removed.
Some minor changes to indicators’ wording, timeframe or maximum available points have resulted in new indicator numbering. This affects the dementia, chronic kidney disease and obesity indicator groups as follows:

- DEM002 and DEM003 are now numbered DEM004 and DEM005 respectively, due to changes in the wording and points for DEM002, and changes in the timeframe for DEM003.
- CKD001 is now numbered CKD005 following a change in wording
- OB001 is now numbered OB002 following a change in the age group to which the indicator applies

Full details of all the changes to QOF can be found on the NHS Employers website.9

2016-17

There have been no changes to the number of points available, or to the number or definition of any indicators, as compared with 2015-16.

What changes are planned for next year’s QOF?

Changes to QOF for the 2017-18 reporting year are detailed on the NHS Employers website. There are no changes to the number of points available, or to the QOF indicators for 2017-18.

Business rules

What are QOF business rules? Where can I find them?

QOF data are captured from GP practice systems according to coded ‘business rules’, produced by NHS Digital. The business rules are reviewed twice each year to take account of new clinical codes. QOF business rules are published on the NHS Digital website. The business rules used for QOF 2016-17 were version 35.0 – available via the NHS Digital website. Earlier versions of QOF business rules are available on the Primary Care Commissioning web site.
Exception reporting

What is QOF exception reporting?
Patients on a specific clinical register can be removed from individual QOF indicators if a patient is unsuitable for treatment, is newly registered with the practice, is newly diagnosed with a condition, or in the event of informed dissent.

'Exception reporting' refers to the potential removal of these patients from calculations of practice achievement for specific clinical indicators.

Some exception reporting is applied automatically by the IT system, for example in respect of patients who are recently registered with a practice, or who are recently diagnosed with a condition. Other exception reporting is based on information entered into the clinical system by the GP. Practices may 'exception-report' (i.e. omit) specific patients from data collected to calculate QOF achievement scores within clinical areas. The GMS contract sets out valid exception reporting criteria.

Further information concerning exception reporting can be found in the Technical Annex for the publication

Where can I find information on QOF exception reporting?
An explanation of exception reporting and the calculation of exception rates is available in the Technical Annex for the publication.

Exception reporting at national level is covered in the main report.

A breakdown of exceptions and exclusions by reason per indicator group at CCG level is available in the spreadsheet QOF 2016-17: CCG level, Exceptions and exclusions [.xlsx].

Why are exception reporting figures published by NHS Digital different from the figures in CQRS reports?
CQRS presents counts of exception-reported patients, which roughly equates to the number of people on a disease register who are not included in an indicator denominator.

For the NHS Digital QOF publication, there is a distinction between patients who are actually exception-reported, and those whose non-inclusion in an indicator denominator is for definitional reasons.

Definitional 'exclusions' are treated as exception reporting by CQRS, and the 'excluded' patients are shown in exception reporting counts. CQRS does this because it is primarily a system to support payments, and its function in respect of exception reporting is to ensure the right patients are not included in indicator denominators.

To give an example, CHD004: The percentage of patients with coronary heart disease who have had influenza immunisation in the preceding 1 September to 31 March

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14 http://digital.nhs.uk/pubs/qof1617
If the CHD register is 100, and only 10 of those patients meet the indicator criteria, and two of those patients are subject to actual exception reporting, then the relevant figures would be:

CHD Register = 100
CHD004 Denominator = 8
CHD Exception Count = 2
CHD Definitional Exclusions = 90

However, CQRS would show this as 92 exception-reported patients because there is no concept of exclusions within CQRS – they are all exceptions.

The NHS Digital QOF publication considers the underlying exception reporting codes within the CQRS tables, and assigns the notion of 'definitional exclusions' to some codes. These are not included in our published exception counts and rates.

Published exception reporting figures therefore do not include counts of definitional exclusions, since these cannot make up part of the indicator denominator.

**We only applied exception codes to a very small number of patients, but our published exception rate is very high. Why is this?**

Exceptions are identified upon extraction of the data from the clinical system; although exception codes may be manually added to patient records with the intention of excepting a patient from a given indicator (e.g. ‘patient unsuitable’), codes that exist in the patient record as a matter of course are read at the point of extraction and identified as grounds for exception (e.g. ‘patient diagnosed within 3 months of end of payment period’).

Therefore, a patient may be excepted from an indicator even where a clinician has not identified that patient’s record and added an exception code, because codes that are part of the patient’s record are defined as exceptions.

The ‘CCG level, exceptions and exclusions’ file released as part of the publication provides a breakdown of exceptions by reason at CCG level, which may be useful in identifying the exceptions that apply to each indicator. It should be noted that a patient can only be excepted once per indicator, and that sequencing (i.e. the order in which systems check for different exception codes or criteria) may differ from one GP clinical information system to another.

**Practice information**

**How many practices are in the QOF achievement data? Are all practices included?**

Participation in QOF is voluntary, although participation rates are very high; in 2016-17, the QOF dataset includes data from 95.4 per cent of GP practices in England that were open and active at some point in the reporting period. Some practices may choose not to participate, perhaps because they are specialist centres or because they participate in alternative local schemes. Some practices’ data are removed during validation e.g. due to closure during the reporting year.
QOF achievement for 2016-17 was published for 7,392 general practices in England. These practices made an end-of-year submission to CQRS. QOF achievement figures include data automatically extracted from general practice systems by the CQRS system in March 2017, and data adjustments for the year 2016-17 submitted between April and July 2017.

During validation, a small number of practices were removed from the dataset (for example, those practices whose data are not representative due to their closure or merger with other practices). The results of the validation exercise are available as part of the publication in the ‘Practice validation comments’ workbook.

The sum of the practice list sizes for the practices included in the QOF publication is 58,029,147. This number may contain duplicate patients where a given practice has closed during the financial year, as illustrated below:

In the example, Practice A’s QOF data are representative of their position at the point the practice closed, whereas Practice B’s QOF data reflect their status at the end of the financial year. As some of Practice A’s patients may have moved to Practice B when Practice A closed, they may be counted once in Practice A’s data and again in Practice B’s data. It is therefore impossible to express coverage as a percentage at patient level.

**Are Personal Medical Services (PMS) practices in the QOF dataset?**

Personal Medical Services (PMS) practices are able to negotiate local contracts with their Area Teams for the provision of all services. PMS practices may also participate in the QOF, and they may either follow the national QOF framework or enter into local QOF arrangements.

PMS practices with local contractual arrangements are included in the published 2016-17 QOF information.

**Achievement**

**Do QOF achievement scores shown for PMS practices incorporate a PMS deduction?**

Where PMS practices use the national QOF, their 2016-17 achievement (in terms of the 559 QOF points available) is subject to a deduction of approximately 100 points before QOF points are turned into QOF payments. This is because many PMS practices already have a chronic disease management allowance, a sustained quality allowance and a cervical cytology payment included in their baseline payments. GMS practices do not receive such
payments, but receive similar payments through the QOF. To ensure comparability between GMS and PMS practices, the QOF deduction for PMS practices ensures that they do not receive the same payments twice. Because this publication covers QOF achievement and not payments, all QOF achievement shown is based on QOF points prior to PMS deductions. This is to allow comparability in levels of achievement – so that where GMS and PMS practices have maximum QOF achievement, both are regarded as having achieved the maximum 559 points.

**What does 100 per cent achievement mean? What is ‘underlying achievement (net of exceptions)’?**

Reference to 100 per cent achievement often refers to the percentage of available QOF points achieved. If a practice achieves the full 559 QOF points it has achieved 100 per cent of the points available and may be said to have 100 per cent achievement across the whole QOF.

The level of achievement for certain elements of the QOF can be expressed in the same way. A practice achieving all 435 clinical QOF points available can be said to have 100 per cent clinical achievement even though it may not have 100 per cent achievement overall.

Practices achieve the maximum QOF points for most indicators (especially clinical indicators) when they have met or exceeded the maximum threshold to achieve the points available. For many indicators a practice must provide a certain level of clinical care to 90 per cent of patients on a particular clinical register to achieve the maximum points. A practice can therefore deliver the required care to fewer than 100 per cent of its patients (90 per cent in this case) to achieve the full (100 per cent) points available. There is an important distinction between percentage achievement in terms of QOF points available and the underlying achievement (net of exceptions) for specific indicators, the latter representing the indicator numerator as a percentage of the denominator.

**What is ‘percentage of patients receiving the intervention’?**

Underlying achievement (net of exceptions) does not account for all patients covered by each indicator, as it takes no account of “exceptions” (patients to whom the indicator applies, but who are not included in the indicator denominator according to agreed exception criteria). Percentage of patients receiving the intervention, gives a more accurate indication of the rate of the provision of interventions as the denominator for this measure covers all patients to whom the indicator applies, regardless of exception status (i.e. indicator exceptions and indicator denominator). This measure is calculated as follows;

\[
\text{Percentage of patients receiving intervention} = \frac{\text{Numerator}}{\text{Exceptions} + \text{Denominator}} \times 100
\]

As an example; a practice has 100 patients on the CHD register, and 10 patients are exception reported from CHD003, making a denominator for CHD003 of 90 patients. The practice delivers the CHD003 intervention to 80 patients. The difference in figures for underlying achievement (net of exceptions) and percentage of patients receiving the intervention is seen below.
Underlying achievement (net of exceptions) = \( \frac{\text{Numerator}}{\text{Denominator}} \times 100 \)
\[= \frac{80}{90} \times 100 = 88.9 \text{ per cent} \]

Percentage of patients receiving intervention = \( \frac{\text{Numerator}}{\text{Denominator} + \text{Exceptions}} \times 100 \)
\[= \frac{80}{10 + 90} \times 100 = 80.0 \text{ per cent} \]

**Are all practices supposed to reach, or try to reach, 100 per cent QOF achievement?**

Not necessarily. The achievement of full points may not be possible or desirable for some practices. Participation in the QOF is voluntary, and practices may aspire to achieve all, some, or none of the points available. It is important to note that for some practices it may be impossible to achieve all the points available in the QOF.

For example, some clinical indicators relate to specific subgroups of patients, and if the practice does not have any such patients it cannot score points against the relevant indicators. A practice that exclusively serves a student population, for instance, may not have patients on some of the clinical registers e.g. dementia, that are covered by the QOF, and although its QOF points total would be less than 559 (or 100 per cent), it may be providing all the appropriate care in respect of the clinical registers that it does hold.

In addition, practices with personal medical services contracts may include quality and outcomes as part of their locally negotiated agreements, and may opt to use part or all the new GMS QOF as a measurement tool. This is an extremely important consideration when undertaking any comparative analysis of QOF achievement.

**What if a practice does not have any patients on a register?**

In recognition of the fact that it is not always possible for practices to achieve all the points in the QOF, NHS Digital has produced a further measure of practice achievement. This measure takes account of instances where practices cannot achieve points because they have no patients pertinent to an indicator.

For example, in 2016-17 there are 559 points available in the QOF and 45 of these points are allocated to asthma indicators. If a practice does not have any patients on their asthma register, (no patients meeting the established criteria), then they would be unable to achieve any of the points allocated to the asthma indicators. Therefore, even if the practice achieved all the other points available they would only be able to reach 91.9 per cent achievement (514 points achieved/ 559 points available)

In these circumstances, the standard ‘points achievement’ measure can be misrepresentative and may result in a practice’s achievement apparently declining from one year to the next where they have patients on a register in one year but none in the next year.

To represent practice points achievement more fairly, NHS Digital calculates adjusted maximum points achievable for each practice, effectively removing points from the calculation denominator where both of the following conditions apply:

- the practice does not have any patients in the indicator denominator
- the practice has reported no exceptions for the indicator denominator
In essence, the indicator denominator plus indicator exceptions must equal zero. This ensures we are not adjusting maximum points achievable where there are patients on the relevant disease register (exceptions are included in the disease register, but not in the relevant denominator), who have not received the interventions.

For the example outlined above, for a practice with no patients on their asthma register the practices maximum points available would be 514 (559 points minus the ‘unachievable’ 45 asthma points). In this case, the difference between the practices ‘points achievement’ and ‘points achieved as a percentage of QOF points available’ would be as follows:

\[
\text{Points achievement} = \left( \frac{\text{Points achieved}}{\text{All QOF points}} \right) \times 100
\]
\[
= \left( \frac{514}{559} \right) \times 100 = 91.9 \text{ per cent}
\]

\[
\text{Points achieved as per cent of points available} = \left( \frac{\text{Points achieved}}{\text{QOF points available}} \right) \times 100
\]
\[
= \left( \frac{514}{514} \right) \times 100 = 100 \text{ per cent}
\]

Due to the complexities of calculating and presenting the ‘points achieved as a percentage of QOF points available’ figures, we only provide these for total points, not for any domain or group totals. The figures can be found in the ‘QOF 2016-17: Achievement at practice level, all domains’ workbook.

**Prevalence**

**What disease prevalence information is available from QOF?**

Prevalence information for 2016-17 is presented in the publication for the 7,392 practices that were in the QOF achievement dataset. For the 19 indicator groups in the clinical domain, CQRS captures the number of patients on the clinical register for each practice.

The number of patients on the clinical registers can be used to calculate measures of disease prevalence, expressing the number of patients on each register as a percentage of the number of patients on practices' lists.

**What prevalence figures are shown and how are they calculated?**

The registers used to calculate prevalence are those submitted to CQRS at the same time as achievement submissions (i.e. end of year submissions). Prior to 2009, ‘National Prevalence Day’ was 14 February. From 2009 onwards, ‘National Prevalence Day’ was moved to 31 March, so for the purpose of prevalence adjustments to QOF payments, prevalence is calculated on the same basis as disease registers for indicator denominators.

In QOF 2016-17, there are 7 indicator groups with registers relating to specific age groups:

- Blood pressure – aged 45 and over
- Chronic kidney disease – aged 18 and over
- Diabetes mellitus – aged 17 and over
• Epilepsy – aged 18 and over
• Obesity – aged 18 and over
• Osteoporosis – aged 50 and over
• Rheumatoid arthritis – aged 16 and over

For 2016-17 NHS Digital has produced prevalence rates for all of these conditions based on appropriate sub-sets of the patient list size. For example, diabetes registers are expressed as a percentage of patients on practices’ lists who are aged 17 and over. These are produced to help researchers or information users who require more precise prevalence rates for these areas.

How do I get a count of the numbers of patients who smoke?
The register underpinning the QOF smoking indicators is not a register, or count, of people who smoke. QOF provides no information on numbers of smokers and non-smokers.

Do prevalence figures differ from prevalence figures published elsewhere?
Differences may occur because QOF registers do not necessarily equate to prevalence as may be defined by epidemiologists. For example, recorded prevalence figures based on QOF registers may differ from prevalence figures from other sources because of coding or definitional issues.

Care should be taken to understand definitional differences, for example when comparing QOF prevalence with expected prevalence rates using public health models.

The QOF only provides recorded prevalence; it does not allude to or report on expected prevalence or estimated prevalence. Nor does it forecast future prevalence rates, as definitions for the QOF registers and their associated indicators are always subject to change. For example, to be on the QOF obesity register in 2015-16, patients need to be aged 18 or over, and have a body mass index greater than or equal to 30 recorded in the previous 12 months, whereas in previous years, the register included all those aged 16 and over with a body mass index greater than or equal to 30 recorded in the previous 12 months.

What practice list sizes are used in calculating prevalence rates?
The 2016-17 QOF information published by NHS Digital includes practice list size. This is sourced from the latest Exeter National Health Application and Infrastructure Services (NHAIS) extract on or before 1 April 2017. In the context of this publication, these list sizes are used as the basis for the calculation of raw clinical prevalence.
Are there issues with prevalence for specific clinical areas?

Other factors in interpreting information on specific registers include the following:

Some clinical areas have 'resolution codes' to reflect the nature of diseases. Others, such as the cancer register, do not.

Some registers require patients to meet certain criteria in addition to having a diagnosis of the relevant condition. For example, to be on the asthma register, patients need a diagnosis of asthma and a prescription for an asthma drug within the year.

Many patients are likely to suffer from co-morbidity, i.e. diagnosed with more than one of the clinical conditions included in the QOF clinical domain. Robust analysis of co-morbidity is not possible using QOF data because QOF information is collected at an aggregate level for each practice and each QOF register is independent of all other QOF registers; there is no patient-specific data within CQRS. For example, CQRS captures aggregated information for each practice on patients with coronary heart disease and on patients with diabetes, but it is not possible to identify or analyse patients with both of these diseases.

Is it possible to obtain QOF prevalence information by age group? I understand that age-specific prevalence information is available.

We do not have age-specific prevalence data from QOF. QOF registers are not broken down by age.

Reference to ‘age-specific prevalence’ relates to those QOF clinical areas where QOF registers exclude certain ages; prevalence rates based on these registers are calculated using appropriate sub-sets of the patient list size.

For example, diabetes registers are expressed as a percentage of patients on practices’ lists who are aged 17 and over.

Register information

Where can I find information about individual patients?
How do I find out about patients with more than one disease?

There are no patient-specific data in CQRS because these are not required to support the QOF. For example, CQRS captures aggregate information for each practice on patients with coronary heart disease and on patients with diabetes, but it is not possible to identify or analyse information on individual patients.

It is not possible, therefore, to identify the number of patients with both of these diseases.
Can I have figures for specific conditions from the Mental Health register, e.g. for schizophrenia, separately?

No. The QOF mental health register is a count, for each GP practice, of the total number of people "with schizophrenia, bipolar disorder and other psychoses". The information is not captured from GP systems at any lower level of aggregation. The data are captured according to this definition to support QOF payments, and the data capture is designed only to meet payment requirements.

Special circumstances

How do I know if practices had special circumstances that have affected QOF achievement?

A validation exercise was conducted in July 2017; NHS Digital invited sub-regions to view the total QOF points for each of their practices as held on CQRS at the point of extraction for the 2016-17 QOF publication.

Sub-regions were asked to confirm that the extract contained all their practices. They were also invited to provide commentary on their practices’ overall QOF achievement, as contained in the CQRS extract. Such commentary was invited because QOF achievement for some practices had not been approved for payment (i.e. was still subject to local sign-off) at the time of the CQRS extract (6 July 2017).

For some practices in England, comments were provided by sub-regions to support the published QOF achievement information. Such comments generally referred to:

- Adjustments to QOF achievement that were agreed locally after the date of the CQRS extract for publication (i.e. after the 6 July 2017)
- Practices where QOF achievement remained subject to local review or appeal
- Practices providing specialist services, such as practices that served university populations or asylum seeker populations
- Practices signing up to a local enhanced service
- Practices that have closed or been involved in a merger, resulting in unexpected QOF data

All notes on practice achievement provided by sub-regions are presented alongside practice-level QOF achievement data on the 2016-17 online practice results database, [https://qof.digital.nhs.uk/](https://qof.digital.nhs.uk/), and in the ‘QOF 2016-17: Practice validation comments’ workbook.

In addition, all sub-regions wished to emphasise that for PMS practices the published QOF achievement figures refer to QOF points achieved prior to the application of PMS deductions. This is because the published information covers QOF achievement, not QOF payments, and therefore it was decided that where GMS and PMS practices have maximum QOF achievement (for example), both will be shown as having achieved 559 QOF points.

Some sub-region specific notes were also received about practice codes that are not included in the QOF publication, for example about practices that participated in the QOF but did not use CQRS, or practice codes that did not participate in QOF.
Comparison

Should I make a league table to show which practices provide the best care or the worst?

Levels of QOF achievement will be related to a variety of local circumstances, and should be interpreted in the context of those circumstances. Users of the published QOF data should be particularly careful in undertaking comparative analysis. The following points have been raised by local healthcare organisations in consultation with NHS Digital:

The ranking of practices on the basis of QOF points achieved, either overall or with respect to areas within the QOF, may be inappropriate. QOF points do not reflect practice workload issues, (for example around list sizes and disease prevalence), that is why practices' QOF payments include adjustments for such factors.

Comparative analysis of QOF achievement, or prevalence, may also be inappropriate without taking account of the underlying social and demographic characteristics of the populations concerned. The delivery of services may be related, for example, to population age/sex, ethnicity or deprivation characteristics that are not included in QOF data collection processes.

Information on QOF achievement, as represented by QOF points, should also be interpreted with respect to local circumstances around general practice infrastructure. In undertaking comparative or explanatory analysis, users of the data should be aware of any effect of the numbers of partners (including single handed practices), local recruitment and staffing issues, issues around practice premises, and local IT issues.

Users of the data should be aware that different types of practice may serve different communities. Comparative analysis should therefore take account of local circumstances, such as numbers on practice lists of student populations, drug users, homeless populations and asylum seekers.

Analysis of co-morbidity (patients with more than one disease) is not possible using QOF data. QOF information is collected at an aggregate level for each practice. There is no patient-specific data within CQRS. For example, CQRS captures aggregated information for each practice on patients with coronary heart disease and on patients with asthma, but it is not possible to identify or analyse patients with both of these diseases.

Underlying all this is the fact that the information held within CQRS, and the source for the published tables, is dependent on diagnosis and recording within practices using practices' clinical information systems.
Further data and re-use of data

What are QOF data used for?

The data are collected primarily to support QOF payments to general practices. They are calculated from the achievement scores allocated to each indicator. The QOF rewards practices for the provision of ‘quality care’ and helps to fund further improvements in the delivery of clinical care.

Although collected primarily to support QOF payments, QOF information is valuable for many secondary uses:
- Department of Health and NHS England - to inform policy
- CCGs - for monitoring and commissioning
- GP practices - to assess performance in context
- Healthcare researchers and by organisations interested in specific care areas (for example diabetes care)
- Public Health England - especially for recorded prevalence analysis
- Care Quality Commission – for use in GP Monitoring http://www.cqc.org.uk/gpmonitoring
- General public – reviewing local GP care information

Can I re-use or publish the QOF data?

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or write to the Information Policy Team, The National Archives, Kew, Richmond, Surrey, TW9 4DU;

or email: psi@nationalarchives.gsi.gov.uk

Where can I find information on QOF for Scotland, Wales and Northern Ireland?

Scotland:
http://www.isdscotland.org/Health-Topics/General-Practice/Quality-And-Outcomes-Framework/

Wales:

Northern Ireland:
How can I obtain a list of practice names and addresses?


Alternatively, address details for individual GP practices can be found on the QOF online search facility https://qof.digital.nhs.uk/

CQRS data

I have a problem with my practice’s data on CQRS reports

The QOF publication team has no role in the management of CQRS.

Any issues with CQRS or GPES systems should be referred to cqrssupport@nhs.net (for CQRS) and enquiries@nhsdigital.nhs.uk (for GPES).

Where can I find information on QOF payments to practices?

NHS Digital does not publish data on QOF payments. For information on QOF payments it would be necessary to contact the relevant sub-region or practice.

The QOF publication is based on an extract of data from the national CQRS system, taken on the 6 July 2017, but relating to the previous financial year (1 April 2016 to 31 March 2017).

However, many practices/sub-regions continue to review QOF achievement (and therefore payments) after the end of July, and any such amendments to achievement would not be included in our publication database. The reason for not publishing financial information ‘as at end of July’ is that this would not always be a robust presentation of final payments, where payments are not agreed until after July.

Disagreement

I do not agree with the published QOF information for my practice

The NHS Digital annual QOF publication is based on an extract from CQRS taken on the 6 July 2017, and relates to the period April 2016 to March 2017.

Prior to publication NHS Digital undertook a validation exercise with all sub-regions to confirm that the total QOF points to be published were as held on CQRS as at 6 July. The exercise also allowed sub-regions to notify NHS Digital of issues or circumstances relevant to practice achievement, including adjustments to QOF achievement (for whatever reason).
Relevant comments from sub-regions are presented alongside practice-level QOF achievement data on the 2016-17 online practice results database, https://qof.digital.nhs.uk/, and in the ‘QOF 2016-17: Practice validation comments’ workbook.

How do I complain about QOF indicators or suggest changes to the QOF?

The National Institute for Health and Care Excellence (NICE) has responsibility for recommending QOF indicators (including changes); this work is undertaken in the context of the development by NICE of Quality Standards. To find out more visit: http://www.nice.org.uk/get-involved/meetings-in-public/qof-advisory-committee