National Diabetes Audit
Data Quality Statement, 2015-2016

Published 13 July 2017
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Introduction

The National Diabetes Audit (NDA) is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and delivered by NHS Digital, formerly the Health and Social Care Information Centre, working in collaboration with Diabetes UK and Public Health England (PHE).

The NDA is a major national clinical audit which measures the effectiveness of diabetes healthcare against NICE Clinical Guidelines and NICE Quality Standards in England and Wales. The NDA collects and analyses data for use by a range of stakeholders to drive changes and improvements in the quality of services and health outcomes for people with diabetes.

The NDA answers four key questions:

1. Is everyone with diabetes diagnosed and recorded on a practice diabetes register?
2. What percentage of people registered with diabetes received the nine NICE key processes of diabetes care?
3. What percentage of people registered with diabetes achieved NICE defined treatment targets for glucose control, blood pressure and blood cholesterol?
4. For people with registered diabetes what are the rates of acute and long term complications (disease outcomes)?

The NDA aims to improve the quality of patient care by enabling NHS organisations to:

- compare their outcomes of care with similar NHS organisations
- identify and share best practice
- identify gaps or shortfalls in commissioning services
- assess local practice against NICE guidelines and drive service improvement
- provide a more comprehensive picture of diabetes care and outcomes in England and Wales.

Through participation in the audit, local services are able to benchmark their performance and identify where they are performing well and also improve the quality of treatment and care they provide. On a national level, wide participation in the audit also provides an overview of the quality of care being provided in England and Wales.

Relevance

Data is extracted from general practice clinical systems and specialist service units in secondary care hospitals. The audit is a voluntary audit for GP practices, meaning GP practices have to opt in to be included. For specialist service units, participation in the audit is mandatory. In 2015-2016, the participation rate was 82.4 per cent of all GP practices in England and Wales with 98 specialist service units participating in England and a further 10 LHB supplying information for the NDA pump audit.

Considerable effort has been made by Welsh Health Boards to encourage and support their GP practices to participate in the audit which has resulted in 100 per cent participation of GP practices in Wales. For the first time this year the audit has collected insulin pump data in Wales where specialist service units have an insulin pump clinic and wanted to participate.

The information collected from GP practices for the audit is individual level data and contains demographic information such as age, sex, ethnicity, diabetes duration and geographic variables such as postcode. As the data collected is identifiable data, it is subject to dissent, meaning patients can dissent from the NDA. This means that the registrations for people with diabetes captured may not be a true reflection of the whole population of people with diabetes for that GP practice.

Accuracy and Reliability

The 2015-2016 audit covers the majority of England and Wales with a participation rate of 82.4 per cent. Participation was published at Clinical Commissioning Group (CCG) and Local Health Board (LHB) level. Caution should be taken when looking at areas with low participation. Participation in the Audit for 2015-2016 can be found here.

Information is collected from GP clinical systems and equivalent data is collected from secondary care settings. The collection occurs over a six week period and GP practices and secondary care units provide the information. During this window, data quality is conducted on the key fields contained within the data.

The HES APC data set is a long established data source and data quality is considered to be good. It holds detailed patient level records going back to 1989 for inpatient episodes. It is the data source for a wide range of healthcare analysis used by a variety of people including the NHS, government, regulators, academic researchers, the media and members of the public. More information on data quality can be found here.

ONS mortality statistics represent all deaths which take place in England and Wales. Figures are compiled using information collected when a death is certified and then registered as part of civil registration, a legal requirement. More information can be found here.
Testing
The method of selecting the relevant fields from the GP systems is via read codes. The list of codes is available upon request. The Primary Care Information Service (PRIMIS) developed the extract specifications and these were tested on a number of system types prior to opening the data collection window.

Validation
A provisional report is produced for each CCG which provides a comparison to the Quality and Outcomes Framework (QOF) data on people registered as having diabetes and an overall figure on the care process completion and the treatment target achievement. This provides an opportunity for CCGs to address any data quality issues with the GP practices and re-submit the data.

One file was submitted for Wales by NHS Wales Informatics Service (NWIS) for the 2015-16 audit year and validated.

Internal validation is completed on receipt of the automated extracts to ensure that there are no systematic issues with the data and these are resolved where possible within the collection window.

Timeliness and Punctuality

Timeliness
The 2015-16 audit collected data covering the period 1st January 2015 to 31st March 2016. The data was collected between June and August 2016. It was processed and ready to analyse in November 2016 and published on 31st January 2017.

Punctuality
Report 2 is published 16 months after the end of the audit year to account for HES follow up periods; the audit year ended in March 2016 and the report was published in July 2017. Reports will be produced and data will be presented at National level for England and Wales and also English CCG level.

Accessibility and Clarity

Key findings and recommendations are presented in a PDF report and a PowerPoint presentation to aid dissemination of results locally within CCGs and LHBs. Supplementary information is provided in Excel format for ease of interrogation and further analysis by users.

Web links to the technical specifications of the data are available through the NHS Digital website and are available here https://digital.nhs.uk/nda

The key elements of the data collection are presented in the methodology document on the NHS digital website http://www.digital.nhs.uk/pubs/ndauditcm1315.
Coherence and Comparability

Comparability over time

The NDA has been running since 2003-2004, however there is inconsistency in how the data has been processed prior to 2009-2010. Therefore caution should be taken when looking at earlier years of the audit data.

Due to the nature of the audit, and the fact that it is not mandated, users should also bear in mind the differences in participation over time.


There was a drop in participation in the 2013-2014 and 2014-2015 audit collections due to changes in the way the data was collected from GP practices. There was increased complexity to the processes for registrations and submissions due to new Information Governance ‘opt-in’ requirements. The collection used to be on an opt-out basis. Changes to the Confidential Advisory Group (CAG) requirements meant that from 2013-2014 this changed to an opt-in basis. The new governance meant that GP practices had to actively give permission for their data to be extracted or extract the information themselves and provide it directly to the audit.

Participation of GP practices in England is variable across the country. This may be due to the varied levels of support for participation offered to GP practices by CCGs.

Analysis was completed to ensure that the data collected for 2013-2014 and 2014-2015 was representative both in demographics and in performance:

- There was some change in the age profile of the cohort of patients included in the audit in these collections. As usual, complication and mortality ratios in Report 2 have been standardised by age, sex and locality.
- A supplementary cohort of people with diabetes was included in the 2013-14 and 2014-15 audit periods for analyses throughout Report 2. Please see the supporting NDA Report 2 methodology document for further details.
Comparable with other sources

QOF collects information on people registered with diabetes; however this is only broadly comparable as there are differences in the collection period and the definitions of the indicators. More information on the differences can be found here.

QOF collects the number of patients aged 17 years and above with Type 1 and Type 2 diabetes, QOF is an aggregated return and is mandatory for GP practices to participate. The table below compares the number of diabetes registrations in the NDA with the number of diabetes registrations in QOF and shows the case ascertainment based on this.

Diabetes registrations for Type 1 and Type 2 diabetes for patients aged 17 years and over in England and Wales by audit year

<table>
<thead>
<tr>
<th>Country</th>
<th>Audit year</th>
<th>NDA registrations¹</th>
<th>QOF registrations</th>
<th>Percentage of patients recorded in NDA compared with QOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>2015-2016</td>
<td>2,530,561</td>
<td>3,033,529</td>
<td>83.4%</td>
</tr>
<tr>
<td></td>
<td>2014-2015</td>
<td>1,702,610</td>
<td>2,913,538</td>
<td>58.4%</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td>1,586,380</td>
<td>2,814,004</td>
<td>56.4%</td>
</tr>
<tr>
<td></td>
<td>2012-2013²</td>
<td>1,937,705</td>
<td>2,703,044</td>
<td>71.7%</td>
</tr>
<tr>
<td></td>
<td>2011-2012</td>
<td>2,269,580</td>
<td>2,566,436</td>
<td>88.4%</td>
</tr>
<tr>
<td></td>
<td>2010-2011</td>
<td>2,086,593</td>
<td>2,455,937</td>
<td>85.0%</td>
</tr>
<tr>
<td>Wales</td>
<td>2015-2016</td>
<td>190731</td>
<td>188,644</td>
<td>101.1%</td>
</tr>
<tr>
<td></td>
<td>2014-2015</td>
<td>176,472</td>
<td>183,348</td>
<td>96.2%</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td>159,981</td>
<td>177,212</td>
<td>90.3%</td>
</tr>
<tr>
<td></td>
<td>2012-2013²</td>
<td>120,152</td>
<td>173,299</td>
<td>69.3%</td>
</tr>
<tr>
<td></td>
<td>2011-2012</td>
<td>137,768</td>
<td>167,537</td>
<td>82.2%</td>
</tr>
<tr>
<td></td>
<td>2010-2011</td>
<td>83,802</td>
<td>160,533</td>
<td>52.2%</td>
</tr>
</tbody>
</table>

¹NDA data is collected over a 15 month period, between 1st January and 31st March, whereas QOF data is collected over a 12 month period, between 1st April and the 31st March. Therefore, the figures are not directly comparable.

²In 2012-2013 QOF methodology was updated to include all diabetes (apart from gestational diabetes), not just type 1 and type 2. NDA methodology has been updated in accordance
Assessment of User Needs and Perceptions

The NDA advisory group (consisting of patient representatives, Diabetes UK, clinicians, GP representatives, researchers and interested analysts from NHS Digital and Public Health England) provide advice on both analysis and content of the reports as well as the direction and development of the audit.

The NDA team has an active role in the National Cardiovascular Health Intelligence Network (NCVIN) workshops to gain a better understanding of how the CCGs and localities use the data and how we can improve the publication and supporting information. These workshops are conducted quarterly, are co-ordinated by Public Health England (PHE) and bring together epidemiologists, analysts, clinicians and patient representatives.

NHS Digital is keen to gain a better understanding of the users of this publication and of their needs. Your feedback is welcome and may be sent to enquiries@nhsdigital.nhs.uk (please include ‘National Diabetes Audit’ in the subject line).

Alternatively you can call our enquiries team on 0300 303 5678

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