



Health & Social Care  
Information Centre

# National Diabetes Audit

**Data Quality Statement, 2014-15**



**We are the trusted  
national provider of  
high-quality information,  
data and IT systems for  
health and social care.**

---

**[www.hscic.gov.uk](http://www.hscic.gov.uk)**

**[enquiries@hscic.gov.uk](mailto:enquiries@hscic.gov.uk)**

 **[@hscic](https://twitter.com/hscic)**

This report is of particular interest to healthcare providers and commissioners to monitor the quality and effectiveness of services, researchers and charities working on this subject and to members of the public.

**Author:** Clinical Audit Support Unit,  
Health and Social Care Information Centre

**Version:** V1

**Date of publication:** 28 January 2016

## Contents

<b>Introduction</b>	<b>4</b>
<b>Relevance</b>	<b>5</b>
<b>Accuracy and Reliability</b>	<b>5</b>
Testing	6
Validation	6
<b>Timeliness and Punctuality</b>	<b>7</b>
Timeliness	7
Punctuality	7
<b>Accessibility and Clarity</b>	<b>7</b>
<b>Coherence and Comparability</b>	<b>8</b>
Comparability over time	8
Reduction in Participation in 2013-14 and 2014-15	8
Comparable with other sources	8

## Introduction

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

The National Diabetes Audit 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 National Diabetes Audit (NDA) answers four key questions based on the diabetes National Service Framework (NSF):

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 NSF for diabetes and 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 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 collected via automated and manual extraction from General Practice Clinical Systems and Secondary Care Hospitals. The audit is a voluntary audit and GP practices have to opt in to be included. The participation rate was 57.1 per cent and 57.3 per cent of all GP practices in England and Wales for 2013-14 and 2014-15 respectively. Ninety nine Secondary Care Units participated in 2014-15 for England.

Primary and secondary care services are joined in Wales and considerable effort has been made by Welsh health boards to encourage and support their GP's to participate in the audit.

The information collected from GP Practices for the audit are individual level data and so contain demographic information such as age, sex, ethnicity, diabetes duration and some geographic variables such as postcode. As the collection is individual person identifiable data it is subject to dissent, and patients can dissent from the diabetes audit, all national audits, and from their data being transferred to the Health and Social Care Information Centre (HSCIC). This means that the diabetic registrations captured may not be a true reflection of the whole diabetic population for that GP Practice.

## Accuracy and Reliability

The audit covers the majority of England and Wales with a participation rate of 57.3 per cent in 2014-15. Participation is published at Clinical Commissioning Group (CCG)/ Local Health Board (LHB) level to provide the information for users of the data. Caution should be borne in mind when looking at areas with low participation.

Participation in the Audit for 2013-14 and 2014-15 can be found [here](#).

Information is collected from GP administrative 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 information is presented at GP level for the first time in the 2013-14 and 2014-15 audits.

The audit report only includes information on eight of the nine care processes due to an issue in the data collection identified in the 2011-2012 audit. The issue was an inconsistency in how eye screening was being recorded in GP records, so this care process is not covered in the audit.

There are a number of data quality issues the reader needs to be made aware of when looking at the data included in the report.

1. The Urine Albumin/Creatinine Ratio Care Process

There is a 'health warning regarding the screening test for early kidney disease (Urine Albumin Creatinine Ratio, UACR) prior to 2013-14.

Caution should be borne in mind when looking at the variation across CCG's for this care process overtime.

It was found that some areas were recording the albumin value as a text field and this was not feeding through to the audit via our extractions.

This method of recording is thought to be due to the different ways this test is carried out in localities. Although the values are not brought through to the dataset the dates for these values now are, this means that even if the value is not extracted the date the test took place is. This date is used to determine if the care process has taken place.

The 2013-14 and 2014-15 data was extracted in a consistent way across all service providers. This resulted in better performance for the albumin care process completion in 2013-14. However, due to the retirement of the Quality Outcomes Framework (QOF) indicator and the potential for the focus of GP Practices to shift, the performance in recording this care process fell in 2014-15.

## 2. Blood Pressure Treatment Target

There is a data quality issue for the blood pressure treatment target for a small number of practices (31 practices in 2013-14, and 32 practices in 2014-15). A reading for systolic blood pressure has been recorded but measurements for diastolic blood pressure are incomplete, these patients have been recorded as not meeting the treatment target. This issue does not affect the recording of whether the annual check for blood pressure took place.

## 3. The HbA1c Care Process

There is an issue with data supplied to the HSCIC for a large number of GP practices in the 2011-12 Audit, regarding HbA1c (blood glucose) recording. While this did not materially affect the findings in the National report, the CCG level care process and treatment target reports covering potentially affected practices for the 2011-12 publication have been removed from our website. The issue is restricted to the 2011-2012 data

## Testing

The method of selecting the relevant fields from the GP systems is via Read codes. The list of codes is available on 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 Outcomes Framework 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 Informatics Service for each 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.

Any data quality issues with the data are included alongside analysis to make readers aware. For example, “eye screening” - this information was removed from the 2011-2012 publication as the data was not deemed reliable, and the following statement was added to the report.

“To improve alignment with NICE guidelines, a revised Read code set of terms describing digital eye screening was used. This identified that variation in the use of terminology and its impact on the consistency of data extraction from electronic clinical records rendered it unreliable as a measure of this care process. The NHS Diabetic Eye Screening Programme (NHS DESP) records every digital eye screening and we believe that its records should now be used as the preferred measure for this annual care process. Presently this is reported only nationally.”

## Timeliness and Punctuality

### Timeliness

In response to feedback from NDA users an acceleration process has occurred, whereby collecting in 2015 for the 2013-14 and 2014-15 Audit years. The aim in future is to report in line with the Quality Outcomes Framework (QOF), 8 months after the audit year ends. Reports will be produced and data will be presented at National, CCG, LHB and General Practice level.

### Punctuality

For this report there was a slight delay and the time lag is 10 months after the audit year ends.

## 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. Data is provided in excel format.

Web links to the technical specification of the data are available through the HSCIC website and are available here <http://www.hscic.gov.uk/nda>

The key elements of the data collection are presented in the methodology document on the HSCIC website.

Link to the report and data files: <http://www.hscic.gov.uk/pubs/ndauditcorerep1415>

## Coherence and Comparability

### Comparability over time

The NDA has been running since 2003-04. However there is inconsistency in how the data has been processed prior to 2009-10; therefore caution should be taken when looking at earlier years.

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.

Where the definition of a care process or treatment target has changed, a time series is produced to allow valid comparisons over time.

In the 2012-2013 audit, the Blood Pressure Target was amended and a paper was produced to show the impact of this change on the data previously published and can be found [here](#).

### Reduction in Participation in 2013-14 and 2014-15

There has been a drop in participation in the 2013-14 and 2014-15 audit collections due to changes in the way the data was collected from GP Surgeries following the increased complexity of registration and submission due to new Information Governance 'opt in' requirements. Collection used to be on an opt out basis Confidential Advisory Group (CAG) requirements meant that for 2013-14 and 2014-15 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 is variable across the country. This may be due to the varied levels of support for participation offered to GP Practices by Clinical Commissioning Groups (CCG's) and Local Health Boards (LHB's)

Analysis has been completed to ensure that the data collected is representative both in demographics and in performance:

- There has been some change in the age profile of the cohort of patients included in the audit in the latest collections. Standardising results for this leads to only a very slight change in the national figures, so for simplicity of interpretation and explanation the results have not been standardised.
- With a reduction in participation there was the potential for those practices taking part to be self-selecting towards those that have performed well. Analysis has been carried out on those practices that have participated in the latest collections and also earlier collections. This suggests that there is no bias towards high performing practices taking part.

### Comparable with other sources

The 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](#).

The QOF collects the number of patients with diabetes 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

Country	Audit year	NDA registrations <sup>a</sup>	QOF registrations	Percentage of patients recorded in NDA compared with QOF
England	2014-2015	1,702,610	2,913,538	58.4%
	2013-2014	1,586,380	2,814,004	56.4%
	2012-2013 <sup>b</sup>	1,937,705	2,703,044	71.7%
	2011-2012	2,269,580	2,566,436	88.4%
	2010-2011	2,086,593	2,455,937	85.0%
Wales	2014-2015	176,472	183,348	96.2%
	2013-2014	159,981	177,212	90.3%
	2012-2013 <sup>b</sup>	120,152	173,299	69.3%
	2011-2012	137,768	167,537	82.2%
	2010-2011	83,802	160,533	52.2%

<sup>a</sup>NDA 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.

<sup>b</sup>In 2012-13 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 National Diabetes Advisory group (consisting of patient representatives, Diabetes UK, clinicians, GP representatives, researchers and interested analysts from the HSCIC 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 CCG's and localities use the data and how we can improve the publication and supporting information. These workshops are conducted quarterly and are co-ordinated by Public Health England (PHE) and bring together epidemiologists, analysts, clinicians and patient representatives.

The HSCIC 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 [enquires@hscic.gov.uk](mailto:enquires@hscic.gov.uk) (please include 'National Diabetes Audit' in the subject line).

Alternatively you can call our contact centre on 0300 303 5678 or write to HSCIC, 1 Trevelyan Square, Boar Lane, Leeds, LS1 6AE.

**Published by the Health and Social Care Information Centre  
Part of the Government Statistical Service**

This publication may be requested in large print or other formats.

---

**For further information**

**[www.hscic.gov.uk](http://www.hscic.gov.uk)**

**0300 303 5678**

**[enquiries@hscic.gov.uk](mailto:enquiries@hscic.gov.uk)**

Copyright © 2016 Health and Social Care Information Centre. All rights reserved.

This work remains the sole and exclusive property of the Health and Social Care Information Centre and may only be reproduced where there is explicit reference to the ownership of the Health and Social Care Information Centre.

This work may be re-used by NHS and government organisations without permission.