

Data Quality and Methodology Statement – Monthly Diagnostic Waiting Times and Activity

1. Introduction

This statement relates to the monthly diagnostics waiting times and activity statistics. It aims to provide users with information on usability and fitness for purpose of these statistics.

In addition to the monthly diagnostic waiting times and activity statistics, NHS England publish quarterly diagnostic waiting times statistics and annual Imaging and Radio diagnostics statistics, but these are not covered by this statement.

2. Summary of Quality

Relevance

(The degree to which the statistical product meets user needs for both coverage and content.)

These statistics measure waiting times for each of the key 15 diagnostic tests for patients still waiting for a test on the last day of each month and the total number of tests carried out during each month. They have been published since January 2006 and are collected at an aggregate level from providers of diagnostic tests for NHS patients. They provide high level performance information relating to each of the key 15 diagnostic tests against the national standard; that less than 1% of patients should wait 6 weeks or longer for a diagnostic test. This standard forms part of both the NHS Constitution and NHS England's Everyone Counts: Planning for Patients 2013/14.

These statistics are used to provide information to the public, to highlight current waiting times, and can be used to assess activity trends over time. They enable commissioners and NHS England to monitor performance against the national standard and identify bottlenecks that could lead to problems in delivering the Referral to Treatment (RTT) waiting time standard. Other uses of the data include monitoring activity levels in response to national screening programmes.

The main users of the data are NHS England, Department of Health, Monitor and the NHS Trust Development Authority, who use the data to monitor performance against the national standard. Other users of the data include the NHS, patients, researchers, academics and members of the public.

The creation of a diagnostic waiting times collection was the first step in monitoring the Referral to Treatment (RTT) 18 week standard, introduced in the NHS Improvement Plan in June 2004, for implementation by December 2008. Until then, the only waiting times available were for inpatient and outpatient waits, and at the time diagnostics were a key omission in the set of data necessary to measure the full treatment pathway of a patient.

High quality care for all, now and for future generations

The set of 15 tests was derived in 2004 by key users such as clinical leads within DH, Connecting for Health, and also pilot sites within the NHS. The tests were selected to cover high volumes and potential long waits. In addition to the 15 tests, a quarterly census was set up to report any long (over 6 week) waits for any other diagnostic tests not in the 15 key tests.

Accuracy

(The closeness between an estimated result and the (unknown) true value.)

There is no single way to measure the accuracy of waiting times due to the aggregated format of the data. In particular, there is no way to identify if providers are applying the rules correctly on when a clock can be restarted or stopped. However, as the information should be used within the organisation for operational delivery, it is expected that the returns from individual organisations are signed off at director level and provide an accurate reflection of the situation in that organisation.

NHS England undertakes high level validations of the data submitted by NHS trusts to identify any large errors in the data. These validation routines include querying large differences month on month and trusts with a large number of patients waiting 6 weeks or longer. However, due to the fast turn round nature of these statistics, some queries may remain unsolved and every error may not be picked up. Errors can occur due to a variety of reasons, but are mainly due to the accuracy of the data received from trust. In order to improve the accuracy, we try to minimise the number of data items that are collected and improve the clarity of the [guidance](#) and supporting [FAQs](#) to help trusts complete the returns accurately. NHS England is currently working to improve guidance available to NHS trusts.

One dimension of accuracy is reliability, which can be measured using evidence from analysis of revisions to assess the closeness of original data to revised data. Revisions are permitted and any revisions are published at 6 month intervals in accordance with NHS England's revision policy that can be found [here](#). The impact of revisions are published alongside the revisions in that particular monthly release. Generally, the impact of revisions is very small at national level and doesn't impact upon the long term trends in the statistics.

We are aware of a few data quality issues with the data, especially in relation to coverage. One specific issue relates to independent providers, where we cannot guarantee that all small providers are submitting data. Whilst NHS England can encourage independent providers to submit data, we cannot assure users that all independent providers do submit data. Also, there may be a very rare occasion where a NHS trust fails to submit data in time for the publication. Again, this is highlighted in the monthly release and in the Excel spread sheets.

In addition, there may be shortfalls in coverage in particular months due to new Radiology Information Systems (RIS) being implemented in trusts. NHS England aims to make users aware where this is the case in the relevant month by listing the affected trusts in the Excel spread sheet.

Timeliness and Punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time between the actual and planned dates of publication.)

These statistics are published on a monthly basis approximately 5-6 weeks after the end of the month to which they relate. Publication dates are announced up to 12 months in advance on the NHS England website. NHS England has consistently met its planned publication dates. If there are any changes to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully as set out in the Code of Practice for Official Statistics. The short turn around on these statistics reflects that the data is been collected via an aggregate return.

Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format(s) in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.)

A statistical report is published on NHS England Website and is available free of charge alongside all of the supplementary tables, which are available at a national level, by NHS commissioner and by NHS provider. The data is provided in several formats including downloadable narrative and graphs in PDF format, excel files and CSV's (machine readable file).

The statistical release includes background notes to aid user understanding and interpretation. A summary of key words is also included in Excel downloads.

We have recently improved the website to improve accessibility to these statistics. In particular, we have improved the navigation of the website and the ease to which it can be accessed from the homepage. The data are available to download after 09:30am on day of publication, as the NHS England website now ensures that the data are published at 09:30.

In addition, NHS organisations are able to download the data for their organisation from Unify2 and for all organisations after publication.

Coherence

(The degree to which data that are derived from different sources or methods, but refer to the same phenomenon, are similar.)

Alongside the monthly diagnostic waiting times and activity publication, NHS England also publishes a quarterly census and an annual publication on imaging and radiodiagnostics. The quarterly census only collects data on longer diagnostics waits (6 weeks and over), but covers all diagnostics tests as opposed to just the key 15 tests. It is similar to the monthly publication in that it counts the number of patients waiting on the last day of the quarter, whereas the monthly publication counts the number of patients waiting on the last day of each month. Hence, if a patient is waiting 6 weeks or longer for a diagnostic test on the last

day of the quarter, then they will appear in both the quarterly publications and the relevant monthly publication. The quarterly census was designed to capture all of the long waits in all diagnostic tests. This is because a NHS provider could be performing well on the key 15 tests, but have a large number of long waits in other areas that are not covered in the monthly publication. The annual publication only collects activity on the number of imaging and radiodiagnostic tests undertaken in the year. Whilst there is some overlap with the imaging tests on the monthly data, some additional tests are included in the annual data. The main test that is included in the annual data, but is not on the monthly data is X-Rays.

In addition to diagnostic waiting times, statistics are also published on RTT waiting times. Whereas diagnostic waiting times measure the wait for individual tests, RTT measures the full pathway of a patient from referral to treatment. In many cases, the diagnostic wait will be part of a wider RTT pathway. The measurement of diagnostic waiting times does allow for adjustments to be made in certain circumstances, e.g. patient cancels test. Details on these can be found in the full guidance notes

Waiting times for tests performed as a hospital inpatient can also be derived from Hospital Episode Statistics (produced by the Health and Social Care Information Centre from patient level data). These figures will be in their 'raw' form and not contain any adjustments. Also, the monthly diagnostics publication counts patients still waiting at the month end, whereas HES would measure the full wait to the test being undertaken. HES would also only pick up patients seen as either an inpatient or outpatient. This would apply to some tests such as endoscopies, but not ones such as audiology or ultrasound scans

Comparability

(The degree to which data can be compared over time and domain.)

Waiting time statistics for diagnostic tests were first published in January 2005 and have been published on a monthly basis since. Information has been collected on the length of time (in weeks) patients have been waiting for one of the key 15 diagnostic tests on the last day of each month. This information is collected in weekly time bands, of which there were initially 53. In 2009, the number of weekly time bands was reduced to just 14 as a result of waiting times decreasing. As a result, it was no longer possible to obtain a breakdown of patients waiting longer than 13 weeks from April 2009. In addition, data has been collected on the total number of diagnostic tests undertaken in each month since January 2005, with the exception of May 2005, where no activity data was collected. Every effort is made to ensure data is comparable over time. However, changes were made to the definition of Audiology tests in October 2006. This involved widening the scope from Pure Tone Audiometry only, to all audiology tests. Hence, data prior to October 2006 was no longer comparable for this set of tests and the latest data is comparable back to October 2006.

Changes to the NHS structure over time have resulted in the sub-national time series not been comparable back to 2006. The most recent changes occurred in April 2013, where Clinical Commissioning Groups (CCGs) replaced Primary Care Trusts (PCTs) as the commissioners of NHS services. In addition, NHS England started to nationally commission some highly specialised services alongside

CCGs. This has resulted in the data relating to these services that are nationally commissioned to be no longer attributable to a geographical area. Therefore, any data at a regional or sub regional level is only comparable back to April 2013.

Comparative waiting times information is not possible at present using these data due to inconsistencies in definitions of waiting times for treatment across the four countries. Key differences include there being different waiting times standards between the different countries and differences between the number of key tests included by the different countries. Some specific details for each country are as follows:

Scotland

The data published by NHS Scotland only includes waiting times for 8 diagnostic tests, as opposed to the 15 tests in England. In addition, there is a small difference in how the waiting times are calculated. In Scotland, the waiting time is measured from the date that the request for the test is received to the date when the verified report has been received or made available to the requester. This is in comparison to England where the waiting time starts from the date of GP referral to the date when the test is undertaken. Data for Scotland can be found here:

<http://www.isdscotland.org/Health-Topics/Waiting-Times/Publications/index.asp#1092>

Wales

The data published for Wales covers diagnostic services and Therapy services, both of which are subject to different waiting times standards. The standard for diagnostic services is 8 weeks, compared to 6 week in England. The diagnostic services that are included are similar to the 15 tests that are included in the England data. The standard for Therapy services is 14 weeks and none of the tests that are included in the Wales data are included in the England data. In Wales, the waiting time is measured from the date that the request for the test is received to the date when the test is carried out. This is in comparison to England where the waiting time starts from the date of GP referral to the date when the test is undertaken. Data for Wales can be found here:

<http://wales.gov.uk/topics/statistics/theme/health/nhsperformance/waiting-times/?jsessionid=CBD497C53E0037B3071B76458DD4C510?lang=en>

Northern Ireland

The data for Northern Ireland covers 10 diagnostic tests, of which the majority of these are included within the 15 tests in England. However, a different waiting time standard applies in Northern Ireland of 9 weeks for all diagnostic tests, apart from 13 weeks for a day case endoscopy. In Northern Ireland, is measured from the date that the request for the test is received to the date when the test is undertaken. This is in comparison to England where the waiting time starts from the date of GP referral to the date when the test is undertaken.

http://www.dhsspsni.gov.uk/index/stats_research/hospitalstats/waiting_times_mai n/stats-waiting-times.htm

3. Summary of methods used to compile outputs

The data used in these statistics are collected on an aggregate form called DM01 via Unify2. Unify2 is NHS England's standard online tool for the collection and sharing of NHS performance data. Data is submitted against the commissioner responsible for the patient's treatment. Once data is submitted, it is checked and signed-off by commissioners. NHS England also performs central validation checks to ensure good data quality. Data can then be aggregated by NHS provider or NHS Commissioner. Due to the data being collected in an aggregate format, it is not possible for further breakdowns of the data to be obtained such as by age, sex, diagnosis etc. NHS England does publish the full dataset as collected in the form of a csv file alongside the summary spreadsheets

4. Other information

Output Quality Trade-offs

A trade-off is made between accuracy and timeliness. These statistics are timely in that they are published approximately 5-6 weeks after the month to which they relate, but may be less accurate than other similar publications. Due to the timely nature of these statistics, errors can still be present in the final publication due to providers having a short time to validate their data prior to submission.

Performance, Cost and Respondent Burden

The costs of collecting the monthly diagnostics data across the NHS are estimated to be around £296,000. The cost to NHS England of validating and disseminating the data are estimated to be £35,000.

Some data suppliers have made us aware that completing the monthly data return requires considerable staff time, as manual processes are involved. This is because some data suppliers are not set up as well as others with their Patient Administration System. It is the responsibility of the supplier of the system to ensure that providers of NHS care have their system set up to satisfy mandated data collections as well as their operational needs. The data collection is approved by the Information Standards Board (ISB) for Health and Social Care, which means that the system suppliers are mandated to make sure the systems meet ISB standards (under their contract) for returns specified in the NHS Data Dictionary. By doing this, it makes it easier for trusts to submit the returns and reduces the amount of time required to submit the returns.