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NHS
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Outpatient data quality report 2009-10

Contents

Introduction

Outpatient data was first collected in 2003-04, with the first report published in 2006 – 'Reporting outpatient journeys: Hospital outpatient activity in 2003-04 and 2004-05'. This is the fifth data quality report produced, covering the time period, 2005-06 to 2009-10. For information about previous data quality reports, please see Appendix D. The 2008-09 and 2007-08 reports have been replaced with this report.

In preparing this report, five years of outpatient data (2005-06, 2006-07, 2007-08, 2008-09 and 2009-10) have been examined to look at the data quality issues which arose in these years and whether improvements have been made over time.

Certain events and changes to legislation will have driven improvements in the quality of the data, namely the 18 Week Waits target and Payment by Results (PbR) policy. It was thought that this would lead to increased submission of non-mandated fields and greater care with validity and accuracy of content. This report examines whether there have been improvements.

As of 2006-07, published outpatient tables were accredited as a National Statistic. This means the data within those reports were produced in accordance with the 'Code of Practice for Official Statistics'[1]. This does not apply to the outpatient dataset as a whole or ad hoc reports created from the datasets because some quality and coverage issues remain with certain fields which do not feature in the published tables; these issues are discussed in this document.

This document is aimed to supplement a variety of data quality programmes and initiatives at The NHS Information Centre (NHS IC). This includes the Secondary Uses Service (SUS) data quality dashboard[2], increased transparency in HES cleaning rules and derivations[3] and comparative data sources such as NHS Comparators[4].

How to use this report

The outpatient commissioning dataset (CDS) data examined in this report is deemed usable for a wide range of purposes but due care and attention should be paid to the potential weaknesses highlighted in this report.

Operational users

NHS users of current outpatient CDS data to support operational purposes, such as PbR and 18 Week Waits, should use this report to become familiar with the types of data quality issues which may still exist in the current data and consequently be affecting their business, possibly adversely. They should check their own data or data shared with them by providers for such problems and address them accordingly. This may require adjustments or use of alternative sources initially but should lead to timely correction of the problems via system improvements or data capture and flow processes.

Analysts

Users wishing to analyse the outpatient data for whatever purpose also need to become very familiar with the content of this report. Failure to do so is likely to lead to invalid or misleading conclusions. In

[1] Code of Practice: UK Statistics Authority [http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html].
[2] SUS Data Quality Dashboard; Secondary Uses Service (SUS) - Data Quality Dashboards | The NHS Information Centre [http://www.ic.nhs.uk/services/secondary-uses-service-sus/using-this-service/data-quality-dashboards].
[3] Cleaning rules: outpatients: HESonline [http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=376].
[4] NHS Comparators: NHS Comparators — NHS Connecting for Health [https://www.nhscomparators.nhs.uk/].

particular, this report should be used in conjunction with the HES Outpatient Data Dictionary[5], which describes fields that are contained within HES outpatients data.

Customers for analyses

Customers of the data who are not themselves analysts need only become familiar with the fact that there are data quality issues with the outpatient CDS data and to ensure that those carrying out analyses on their behalf have taken them into consideration and applied adjustment factors or provided caveats for use if necessary.

All users

Users are encouraged to read previous data quality reports. Please see Appendix D for more information.

Basis for the findings

There were two bases for this evaluation of the NHS IC HES outpatient data: completion and validity of fields.

Completion and validity of fields within the dataset were assessed against previous years' data. This enabled assessment of whether fields were completed and whether agreed codes were being used.

Following a review of the 2007-08 and 2008-09 Outpatient Data Quality Report some updates have been made to the current publication. In the 2007-08 and 2008-09 data quality report, coverage of HES outpatient data submissions were compared to the Department of Health Quarterly Activity Return for Referrals and Attendances for Outpatient Appointments[6]. Following the review the decision was taken to no longer calculate coverage by comparing these two data collections as they are not directly comparable. This is because HES outpatient data includes consultant-led and some non consultant-led (for example allied health professionals) activity, whilst the Department of Health outpatient data collection does not. For this reason, Table 1 has been adapted to look only at HES outpatient data submissions, and tables 7 and 8 have been removed. To compare the coverage of the Department of Health and HES outpatient data collections please visit the SUS Data Quality Dashboards (see footnote 2).

The majority of the analysis used in this report covers the period 2005-06 to 2009-10, showing analysis over the past five years. Some analysis may contain data prior to 2005-06 for further comparisons.

Please note: in 2008-09 there were new data items added to the 'Attendance Type' field within outpatients. The new data items include the recording of telephone consultations (tele consultations). Previously these data items have been recorded under the first/subsequent or unknown attendance category, but are now identified separately.

[5] Outpatient Data Dictionary [www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289].
[6] Referrals and attendances for outpatient appointments, Department of Health [http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/HospitalActivityStatistics/DH_077454].

Overall coverage

Overall coverage

In 2009-10 there were a total of 84,198,458 outpatient appointments, an increase of 12.5% on the previous year. In 2009-10 (including unknown attendance, DNA, hospital and patient cancellations and not known), 0.9% of outpatient appointments were recorded as unknown. This compares to 0.8%, 1.2%, 0.9% and 1.0% in 2005-06, 2006-07, 2007-08 and 2008-09 respectively.

As previously mentioned there were new attendance type items added in 2008-09, which included the recording of tele consultations. Previously tele consultations did exist, however, they were recorded within the other attendance type data items and are now identified separately.

Table 1 - Attendance type, 2005-06 to 2009-10

Attendance type	Attendance type description	2005-06	2006-07	2007-08	2008-09	2009-10
	Total appointments	**60,608,403**	**63,217,226**	**66,649,484**	**74,853,493**	**84,198,458**
1	Attended first appointment	14,918,796	15,347,684	16,535,501	18,697,457	20,782,376
2	Attended subsequent appointment	35,039,342	36,334,987	37,787,423	41,759,993	46,222,116
3	Attended but first/subsequent/tele unknown	80,529	257,164	92,834	25,184	100,723
4	Did not attend first appointment	1,198,659	1,266,567	1,385,956	1,519,988	1,764,802
5	Did not attend subsequent appointment	3,818,089	3,993,179	4,145,150	4,440,368	4,861,848
6	Did not attend, first/subsequent/tele unknown	16,655	52,220	22,138	28,832	51,037
7	Patient cancelled first appointment	622,738	663,925	812,308	1,039,460	1,393,577
8	Patient cancelled subsequent appointment	1,806,853	1,943,618	2,225,131	2,765,984	3,380,353
9	Patient cancelled appointment, first/subsequent/tele unknown	15,612	59,691	88,645	108,092	83,203
10	Hospital postponed/cancelled first appointment	436,379	512,203	566,719	698,160	1,032,834
11	Hospital postponed/cancelled subsequent appointment	2,294,473	2,372,917	2,569,739	3,019,225	3,676,351
12	Hospital postponed/cancelled appointment, first/subsequent/tele unknown	27,135	72,454	110,755	152,504	134,987

Table 1 continued

Attendance type	Attendance type description	2005-06	2006-07	2007-08	2008-09	2009-10
13	Not known	333,143	340,617	307,185	464,237	374,155
21	Attended first tele consultation	NA[1]	NA[1]	NA[1]	37,435	69,228
22	Attended subsequent tele consultation	NA[1]	NA[1]	NA[1]	87,157	239,594
24	Did not attend first tele consultation	NA[1]	NA[1]	NA[1]	1,065	2,344
25	Did not attend subsequent tele consultation	NA[1]	NA[1]	NA[1]	3,427	10,227
27	Patient cancelled first tele consultation	NA[1]	NA[1]	NA[1]	599	2,364
28	Patient cancelled subsequent tele consultation	NA[1]	NA[1]	NA[1]	1,938	5,974
30	Hospital postponed/cancelled first tele consultation	NA[1]	NA[1]	NA[1]	431	2,080
31	Hospital postponed/cancelled subsequent tele consultation	NA[1]	NA[1]	NA[1]	1,957	8,285

Footnotes

[1] Tele consultations were only recorded since 2008-09

Genito-urinary medicine

It has been previously highlighted that only a small number of providers of genito-urinary medicine (GUM) clinics submitted outpatient CDS data and that this arose from local concerns, sometimes historic, about the handling of sensitive data. The previous data quality report recommended that a reminder be sent to the service that data for GUM clinics is intended to be collected via the CDS dataflow in line with the guidance published in DSCN 41/1998.[7]

Despite this reminder, there is still very little data being submitted from GUM clinics, although this is likely to improve when the Secondary Uses Service (SUS) becomes the definitive source for payment, because payments may be affected if organisations do not submit CDS data. Table 2 shows there has been a year-on-year increase in the number of providers submitting data since 2005-06.

Table 2 - Hospital providers submitting genito-urinary medicine data, 2005-06 to 2009-10

Year	Number of hospital providers submitting data	Number of attendances
2009-10	26	154,870
2008-09	21	125,030
2007-08	20	110,238
2006-07	18	101,385
2005-06	14	51,874

Note: the information about the number of attendances in Table 2 was incorrect in the 2007-08 and 2008-09 reports.

[7]See DSCN 41/1998: Data Set Change Notices 1998 - 1999 — NHS Connecting for Health [http://www.isb.nhs.uk/documents/isb-1572/dscn-41-1998/?searchterm=dscn%2041].

Independent sector

Independent sector provider data coverage has generally been improving yearly. In 2004-05, a total of eight independent hospital providers submitted data, accounting for 19,468 outpatient appointments. Since then, considerable improvements have been made to the data quality of independent sector hospital providers submitting data. In 2009-10, a total of 168 independent sector hospital providers were identified, supplying 816,933 attendances. This equates to 1.2% of the national total.

Table 3 - Independent sector providers submitting attendance data, 2003-04 to 2009-10

Year	Number of independent sector providers submitting data	All attendances	First attendance	Subsequent attendance	First/ subsequent unknown	First tele consultation	Subsequent tele consultation
2009-10	168	816,933	287,407	496,376	28,294	4255	601
2008-09	131	480,599	280,476	186,205	13,376	542	0
2007-08	112	204,058	90,519	94,624	18,915	N/A[1]	N/A[1]
2006-07	36	114,632	64,080	50,495	57	N/A[1]	N/A[1]
2005-06	19	52,565	38,670	13,859	36	N/A[1]	N/A[1]
2004-05	8	19,468	18,305	1,163	0	N/A[1]	N/A[1]
2003-04[2]	20	4,757	3,414	1,343	0	N/A[1]	N/A[1]

Footnotes

1. Tele consultations were only recorded since 2008-09
2. Excludes Non-UK Provider: Specialty Function Not Known, Treatment mainly Medical

Note: the information for 2005-06 and 2006-07 in Table 3 was incorrect in the 2007-08 and 2008-09 reports.

NHS-commissioned independent sector data is essential to the national dataset; without comprehensive coverage it will not be possible to monitor waiting times from referral to treatment. The data is also vital for assessing the contribution of the independent sector, as it now accounts for a significant proportion of elective care in areas such as orthopaedics, ear, nose and throat (ENT) and diagnostics.

It is recommended that commissioners of care in the independent sector monitor submission of CDS data from their independent hospital providers. It is vital for their own business and national monitoring that relevant information clauses exist in contracts and are adhered to fully.

A series of Independent Sector provider data quality reports have been published up until the fourth quarter of 2008-09 for outpatient CDS, which has shown improvement in 2008-09 in comparison to submissions for 2007-08. The majority of independent sector hospital providers have begun to make good progress with implementing changes that have improved data validity, with only a small number of organisations not improving on the quality of data submitted during 2007-08. For more details on independent sector data quality, please refer to the Independent Sector data quality reports on the NHS IC's website[8].

Data quality of outpatient fields

Non-attendance

Collecting data about non-attended appointments became mandatory from 1 April 2005 with CDS V 6.0 Type 020 Outpatient CDS (see DSCN 18/2007[9]). This means trusts should be submitting this information, but it will not result in records with missing data being rejected upon submission.

As reported in previous outpatient data quality reports, non-attendance figures or Did Not Attend (DNA) figures were being returned by the majority of trusts despite not being mandated. This still appears to be the case. A comparison of 2005-06 and 2009-10 data show that in 2005-06, 88.6% of providers returned this data, compared to 89.7% in 2009-10. However, although the data quality of the independent sector trusts is improving, issues still remain. If the independent sector trusts are excluded from the analysis, then in 2005-06, 91.2% of non-independent trusts submitted DNA data, compared to 95% in 2009-10.

Table 4 shows the number of appointments where the patient did not attend their first or subsequent appointment or where the outcome of appointment was unknown. The percentage of appointments where it was unknown whether the patient did not attend their first or subsequent appointment has increased. In 2009-10, 0.8% of records where submitted as unknown, compared to 0.3% in 2005-06.

Table 4 - Count of non-attended (DNA) first and subsequent appointments, 2005-06 to 2009-10

Year	All DNAs	DNA first appointment	DNA subsequent appointment	DNA first / subs not known	DNA first tele consultation	DNA subsequent tele consultation	*% appointment type unknown*
2009-10	6,690,258	1,764,802	4,861,848	51,037	2,344	10,227	*0.8%*
2008-09	5,993,680	1,519,988	4,440,368	28,832	1,065	3,427	*0.5%*
2007-08	5,553,244	1,385,956	4,145,150	22,138	N/A[1]	N/A[1]	*0.4%*
2006-07	5,311,966	1,266,567	3,993,179	52,220	N/A[1]	N/A[1]	*1.0%*
2005-06	5,033,403	1,198,659	3,818,089	16,655	N/A[1]	N/A[1]	*0.3%*

Footnotes

[1] Tele consultations were only recorded since 2008-09

Diagnosis and procedure coding

With the implementation of HRG4 (Healthcare Resource Group 4) in April 2009, all procedures should be reported in the outpatient CDS as they will be used to group to the same HRGs as for inpatients. Payments may be affected for those trusts who do not record procedures in outpatients.

[8] Data quality assessment reports – Independent sector [www.ic.nhs.uk/services/independent-sector-information-programme/data-quality-assessment-reports]

[9] DSCN 18/2007 [www.isb.nhs.uk/dscn/dscn-2007/DSCN18-2007.pdf/view]

Over the years, there have been very low levels of diagnosis and procedure recording within the outpatient dataset. This is because neither diagnosis nor procedure coding are mandated, although a limited set of procedure codes have been introduced for Payment by Results. Please see Appendix F for further details of treatment functions paid via PbR for outpatients. While one or more diagnoses could potentially be expected for all attendances, it is less clear how many attendances might include a procedure.

Table 5 shows the number of attendances with a valid diagnosis code from 2005-06 to 2009-10. In 2005-06, 98.1% of diagnosis codes were coded as unknown. This compares to 96.9% in 2009-10. This shows that this field has a lot of room for improvement.

Table 5 - Count of attendances with a known/unknown diagnosis, 2005-06 to 2009-10

Primary diagnosis description	2005-06	2006-07	2007-08	2008-09	2009-10
Total attended appointments	**50,038,667**	**51,939,835**	**54,415,758**	**60,607,226**	**67,414,037**
Attended appointments with a diagnosis of unknown or unspecified causes of morbidity	49,097,800	50,666,371	53,045,342	58,768,712	65,324,615
Attended appointments with a known primary diagnosis	940,867	1,273,464	1,370,416	1,838,514	2,089,422
% attendances with a known primary diagnosis	1.9%	2.5%	2.5%	3.0%	3.1%

Table 6 shows the number of attendances with a valid main procedure or intervention code for 2006-06 to 2009-10. In 2008-09, a new code was added to the main procedure list. This is the inclusion of 'X99.7' (not known). Any invalid procedure codes will be cleaned to the code '& - not known', whilst null values will be cleaned to 'X99.7'.

In 2009-10, 82.8% of all appointments were coded as unknown or null, a 7.8 percentage point decrease from 2008-09 at 90.6%.

Table 6 - Count of attended appointments with a known/unknown main procedure or intervention, 2005-06 to 2009-10

Main procedure	2005-06	2006-07	2007-08	2008-09	2009-10
Total attended appointments	**50,038,667**	**51,939,835**	**54,415,758**	**60,607,226**	**67,414,037**
Attended appointments with an unknown/invalid main procedure or intervention	47,111,608	47,991,845	49,070,707	54,906,106	55,851,666
Attended appointments with a known main procedure or intervention/No out-patient procedure carried out	2,927,059	3,947,990	5,345,051	5,701,120	11,562,371
% of known/no outpatient procedure carried out attended appointments	5.8%	7.6%	9.8%	9.4%	17.2%

The Service Type Request field (defined as the terms of reference for the referral request) indicates that, in 2009-10, 7.4% of first attendances and 6.3% of subsequent attendances are referred for a specific procedure, but it is not stated whether the referral is for an outpatient or inpatient/day case procedure. This demonstrates the limitation in the usefulness of this field. Overall, 6.7% of outpatient attendances were referred for a specific procedure, 71.0% were for advice or consultation and 22.3% were either other not specified or unknown (10.0% and 12.3% respectively).

Another relevant field is Operation Status, which is intended to indicate the number of operations carried out or whether this is not known. Historically, the quality of this field is poor but is now included

in the SUS Key Performance Indicators (KPIs)[10] to encourage its use. This is due to replace the default codes X99.8 (outpatient procedure carried out but no OPCS4 code available) and X99.9 (no outpatient procedure carried out) in the future. In 2009-10, this field shows that for 15.2% of all outpatient attendances a procedure was carried out. 63.9% of attendances didn't include a procedure, with 20.9% unknown or null. There are still data quality issues with this field, as 3.1% of the appointments didn't have a recognisable operation status code attached and were recorded as null.

Source of referral

Source of referral is an important field in the measurement and analysis of referral to treatment (RTT) times as it marks the start of a patient's 18 week pathway.

The completeness of the data submitted appears to have improved over time. As illustrated in Table 7, the percentage of all attendances with an unknown source of referral has decreased from 5.3% in 2005-06 to 1.4% in 2009-10. This improvement is particularly visible for subsequent outpatient attendances, with a decrease in the proportion of unknowns from 7.0% in 2005-06 to 1.8% in 2009-10 (see Appendix A).

Table 7 - Total attendances with unknown sources of referral recorded, 2005-06 to 2009-10

Year	Total attendances	Total attendances with an unknown source of referral	*% unknown*
2009-10	67,414,037	963,968	*1.4%*
2008-09	60,607,226	1,326,319	*2.2%*
2007-08	54,415,758	1,151,432	*2.1%*
2006-07	51,939,835	2,300,052	*4.4%*
2005-06	50,038,667	2,645,211	*5.3%*

The likely reason for the decrease of unknowns is the introduction of new referral source codes in October 2007[11]. Additional codes were introduced to ensure the full range of referral sources were being collected by provider organisations. In the past, these fields may have legitimately been recorded as unknown.

Previous outpatient data quality reports have also commented on the inconsistent use of referral source. As in previous years, there is still a noticeable difference between the distribution of referral source for first and subsequent appointments.

The NHS Data Dictionary splits the source of referral fields into two areas; those where the referral was initiated by the consultant responsible for the outpatient appointment, or those where it was not initiated by someone who is responsible for the outpatient appointment, eg a general practitioner.

Referrals from general practitioners account for the highest proportion of first and subsequent outpatient appointments. As defined in the NHS Data Model and Dictionary, the source of referral is recorded for every outpatient attendance consultant delivered as part of a consultant outpatient episode. For example, if a patient was referred by their GP to attend an outpatient appointment to see an oncology specialist, and remained with that particular consultant for their follow-up appointments, the patient's source of referral would remain as 'from a GP' until that period of care was completed. If, however, a patient was referred to a plastic surgeon during their period of care from an oncologist, a new referral source would be recorded. It is for this reason that the proportion of GP referrals for subsequent appointments remains relatively high.

[10] SUS KPI Reports - KPI Reports — NHS Connecting for Health [http://www.connectingforhealth.nhs.uk/systemsandservices/sus/delivery/dataquality/quality/kpireports]

[11] Further information about the changes made can be found in Data Set Change Notice (DSCN) 16/2007 [http://www.isb.nhs.uk/documents/dscn/dscn2007/162007.pdf]

Outcome

This field currently allows for three categories:

- Discharged from consultant's care (last attendance)
- Another appointment given
- Appointment to be made at a later date.

Analysis from previous data quality reports indicated that the outcome of attendance field is considered a very important variable, however it is acknowledged that current values are too limited to be considered useful. For example, the field could provide better understanding of 18 week waits and RTT time status if it allowed more comprehensive description of the next step after the attendance.

Since 2005-06, the proportion of all attendances submitting unknown outcomes has shown improvement. In 2005-06 and 2006-07, 5.7% of the records submitted were unknown, compared to 2.1% in 2009-10. A similar pattern is shown for first attendances, dropping from 5.4% of first attendances recorded with an unknown outcome in 2005-06 to 2.0% in 2009-10.

Table 8 - Outcome of first attendance, 2005-06 to 2009-10

Outcome	2005-06	2006-07	2007-08	2008-09	2009-10
Discharged from consultant's care (last attendance)	4,502,277	4,546,251	4,920,300	5,638,717	6,274,304
Another appointment given	5,113,319	5,136,806	5,414,469	6,291,777	7,170,877
Appointment to be made at a later date	4,504,155	4,834,654	5,700,655	6,261,629	6,984,900
Not known	799,045	829,973	500,077	542,769	421,523

Table 9 - Outcome of all attendances (first, subsequent or unknown) 2005-06 to 2009-10

Outcome	2005-06	2006-07	2007-08	2008-09	2009-10
Discharged from consultant's care (last attendance)	10,873,242	10,901,532	11,455,394	12,779,208	14,181,561
Another appointment given	24,116,366	24,320,881	24,571,222	27,508,697	31,458,865
Appointment to be made at a later date	12,204,086	13,767,744	16,555,881	18,399,869	20,345,257
Not known	2,844,973	2,949,678	1,833,261	1,919,452	1,428,354

Specialty

Specialties are recognised by the Royal Colleges and Faculties and reflect broad ranges of skills and expertise. They provide a quick summary of areas of treatment.

Treatment specialty

Treatment specialty reflects the specialty under which the consultant with prime responsibility for the patient is working, which may be different to the main specialty under which the consultant is registered.

Care is needed when analysing HES data by specialty or by groups of specialties (such as 'acute') as trusts have different ways of managing specialties. A consultant may also operate over more than one

treatment function code area (eg General Surgery and Urology; General Medicine and Gastroenterology).

Since 2005-06, coding of treatment specialty has improved. In 2005-06, 80 treatment specialty fields were submitted. This compares with 129 fields submitted in 2009-10. However, this is due in part to the addition of new treatment function areas being created over time.[12]

The proportion of unknown treatment specialty records submitted overall has also declined over the same period. In 2005-06, 5.3% of first attendances submitted were recorded as unknown. This compares to 3.1% in 2006-07, 1.8% in 2007-08, 0.5% in 2008-09 and 0.3% in 2009-10. Table 10 shows the most common treatment specialties in 2008-09 for patients who attended their first appointment with comparisons against previous year's data.

Table 10 - Most common treatment specialties in 2009-10 for first attendances, 2005-06 to 2009-10

Treatment specialty code	Treatment specialty description	2005-06	2006-07	2007-08	2008-09	2009-10
110	Trauma & Orthopaedics	2,059,214	2,088,703	2,176,006	2,422,906	2,545,523
130	Ophthalmology	1,361,496	1,414,157	1,510,753	1,604,050	1,725,771
502	Gynaecology	1,066,531	1,076,360	1,158,430	1,252,590	1,329,116
120	Ear, Nose & Throat (ENT)	1,031,965	1,044,153	1,074,458	1,144,950	1,141,603
320	Cardiology	587,742	694,334	814,439	945,854	996,742
100	General Surgery	1,191,990	1,021,403	926,013	999,934	955,206
501	Obstetrics	610,582	713,254	781,819	904,822	929,546
330	Dermatology	786,218	752,234	769,190	857,555	893,962
812	Diagnostic Imaging	0[1]	0[1]	0[1]	131,585	667,031
101	Urology	485,988	483,834	518,408	575,514	618,185
&	Unknown	785,145	468,930	290,722	91,501	54,572

Footnotes
[1]Diagnostic Imaging Treatment specialty was introduced from 2008-09

Since 2005-06, there has been a decline in the number of general medicine and general surgery outpatient appointments. This could be due to new treatment specialties being created, or to better coding of other treatment areas.

Main specialty
Main specialty reflects the specialty under which the consultant with prime responsibility for the patient is registered. Please note: the main specialty field covers both consultant and non-consultant activity. Midwives, nurses and Allied Health Professionals are not classified as consultant specialists, but are included in the main specialty list.

Coding of main specialty has also shown improvement since 2005-06. In 2005-06, 3.1% of the records were unknown, compared to 2.1% in 2006-07, 0.5% in 2007-08, 0.3% in 2008-09 and 0.1% in 2009-10. There has been no noticeable change in the number of fields being submitted for main specialties since 2005-06. Table 11 shows the most common main specialties for patients who attended their first appointment.

[12] Treatment specialities - HESonline [http://www.hesonline.org.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=287]

Table 11 - Most common main specialties for first attendances, 2005-06 to 2009-10						
Main specialty code	**Main specialty description**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
110	Trauma & Orthopaedics	2,068,029	2,051,174	2,131,602	2,362,156	2,472,289
130	Ophthalmology	1,375,152	1,392,197	1,481,757	1,557,081	1,690,980
100	General Surgery	1,428,537	1,359,994	1,377,801	1,558,316	1,650,412
502	Gynaecology	1,129,524	1,142,698	1,256,909	1,363,098	1,445,258
960	Allied Health Professional Episode	0[1]	288,452	631,606	1,020,098	1,444,607
120	Ear, Nose & Throat (ENT)	1,030,348	1,000,042	1,046,955	1,125,818	1,151,935
300	General Medicine	927,223	841,675	884,134	961,794	994,305
330	Dermatology	788,799	742,412	762,577	843,674	882,247
320	Cardiology	548,658	593,803	644,484	718,252	777,974
501	Obstetrics	566,679	606,197	614,146	685,619	673,769
&	Unknown	465,478	321,167	87,245	50,416	23,681
Footnotes [1]Allied Health Professional Episode main specialty was introduced from 2005-06						

It is worth noting that Allied Health Professionals only started submitting data from 1st April 2006. Due to the completeness and validity of the Main Specialty field, it is recommended that this field is used over Treatment Specialty.

Geographical breakdowns

Data can also be broken down by geographical area, including strategic health authority and primary care trust. Similarly, these areas can be broken down by area of residence or area of treatment. Treatment indicates the area in which the treatment took place and is derived from the hospital provider code, whereas residence is derived from patient's postcode of their home address.

Primary care trust (PCT) of residence, treatment and responsibility

The completeness of the PCT of residence field has shown improvement, with the percentage of unknowns declining between 2006-07 and 2009-10. In 2006-07, 1.5% (964,470) of all data submitted had an unknown PCT of residence recorded. This compares to 0.2% (192,621) in 2009-10. Similarly for PCT of responsibility there has been a marked improvement with 0.01% (7,277) appointments recorded as unknown. This compares to 1.6% (993,044) in 2005-06. The completeness of PCT of treatment is markedly better with no appointments recorded as unknown in 2008-09 and 2009-10**.**

It is worth noting that in between 2005-06 and 2006-07, PCTs were re-structured. The 303 PCTs in 2005-06 became 152 in 2006-07.

Table 12 - PCT of residence data, 2005-06 to 2009-10			
Year	**Total appointments[1]**	**Total unknowns**	***% unknown***
2009-10	84,198,458	192,621	*0.2%*
2008-09	74,853,493	177,261	*0.2%*
2007-08	66,649,484	374,278	*0.6%*
2006-07	63,217,226	964,470	*1.5%*
2005-06	60,608,403	197,160	*0.3%*
Footnotes 1. Includes 'Not applicable' Primary Care Trust			

Table 13 - PCT of treatment data, 2005-06 to 2009-10			
Year	**Total appointments**	**Total unknowns**	***% unknown***
2009-10	84,198,458	0	*0.0%*
2008-09	74,853,493	0	*0.0%*
2007-08	66,649,484	8,349	*0.0%*
2006-07	63,217,226	8,984	*0.0%*
2005-06	60,608,403	96,362	*0.2%*

Table 14 - PCT of responsibility data, 2005-06 to 2009-10			
Year	**Total appointments**	**Total unknowns**	***% unknown***
2009-10	84,198,458	7,277	*0.0%*
2008-09	74,853,493	9,723	*0.0%*
2007-08	66,649,484	9,725	*0.0%*
2006-07	63,217,226	18,491	*0.0%*
2005-06	60,608,403	993,044	*1.6%*

Strategic health authority of residence, treatment and responsibility

The proportion of unknown fields in SHA of residence was at its highest in 2006-07 at 1.5%. This has since improved with 0.2% being recorded as unknown in 2009-10. The coverage of SHA of responsibility is also increasing, with 1.4% (1,143,050) appointments being recorded as unknown compared to 1.6% (993,044) in 2005-06. This compares to SHA of treatment where there were no unknown records in 2007-08, 2008-09 and 2009-10. It is worth noting that in between 2005-06 and 2006-07, SHAs were re-structured. The 28 SHAs in 2005-06 became 10 in 2006-07.

Table 15 - SHA of residence data for all appointments, 2005-06 to 2009-10			
Year	**Total appointments**	**Total unknowns**	***% unknown***
2009-10	84,198,458	174,213	*0.2%*
2008-09	74,853,493	136,591	*0.2%*
2007-08	66,649,484	352,771	*0.5%*
2006-07	63,217,226	943,288	*1.5%*
2005-06	60,608,403	166,973	*0.3%*

Table 16 - SHA of treatment data for all appointments, 2005-06 to 2009-10			
Year	**Total appointments**	**Total unknowns**	***% unknown***
2009-10	84,198,458	0	*0.0%*
2008-09	74,853,493	0	*0.0%*
2007-08	66,649,484	0	*0.0%*
2006-07	63,217,226	8,984	*0.0%*
2005-06	60,608,403	8,634	*0.0%*

Table 17 - SHA of responsibility data for all appointments, 2005-06 to 2009-10			
Year	**Total appointments**	**Total unknowns**	***% unknown***
2009-10	84,198,458	1,143,050	*1.36%*
2008-09	74,853,493	1,089,893	*1.46%*
2007-08	66,649,484	1,297,259	*1.95%*
2006-07	63,217,226	954,745	*1.51%*
2005-06	60,608,403	993,044	*1.64%*

Overall, SHA/PCT of treatment shows better data coverage over the past three years than PCT of residence within the outpatient data, especially where there were no unknowns recorded. However, it is worth noting that there were some issues with the mapping of data within the SHA/PCT of treatment field in 2006-07, and as a result this field is no longer available for the 2006-07 data year. In 2009-10 SHA/PCT of treatment changed name to SHA/PCT of main provider, due to how the field is derived. For more information on derived fields, please see Appendix B.

Ethnic origin

Previous outpatient data quality reports showed that ethnic category was not provided even though this data was collected at a local level. Despite work to mandate the inclusion of ethnic category on all data flows had all outpatient appointments continue to have an unknown ethnic category recorded.

Waiting times

The Department of Health has now ceased performance management of the 18 weeks waiting times target, however, referral to treatment data will continue to be published and monitored.

HES time waited figures

Previous outpatient data quality reports have stated that HES time waited information is inadequate for monitoring purposes. The coverage and completeness of the fields used to derive HES time waited figures has remained relatively stable over time, however, the differences to other waiting time data collections and limitations in how time waited is calculated still remain.

HES time waited figures:

- Measure the time waited for those who have attended their first outpatient appointment over the course of the year; ie who have completed their wait.
- Calculate the difference between the outpatient appointment date and either referral request received date or the last non-attended appointment or patient cancellation date[13,14].

[13] Further information about changes to waiting time collections can be found here [www.18weeks.nhs.uk/Content.aspx?path=/measure-and-monitor/Rules-suite].
[14] Further details on the definitions and derivations of these fields can be found in the Outpatients Cleaning Rules document [www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=376].

HES time waited figures are likely to overestimate waiting times. The inclusion of non-consultant activity in HES data may also be partly responsible for the difference in figures as such patients may not have benefited from waiting time targets. Referral to Treatment (RTT) is the predominant measure for NHS waiting times. The Department of Health is the official source for RTT statistics[15].

Coverage and completeness of dates for received referral request, appointments or did not attend/cancellations

Tables 16 and 17 show the coverage of these fields used to derive the time waited for an outpatient appointment.

Appointment date

From 2005-06 to 2009-10 all attended appointments had a valid and complete date. The coverage and data quality issues lie with the referral request received date and the last did not attend or cancellation date.

Referral request received date

Table 16 shows that the percentage of all outpatient appointments with a valid referral request date remains relatively low (in comparison to other time waited fields) at 88.4% in 2009-10. It has, however, improved over time, with an increase of 3.6 percentage points from 2005-06 to 2009-10. This improvement may be in part due to changes made to guidance on how to use this field published by Connecting for Health in November 2007.[16]

Table 18 - Appointments where the referral request received date was valid, invalid or missing, 2005-06 to 2009-10

	Total		Valid		Missing		Invalid	
Year	No.	%	No.	%	No.	%	No.	%
2009-10	84,198,458	*100.0%*	74,423,621	*88.4%*	6,232,278	*7.4%*	3,542,559	*4.2%*
2008-09	74,853,493	*100.0%*	64,785,531	*86.5%*	6,856,154	*9.2%*	3,211,808	*4.3%*
2007-08	66,649,484	*100.0%*	57,314,894	*86.0%*	6,315,074	*9.5%*	3,019,516	*4.5%*
2006-07	63,217,226	*100.0%*	53,765,692	*85.0%*	6,563,309	*10.4%*	2,888,225	*4.6%*
2005-06	60,608,403	*100.0%*	51,424,629	*84.8%*	6,508,499	*10.7%*	2,675,275	*4.4%*

Last did not attend or cancellation date

Despite being a non-mandatory field to complete, the proportion of valid last DNA dates has remained stable over the past five years, with over 99% of records being submitted as valid.

Table 19 - Appointments where the last DNA was valid or invalid, 2005-06 to 2009-10

	Total		Valid		Invalid	
Year	No.	%	No.	%	No.	%
2009-10	84,198,458	*100.0%*	83,848,392	*99.6%*	350,066	*0.4%*
2008-09	74,853,493	*100.0%*	74,604,732	*99.7%*	248,761	*0.3%*
2007-08	66,649,484	*100.0%*	66,325,228	*99.5%*	324,256	*0.5%*
2006-07	63,217,226	*100.0%*	63,043,340	*99.7%*	173,886	*0.3%*
2005-06	60,608,403	*100.0%*	60,439,429	*99.7%*	168,974	*0.3%*

[15] 18 weeks referral to treatment statistics : Department of Health - Publications [http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/18WeeksReferraltoTreatmentstatistics/index.htm]

[16] See DSCN 34/2007 [www.connectingforhealth.nhs.uk/dscn/dscn2007/dscn34-2007.pdf].

Future of waiting times in HES

A mandatory national data collection to monitor Referral to Treatment (RTT) times was introduced on 1 January 2007. Currently, the NHS submits aggregate RTT data to the Department of Health (DH) via Unify, the online data collection system. The introduction of CDSv6 in April 2008[17] included RTT data items to allow analysis through SUS. This allows the progress of individual patients to be measured and tracked along the RTT pathway and drill down analysis to local and speciality level. Once the data quality of this field improves it will be available for analysis in HES.

Conclusion

In summary, the coverage and quality of outpatient data continues to improve over time. The report has highlighted areas that some limitations and coverage issues still remain in some key areas such as waiting times. The data quality programmes and initiatives managed by The NHS Information Centre should help continue to improve the quality of data submitted to SUS.

[17] For further details on DCSN 35/2007 see following link:
www.connectingforhealth.nhs.uk/dscn/dscn2007/dscn35-2007.pdf

Appendix A: Source of referral for attendances

Table (a) Recorded sources of referral for first, subsequent and unknown attendances for 2009-10

	Attended first appointment	%	Attended subsequent appointment	%	Attended first tele consultation	%	Attended subsequent tele consultation	%	Attended but first/subsequent unknown	%	Total attendances	%
	20,782,376	**100.0%**	**46,222,116**	**100.0%**	**69,228**	**100.0%**	**239,594**	**100.0%**	**100,723**	**100.0%**	**67,414,037**	**100.0%**
Following an emergency admission	266,379	1.3%	741,142	1.6%	354	0.5%	3,002	1.3%	18	0.0%	1,010,895	1.5%
Following a domiciliary visit	18,599	0.1%	81,767	0.2%	42	0.1%	158	0.1%	0	0.0%	100,566	0.1%
Referral from general medical practitioner	10,886,072	52.4%	16,341,899	35.4%	14,383	20.8%	61,946	25.9%	36,120	35.9%	27,340,420	40.6%
Referral from an A&E department	1,196,206	5.8%	1,171,743	2.5%	1,685	2.4%	2,111	0.9%	3,277	3.3%	2,375,022	3.5%
Referral from a consultant, other than in an A&E department	4,134,786	19.9%	10,121,901	21.9%	11,902	17.2%	45,569	19.0%	7,081	7.0%	14,321,239	21.2%
Self-referral	715,162	3.4%	922,642	2.0%	15,070	21.8%	9,512	4.0%	3,679	3.7%	1,666,065	2.5%
Referral from prosthetist	9,403	0.0%	27,264	0.1%	3	0.0%	2	0.0%	1	0.0%	36,673	0.1%
Other source of referral	221,659	1.1%	630,811	1.4%	300	0.4%	786	0.3%	78	0.1%	853,634	1.3%
Following an A&E attendance	197,381	0.9%	215,147	0.5%	103	0.1%	215	0.1%	76	0.1%	412,922	0.6%
Other, initiated by consultant responsible for OP episode	729,630	3.5%	9,922,331	21.5%	3,779	5.5%	66,225	27.6%	15,162	15.1%	10,737,127	15.9%

Table (a) Recorded sources of referral for first, subsequent and unknown attendances for 2009-10 continued

	Attended first appointment	%	Attended subsequent appointment	%	Attended first tele consultation	%	Attended subsequent tele consultation	%	Attended but first/subsequent unknown	%	Total attendances	%
Referral from general practitioner with special interest	6,972	0.0%	17,714	0.0%	2	0.0%	45	0.0%	2	0.0%	24,735	0.0%
Referral from a specialist nurse	74,377	0.4%	162,636	0.4%	527	0.8%	2,711	1.1%	153	0.2%	240,404	0.4%
Referral from an Allied Health Professional	78,296	0.4%	139,422	0.3%	1,063	1.5%	2,442	1.0%	9	0.0%	221,232	0.3%
Referral from an optometrist	85,945	0.4%	119,896	0.3%	23	0.0%	1,241	0.5%	22	0.0%	207,127	0.3%
Referral from an orthoptist	12,996	0.1%	18,043	0.0%	5	0.0%	6	0.0%	0	0.0%	31,050	0.0%
Referral from a National Screening Programme	66,104	0.3%	71,028	0.2%	45	0.1%	1,196	0.5%	9	0.0%	138,382	0.2%
General dental practitioner	482,299	2.3%	695,198	1.5%	156	0.2%	266	0.1%	23	0.0%	1,177,942	1.7%
Community ental Service	10,020	0.0%	15,417	0.0%	8	0.0%	63	0.0%	0	0.0%	25,508	0.0%
Other, not initiated by consultant responsible for OP episode	1,478,488	7.1%	3,960,121	8.6%	19,393	28.0%	36,335	15.2%	34,789	34.5%	5,529,126	8.2%
Not known	111,602	0.5%	845,994	1.8%	385	0.6%	5,763	2.4%	224	0.2%	963,968	1.4%

Table (a) Recorded sources of referral for first, subsequent and unknown attendances for 2008-09

	Attended first appointment	%	Attended subsequent appointment	%	Attended first tele consultation	%	Attended subsequent tele consultation	%	Attended but first/subsequent unknown	%	Total attendances	%
Total	**18,697,457**	**100.0%**	**41,759,993**	**100.0%**	**37,435**	**100.0%**	**87,157**	**100.0%**	**25,184**	**100.0%**	**60,607,226**	**100.0%**
Following an emergency admission	229,959	1.2%	732,612	1.8%	64	0.2%	464	0.5%	8	0.0%	963,107	1.6%
Following a domiciliary visit	16,305	0.1%	84,057	0.2%	14	0.0%	236	0.3%	5	0.0%	100,617	0.2%
Referral from general medical practitioner	10,086,438	53.9%	14,263,718	34.2%	8,182	21.9%	19,863	22.8%	11,374	45.2%	24,389,575	40.2%
Referral from an A&E department	1,128,865	6.0%	1,100,210	2.6%	665	1.8%	505	0.6%	23	0.1%	2,230,268	3.7%
Referral from a consultant, other than in an A&E department	3,406,539	18.2%	9,204,494	22.0%	4,756	12.7%	10,553	12.1%	5,445	21.6%	12,631,787	20.8%
Self-referral	615,239	3.3%	684,499	1.6%	7,828	20.9%	2,296	2.6%	152	0.6%	1,310,014	2.2%
Referral from prosthetist	12,004	0.1%	25,139	0.1%	6	0.0%	2	0.0%	0	0.0%	37,151	0.1%
Other source of referral	509,710	2.7%	1,756,921	4.2%	7,126	19.0%	17,805	20.4%	4,306	17.1%	2,295,868	3.8%
Following an A&E attendance	174,231	0.9%	195,545	0.5%	28	0.1%	45	0.1%	49	0.2%	369,898	0.6%
Other	668,786	3.6%	9,009,742	21.6%	822	2.2%	25,931	29.8%	578	2.3%	9,705,859	16.0%

Table (a) Recorded sources of referral for first, subsequent and unknown attendances for 2008-09 continued

	Attended first appointment	%	Attended subsequent appointment	%	Attended first tele consultation	%	Attended subsequent tele consultation	%	Attended but first/subsequent unknown	%	Total attendances	%
Referral from general practitioner with special interest	4,414	0.0%	10,559	0.0%	1	0.0%	1	0.0%	0	0.0%	14,975	0.0%
Referral from a specialist nurse	37,532	0.2%	68,917	0.2%	4	0.0%	46	0.1%	1	0.0%	106,500	0.2%
Referral from an Allied Health Professional	29,731	0.2%	53,790	0.1%	67	0.2%	65	0.1%	0	0.0%	83,653	0.1%
Referral from an optometrist	47,580	0.3%	55,921	0.1%	38	0.1%	24	0.0%	9	0.0%	103,572	0.2%
Referral from an orthoptist	6,100	0.0%	8,880	0.0%	2	0.0%	2	0.0%	0	0.0%	14,984	0.0%
Referral from a National Screening Programme	28,026	0.1%	26,364	0.1%	44	0.1%	68	0.1%	28	0.1%	54,530	0.1%
General Dental Practitioner	436,735	2.3%	627,438	1.5%	83	0.2%	44	0.1%	14	0.1%	1,064,314	1.8%
Community Dental Service	11,151	0.1%	15,916	0.0%	2	0.0%	32	0.0%	0	0.0%	27,101	0.0%
Other, not initiated by consultant responsible for OP episode	1,074,969	5.7%	2,685,318	6.4%	7,439	19.9%	7,385	8.5%	2,023	8.0%	3,777,134	6.2%
Not known	173,143	0.9%	1,149,953	2.8%	264	0.7%	1,790	2.1%	1,169	4.6%	1,326,319	2.2%

Table (a) Recorded sources of referral for first, subsequent and unknown attendances for 2007-08								
	Attended first appointment	**%**	**Attended subsequent appointment**	**%**	**Attended but first/subsequent unknown**	**%**	**Total attendances**	**%**
Total	**16,535,501**	**100.0%**	**37,787,423**	**100.0%**	**92,834**	**100.0%**	**54,415,758**	**100.0%**
Following an emergency admission	194,168	1.2%	725,273	1.9%	438	0.5%	919,879	1.7%
Following a domiciliary visit	22,166	0.1%	90,779	0.2%	284	0.3%	113,229	0.2%
Referral from general medical practitioner	8,881,627	53.7%	12,571,420	33.3%	32,984	35.5%	21,486,031	39.5%
Referral from an A&E department	1,096,464	6.6%	1,060,723	2.8%	710	0.8%	2,157,897	4.0%
Referral from a consultant, other than in an A&E department	3,012,066	18.2%	8,235,760	21.8%	11,667	12.6%	11,259,493	20.7%
Self-referral	473,592	2.9%	544,128	1.4%	6,025	6.5%	1,023,745	1.9%
Referral from prosthetist	17,136	0.1%	31,287	0.1%	6	0.0%	48,429	0.1%
Other source of referral	1,178,149	7.1%	3,646,285	9.6%	26,596	28.6%	4,851,030	8.9%
Following an A&E attendance	136,270	0.8%	150,986	0.4%	35	0.0%	287,291	0.5%
Other	619,859	3.7%	8,176,534	21.6%	8,928	9.6%	8,805,321	16.2%
Referral from general practitioner with special interest	60,194	0.4%	115,429	0.3%		0.0%	175,623	0.3%
Referral from a specialist nurse	14,411	0.1%	28,249	0.1%	1	0.0%	42,661	0.1%
Referral from an Allied Health Professional	5,904	0.0%	17,722	0.0%	2	0.0%	23,628	0.0%
Referral from an optometrist	12,053	0.1%	8,394	0.0%	44	0.0%	20,491	0.0%
Referral from an orthoptist	789	0.0%	740	0.0%		0.0%	1,529	0.0%
Referral from a National Screening Programme	3,996	0.0%	1,938	0.0%	5	0.0%	5,939	0.0%
General Dental Practitioner	398,499	2.4%	541,489	1.4%	133	0.1%	940,121	1.7%
Community Dental Service	7,681	0.0%	9,541	0.0%	44	0.0%	17,266	0.0%
Other, not initiated by consultant responsible for OP episode	242,524	1.5%	837,719	2.2%	4,480	4.8%	1,084,723	2.0%
Not known	157,953	1.0%	993,027	2.6%	452	0.5%	1,151,432	2.1%

Table (b) Recorded sources of referral for first, subsequent and unknown attendances for 2006-07								
	Attended first appointment	**%**	**Attended subsequent appointment**	**%**	**Attended but first/subsequent unknown**	**%**	**Total attendances**	**%**
Total	**15,347,684**	**100.0%**	**36,334,987**	**100.0%**	**257,164**	**100.0%**	**51,939,835**	**100.0%**
Following an emergency admission	195,689	1.3%	802,167	2.2%	2,683	1.0%	1,000,539	1.9%
Following a domiciliary visit	19,640	0.1%	93,169	0.3%	1,390	0.5%	114,199	0.2%
Referral from general medical practitioner	8,476,257	55.2%	12,018,118	33.1%	92,420	35.9%	20,586,795	39.6%
Referral from an A&E department	1,105,363	7.2%	1,104,352	3.0%	3,664	1.4%	2,213,379	4.3%
Referral from a consultant, other than in an A&E department	2,724,902	17.8%	7,996,360	22.0%	22,605	8.8%	10,743,867	20.7%
Self-referral	402,101	2.6%	458,107	1.3%	1,264	0.5%	861,472	1.7%
Referral from prosthetist	9,641	0.1%	20,032	0.1%	271	0.1%	29,944	0.1%
Other source of referral	1,238,263	8.1%	4,006,092	11.0%	39,185	15.2%	5,283,540	10.2%
Following an A&E attendance	96,969	0.6%	100,556	0.3%	88	0.0%	197,613	0.4%
Other	540,884	3.5%	7,103,629	19.6%	84,514	32.9%	7,729,027	14.9%
General Dental Practitioner	356,812	2.3%	506,145	1.4%	1,305	0.5%	864,262	1.7%
Community Dental Service	6,784	0.0%	8,323	0.0%	39	0.0%	15,146	0.0%
Not known	174,379	1.1%	2,117,937	5.8%	7,736	3.0%	2,300,052	4.4%

Table (c) Recorded sources of referral for first, subsequent and unknown attendances for 2005-06								
	Attended first appointment	**%**	**Attended subsequent appointment**	**%**	**Attended but first/subsequent unknown**	**%**	**Total attendances**	**%**
Total	**14,918,796**	**100.0%**	**35,039,342**	**100.0%**	**80,529**	**100.0%**	**50,038,667**	**100.0%**
Following an emergency admission	173,064	1.2%	862,115	2.5%	1,830	2.3%	1,037,009	2.1%
Following a domiciliary visit	22,690	0.2%	193,775	0.6%	678	0.8%	217,143	0.4%
Referral from general medical practitioner	8,694,014	58.3%	11,845,914	33.8%	28,787	35.7%	20,568,715	41.1%
Referral from an A&E department	1,072,069	7.2%	1,065,123	3.0%	4,994	6.2%	2,142,186	4.3%
Referral from a consultant, other than in an A&E department	2,482,698	16.6%	7,368,655	21.0%	5,013	6.2%	9,856,366	19.7%
Self-referral	312,237	2.1%	392,273	1.1%	336	0.4%	704,846	1.4%
Referral from prosthetist	9,594	0.1%	26,651	0.1%	636	0.8%	36,881	0.1%
Other source of referral	1,008,472	6.8%	3,541,688	10.1%	14,542	18.1%	4,564,702	9.1%
Following an A&E attendance	75,515	0.5%	86,170	0.2%	12	0.0%	161,697	0.3%
Other	558,004	3.7%	6,760,091	19.3%	2,368	2.9%	7,320,463	14.6%
General Dental Practitioner	320,544	2.1%	447,905	1.3%	2	0.0%	768,451	1.5%
Community Dental Service	6,648	0.0%	8,349	0.0%	0	0.0%	14,997	0.0%
Not known	183,247	1.2%	2,440,633	7.0%	21,331	26.5%	2,645,211	5.3%

Appendix B: HES derived fields

Patient Details

- Age at appointment (includes 16 standard age groupings)
- Postcode District

Appointment Details

- Days waiting
- Waiting Times Weeks
- Attendance Type (combines Whether or Not Attended with First)
- Dates of Appointments / Last DNA or Patient Cancellations / Referral request received – all have 17 additional date functions eg day of the week, month etc

Organisation

- PCT / SHA / RO / HA of GP practice

Geographical

- Treatment PCT / SHA / RO / HA

Residence

- Census output Area
- County of Residence
- Current electoral ward
- Ordnance Survey grid reference

Socio-economic

- Lower Super Output Area
- Middle Super Output Area
- Rural / Urban Indicator
- Index of Multiple Deprivation (IMD) Domains (8)
- IMD Overall rank
- IMD Decile Group

Statistics

- Total Patients
- Median waiting time (first)
- Age Sum and Age Sum denominator – used in calculating average ages
- Waiting Time (first) Sum and denominator – used in calculating average waits (days) for first attendances

For more information on derived fields, please see the HES data dictionary[18]

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[18] Outpatients data dictionary [www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289]

Appendix C: Mandatory and Non-mandatory fields

M = Mandatory - data must be included **where** available

O = Optional - data need not be included

* = Not defined or approved by the Information Standards Board for Health and Social Care or definition and value list currently under review

Patient pathway

O – Unique booking reference number *(converted)*

O – Patient pathway identifier

O – Organisation code *(patient pathway identifier issuer)*

O – Referral to treatment status

O – Referral to treatment period start date

O – Referral to treatment period end date

* - Lead care activity indicator *(Not defined or approved by the Information Standards Board for Health and Social Care)*

Patient Identity

M – Local patient identifier

M – Organisation code *(Local patient identifier)*

M – NHS number

M – NHS number status identifier

O – Patient name

O – Patient usual address

M – Postcode of usual address

M – Organisation code *(PCT of residence)*

M – Person birth date

Patient characteristics

M – Person birth date

M – Person gender current

O – Carer support indicator

M – Ethnic category

Care episode – person Group (Consultant)

M – Consultant code

M – Main specialty code

M – Treatment function code

Care episode - Clinical diagnosis (ICD)

O – Diagnosis scheme in use

O – Primary diagnosis (ICD)

O – Secondary diagnosis (ICD)

Care episode – Clinical diagnosis (READ)

O – Diagnosis scheme in use

O – Primary diagnosis (READ)

O – Secondary diagnosis (READ)

Attendance occurrence – Activity characteristics
M – Attendance identifier
M – Administrative category
M – Attended or did not attend
M – First attendance
M – Medical staff type seeing patient
M – Operation status *(per attendance)*
M – Outcome of attendance
M – Appointment date
M – Age at CDS activity date
O – Earliest reasonable offer date

Attendance occurrence – Service Agreement Details
M – Commissioning serial number
O – NHS service agreement line number
O – Provider reference number
M – Commissioner reference number
M – Organisation code *(code of provider)*
M – Organisation code *(code of commissioner)*

Attendance occurrence – Clinical Activity Group (OPCS)
O – Procedure scheme in use
O – Primary diagnosis (OPCS)
O – Procedure date *(of primary procedure)*
O – Procedure (OPCS) *(multiple procedures may be recorded)*
O – Procedure date *(of secondary procedure)*

Attendance occurrence – Clinical Activity Group (READ)
O – Procedure scheme in use
O – Primary diagnosis (READ)
O – Procedure date *(of primary procedure)*
O – Procedure (READ) *(multiple procedures may be recorded)*
O – Procedure date *(of secondary procedure)*

Attendance occurrence – Location Group of care Attendance
M – Location class
M – Site code *(of treatment)*
* - Location type *(definition and value list currently under review)*

GP Registration
O – General Medical Practitioner *(specified)*
M – General Medical Practitioner code *(patient registration)*

Referral – Activity characteristics
M – Priority type

M – Service type requested
M – Source of referral for out-patients
M – Referral request received date

Referral – Person group (referrer)
M – Referrer code
M – Referrer organisation code

Missed appointment – Occurrence
M – LAST DNA or patient cancelled date

Healthcare Resource Group – Activity characteristics
O – Healthcare Resource Group code
O – Healthcare Resource Group code – version number

Healthcare Resource group – Clinical Activity Group
O – Procedure scheme in use
HRG dominant grouping variable procedure

For more information please see NHS data dictionary[19].

[19] NHS Data Dictionary: Supporting Information: Index [http://www.datadictionary.nhs.uk/].

Appendix D: Useful information

The NHS Information Centre for Health and Social Care (www.ic.nhs.uk)

- xReporting outpatients journeys: Hospital outpatient activity in 2003-04 and 2004-05

www.ic.nhs.uk/statistics-and-data-collections/hospital-care/outpatients/outpatient-data-quality-report

HESonline [www.hesonline.nhs.uk]

- Outpatient data quality report: 2005-06 and 2006-07

www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=898

- HES Outpatient Data Dictionary

www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=289

- Feedback and contact us

http://www.ic.nhs.uk/about-us/contact-us

Connecting for Health [www.connectingforhealth.nhs.uk]

- NHS Data dictionary

Supporting Information: Index

Appendix E: Glossary of terms

AHP	Allied Health Professional
APC	Admitted Patient care
CDS	Commissioning data Set (numbers indicate versions)
DH	Department of Health
DNA	Did not attend
DSCN	Data Set Change Notice
FGDP	General Dental Practitioner
GMC	General Medical Council
GMP	General Medical Practitioner
GP	General Practitioner
GUM	Genito-urinary Medicine
HES	Hospital Episode Statistics
ISP	Independent Sector Provider
KH09	Provider based returns of outpatient attendances and DNAs conducting by DH
KPI	Key Performance Indicator
NHS IC	NHS Information Centre
OPCS-4	4th Revision of the Office of Population Censuses and Surveys Classification of Surgical Operations and procedures
PAS	Patient Administration System
PBC	Practice Based Commissioning
PbR	Payment by Results
PCT	Primary Care Trust
QM08	Quarterly return of outpatient referrals and waiting times conducted by DH
SHA	Strategic Health Authority
SUS	Secondary Uses Service
UNIFY	National Aggregation System for health service statistical returns
RTT	**Referral to Treatment**

Appendix F: Outpatients Payment by Results (PbR)

The outpatient tariff in 2010-11 is based on attendance by treatment function and can be found in the table presented below. Reference cost categories were mapped to the appropriate outpatient tariff treatment function. A first attendance is the first or only attendance in a series in respect of one referral. Follow-up attendances are those that are not first attendances. The episode (or series) ends when the patient is not given a further appointment by the consultant or the patient has not attended for six months with no forthcoming appointment. If, after discharge the condition deteriorates and the patient returns to the clinic run by the same consultant, this is a new episode i.e. the attendance is classified as a first attendance. For more information on PBR, please see the DH website[20]. Procedures in outpatients is currently non-mandatory to submit. Below is a list of treatment functions that are paid via PbR in outpatients:

		CONSULTANT-LED				NON CONSULTANT-LED			
Treatment Function	Treatment Function Name	WF01B First Attendance - Single Professional	WF02B First Attendance - Multi Professional	WF01A FollowUp Attendance - Single Professional	WF02A Follow Up Attendance - Multi Professional	WF01B First Attendance - Single Professional	WF02B First Attendance - Multi Professional	WF01A FollowUp Attendance - Single Professional	WF02A Follow Up Attendance - Multi Professional
100	General Surgery	204	225	95	100				
101	Urology	194	194	96	100				
103	Breast Surgery	150	185	76	84				
104	Colorectal Surgery	139	139	81	81				
105	Hepatobiliary & Pancreatic Surgery	167	335	105	105				
106	Upper Gastrointestinal Surgery	129	137	94	94				
107	Vascular Surgery	264	264	120	124				
110	Trauma & Orthopaedics	148	167	83	83				
120	Ear, Nose And Throat	121	155	63	78				
130	Ophthalmology	124	141	67	67				
140	Oral Surgery	129	129	74	74				
143	Orthodontics	198	198	84	121				
144	Maxillo-Facial Surgery	129	161	73	146				
160	Plastic Surgery	133	194	71	123				
171	Paediatric Surgery	204	225	100	100				
190	Anaesthetics	160	231	84	95				
191	Pain Management	160	231	84	95				
211	Paediatric Urology	194	194	96	100				
214	Paediatric Trauma And Orthopaedics	148	235	92	101				
215	Paediatric Ear Nose And Throat	121	155	73	78				
216	Paediatric Ophthalmology	124	141	86	86				
217	Paediatric Maxillo-Facial Surgery	161	161	81	146				
219	Paediatric Plastic Surgery	159	194	107	123				
251	Paediatric Gastroenterology	268	268	121	121				
252	Paediatric Endocrinology	257	257	109	109				
253	Paediatric Clinical Haematology	437	437	348	348				
258	Paediatric Respiratory Medicine	254	257	112	130				
300	General Medicine	222	222	104	108				
301	Gastroenterology	268	268	87	101				
302	Endocrinology	222	222	104	108				
303	Clinical Haematology	309	309	114	114				
306	Hepatology	352	352	159	159				
307	Diabetic Medicine	239	360	92	138				
320	Cardiology	215	215	103	108				
321	Paediatric Cardiology	215	215	133	133				
340	Respiratory Medicine	230	257	104	130				
341	Respiratory Physiology	158	158	100	113				
360	Genito-Urinary Medicine	133	171	101	101				
370	Medical Oncology	282	282	119	152				
410	Rheumatology	256	256	102	102				
420	Paediatrics	236	239	120	120				
430	Geriatric Medicine	257	257	123	123				
501	Obstetric Outpatients	138	184	65	88	138	184	65	88
502	Gynaecology	135	166	74	86				
503	Gynaecological Oncology	186	186	118	118				
560	Midwife Episodes	138	184	65	88	138	184	65	88
800	Clinical Oncology	205	205	76	124				
812	Diagnostic Imaging	0	0	0	0				

[20] Tariff information: confirmation of Payment by Results (PbR) arrangements for 2010-11 [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_112284]