

Provisional Monthly Patient Reported Outcome Measures (PROMs) in England – April 2009 to February 2011. Post-operative Data: Experimental Statistics Data Quality Note

The data quality note will be updated in the event of issues arising post-publication. A summary of changes made will appear in the table below. For the most recent version of this data quality note, please refer to [HESonline](http://www.hesonline.nhs.uk) [<http://www.hesonline.nhs.uk>].

Version control	
Date	Summary of update
14/07/2011	'Provisional Monthly Patient Reported Outcome Measures (PROMs) in England – April 2009 to February 2011. Post-operative Data: Experimental Statistics Data Quality Note' published

Please note this data is provisional and subject to changes and revisions each month. It should be treated as an estimate until the final annual publication.

PROMs publication

Following the first publication of post-operative scores in September 2010, this is the latest monthly update from the Patient Reported Outcome Measures (PROMs) programme. This publication builds upon the published pre-operative data and considers the change in patients' self-reported health status for the four common elective surgical procedures in the PROMs programme: groin hernia surgery, hip replacement, knee replacement and varicose vein surgery. Analysis covers the period from April 2009 to the end of February 2011 and includes pre-operative questionnaires that all English providers treating NHS patients have been asked to collect from patients who wish to participate and post-operative questionnaires returned by patients following their surgery. Not all patients undergoing the relevant operations returned questionnaires for a variety of reasons.

Experimental dataset

The report is classed as experimental statistics as it contains new official statistics that are undergoing evaluation. Its aim is to provide an overall summary and presentation of the key findings based on the data available rather than to provide a detailed interpretive analysis. Detailed analysis of the data has been commissioned by the Department of Health from the London School of Hygiene and Tropical Medicine.

Publishing the post-operative PROMs questionnaire data as experimental statistics enables:

- initial findings to be presented for discussion and further investigation;
- information on data coverage and quality to be made available to encourage local action to improve these areas;
- users to comment on methodology and their needs for analysis. Statistical and casemix adjustments to the PROMs data, developed by contractors¹ on behalf of the Department of Health, are being applied in this publication in advance of a planned cycle of further refinement to the methodology.

¹ CHKS Ltd in conjunction with Northgate Information Solutions Ltd.

Data quality considerations

A full list of data quality considerations including coverage, missing values, ambiguous values and demographics is contained within the PROMs guide, which is available to download from [HESonline](http://www.hesonline.nhs.uk) [www.hesonline.nhs.uk].

Data completeness

Monthly provisional data may be incomplete or contain errors which have not been investigated or adjusted yet. **The number of eligible episodes and questionnaires received may change for previous months due to updated clinical coding and delayed submission of questionnaires.** In general, counts from the monthly provisional data are likely to be lower than those generated for the same period in the final annual dataset. The tables in Annex 1 display the most recent counts.

As part of the continued verification of questionnaires, it is possible for questionnaires to be identified as ineligible. Ineligible questionnaires are those which should not have been administered. This may be because the recipient of the questionnaire is not due to have/has had a procedure, or, that they have previously completed a questionnaire. These questionnaires have therefore not been included within any counts and any responses from these questionnaires have not been included within any analysis. As such, a decrease in the number of pre-operative questionnaires may be seen in some months.

POIS audit

Approximately 80 providers were involved from April 2009 to September 2009 in the Patient Outcomes in Surgery (POIS) audit for orthopaedic procedures. Data from the POIS Audit is now included within the PROMs data set. As such, an increase has been seen in the participation rate when compared to those in publications prior to January 2011. Further details around the POIS audit are included in the PROMs guide, which is available to download from [HESonline](http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1295) [http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1295].

Known provider issues in HES: coverage issues

PROMs data is linked to HES inpatient data. HES inpatient data in the PROMs dataset is cumulative and includes all finalised linked episodes from 2009-10 and provisional linked episodes from 2010-11. The HES 2009-10 Month 14 Inpatient Data Quality Note noted that the following organisations have been identified as having shortfalls/missing data or specific data quality issues with their HES inpatient data. Their data should be interpreted with caution.

Organisations with HES inpatient shortfalls/missing data in the HES 2009-10 Month 14 Inpatient Data Quality

Organisation name	Organisation code	Months affected	Approx. total number of records missing
Bournemouth and Poole Teaching Hospital	5QN	Jan - Mar	120
Nuffield Health	NT2	Apr - Mar	6,000
Spire Healthcare	NT3	Apr - Mar	29,000

The HES 2010–11 Month 12 Inpatient Data Quality Note noted that the following organisations have been identified as having shortfalls/missing data or specific data quality issues with their HES inpatient data. Their data should be interpreted with caution.

Organisations with HES inpatient shortfalls/missing data in the HES 2010–11 Month 12 Inpatient Data Quality Note

Organisation name	Organisation code	Months affected	Approx. total number of records missing
Bournemouth and Pool Teaching PCT	5QN	Feb	40
Cambridgeshire and Peterborough NHS Foundation Trust	RT1	Feb	300
Dorset PCT	5QM	Feb	100
East Riding of Yorkshire PCT	5NW	Apr - Oct	620
Eccleshill NHS Treatment Centre	NTA01	Jul - Feb	2,400
Heart of Birmingham Teaching PCT	5MX	Dec - Feb	60
Norfolk PCT	5PQ	Nov - Feb	1,800
North East London NHS Treatment Centre	NTP15	Apr	500
Northamptonshire Teaching PCT	5PD	Apr - Feb	1,700
Oxfordshire and Buckinghamshire Mental Health NHS Foundation Trust	RNU	Dec - Feb	600
Rotherham PCT	5H8	Oct - Feb	600
Southampton NHS Treatment Centre	NTP11	Apr - Aug	1,200
Woodlands Day Hospice	8E339	Sept - Feb	120

Annex A - Data completeness tables

Eligible HES episodes ²																		
Period	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Sep 09 - Sep 10	20,759	21,613	21,079	17,733	18,492	19,995	23,707	19,603	19,824	22,084	20,994	18,827	20,865	-	-	-	-	-
Sep 09 - Oct 10	20,759	21,613	21,079	17,734	18,503	20,007	23,715	19,572	19,749	21,989	20,916	18,774	20,812	20,513	-	-	-	-
Sep 09 - Nov 10	20,756	21,606	21,069	17,714	18,449	19,912	23,547	19,432	19,515	21,859	20,755	18,717	20,833	20,652	21,685	-	-	-
Sep 09 - Dec 10	20,756	21,605	21,069	17,714	18,449	19,913	23,575	19,701	19,741	21,856	20,889	18,841	21,007	20,723	21,799	15,682	-	-
Sep 09 - Jan 11	17,743	20,756	21,605	21,069	17,714	18,450	19,915	23,565	19,651	19,734	21,992	21,013	18,939	21,191	20,965	22,141	15,968	-
Sep 09 - Feb 11	20,756	21,605	21,069	17,714	18,451	19,915	23,575	19,749	19,910	22,127	21,114	19,052	21,293	21,034	22,229	16,056	18,632	19,662

Pre-operative questionnaires																		
Period	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Sep 09 - Sep 10	14,008	14,530	13,863	11,133	12,432	12,987	15,461	13,168	12,904	13,400	12,295	11,450	9,402	-	-	-	-	-
Sep 09 - Oct 10	14,012	14,532	13,864	11,138	12,451	12,995	15,454	13,173	12,982	13,553	12,444	11,788	12,490	9,290	-	-	-	-
Sep 09 - Nov 10	14,021	14,639	14,031	11,141	12,496	13,020	15,491	13,250	13,218	14,490	13,798	13,100	14,360	13,703	8,379	-	-	-
Sep 09 - Dec 10	14,020	14,639	14,036	11,144	12,597	13,051	15,510	13,266	13,240	14,520	13,880	13,264	14,646	14,737	14,344	9,593	-	-
Sep 09 - Jan 11	14,021	14,639	14,037	11,144	12,625	13,084	15,535	13,269	13,245	14,513	13,873	13,278	14,693	14,836	14,681	10,246	12,638	-
Sep 09 - Feb 11	14,021	14,639	14,036	11,145	12,626	13,091	15,550	13,280	13,250	14,507	13,856	13,269	14,703	14,852	14,714	10,297	12,932	12,374

² These figures are based upon episode start date. The majority of data from April 2009 to March 2010 has been finalised and will not change. HES episodes ending from April 2010 onwards are currently provisional and are subject to change.

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Questionnaires linked to episodes ³																		
Period	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Sep 09 - Sep 10	10,215	10,613	10,081	8,147	9,035	9,526	11,565	10,021	9,953	10,258	8,898	7,216	3,867	-	-	-	-	-
Sep 09 - Oct 10	10,215	10,613	10,082	8,150	9,051	9,544	11,619	10,138	10,040	10,665	9,598	8,497	7,997	3,962	-	-	-	-
Sep 09 - Nov 10	10,218	10,670	10,186	8,151	9,049	9,540	11,619	10,104	10,104	11,133	10,509	9,807	10,122	8,595	3,627	-	-	-
Sep 09 - Dec 10	10,217	10,671	10,191	8,152	9,056	9,552	11,655	10,218	10,123	11,154	10,595	10,034	10,779	10,069	8,187	3,221	-	-
Sep 09 - Jan 11	10,217	10,671	10,192	8,152	9,058	9,553	11,654	10,227	10,220	11,251	10,711	10,169	11,171	10,915	9,831	5,891	4,466	-
Sep 09 - Feb 11	10,217	10,671	10,192	8,153	9,061	9,556	11,668	10,271	10,253	11,283	10,746	10,199	11,189	11,229	10,571	6,914	7,691	4,220

Post-operative questionnaires returned ⁴																		
Period	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Sep 09 - Sep 10	10,656	11,026	10,239	8,427	9,078	8,591	8,345	3,933	2,283	1,892	1,259	597	55	-	-	-	-	-
Sep 09 - Oct 10	10,685	11,198	10,524	8,504	9,332	9,388	9,517	5,046	5,024	4,623	1,966	1,337	692	142	-	-	-	-
Sep 09 - Nov 10	10,685	11,298	10,654	8,615	9,569	9,855	11,272	7,904	6,569	7,467	5,206	2,111	1,515	1,104	263	-	-	-
Sep 09 - Dec 10	10,687	11,317	10,707	8,629	9,601	9,955	11,745	9,433	8,837	9,039	7,385	5,100	2,541	1,854	1,065	201	-	-
Sep 09 - Jan 11	10,690	11,326	10,732	8,637	9,618	10,002	11,913	9,896	9,626	10,093	8,558	7,204	5,422	2,470	1,573	662	15	-
Sep 09 - Feb 11	10,695	11,340	10,775	8,640	9,647	10,034	11,971	10,016	9,941	10,912	9,808	8,527	8,494	6,720	3,042	1,526	1,195	334

³ These figures are based on questionnaires linked to HES episodes using an algorithm that compares a number of different combinations of patient identifiers. This methodology may be revised or enhanced for future publications. The counts are based upon the pre-operative questionnaire completion date.

⁴ The counts are based upon the pre-operative questionnaire completion date.