NHS Dental Statistics for England:

Quarter 2, 30 September 2009

Annex 5 – Technical Information

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Annex 5 – Technical Information

Coverage

1. The data in this publication are generated from reports compiled by NHS Dental Services, part of the NHS Business Services Authority (BSA), using activity reported via FP17 forms. The data in this report are based on the PCT boundaries which came into effect on 1 October 2006.

2. The activity data in the report consists of General Dental Services (GDS), Personal Dental Services (PDS) and Trust-led Dental Services (TDS).[1] The data includes activity recorded by performing dentists and also vocational dental practitioners (VDPs) but does not cover Hospital Dental Services or services provided privately. Activity data excludes orthodontic work, however orthodontic patients are included in the patients seen data.

[1] Dentists can work under several different GDS/PDS/TDS contracts. Hence, the activity information in this report has not been split between GDS, PDS and TDS. TDS includes salaried dentists.

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Annex 5a - Activity

Courses of Treatment

3. Dental activity is measured through the number of Courses of Treatment (CoTs) delivered and the number of Units of Dental Activity (UDAs) this represents. When a patient first goes to the dentist, the dentist determines the amount of preventative/restorative work required. The patient then starts what is known as a Course of Treatment. Each Course of Treatment, dependent on the complexity of the treatment, represents a given number of Units of Dental Activity. PCTs monitor these through the year to ensure that the activity the local NHS has contracted for is delivered.

4. Information on Courses of Treatment (CoTs) completed by an NHS dentist is submitted to the NHS Dental Services on an FP17 form, the majority of which are submitted electronically. It is the information on these forms that is used to report the NHS activity of NHS dentists.

5. All FP17 forms show a date of acceptance (for when the CoT began) and a date of completion (for when the CoT ended), although there are circumstances where a completion date can not be entered, as is discussed below.

6. As an improvement to the previous methodology used, all reports from the 2006/07 year end publication onwards contain a revision to the methodology for measuring dental activity. Activity is now measured as the number of CoTs which end within any given quarter of the year. Previously, for quarterly reports in 2006/07, it had been measured as the number of activity report forms processed by the NHS Dental Services within that quarter, of which some forms may have related to CoTs delivered in earlier quarters. Information on the number of patients seen is unaffected by the changes in measuring activity.

7. This change in methodology means that quarterly activity data in this report cannot be compared to the quarterly reports published during 2006/07. However, this 2009/10 quarterly report, and future ones, allow for comparisons with 2007/08.

8. The number of CoTs and Units of Dental Activity (UDAs) delivered in each quarter, and comparisons with other quarters, are affected by differing practice around the submission of FP17 claim forms, and also some technical issues, such as the number of working days in the quarter and the timing of Easter and other bank holidays, etc.

9. A CoT is defined as:

(a) an examination of a patient, an assessment of their oral health, and the planning of any treatment to be provided to that patient as a result of that examination and assessment; and

(b) the provision of any planned treatment (including any treatment planned at a time other than the time of the initial examination) to that patient.

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10. There is also a separate Urgent Band. This treatment band covers a restricted set of treatments, including up to two extractions and one filling, provided to a patient in certain circumstances.

11. Each CoT is associated with a single form (the FP17 form) which is submitted by dental providers to the NHS Dental Services to perform its monitoring and payment functions. Under the old contractual arrangements each treatment activity was recorded. As from 1 April 2006, a Course of Treatment is banded according to the most complex treatment within the course. This restricts the comparisons that can be made between contracts.

12. Treatments are banded according to level of complexity as follows;

- **Band 1** - covers a check up and simple treatment (such as examination, diagnosis (e.g. x-rays), advice on preventative measures, and a scale and polish)
- **Band 2** - includes mid range treatments (such as fillings, extractions, and root canal work) in addition to Band 1 work
- **Band 3** - includes complex treatments (such as crowns, dentures, and bridges) in addition to Band 1 and Band 2 work
- **Urgent** - a specified set of possible treatments provided to a patient in circumstances where:
    a) prompt care and treatment is provided because, in the opinion of the dental practitioner, that person's oral health is likely to deteriorate significantly, or the person is in severe pain by reason of their oral condition; and
    b) care and treatment is provided only to the extent that is necessary to prevent that significant deterioration or address that severe pain.
- **Other** CoTs are categorised into the following bands which do not attract a patient charge: Arrest of bleeding, bridge repairs, denture repair, removal of sutures, and prescription issues.

13. Banding reflects some of the differences between courses but there can still be significant differences between courses within bands in the amount of dental treatment. For example, a CoT with a few large fillings would have the same treatment band as one with a single small filling.

14. Full details of the treatments within each of the chargeable bandings can be found via the Department of Health website: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_096617

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Units of Dental Activity

15. A Unit of Dental Activity (UDA) is the technical term used in the NHS dental contract system regulations to describe weighted CoTs.

16. Table A shows the weightings which are used to convert the CoT data to UDAs by band. Band 3 receives the highest weighting as it is within this band that the most complex treatments are performed.

Table A: UDAs for each treatment band

Treatment Category	UDAs
Band 1	1.00
Band 2	3.00
Band 3	12.00
Band 1 Urgent	1.20
Arrest of Bleeding	1.20
Bridge Repair	1.20
Denture Repair	1.00
Prescription Issue	0.75
Removal of Sutures	1.00

Estimates - Impact of CoTs reported late on quarterly activity figures

17. Data supplied quarterly are provisional until final figures are published in the end of year report, published in the August following the year end. To provide more accurate and relevant quarterly figures, provisional data are weighted to provide an estimated national position for the quarter.

18. Weighting factors are established by calculating the change rate for each band between the provisional and final data for the relevant quarters' data in the previous reporting years. For example, Q1 provisional figures are weighted by the average change between Q1 data as reported at Q2 and the Q1 data as reported at Q4 in previous years.

19. Tables B and C show the weighting factors applied to each band for CoTs and UDAs in each quarter. The weighting factors are the average of the factors as observed in the preceding two reporting years.

$$\text{Q1 Weighting Factor} = \frac{\left(\frac{Year1Q1Final}{Year1Q1@Q2}\right) + \left(\frac{Year2Q1Final}{Year2Q1@Q2}\right)}{2}$$

$$\text{Year 3 Q1 Estimated Final} = \text{Weighting Factor} \times Year3Q1@Q2$$

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Table B: Weighting Factors for Q1 data at Q2 2009/10

		Band 1	Band 2	Band 3	Urgent	Other
Courses of Treatment	07/08 Factor	1.005	1.006	1.007	1.009	1.004
	08/09 Factor	1.005	1.005	1.005	1.013	1.004
	Forecast Factor	**1.005**	**1.006**	**1.006**	**1.011**	**1.004**
Units of Dental Activity	07/08 Factor	1.005	1.006	1.007	1.009	1.004
	08/09 Factor	1.005	1.005	1.005	1.013	1.004
	Forecast Factor	**1.005**	**1.006**	**1.006**	**1.011**	**1.004**

1. Figures presented are rounded. Calculations have been carried out using unrounded figures.

Table C: Weighting Factors for Q2 data at Q2 2009/10

		Band 1	Band 2	Band 3	Urgent	Other
Courses of Treatment	07/08 Factor	1.015	1.018	1.021	1.017	1.007
	08/09 Factor	1.017	1.021	1.022	1.023	1.012
	Forecast Factor	**1.016**	**1.019**	**1.022**	**1.020**	**1.009**
Units of Dental Activity	07/08 Factor	1.015	1.018	1.021	1.017	1.007
	08/09 Factor	1.017	1.021	1.022	1.023	1.012
	Forecast Factor	**1.016**	**1.019**	**1.022**	**1.020**	**1.010**

1. Figures presented are rounded. Calculations have been carried out using unrounded figures.

20. ‘Estimated final’ national level data are provided in the quarterly report, alongside the latest provisional figures. ‘Estimated final’ sub-national figures, by SHA and PCT, are not provided in this report, reflecting the complexity in accounting for local differences in late reporting. All figures reported in the annexes show the provisional position.

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Annex 5b - Patients Seen

Methodology

21. The patients seen measure is not directly comparable with the patient registrations data collected under the old contract as it was measured over a 15 month period rather than 24 months using a different system and rule set.

22. Patients have been identified by using surname, first initial, gender and date of birth. Each unique patient ID is normally assigned to the dental contract (and therefore PCT) against which the most recent FP17 for routine treatment was recorded in the 24 month period. The age of the patient as at the last day of the 24 month period is used to allocate between adult and child.

23. This information is taken from the FP17 and the 24 month period is based on the date of validation processing at NHS Dental Services. It is defined in terms of all CoTs (including GDS registration only courses prior to 1 April 2006). Each identified patient is counted only once even if he or she has received several episodes of care or treatment over the measured period. The measure is broken down separately for adults and children.

24. The count of patient IDs is a robust statistical indicator of the overall level of patient involvement with NHS primary dental care. As with the previous registration system there will be some duplications and omissions. Patients will be omitted if two or more share the same surname, initial, sex and date of birth. Patients may be counted twice if they have two or more episodes of care and their name is misspelled or changed (for example on marriage) between those episodes of care. The risk of duplication increases if the episodes of care are at different practices.

25. None of the above factors are likely to affect the overall count by more than one or two percent, but at a PCT level there may be local demographic factors which make the local total more susceptible, e.g. a high proportion of women changing names after marriage, a local concentration of surnames prone to be misspelled or a transient patient base.

26. The patients seen measure is produced using a filter which also requires that the patient must have started their last course of treatment within the past 24 months. This results in a slight downwards bias in the patients seen measure, although it is thought the effect on comparisons over time is negligible as it is an effect present in each quarter of the time series.

27. The patients seen data for the new contractual arrangements include patients who were only seen by a TDS dentist who was not previously on a GDS or PDS contract in 2005/06. Patients who fall into this category would not be included in the patients seen data for 2005/06 as TDS only dentists were not included in the 2005/06 workforce figures (unless they were working elsewhere on a GDS or PDS contract).

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28. NHS Dental Services estimated that, in the 24 months leading up to 31 March 2007, around 86,000 patients (0.17 per cent of the population) were seen by a dentist who falls into this category, which is minimal in relation to the 28.1 million patients seen in the previous 24 months up to 31 March 2007 (55.4 per cent). However, some of these patients may have also seen a different GDS or PDS dentist and are therefore not uniquely identified via their treatment from the TDS dentist (who was not included in the 2005/06 figures).

29. Patient seen information is calculated as the number of FP17 forms processed by NHS Dental Services in a given period, all of which related to CoTs started within the period. Any CoTs started but not processed within the period will not appear in the 24 month count. This differs from the methodology used to measure activity data from 2007/08 onwards, which measures the number of CoTs which end within a given period. The activity methodology requires further time for the FP17 forms to be submitted to and processed by NHS Dental Services.

30. As a result of this, the patient seen data are available from NHS Dental Services earlier in the reporting cycle than the activity data.

Population data

31. Some patient seen tables present the number of patients seen as a proportion of the population in the 24 months leading up to selected dates. These calculations have been carried out using Office for National Statistics (ONS) mid-year population estimates which are the most closely aligned with the mid-point of the 24 month period leading up to the selected date. For example, proportions from 31 March 2006 to 31 December 2006 are calculated using the ONS mid-2005 population estimates. All proportions are based on final population estimates which use the ONS' revised 2007 methodology.

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Allocation of patients to PCTs/SHAs

32. The current PCTs came into existence on 1 October 2006. For activity prior to 1 April 2006, patients attending dental surgeries were allocated to a PCT on the basis of the geographical postcode of the surgery at which they were treated. From 1 April 2006 the allocation of patients to PCTs reflects the PCT within which the dental contract was held, or with which it was anticipated that it would be held on 1 October 2006. A contract can include more than one surgery location.

33. As a result, some PCTs/SHAs will have patients allocated to their baseline at 31 March 2006 who, under the methodology used from 1 April 2006, would be reported under a different PCT/SHA or vice versa.

34. To a lesser extent, there will also have been changes in contracts between 31 March 2006 when the baseline figures were calculated and 1 October 2006 when the new PCTs were formed which would also result in a re-allocation of patients to a PCT/SHA.

35. Analysis provided by the NHS Dental Services reported that, in total, the patient seen figures in 40 out of 152 PCTs were affected by the change in the way in which patients were allocated to a PCT. The allocation before and after 31 March 2006 is different in cases where, from 1 April 2006, the surgery is located in a different PCT from the one that manages the contract.

36. The NHS Dental Services analysis reported that in most cases the numbers involved at a PCT level are less than six thousand patients in the 24 month period ending 31 March 2006. The three pairs of PCTs that were affected the most by this issue were: Heart of Birmingham PCT (5MX) and Birmingham East and North PCT (5PG); Stoke on Trent PCT (5PJ) and North Staffordshire PCT (5PH); and Lambeth PCT (5LD) and Southwark PCT (5LE). Table D shows all the PCTs/SHAs that were affected in some way by this issue.

37. In almost all cases the effect was contained within PCTs in the same SHA area. The two pairs of exceptions to this were: East Midlands SHA (Q33) and Yorkshire and the Humber SHA (Q32); and South Central SHA (Q38) and South East Coast SHA (Q37).

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Table F: List of PCTs that were affected by the way in which patients seen were allocated to them before and after April 2006

PCT Code	PCT Name	SHA Code	SHA Name
5C3	City and Hackney PCT	Q36	London SHA
5C4	Tower Hamlets PCT	Q36	London SHA
5CC	Blackburn with Darwen PCT	Q31	North West SHA
5EF	North Lincolnshire PCT	Q32	Yorkshire and The Humber SHA
5EM	Nottingham City PCT	Q33	East Midlands SHA
5F7	Stockport PCT	Q31	North West SHA
5FE	Portsmouth City PCT	Q38	South Central SHA
5FL	Bath and North East Somerset PCT	Q39	South West SHA
5GC	Luton PCT	Q35	East of England SHA
5K3	Swindon PCT	Q39	South West SHA
5K9	Croydon PCT	Q36	London SHA
5KF	Gateshead PCT	Q30	North East SHA
5KG	South Tyneside PCT	Q30	North East SHA
5KL	Sunderland Teaching PCT	Q30	North East SHA
5L1	Southampton City PCT	Q38	South Central SHA
5LD	Lambeth PCT	Q36	London SHA
5LE	Southwark PCT	Q36	London SHA
5LG	Wandsworth PCT	Q36	London SHA
5LH	Tameside with Glossop PCT	Q31	North West SHA
5M1	South Birmingham PCT	Q34	West Midlands SHA
5M2	Shropshire County PCT	Q34	West Midlands SHA
5M7	Sutton and Merton PCT	Q36	London SHA
5MX	Heart of Birmingham PCT	Q34	West Midlands SHA
5N6	Derbyshire County PCT	Q33	East Midlands SHA
5N7	Derby City PCT	Q33	East Midlands SHA
5N8	Nottinghamshire County Teaching PCT	Q33	East Midlands SHA
5N9	Lincolnshire PCT	Q33	East Midlands SHA
5NH	East Lancashire PCT	Q31	North West SHA
5NR	Trafford PCT	Q31	North West SHA
5NV	North Yorkshire & York PCT	Q32	Yorkshire and The Humber SHA
5NY	Bradford & Airedale PCT	Q32	Yorkshire and The Humber SHA
5P2	Bedfordshire PCT	Q35	East of England SHA
5P5	Surrey PCT	Q37	South East Coast SHA
5PG	Birmingham East & North PCT	Q34	West Midlands SHA
5PH	North Staffordshire PCT	Q34	West Midlands SHA
5PJ	Stoke on Trent PCT	Q34	West Midlands SHA
5PL	Worcestershire PCT	Q34	West Midlands SHA
5QC	Hampshire PCT	Q38	South Central SHA
5QJ	Bristol Teaching PCT	Q39	South West SHA
5QK	Wiltshire PCT	Q39	South West SHA

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