

Analysis Method Notice

Increase in the Percentage of Patients Regularly Accessing NHS Primary Dental Care

This notice describes an Analysis Method that has been developed for use in the production of published national outcome indicators, performance measures and/or currencies, which are derived directly from NHS Wales data.

The Analysis Method has been reviewed by the Analysis Methodologies Group and its output submitted to the Welsh Information Standards Board (WISB) for potential accreditation.

*It should be noted that, where the data flow on which the analysis is being undertaken has not been reviewed by WISB (see 'Status of WISB Data Standards Assurance' below), accreditation of the analysis method **cannot** be interpreted as an approval of the underlying data standards or the quality of the data used.*

It is recognised that formal review and/or assurance of the data flow may have been undertaken by other bodies, where those data are being formally published; for example, as 'Official Statistics'. In such circumstances, users of this method are advised to contact the relevant organisations should they require further information on the underlying quality of the specified data source.

For further details about the group, including Terms of Reference and membership, please visit the following website:

<http://howis.wales.nhs.uk/sites3/page.cfm?orgid=742&pid=56696>

WISB Reference: ISRN 2018 / 008

Please address enquiries about this Analysis Method the NHS Wales Informatics Service Data Standards Team.

E-mail: data.standards@wales.nhs.uk / Tel: 029 2050 2539

WISB Analysis Method Appraisal Assessment	Accredited This Analysis Method has been appraised by WISB and is felt to: <ul style="list-style-type: none"> • Meet the specified indicator requirement, in that it is suitable for its calculation / derivation; • Is reproducible by organisations, where appropriate.
WISB Analysis Method Appraisal Outcome(s)	

Status of Data Standards Assurance	WISB Reviewed The data used in this Analysis Method are based on data item standards that have been through the Information Standards Assurance Process.
WISB Decision	Approved
Data Standards Assurance Outcome(s)	

Indicator

Percentage of patients treated by NHS primary dental care services in the past 24 months

Target:

4 quarter improvement trend

Rationale / Context

Although oral health diseases can have a real impact upon the health and wellbeing of an individual, it is almost entirely preventable through daily lifestyle choices, routine dental check-ups and treatment.

One of the key aims of the Together for Health: A National Oral Health Plan for Wales (2013-2018)' is improved access to NHS primary care dentistry, particularly in areas where there are localised problems such as low access and high demand. To address these issues, health boards have developed Local Oral Health Plans aimed at addressing the oral health needs of their residents.

An improvement in the number of patients regularly accessing NHS primary dental care is a way of reducing the unacceptable burden of preventable oral disease and ensuring that the health and wellbeing of individuals is maximised.

Data Source(s)

NHS Business Services Authority (England)

Definitions:

Definitional Guidance:

Courses of Treatments:

Information on any NHS dental work completed by an NHS dentist is submitted to NHS Dental Services for payment on an FP17W form, the majority of which are electronic submissions. Treatments are split into treatment bands which are used to determine the charge paid by patients. These include; Band 1, Band 2, Band 3, urgent, and free.

- **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.
- **Free** 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.

Units of Dental Activity:

Unit of Dental Activity (UDA) is the technical term used in the NHS Dental Contract regulations to describe weighted courses of treatment. They refer to the whole claim, not just individual items. Table 1

shows the weighting for each of the treatment category bands and is used to calculate the treatment courses by band figures.

Table 1: UDA for each Treatment Category

<u>Treatment category</u>	<u>UDA per treatment claim</u>
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	0.00
Removal of sutures	1.00

Source: Welsh Government

An activity treatment does not always equate to one unit of dental activity. This is due to complexity of some of the procedures. A more complex procedure will be given a larger weight.

Data Items:

n/a

Terms:

n/a

Detailed Specification

NHS Business Services Authority submits quarterly data to the Knowledge and Analytical Services, in relation to patients treated within the past 24 months. Adults and children data are provided separately.

The statistics are based on information on any NHS dental work completed by an NHS dentist and submitted for payment.

Patients treated:

‘Patients treated’ is a count of the number of distinct patient identities which have been processed during the last 24 months. This is a count of unique patients, that is, each patient is counted only once even if he or she has received several episodes of care over the period. Note that patients may not be treated in their resident Health Board; therefore, the Health Board counts of the number of patients treated by primary dental care services (numerator) is likely to include counts of patients who are not resident within that particular Health Board. Furthermore, they may also include English, and other non-Welsh, patients. English and other non-Welsh patients will not be included in the denominator.

The methodology for matching patients is not always exact, and is based on patients being identified using; surname, first initial, gender and date of birth. It is recognised that this process of ‘matching’ patients may result in the same patient not being correctly matched, and therefore a small degree of ‘double counting’ may occur.

The records relate to the date on which a claim was processed, not the date of attendance at the dental surgery. The patients treated 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 downward bias in the patients treated 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. Children are defined as 'patients under 18' on the date of acceptance.

Patients treated as a proportion of the population in the 24 months leading up to selected dates are carried out using Office for National Statistics (ONS) mid-year population estimates, for each LHB, which are the most closely aligned with the mid-point of the 24 month period leading up to the selected date.

Completed activity by NHS dentists, including the quantity of activity completed (Units of Dental Activity - UDAs) and treatment undertaken (Courses of Treatment - CoTs), are also published on a quarterly basis.

Quarterly data on CoTs, UDAs, and number of patients treated is published at LHB level on the StatsWales website:

<https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/General-Dental-Services>

Further information on dental patient charges and dental workforce is included in the annual release, which is published in August:

<http://wales.gov.uk/statistics-and-research/nhs-dental-services/?lang=en>

Calculation:

Numerator

Local Health Board: Number of patients treated by NHS primary dental care services in the past 24 months in the health board.

Wales: Total number of patients treated by NHS primary dental care services in the past 24 months in Wales.

Denominator

Local Health Board*: Total number of residents living in the health board.

Wales*: Total number of residents living in Wales.

* Based on Office for National Statistics mid-year estimates of the population.

Reporting Format / Frequency

Reporting Frequency	Quarterly Data is sourced via the Welsh Government StatsWales ¹ website.
Time Delay of Reported Data?	November, February, May, and August – the annual release is published in August.

¹ <https://statswales.wales.gov.uk/>

Discussion Points / Areas for Future Development

This section details any areas the Analysis Methodologies Group felt needed further consideration / review by the 'owner' of the method.

The following queries were raised by the group during their first review of the AM submission (30th March 2015):

- The Analysis Methodologies Group highlighted the mixture of currencies used to populate the numerator and denominator in the initial submission presented to the group. The numerator was a count of activity based on the provider, whilst the denominator is a count based on residency. The group suggested this be reviewed by Welsh Government.
- The Analysis Methodologies Group queried whether English patients were included or excluded from the measure.
- The Analysis Methodologies Group queried whether it might be appropriate for the process for matching patients (see detailed specification, p4) could utilise the Welsh Demographics Service (WDS) to validate their identities, and therefore reduce the risk of duplicating counts.
- The Analysis Methodologies Group queried whether patients being seen in the UHW dental hospital were included in the measure.

The following queries were raised by the group during their subsequent review of the AM submission on Monday 22nd June 2015:

- The group felt strongly that the methodology, as it was currently written, was not provide an effective means of assessing whether patients were **regularly** accessing primary dental care services. For example, the numerator currently includes attendances across all bands (1 – 'check up' appointments through to 3 / 4 – 'complex' and 'urgent' treatments). It was suggested that by including urgent attendances, in particular, the counts were likely to identify those patients who did **not** regularly access dental care, and in effect only presented when they had significant dental problems. It was suggested that a better numerator would be a count of 'band 1' attendances only.
- The group also queried the justification for monitoring regular attendances on a two-year basis. The group challenged the definition of 'regular' attendance, as described in the AM, which monitors regular attendances by way of observing patients who have at least once in the last 24 months (2 years). However, the group noted dentist's recommendations that patients should have a check up at least once every 6 months and whether the measure should reflect that advice.
- WG recognised the mixture of currencies between the numerator (provider based count) and the denominator (residence based count), as was identified by the Analysis Methodologies Group in their March 2015 review. However, WG have confirmed that they will pursue this approach. The group agreed that a caveat should be included on all reporting outputs to recognise the different counts.
- The group felt that it should be made clearer that English patients may appear within the numerator count, whilst not appearing in the denominator.
- It was noted that the reporting of attendances is based on the date on which a claim was processed, not the date the patient attended the dental practice. As such, it was observed that this may introduce a degree of error into the quarter in which data are reported. The group felt this should be recognised as a caveat on any reporting outputs / publications.

- WG have confirmed that there is no intention to utilise the Welsh Demographics Service (WDS) for patient matching. It was observed that the process described in the document is **not** precise and will introduce further error in terms of the counts of individual patients (numerator) being treated by Welsh NHS dental services. Again, the group felt this should be recognised as a caveat on national reporting outputs.
- The group requested that a copy of the form be included in the 'additional information' section, so as to make the reader aware of the context in which information was being reported by Health Boards.

Appendix A – Additional Information

Appendix B – SQL Code (where applicable)

n/a