# Review of Urgent and Emergency Dental Care in Wales

**Dental Public Health**

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**Purpose and Summary of Document:**
This report describes a comparative review of the existing provision of urgent and emergency dental care in Wales. The review aimed to:

- describe provision of and access to, urgent and emergency dental care in Wales;
- compare services across Local Health Boards;
- compare existing services across different areas of Wales;
- assess equity of service provision; and
- evaluate the quality of services provided.

This review will inform Local Oral Health Plans and the ongoing planning of dental services within Health Boards. It was undertaken with a view towards developing a specification and set of quality standards for urgent and emergency dental care services in light of the introduction of a 111 service in Wales.
Executive summary

Introduction

Urgent and emergency dental care describes care provided in response to a time-sensitive dental need, without which an individual’s oral health or quality of life is likely to significantly deteriorate.

Since 2006, Local Health Boards (LHB) in Wales have had the responsibility of providing urgent and emergency dental care services for patients unable to access routine care during in-hours periods, and for those experiencing an urgent or emergency dental condition outside normal working hours.

In 2014, the Unscheduled Care Improvement Programme produced its vision for how unplanned care needs should be met in Wales. Included in The Way Ahead for Unscheduled Care in Wales were key objectives for NHS Wales including the need to provide rapid, reliable advice when needed; supporting self-care; and providing easy access to urgent care across Wales.

This report describes a comparative review of the existing provision of urgent and emergency dental care in Wales. It specifically seeks to:

- describe provision of and access to, urgent and emergency dental care in Wales;
- compare services across LHBs;
- compare existing services across different areas of Wales;
- assess equity of service provision; and
- evaluate the quality of services provided.

It is anticipated that this work will inform the future provision of urgent and emergency dental care in Wales.

Current services are commissioned and managed at LHB level. Whilst there are some similarities between models of delivery, there are also important differences with respect to call handling, triaging, and the setting in which clinical care is provided.

Key findings

- Currently, there is no all-Wales consensus on what constitutes a need for emergency or urgent dental care. Furthermore, it is unclear as to whether the definitions currently used by services adequately reflect the beliefs of service users as to what they perceive a need for urgent or emergency dental care to be. The urgent and emergency dental care criteria highlighted here give priority to those with the most acute need where delivery of care within 24 hours is appropriate. They are therefore narrower than the scope of the NHS General Dental Service list of items for which an urgent care fee is payable (see Appendix 1).
• Epidemiological data on the incidence of urgent and emergency dental conditions are poor and often insufficient for the purposes of robust planning and monitoring of unscheduled dental care services.

• There is no nationally-agreed service specification or delivery model for the commissioning of urgent or emergency dental care services, and existing guidance included in the Welsh Health Circular (WHC) (2005) 099 are now in excess of a decade old. However, whilst there is likely to be a minimum set of standards that all services should meet, it would be impractical to suggest that all areas of Wales should adopt the same delivery model.

• Approximately three quarters of care for urgent and emergency dental conditions is provided in routine dental care. Demand on unscheduled dental services is therefore likely to be closely associated with the capacity and accessibility of primary dental care in an area, as well as prevalence of dental disease and socioeconomic deprivation.

• There is a need to regularly confirm that information provided to the public regarding how to access urgent and emergency dental care in their local area is kept up-to-date.

• Information on NHS Dental Charges for urgent and emergency care are not always communicated well and as a result there may be confusion amongst patients as to how much treatment is likely to cost.

• Whilst cost call handling services employ algorithm-based clinical prioritisation tools, the use of such protocols is not universal. As a result there may be unnecessary variation between services with regard to the type of care received by patients. This may be reflected in the outcome of calls; in some services 75% of callers are directed to clinical care whilst in others this is 47%.

• Some call handling services have dental practitioners ‘on call’ for consultation. However in some services the skills of these clinicians are not utilised to their full potential.

• In many current models of care patients may need to make several calls before accessing clinical care, providing the same information on multiple occasions. This is an inefficient system and compromises patient experience.

• Active monitoring of demand on dental helplines and the number of patients subsequently referred to clinical care can assist in the planning of unscheduled dental care services to maximise the benefit gained from existing resources.

• Across the LHBs there are a number of different models for the delivery of clinical care for patients with urgent and emergency dental problems. This heterogeneity will need to be considered during the rollout of the 111 service in Wales.
• Whilst there are some examples of good access to urgent and emergency dental care in Wales, this varies between LHBs and there are some vulnerable groups who do not receive an equitable service. This is particularly the case for individuals who may experience difficulties travelling to dental clinics (such as patients who are housebound or those without their own transport), and patients who are unable to accept care without sedation or general anaesthetic.

• There is variation in appointment length for urgent and emergency dental care between services. Much of this is due to the organisation of services, and therefore not necessarily inappropriate, however there are services in which clinicians have raised concerns about the amount of time available to manage patients with urgent dental conditions. Similarly, some clinical services have been associated with complaints from practitioners that they are overbooked. This puts the buy-in of the profession at risk.

• There is currently insufficient monitoring of patient experience in many unscheduled dental care services.

• Arrangements for monitoring and assuring the quality of care provided in unscheduled dental care in Wales vary between areas. There is evidence telephone triage services audit their performance on a regular basis, and that staff receive appropriate training. However, the professional development needs of clinical staff that specifically relate to their work providing urgent and emergency dental care are not always considered. Furthermore, whilst there is evidence that many services undertake clinical audit, this is not universal nor are there recommendations of clinical audits that would be most valuable in these services. Some independent contractors providing urgent and emergency dental care have been inspected by HIW, and all should have been inspected by the end of the current three year cycle of practice inspections.

• There are instances where communication between different parts of the urgent and emergency dental care service (commissioners, call handlers, triaging staff, and clinical care providers) could be improved to help support quality of care and efficient use of resources.

**Recommendations**

• There is a need for a national-agreed aim and objectives for urgent and emergency dental services in Wales.

• There should be nationally-agreed definitions of what constitutes emergency, urgent, or routine dental care. Furthermore, work should be undertaken to establish whether the definitions of what represents an urgent or emergency dental problem adequately reflect the views of service users.
• There should be clear and consistent standards for the commissioning of urgent and emergency dental care across the seven-day week. This is likely to include an all-Wales service specification for unscheduled dental care. However, this should be mindful of variation in models of dental services and clinical need across the country.

• Since the demand for unscheduled care is likely to vary depending on availability of routine dental care in an area, LHBs need to secure sufficient capacity and access to routine dental care.

• There should be clear and consistent signposting for patients on how to access care for urgent and emergency dental problems. Information should be provided in a variety of formats and accessible via a range of appropriate sources, such as A&E departments, general medical practices, pharmacies and other community locations. Information should be periodically reviewed to check it remains up-to-date.

• Providers of information about urgent and emergency dental treatment should be transparent about what services may incur NHS Dental Charges, what these are, and any exemptions that apply.

• There is a need to reduce inequity of access to urgent and emergency dental care in Wales. In making decisions about the provision of urgent and emergency dental care, commissioners should consider the likely impact of any changes on vulnerable groups such as patients living in rural areas, people with physical or learning disabilities, individuals with low income, and other groups who suffer discrimination or social disadvantage. LHB dental services should be provided equitably and wherever possible the negative health impacts of changes should be minimised and potential benefits maximised. The impact of current arrangements for the delivery of care on vulnerable groups should be considered, possibly through a health equity audit or comparable process. There is also a need for agreement between LHBs with regards to the provision of cross-border care for patients living in certain areas.

• Upon contacting the urgent and emergency dental service, patients’ clinical condition should be assessed according to evidence based criteria and an appropriate degree of urgency assigned to their care. Clinical decision support tools may help to prioritise patients so that they receive the most appropriate care for their dental condition, and their use can promote efficient use of resources. Services that do not currently use such tools should evidence the basis on which they assess and prioritise patients.

• Services where dental practitioners are ‘on-call’ to address questions during call handling should ensure the skills of these practitioners are effectively and efficiently utilised in line with Prudent Healthcare.

• There should be the capability to transfer patient information accurately and securely through different parts of the urgent and
emergency dental care pathway. Patients should ideally only need to make one call to urgent and emergency dental care services.

- There is a need for services to actively monitor call volumes, patterns, and subsequent referral rates to clinical care and use this to inform the planning of unscheduled dental care. Call handling services and LHBs should also monitor patterns of repeat service usage.

- Commissioners should review the length of appointment required for the effective management of urgent dental conditions. This is likely to be informed by both the existing scientific literature, discussion with local clinical care providers and consideration of local organisation of services. This information can subsequently be used to inform future planning decisions.

- All providers of urgent and emergency dental care must be suitably equipped and staffed to carry out the full range of clinical treatments for urgent and emergency dental conditions.

- There is a need for closer monitoring of the outcomes of urgent and emergency dental care within both call handling services and clinical care. This could include both clinical outcomes of care provided, and patient experience and will inform the roll out of NHS 111.

- All parties involved in the care of patients with urgent and emergency dental conditions should ensure there are adequate arrangements in place for monitoring quality of care. This should link with LHB’s Quality Statement and should include procedures to respond to evidence which suggests improvement is required. In line with Scottish Dental Clinical Effectiveness Programme (SDCEP) recommendations, it is suggested that:
  - telephone triage services audit their performance on a regular basis;
  - all those involved in providing the first point of patient contact (such as the dental receptionist and dental triage nurse) receive appropriate training and ongoing professional development, including specific instruction on the use of common analgesic preparations;
  - all those involved in the delivery of urgent and emergency dental services regularly seek to audit their practice. As a minimum providers should audit medical history form completion rates, radiographic quality, and rates of antibiotic prescribing in the absence of operative intervention;
  - Arrangements that are in place for emergency dental care are examined as part of the standard dental inspections of general dental practices and other primary care providers (2).
All services should have appropriate risk management plans and processes in place, including a systematic procedure for responding to Significant Events.

- There is a need for a greater collaboration between different elements of the urgent dental care service - commissioners, call handlers, and clinical care providers – on both a local and national level with the view of achieving sustainable improvements in patient care. Commissioners and service providers should readily share appropriate data, to support the delivery of high quality, evidence-based care. Consideration should be given to an annual review meeting between commissioners and providers to support continual improvement of the service and address issues that may have arisen.

- The urgent and emergency dental care workforce should undergo appropriate induction, be adequately supported within their work, and provided with training to allow them to meet their educational needs.
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### Abbreviations

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<th>Description</th>
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<tr>
<td>A&amp;E</td>
<td>Accident and Emergency</td>
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<td>ABMU</td>
<td>Abertawe Bro Morgannwg University Health Board</td>
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<tr>
<td>ABUHB</td>
<td>Aneurin Bevan University Health Board</td>
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<td>BCUHB</td>
<td>Betsi Cadwaladr University Health Board</td>
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<td>CDS</td>
<td>Community Dental Service</td>
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<tr>
<td>DTU</td>
<td>Dental Teaching Unit</td>
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<td>EDS</td>
<td>Emergency Dental Service</td>
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<td>GDP</td>
<td>General dental practitioner</td>
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<td>GDS</td>
<td>General Dental Service</td>
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<td>GMP</td>
<td>General medical practitioner</td>
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<td>HDUHB</td>
<td>Hywel Dda University Health Board</td>
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<td>Healthcare Inspectorate Wales</td>
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<td>Local Health Board</td>
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<td>National Health Service</td>
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<td>NHS DW</td>
<td>NHS Direct Wales</td>
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<td>PDS</td>
<td>Personal Dental Service</td>
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<tr>
<td>PTHB</td>
<td>Powys Teaching Health Board</td>
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<tr>
<td>SDCEP</td>
<td>Scottish Dental Clinical Effectiveness Programme</td>
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<tr>
<td>WAST</td>
<td>Welsh Ambulance Services NHS Trust</td>
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<tr>
<td>WHC</td>
<td>Welsh Health Circular</td>
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<td>WIMD</td>
<td>Welsh Index of Multiple Deprivation</td>
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1 Background and context

1.1 Unscheduled dental care

Unscheduled care is a term used to describe any unplanned health or social care provided by the National Health Service (NHS) (1). It includes services that are available to the public without prior arrangement where there is an urgent need for intervention by a health or social care professional. Demand for unscheduled care can occur at any time and services must be available to meet this demand. Urgent and emergency dental care, which together comprise unscheduled dental care, form a part of unscheduled care services. Unscheduled dental care occurs both in and out of normal working hours.

1.2 Policy context

In February 2014 the Unscheduled Care Improvement Programme produced its vision for how unplanned care needs should be met in Wales. Included in The Way Ahead for Unscheduled Care in Wales were key objectives for NHS Wales such as the need to provide rapid, reliable advice when it is needed; to support self-care; to provide easy access to urgent care across Wales; and enhanced information systems and care networks that cross organisations.

A key component in The Way Ahead was for the unscheduled care system in Wales to implement a free, 24 hour telephony service to meet out-of-hours, urgent, primary care needs (in this context, primary care comprises primary medical, dental, community and mental health). The 111 Service will, subject to evaluation and Ministerial approval, start a phased roll out across Wales in Autumn 2016, with Abertawe Bro Morgannwg University Health Board (ABMU) commencing first, in a pathfinder role.

Initial mapping of service provision undertaken by the 111 Project Team in 2015 highlighted variation in:

- the approaches taken across Wales to ensure that patients are able to access both urgent and emergency dental care services across the week including weekends and overnight periods;
- service provision models; and
- access routes into services.

The Welsh Dental Committee, all Wales Dental Leads and Welsh Government have agreed to undertake a rapid and detailed piece of work to inform the future provision of urgent and emergency dental care in Wales.
Dental practitioners have an ethical responsibility to manage patients’ pain appropriately (2). Since 2006 general dental practitioners (GDP) working within NHS Wales have had contractual responsibilities for urgent dental care have been to patients currently undergoing, or who have recently completed, a course of NHS dental treatment. Under the NHS (General Dental Services Contracts) (Wales) Regulations 2006, practitioners can provide a Band 1 Urgent Treatment to prevent deterioration of patients’ oral health or to address severe pain (Box 1) (3). In these situations one or more of the treatments listed in Schedule 4 of the National Health Service (Dental Charges) (Wales) Regulations 2006 may be provided (Appendix 1) (4).

Box 1 – Definition of urgent treatment and legislative provisions under the NHS (General Dental Services Contracts) (Wales) Regulations 2006 (3)
The Regulations indicate that Local Health Boards (LHB) are responsible for provision of services outside the times agreed with providers and specified as normal surgery hours (3). The Welsh Health Circular (WHC) (2005) 099 provides the guidance for LHBs regarding service specification for urgent and emergency dental care, and advises LHBs of the steps that need to be taken to plan and implement local arrangements (5). However, it should be recognised that this guidance, which was issued shortly before the introduction of the new NHS dental contract in April 2006, is now in excess of a decade old.

The scope of out-of-hours service cover is defined within these guidance as:

- weekday evenings (Monday to Friday 18:30 to 08:00) – call and triage;

**Part 1**

General

"urgent treatment" means a course of treatment that consists of one or more of the treatments listed in Schedule 4 to the NHS Charges Regulations (urgent treatment under Band 1 charge) that are provided to a person in circumstances where:

(a) a prompt course of treatment is provided because, in the opinion of the contractor, that person's oral health is likely to deteriorate significantly, or the person is in severe pain by reason of his or her oral condition; and

(b) treatment is provided only to the extent that is necessary to prevent that significant deterioration or address that severe pain; and

"working day" means any day apart from Saturday, Sunday, Christmas Day, Good Friday or a bank holiday.

**Part 5**

Contracts: Required Terms

A contractor must provide-

(a) urgent treatment; and

(b) all other services described in paragraph (2),

that are necessary to meet the reasonable needs of its patients during normal surgery hours.
- weekends (Friday 18:30 to Monday 08:00) – call and triage +
treatment; and
- public and bank holidays (as specified by LHB) – call and triage +
treatment.

This guidance stipulates that access standards should take account of
geographical location, access by public transport, and time of day. It
recommends that patients should be able to access the service by dialling
one telephone number only to a call handling agency, which will include
communication in the Welsh language, where appropriate. The WHC also
states that access to service should not be based exclusively on place of
residence and should, where clinically appropriate, allow access to
patients from across LHB borders. The suggested models of service for
the provision of unscheduled dental care are shown in Figure 1.

Figure 1 – Suggested models of service for the provision of
unscheduled dental care included in WHC (2005) 099 (5).
1a – Weekdays
1b - Weekends and bank holidays
1.3 Definitions of emergency, urgent and routine dental care

There is often confusion regarding the terminology for emergency, urgent, and routine dental care. For example, the definitions used within national guidelines do not necessarily reflect the types of treatment permitted under Band 1 Urgent claims within the NHS (General Dental Services Contracts) (Wales) Regulations 2006 (3, 6). The definitions used report are primarily derived from those published by the Scottish Dental Clinical Effectiveness Programme (SDCEP) in Emergency Dental Care (6).

Emergency dental care is an immediate response to a time-critical dental care need. True dental emergencies requiring emergency dental care include:

- traumatic injuries to the face or mouth such as avulsion of a tooth;
- oro-facial swelling that is significant and worsening;
- post-extraction bleeding that the patient is not able to control with local measures;
- dental infections associated with acute systemic illness or raised temperature; severe trismus (restricted mouth opening); and
- oro-dental conditions that are likely to exacerbate systemic medical conditions such as diabetes (6).

The SDCEP recommends that patients with emergency dental conditions should have contact with a clinical advisor within 60 minutes, and...
subsequent treatment within a timescale that is appropriate to the severity of the condition (6). If a dental problem is secondary to a more significant health problem (e.g. chest pain) or is resulting in severe symptoms (e.g. difficulty breathing), initial contact should be with appropriate emergency medical services (7).

Urgent care should be provided when, in the opinion of the dental practitioner, the person’s oral health is likely to deteriorate significantly, or the person is in severe pain by reason of his or her oral condition. The SDCEP recommend that patients with urgent dental conditions should receive dental care as indicated within 24 hours, unless the condition worsens (6). Dental conditions requiring urgent care include:

- severe uncontrollable dental and facial pain;
- dental and soft tissue infections without evidence of spreading infection or systemic involvement; and
- fractured teeth or teeth with pulpal exposure¹(6).

In comparison, non-urgent dental conditions include:

- mild or moderate pain that responds to pain-relief measures;
- minor dental trauma;
- post-extraction bleeding that the patient is able to control using self-care measures;
- loose or displaced crowns, bridges or veneers; fractured or loose-fitting dentures and other appliances;
- fractured posts;
- fractured, loose or displaced fillings;
- treatments normally associated with routine dental care; and
- bleeding gums (6).

Patients with non-urgent conditions should seek routine care within seven days. Alternatively there may be some non-urgent conditions for which self-care is appropriate (6).

The proportion of patients who contact dental helplines who have either an emergency, urgent or routine dental problem is likely to vary depending on a number of factors. The SDCEP states that approximately 1% of calls are likely to relate to dental emergencies, 75% to urgent problems, and the remaining 25% to conditions requiring routine care (6). The little evidence that is available from the scientific literature indicates that emergency conditions make up between 0.4 and 8 percent of calls to urgent dental services, urgent cases 37 to 47 per cent, and routine cases 33 to 61 per cent (8, 9).

¹ Some sources recommend that the treatment of teeth with complicated crown fractures (i.e. those involving the dental pulp) should occur within 4 hours, especially for teeth with open apices.
The definitions presented above are based on the views of dental professionals, and thus represent normative need. However, professionals’ views may differ from patients’ perceptions of the urgency of their condition. An example of this would be a patient who has lost a crown from an anterior tooth on the day before their wedding – clinical guidance indicates that a lost crown does not constitute an urgent dental condition, and instead would direct this patient to routine care. However, for this particular patient at this time, this condition represents an urgent condition, not because of the symptoms associated with the condition but because of the impact on quality of life. Whilst this is an extreme example, it illustrates the potential divergence between the views of professionals and service users.

To date, there has been relatively little work undertaken to ascertain the patients’ views on what constitutes an urgent or emergency dental condition. However, in a qualitative study undertaken by Anderson and Thomas in dental walk-in centres in Wales published in 2003 investigators reported that symptom intensity was not the only trigger for seeking urgent dental care. Instead the detrimental effect of the condition on patients’ quality of life and the ‘perceived inability to cope’ more accurately encapsulated patients’ reasons for seeking care for acute dental conditions (10).

1.4 Clinical care for urgent and emergency dental conditions

In the majority of cases, urgent and emergency dental conditions will require treatment from a dental practitioner in an appropriate clinical environment, such as a dental surgery or clinic. The rare exceptions to this are emergency dental conditions where patients may require additional care from medical personnel and/or in a hospital environment. Despite this, there is evidence that patients with urgent and emergency dental conditions present at a variety of locations outside of the dental service, including general medical practices and Accident and Emergency (A&E) departments. Such presentations place pressure on such services as they are unlikely to have the necessary skills and facilities to appropriately manage such patients.

Local measures (e.g. dental treatment such as restoration (filling), endodontic treatment (root canal treatment) and tooth extraction) are the recommended first-line treatment for most urgent and emergency dental conditions (11). There are some circumstances when local measures should be provided alongside pharmacological treatment such as analgesics or antimicrobials and a small number of situations where pharmacological treatment alone is appropriate (11). A few conditions may require no active treatment, but instead advice on self-care and reassurance.
1.5 Quality and safety in urgent and emergency dental care

Quality and safety can be thought of as safe, effective, timely and appropriate care which is focused on patients and service users, provided by well-trained staff with appropriate resources. In Wales the Health and Care Standards give a framework for quality and safety, which helps to ensure safe and high quality care is provided within NHS settings (12).

With regards to urgent and emergency dental care, the SDCEP recommends that:

- all those involved in providing the first point of patient contact (such as the dental receptionist and dental triage nurse) receive appropriate training and ongoing professional development, including specific instruction on the use of common analgesic preparations;
- all those involved in the delivery of emergency dental services regularly seek to audit their practice;
- arrangements that are in place for emergency dental care are examined as part of the standard dental inspections of general dental practices and other primary care providers; and
- telephone triage services audit their performance on a regular basis and are subject to external review (6).
2 Aims and methods

2.1 Aims and objectives
This report aims to describe provision of and access to, urgent and emergency dental care in Wales.
It specifically seeks to:
- describe provision of and access to, urgent and emergency dental care in Wales;
- compare services across LHBs;
- compare existing services across different areas of Wales;
- assess equity of service provision; and
- evaluate the quality of services provided.

It is anticipated that this review will inform Local Oral Health Plans and the ongoing planning of dental services within Health Boards, and was undertaken with a view towards developing a specification and set of quality standards for urgent and emergency dental care services in light of the introduction of a 111 service in Wales.

This review also acknowledges the importance of the Welsh language provision within healthcare and is cognisant of the recommendations made by the Welsh Language Commissioner in the review ‘My Language, My Health’ and statutes issued by Welsh Government.

2.2 Design
This was a pragmatic comparative service evaluation utilising:
- routinely collected data;
- scientific literature;
- consultation with key informants;
- examples of effective practice;
- patient compliments and complaints received by LHBs and providers of urgent and emergency dental care;
- feedback from staff working within urgent and emergency dental services; and
- a SWOT (Strengths Weaknesses Opportunities and Threats) analysis conducted among commissioners of urgent and emergency dental services in Wales.

2.3 Setting
The review was conducted across the seven LHBs in Wales and the NHS Direct Wales (NHS DW) service provided by the Welsh Ambulance Services Trust (WAST).
3 Demographics of Wales

Wales covers an area of 20,780 square kilometres and has an estimated population of 3.09 million (13). The population in many areas is growing, principally due to a combination of net international migration and a greater number of births than deaths. However in some areas, such as Ceredigion, the population is predicted to fall over the coming years.

Wales is divided into seven LHBs who plan, secure, and deliver healthcare services within their areas. There are also three NHS Trusts, one of which is WAST who, since 2007, have run NHS DW.

The geographical size of LHBs ranges from under 500 square kilometres in Cardiff and Vale University Health Board (CVUHB), to over 6,000 square kilometres in Betsi Cadwaladr University Health Board (BCUHB). The more urban and post-industrial southern and eastern areas of Wales, which include AMBU, Aneurin Bevan southern and eastern areas of Wales, which include AMBU, Aneurin Bevan University Health Board (ABUHB), CVUHB, and Cwm Taf University Health Board (CTUHB), house up 60 per cent of the Welsh population (Table 1), but make up just 17 per cent of the area of Wales. In contrast, Powys Teaching Health Board (PTHB), BCUHB and Hywel Dda University Health Board (HDUHB) are dominated by more rural areas. More detailed LHB profiles can be found in Appendix 2.

3.1 Age

The population of Wales, like other areas of the UK, is ageing, and the number of people living beyond 75 years of age is increasing (Figure 2). In some LHBs over 10 per cent of the population is aged 75 or over (Table 1). This is likely to have increasing impact on the planning and provision of services in the future.
Table 1 – Population of seven Welsh LHBs, mid-2014 estimates (11)

<table>
<thead>
<tr>
<th>Local Health Board</th>
<th>Population</th>
<th>Proportion of total population of Wales</th>
<th>Proportion of population aged 75 or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>523,000</td>
<td>16.9%</td>
<td>8.8%</td>
</tr>
<tr>
<td>ABUHB</td>
<td>580,400</td>
<td>18.8%</td>
<td>8.4%</td>
</tr>
<tr>
<td>BCUHB</td>
<td>694,000</td>
<td>22.4%</td>
<td>9.8%</td>
</tr>
<tr>
<td>CVUHB</td>
<td>482,000</td>
<td>15.6%</td>
<td>7.3%</td>
</tr>
<tr>
<td>CTUHB</td>
<td>296,000</td>
<td>9.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>HDUHB</td>
<td>384,000</td>
<td>12.4%</td>
<td>10.3%</td>
</tr>
<tr>
<td>PTHB</td>
<td>132,700</td>
<td>4.3%</td>
<td>11.4%</td>
</tr>
<tr>
<td>WALES</td>
<td>3,092,100</td>
<td>100%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

Figure 2 – Percentage of population by age and sex, Wales, 2014*

* Produced by Public Health Wales Observatory, using Mid-year population estimates from the Office for National Statistics

3.2 Ill-health and deprivation

Patterns of disease are changing within the UK, with the burden of ill health from communicable diseases to chronic conditions (14).
conditions such as diabetes, chronic obstructive pulmonary disease and coronary heart disease are limiting in both quantity and quality of life, and the impact of chronic conditions on people’s lives and services in Wales is of growing concern. Wales has the highest rates of long-term limiting illness in the UK, and this accounts for a large proportion of unnecessary emergency admissions to hospital (15). In the Welsh Health Survey of 2015, it was reported that:

- 1 in 5 adults in Wales reported being treated for high blood pressure;
- 1 in 13 adults in Wales reported being treated for a heart condition (excluding high blood pressure);
- 1 in 8 adults in Wales reported being treated for a mental illness; and
- 1 in 14 adults in Wales reported being treated for diabetes (16).

Health and well-being are influenced by social, economic, and environmental factors such as unemployment, education, and quality of housing (17). The link between poverty and health, particularly with regards to chronic disease, is well established, and it is known that behavioural determinants of poor health, such as smoking, are substantially more common in deprived areas.

Deprivation is ‘the lack of access to opportunities and resources which we might expect in our society’, and the Welsh Index of Multiple Deprivation (WIMD), the official measure of relative deprivation for small areas in Wales, includes indicators of both the material and social deprivation (18, 19). As shown in Figure 3 the most deprived areas of Wales are found in the post-industrial South Wales valleys, parts of the North Wales coast, and in some urban areas in Cardiff and Swansea (Figure 3). However, within less deprived areas there are often pockets of hidden deprivation. There is currently a gap of approximately nineteen years of healthy life expectancy between men living in the least and most deprived areas in Wales (20).
3.3 Oral health

In the 2009 Adult Dental Health Survey, only seven per cent of dentate adults in Wales were reported as having excellent oral health (22). In contrast, nearly half (47 per cent) had at least one carious tooth, and these individuals had on average 2.4 carious teeth each (23). There is therefore known to be a substantial burden of dental disease within the Welsh adult population.

Poor oral health is known to be related to deprivation. Despite marked improvement in oral health in adults and children since the 1970s, both children and adults from deprived backgrounds have more decay experience than those from more advantaged backgrounds. Five year olds from the most deprived areas in Wales have on average 1.9 decayed, missing or filled teeth compared to 0.8 in the least deprived areas (24). Similarly, 12 year olds from the most deprived areas in Wales have over
double the number of teeth with evidence of decay experience compared to children from the least deprived communities (25).

3.3.1 Prevalence of urgent and emergency dental conditions

There is relatively little epidemiological data regarding the incidence of urgent and emergency dental conditions in Wales. In the 2009 Adult Dental Health Survey, 8 per cent of dentate adults living in Wales reported that they had experienced pain fairly or very often in their teeth in the past 12 months, and a further 16 per cent had experienced pain occasionally during this time (22). In the 2013 Child Dental Health Survey 18 per cent of 12 year olds and 17 per cent of 15 year olds reported experiencing toothache in the previous 6 months (26).

It is not known how much variation in incidence of urgent and emergency dental conditions exists between different areas in Wales. However, the incidence of urgent dental conditions is known to be associated with socioeconomic status. The odds of an individual from a routine or manual occupation reporting an urgent dental condition are 43 per cent higher than someone working in a managerial or professional occupation (p<0.001) (27). Similarly, children eligible for free school meals were more likely to have experienced toothache in the last six months than those who were not (26).

3.3.2 Patterns of dental attendance

A large proportion of the dental resources in Wales are allocated to the provision of routine dental care by the General Dental Service (GDS) or ‘high street dentists’. In the 24 months preceding September 2015, 54.8 per cent of the Welsh population (1.69m) received a course of NHS dental treatment within the GDS (Table 2). This varied from 45.2 per cent in HDUHB to 62.5 per cent in ABMU. However, it is also known that a substantial proportion (23 per cent) of dentate adults in Wales will only attend a dentist when experiencing trouble with their teeth (23). Young adults 25-34 years of age are most likely to fall into this category (22), and patients aged 20-29 are most likely to contact urgent and emergency dental care helplines (8). The odds of an individual who only attends when experiencing trouble reporting an urgent dental condition are 2.95 times higher than people who attend the dentist regularly for check-ups (p<0.001) (27).

Both dental pain and seeing a dentist only when experiencing problems are known to be correlated with socioeconomic deprivation (22). Individuals from more deprived areas are known to access urgent and emergency dental care services more frequently than individuals from less deprived communities (27). Not only are economically disadvantaged individuals more likely to need care, they may also be more likely to rely on public transport to attend appointments.
3.3.3 Management of urgent and emergency dental conditions within routine care

The demand on unscheduled dental care services within an area is likely to be associated with amount of routine primary dental services provided locally, and the accessibility, acceptability and effectiveness of this care. Indeed, approximately three quarters of all care for urgent and emergency dental conditions in Wales is provided through routine dental care services. Therefore, the capacity of, and access to, routine primary care dental services in an area should be considered when planning urgent and emergency dental care provision.

Table 2 shows the number of Urgent Band 1 claims in the 2014/15 financial year for each LHB. Highest rates of Band 1 Urgent Treatments per 1,000 head of population were found in ABMU and PTHB, whilst the lowest rates were in HDUHB and BCUHB. These figures reflect access to routine GDS, and local arrangements for urgent and emergency dental care, as well as expressed need for care. However, not all patients who see a GDP with an urgent dental condition as part of routine care arrangements will have a Band 1 Urgent Activity claim raised. This is particularly true for patients who may already be in the middle of a course of NHS treatment.

It should also be recognised that many dental practices also provide private care for patients with urgent or emergency dental conditions.
Table 2 – Number of patients treated in the GDS in Wales in the 24 months preceding September 2015 (28)

<table>
<thead>
<tr>
<th>Local Health Board**</th>
<th>Population estimate (mid-2014)</th>
<th>Patients accessing routine dental care providers in the GDS/PDS*</th>
<th>Courses of treatment Band 1 Urgent treatment 2014/15***</th>
<th>Band 1 Urgent treatments provided within GDS contracts 2014/15 (per 1,000 patients)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>523,000</td>
<td>327,248 (62.5)</td>
<td>42,766</td>
<td>81.8</td>
</tr>
<tr>
<td>ABUHB</td>
<td>580,400</td>
<td>330,941 (57.0)</td>
<td>46,190</td>
<td>79.6</td>
</tr>
<tr>
<td>BCUHB</td>
<td>694,000</td>
<td>347,072 (50.0)</td>
<td>40,268</td>
<td>58.0</td>
</tr>
<tr>
<td>CVUHB</td>
<td>482,000</td>
<td>270,422 (56.1)</td>
<td>37,289</td>
<td>77.4</td>
</tr>
<tr>
<td>CTUHB</td>
<td>296,000</td>
<td>169,593 (57.3)</td>
<td>20,845</td>
<td>70.4</td>
</tr>
<tr>
<td>HDUHB</td>
<td>384,000</td>
<td>173,905 (45.3)</td>
<td>19,851</td>
<td>51.7</td>
</tr>
<tr>
<td>PTHB</td>
<td>132,700</td>
<td>80,102 (60.4)</td>
<td>10,963</td>
<td>82.6</td>
</tr>
<tr>
<td>Wales</td>
<td>3,092,100</td>
<td>1,698,997 (54.9)</td>
<td>218,172</td>
<td>70.6</td>
</tr>
</tbody>
</table>

* Personal Dental Service (PDS)
** This indicates which LHB care was provided in. Some patients may access primary dental care services in other LHBs than where they live.
*** In some LHBs may include some patients who received care for urgent dental conditions through unscheduled care arrangements and who are therefore not routine patients of the practice.
4 urgent and emergency dental care in wales

4.1 definitions

The following definitions for in-hours and out-of-hours care are used throughout the review. These definitions reflect guidance laid out by WHC (2005) 099 (5).

In-hours – Monday to Friday 08:00 to 18:302.

Out-of-hours – weekday evenings (from 18:30 to 08:00), weekend (Friday from 18:30 to Monday 08:00), and bank holidays.

In Wales in-hours care for urgent or emergency dental care is provided in: NHS dental practices for ‘registered’3 or new patients; NHS dental practices with commissioned Dental Access Sessions; Community or Hospital Dental Services with contracted emergency slots; and Accident and Emergency Departments (for emergency dental conditions only). Dental practices can also provide private care for patients with urgent or emergency dental conditions.

In contrast, out-of-hours care is provided by: NHS dental practices with commissioned emergency appointments; Emergency Dental Service (EDS) clinics (run either by primary care providers or EDS); and A&E departments (for emergency dental conditions only). As with in-hours care, dental practices may also provide private care for patients with urgent or emergency dental conditions during out-of-hours periods.

4.2 feedback from service users

The core principles of NHS Wales states that patients and service users should be the primary consideration when providing care. As such, all NHS organisations have procedures in place to respond appropriately to compliments and complaints made about their services.

Some LHBs have also undertaken specific work regarding patient satisfaction with unscheduled dental services. However, this is not routinely undertaken across all Wales. Where data are available they reveal that overall patient satisfaction with services provided is high.

2 NHS dental practices negotiate their opening times with the LHB, and therefore specific opening times may vary between practices. The normal working hours of the majority of dental practices are Monday to Friday 08:00 to 17:30.

3 Since the introduction of NHS (General Dental Services Contracts) (Wales) Regulations 2006 patients are no longer registered with a dental practice, and dental practices do not have to provide continuing dental care from one course of treatment to the next. However, many practices will continue to see patients and provide urgent and emergency care to patients who have regularly attended the practice in the past, even if they are not currently undergoing dental treatment.
• ABUHB has conducted the Out-of-Hours Urgent Dental Care Patient Satisfaction Survey since 2012. There are consistently high scores across all domains, including ability to access the Dental Helpline; call handling; clinical staff; care provided; and cleanliness of clinical areas.
• Community Health Council monitoring visit to an out-of-hours urgent dental clinic at St David’s Hospital, CVUHB, reported that patients seemed very grateful to be able to access the service, which was considered to be well-organised.
• In a patient satisfaction survey conducted by ABMU in its in-hours urgent dental care service >90% of respondents were satisfied with the service provided.

However, there are reports of patient complaints within unscheduled dental care in Wales. These represent opportunities to improve the service and broadly relate to one of four domains:

• information regarding how to access urgent and emergency dental care services;
• call handling services;
• communication between call handlers and clinical care providers; and
• location and accessibility of clinical care providers.

Feedback from patients also reveals some reasons why patients access urgent dental care services.

4.2.1 Reasons for accessing urgent dental care services

In the survey conducted by ABUHB nearly a quarter of patients (22 per cent) reported that they had received their last dental check-up within the previous month. This may indicate that acute dental conditions arising in the middle of, or shortly after, a course of dental treatment may account for a substantial proportion of patients who attend out-of-hours dental services. Although NHS GDS Regulations stipulate that such patients should be managed by the provider of the recent treatment, in a recent patient experience survey conducted in out-of-hours clinic in Wrexham (BCUHB) only 25 per cent of patients who reported experiencing pain as a result of recent dental treatment had contacted their dentists before attending the EDS clinic. This may be due to the time at which their condition arose, unwillingness to return to the original provider, or lack of access to follow-up care. Of those patients who had tried to contact their dentist, the most common reason for subsequent presentation to EDS services was the lack of appointment availability. Furthermore, amongst patients without a dentist, 85 per cent reported it was easier to access the out-of-hours service rather than attempting to find a dentist during working hours. This corroborates anecdotal evidence collected during the review which described how there may be a minority of patients who
would prefer to attend out-of-hours services rather than engage in routine
dental care.

4.2.2 Information regarding urgent and emergency dental care

Information regarding arrangements for urgent and emergency dental
care services are widely publicised on the Internet, in dental practices and
other healthcare settings, and by non-NHS organisations. However, the
arrangements for unscheduled dental care change over time, and it is
important that these changes are disseminated to all bodies providing
information to the public. In December 2015 a patient accessed out-of-
date information on the Internet and turned up at a clinic not providing
clinical care on that day.

4.2.3 Call taking and handling

Nearly all models of unscheduled dental care delivery employ a telephone
call handling service as patient’s first point of contact. This allows patients
to be directed to the most appropriate service for their need. However, in
December 2015 patients calling one Dental Helpline during out-of-hours
periods were cut off prior to reaching a call handler. Incidents of this
nature should be recorded and investigated appropriately.

4.2.4 Communication between call handlers and clinical care providers

In nearly all models of delivery there is communication or information
transfer of some form between call handlers and clinical care providers. In
models in which clinical care rotates between a number of different
providers, call handlers need to be informed where urgent dental care
sessions are located each day. There are examples in which
miscommunication between call handling and clinical care providers
regarding where Dental Access Sessions are being run, resulted in
patients being directed to the wrong provider, whilst commissioned
services were unfilled.

4.2.5 Location, accessibility and capacity of clinical care

The location, accessibility and capacity of clinical care services are
important factors in the planning of unscheduled care. However, there are
instances where the capacity of existing clinical sessions for urgent dental
conditions was insufficient, leaving patients without care. There are also
concerns that in many parts of Wales cross-border arrangements are not
in place. In one instance this meant a patient being asked to travel over
75 miles to an urgent dental care provider, where a provider in a
neighbouring LHB would have been more accessible.
4.3 Feedback from call handlers and clinical teams

The following feedback was received from individuals and organisations responsible for the delivery of call-handling services and clinical care. Data are drawn from evidence provided to the review team and responses to a short questionnaire conducted amongst providers of urgent dental care by the 111 Project Team. Responses principally mapped to four domains:

- triaging of calls;
- communication between call handlers and clinical care providers;
- clinical care; and
- information infrastructure.

4.3.1 Triaging of calls

Many LHBs operate models of care employing algorithm-based clinical decision support tools. Several respondents identified triaging by dental nurses as a strength of their model of delivery. A response from a clinical team working in a service not currently using such systems highlighted that the introduction of this may strengthen the service provided and aid quality and safety processes.

Another respondent identified instances where patients with non-urgent conditions had been booked into urgent dental care slots within a system employing triaging tools. However, this clinician acknowledged that some patients may provide inaccurate information to call handlers in order to obtain an appointment.

4.3.2 Communication between call handlers and clinical care providers

Feedback from both call handlers and clinical care providers highlighted opportunities in some areas to improve communication between clinical and call handling services. In one example, clinicians running Dental Access Sessions reported that they often do not know many patients had been booked into the service by call handling teams. This they felt, did not allow them to plan clinical care effectively. Similarly, some call handlers also expressed concern that sometimes clinical care providers did not communicate effectively when clinical sessions were reaching capacity.

4.3.3 Clinical care

Emergency dental care providers in one LHB expressed concern about the length of time they had to treat patients in EDS sessions. Clinicians highlighted that having insufficient time during appointments could be detrimental to patient care and resulted in poor working conditions for staff. Furthermore, one clinician expressed concerned that some out-of-
hours clinics did not have the necessary facilities to carry out a full range of clinical care (in this case, surgical extractions).

Dental practitioners providing out-of-hours care also highlighted that working with dental nurses who were familiar with the both providing out-of-hours care and the specific clinical environment increased the efficiency of care provided.

4.3.4 Information infrastructure

Whilst many in- and out-of-hours care providers have implemented electronic patient management systems, there are a minority which are still paper based. Whilst there is likely to be considerable cost and temporary loss of efficiency associated with introducing computer-based systems into paper-based clinics, dental staff described the potential advantages of digitalisation.

4.4 Feedback from commissioners

In January 2016 LHB Dental Leads agreed to undertake a SWOT analysis of their current urgent and emergency dental care services. Six out of seven LHBs provided comprehensive responses to the request. The responses highlighted variation in models of delivery across Wales, but there were some domains that were common to a number of responses. These included:

- capacity and workforce within General Dental Services;
- the infrastructure of urgent and emergency dental care services;
- access to unscheduled dental care and patient convenience; and
- capacity and flexibility within current models of care.

4.4.1 Capacity and workforce in General Dental Services

Commissioners acknowledged that there was an inverse relationship between need for unscheduled dental care capacity within the local GDS and other primary care dental services. Several LHBs described how budgetary restrictions meant that GDS practices providing urgent dental care services often could not be given additional capacity to accept these patients for routine care. Other LHBs identified recruitment of suitably qualified dental personnel to GDS roles and lack of interest from dental practices during commissioning processes as potential threats to the services.
4.4.2 Urgent and emergency dental care service scope and infrastructure

Several LHBs viewed electronic booking systems as a strength of the service, citing that it reduced the number of calls patients needed to make. Similarly, models of care which did not use a computer system to transfer information acknowledged that this was a weakness within the system and could result in patients making up to three separate phone calls in order to obtain care. As part of this, some LHBs identified opportunities to strengthen the infrastructure between call handling and clinical care systems.

4.4.3 Access to urgent and emergency dental care services and patient convenience

Some responses, typically from geographically-smaller LHBs, highlighted the benefits of operating a small number of well equipped CDS- or EDS-run clinics which could provide additional services such as bariatric care. However in other areas, the reliance on a single or small number of independent contractors was identified as a potential threat.

Whilst many responses identified that a strength of their model of care was it allowed patients with urgent dental conditions to access appropriate care in a timely fashion, at least one LHB raised that providing patients with easy access to urgent dental care may remove the incentive to seek routine dental care.

Cross-border working arrangements were identified as an opportunity for improvement.

4.4.4 Urgent and emergency dental care service capacity and flexibility

In areas in which Dental Access Sessions are contracted separately from GDS services, typically via Personal Dental Services (PDS) contract or Service Level Agreement (SLA), respondents described how these arrangements allowed them to closely monitor the dental activity being undertaken during these sessions. Some responses also described how such arrangements could provide additional capacity during times such as Christmas and New Year when other dental providers may be closed or working limited hours.

Services with high capacity within unscheduled dental care services highlighted this as a strength, but also recognised that some models may be financially unsustainable if demand continued to increase.

Despite the need for flexibility within unscheduled dental care, service stability was predominantly viewed as a strength and whilst inconsistency in delivery was seen a weakness.
5 Comparative review of existing arrangements for urgent and emergency dental care in Wales

5.1 Information provided to patients

Information on how to access urgent and emergency dental services is provided on the Internet, via dental and general medical practices, and on posters displayed in public places. However, as arrangements change, it is important that all sources of information are updated as out of date information was found on a small number of NHS-maintained websites.

5.2 Call handling and triage

5.2.1 Organisation and hours of operation

Arrangements for call taking are outlined in Table 4. Three LHBs (ABUHB, CVUHB and CTUHB) operate their own Dental Helpline and call handling services, whilst calls from the remaining four (ABMU, BCUHB, HDUHB and PTHB) are received and managed by NHS DW.

Table 4 – A summary of initial call taking for urgent and emergency dental care in Wales

<table>
<thead>
<tr>
<th>Local Health Board</th>
<th>Initial call taking</th>
<th>Takes calls 24 hours a day?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In-hours</td>
<td>Out-of-hours</td>
</tr>
<tr>
<td>ABMU</td>
<td>In house and NHS DW</td>
<td>NHS DW</td>
</tr>
<tr>
<td>ABUHB</td>
<td>In house</td>
<td>In house</td>
</tr>
<tr>
<td>BCUHB</td>
<td>NHS DW</td>
<td>NHS DW</td>
</tr>
<tr>
<td>CVUHB</td>
<td>In house</td>
<td>In house</td>
</tr>
<tr>
<td>CTUHB</td>
<td>In house</td>
<td>In house</td>
</tr>
<tr>
<td>HDUHB</td>
<td>NHS DW</td>
<td>NHS DW</td>
</tr>
<tr>
<td>PTHB</td>
<td>NHS DW</td>
<td>NHS DW</td>
</tr>
</tbody>
</table>

Most LHBs operate a single phone number that receives calls 24 hours a day. An exception to this exists within in-hours care in CTUHB where patients with urgent and emergency conditions are advised to contact clinical care providers in Rhondda Cynon Taf and Merthyr Tydfil directly, depending on their area of residence. Out-of-hours calls are then received by the GP Out-of-hours Service. No dental calls are therefore taken between 16:30 and 18:30 on weekdays (16:15 to 18:30 on a Friday).

In ABUHB there is a single telephone number but separate arrangements for in-hours and out-of-hours call handling. No calls are received between
08:00 and 09:00, and 16:30 and 18:30 on weekdays (16:00 to 18:30 on a Friday).

5.2.2 Call charges
Calls to NHS DW from landlines and mobiles cost £0.02 per minute. Calls to other Dental Helplines are charged at local rates (up to £0.12 per minute from landlines, and £0.03 to £0.45 per minute from mobiles).

5.2.3 Call handling and triaging arrangements
There are several different models for call handling and patient triage within urgent and emergency dental care Wales. Within the context of this report, the term triaging is used to describe a method of identifying patients who have the greatest ability to benefit from care.

Some call handling services such as NHS DW, CVUHB out-of-hours, and ABUHB out-of-hours employ clinical decision support tools. These support tools guide users, clinically trained or not, as to the most appropriate management of patients. They typically consist of an algorithm consisting of a series of questions and resulting pathways of care. The use of such tools may help call handlers to advise the patient where the most appropriate type of care for their dental problem can be obtained; allows for the identification of life-threatening conditions, dental or otherwise, for which emergency care is required; and can help contribute to consistency of patient experience. Typically call handlers can only offer patients the advice the pathway directs them to, although in certain models this can be overridden by clinically trained staff if deemed to be necessary.

**ABMU, BCUHB, HDUHB, and PTHB (NHS DW)**

Dental calls to NHS DW typically progress through two levels of triage, firstly with call handlers and then, if appropriate, clinical staff. Calls are initially received by call handlers, and prioritised using the Clinical System Prioritisation Tool (CSPT). Call handlers are also able to provide advice about local dental services for routine care, if appropriate.

Dental calls are assigned one of three codes:

- **D1** – a dental emergency (e.g. uncontrollable bleeding; moderate to severe trauma; rapidly increasing swelling). These individuals receive a call from a Dental Health Advisor within 10 minutes.
- **D2** – an urgent dental condition (e.g. uncontrollable dental pain). These individuals receive a call from a Dental Health Advisor within 1 hour.
- **D3** – a routine dental problem (e.g. a lost restoration). These individuals receive a call from a Dental Health Advisor within 2 hours.
Patients then hang up the phone and await a subsequent call from a dental health advisor or nurse advisor. During this second level of triage, patients will be asked further questions; can be given self-care advice (including information about analgesics); be referred to unscheduled dental care services, or advised on how to access routine care, depending on the severity of the condition. During Monday to Friday between 08:00 and 22:00, and weekends from 07:00 to 22:00 dental health advisors (registered dental nurses) will return dental calls. Outside these times a nurse advisor will return calls. On returning calls, dental health advisors follow a clinical decision support algorithm to suggest whether clinical care is indicated and the time period in which this should be sought. However, the algorithm is occasionally overridden depending on the clinical judgement of the advisor. NHS DW staff inform callers of the likely patient charges associated with urgent and emergency dental care and advise patients who may be exempt from these to take appropriate proof to their appointment.

Data on calls is collected on the patient management system, CAS. NHS DW currently has no facility to ring an on-call dentist for advice regarding patient management.

Although NHS DW do not handle calls from patients living in ABUHB, CVUHB, and CTUHB occasionally patients will ring NHS DW. Figure 4 shows the number of calls received by NHS DW from patients in these LHBs has decreased over the last three financial years. This may indicate that patients are becoming more familiar with how to access the LHBs’ own systems.
Figure 4 – Graph showing frequency of calls to NHS DW from patients in ABUHB, CVUHB, and CTUHB for the financial years 2013/14, 2014/15, and 2015/16

ABUHB

In-hours, the Dental Helpline is staffed by administrative team members, and receives calls from patients who are housebound and require domiciliary care as well as those with urgent dental conditions. Patients wait on the line until their call is answered, however the lack of a call management system (e.g. music and recorded messages) may mean some hang up before speaking to anyone. During in-hours periods there are no triaging algorithms in place.

Out-of-hours, the Dental Helpline number is routed via the Out-of-Hours Call Centre. All calls are managed by non-clinical call handlers, who use a clinical decision support algorithm which was designed in conjunction with dental practitioners and is closely aligned to evidence-based guidelines published by the SDCEP (2). As non-clinical staff, call handlers cannot provide advice on analgesics, but will advise patients to follow their normal self-care procedures for headache etc. Data on calls is collected on Adastra.

There is a dentist on-call between 18:30 and 22:00 on weekdays and they are required to return calls within 20 minutes to provide patients with clinical advice. After 22:00 dental calls are directed to the on-call general medical practitioners (GMPs). However the management of dental
problems lies outside GMPs’ scope of practice and there is evidence of some tension with this arrangement.

**CVUHB**

All calls are initially managed by call handlers. Call handlers use Adastra and work through a pre-set list of clinical prioritisation questions with callers to allocate clinical care appointments or provide advice as determined by the algorithm. During the week callers requiring clinical advice on analgesics are advised to call again at 18:00 to speak to a GMP. On the weekends and bank holidays call handlers log patients for call back, and CDS dental nurses are employed to triage calls. Prior to the introduction of these arrangements there was concern that the weekend urgent dental clinics were regularly oversubscribed and sessions were operating over-capacity. On weekends and bank holidays dental nurses use a clinical decision support algorithm based on SDCEP guidelines. A key focus of the triaging arrangements are to encourage patients to access routine care or to self-care whenever clinically appropriate, thus ensuring EDS clinics running on a weekend receive appropriate high-priority, urgent cases. Call discharge is monitored and reviewed for each nurse, and the LHB is currently considering implementing a similar system during the week. Over the weekend on-call dentists are available to provide clinical advice. There is however, evidence to suggest that not all practitioners routinely answer their phones.

**CTUHB**

In-hours calls are received by the Dental Teaching Unit (DTU) in Porth and the CDS clinic at Keir Hardie University Health Park. When patients ring Porth DTU they are asked a series of questions by a receptionist. Generally, patients who are experiencing pain that is uncontrolled by analgesics who haven’t seen a GDP in the last two months are offered an appointment. Out-of-hours, dental calls are received by call handlers within the LHB’s Communication Hub. On some evenings and weekends between 18:30 and 21:00 dental nurses triage calls. Outside of this time, GMPs will triage patients with dental problems. Similar to in other LHBs, there are concerns that GMPs may not be best placed to manage patients with dental problems. However there are newly developed algorithms in place to assist in the triaging of patients which have been developed locally with input from appropriate clinical leads. Similar to CVUHB, dentists are on-call over the weekend to provide clinical advice. However, evidence suggests these practitioners are rarely contacted.
5.2.4 Call volumes

Call handling services collect data on call volumes and discharge of calls. Systems in which there are call-back procedures, such as NHS DW, are likely to have higher call volumes than models in which all calls are managed by call handlers. As a result it is often inappropriate to compare call volumes between LHBs.

Most services experience a peak in call volume on Monday mornings, between 08:00 and 11:30. However ABMU, BCUHB and PTHB also experience high call volume on Saturday mornings, between 08:00 and 11:00. Whilst there is no evidence of consistent periodicity (or annual pattern) to calls in some LHBs, BCUHB and HDUHB consistently experience high call volumes in August, probably linked to the tourism industries in these areas. ABUHB and CTUHB have small peaks in call volume in May and August, possibly linked to the additional bank holidays within these months.

Over the previous three financial years up to April 2016, call volumes have increased across many, although not all, call handling services. In general, a greater increase in call volume has been observed within in-hours periods. Calls during out-of-hours times have increased in some services but decreased in others.

Call volumes have increased in the following call handling services:

- NHS DW call handling for PTHB experienced a 34.0 per cent increase in total call volume between 2013/14 and 2015/16 financial years. This was mainly due to increased call volumes on weekdays.
- NHS DW call handling for ABMU experienced a 20.4 per cent increase in total call volume between 2013/14 and 2015/16 financial years. This was mainly due to increased call volumes on weekdays.\(^4\)
- NHS DW call handling for BCUHB experienced a 12.6 per cent increase in total call volume between 2013/14 and 2015/16 financial years. This was mainly due to increased call volumes on weekdays.
- Porth DTU (CTUHB) experienced a 10.1 per cent increase in in-hours calls between 2013/14 and 2015/16 financial years.

Call volumes have remained stable (± 5%) in:

- NHS DW call handling for HDUHB experienced a 5 per cent increase in total call volume between 2013/14 and 2015/16 financial years.

Call volumes have decreased in:

\(^4\) Changes to the in-hours urgent and emergency dental care service in 2014 meant that patients were required to call NHS DW for triage prior to being given an urgent appointment, resulting in an increase of call volume on weekdays.
• There was a 6.3 per cent decrease in dental calls to CTUHB Out-of-Hours service between 2014/15 and 2015/16 financial years.
• There was a 5.9 per cent decrease in dental calls to ABUHB Out-of-Hours service between Apr-Jan 2014/15 and Apr-Jan 2015/16.

5.2.5 Outcome of calls
At the end of a call to unscheduled care telephony patients will either:
• exit the care pathway having received advice only;
• exit the care pathway having been advised to contact routine dental services; or
• continue on the care pathway through referral to urgent or emergency clinical dental services.

Of particular interest for the planning of unscheduled dental services is the proportion of dental calls that are referred to clinical providers. This varies between LHBs, the lowest onward referral rate being within the Out-of-Hours service in ABUHB, which provides appointments to 47 per cent of patients. Of the remaining 53 per cent of callers, 70 per cent receive advice from a call-handler and 30 per cent from an on-call dentist. Approximately 60 per cent of callers to the Porth DTU in CTUHB receive an appointment. In comparison, patients calling NHS DW are more likely to be passed onto clinical care providers. In the four LHBs for which NHS DW handle calls approximately 73 to 80 per cent of calls are discharged to Dental Access Session, EDS, or other dental LHB provision for urgent dental conditions. Evidence from BCUHB suggests that approximately 70 to 75 per cent of patients who are referred to clinical care providers actually go onto to receive clinical care. The variation in referral rates may reflect differences in triaging methods or capacity of clinical services in different areas.

Approximately four per cent of calls to NHS DW across all four LHBS are directed to A&E departments. This is either due to true dental emergencies and unintentional analgesic overdose. Less than one per cent of callers are directed to primary medical services.

5.3 In-hours care for urgent and emergency dental conditions

_In-hours_ - The normal working hours of the majority of dental practices - Monday to Friday 08:00 to 18:30.
5.3.1 Emergency dental conditions

In almost all LHBs patients with emergency dental conditions are advised to proceed to an A&E department. The exception to this is in-hours in CVUHB where dental emergencies are managed in the Exam and Emergency Clinic at the University Dental Hospital, Cardiff.

5.3.2 In-hours clinical care for urgent dental conditions

Arrangements for in-hours care for urgent dental conditions across Wales are outlined in Table 4. The majority of LHBs provide more appointments per head of population for patients during in-hours than out-of-hours. The exception to this is BCUHB, where there is limited provision in-hours Dental Access Sessions based on population size, but more out-of-hours appointments per head of population than any other LHB. CVUHB have the most in-hours appointments for patients with urgent dental conditions per head of population. This is partly due to the high capacity of the Examination and Emergency Clinic which is able to accept up to 30 patients a day.

Much of the in-hours care for patients with urgent dental conditions occurs within the GDS. In some areas Dental Access Sessions are included within Providers’ GDS contract, whereas in others these sessions are contracted separately. Separate contracting is typically undertaken via a GDS or PDS contract or Service Level Agreement (SLA).

5.3.3 Location of in-hours clinical care for urgent dental conditions

Locations of in-hours providers of urgent dental care are shown in Appendix 3. In smaller, predominantly urban LHBs, such as ABUHB, providers are distributed relatively equally across the geographical area. In larger, and particularly more rural LHBs, such as HDUHB, providers are typically concentrated in towns.

In some geographically-larger LHBs such as BCUHB and PTHB, the location of in-hours services and existing arrangements for in-hours care mean that some patients may be asked to travel in excess of 75 miles in order to access same-day in-hours care.
### Table 4 – A summary of in-hours urgent dental care provided by LHBs in Wales

<table>
<thead>
<tr>
<th>Local Health Board</th>
<th>Population estimate (mid-2014)</th>
<th>Patients accessing routine dental care providers with GDS/PDS contracts</th>
<th>Patients unable to access routine dental care providers</th>
<th>In which service is in-hours care provided?</th>
<th>Approximate number of appointments for patients per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>523,000</td>
<td>42,766 GDS and DTU**</td>
<td>159 GDS appointments (based on 3 patients per 1 hour session)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUHB</td>
<td>580,400</td>
<td>46,190 GDS, CDS for children</td>
<td>152 GDS appointments CDS appointments for children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCUHB</td>
<td>694,000</td>
<td>40,268* GDS, CDS for children</td>
<td>10 GDS appointments CDS appointments for children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVUHB</td>
<td>482,000</td>
<td>37,289 GDS, CDS and HDS</td>
<td>65 GDS appointments 60 CDS appointments 150 HDS appointments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTUHB</td>
<td>296,000</td>
<td>20,845 DTU and CDS</td>
<td>59 TDS appointments 11 CDS appointments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDUHB</td>
<td>384,000</td>
<td>19,851 GDS and CDS</td>
<td>111 GDS appointments 2 CDS appointments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTHB</td>
<td>132,700</td>
<td>10,963 CDS and GDS</td>
<td>Flexible</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Includes some patients who received care for urgent dental conditions during Dental Access Sessions, who are therefore not routine patients of the practice (Source: Stats Wales)

** Dental Teaching Unit (TDS)
5.3.4 Allocation of appointments for urgent dental conditions

In some LHBs, appointments for in-hours care are allocated by the call handlers. This information is then transmitted to clinical care providers either via the Adastra patient management system or by phone. To verify that patients attending the clinic have undergone clinical prioritisation, some services will give patients an access code to present to the clinical provider.

In comparison, other call handling services provide patients the number of a local dental helpline. Again, this is normally provided along with a unique access code which the caller will pass on to prove they have been through the initial call handling process. In these situations, the patient will then either speak to a local dental co-ordinator or booking clerk, or in many cases, the dental clinic itself in order to be appointed to an appointment.

In some areas, such as CVUHB, patients are only appointed to appointments on the same day. Patients who have contacted the Dental Helpline the previous evening are therefore asked to ring back at 09:00 to confirm they still require urgent care. The LHB operates this policy to reduce the number of failed appointments. Other areas, such as CTUHB, a small number of in-hours appointments are allocated to patients calling the evening before, with the remainder allocated by the clinical care providers as same-day appointments. At the DTU in Porth the failure rate of patients booked in by the out-of-hours team the evening before was 5.3 per cent, compared to 2.3 per cent for appointments booked on the day.

In PTHB there are no formal appointment times for patients with urgent dental conditions. Instead sit-and-wait arrangements are operated at a number of CDS clinics. However it should be considered that the numbers of patients accessing this service is considerably lower than in other LHBs and that in other LHBs where there used to be similar arrangements for appointment allocation (Examination and Emergency Clinic at the University Dental hospital, CVUHB), there were typically long queues of patients several hours before the clinic opened.

5.4 Out-of-hours care for urgent and emergency dental conditions

Out-of-hours – weekday evenings (from 18:30 to 08:00), weekend (Friday from 18:30 to Monday 08:00), and bank holidays.
5.4.1 Emergency dental conditions

As with in-hours care, patients experiencing emergency dental conditions during out-of-hours times are directed to A&E departments.

5.4.2 Out-of-hours clinical care for urgent dental conditions

Arrangements for out-of-hours care for urgent dental conditions across Wales are outlined in Table 5. BCUHB currently commission the most out-of-hours appointments per head of population, and HDUHB the least.

All LHBs provide care on Saturdays, Sundays, and bank holidays, however ABMU and BCUHB are the only LHBs currently providing clinical care for patients with urgent dental conditions on weekday evenings\(^5\).

Out-of-hours care is provided in GDS practices, CDS clinics, and a primary dental care unit. Where sessions are provided in GDS practices this tends, (although is not always) to be via a separate contract, or SLA. Some practices receive an uplifted UDA value, whilst others maintain their existing UDA value and receive sessional payments.

In some regions, capacity of out-of-hours dental services are known to be higher than demand. This allows all patients with urgent conditions to receive care without placing undue strain on the service. However it may not be the most efficient use of resources if sessions are regularly undersubscribed. In contrast, other out-of-hours sessions, particularly those at weekends in urban areas, are typically oversubscribed. This may occasionally result in clinical care providers being asked to see ‘extra’ patients who call once appointments have all been allocated but who are judged to need urgent care.

In some areas, rotas for dental practitioners to provide urgent dental care are oversubscribed. These are typically services running in CDS or the primary dental care unit near cities in South East Wales. In other areas LHBs have encountered difficulties commissioning weekend out-of-hours services within the GDS.

There are no national guidelines regarding length of appointment to enable management of urgent dental problems. Some commissioners will stipulate the length of appointments whilst others allow clinical care providers to decide. Typical length of appointment in out-of-hours care is around fifteen minutes per patient. Whether this is sufficient is likely to depend on clinicians’ skills and experience when diagnosing and managing patients with urgent dental conditions; nursing, decontamination, and administrative support available; and the complexity of care required by patients.

\(^5\) From October 2016 AMBU will no longer be providing urgent dental care on weekday evenings.
### Table 5 - A summary of out-of-hours urgent dental care provided by LHBs in Wales

<table>
<thead>
<tr>
<th>Local Health Board</th>
<th>Population estimate (mid-2014)</th>
<th>When is out-of-hours care provided?</th>
<th>Where is out-of-hours care provided?</th>
<th>Who provides clinical care out-of-hours?</th>
<th>Approximate number of appointments for patients per week (no bank holiday)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMU</td>
<td>523,000</td>
<td>Weekday evenings (Mon, Wed, Fri) 7-10pm; Saturday, Sunday and bank holidays afternoons</td>
<td>GDS practices</td>
<td>GDS clinicians and nursing teams</td>
<td>27 weekday evening appointments; 24 weekend appointments (based on 3 patients per hour)*</td>
</tr>
<tr>
<td>ABUHB</td>
<td>580,400</td>
<td>Saturday morning and afternoon, Sunday afternoon</td>
<td>CDS clinic</td>
<td>GDS and CDS dental practitioners; CDS nursing staff</td>
<td>75 weekend slots</td>
</tr>
<tr>
<td>BCUHB</td>
<td>694,000</td>
<td>Weekday evenings (Tues, Wed**, Thurs) 7-10pm; Saturday, Sunday and bank holidays, 4 hour afternoon slots</td>
<td>CDS clinics</td>
<td>Rota of dental practitioners managed by NHS Wales Shared Services Partnership (NWSSP); CDS nursing staff</td>
<td>84 weekday evening appointments; 126 weekend appointments</td>
</tr>
<tr>
<td>CVUHB</td>
<td>482,000</td>
<td>Saturday and bank holidays morning and afternoon, Sunday afternoon</td>
<td>Primary dental care unit</td>
<td>Rota of dental practitioners managed by NHSSP; CDS nursing staff</td>
<td>75 weekend appointments</td>
</tr>
<tr>
<td>CTUHB</td>
<td>296,000</td>
<td>Saturday, Sunday, and bank holiday afternoon clinics</td>
<td>CDS clinic</td>
<td>Rota of dental practitioners managed by NWSSP; CDS nursing staff</td>
<td>60 weekend appointments</td>
</tr>
<tr>
<td>HDUHB</td>
<td>384,000</td>
<td>Saturdays, Sundays and bank holidays</td>
<td>GDS practices</td>
<td>GDS clinicians and nursing teams</td>
<td>35 weekend appointments</td>
</tr>
<tr>
<td>PTHB</td>
<td>132,700</td>
<td>Saturday, Sundays and bank holidays, 3.5 hour slots</td>
<td>GDS practices</td>
<td>GDS clinicians and nursing teams</td>
<td>28 weekend appointment (based on 4 patients per hour)</td>
</tr>
</tbody>
</table>

* from October 2016 there will be no weekday evening appointments and 39 weekend appointments

** every other week
5.4.3 Location of out-of-hours clinical care for urgent dental conditions

Location of out-of-hours providers are shown in Appendix 4. In contrast to in-hours care, out-of-hours care is typically provided in a small number of locations within a LHB. The result of this is that patients may have to travel considerable distances to access clinical care in some LHBs. On weekends in HDUHB, patients from the Aberystwyth area would need to travel 46 miles to the nearest provider of out-of-hours care. Similarly, although in BCUHB there are six clinics providing out-of-hours dental treatment, these are all located in the North of the LHB. Patients from Southern Gwynedd would therefore need to travel over 40 miles to access care.

In some areas, patients living close to the border between LHB, may be geographically closer to out-of-hours clinics in neighbouring LHBs than to those in their own. An example of this would be patients from Ystradgynlais, in PTHB, who would normally access out-of-hours dental care in Llandrindod Wells (53 miles, typical Saturday journey time using public transport 2hrs 32mins, no public transport access on Sundays). However, it is likely that there would be GDS practices in ABMU which would be both geographically closer and have better public transport links. It should be noted that at the time of writing AMBU and PTHB were in the process of redesigning arrangements that would allow patients in Ystradgynlais to access AMBU services during out-of-hours periods.

5.4.4 Allocation of appointments for urgent dental conditions

Similar to in-hours arrangements, within some models of care patients are allocated appointments by the call handling staff. This information is then transmitted to clinical care providers either via the Adastra patient management system or by phone. In comparison, other call handling services provide patients with a telephone number for a local dental co-ordinator or booking clerk. Until recently in one LHB (ABMU) patients were given the mobile number for the dentist on call and asked to ring and make an appointment. There were a number of challenges encountered with this system and this practice has now been discontinued in favour of a NHS DW-managed appointment diary. BCUHB are the only LHB that still operate first come, first served arrangements in certain urgent out-of-hours clinics on Sundays and bank holidays. These clinics tend to have high capacity (12-24 appointments).

Similar to in-hours care, in some areas patients are only appointed to in-hours appointments on the day, others will allocate a small number of appointments to patients calling the evening before. There are limited data available on relative failure rates in most out-of-hours services.

Some providers of out-of-hours services highlighted that they were aware of a small number of patients who repeatedly attended the service.
Although this did not appear to adversely affect the running of the service.

5.5 Effectiveness of clinical care for urgent and emergency dental conditions

Very few LHBs monitor either the number of patients attending A&E departments for emergency dental care, however in some areas the secondary and tertiary care providers will collect this data as part of clinical audits.

In contrast, most services undertake some monitoring of the outputs of clinical care for urgent dental conditions. Whilst the extent of monitoring varies between LHBs, most review the number of prescription-only courses of treatment. In some LHBs, this monitoring is undertaken, whilst in others it is done periodically or where there may be specific concerns. Procedures to respond to data on clinical output similarly differ between services. A minority of services do not monitor the clinical treatment received by patients during urgent and emergency dental care.

There is evidence that treatment provided to patients with urgent and emergency dental conditions may not always be evidence based. An example of this is the use of antibiotic-only prescriptions in the management of urgent dental conditions. Evidence-based guidelines recommend that antibiotics should only ever be given in conjunction with an operative intervention such as dental extraction or endodontic (root canal) treatment. However in a recent retrospective audit conducted in the out-of-hours service in CTUHB, 33 per cent of patients received antibiotics as part of their management and for nearly half of these antibiotics were their only treatment. Over three quarters (76 per cent) of all antibiotics prescribed within the audit were not justified according to SDCEP and Faculty of General Dental Practice guidelines, and a quarter were prescribed for conditions such as alveolar osteitis (dry socket) and pulpitis (11, 29, 30). These findings are supported by evidence from the wider scientific literature which suggests the inappropriate use of antibiotics in urgent dental care is widespread (31, 32).

Limited data is available on the outcomes of care provided for urgent and emergency dental conditions. Few services have the ability to monitor Patient Reported Outcome Measures (PROMs), that is, the resultant oral health or quality of life of individuals who have received care through this pathway. However, complaints to LHBs regarding care for urgent and emergency dental conditions are relatively rare and there is no evidence from other services that urgent and emergency dental care services are failing to meet patients’ needs. As discussed in Section 4.2, some services measure Patient Reported Experience Measures (PREMs) but this is inconsistent across Wales.
5.6 Urgent and emergency dental care for vulnerable groups

Within this context, vulnerable groups are individuals who may need additional support accessing, attending, or receiving urgent and emergency dental care. These are likely to include:

- patients who are medically compromised (including those requiring bariatric care) or frail;
- patients in acute or non-acute healthcare settings including hospitals and nursing homes;
- patients in care facilities;
- patients who are unable to leave their house or who are dependent on others to leave their house;
- patients who do not have their own transport;
- patients in remote or rural locations;
- patients with physical, sensory, intellectual, mental, medical, emotional or social impairment or disability (including wheelchair users);
- patients who are incarcerated;
- patients under the age of 18 (including looked after children);
- patients who are refugees or seeking asylum;
- patients from traveller communities;
- patients with dental anxiety;
- patients on low income; and
- patients who do not speak English.

5.6.1 Oral health needs of vulnerable groups

Patients from vulnerable groups may be less likely to access routine dental care and have medical or lifestyle factors that could result in greater incidence of dental disease. As a result these patients may be more likely to experience conditions for which they will require emergency or urgent dental care.

The degree of support which patients from vulnerable groups are likely to require in order to accessing, attending or receiving urgent and emergency dental care will vary greatly between individuals. It may be a large number of patients who are able to access, attend or receive care following only minor modifications to the existing pathways. However, there are also likely to be some patients for whom the standard care pathways is inappropriate, and who may require specialised care.
5.6.2 Information provided to patients

Most of the information provided by NHS organisations regarding how to access care is simple and easily understood. Many of the NHS-maintained websites achieve a Web Content Accessibility Guidelines ‘A’ rating. However, there may be a minority of individuals for whom written information provided on websites, posters or leaflets is not appropriate. Furthermore, information on how to access unscheduled dental care services could be provided in a wider variety of community locations.

5.6.3 Call handling

Some call handling services such as NHS DW have a national textphone number for the deaf, hard of hearing and those with speech difficulties. However, in some LHBs textphone users are blocked from calling dental helplines due to the call prefix used.

Most call handling service can also be accessed in languages other than in English and Welsh via a telephone translation and interpretation services. However, models in which patients need to make further calls to clinical care providers following initial triaging may not be accessible to service users with certain disabilities.

5.6.4 Access to clinical care

In some local authorities in Wales up to 30 per cent of households do not have private transport (33). Private vehicle ownership is known to be lower amongst vulnerable groups such as the elderly and people with disabilities. In many cases these individuals will be reliant on public transport to attend urgent dental care appointments. This may present problems if individuals are given an appointment at short notice, the clinic is difficult to access on public transport, or public transport services do not operate a regular service.

Some patients are reliant on others to bring them to clinical care facilities. This includes children, patients who are dependent on others to leave their house, those in acute or non-acute healthcare settings including hospitals and nursing homes or other in-patient care facilities, and individuals who are incarcerated. It is therefore important that communication between the urgent and emergency dental services and these other organisations or individuals is clear and efficient to enable vulnerable groups to access care when required.

The Equality Act 2010 set out a requirement for service providers to make whatever reasonable adjustments to enable people who are disabled to use their services (34). In a random sample of ten providers of urgent and emergency dental care across six LHBs, all were either fully wheelchair accessible or had at least one surgery in which wheelchair users could be treated. However, only half had disabled parking available.
In a minority of urgent and emergency dental care settings there are bariatric dental chairs. These tend to be CDS and hospital-based clinics. In comparison, most GDS practices have dental chairs which have a maximum lifting weight of approximately 140 kilograms (23 stones) (35). This is considerably lower than the weight of many obese patients, and therefore these patients would require an onwards referral for care.

There will also be a small proportion of the population who are unable to leave their homes to access dental care. For these patients, domiciliary care is provided. Depending on the area, domiciliary dental services are provided either by the CDS or contracted through the GDS. Few urgent and emergency dental care models incorporate domiciliary provision, and in the majority of cases a separate referral would need to be made to providers of these services. One of the exceptions to this is in ABUHB, whose in-hours dental helpline co-ordinates care for patients requiring urgent domiciliary care as well as those able to access care in a clinical setting.

Some LHBs have separate provision within the CDS for child patients experiencing urgent and emergency dental problems.

5.6.5 Clinical care provided

All registered dental professionals in the UK are required by the General Dental Council to complete regular training in the safeguarding of children, young people and vulnerable adults.

At present, there are only a small number of dental practices offering sedation services to patients requiring it. Furthermore, due to the time available in urgent dental care and consenting and chaperoning arrangements required for conscious sedation, it is unlikely that sedation would be available to dentally phobic patients requiring urgent or emergency dental care. Similarly, there is likely to be a small proportion of vulnerable patients who are only able to accept treatment under general anaesthetic and again this is likely to require on onwards referral. Evidence from previous health needs assessments conducted in Wales that in some areas, there are no dedicated vulnerable adult general anaesthetic lists, and that patients requiring these services can often face unacceptable waiting times (36).

5.7 Welsh language

The Welsh Language Act 1993 gives the Welsh and English language equal status in public life in Wales. It places a duty on the public sector to treat both languages equally when providing services to the public (37). The implementation of the Welsh Language (Wales) Measure 2011 builds on the work undertaken to date in order to provide greater clarity and
consistency for citizens in terms of the services they can expect to receive in Welsh (38).

All NHS Wales-maintained websites providing information on access to unscheduled dental care are available in English and Welsh, and posters advertising the service are bilingual. Similarly most call handling services, including NHS DW, can be accessed in both English and Welsh. Whilst only a small proportion of the clinical workforce providing urgent and emergency dental care speak Welsh all have access to Language Line, a telephone-based interpretation service which supports treatment through the medium of Welsh.

5.8 Patient charges

Whilst a minority of urgent and emergency dental care services are free for all patients (for example, care for emergency dental conditions provided in Accident and Emergency departments), in most models patients may have to pay a contribution towards the emergency or urgent care provided in the GDS and some CDS, TDS and EDS clinics. Under National Health Service (Dental Charges) (Wales) Regulations 2006 certain patients will be exempt from charges such as children under 18 years of age, 18 years of age and receiving qualifying full-time education, nursing and expectant mothers and those in receipt of certain tax credits or benefits. Otherwise, the charge for NHS Band 1 Urgent Treatment is currently £13.50 in Wales (4).

In instances where a patient seeks urgent or emergency dental care yet claims to be currently undergoing a course of NHS dental treatment with a different provider there is a lack of clarity about whether patients should be charged for their urgent treatment and subsequently be able to claim this back.

The proportion of adults who pay of their emergency or urgent dental treatment varies between LHBs. In 2014 70.1 per cent of adults attending in-hours services in BCUHB were non-exempt, compared to 54.4 per cent of adults who attended in-hours services in ABUHB in the financial year 2014/15.

5.9 Quality and safety in urgent and emergency dental care

There is no single approach to quality and safety in urgent and emergency dental care in Wales. As a result, a variety of methods are employed to help assure quality in call handling and clinical care.

Most call handling systems record the number, time, and discharge of calls received to their system and have quality and safety systems in
place to monitor the quality of service provided. There is evidence of robust induction and training for new staff members, and processes to support existing staff identify and fulfil their learning needs in the majority of call handling systems. In addition, most call handling services conduct ongoing audits to monitor quality and consistency of call handling.

The quality and safety arrangements for clinical care are more heterogeneous and typically differ between employed and commissioned services. Most employed services, such as out-of-hours EDS clinics, rely more on clinical audit and feedback cycles to monitor quality. In contrast, many commissioned services have clinical care monitoring processes built into their urgent dental care contracts, enabling the collection and analysis of clinical data by a LHB Dental Practice Advisor or Clinical Lead. Evidence suggests it may be easier to monitor clinical process and outcomes if Dental Access Sessions are contracted separately from GDS services.

Whilst dental practitioners are recommended to audit their clinical practice as part of their contractual arrangements and Continuing Professional Development, there is no formal requirement for staff to undertake clinical audits which have direct relevance to the management of patients with urgent dental conditions. Some out-of-hours services have a rolling programme of clinical audits, whilst in others clinical audits are done on an ad hoc basis. Examples of recent audits include:

- audits of radiographic quality, and the ratio of operative treatment to antibiotic prescribing provided within the out-of-hours service in ABUHB;
- BCUHB runs audits of clinical treatment designed to detected disparities in care; and
- antibiotic prescribing audits conducted in the out-of-hours service in CTUHB.

Many in-hours and out-of-hours services record incidents or near-misses involving patient care and safety through the Datix system. Some independent contractors such as dental practices however will use in-house procedures.

In the LHBs in which out-of-hours clinical care is provided in EDS or CDS clinics, these are staffed by rotas of dental practitioners and nurses typically working in the GDS or EDS. Not all areas have induction programmes for new starters and across Wales there does not appear to be a consistent approach to support clinical staff working within urgent and emergency dental care achieve their learning needs. A small number of out-of-hours services convene regular meetings for clinicians working within the service during which training is provided, but these are in the minority.

In many areas feedback loops from clinicians to commissioners are poorly developed. A few have specific fora for clinicians working in unscheduled...
dental care services through which concerns can be raised, however in most communication between commissioner and providers is scant. Since 2014 Healthcare Inspectorate Wales (HIW) has had the responsibility for inspecting NHS dental services in Wales. Some of the independent contractors (GDS practices) providing urgent and emergency dental care have been inspected by HIW however, this is an ongoing process and few non-GDS dental services have been be inspected to date.

Although all LHBs have procedures in place to receive and respond to compliments and complaints made by patients, only a minority of services has a robust system for recording and responding to patient experience.

5.10 Information technology

There is an inconsistent approach to the use of information technology across urgent and emergency dental care in Wales. Whilst majority of call handling services use Adastra, which is widespread throughout the Welsh Unscheduled Care Services such as general medical practice out-of-hours, only a minority of dental clinical care providers use this program or others compatible with it. As a result information transfer between call handling and clinical care providers commonly occurs via phone and email, as well as automatic electronic transfer. Currently, not all the information captured by call handling services is passed onto clinical providers and as a result patients often have to repeat answers to standard questions.

The reliance on independent contractors (dental practices) for the provision of urgent dental care means the implementation of a single clinical patient management system is likely to be costly and potentially unfeasible. However, there may be more efficient ways to transfer information between services than are currently utilised, whilst ensuring compliance with the Caldicott principles.
6 Evaluating the quality of urgent and emergency dental care in Wales

Quality within healthcare is a complex notion, but it can thought of as encompassing three parts:

- providing the highest possible quality and excellent patient experience;
- improving health outcomes and helping reduce inequalities; and
- getting high value from all services (39).

In seeking to evaluate quality in healthcare, Maxwell suggested six dimensions against which services can be judged (40). It is against these that existing arrangements for urgent and emergency dental care in Wales are evaluated.

6.1 Accessibility

Accessibility considers whether patients can access care when there is a need for it. Accessibility is likely to be of high priority for patients with urgent and emergency dental conditions because of the pain associated with these problems.

From the evidence collected by this review, access to Dental Helplines and NHS DW is generally good, although a small number of LHBs do not have facilities to queue calls, which may result in a proportion of failed contacts at busy times. There are also concerns about the presence of inaccurate information on Dental Helpline numbers on NHS-maintained websites.

The highest call volumes to dental helplines typically occur on Monday mornings, although there is evidence that in some LHBs Saturday mornings are also busy. Evidence from some regions reveals demand may increase in summer months in tourism areas. Most LHBs have clinical care arrangements which are well orientated towards this. LHBs who actively monitor call volumes and vary capacity within the service accordingly, are likely to be the most responsive to fluctuations in demand in the future. However in some areas there are still services which are routinely oversubscribed, leaving some patients without care.

Urgent and emergency dental conditions can arise at any time and urgent and emergency dental care should be planned with this in mind. As per SDCEP guidelines, most LHBs have arrangements so that patients with emergency dental conditions can have contact with a clinical advisor (be this face-to-face or over the telephone) within 60 minutes and those with urgent dental conditions can receive dental care within 24 hours. The exceptions to this would be LHBs which have gaps in call handling services, which may not be able to meet the recommendations for the timescale for emergency dental conditions; and call handling services
which did not operate a triaging system or did not have a robust way of identifying patients with emergency dental conditions.

However, there can be barriers to accessing unscheduled dental care. These can be tangible, such as geographical distance or finance, or intangible, such as language or cultural differences. Wales is a geographically diverse country, and as a result a number of LHBs encounter the problems associated with the planning and provision of services in sparsely populated, rural areas. This can occasionally be compounded by limited interest from clinical care providers during the commissioning of unscheduled care services. Furthermore, in some areas patients may have to travel a considerable distance to access care, particularly during out-of-hours periods. This is likely to be especially problematic for individuals relying on public transport. In addition, in some areas there is evidence of an absence of cross-border arrangements to allow patients to access care in neighbouring areas.

The cost of dental treatment has been previously been identified as a barrier to dental care (41). However, since the maximum charge for NHS Band 1 Urgent Treatment is £13.50 and patients in receipt of specific benefits may be exempt from charges, inability to pay is unlikely to be a strong barrier to access. However, there may be a small proportion of individuals who are unfamiliar with NHS Dental Charges and believe that NHS dental treatment will be prohibitively expensive discouraging them from contacting the service.

Most of the weekday care for urgent and emergency dental care problems occurs during in-hours times. However, there may be a small number of individuals who are unable to attend in-hours services due to work commitments or other factors, and these individuals may be reliant on out-of-hours care when they experience a dental problem. However, concerns were expressed by commissioners that increasing the ease of access to urgent dental care services, particularly the provision of weekday evening out-of-hours clinical care, may disincentivise patients from seeking routine dental care.

6.2 Equity

Equity considers whether those with the greatest need can benefit from the service, and whether services are delivered fairly and justly. When striving for high quality care it is important that all individuals within a population are considered, including those who are vulnerable, who live in poverty and who are isolated.

There are variations in the way patients receive care for urgent and emergency dental conditions across Wales. Much of this is due to differences in the organisation of clinical care between LHBs. Whilst this may mean that individuals living in one LHB may receive dental care in a
different setting from those living in a neighbouring area, this does not necessarily imply one is superior to another, or that inequities necessarily exist.

However, whilst it is unlikely to be neither feasible nor appropriate to standardise clinical care arrangements across all LHBs, there may be opportunities to increase equity of care across Wales, particularly amongst vulnerable groups. These individuals are likely to have worse oral health than the general population; live in communities with greater material or social deprivation; and be less likely to have access to their own transport, and these factors should be considered in the planning and commissioning of unscheduled care services in order to avoid contributing to widening health inequities.

In order to provide urgent and emergency dental care within an area, the LHB needs to have providers willing to undertake the service, and suitably equipped premises to house the service. In some LHBs limited supply or one or both of these factors means that there is a limited choice as to where to locate services. As a result in some LHBs, facilities for urgent and emergency care may be located some distance away from deprived populations (Appendices 2 and 3). This is particularly the case with out-of-hours services. Furthermore, ‘first come, first served’ arrangements operating in a small number of these clinics LHBs may disadvantage individuals who are reliant on public transport to attend appointments. In comparison, physical accessibility to urgent dental care providers was generally found to be good, although more could be done to ensure these facilities have parking facilities for disabled patients and their carers.

There may also be some patients from vulnerable groups who experience difficulties accessing dental care because they are unable to leave their home, or because they are currently an inpatient in a healthcare setting. If a situation arose when such a patient required emergency dental care they would likely require transfer to hospital in an ambulance, but would be likely to still receive care within the timescale recommended by the SDCEP guidelines. However, in many cases there is unlikely to be provision for such patients if they require urgent, rather than emergency care. Most urgent dental services do not include provision for patients requiring domiciliary care, in most cases these patient with urgent dental conditions will require onward referral to domiciliary dental services within the local CDS or GDS. How quickly these patients would be seen by these services would therefore depend on the capacity of these services. This may result in some patients with urgent dental conditions waiting over 24 hours for care. There are isolated examples however of service models where requests for domiciliary care are processed alongside urgent dental care. This may be a model other LHBs may wish to explore further.

Similarly, not all areas have established pathways for patients requiring sedation or general anaesthetic in order to be able to accept dental treatment for an urgent dental condition. As a result such patients may not be receiving timely care so as to prevent further deterioration of their
oral health. Whilst it unlikely to be practical to provide out-of-hours access to specialised services, LHBs should endeavour to provide timely access to in-hours care for vulnerable groups.

Whilst information provided to patients and their carers via websites and posters was generally found to be clear and accessible, there may also be a minority of individuals unable to access written information. However these individuals may be able to use information provided in alternative formats, such as storyboards or recorded information. Information could also be disseminated more widely to reach those who do not routinely engage with healthcare services.

Whether patients will pay a contribution towards the clinical care they receive for urgent and emergency dental conditions will depend upon the area they live and the service to which they are referred. This is an inequitable situation that may result in some patients being charged for the same service that others receive for free.

6.3 Acceptability

Acceptability considers how humanely and considerately healthcare services are delivered. Understanding and improving how patients experience their care is a key component to successfully delivering high-quality services.

The most important arbiters of acceptability are patients and the public, and the evidence collected by this review, although by no means representative of all services in Wales, suggests that on the whole patients are happy with the care provided for urgent and emergency dental conditions. Complaints to LHBs regarding care for urgent and emergency dental conditions are rare, and the one patient survey in an out-of-hours dental clinic undertaken revealed high satisfaction scores across many domains. However, patient views are not currently sought in many services, and this may be a missed opportunity to highlight potential improvements to services.

6.4 Appropriateness

The concept of appropriateness considers whether the care provided by services meets the needs of the population it is intended to serve.

The evidence collected by the review suggests that in most areas the services provided for urgent and emergency dental problems are meeting the normative needs of patients. However, it is recognised that there may be differences between normative need as judged by a clinician, and expressed needs of patients. Furthermore, little work has been done to establish whether the definitions currently in use accurately reflect user’s
perceptions of need. Until this is undertaken, it is unclear whether current services meet the felt needs of service users.

The most common reason why patients contact urgent and emergency dental care services is due to pain. Therefore appropriateness of care should also consider whether urgent and emergency unscheduled dental care services are able to alleviate pain and discomfort. Whilst few services provide follow-up care to patients seen in unscheduled care, the low numbers of ‘frequent flyers’ reported in urgent and emergency dental care services suggests that the service is likely to be meeting patients’ needs for pain relief.

Clinical prioritisation directs patients to the most appropriate care for their dental condition. Clinical decision support tools can support a systematic approach to triaging and can help direct patients to the most appropriate service for their needs. The use of evidence based clinical decision support algorithms within the call handling services for urgent and emergency dental care is variable and there are some services which do not currently use any form of triaging. There are also occasionally situations which may fall outside the scope of triaging algorithms. In these situations it may be beneficial to have the facility to consult an individual with dental expertise, as is the case in some LHBs.

6.5 Effectiveness

Whilst appropriateness considers whether services meet patients’ needs, effectiveness of care is concerned with the technical quality of care provided. In this case the effectiveness of care considers whether the existing services are sufficiently able to stabilise patient’s urgent or emergency dental condition to prevent clinical deterioration.

Whilst many services have arrangements in place for monitoring the processes and outputs of urgent and emergency dental care services, there is little robust data from which to assess the outcomes of care on patients’ oral health and quality of life. Whilst there is no evidence to suggest patients are suffering adverse outcomes as result of the care provided in unscheduled dental care, there is some evidence to suggest a proportion of patients may not be receiving evidence-based care. Data available on the types of treatment provided within unscheduled dental care suggests that a higher proportion of patients are receiving antibiotics than evidence-based guidelines would recommend. Since antibiotics are unlikely to result in the long-term resolution of most dental conditions, there is evidence some of the treatment provided within the service may not be the most clinically effective available.

Within most LHBs there are likely to be a small group of patients who access urgent and emergency dental services more than others. In some cases this may be for the same problem, but in many instances it will be
for different problems related to poor oral health status. Repeated provision of urgent dental care for these individuals is unlikely to result in as favourable health outcomes as a planned course of treatment. However, it is equally likely that these patients would be unlikely to engage with regular care.

6.6 Efficiency

The efficiency of a service considers whether the output of a service justifies the resources inputted into it. Within unscheduled care, efficiency considers the balance between providing access and cost of paying for it, and whether urgent and emergency care services duplicates care provided elsewhere.

Since urgent and emergency dental care is typically to be more costly per patient treated than routine dental care, clinical prioritisation of cases is important to maximise efficiency. Whilst it must be recognised that some patients may be willing to provide false information to call handlers in order to elevate their clinical prioritisation, the use of robust clinical decision support algorithms may help prioritise patients with the greatest need.

Similarly, providing a greater proportion of care for urgent dental conditions during in-hours times is likely to be a more cost-effective model than providing this care on a predominantly out-of-hours basis. Whilst most LHBs have adopted this approach, there are a minority still providing the majority of their care for urgent dental conditions during out-of-hours periods. While this may reflect local need, LHBs who currently have this balance of service provision may wish to consider whether this is the most efficient way of providing urgent dental care.

Reducing the number of calls patients need to make to access care is likely to improve both the efficiency of the service and patient experience. Similarly, the ability to securely transfer patient information between call handlers and clinical staff would likely improve the care provided to patients.

Failed appointments, in which patients do not attend appointed sessions, can impact on the efficiency of a service. In some LHBs there is monitoring of the number of failed appointments within unscheduled care. Some services have taken local measures to reduce this, such as only allocating appointment the same day. However, such strategies may not be universally effective, such as in rural areas where patients may need to travel long distances to attend appointments.

In some LHBs, dentists are employed in ‘on-call’ arrangements to receive queries from call handlers about individual cases. Whilst in some systems this appears to work well, there is evidence that in others dentists are rarely called. It is therefore unclear whether this arrangement maximises
the allocative efficiency of resources for urgent and emergency dental care.

Insufficient capacity in urgent and emergency dental care compromises the quality of care provided to patients. In comparison, in some regions, capacity of out-of-hours dental services are known to be higher than demand. Whilst this allows all patients with urgent conditions to receive care without placing undue strain on the service, it may not be the most efficient use of resources if sessions are regularly under utilised.

There is no evidence that existing urgent and emergency dental services replicate services provided elsewhere within the NHS. Whilst there is evidence that some patients with urgent and emergency dental conditions may seek care from a GMP or A&E department, these settings do not have the facilities or appropriately trained professionals to effectively manage such patients.
7 Key findings

1. Currently, there is no all-Wales consensus on what constitutes a need for emergency or urgent dental care. Furthermore, it is unclear as to whether the definitions currently used by services adequately reflect the beliefs of service users as to what they perceive a need for urgent or emergency dental care to be. The urgent and emergency dental care criteria highlighted here give priority to those with the most acute need where delivery of care within 24 hours is appropriate. They are therefore narrower than the scope of the NHS General Dental Service list of items for which an urgent care fee is payable (see Appendix 1, Schedule 4, NHS (Dental Charges) (Wales) Regulations 2006).

2. Epidemiological data on the incidence of urgent and emergency dental conditions are poor and often insufficient for the purposes of robust planning and monitoring of unscheduled dental care services.

3. There is no nationally-agreed service specification or delivery model for the commissioning of urgent or emergency dental care services, and existing guidance included in the WHC are now in excess of a decade old. However, whilst there is likely to be a minimum set of standards that all services should meet, it would be impractical to suggest that all areas of Wales should adopt the same delivery model.

4. Approximately three quarters of care for urgent and emergency dental conditions is provided in routine dental care. Demand on unscheduled dental services is therefore likely to be closely associated with the capacity and accessibility of primary dental care in an area, as well as prevalence of dental disease and socioeconomic deprivation.

5. There is a need to regularly confirm that information provided to the public regarding how to access urgent and emergency dental care in their local area is kept up-to-date.

6. Information on NHS Dental Charges for urgent and emergency care are not always communicated well and as a result there may be confusion amongst patients as to how much treatment is likely to cost.

7. Most call handling services employ algorithm-based clinical prioritisation tools, however the use of such protocols is not universal, and as a result there may be unnecessary variation between services with regard to the type of care received by patients. This may be reflected in the outcome of calls; in some
services 75% of callers are directed to clinical care whilst in others this is as low as 47%.

8. Some call handling services have dental practitioners ‘on call’ for consultation. However in some services the skills of these clinicians are not utilised to their full potential.

9. In many current models of care patients may need to make several calls before accessing clinical care, providing the same information on multiple occasions. This is an inefficient system and compromises patient experience.

10. Active monitoring of demand on dental helplines and the number of patients subsequently referred to clinical care can assist in the planning of unscheduled dental care services to maximise the benefit gained from existing resources.

11. Across the LHBs there are a number of different models for the delivery of clinical care for patients with urgent and emergency dental problems. This heterogeneity will need to be considered during the rollout of the 111 service in Wales.

12. Whilst there are some examples of good access to urgent and emergency dental care in Wales, this varies between LHBs and there are some vulnerable groups who do not receive an equitable service. This is particularly the case for individuals who may experience difficulties travelling to dental clinics, such as patients who are housebound or those without their own transport, and patients who are unable to accept care without sedation or general anaesthetic.

13. There is variation in appointment length for urgent and emergency dental care between services. Much of this is due to the organisation of services, and therefore not necessarily inappropriate, however there are services in which clinicians have raised concerns about the amount of time available to manage patients with urgent dental conditions. Similarly, some clinical services have been associated with complaints from practitioners that they are overbooked. This puts the buy-in of the profession at risk.

14. There is currently insufficient monitoring of patient experience in many unscheduled dental care services.

15. Arrangements for monitoring and assuring the quality of care provided in unscheduled dental care in Wales vary between areas. There is good evidence telephone triage services audit their
performance on a regular basis, and that staff receive appropriate training. However, the professional development needs of clinical staff that specifically relate to their work providing urgent and emergency dental care are not always considered. Furthermore, whilst there is evidence that many services undertake clinical audit, this is not universal nor are there recommendations of clinical audits that would be most valuable in these services. Some independent contractors providing urgent and emergency dental care have been inspected by HIW, and all should have been inspected by the end of the current three year cycle of practice inspections.

16. There are instances where communication between different parts of the urgent and emergency dental care service (commissioners, call handlers, triaging staff, and clinical care providers) could be improved to help support high quality of care and efficient use of resources.
8 Recommendations

1 There is a need for a national-agreed aim and objectives for urgent and emergency dental services in Wales.

2 There should be nationally-agreed definitions of what constitutes emergency, urgent, or routine dental care. Furthermore, work should be undertaken to establish whether the definitions of what represents an urgent or emergency dental problem adequately reflect the views of service users.

3 There should be clear and consistent standards for the commissioning of urgent and emergency dental care across the seven-day week. This is likely to include an all-Wales service specification for unscheduled dental care. However, this should be mindful of variation in models of dental services and clinical need across the country.

4 Since the demand for unscheduled care is likely to vary depending on availability of routine dental care in an area, LHBs need to secure sufficient capacity and access to routine dental care.

5 There should be clear and consistent signposting for patients on how to access care for urgent and emergency dental problems. Information should be provided in a variety of formats and accessible via a range of appropriate sources, such as A&E departments, general medical practices, pharmacies and other community locations. Information should be periodically reviewed to check it remains up-to-date.

6 Providers of information about urgent and emergency dental treatment should be transparent about what services may incur NHS Dental Charges, what these are, and any exemptions that apply.

7 There is a need to reduce inequity of access to urgent and emergency dental care in Wales. In making decisions about the provision of urgent and emergency dental care, commissioners should consider the likely impact of any changes on vulnerable groups such as patients living in rural areas, people with physical or learning disabilities, individuals with low income, and other groups who suffer discrimination or social disadvantage. LHB dental services should be provided equitably and wherever possible the negative health impacts of changes should be minimised and potential benefits maximised. The impact of current arrangements for the delivery of care on vulnerable groups should be considered, possibly through a health equity audit or comparable process. There is also a need for agreement between LHBs with regards to the provision of cross-border care for patients living in certain areas.

8 Upon contacting the urgent and emergency dental service, patients’ clinical condition should be assessed according to evidence based
criteria and an appropriate degree of urgency assigned to their care. Clinical decision support tools may help to prioritise patients so that they receive the most appropriate care for their dental condition, and their use can promote efficient use of resources. Services that do not currently use such tools should evidence the basis on which they assess and prioritise patients.

9 Services where dental practitioners are ‘on-call’ to address questions during call handling should ensure the skills of these practitioners are effectively and efficiently utilised in line with Prudent Healthcare.

10 There should be the capability to transfer patient information accurately and securely through different parts of the urgent and emergency dental care pathway. Patients should ideally only need to make one call to urgent and emergency dental care services.

11 There is a need for services to actively monitor call volumes, patterns, and subsequent referral rates to clinical care and use this to inform the planning of unscheduled dental care. Call handling services and LHBs should also monitor patterns of repeat service usage.

12 Commissioners should review of the length of appointment required for the effective management of urgent dental conditions. This is likely to be informed by both the existing scientific literature, discussion with local clinical care providers and consideration of local organisation of services. This information can subsequently be used to inform future planning decisions.

13 All providers of urgent and emergency dental care must be suitably equipped and staffed to carry out the full range of clinical treatments for urgent and emergency dental conditions.

14 There is a need for closer monitoring of the outcomes of urgent and emergency dental care within both call handling services and clinical care. This could include both clinical outcomes of care provided, and patient experience and will inform the roll out of NHS 111.

15 All parties involved in the care of patients with urgent and emergency dental conditions should ensure there are adequate arrangements in place for monitoring quality of care. This should link with LHB’s Quality Statement and should include procedures to respond to evidence which suggests improvement is required. In line with Scottish Dental Clinical Effectiveness Programme (SDCEP) recommendations, it is suggested that:

- telephone triage services audit their performance on a regular basis;
- all those involved in providing the first point of patient contact (such as the dental receptionist and dental triage nurse) receive appropriate training and ongoing professional development,
including specific instruction on the use of common analgesic preparations;

- all those involved in the delivery of urgent and emergency dental services regularly seek to audit their practice. As a minimum providers should audit medical history form completion rates, radiographic quality, and rates of antibiotic prescribing in the absence of operative intervention;

- Arrangements that are in place for emergency dental care are examined as part of the standard dental inspections of general dental practices and other primary care providers (2). All services should have appropriate risk management plans and processes in place, including a systematic procedure for responding to Significant Events.

16 There is a need for a greater collaboration between different elements of the urgent dental care service - commissioners, call handlers, and clinical care providers – on both a local and national level with the view of achieving sustainable improvements in patient care. Commissioners and service providers should readily share appropriate data, to support the delivery of high quality, evidence-based care. Consideration should be given to an annual review meeting between commissioners and providers to support continual improvement of the service and address issues that may have arisen.

17 The urgent and emergency dental care workforce should undergo appropriate induction, be adequately supported within their work, and provided with training to allow them to meet their educational needs.
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Appendix 1 – Schedule 4 of The National Health Service (Dental Charges) (Wales) Regulations 2006

(a) examination, assessment and advice
(b) radiographic examination and radiological report
(c) dressing of teeth and palliative treatment
(d) pulpectomy or vital pulpotomy
(e) re-implantation of a luxated or subluxated permanent tooth following trauma including any necessary endodontic treatment
(f) repair and refixing of inlays and crowns
(g) refixing a bridge
(h) temporary bridges
(i) extraction of not more than 2 teeth
(j) provision of post-operative care including treatment of infected sockets
(k) adjustment and alteration of dentures or orthodontic appliances
(l) urgent treatment for acute conditions of the gingivae or oral mucosa, including treatment for pericoronitis or for ulcers and herpetic lesions, and any necessary oral hygiene instruction in connection with such treatment
(m) treatment of sensitive cementum or dentine
(n) incising an abscess
(o) other treatment immediately necessary as a result of trauma
(p) not more than 1 permanent filling in amalgam, composite resin, synthetic resin, glass ionomer, compomers, silicate or silico-phosphate including acid etch retention
Appendix 2 - Health Board profiles

Abertawe Bro Morgannwg University Health Board

Demography (42)

Abertawe Bro Morgannwg University Health Board (AMBU) is one of the most densely populated LHBs in Wales (466 persons per square km); it covers 5% of the land area, and houses 17% of the population.

There are eleven GP clusters operating within AMBU, with total list size ranging from 30,800 (Upper Valleys) to 73,480 (BayHealth). There are approximately 523,000 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 550,192 and to 557,391 by 2031. The LHB has a proportion of residents aged 65 years and over equal to the Welsh average (18.7%). However, in some clusters this is as high as 22.5%. Approximately 2.5% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Within the LHB there are areas of deprivation, particularly in the urban parts of Swansea, Neath Port Talbot, and the valley communities in Bridgend. Over a quarter (26.7%) of residents live in the most deprived fifth of areas in Wales (using Welsh Index of Multiple Deprivation (WIMD) 2011), compared to the national average of 20%. 86 out of the 323 Lower Super Output Areas (LSOAs) in the LHB (27%) are among the most deprived fifth in Wales, with 74 (23%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

There are higher proportions of the LHB’s population diagnosed with asthma, coronary heart disease, and diabetes compared to the Welsh average. When standardised for age, rates of most chronic diseases remain above national average. This is likely to be associated with deprivation profile of the LHB.

Less than a quarter of the LHB’s residents (22.3%) live in areas classified as rural. This is considerably lower than the Welsh average (33.9%) (40).

Oral health (43, 44)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the AMBU have the same number decayed teeth as the Welsh average. Between 2007/08 and 2011/12 there have been improvements in child oral health in the Bridgend and Swansea areas, whilst child oral health has plateaued in Neath Port Talbot. Specific findings include:

- The average number of decayed, missing and filled teeth (dmft) in ABMU was 2.1 (95% CI 1.9-2.3) in 2007/8, and 1.6 (95% CI 1.5-
1.8) in 2011/12. These means were similar to Welsh averages. Average dmft per unitary authority in ABMU is shown in Figure 5

- By age 5, 44.2% (95% CI 41.5%-46.5%) of children in AMBU will have experienced decay. This is within the confidence limits of the Welsh average (41.4% (95% CI 40.3%-42.5%)).
- The average number of decayed teeth, which is considered an indicator for pain, infection and risk of decay in permanent teeth, is 1.2 (95% CI 1.1-1.3), which was similar to the Welsh average of 1.1 (95% CI 1.0-1.1).
- There were improvements in child oral health in Bridgend, and to a lesser degree Swansea, between 2007/8 and 2011/12 surveys. No similar improvement was seen in Neath Port Talbot.
- Children from more deprived areas within ABMU have experienced similar improvements in oral health between 2007/8 and 2011/12 to Wales as a whole.

**Figure 5 – Average dmft for 5 year olds in unitary authorities within AMBU 2007/08 and 2011/12**

Surveys of care home residents in Wales found that residents in AMBU were less likely to engage in regular dental check-ups that the Welsh average (4.8% vs. 14.1%).

European Age Standardised Rates of oral cancers in Swansea, Neath Port Talbot and Bridgend are slightly higher than the Welsh average (6.1 (95% CI 5.2-7.2); 5.8 (95% CI 4.7-7.3); 5.9 (95% CI 4.7, 7.4); compared to 5.1 (95% CI 4.9-5.4)).
Aneurin Bevan University Health Board

Demography (45)

Aneurin Bevan University Health Board (ABUHB) covers just under 8% of the landmass, and contains 19% of the population of Wales. Within ABUHB, local authority areas range in size from 109 square km in Blaenau Gwent to 851 square km in Monmouthshire.

There are twelve GP clusters operating within ABUHB, with total list size ranging from 38,360 (Blaenau Gwent East) to 68,780 (Caerphilly North). There are approximately 580,400 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 598,250, and by 2031 to 600,272. The LHB has a proportion of residents aged 65 years and over slightly lower than the Welsh average (18.0% vs. 18.7%). However, in some clusters in Monmouthshire this is as high as 23.5%. Approximately 2.3% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Within the LHB there are areas of deprivation, particularly in the valley areas of Caerphilly, Blaenau Gwent, and Torfaen. Almost a quarter (24.1%) of residents live in the most deprived fifth of areas in Wales (using WIMD 2011), compared to the national average of 20%. Eighty-eight out of the 369 LSOAs in the LHB (24%) are among the most deprived fifth in Wales, with 72 (20%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

Within the LHB there is a higher prevalence of hypertension and diabetes compared to the Welsh average. When standardised for age, rates of hypertension, coronary heart disease (CHD), and diabetes are above national average. This is likely to be associated with deprivation profile of the LHB.

Less than a quarter of the LHB’s residents (20.5%) live in areas classified as rural. This is considerably lower than the Welsh average (33.9%). However, within the LHB there are stark contrasts between clusters; 64.5% of patients in Monmouthshire South live in areas classified as rural, compared to 0.6% in Torfaen South. This may present challenges related to the planning and provision of healthcare services.

Oral health (43, 46)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have the higher numbers of decayed teeth than the Welsh average. However, inequalities in oral health between the least and most deprived children may have narrowed slightly between 2007/8 and 2011/12. Specific findings include:
- The average dmft in ABUHB was 2.4 (95% CI 2.1-2.6) in 2007/8, and 2.0 (95% CI 1.8-2.2) in 2011/12. The 2011/12 LHB average was statistically higher than the Welsh average for the same year (1.6 (95%CI: 1.5-1.7)). Average dmft per unitary authority within ABUHB is shown in Figure 6.
- By age 5, 46.4% (95% CI 43.7%-49.0%) of children in ABUHB will have experienced decay. This is significantly higher than the Welsh average (41.4% (95% CI 40.3%-42.5%)).
- The average number of decayed teeth is 1.5 (95% CI 1.3-1.6). This is similar to the Welsh average of 1.1 (95% CI 1.0-1.1).
- Children from more deprived areas within ABUHB have experienced small changes in caries experience relative to those from less deprived groups.

**Figure 6 – Average dmft for 5 year olds in unitary authorities within ABUHB 2007/08 and 2011/12**

Surveys of care home residents in Wales found that residents in ABUHB were more likely to engage in regular dental check-ups that the Welsh average (18.9% vs. 14.1%).

European Age Standardised Rates of oral cancers in ABUHB are slightly lower than the Welsh average.
Betsi Cadwaladr University Health Board

Demography (47)

Betsi Cadwaladr University Health Board (BCUHB) covers almost a third of the landmass of Wales, and is the largest LHB in Wales, both in terms of geography and population. With 110 persons per square km, is more sparsely populated than Wales as a whole. Within BCUHB, population density ranges from 46 persons per square km in Gwynedd, to 344 persons per square km in Flintshire.

There are fourteen GP clusters operating within BCUHB, with total list size ranging from 25,180 (Dwyfor) to 68,720 (Arfon). There are approximately 694,000 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 730,000 and to 754,000 by 2031. The LHB has a greater proportion of residents aged 65 years and over compared to the Welsh average (20.4% vs. 18.7%). In some clusters this is as high as 25.9%. Approximately 2.8% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Within the LHB there are areas of deprivation, mainly found in coastal areas, such as around Rhyl and Colwyn Bay, and also in and around Wrexham. However, only 12.7% of residents live in the most deprived fifth of areas in Wales (using WIMD 2011), compared to the national average of 20%. 49 out of the 425 LSOAs in the LHB (12%) are among the most deprived fifth in Wales, with 80 (19%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

There are higher proportions of the LHB’s population diagnosed with hypertension, CHD, and chronic obstructive pulmonary disease (COPD) compared to the Welsh average. However, this is likely to be due to the age-profile of the LHB. When standardised for age however, rates of most chronic diseases are below the national average.

Almost half of the LHB’s residents (49.6%) live in areas classified as rural. This is considerably higher than the Welsh average (33.9%) and this will present challenges relating to accessibility of services.

Oral health (43, 48)

There is little reliable data regarding the epidemiology of oral health of free-living adults within both the LHB and Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have fewer decayed teeth than the Welsh average and that oral health inequalities appear to be narrowing. There have been significant reductions in levels of preventable decay between 2007/8 and 2011/12. Specific findings include:
• The average dmft in BCUHB was 1.6 (95% CI 1.5-1.8) in 2007/8 and 1.4 (95% CI 1.3-1.5) in 2011/12. These were statistically significantly lower than Welsh averages for both surveys. Average dmft per unitary authority within BCUHB is shown in Figure 7.

• By age 5, 40.4% (95% CI 38.5%-42.3%) of children in BCUHB will have experienced decay. This is within the Welsh average (41.4% (95% CI 40.3%-42.5%).

• The average number of decayed teeth at age 5, considered an indicator for pain, infection and risk of decay in permanent teeth, is 0.9 (95%CI 0.8-1.0). This is significantly lower than the Welsh average of 1.1 (95% CI 1.0-1.1).

• Children from more deprived areas within the LHB have experienced improvements in oral health between 2007/08 and 2011/12, and inequalities in oral health within the LHB appear to be reducing.

**Figure 7 – Average dmft for 5 year olds in unitary authorities within BCUHB 2007/08 and 2011/12**

Surveys of care home residents in Wales found that residents in BCUHB were less likely to engage in regular dental check-ups that the Welsh average (12.3% vs. 14.1%).

European Age Standardised Rates of oral cancers in Anglesey are the highest in Wales (6.7 (95% CI 5.1-9.0) compared to 5.1 (95% CI 4.9-5.4)).
Cardiff and Vale University Health Board

Demography (49)

Cardiff and Vale University Health Board (CVUHB) is the smallest and most densely populated LHB area in Wales, primarily due to the capital city Cardiff. CVUHB covers less than 3% per cent of the land area of Wales, but houses just under 15% of population.

There are nine GP clusters operating within CVUHB, with total list size ranging from 26,960 (Western Vale) to 102,450 (Cardiff North). There are approximately 482,000 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 545,300 and to 569,374 by 2031. This is a projected growth of 18% in the next fifteen years. The LHB has a proportion of residents aged 65 years and over lower than the Welsh average (14.5% vs. 18.7%). Approximately 2.1% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Within the LHB there are areas of deprivation, particularly in the southern part of Cardiff City and Barry. Almost a quarter (23.5%) of residents live in the most deprived fifth of areas in Wales (using WIMD 2011), compared to the national average of 20%. 58 out of the 281 LSOAs in the LHB (21%) are among the most deprived fifth in Wales, with 114 (40%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

There are lower proportions of the LHB’s population diagnosed with the most common chronic diseases compared to the Welsh average. However, this is affected by the younger age demographic of the LHB. When standardised for age, rates are approximately equal to Welsh averages.

A very small proportion of the LHB’s residents (5.8%) live in areas classified as rural. This is considerably lower than the Welsh average (33.9%). However, in the Western Vale cluster this figure is 47.8%. Ensuring equity of services for patients in these areas may therefore represent a challenge for the LHB.

Oral health (43, 50)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have the similar numbers of decayed teeth to the Welsh average. Inequalities in oral health have narrowed slightly between 2007/8 and 2011/12. Specific findings include:

- The average dmft in CVUHB was 1.5 (95% CI 1.3-1.6) in 2007/8 and 1.4 (95% CI 1.2-1.6) in 2011/12. The 2007/08 CVUHB average was lower than the Welsh average (2.0 (95% CI 1.9-2.1)), whilst in
2011/12 the mean dmft was similar to the Welsh average (1.6 (95% CI 1.5-1.7)). Average dmft per unitary authority within CVUHB is shown in Figure 8.

- By age 5, 34.7% (95% CI 31.5%-37.9%) of children in CVUHB will have experienced decay. This is significantly lower than the Welsh average (41.4% (95% CI 40.3%-42.5%)).
- The average number of decayed teeth at age 5 is 0.9 (95% CI 0.8-1.1) which was similar to the Welsh average of 1.1 (95% CI 1.0-1.1).
- Between 2007/08 and 2011/12 there has been a narrowing of inequalities in health board dental health indicators underpinning national child poverty targets.

**Figure 8 – Average dmft for 5 year olds in unitary authorities within CVUHB 2007/08 and 2011/12**

Surveys of care home residents in Wales found that residents in CVUHB were more likely to engage in regular dental check-ups that the Welsh average (24.7% vs. 14.1%).

European Age Standardised Rates of oral cancers in Cardiff are slightly higher than the Welsh average, whilst rates in the Vale of Glamorgan are similar to national averages.
Cwm Taf University Health Board

Demography (51)

Cwm Taf University Health Board (CTUHB) covering 3% of the landmass and housing 10% of the population of Wales, is the second smallest LHB in Wales. Within CTUHB, Rhondda Cynon Taff local authority area is almost four times the size of that of Merthyr Tydfil.

There are eight GP clusters operating within CTUHB, with total list size ranging from 20,820 (South Cynon) to 56,690 (South Taf Ely). There are approximately 296,000 people currently residing in the LHB. The population of CTUHB is expected to remain relatively constant, with population projections of 299,356 in 2026 and 298,992 in 2031. The LHB has a proportion of residents aged 65 years and over which is lower than the Welsh average (17.3% vs. 18.7%). Approximately 2.1% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Within the LHB there are several areas of deprivation, particularly in the post industrial areas such as the Rhondda and Cynon valleys and Merthyr Tydfil. Over a third (35.5%) of residents live in the most deprived fifth of areas in Wales (using WIMD 2011), which is considerably higher than the national average (20%). Seventy-three out of the 188 LSOAs in the LHB (39%) are among the most deprived fifth in Wales, with 17 (9%) in the least deprived fifth. CTUHB has the highest proportion of LSOAs in the most deprived fifths in Wales.

There are higher proportions of the LHB’s population diagnosed with hypertension, CHD, and COPD compared to the Welsh average. When standardised for age, the rates of several chronic diseases are higher than Welsh averages.

Less than a quarter of the LHB’s residents (24.9%) live in areas classified as rural. This is considerably lower than the Welsh average (33.9%).

Oral health (43, 52)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have the higher numbers of decayed teeth to the Welsh average. Inequalities in oral health have widened between 2007/8 and 2011/12. Specific findings include:

- The average dmft in CTUHB was 1.9 in both 2007/8 and 2011/12. This was during the same period which saw average dmft fall across Wales. The 2011/12 CTUHB average (1.9 (95% CI 1.6-2.2) was statistically higher than the Welsh average for the same year (1.6 (95% CI 1.5-1.7). Average dmft per unitary authority within CTUHB is shown in Figure 9.
By age 5, 50.7% (95% CI 46.1%-55.2%) of children in CTUHB will have experienced decay. This is significantly higher than the Welsh average (41.4% (95% CI 40.3%-42.5%)).

The average number of decayed teeth, which is considered an indicator for pain, infection, and risk of decay in permanent teeth, at age 5 is similar to the Welsh average.

Between 2007/08 and 2011/12 there has been a widening of inequalities in health board dental health indicators underpinning national child poverty targets.

Figure 9– Average dmft for 5 year olds in unitary authorities within CTUHB 2007/08 and 2011/12

Surveys of care home residents in Wales found that residents in CTUHB were more likely to engage in regular dental check-ups that the Welsh average (21.9% vs. 14.1%).

European Age Standardised Rates of oral cancers in CTUHB are similar to national averages.
Hywel Dda University Health Board

Demography (53)

Hywel Dda University Health Board (HDUHB) area, covers a quarter of the landmass of Wales and is the second most sparsely populated LHB. Within HDUHB, Carmarthenshire accounts for 41% of the land area. Approximately 13% of the Welsh population live in HDUHB.

There are seven GP clusters operating within HDUHB, with total list size ranging from 48,080 (South Ceredigion) to 63,650 (North Pembrokeshire). There are approximately 384,000 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 403,019 and to 407,257 by 2031. The LHB current has a proportion of residents aged 65 years and over higher than the Welsh average (21.4% vs. 18.7%). Population predictions indicate the proportion of older people within the LHB is likely to grow. Approximately 2.8% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

In Hywel Dda University LHB there are areas of deprivation including parts of Llanelli, Pembroke Dock, and Cardigan. However, only a small proportion (8.1%) of residents live in the most deprived fifth of areas in Wales (using WIMD 2011), compared to the national average of 20%. 22 out of 230 of the LSOAs in the LHB (10%) are among the most deprived fifth in Wales, with 11 out of 230 (5%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

Higher proportions of the LHB’s population are diagnosed with hypertension, CHD, and diabetes than the Welsh average. However, this is affected by the older age demographic of the LHB. When standardised for age, rates of most common chronic diseases are lower than across Wales as a whole.

A high proportion of the LHB’s residents (66.5%) live in areas classified as rural. This is considerably higher than the Welsh average (33.9%).

Oral health (43, 54)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have the fewer decayed teeth than the Welsh average. There are have been significant reductions in levels of preventable decay between 2007/8 and 2011/12. Inequalities in oral health do not appear to have narrowed between 2007/8 and 2011/12. Specific findings include:
The average dmft in HDUHB was 2.0 (95% CI 1.8-2.2) in 2007/8 and 1.2 (95% CI 1.2-1.6) in 2011/12. The 2011/12 HDUHB average was lower than the Welsh average (1.6 (95% CI 1.5-1.7)). Average dmft per unitary authority within HDUHB is shown in Figure 10.

By age 5, 33.1% (95% CI 29.8%-36.3%) of children in HDUHB will have experienced decay. This is significantly lower than the Welsh average (41.4% (95% CI 40.3%-42.5%)).

The average number of decayed teeth, which is considered an indicator for pain, infection, and risk of decay in permanent teeth, is 0.8 (95% CI 0.7-0.9) at age 5, which was lower than the Welsh average of 1.1 (95% CI 1.0-1.1) and indeed the lowest in Wales.

Children from more deprived areas within Hywel Dda have experienced little change in caries experience relative to the less deprived groups.

**Figure 10 – Average dmft for 5 year olds in unitary authorities within HDUHB 2007/08 and 2011/12**

Surveys of care home residents in Wales found that residents in HDUHB were more likely to receive regular dental check-ups that the Welsh average (8.8% vs. 14.1%).

European Age Standardised Rates of oral cancers in Carmarthen (5.0 (95% CI 4.1-6.1)) are similar to national average (5.1 (95% CI 4.9-5.4)), whilst rates in Ceredigion and Pembrokeshire are lower (3.9 (95% CI 2.9-5.9)); 4.3 (95% CI 3.4-5.7)).
Powys Teaching Health Board

Demography (55)

Powys Teaching Health Board (PTHB), covering a quarter of the landmass of Wales (5,196 square km), is the most sparsely populated LHB area. Just under 5% of the population of Wales live in PTHB.

There are just three GP clusters operating within PTHB, with total list size ranging from 28,730 (Mid Powys) to 64,690 (North Powys). There are approximately 132,700 people currently residing in the LHB. It is anticipated that by 2026 the population will increase to 136,489, before falling slightly to 136,055 in 2031. The LHB has a higher proportion of residents aged 65 years and over than the Welsh average (23.2% vs. 18.7%). Approximately 3.1% of the population of the LHB are aged 85 years or over (Welsh average 2.5%).

Whilst deprivation within the LHB is generally low, there are deprived communities in the more urban areas of Welshpool and Newtown. A very small proportion (1.7%) of residents live in the most deprived fifth of areas in Wales (using Welsh Index of Multiple Deprivation 2011), compared to the national average of 20%. Three out of the 80 LSOAs in the LHB area (4%) are among the most deprived fifth in Wales, with 11 (14%) in the least deprived fifth. However, within less deprived areas there are often pockets of hidden deprivation.

Crude rates of chronic disease are appropriately equal Welsh averages. However, this is affected by the older age demographic of the LHB. When standardised for age, rates are lower than Welsh averages.

A high proportion of the LHB’s residents (84.3%) live in areas classified as rural. This is considerably higher than the Welsh average (33.9%). The low population density of PTHB means that residents often have to travel long distances to access care.

Oral health (43, 56)

There is little reliable data regarding the epidemiology of oral health of free-living adults within individual LHBs in Wales.

Epidemiological data from 5-year old children reveals that on average, children in the LHB have fewer decayed teeth to the Welsh average. However, there has been a widening of inequalities in health board dental health indicators underpinning national child poverty targets between 2007/8 and 2011/12. Specific findings include:

- The average dmft in PTHB was 1.6 (95% CI 1.3-1.9) in 2007/8 and 1.3 (95% CI 1.0-1.5) in 2011/12. Whilst this was not a statistically significant reduction, the 2011/12 PTHB average was significantly lower than the Welsh average. Average dmft per Upper Super Output Area (USOA) within PTHB is shown in Figure 11.
• By age 5, 34.8% (95% CI 33.9%-43.9%) of children in PTHB will have experienced decay. This is significantly lower than the Welsh average (41.4% (95% CI 40.3%-42.5%)).
• The average number of decayed teeth, considered an indicator for pain, infection, and risk of decay in permanent teeth, at age 5 is 0.9 (95% CI 0.7-1.1) which was similar to the Welsh average of 1.1 (95% CI 1.0-1.1).
• In PTHB there were no children from the most deprived quintile surveyed. Therefore, it is necessary to consider the ratio of the second most deprived: middle deprived, where it appears there has been a widening of inequalities.

**Figure 11 – Average dmft for 5 year olds in USOA in PTHB in 2011/12**

Surveys of care home residents in Wales found that residents in PTHB were more likely to receive regular dental check-ups than the Welsh average (31.6% vs. 14.1%).

European Age Standardised Rates of oral cancers in Powys (3.4 (95% CI 2.5-4.5)) were the lowest in Wales.
Appendix 3 – Location of in-hours urgent and emergency dental care services

Figure 12 - Location of GDS and DTU providers with in-hours contracts for urgent dental care in ABMU and relative distribution of deprivation (exact locations of GDS practices not available)

Welsh Index of Multiple Deprivation, Abertawe Bro Morgannwg UHB, 2014
LSOA, national fifths of deprivation
- Most deprived (84)
- Next most deprived (76)
- Middle (53)
- Next least deprived (42)
- Least deprived (79)
- Local authority boundary

Produced by Public Health Wales Observatory, using WIMD 2014 (WG), released August 2015
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Figure 13 - Location of GDS providers with in-hours contracts for urgent dental care in ABUHB and relative distribution of deprivation
Figure 14 – Location of GDS providers with in-hours contracts for urgent dental care in BCUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Betsi Cadwaladr UHB, 2014
LSOA, national fifths of deprivation
- Most deprived (51)
- Next most deprived (75)
- Middle (91)
- Next least deprived (121)
- Least deprived (85)
- Local authority boundary
Figure 15 – Location of GDS, CDS and HDS providers with in-hours contracts for urgent dental care in CVUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Cardiff & Vale University Health Board, 2014

Local authority boundary

Produced by Public Health Wales Observatory, using revised WIMD August 2015 (WG)
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Figure 16 - Location of TDS and CDS providers with in-hours contracts for urgent dental care in CTUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Cwm Taf UHB, 2014
- Most deprived (57)
- Next most deprived (66)
- Middle (29)
- Next least deprived (16)
- Least deprived (22)
- Local authority boundary

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Figure 17 – Location of GDS providers with in-hours contracts for urgent dental care in HDUHB* and relative distribution of deprivation

* one CDS clinic also provides urgent dental care, not mapped
Figure 18 - Location of CDS providers with in-hours contracts for urgent dental care in PTHB* and relative distribution of deprivation

* (small number of GDS practices also provide urgent dental care, not mapped; CDS in Machynlleth is a mobile unit)
Appendix 4 - Location of out-of-hours urgent and emergency dental care services

Figure 19 - Location of GDS providers with out-of-hours contracts for urgent dental care in ABMU and relative distribution of deprivation (exact locations of practices not available)
Figure 20 - Location of CDS clinic providing with out-of-hours urgent dental care in ABUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Aneurin Bevan UHB, 2014

- Most deprived (97)
- Next most deprived (81)
- Middle (70)
- Next least deprived (52)
- Least deprived (68)
- Local authority boundary

Produced by Public Health Wales Observatory, using WIMD 2014 (WG), released August 2015
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Figure 21 – Location of CDS clinics providing out-of-hours care for patients with urgent dental conditions in BCUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Betsi Cadwaladr UHB, 2014
LSOA, national fifths of deprivation
- Most deprived (51)
- Next most deprived (75)
- Middle (91)
- Next least deprived (121)
- Least deprived (185)
- Local authority boundary

Produced by Public Health Wales Observatory, using WIMD 2014 (WG), released August 2015
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Figure 22 – Location of Primary Dental Care Unit providing out-of-hours care for patients with urgent dental conditions in CVUHB, and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Cardiff & Vale University Health Board, 2014

- Most deprived (71)
- Next most deprived (36)
- Middle (36)
- Next least deprived (45)
- Least deprived (105)

Produced by Public Health Wales Observatory, using revised WIMD August 2015 (WG)
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Figure 23 - Location of CDS clinic housing EDS service for patients requiring out-of-hours urgent dental care in CTUHB and relative distribution of deprivation.

Welsh Index of Multiple Deprivation, Cwm Taf UHB, 2014
LSOA, national fifths of deprivation
- Most deprived (57)
- Next most deprived (66)
- Middle (29)
- Next least deprived (16)
- Least deprived (22)

Produced by Public Health Wales Observatory, using WIMD 2014 (WG), released August 2015
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Figure 24 – Location of GDS providers with out-of-hours contracts for urgent dental care in HDUHB and relative distribution of deprivation

Welsh Index of Multiple Deprivation, Hywel Dda UHB, 2014
LGDA: National firms of deprivation
- Most deprived (19)
- Next most deprived (46)
- Middle (85)
- Next least deprived (63)
- Least deprived (16)
- Local authority boundary
Figure 25 - Location of GDS providers with out-of-hours contracts for urgent dental care in PTHB and relative distribution of deprivation