Best practice models for dental care delivery for people experiencing homelessness

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Key points

This paper presents three service models currently delivering dental care for people experiencing homelessness in England.

One size does not fit all; different models are more appropriate for different people depending on their living circumstances and personal preferences.

The models can complement each other to ensure that patients are able to access dental services regardless of whether they are sleeping rough or live in temporary accommodation.

Abstract

People experiencing homelessness have been encountering significant barriers in accessing healthcare services, including dental care services. There are several definitions for homelessness: it includes people sleeping rough but also people living in temporary accommodation. These categories are dynamic and individuals often find themselves on a continuum oscillating between sleeping rough and living in temporary accommodation. Their health-seeking behaviours are shaped by their living arrangements; therefore, one single model of dental care service delivery might not capture the needs of all those experiencing homelessness within an area. The service models presented in this paper are based on primary care delivery, mobile dental units and community clinics. Each of these models presents advantages and disadvantages and consideration should be given to delivering these on a complementary basis to maximise access to dental care, regardless of where patients are on the continuum between sleeping rough and living in temporary accommodation.

Background

Individuals experiencing homelessness are faced with enormous day-to-day challenges which are difficult to imagine by the general public. These challenges, together with the societal stigma surrounding their complex circumstances, have a significant impact on their health and wellbeing. The inability to eat a healthy diet, the high prevalence of smoking and substance misuse and the low priority for

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health maintenance due to the daily struggles for survival puts them at very high risk for both oral and systemic diseases.^{1,2} These stark inequalities are reflected by all health measures, including life expectancy. While life expectancy in the UK general population is 79 years for men and 83 years for women, the average age at death for homeless men is 47 years and for women is only 43 years old.^{3,4}

In terms of oral health, homeless people experience significantly higher levels of dental caries and periodontal disease than the general population.⁵ The high prevalence of smoking, alcohol and drug consumption also puts homeless populations at a higher risk of developing oral cancer.^{6,7} Despite the high burden of oral disease, homeless people also face additional challenges in accessing dental care and prevention services.

Access to NHS dental care has become an increasingly pressing problem for all patients throughout the UK and the media and various politicians have put pressure on the government to address this issue. The critics of providing targeted support for vulnerable groups might argue that homeless

people would be 'jumping the queue' but the reality is that these patients have never even been part of the queue.8 According to the inverse care law, the people who might have the highest need for health care are also the people who are least likely to advocate for its availability.9 Indeed, homeless people are unlikely to lobby anyone, let alone their members of parliament for improved access to dental care. NHS organisations and the voluntary, community and social enterprise (VCSE) sector are playing a key role in reducing health care inequalities.5 The legal duties around equality and reducing health inequalities are enshrined in primary legislation.10,11 Core20PLUS5 is the latest NHS England initiative to support the reduction of general health inequalities and identifies the need to provide additional support for people experiencing homelessness, as well as for people from other inclusion health groups. 12

An ever-increasing number of scientific publications describe the significant challenges faced by homeless people in accessing healthcare services in general and dental care services in particular.^{8,13,14}

Healthcare services were designed to suit the needs of the majority of the people accessing those services; however, the specific needs of the homeless population and other inclusion health groups are not always aligned with the needs of the majority and ignoring those needs can lead to systemic barriers for access and a widening of health inequalities.¹⁵

Over recent years, there have been several initiatives with varying degrees of success aimed at improving access to dental care for people experiencing homelessness.16 Historically, community dental services (CDSs) were considered as the 'go to' service for many inclusion health groups, including for patients experiencing homelessness. However, some CDS providers now operate on a referral-only basis and have been developing more restrictive acceptance criteria focused on Level 2 and 3 complexity, in line with the Commissioning guide for special care dentistry.17 Sometimes, these can present barriers for access for patients experiencing homelessness.^{1,16} Furthermore, the additional complex health and social care needs of these patients, the societal stigma around homelessness, and the logistical challenges for both dental attendance and care delivery, suggest the need for a targeted service for this group.^{1,16} Some best practice examples of targeted services include primary care delivery (high street dental practices), mobile dental units and community clinics operated through social enterprise. The aim of this paper is to describe these three service models and provide some reflections from the teams involved in designing these services.

Primary care delivery

A sessional service model delivered through high street NHS dental practices is currently in place in various locations in England, including Manchester, Leeds and Blackpool.18 The Manchester service has been operational for over a decade and it informed the design of the Leeds programme which started in April 2022 as a pilot and which has now been commissioned and is being rolled out to other locations in Yorkshire and the Humber.19 Although there are slight differences between these programmes, the basic principles are the same: delivering specifically allocated treatment sessions for homeless people in a high street NHS dental practice and maximising the use of clinical time by working with local homeless charities. The charities are key for the success of the programme as they are responsible for booking in the patients for their appointments and for chaperoning them to and from the dental practice. This approach maximises the use of clinical time in these sessions and reduces the number of missed appointments to a minimum. A bespoke data collection tool, additional to FP17 forms, has been developed with NHS Business Service Authority. The purpose of this tool is to provide information about the care delivered and the utilisation of the sessions. The feedback from patients, providers and charities has been overwhelmingly positive. Patients value being treated with respect as fellow human beings without stigma or judgement by being seen in a regular dental practice like the rest of the population. Although there were patients who came initially only for symptomatic relief, many went on to complete care and became dentally fit; data from a service evaluation (unpublished) show that patients valued the idea of 'belonging' to the practice.

In terms of funding mechanisms, a sessional fee, sufficient to reimburse an expected 4–6 patients/session, appears to be the most appropriate for this model. This allows clinicians to spend additional time with these patients in accordance with their complex dental and wider health care needs.¹⁵

Advantages

The main advantage of this approach is that it normalises patients' health-seeking behaviours, allowing them to access dental care services in a similar way to the stably housed population. The sessional service model allows providers to spend sufficient time with their patients consistent with the complexities of their needs. Once patients' oral health has been stabilised, they can be seen as part of the main dental contract of the practice, ensuring continuity of care.

Commissioning teams may use existing primary dental care providers to deliver the service in a practice located conveniently for these patients. The sessional rate needs to ensure long-term business continuity of the service.

Disadvantages

- Difficult to engage with people sleeping rough as they are less likely to travel to access services
- Potential risks around identifying local homeless charities with the resources and capacity to provide transportation and chaperone patients to their appointments.

Mobile dental unit

Mobile dental units (MDUs) have been used to deliver dental care across CDSs, general dental services and charitable sectors. ^{20,21,22,23} These can be fully equipped surgeries on wheels, with the ability to provide a similar range of treatments to a fixed site clinic. Mobile clinics, vans or buses are models used in several health services that care for people who experience homelessness, from general practitioner (GP) services, to vaccinations, to tuberculosis screening. MDUs have also been used to provide dental care to other patient groups, such as school children or residents of care homes. Several services across the UK use this model to deliver dental care. ^{22,24}

Advantages

Taking care out into these communities can be a useful model of care for groups who are difficult to engage or would struggle to travel to a fixed-site clinic. There is evidence to suggest that MDUs increase engagement, particularly when working collaboratively with stakeholders in the planning of the clinics or with the use of link workers.²⁰

The use of an MDU often caters for younger people or rough sleepers for urgent treatments or shorter treatment plans. ¹² Taking a service to patients can break down barriers and gain trust with this population, as clinical teams are seeing patients 'on their turf'. The MDU may also allow for flexibility of location, for example, car parks. Furthermore, they can be taken to multiple sites, for example, rotating around homeless hostels in an area.

Taking a fully equipped surgery to these patients means that most dental treatments can be provided without losing the patient to follow-up. Feedback from patients and other stakeholders suggested that providing opportunistic engagement with patients at agreed sites that are easily accessible was appreciated.25 There is also the draw of the MDU - seeing a vehicle with 'dentist' will promote and advertise the service and will be easily accessible for the patient. Another advantage of using an MDU in a location where there is a population of homeless people is that should one patient fail to attend their appointment, then their slot could potentially be filled with another person already present at that location. This can maximise the clinical time, enabling appointments to be filled more readily than with some fixed-site service models.

Table 1 Overview of the main advantages and disadvantages of different delivery models		
Delivery model	Advantages	Disadvantages
Primary care	 "Normalises" health-seeking behaviours Sessional funding not UDA-based Continuity of care	Availability and capacity of local charities to provide support
Mobile dental unit	 Flexible around location Good engagement with rough sleepers Sees patients in their environment which breaks down barriers to care Enables for opportunistic engagement 	Costs Logistics Continuity of care
Community clinic (social enterprise)	Flexible around local needs Integration with wider health and social care initiatives	Continuity of care

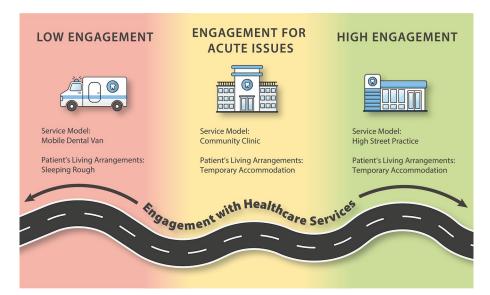


Fig. 1 Patients' engagement with different dental care service models

Many MDUs are also equipped with wheelchair lifts or hoists to enable access for homeless people with physical disabilities.

Disadvantages

There is a significant investment required firstly to purchase an MDU, but then also to maintain it, together with potential additional staff costs. One service estimated that the use of an MDU incurred a 2.4 times increase in the cost of a unit of dental activity (UDA) when compared to a fixed-site clinic.22 The locations that an MDU is taken to must be carefully planned to ensure maximum patient engagement, but also patient, staff and public safety. Risk assessment of sites takes time and difficulties can be encountered which may not have been anticipated, for example, roadworks, difficulty parking and adverse weather conditions. The size and weight of the vehicle can preclude the use of some locations.

MDUs are large vehicles which produce noise pollution, can break down and have

environmental impacts. Taking a service out into the community will ultimately also involve an environment which isn't in the dental team's control and when providing care, confidentiality and information governance might be more challenging, for example, when taking medical histories, filling in paperwork, or access to records.

Using an MDU increases staff responsibilities, including training and ensuring the MDU is stocked with dental equipment and materials. Additionally, staff may be working in isolated environments, which could compromise their safety if patients become aggressive. Further, this siloed way of working can present challenges to collaborative management of complex clinical cases.

Depending on how appointments are arranged, longer treatment plans, more complex treatments or longer appointment times might not be possible or appropriate on the MDU. So, while a large range of treatments could potentially be provided, a service using

an MDU may still choose to signpost or refer onwards for more complex or longer treatments in order to see more patients on the MDU.

A novel clinic delivered by a social enterprise

Social enterprises are organisations that combine business with social purpose and deliver activities that have dedicated community benefit.26 In response to the significant unmet needs of vulnerable groups in Plymouth, the Peninsula Dental Social Enterprise established a dental clinic in January 2018 for those experiencing homelessness.27 The clinic started as a pro bono contribution to the local community. Initially, the clinic only treated people experiencing homelessness; however, it has grown since then to include individuals from other health inclusion groups, recognising the reality that people with complex health needs often have multiple life challenges that cluster together. The service uses a salaried dentist to deliver both routine and emergency care through a specific community care pathway, with treatment provided free of charge to patients. The referral pathway is accessed via GP homeless outreach services, local charities and voluntary organisations who support people with complex needs, to ensure access is prioritised for those with high or urgent needs rather than prescriptive referral criteria, which can act as barriers to care. Link workers provide support to individuals to attend appointments, which has resulted in high attendance rates.

The service has been evaluated using a mixed method approach.²⁵ Research findings indicate that, as well as helping patients with pain relief, functionality and motivation to look after their teeth, treatment impacts positively on their confidence, self-esteem, self-worth and aspirations for a new start in life.¹⁸ The service continues to develop its model and reach, which has led to a new pilot service being established in Exeter.

Advantages

The main advantage is the ability to respond to local needs in a flexible and responsive way, enabling the service to be designed around the needs of the people using it via a community approach. This is in contrast to more established CDS models, which have to conform to local referral criteria and

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NHS regulations regarding patient charging and attendance, which limits their ability to respond in such a dynamic way. The service is also fully integrated into the wider health and social care efforts for people in the city with complex needs, ensuring that oral health and general health are considered together as part of the holistic care of the person.

Disadvantages

The service is a dedicated one and therefore it may deter people from attempting to access mainstream services, although the concept of the service is to act as a 'bridge' to acclimatise patients to accepting regular dental care, stabilise their oral health and thereby make them 'ready' for a more suitable long-term dental home.

Reflections and conclusions

The three service models presented in this paper are complementary to each other rather than mutually exclusive solutions. Different groups of homeless people experience different types of barriers for accessing services and there is no single universal solution. Often, blended approaches, or collaboration between services, will result in more patient-centred, high-quality dental care for these patients. Table 1 presents a brief overview of the main advantages and disadvantages of each model.

People experiencing homelessness, like the rest of the population, can be broadly divided into three main categories based on their readiness for engaging with healthcare services: those who are actively engaging with healthcare services; those who only wish to engage to get out of pain or on an *ad hoc* basis; and those who are disengaged with healthcare services (Fig. 1).

These individuals often find themselves on a continuum alternating between sleeping rough and living in temporary accommodations or hostels. Their health-seeking behaviours are shaped by their living circumstances and evidence suggests that people sleeping rough are less likely to engage with healthcare services due to a variety of reasons, but they might be more likely to engage with services that are brought closer to them, such as MDUs or outreach through community day centres.^{28,29} MDUs can be relatively flexible in their locations, times and ability to work alongside other healthcare services for homeless people, for example, as part of onestop-shop events, like Crisis at Christmas.30 At the same time, as part of a service evaluation (unpublished), feedback from people who are living in temporary accommodations and trying to break the cycle of homelessness shows that they prefer to attend high street dental practices where they receive equal treatment with all other patients. This helps them feel respected and allows them to 'normalise' their health-seeking behaviours. There will, however, still be people who would prefer or require a specialised dental service.

It is important to highlight the importance of working with experienced clinicians with adequate training and commitment to working on addressing oral health inequalities. Some patients will, however, still require input from special care dental teams to manage their additional needs.

Development of an economic evaluation that would capture the true impact of these programmes on patients' lives is liable to be difficult. There is ample evidence from the participating charities in a service evaluation (unpublished) that this service helped a significant number of their clients to regain their confidence, improve their ability to eat a healthier diet and increases their employment opportunities. Anecdotal evidence from some of the dental teams involved in delivering these services highlighted the life-changing impact of these services on patients, including significant improvements in mental health in those who previously considered self-harming, and the ability to engage effectively in drug and alcohol programmes because their dental pain had been addressed. In addition to this, upstream approaches in the delivery of dental care and prevention could have economic savings across other sectors of healthcare, for example reduction in unscheduled dental care appointments or attendances at accident and emergency departments.

With the transfer of responsibilities for the commissioning of dental services from NHS England to integrated care boards, there may be new opportunities to identify local priority groups, including individuals experiencing homelessness, and to design services that may reduce some of the inequalities around access to dental care for these groups.

Ethics declaration

The authors declare no conflicts of interest.

Author contributions

Stefan Serban conceived the paper and drafted the initial manuscript. Natalie Bradley, Ben Atkins,

Sandra Whiston and Rob Witton contributed to the manuscript. All authors revised draft versions of the manuscript and gave approval for the final version to be published.

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References

- Csikar J, Vinall-Collier K, Richemond J M, Talbot J, Serban S T, Douglas G V. Identifying the barriers and facilitators for homeless people to achieve good oral health. Community Dent Health 2019: 36: 137–142.
- Freeman R, Doughty J, Macdonald M E, Muirhead V. Inclusion oral health: Advancing a theoretical framework for policy, research and practice. Community Dent Oral Epidemiol 2020; 48: 1–6.
- Office for National Statistics. National life tables – life expectancy in the UK: 2018 to 2020. 2021. Available at https://www.ons. gov.uk/peoplepopulationandcommunity/ birthsdeathsandmarriages/lifeexpectancies/bulletins/ nationallifetablesunitedkingdom/2018to2020 (accessed November 2022).
- Crisis. Homelessness kills: An analysis of the morality of homeless people in the early twenty-first century England. 2012. Available at https://www.bl.uk/ britishlibrary/~/media/bl/global/social-welfare/pdfs/ non-secure/h/o/m/homelessness-kills-an-analysis-ofthe-mortality-of-homeless-people-in-early-twentyfirstcentury-england.pdf (accessed November 2022).
- Groundswell. Healthy Mouths. Available at https:// groundswell.org.uk/our-approach-to-research/peerresearch/healthy-mouths/ (accessed May 2023).
- UK Government. Inequalities in oral health in England. 2021 Available at https://www.gov.uk/government/ publications/inequalities-in-oral-health-in-england (accessed May 2023).
- Collins J, Freeman R. Homeless in North and West Belfast: an oral health needs assessment. Br Dent J 2007; 202: 31.
- Paisi M, Kay E, Plessas A et al. Barriers and enablers to accessing dental services for people experiencing homelessness: A systematic review. Community Dent Oral Epidemiol 2019; 47: 103–111.
- Hart J T. The inverse care law. *Lancet* 1971; 1: 405–412.
 UK Government. Equality Act 2010. Available at https://www.legislation.gov.uk/ukpga/2010/15/contents (accessed November 2022).
- UK Government. Health and Care Act 2022. Available at https://www.legislation.gov.uk/ukpga/2022/31/ contents/enacted (accessed November 2022).
- NHS England. Core20PLUS5 (adults) an approach to reducing health inequalities. Available at https://www.

- england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/core20plus5/ (accessed November 2022).
- McNeill S, O'Donovan D, Hart N. Access to healthcare for people experiencing homelessness in the UK and Ireland: a scoping review. BMC Health Serv Res 2022; 22: 910.
- Hanlon P, Yeoman L, Gibson L et al. A systematic review of interventions by healthcare professionals to improve management of non-communicable diseases and communicable diseases requiring long-term care in adults who are homeless. BMJ Open 2018; DOI: 10.1136/bmjopen-2017-020161.
- Witton R, Paisi M. Dental care for homeless persons: Time for National Health Service reform. Public Health Pract (Oxf) 2021; 2: 100194.
- Doughty J, Grossman A, Paisi M et al. A survey of dental services in England providing targeted care for people experiencing social exclusion: mapping and dimensions of access. Br Dent J 2022; DOI: 10.1038/ s41415-022-4391-7.
- NHS England. Guides for commissioning dental specialties – Special Care Dentistry. 2015. Available at https://www.england.nhs.uk/commissioning/ wp-content/uploads/sites/12/2015/09/

- guid-comms-specl-care-dentstry.pdf (accessed May 2023)
- NHS England. Narrowing oral healthcare inequalities in Yorkshire and the Humber. Available at https:// www.england.nhs.uk/about/equality/equality-hub/ case-studies/narrowing-oral-healthcare-inequalitiesin-yorkshire-and-the-humber/ (accessed February 2023).
- 19. Atkins B. Going mobile in Manchester to meet the needs of the marginalised. *BDJ Team* 2018; **5:** 18205.
- Marples C, Wright J. Sixteen years on the road: a mobile dental unit for vulnerable communities in Bradford. Br Dent J 2022; 233: 503–550.
- Doughty J, Stagnell S, Shah N, Vasey A, Gillard C. The Crisis at Christmas Dental Service: a review of an annual volunteer-led dental service for homeless and vulnerably housed people in London. Br Dent J 2018; 224: 43–47.
- Simons D, Pearson N, Movasaghi Z. Developing dental services for homeless people in East London. Br Dent J 2012: 213: 11.
- Evans A. The challenges facing dental outreach charities. BDJ In Pract 2021; 34: 12–13.
- King's College London. Mapping of specialist primary health care services in England for people who are homeless. 2018. Available at https://www.housinglin.

- org.uk/_assets/Resources/Housing/OtherOrganisation/ Homelessness-mapping-report_FULL.PDF (accessed October 2023).
- Paisi M, Baines R, Worle C, Withers L, Witton R. Evaluation of a community dental clinic providing care to people experiencing homelessness: A mixed methods approach. Health Expect 2020; 23: 1289–1299.
- 26. Witton R. Is social enterprise good for dentistry? *Br Dent* J 2021; **230:** 642–643.
- Patel R, Witton R, Potterton R, Smith W, Kaimi I. Dental Public Health in Action: Understanding oral health care needs and oral health-related quality of life in vulnerable adults in Plymouth. Community Dent Health 2018: 35: 197–200.
- Crisis. The hidden truth about homelessness:
 Experiences of single homelessness in England. 2011.

 Available at https://www.crisis.org.uk/media/236815/the_hidden_truth_about_homelessness.pdf (accessed October 2023).
- Mackie P, Johnsen S, Wood J. Ending Street Homelessness: What Works and Why We Don't Do It. Eur J Homelessness 2019; 13: 85–96.
- Crisis. What is Crisis at Christmas? Available at https:// www.crisis.org.uk/crisis-at-christmas (accessed January 2023)

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Clinical article *Br Dent J* 2019; **227:** 683–686.

When this article was originally published, an incorrect version of Figure 4 was displayed. The correct figure is presented here, in which the 'Yes' / 'No' boxes are correctly distinguished.

The journal apologises for any inconvenience caused.

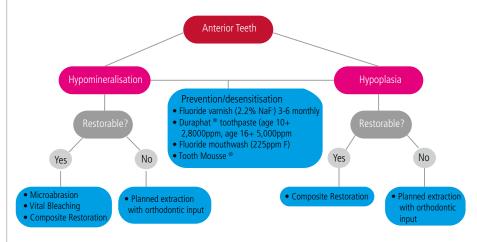


Fig. 4 Treatment options for anterior teeth^{1,4,7}