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Serban, S. , Hall-Scullin, E. and Dailey, Y. (2023) EquiDent - Developing a toolkit to support equitable commissioning of dental care services. BDJ in Practice, 36, pp. 24-27. (doi: 10.1038/s41404-023-2113-8)

This is the author version of the work. There may be differences between this version and the published version. You are advised to consult the published version if you wish to cite from it:
https://doi.org/10.1038/s41404-023-2113-8

https://eprints.gla.ac.uk/305782/

Deposited on 05 September 2023

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EquiDent - Developing a toolkit to support equitable commissioning of dental care services

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Background

The transfer of commissioning responsibilities for all dental care services from NHS England to Integrated Care Boards (ICBs), provides an opportunity to evaluate and reflect on historical commissioning practices and consider alternative solutions with local partners across the wider system.[1] Although the legislative framework remains the same, there are new opportunities for innovative thinking around commissioning both dental care and oral health services. Indeed, the commissioning responsibilities for population level oral health promotion remains with local authorities whilst all clinical dental care services are now commissioned by ICBs. This may provide opportunities for bridging the gap between prevention services at population level, such as supervised toothbrushing programmes commissioned by local authorities, as well as improving access to dental care services, both universally as well as targeted for the groups with the highest levels of need.

All NHS organisations have a responsibility for reducing health inequalities and these responsibilities are enshrined in both primary and secondary legislation.[2, 3] Over the years, there have been various local and national initiatives in this direction, most recently Core20PLUS5;[4] Core20 representing the most deprived 20% of the population, PLUS representing inclusion health groups and the 5 priority clinical areas. There has been a separate version of Core20PLUS5 for children and young people and oral health was identified as key clinical area of health inequality for this age group.[5]

Historically, the "amount" of NHS dental care services was commissioned where existing dental practices had chosen to set up. This was not necessarily corresponding to the areas with the highest levels of oral health needs which are strongly associated with deprivation.[6] Over the years, access to dental care services became an ever-increasing source for political pressure on successive governments and these issues have been further exacerbated by the coronavirus pandemic.[7, 8] Dental commissioning teams often find themselves under pressure from politicians, clinicians and patient advocacy groups to allocate resources in areas of "perceived" need, based on demand. But according to the inverse care law, the people with the highest levels of clinical need are also the people who are least likely to advocate for the availability of healthcare services.[9]

In a recent study, dental commissioners in England highlighted the challenges in making commissioning decisions in the absence of robust methodologies, the inconsistencies among and between regions, over-reliance on the role of needs assessments and other factors.[10] Whilst oral health needs assessments have an important role in understanding local needs and bringing together the wider health system, they also have certain limitations in distinguishing the nuances between the availability of dental care services, performance of contract delivery; and how to compare between them on smaller and larger footprints.

Furthermore, the UK Government's mandate for NHS England, highlights the need for developing and optimising data platforms to inform planning and commissioning of services and reduce inequalities.[11]

To prevent the commissioning of dental care services based on demands rather than needs, the newly established dental commissioning teams within ICBs have limited additional resources at their disposal. In 2020, Public Health England (PHE) produced a Health Equity Assessment Tool (HEAT), a framework to systematically assess and drive action on health inequalities across various systems.[12] The tool highlights the four main dimensions of health inequalities in England: socioeconomic, geographic, membership of a vulnerable group and having one or more protected characteristics. Building on this model, we developed a framework to support equitable commissioning of dental care services taking into consideration three main dimensions: measures of need (direct and indirect); availability and performance of dental care services and geographical footprint. The fourth dimension to support these is local intelligence which can be used to sense check and triangulate the data.

The aim of this paper is to present the development of the toolkit to support equitable commissioning of dental care services (EquiDent) and recommendations for next steps.

Methods

Various regional dental commissioning teams with support from consultants in Dental Public Health, have been exploring the development of a robust methodology to support equitable commissioning of dental care services. The framework described in this paper was initially conceived in Yorkshire and the Humber and further developed in the North West of England. The initial framework was based on reviewing the PHE HEAT tool followed by a reflective process of integrating it with Donabedian's framework for evaluating the quality of healthcare services.[13] The framework was built around three main dimensions: measures of healthcare need, availability and performance of dental care services and geographical footprint (INSERT FIG 1).

The indicators included in the framework had to meet certain specific criteria:

1. Meaningfulness: the data had to be directly or indirectly relevant to the dimension they represent. For example, units of dental activity (UDAs) *commissioned* per head of population can show the amount of NHS dental activity commissioned within a certain area at a certain point in time; however, for this to be meaningful it also needs to take into account the number of UDAs *delivered* per head of population.
2. Comparability: in order to allow comparisons between areas, it was essential to be able to arrange the selected indicators in ascending order, thereby enabling ranking. For example, IMD deciles can be ranked and used to prioritise areas from 1 (more deprived) to 10 (less deprived).
3. Availability: the data needed to be available at all levels of the geographical footprint used for benchmarking. For example, to measure levels of oral health need, the prevalence of tooth decay in 5-year-olds (d3mft) is not always available at ward level. If commissioners need to decide how to prioritise between two different wards, in the absence of dmft, index of multiple deprivation (IMD) decile at ward level might be used as a proxy measure for levels of oral health need.

In terms of the more generic criteria around validity, reliability, and robustness, like with any other toolkit, the Equident is only as good as the indicators that are used to support it. No indicator is perfect, and they all have caveats and limitations around what they are and what they are not able to demonstrate, therefore it is important to seek specialist Dental Public Health advice when interpreting data using this framework in local context.

Besides these indicators, it is necessary to also consider the importance of local intelligence for triangulation and sense-checking of the data. Best practice dictates that engagement with stakeholders should take place at every stage of the commissioning process.[14] Our proposed framework may provide robustness, consistency and transparency in the commissioning process and in supporting engagement with various stakeholders.

The initial framework was developed and piloted in Yorkshire and the Humber in 2022 and used to develop locality specific profiles to inform commissioning decisions and support conversations with local stakeholders.

The framework was further developed and adapted in Lancashire and South Cumbria (LSC) with the aim of providing robustness and consistency for the commissioning of UDAs, recurrent and/or non-recurrent, within the region. In May 2023, the LSC dental commissioning team hosted an engagement event attended by representatives of the Local Dental Network, Local Dental Committee, Health Education England, the Population Health Team of the Integrated Care Board, Directors of Public Health from local authorities, Healthwatch, the Dental Public Health Team and others. The participants agreed that rolling over commissioning decisions based on historical arrangements should be phased out and new approaches that are more aligned with clinical need should be developed. The new framework should consider local need, service provision (quantity and quality) as well as other potential factors. Similar “deep dives” and data dashboard initiatives were also explored in Cheshire and Merseyside and Greater Manchester ICB areas.[1]

Results

Figure 2 presents a hypothetical scenario of an ICB area (Northshire) with three local authorities (Westley, Middleshire and Southdales) with wards with various levels of deprivation (IMD 1 most deprived and IMD 10 least deprived). As in real life, some wards have NHS dental care providers, and some do not. A separate sheet feeds into this data showing individual providers in each of those wards with commissioned and delivered UDAs for a given financial year. Another sheet may provide higher level comparisons within Northshire and how the data compares with the other ICBs within the region. (INSERT FIG 2) The data used in this framework has to be meaningful and comparable for the three dimensions of the framework. Furthermore, the data needs to be available at every geographical level, from smaller to larger footprints to allow robustness and consistency for benchmarking. Under the current arrangements, funding for dental commissioning remains within each ICB, therefore benchmarking to assess levels of commissioning (under or over) per population should be done within the same ICB area.

To illustrate this with an example, Table 1 presents a selection of indicators which can be used for each dimension of the toolkit. Not all indicators need to be used at the same time

within a certain dimension of the framework. A selection of them based on available data and local priorities should provide sufficient data to inform conversations with stakeholders around prioritisation of allocation of resources. The indicators in orange may be used as a starting point and additional indicators may be considered as needed locally.

Table 1 Potential indicators for the three main dimensions of EquiDent

Dimensions	Indicators				
Measure of need	Index of Multiple Deprivation (IMD) Decile	Percentage of households at risk of food poverty	Prevalence of tooth decay	Number of calls to NHS 111 with dental problems	Adult and or child access to NHS dentistry
Dental care services	Units of Dental Activities (UDAs) commissioned per head of population in a financial year	UDAs delivered per head of population in a financial year	UDA value per contract	Number of dentists on NHS performer lists	Number of foundation training practices
Population footprint	Ward or neighbourhood	Local authority or Place	Region or Integrated Care System		

Measures of need

There are several different indicators that can be used to measure the need for dental care services. These can be directly related to need, like prevalence of tooth decay in 5-year-old children, number of calls to NHS 111 with dental problems; or indirectly related, such as index of multiple deprivation (IMD), percentage of households at risk of food poverty, etc. Not all of these indicators need to be used at the same time in the framework in a local area.

Dental care services

The number of UDAs commissioned/head of population in a given time frame may provide an indication about the "amount" of NHS dental care services commissioned within an area (ward) compared to the levels commissioned at higher footprint (local authority and region) to assess if the area is under- or over-commissioned. It is important to note that not all wards will have a dental care provider with an NHS contract. If the toolkit is used to prioritise the allocation of non-recurrent funding, commissioners may wish to consider only wards with existing contracts. If the toolkit is used for the reallocation of recurrent funding, for example from a contract hand back, then all wards could be considered as part of the prioritisation exercise.

It is important to note that UDAs delivered/head of population at the same timeframe will provide an indication of the ability of providers to meet their contractual obligations for delivery within a particular area. In high-needs areas this can be often challenging. Therefore, the implementation of the framework should be supported by flexible commissioning arrangements.[15] For example, in a hypothetical scenario using this

framework for the reallocation of non-recurrent 10,000 UDAs in a high-need area, if there are already existing providers struggling to meet their targets, an additional number of UDAs might increase pressures on delivery without the ability to deliver these. Therefore, there is scope to think differently in terms of the type of services that could be commissioned e.g., on a sessional basis. From a contracting perspective it is important that these arrangements are contract monitored with tools designed for sessional delivery of care, such as the NHS Business Service Authority (BSA) Snap Tool to capture locally agreed key performance indicators, additionally to the usual FP17 forms.

Population footprint

All indicators should be regarded in the context of local population from smaller (ward) level to larger (region) footprint. This is important for benchmarking, to understand how the local data fits into the bigger picture and how areas compare to each other within the same region. There are important caveats around this, and it is important to consider that not everybody frequents the dentist in the ward where they live. For example, city centres can often have a larger concentration of dental practices but a smaller number of people living there. The data needs to be regarded with an understanding of local geography, demographic characteristics, and population dynamics.

Discussion

This paper presents a possible framework to support commissioning decisions for NHS dental care services. The framework is not intended to be used as a standalone tool for decision making but to support conversations with stakeholders across the system. In a sense, we can think of this tool as a bridge bringing together the macro- level approach of an oral health needs assessment on one end, to the micro-level approach of NHS dental contract management and monitoring at the other end. One of the main advantages of this framework is that the principles can be applied independently of the platform used for modelling. It can be used as a simple, non-expensive, Microsoft Excel document or it can be incorporated in a more sophisticated and expensive software if the licences and business support are available.

Dental commissioning teams may wish to seek specialist Dental Public Health support and advice in exploring alternative indicators suitable for local priorities and needs. As next steps, we are planning to further refine and validate this framework and explore the potential for additional indicators such as the availability of urgent dental care services, workforce, etc. Furthermore, the indicators used in the framework will be weighted for modelling purposes and will incorporate commissioners, clinicians and patients views in the weighting process.

Although the UDA system is specific for England, the basic principles of the framework may be applicable for similar access initiatives in other healthcare systems as well.

Acknowledgements

We would like to thank the regional Dental Public Health Team and the Dental Commissioning Team in Yorkshire and the Humber for their initial support of this work. The work was further developed by the North West Dental Public Health Team in collaboration with colleagues from Lancashire and South Cumbria (LSC) Integrated Care Board Dental

Commissioning Team and Population Health Teams, Cheshire and Merseyside Integrated Care Board and from Greater Manchester Integrated Care Board. We would like to express our gratitude to Eric Rooney MBE former Deputy Chief Dental Officer for England for his support of this work in LSC.

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