RESEARCH NOTE

By Tim Leunig

Executive Summary

England is now so short of dentists that fewer than half of us can see a dentist at the right time. Many people have given up trying. The problems are now so bad that the NHS is spending £50m a year extracting rotten teeth from children. That is tragic at so many levels.

The main reason why too few of us see a dentist regularly is a shortage of dentists. Dentists are expensive to train, and expensive to employ. The NHS does not have enough of them.

Thankfully few of us need to ever see a dentist - check-ups, polishes and filling can all be performed by dental therapists. This what they are trained to do, and licenced to do.

Liberalising dentistry can solve the problems. We should all, as a matter of course, see dental therapists for our routine appointments. Dental therapists would refer people to

dentists as and when necessary - just like a GP refers people to a specialist for more complicated cases.

This is not dumbing down, or a reduction in quality. Dental therapists are highly trained and skilled. They have a three year degree in dentistry. They can do this job.

This would immediately increase the size of the workforce, as it would allow dental therapists to work on their own, running their own practices.

Moving to a dental therapist-led system would also lower the cost of training by about half. That means that the government can train twice as many people as now, for the same cost. Doubling the workforce over time is the best way to increase access, and to cut waiting lists in a way that is sustainable. Better dental health for all really would be something to smile about.

Liberalising dentistry to improve access and cut costs

According to the NHS, adults should see a dentist every other year if they have good dental health while children should be seen every year. That means that 44 million adults in England should have seen a dentist over the last two years and 12 million children should have done so over the last year.[1]

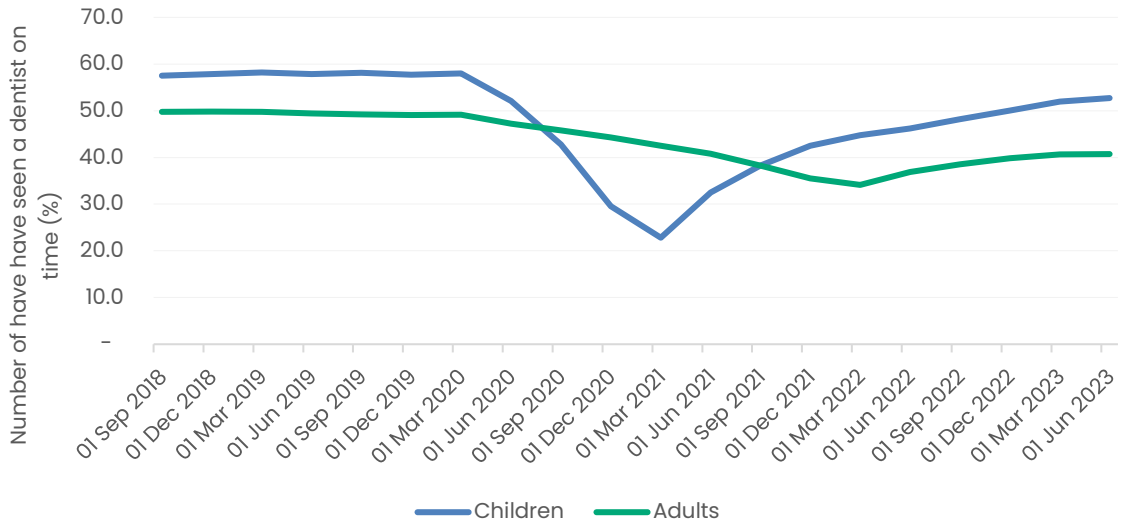
NHS statistics show that it did not happen. Rather than 44 million adults, 18 million saw an NHS dentist. Rather than 12 million children, 6 million saw an NHS dentist.[2] The shortfall is massive, and it is getting worse. 10% fewer children and 20% fewer adults saw a dentist in the recommended time period than was the case 6 years ago. The cost to the NHS of extracting children's teeth, caused by tooth decay, is now £50 million a year.[3]

Many people are desperate to find an NHS dentist. So many people queued up to register for a new dentist in Bristol that the police were called in to control the queue.[4] The principal dentist told the BBC that "It is heartbreaking that we will have to say no to some people."[5]

This is also going in the wrong direction: the number of dentists fell last year,[6] and more than 7 million fewer people saw a dentist after the pandemic as before.[7]

Figure 1: graph of above numbers comparing expected and actual appointments

Source: Dental National Overview, Onward analysis[8]

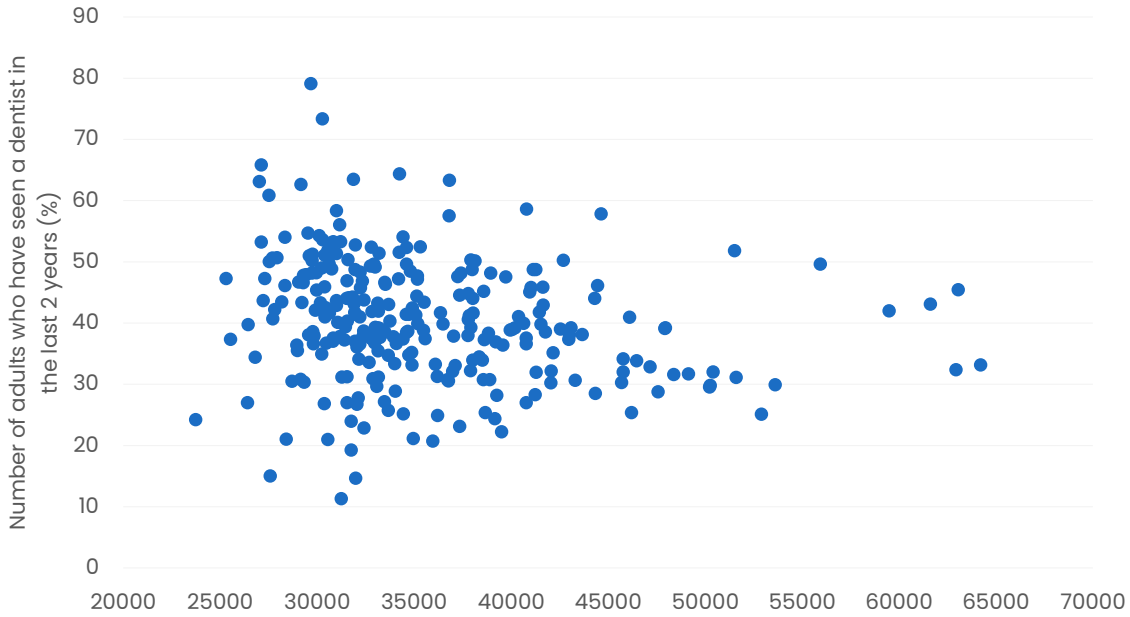


Although the data on private dentistry is poor, the fall in NHS dentistry is not because tens of millions of people have chosen to see a private dentist. Some of course choose to do so, particularly in affluent areas, but it is not the case that NHS dentistry is less common in richer areas where people are more likely to use a private dentist. There is a

correlation, but it is small: for every £10,000 rise in average employment income, the number of people seeing an NHS dentist falls by two percentage points. It is not plausible that the reason 87% of people in North Kesteven or the 78% of people in King's Lynn have not seen an NHS dentist recently is because they have chosen to see a private dentist. Much more likely is that these people cannot find an NHS dentist who will see them - and in many cases have given up looking.

Figure 2: Local authority income and visits to NHS dentists

Source: NHS Dentist,[9] UK population,[10] Earnings,[11] Onward analysis



The two highest areas are Lincoln (83%) and Chesterfield (77%). These are almost certainly border effects - that is, people from neighbouring rural local authorities see a dentist in these urban districts, because they cannot find one in their own more rural area.

Some people would not see a dentist unless they are in extreme pain. For that reason it would not be sensible to plan for the full number of missed appointments. That said, taking into account reluctance and private provision, a reasonable working basis would be to plan for - say - two thirds of headline shortfall. Taking into account that adults only need to see a dentist every other year, that means an extra 12 million more visits a year.

How did we get here?

NHS dentistry is not like NHS healthcare, in two senses. First, it is not free for most people. The current charges are around £26, £71, and £307, for an examination and polish, a filling, and a crown or denture respectively.[12] In contrast the highest charge for NHS healthcare is for a prescription, which is about ten pounds. As with prescription charges, children and people on various means-tested benefits get free dentistry, but pensioners – who do not have to pay for prescriptions – do have to pay for dentistry.

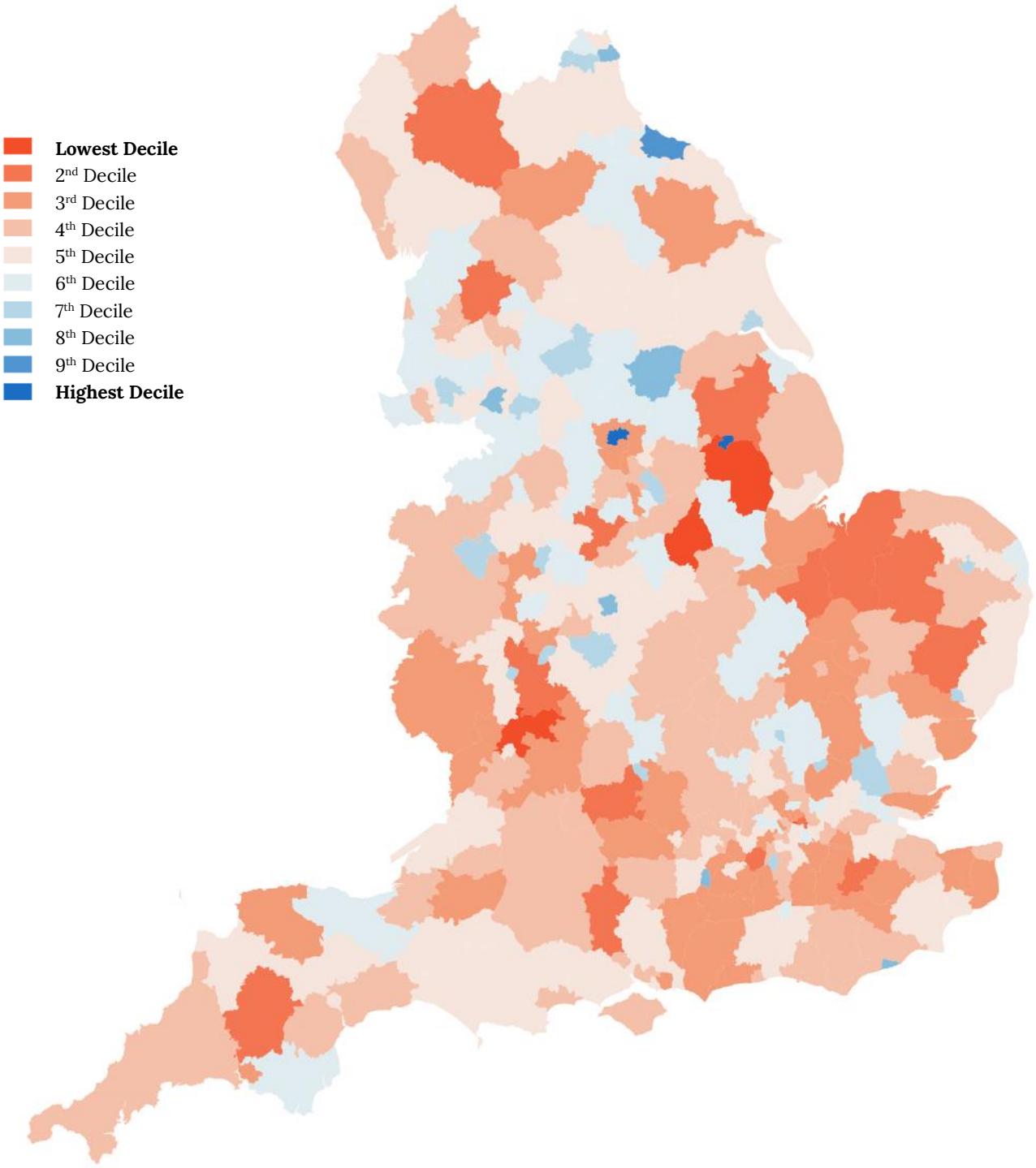
Second, NHS dentistry is provided overwhelmingly by the private sector, not by salaried NHS employees. Individual dentists and practices sign up to the NHS contract, and are paid by the NHS for the work they do. They are responsible for their own premises, and providing their own equipment. There are obvious similarities with GPs, but in contrast to GPs, a dentist you see under an NHS contract can also sell you private treatment.[13] This would typically be for cosmetic work, such as teeth whitening, or white fillings on back teeth. In contrast orthodontic work undertaken in hospitals will be provided by NHS salaried staff.

It has proven very hard to write an effective contract. Initially the NHS paid for every piece of work undertaken, which gave dentists an incentive to do lots of fillings, extractions and so on – and do nothing about prevention. In 1990 a flat rate for every patient on the books was added, but the budget was overspent, and rates cut. 2006 saw the new contract, including the approach to charging set out above. Dentists have never liked this contract, arguing that it frequently left them out of pocket, and that the emphasis on "activity" rather than people was not what either they or their patients wanted. The British Dental Association described it as "Not fit for purpose."[14] The House of Commons committee condemned the approach as unsuccessful at the time, and stood by that judgement when they revisited the issue in 2023.[15]

The predominance of private sector staff, often self-employed or partners, means that they have tremendous flexibility. They can increase or reduce the hours that they work, and within that, they can place greater or lesser emphasis on NHS work. There are also no constraints on where they work - they can leave one area and move to another, and there is no automatic replacement for dentists who leave, in the way that exists if a salaried employee leaves a job. That opens up the possibility of "dental deserts", where it is simply impossible to find an NHS dentist because there are no local NHS dentists.

Figure 3: Share of adult population (18+) seen by a dentist between April 2023 and April 2024 (Deciles)

Source: NHS Digital, Onward analysis[16]



The ability of a dental clinic to offer both NHS and private work and to up-sell private treatment to all patients means that dentists will typically have an incentive to move to affluent areas, where people are more likely to want to pay for private treatment. Doing so also reduces their reliance on an NHS contract over which they have no control. If the NHS terms worsen, a dentist in an affluent area is better positioned to increase their private work than their equivalent in a poorer area.

The number of adverts for Invisalign, a modern version of a brace, suggests that this is profitable for dentists who recommend it. The Invisalign website does not give a price,[17] but one local dentist is offering £1495 off – suggesting that profit margins for dentists are high.[18] I am not criticising this treatment, or dentists who recommend it – on the contrary, friends and colleagues who have used it speak very highly of it. It does show, however, that the opportunity to receive payment and commission for selling something that costs thousands of pounds will be greater in richer areas, and that this inevitably means that dentists will have an incentive to move away from poorer communities.

Finally, while the 2010-15 coalition government liberalised the number of people studying at university, medical courses – including dentistry – were excluded from this liberalisation. The government still constrains the number of people who are able to train to be a doctor or a dentist. In the short run, training doctors and nurses is all cost and no benefit for the government, but the result of our consistently short-sighted approach is that Britain is notable for being short of both doctors and dentists.

What is the government going to do and will it work?

The government recently published a policy paper, "Faster, simpler and fairer: our plan to recover and reform NHS dentistry".[19] The items in it are, without exception, to be welcomed.

They are, however, extremely limited, and will not solve the problem. The government admits as much, stating that there will be 2.5 million additional appointments. This is a one off boost, not a rise in the annual number of appointments.[20] In addition, the 2.5 million additional appointments does not mean 2.5 million people will be seen – some people may need to be seen more than once. There will also be 1.5 million additional dentistry treatments, although again that does not mean 1.5 million more people treated – again, some people will need more than one treatment. The plan is good news therefore, but it is not *very* good news, and the good news doesn't last for very long.

The plan has the following principal elements:

1. To raise the fee dentists are paid to see NHS patients, from the 2022 figure of £23 to £28, a rise of about £3 above inflation.[21]

2. To pay bonuses of £15 or £50 for one year to dentists who see people who have not seen a dentist for more than two years, according to the amount of dental work needed.
3. To pay a £20,000 bonus to "up to" 240 dentists who move to areas with few NHS dentists.
4. To allow dentists to provide 10% more dentistry than their contracts, rather than 4% more as at present.
5. To have mobile dental lorries in very rural areas.
6. To have mobile dental teams visit schools to provide fluoride varnish treatments.
7. To consult on expanding water fluoridation.
8. To increase the number of dentists, dental therapists and dental hygienists we train by 40%, by 2032.
9. To make it easier to recruit overseas dentists.
10. To consider mandating that dentists must work in the NHS.
11. To apply a firmer ring fence on NHS dentistry budgets.
12. "Bring forward legislation early this year to enable dental care professionals to work to their full scope of practice" - that is, to allow dental therapists to do more.

Let us consider this plan. We will start with the best bits.

The best item is that the government will "bring forward legislation early this year to enable dental care professionals to work to their full scope of practice". What this could and should mean will be considered later in this report.

Allowing dentists to do 10% more work, rather than 4%, will increase the number of people who get to see a dentist. That is straightforwardly good news. It is also efficient - the same equipment will be used for more hours of the day.

Water fluoridation would be good news, so the consultation is to be welcomed - although action would be better. Parts of the UK have naturally fluoridated water, notably in Essex, while fluoride is added in some areas, notably the West Midlands. We therefore have good evidence that fluoridation works: the Cochrane review suggests that it increases the proportion of children without tooth decay by 15%, with similar results found for the UK, US, Australia and New Zealand.[22] The government estimates that fluoridation would reduce the number of teeth extracted from children by more than half - a direct annual saving of £25 million a year.[23] There are similar benefits for adults. Providing fluoride varnish in schools is also an effective strategy, and to be welcomed.[24]

As a medium term strategy, increasing the number of people who are able to be trained to be dentists will work. We have constrained this number at too low a level for too long.

Making it easier for dentists to migrate to the UK is probably an effective approach to improving dental health here. Nevertheless, there is something depressing about a rich nation failing to train enough of its own people, who want to be trained, and instead taking in those who have been trained at the expense of other, often much poorer, nations.

Paying dentists 10% more than at present will make NHS dentistry relatively more rewarding than private dentistry. £3, or 10% is, however, a small amount. This may stem the outflow of dentists, but it seems unlikely to provoke a large-scale movement away from private work and towards NHS work.

Paying bonuses of £15 or £50 to dentists to see people who have not seen a dentist for some time will no doubt incentivize them to do just that. It seems most likely, however, to reallocate dentists' time away from seeing their existing patients, and towards seeing this more needy group. We should acknowledge that while this is an improvement, forcing people who regularly see a dentist on time to wait another year is hardly ideal. This proposal does not increase the total amount of dentistry – in almost all cases, for every winner, there will be a loser.

The same is true of bonuses for people who move to underserved areas. Again, it is better that dentists are spread out, and that access to a dentist is more even. But as explained, it is not the case that any areas are awash with dentists. It is good that (say) Kings Lynn gets a dentist, but the most likely effect will be longer waiting times in Peterborough, Norwich, or wherever the dentist would otherwise have chosen to go.

A stronger ring fence will improve dentistry, but at the expense of other aspects of NHS care, since those other aspects are currently getting the money originally intended for dentistry. It will see in due course whether a cold winter, a bad flu season, or long waiting lists for cancer care trump the proposed stronger ring fence.

Mobile dentistry "vans" (they are usually 7.5 tonne trucks) are very expensive. Few dentists are able to drive such a truck, so they require an additional member of staff. Trucks also offer poor quality access for people with disabilities, with a set of relatively steep steps to enter the lorry. The drive takes time away that could be used to treat people. At very least, the government will need to monitor the effectiveness of this programme, the number of treatments delivered per day, and the costs.

Figure 4: A dental "van"

Source: DHSC policy paper[25]

The proposal that we mandate dentists to work in the NHS recurs frequently. We do not mandate that doctors work in the NHS. Private dentists are more likely to repay their student loans than the average student: the loss to government from dentistry students is far lower than the cost to government from creative arts students.[26] In addition, whether or not they are in the NHS, former dentistry students are providing dentistry. There is no reason to single out dentistry students because we as a society do not train enough of them.

Liberalisation is the answer

We noted earlier that the most important part of the government's plan was the commitment to "bring forward legislation early this year to enable dental care professionals to work to their full scope of practice".

This is sufficiently vague that it is hard to be sure what it means. It could be the start of a massive – and welcome – liberalisation.

The government states that they want to "enable dental care professionals to work to their full scope of practice". This is justified by saying that "Enabling dental care professionals to work to their full scope of practice would improve access to NHS dental care for patients and allow dentists to focus on delivering more complex care, which only they can provide."

This line will be clear to those in the business, but it is not the most accessible piece of prose. To understand what is being said, the difference between dental hygienists, dental technicians, and dentists must also be understood.

Dental hygienists train for two years full-time at university. They can assess teeth, advise on gum health and undertake scaling and polishing. Dental hygienists usually work as part of a team under the guidance of a dentist, although the rules have recently changed to allow them to work under their own authority. A good example of an independent dental hygienist is the "Sparkle Fairy" who visits people in their own home, in care homes, and in the workplace.[27]

Dental therapists study for three years at university. As well as being able to do everything that a dental hygienist can do, they can also do fillings. Most work as part of a larger, dentist-led team.

Dentists study for five years at university. They can do everything that a dental therapist can do, but can also extract adult teeth, prescribe and undertake teeth straightening and realignment, as well as cosmetic treatments such as teeth whitening and Invisalign, that are not available on the NHS. They also do the very complex hospital-based dental work that is sometimes necessary after, for example, an accident.

This means that dental therapists can do everything that most people need in a regular visit to the dentist.

Case study

Tim is in his 50s. He has seen a dentist regularly all his life. As a child his teeth were looked after by Mike McCree, a dentist in Rochester, as a young adult he went to the Batman Dental Clinic in Shepherd's Bush, and since then he has attended Sardinia House Dental Clinic, at the London School of Economics.

He has always brushed his teeth regularly, and followed Sardinia House's advice to stop putting sugar in his tea. In his 50 years of visiting the dentist has had his teeth x-rayed, scaled and polished regularly. In addition, he has three fillings, and has had two wisdom teeth extracted. He has good dental health. In his almost 50 years of visiting the dentist he has in fact only needed to see a dentist once - when his wisdom teeth were removed. On all other occasions he could have seen a dental therapist, or a dental hygienist.

The government should therefore move away from a dentist-led model. Instead people should see dental therapists for check-ups as a matter of course. Dental therapists should also be allowed to run practices in which they oversee the work of dental

hygienists - since in most cases dental hygienists can undertake all the necessary work for a regular check-up, scale and polish.

Dental therapists would be allowed to operate completely independently of dentists. They could found their own practices, bill the NHS directly and so on. They would be able to administer local anaesthetics that are relevant to the treatments that they are providing. In short, they would be allowed to do everything that they have been trained to do, and are already licensed to do.

Where a dental therapist or hygienist sees a need for more complex treatment, they would refer the patient to a dentist. That dentist would then remove, straighten or realign teeth, as required. They would also produce bridges and similar. This approach is akin to seeing a GP and being referred to a consultant when a specialist is needed. Note that even now, when a complex treatment is needed the patient will usually be required to make another appointment. This proposal is unlikely to cause any additional inconvenience to the patient.

A new approach to training

This new approach would be matched by a new approach to training. Specifically, all would-be dental therapists and dentists would commence a three-year BSc in dentistry. This would have an "opt-out" in the second year, once the person has completed the courses necessary to become a dental hygienist. After three years they would be qualified to be a dental therapist.

Some will choose to see that as the completion of their training, and will practise and earn an income as a dental therapist immediately. There will be many such jobs for people trained to this level, as they will be providing the majority of assessments and treatments. Others will choose to stay on and take a two-year full-time MSc in dentistry to become a dentist on completion. Still others will choose to practise as a dental therapist part-time, while taking the MSc part-time, as a route to becoming a dentist.

This proposal has many advantages for the government. In simple cost terms it roughly halves the cost of training. The government currently pays a direct grant of £11,290 a year for the first four years, and £20,540 in the final year of dental training.[28] The student pays – usually via a loan from the student loan company – £9,250 a year for the first four years. The total direct cost to the government is therefore £65,700, plus any student loans that are later written off. A three year course would cost the government only £33,870, little more than half the current £65,700. A lower student debt also means fewer debt write-offs in due course, so it is plausible that this proposal more than halves the cost of training for the government. At a first approximation, therefore, the government can train around twice as many dental therapists as it can train dentists for the same cost, and each person will graduate with significantly lower levels of student debt.

Given that the cost to the government has been halved, the government can therefore double the number of training places. In practice it will not be possible to double the number of students overnight, but insofar as students will typically be studying for three years rather than five, universities will relatively soon have significant levels of spare physical and tutor capacity to increase the number of students they take each year. Broadly speaking, taking five students for a three year course will have the same resource requirements as taking three students for a five year course.

The MSc course would be covered by the postgraduate loan scheme, which would be adapted to offer two year funding rather than just the current one year. The postgraduate loan scheme has exceptionally low costs to the government, because it requires students to repay their postgraduate loans simultaneously with that from their undergraduate degree. That is relatively onerous on the student, but means that the taxpayer has no need to concern themselves with the numbers of students. As a result, the government can completely deregulate the number of people who undertake this MSc.

The nature of the postgraduate loan scheme means that those who want to study for the MSc in dentistry will have a strong incentive to work part-time while studying for their Masters degree. This is a good outcome for society – as dental therapists they will be doing almost everything that we expect of a dentist currently – so getting them into the labour force after three years study is a good thing.

A new contract for dentists

There is a tension in writing a contract for dentists. The history of NHS dentistry shows that if we pay for every filling, extraction and so on, dentists will undertake a lot of fillings, extractions and so on. There will be a financial incentive to activity. Equally if we pay a flat fee, dentists will be out of pocket every time they undertake a filling or other procedure.

Most people have good dental health. They should see a dental therapist or hygienist every two years if they are an adult, and every year if they are a child. Under these planes, the dentist or dental therapist will be paid for each check-up, so long as they are at the right intervals. This will give dentists an incentive to ensure people visit them regularly. In this sense dentistry is very different to general health - we do not want people to visit the GP every year, and therefore we do not give GPs an incentive to see people when they do not need to be seen. Dentistry is more akin to vaccinations: we want to give the system an incentive to ensure that people get checked in the case of dentistry, and vaccinated against a variety of avoidable conditions. In these cases payment for activity is entirely the right approach. There would be an additional payment for treatment, such as fillings, as now.

Dental therapists would be able to refer people to dentists where they have higher needs. There would be two categories of people. The first are those whose dental

health is fundamentally good, but who need a one-off procedure. The classic case here would be someone who needs their wisdom teeth removed. That person would remain a patient of the dental therapist, and would continue to see the dental therapist in future. The dentist would be paid for removing the wisdom teeth as now – although of course they would have the right, as a professional, to say that the wisdom teeth do not in fact need removing. In these cases the relationship between the dental therapist and the dentist would be akin to a GP and a consultant – at arms length, with the GP remaining the ongoing source of care and expertise.

The second category are those people who have poor dental health, and who will need regular treatment over and above that which can be provided by the dental therapist. In these cases the dental therapist would refer the person to a dentist on a permanent or an ongoing basis. The dentist, rather than the dental therapist, would then see the person – probably every 6 months, and the dentist would be paid a fee for each consultation. Again, we can see a partial parallel with some medical conditions, whereby some patients are allowed to self-refer directly to the hospital for further treatment if, for example, an existing condition returns.

In both cases we would require a financial separation between the dental therapist and the dentist. That reduces the incentive to over-treat, as the additional revenue will not accrue to the referring dental therapist, or the practice that they work for.

In the short run the government will have to continue to pay current dentists for regular consultations at rates appropriate for people with five years of university training. In the medium term, however, it will be able to offer lower rates of pay for general check-ups once they can be undertaken by dental therapists with three years of specialist training rather than five.

That rate would be higher than the rates currently paid to dental therapists, to reflect the fact that they would now run their own practices and work under their own authority. In other words, the rate would be somewhere between the rates paid to (current) dentist therapists and (current) dentists. In the medium term that rate would not typically be appealing to dentists, any more than a top surgeon is tempted to become a GP. It would instead be calibrated to ensure an appropriately decent income for dental therapists. Again, this means a saving for taxpayers for each check-up, but we need to be aware that in the long term a doubling of the number of check-ups will increase the amount of money we spend in total on dentistry.

The current system has national fees. Given the ability to upsell, the incentive to locate in an affluent area is real, and we see that many of the poorest areas are the most denuded of dentists. Although the ability to upsell would remain, dental therapists have considerably lower ability to do this, because they are not allowed to undertake cosmetic procedures such as teeth straightening. That said, there remains a case for a deprivation premium. We know that some communities are harder to reach for all kinds of healthcare, and it is important that not only that everyone has access to a

dentist, but actually sees one. A premium in poorer communities to allow for a degree of outreach into communities, would be a sensible approach.

"A rose by any other name would smell as sweet"

The University of Texas Medical Branch argues that Shakespeare was mistaken, and that "a great deal of meaning is given to words".[29] They, not Shakespeare, are right. If we make the changes proposed here, people will still talk about "going to the dentist" for years to come. Insofar as they remember that the person they are going to see is not, in fact, a dentist, they will feel short-changed. In any case, the person they are going to see is - for the purposes of their check up - a dentist in all but name. I propose, therefore, that we should rename "dental therapists" as "dentists". Those who are now called dentists would be termed "Consultant dentists", reflecting their higher level of training and skills, and given them a status akin to specialist medics. It is right and proper that we esteem those with a full three years of university level training appropriately, and that respect and esteem with substantial training over and above that level even more fully.

Conclusion

This report proposes a move away from using five-year-trained dentists for everyday check-ups and fillings. Instead we should use three-year-trained dental therapists, who are already trained and able to do both of these things. In line with people's general understanding of what a dentist is, dental therapists would be renamed dentists, while those with five years' training would be called consultant dentists.

This proposal would speed up the process to train dentists (aka dental therapists in today's terminology), since it would now take three years rather than the five years needed to train a dentist (aka a consultant dentist). This proposal lowers the cost of training, allowing around twice as many people to be trained for any given budget. Doubling the number of people trained will clearly have a massive medium term impact for the public. It will be much easier to have your teeth checked, and to be treated when necessary.

This proposal is both feasible and good for patients. It is unlikely that any government will find enough money to ramp up the current system sufficiently to return NHS dentistry to a service that is available to all.

This is why a new, more cost-effective approach is needed, in which people see professionals with an appropriate level of training, and the ability to refer them to someone with more specialist training as and when that is necessary. Access will improve, and the country will be healthier as a result.

Endnotes

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