IMPROVING ACCESS TO DENTAL CARE FOR MEDICAL CARD PATIENTS

IDA
irish dental association

An alternative proposal to bring about the necessary reform of the Dental Treatment Service Scheme (DTSS)

Prepared by Professor Ciaran O'Neill
Commissioned by the Irish Dental Association

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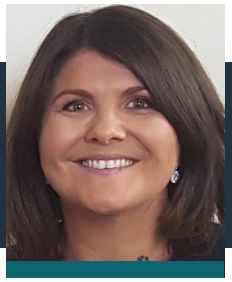
Foreword



The Irish Dental Association stands ready to engage with the Department of Health and HSE on a radically new approach to providing dental care to medical card holders.

For the past decade, the Association and its members have felt side-lined and ignored by the Department of Health and the HSE.

Arbitrary and unilateral changes have been made by the HSE to the operation of the Dental Treatment Service Scheme (DTSS) contract and explicit written promises from representatives of the Department of Health have been reneged upon to the anger and dismay of dentists and their patients.

There are now only 750 dentists treating medical card patients, which is less than half the number of DTSS contracts held by dentists up to two years ago.

To put it in context, that is one dentist per 2,000 medical card patients. It means that there are now parts of the country where there is just one dentist covering an entire town or region.

Despite the suggestion of an extra €10m being made available for the scheme as part of Budget 2022, it is unlikely that this will have any substantial impact given the rapid exodus of dentists.

Equally, the suggestion that dentists would consider providing a scale and polish and an expanded examination as an interim response has no prospect of retaining dentists in the scheme either. In fact, proposals which effectively require dentists to enhance further the existing subsidisation of the costs of providing treatment will only have one outcome and that is a further migration of dentists from the scheme.

Without a plan or roadmap to reform, it is becoming increasingly difficult to see how the medical card scheme can survive, which means more and more of our most vulnerable patients will lose out on important access to dental care. This cannot be allowed to happen.

An entirely new scheme is required, and, this paper, which we have commissioned independently, sets out persuasively an innovative model which deserves serious consideration by all parties to the current scheme.

Our GP Committee has also agreed a detailed set of principles, based on promoting independent practice, to inform our approach to achieving an entirely new model of care for medical card patients.

While deeply frustrated, we invite the Government to engage with us to explore new ways of improving access to dental care, including this proposal from Professor O'Neill. Ultimately, patients, Government and dentists require a more sustainable solution that ensures access to care for those who need it most.

Dr Caroline Robins
Chair of the GP Committee
President Elect, IDA

Executive Summary

General dental practice is central to the delivery of oral health care. The Irish Dental Association, on behalf of general dental practitioners (GDPs) in Ireland, has raised concerns with the funding of public dental care for a number of years.

This has centred on the incentives funding arrangements provide practitioners and the consequent access afforded to vulnerable groups.

Reimbursement levels were reduced following the financial crisis of 2008 and coverage reduced. This has not changed in the 13 years since.

Fee levels have failed to keep pace with the rising cost of care and has seen GDPs withdraw from the main adult scheme – the Dental Treatment Service Scheme (DTSS) – in record numbers.

While initiatives have been mooted, these have not addressed fundamental issues around the level of reimbursement, or the clinical autonomy afforded dentists to provide appropriate care.

This paper has been prepared in response to a request by the Irish Dental Association (IDA) to:

- undertake a rapid review of current publicly funded dental care arrangements for adults in Ireland
- assess the merits of alternative methods of reimbursement for a publicly funded scheme delivered via GDPs and provide indicative exchequer costs for a hypothetical version of such a scheme, as well as detailing how in broad terms it might operate in practice.

In the chapters that follow, the current situation is discussed, and the merits of a voucher scheme based around levels of reimbursement that may attract GDPs to engage with it is set out.

This scheme would provide coverage for commonly required services at levels of reimbursement that reflect the cost of care. It would afford a degree of clinical autonomy that would remove perversities in the current system and help rebuild relations between the public, providers, and government.

The report was to be brief and rapid. It was shared before completion with the IDA and a number of independent parties for comment. The report was, however, completed independent of the IDA and the views expressed are solely those of the author, my own, who is also responsible for any errors it may contain.

Professor Ciaran O'Neill
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Key Findings And Recommendations

- While there are three publicly funded schemes – the Public Dental Service (PDS), Dental Treatment Benefits Scheme (DTBS) and Dental Treatment Services Scheme (DTSS) – approximately 83% of dental activity is funded through out-of-pocket payments.
- Both the DTSS and DTBS were subject to significant cuts in 2010 reducing coverage and limiting the autonomy of dentists in care provision.
- Fee schedules in DTSS fees were cut in 2010 and 2011 and have not been increased since. Prior approval is also required for other than routine care with perverse incentives e.g., around extractions and provision of fillings.
- The Government strategy Smile agus Slainte (2019) posits a scheme with limited coverage of treatments expanded to include children and based on 2007 fee levels (if Nolan's figures (2019) are to be taken as indicative).
- The support for such a scheme by GDPs is essential for its success but this seems unlikely.
- A service that relies on self-employed general dental practitioners (GDPs) will not function if it refuses to at least cover their costs of delivery.
- The current system may well have implications for equitable access to oral care and health.
- Whatever replaces it should be as simple as possible while commanding the confidence of stakeholders – a voucher/ credit scheme may be one such scheme.
- Adequate funding remains central to it or any scheme's success.

A CREDIT OR VOUCHER SCHEME

A credit or voucher scheme provides an entitlement of a given value for a specified period of time to cover a given range of services/care

- It can be "topped up" to allow "add on" services out of pocket.
- It can operate based on presentation of a valid medical card.
- It could provide greater autonomy to the dentist.
- Issues around geographic equity, information and governance can be readily addressed.
- "Golden hellos" or bonuses can be used to recruit dentists or reward widening access.

In Portugal, a scheme of this type was shown be associated with improved outcomes (DMFT).

Current Situation

Dental care in Ireland is provided and financed through a hybrid private/public model. The bulk of dental activity is paid for and delivered privately with the bulk of payments (approximately 83%) made through out of pocket expenditures. The state funds and/or provides care through three schemes: the Public Dental Service (PDS); Dental Treatment Services Scheme (DTSS) and; the Dental Treatment Benefits Scheme. (Nolan, 2019)

The Public Dental Service provides for children aged 16 and under as well as adults with special needs.

With respect to children, examination and limited treatments are targeted at ages 8, 10 and 12 though emergency care is also offered. Orthodontic care and other specialist services (e.g. endodontic care) is not provided ordinarily by salaried state employees though such care can be provided. A separate Specialist-provided orthodontic care service is also operated by the HSE where treatment is provided on the basis of an index of treatment need.

The Dental Treatment Services Scheme provides funding on a means tested basis for adults (i.e., for medical card holders) for a limited range of services delivered by private sector general dental practitioners (GDPs) contracted by the Health Service Executive (HSE).

The Dental Treatment Benefits Scheme provides funding for a very limited range of services (examination and scale and polish/ protracted periodontal treatments) to eligible employees and retirees. Other services must be purchased privately though tax relief is claimable on a limited number of "non-routine" procedures such as orthodontic, restorative and implant treatments – i.e. those not covered by state schemes.

DTSS and DTBS both reimburse on a fee-for-service basis. GDPs receive no other funding from the state whether in the form of capitation based payments, performance payments or grants for equipment. (Woods et al, 2017) This is in contrast to general medical practitioners who receive supports in the region of €160m per annum from the State (Oireachtas Joint Committee Debate, 2021).

The impact of the financial crisis and COVID-19

The DTSS and DTBS systems were the subject of major cuts in 2010 in an effort to reduce public expenditures following the financial crisis.

These effectively withdrew coverage for a range of procedures. While some - scale and polish services/protracted periodontal care - were restored to DTBS, the schemes remain limited in terms of who and what they cover.

"It would take something major to make me consider ever going back to the DTSS scheme."

IDA members survey, June 2021

TREATMENT AVAILABLE PRIOR TO 2010	TREATMENT AVAILABLE 2010 ONWARDS
Biannual Scale and Polish	Suspended
Extended gum cleaning	Suspended
X-rays	Suspended
Fillings	2 per annum in an 'emergency situation'
Root Canal Treatment	In 'emergency circumstances' only
Dentures	In 'emergency circumstances' only
Denture repairs	In 'emergency circumstances' only
Miscellaneous items	In 'emergency circumstances' only
Extractions	Unlimited number provided

"It's outmoded, uneconomic, under resourced and does little for the patients that the HSE should be supporting."

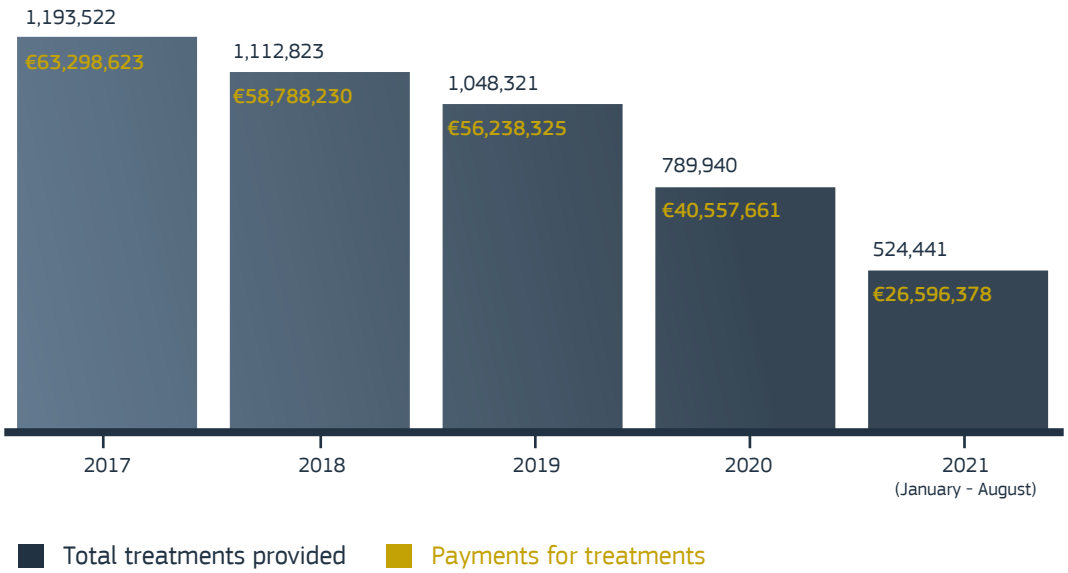
IDA members survey, June 2021

The DTSS fee schedule has not been reviewed with fee increases since 2007 and, in fact, was the subject of cuts in 2010 and 2011 (with no reversal of those fee cuts in the meantime and with significant extra costs being incurred in the provision of care ever since (Oireachtas Joint Committee Debate, 2021).

Moreover, where treatments are for other than routine care, prior approval from the state authority, the HSE, is required (Nolan, 2019).

In 2017, €63 million was spent through the DTSS. By 2019 this fell to €56 million due in part to the dwindling attractiveness of the scheme to GDPs, with more dramatic falls in 2020 to €40.57 million (IDA presentation to Oireachtas, 2021).

DTSS spending since 2017



“My social conscience is all that is keeping me in the scheme but it is almost worn out.”

IDA members survey, June 2021

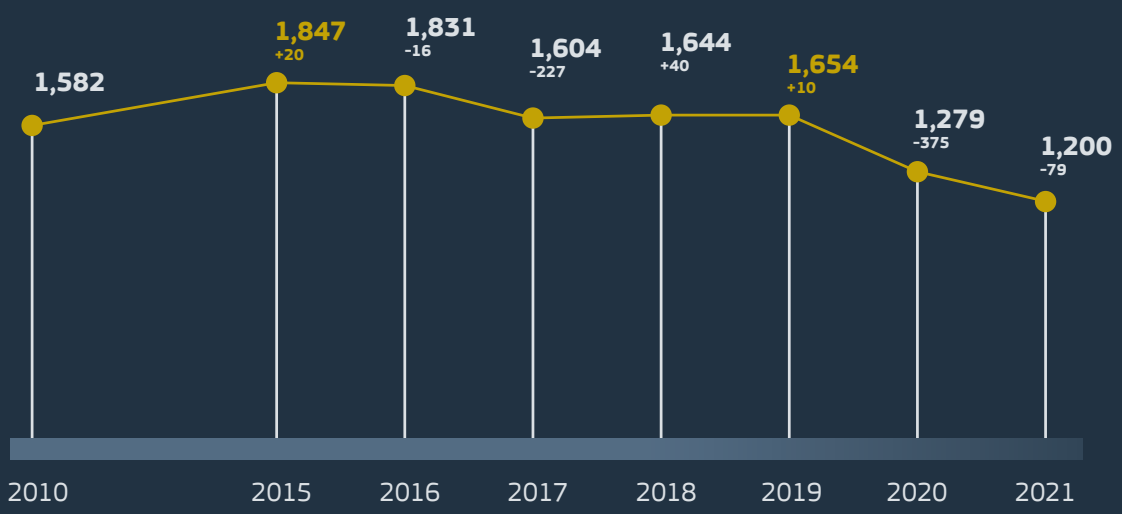
“The system was completely unfit for modern dentistry.”

IDA members survey, June 2021

While the falls in 2020 may in part have been associated with a fall in demand due to COVID-19 lockdowns, the failure of the State to provide dentists with personal protective equipment (PPE), may have helped galvanise GDP dissatisfaction with the scheme.

Prior to the pandemic, between 2017 and 2019, there was already a drop in expenditure on the scheme. Between 2015 and 2020, there was a drop of 31% in GDPs holding DTSS contracts, continuing a fall in participating dentists that preceded the pandemic. Thus, the number of contracting dentists fell from 1847 in 2015 to 1654 in 2019 and 1279 in 2020. As HSE contract lists may be out of date, it is thought that the actual fall in GDP contracting with the scheme may have been greater.

DTSS numbers of contract holders



Evidence suggests that a number of factors contributed to this including the limited range of treatments GDPs could offer under the scheme undermining clinical autonomy and forcing them toward the delivery of what some would see as a lesser service as compared with that provided to private patients.

What are seen as high administrative costs related to prior approvals and relatively low reimbursement rates that have not been increased since 2007 and it is argued often fail to cover delivery costs have also contributed to the exodus of GDPs from the scheme (MedAccount Dental Practice Cost Survey, 2021).

It is perhaps telling that while the DTSS scheme was associated with €86 million in 2001, expenditure in 2019 was 35% lower in nominal terms which allowing for inflation in healthcare prices would be significantly lower in real terms.

Regional reductions in DTSS contract holders over past four years

Source:
IDA/HSE PCRS Open Data

Inequalities in oral health

While evidence is limited, there is every reason to believe that current arrangements contribute to inequalities in oral health. Evidence is limited as it is 20 years since the last oral health survey and currently there exists no mechanism by which inequalities in access to care can be examined other than through tax returns.

Currently the public system is disjointed with limited data capture being possible and, as noted, tax returns (for a limited range of treatments) provide the limited insight available into the private system.

Such evidence as is available – often anecdotal - points not only to the existence of inequalities but to perversities in the system.

"We have a shortfall in funding, dentists who are leaving in unprecedented numbers, medical card holders who are not getting access to the service they need as a result and no pathway to more serious treatment" (Oireachtas Joint Committee Debate, 2021).

For example, in evidence given to the Oireachtas in April 2021, it was pointed out that while Minamata legislation prohibits the provision of amalgam fillings to pregnant women in the absence of a clinical justification, the DTSS contract only permits such fillings in pre-molars and molars (Oireachtas Joint Committee Debate, 2021). Added to these are significant waiting lists and times for access to orthodontic care and extractions for adults with special needs (Oireachtas Joint Committee Debate, 2021).

Following evidence given to the Oireachtas, one elected representative described the system thus: "We have a shortfall in funding, dentists who are leaving in unprecedented numbers, medical card holders who are not getting access to the service they need as a result and no pathway to more serious treatment" (Oireachtas Joint Committee Debate, 2021).

In short, the system does seem to be one in which economically disadvantaged citizens and those who are more vulnerable by virtue of their healthcare needs are provided with access to examinations that are sporadic and limited restorative care. Only extractions appear to be unlimited.

A disinterested observer could be forgiven for thinking the system gives undue emphasis to cost containment over health by providing an accelerated pathway to extraction for those who are economically disadvantaged or otherwise vulnerable.

Government strategy:
Smile agus Sláinte

A new oral health strategy Smile agus Sláinte (2019) envisages a reformed public scheme. This would be limited to children and medical card adults, would be delivered (at least in part) through private sector GDPs and funded by the State.

Significant reservations have been expressed by the Irish Dental Association about changing from a model of targeted and systematic screening of children by a depleted public dental service towards provision of care by GDPs on the basis of availability, given low attendance levels with existing schemes for adults.

In addition, serious concerns exist about whether this is the optimal use of specialist skills and expertise in the public dental service.

In the scheme, prevention would be emphasised, and limited restorative care provided. If the document produced by Nolan (2019) is instructive, the scheme would be reimbursed on a fee-for-service basis with, again, strictly limited coverage of restorative care and no access to more advanced types of restoration such as endodontics.

A scheme of this type has – with various assumptions including fee levels based on 2007 levels - been costed by Nolan (2019). The proposals are a tacit recognition that current arrangements are not fit for purpose. Central to the success of this or any programme is agreement on the part of those intended to deliver it to take part. How, and importantly, at what level GDPs are reimbursed is central to this.

In this regard, the exodus of GDPs from the current DTSS scheme is again worth noting; that the fee levels mooted relate to those that existed in 2007 for which there exists evidence that they do not cover costs and that, unlike a school-based inspection scheme, attendance to a voluntary inspection is likely to include a significant number of “do not appears”.

These will generate a cost to dentists in terms of services that could otherwise have been delivered to others with no countervailing revenue.

Reimbursment Systems

OVERVIEW

With respect to systems of reimbursement, the strengths and weaknesses of various reimbursement systems have been discussed in the literature (Brocklehurst, 2016; Nolan, 2019; Tickle et al 2011; Chalkey et al, 2010; Grytten 2017).

In brief, fee-for service is thought to promote activity which can encourage effort and widen access but runs the risk of aspects of that activity being unnecessary and giving rise to unnecessary expense.

Capitation, by contrast, is thought to reduce costs by deterring the provision of unnecessary treatments.

As against this it is thought to increase the risk of supervised neglect and/or the minimization of effort through the provision of easier treatments such as extractions over more complicated restorations.

It may also reduce access through cream-skimming of those with lower and less complex needs.

Pay-for-performance, while aligning activity with desired outcomes, is complicated by the paucity of valid and easily measured outcomes and is thus difficult to operationalise in practice.

Bundled payments provide a collective payment for a collection of services that may be involved in an episode of care and can be paid prospectively or retrospectively. While they can reduce cost through a redistribution of activity within the bundle, it is argued that they can be "gamed" through upgrading and unbundling as well as encouraging the avoidance of high risk/cost patients.

The use of salaried staff is thought to reduce the risk of overprovision but like capitation can promote supervised neglect, cream-skimming and the favouring of interventions that involve less effort over therapeutically superior ones (See Nolan (2019) for a precis of the issues around different reimbursement systems).

While efforts have been made to study different reimbursement systems, including studies specifically in dentistry, evidence regarding their relative merits remains mixed.

As noted, this is due in part to the paucity of valid and easily captured measures of outcome. While, for example, it is easy to measure activity, it is more difficult to measure the contribution of dentistry to, for example, caries free status or how well restoration work has been completed. Similarly, little attention has been given to patient reported outcomes or the weight that should be attached to addressing inequalities as a measure of outcome.

In practice

Experiments of blended reimbursement systems have occurred in a number of jurisdictions including the UK that attempt to combine the strengths of the different approaches.

These, however, face the same challenges as single-based systems with respect to credible outcome measures and efforts to understand their impact are ongoing.

While the manner in which payments are made is important in ensuring dentist activity aligns with the aims of the funder, unless the amount paid meets the reservation "wage" of dentists, a supply of effort will not be forthcoming.

This is clearly seen in the exodus of dentists from the DTSS scheme. By reservation "wage" here is meant a level of income that covers the cost-of-service delivery including a reasonable return on investment. This is a sine qua non for participation in a publicly funded scheme however payments are actually administered.

In addition to the systems outlined, a voucher-based system has been used in Portugal (Simoes et al, 2018) and Australia and is being considered for use in the US as part of the Medicare scheme at a level of $800 where, interestingly, it is seen by some as a way of containing costs (Politico, 2021).

How the voucher works varies between schemes but, in general terms, it provides an entitlement to a specified level of subsidy to the recipient for the receipt of care from participating dentists. The voucher may, depending on the scheme, be "topped up" by the patient where costs exceed those covered by the subsidy or where services are required that fall out with covered treatments.

The "voucher" need not exist physically in the sense of a document issued specifically for dental care. Rather, it may reflect an entitlement that can be demonstrated based on other documentation such as a current medical card.

The scheme can be interpreted as an attempt to address inequalities in access through public funding while leveraging market mechanisms to achieve efficiencies in provision of care.

In brief, groups whose economic circumstances would otherwise preclude them from dental care receive a voucher to "spend" on the specific types of care covered by the scheme with a dentist of their choice.

Eligibility, the value of the voucher, the services covered and the frequency with which these are renewed are set by the funder based on its assessment of what is needed and what can be afforded.

Top-up fees (if any) are determined by the dentist. Add-ons such as bonuses or grants may be paid to encourage uptake by dentists or reward success in widening access, for example, by providing care under the scheme at various thresholds of patient numbers.

In principle, the approach provides a means by which access can be widened to those who are economically disadvantaged – or who have special needs - relative to what would otherwise have been the case. It thus increases equity while leveraging market forces to increase efficiency.

For example, market failures related to information deficiencies/asymmetries can be addressed within the scheme through the simultaneous provision of information to the public on which dentists are part of the scheme, the services covered, any top-up fees that might exist and aspects of their performance such as waiting times, the number of patients treated by that dentist/ practice in the past six months or year.

This information could be taken directly from an information system set up to administer payments and ensure good governance of the scheme. The information could help users find and choose between dentists, selecting those who provide the service that best suits their needs in terms for example of speedy access or geographic proximity.

Dentists presumably face a standard constrained optimization problem – how to maximise their profit given the value of the voucher, the cost of the care required and the existence of competitors for patients. They presumably compete on quality, subject to a break-even constraint.

Thus, the scheme widens access, uses competition to improve quality, allows for the possibility of top-ups for aspects of care deemed beyond the scheme, and, by giving the funder control over eligibility for the scheme as well as the value of vouchers, overall budgetary control.

The scheme has additional potential benefits.

- For example, it could be argued that it promotes choice on the part of the patient which is of value independent of health improvement.
- It could be argued that – depending on how it is implemented - it is less administratively burdensome than a blended reimbursement system with multiple elements each of which require measurement and recording by dentists and the funder.
- It could be argued that it affords dentists greater autonomy on how best to meet patient needs in the sense that reimbursement is related to care rather than specific treatments and allows for top-ups.
- It could be argued that it allows the funder to respond in a more agile manner to issues of take-up by dentists (or the public) by, for example, simply re-defining the budget and with it the value of vouchers without having to work through specific fee schedules.

Again, depending on how the scheme is implemented the value of the voucher could be adjusted to reflect the needs of specific patient groups rather than treatment fee schedule. Such an approach would better accommodate the time taken to deliver care to patients with special needs or older patients to whom the delivery of particular services may require more time than other patient groups.

In Portugal, a voucher scheme introduced in 2008 (Simoes, 2018) has been presented as successful, being reported to have been well received by dentists and users.

Uptake of the scheme has increased over time and improvements have been noted in oral health among those populations covered by it.

Mean decayed missing and filled teeth (DMFT) for example have fallen among children and the percentage with caries free status has increased.

For example, among children aged 6, the percentage caries free rose from 51% to 54% between 2006 and 2014 while mean DMFT fell from 2.1 to 1.65. Among children aged 12 mean DMFT fell from 1.49 to 1.18 over the same period with falls recorded in other age groups also (Takara et al. 2017).

As a randomised controlled trial of the scheme was not undertaken, it is important to note that these are associations and that the magnitude of health gain achieved by the scheme may not necessarily be reflected in the figures quoted.

Similar schemes which vary in terms of their operation also operate in Australia, such as the South Australian Dental Services Scheme (SADSS), the Country Patients Dental Services Scheme (CPDSS) and the Metropolitan Patients Dental Subsidy Scheme (MPDSS).

SUCCESS FACTORS

The success of any such system hinges on the level of voucher being high enough for dentists to cover costs, users being well-enough informed to effect informed choice; governance arrangements being such that the system can command confidence from the taxpayer and there being a sufficient number of providers in an area to provide users with choice.

In the absence of these conditions, the public, policy makers and/or dentists may not be sufficiently convinced to support such a scheme.

With respect to governance, an information system was introduced as part of the scheme in Portugal to administer payments. This allowed monitoring of uptake, treatments provided, claims made and aspects of outcomes. Such a system could be readily adapted to include other measures of outcome or indeed to provide the basis for effective governance.

For example, dentists or patients with unusual patterns of activity could be readily identified and investigated based on patterns of claims relative to those of others. Using claims data in Northern Ireland, for example, it is possible to identify not only the nature of care provided but how successful it was with respect to prevention and restoration.

A System For Ireland

In Ireland, the recent report from the ESRI taken in conjunction with Smile Agus Sláinte may illuminate current government thinking as to the way ahead.

This would appear to favour a system based around fee for service for a limited range of services delivered through GDPs to a limited group of individuals. Emphasis is given to prevention and coverage limited to children and medical card holding adults.

The promotion of prevention and priority given to children would appear consistent with the pursuit of efficiency objectives while the priority given to coverage of economically disadvantaged adults would appear consistent with the pursuit of some equity objectives.

A single fee schedule would not address issues related to the cost of care provision across groups differentiated by broader needs – for example the time required by the dentist to treat older patients or those with special needs.

More broadly, the likelihood of this attracting GDP engagement, will hinge on the fee levels offered.

Based on the MedAccount analysis of July 2021, those mooted in the ESRI paper reflect fees levels introduced in 2007 and would not appear to cover the delivery costs of many treatments it is envisaged the scheme will cover. It would be even less likely that they would cover the cost of those with special needs.

A comparison of costs and fees based on the MedAccount analysis are reproduced in Table 1 below.

DTSS fee and dentist related costs of provision

TREATMENT	PATIENT FEE INCOME	TREATMENT TIME	COST PER TREATMENT INCLUDING OVERHEAD[1]	DENTIST EARNINGS PER TREATMENT
Examination/x-ray	33	20	42	-9
Prophylaxis	31	30	63	-32
Amalgam restoration	50	25	53	-3
Composite restoration	52	25	53	-1
Extraction	40	25	53	-13
Surgical extraction	70	35	74	-4
Protracted periodontal treatment	26	30	63	-37

Table 1

Reproduced from MedAccount report, April 2021
[1]MedAccount suggest they may have underestimated overheads

While the sample selected by MedAccount based on 33 practices may not be as large as one would like and may not be fully representative, it is nevertheless indicative and perhaps sheds light on the exodus from the programme of dentists.

A new scheme based around similar fee levels (and used by Nolan, 2019) would be unlikely to attract GDP contractors, or at least those for whom the opportunity cost of providing care is measured in terms of fee-paying patients who could have been seen instead.

If it were based on a single set of fees for all patients, even were fees to cover the cost of typical patients, they would still be unlikely to cover the cost associated with patients who had special needs or require more time due to age. Such patients would continue to face issues with access.

A recent survey of 104 practices across Ireland in terms of prices charged for a range of services supports this contention where, again, a gap between the fee levels offered through the current DTSS scheme and those dentists charge other patients is evident (unpublished manuscript Smith et al, 2021). In this circumstance, access will likely remain an issue as will disparities in health. (In as much as the MedAccount analysis is based on treatment time and does not include the administrative burden associated with contracting with the HSE, it may indeed underestimate costs per treatment and present an even more optimistic picture of engagement than may in practice emerge.) The IDA has voiced its opposition to any scheme that is demand led but budget capped and currently promotes independent practice to its members (IDA, 2020).

Independent practice in this context "refers to a situation whereby a dental practitioner does not deal directly or enter into a contract with any third party for the provision of dental treatments to patients."

Within a context where contracts with the DTSS scheme have fallen sharply, economic recovery has increased demand from private practice. Based on evidence given at recent Oireachtas hearings, relations with the Department of Health seem less than warm and it is unclear what support such a scheme would command from GDPs – at least for parts of the country.

In this context, a voucher-based scheme may be more pragmatic depending on how it is operationalised and, in particular, the level of funding put into it.

The scheme would have to be more clearly thought through than is possible in a document of this length and developed within the time period available.

Issues that would need careful consideration include: eligibility; the range of services to be covered; the level of the subsidy; the frequency of renewal; whether the patient paid up front and recouped costs or whether the state paid on presentation of evidence of treatment; governance arrangements; whether the value of the voucher varied over patient types and; the range of additional measures related, for example, to the supply of information to the public that may be required.

Whether patients pay and recoup costs or whether the dentist provides care and recoups costs from the State may be a particular issue given the implicit difference in the share of risk across parties. Piloting the scheme would offer an opportunity to gather more information, demonstrate value and refine arrangements.

Further work could also be usefully undertaken to inform the development of meaningful patient-related outcomes such as satisfaction, waiting times, the reaction of the public to such information and the practicality of publishing these and/or treatment patterns (in terms of the volumes of vouchers redeemed, the types of care provided, and the types of patients seen).

Similarly, the usefulness of a range of measures - "loyalty rewards" for public service i.e., treating a given number of public patients; different voucher values where, for example, there was a need to ensure access to particular patient types or in particular geographic areas; how best to promote prevention outside of the dental office in respect of oral hygiene, sugar consumption and smoking - could be explored in commissioned research. Here, Government could liaise with research bodies such as the Health Research Board to encourage research into such matters.

In the next section, the cost associated with a scheme of this type is provided for illustrative purposes. The envisaged scheme is based on use by adult medical card holders.

COSTING THE SOLUTION

The following assumptions underpin the calculations: the adult scheme is accessible only to medical card holders of whom there are approximately 1.5 million (Health in Ireland, 2019). Uptake is 31% - that is 31% will avail of the scheme in any given year (Nolan, 2019). The voucher covers routine examination, development of a treatment plan, prevention, and standard restorative services treatments.

A primary voucher worth up to €100 would be available for examination and prevention each year. (This would roughly cover the costs quoted in Table 1 for these services.) Subject to completion of an examination and the development of a care plan, up to four additional vouchers worth up to the same value each would be available for delivery of care. (This would likely cover the cost of a number of fillings, extractions and protracted periodontal treatment if required, again based on the costs quoted in Table 1.)

Where such a care plan was delivered, the patient concerned would not normally be eligible for such extensive care for another 3 years.

The annual cost of such a scheme – ignoring administration and set-up costs – would be approximately €108 million (see Table 2 for

calculations) at the extreme. To safeguard against budget overrun, where demand exceeded available resource, patients would join a waiting list.

Vouchers could be allocated geographically to ensure a degree of equity in the advent of waiting lists for treatment. Safeguards, that is, would be required to ensure the system did not simply operate on a first-come-first-served basis where relatively well supplied areas such as Dublin could "crowd-out" rural areas where fewer GDPs exist.

NUMBER OF PEOPLE	PERCENTAGE UPTAKE	PRIMARY VOUCHER	COST PER ANNUM
1,500,000	0.31	€100	€46.5 millions
1,500,000	0.33*0.31	€400	€61.38 millions
		Total	€107.88 millions

Table 2

A simpler scheme in which a voucher of €200 or €500 is applied to the care pathway is presented in Table 3, again for illustrative purposes.. This may be more appropriate given gaps in treatment could see oral health deteriorate for some patients. It should be noted that the table assumes dentists provide care to the full value of the subsidy. It is unlikely such care would be required or provided annually in the case of the €500 scenario.

NUMBER OF PEOPLE	PERCENTAGE UPTAKE	PRIMARY VOUCHER	COST PER ANNUM
1,500,000	0.31	€200	€93 millions
1,500,000	0.31	€500	€232.5 millions

Table 3

VOUCHERS FOR CHILDREN'S DENTAL CARE

The current Programme for Government also suggests a wish to introduce 'free dental care' for under 6s analogous to that introduced in recent times in regard to the provision of 'free medical care' by general medical practitioners.

No discussions have commenced on the introduction of such a scheme and there must be some considerable doubt about the appeal of such a scheme amongst GDPs. However, as a purely speculative exercise, I have prepared some cost estimates related to children which are shown in Table 4.

Here the value of the voucher for additional care is reduced based on an assumption that less extensive provision for periodontal

care would be required. Other assumptions remain the same though it is recognised that time spent on providing dental treatments to children is traditionally greater to a significant extent than is required for the treatment of adults, figures based on the number of children aged 2 - 16.

In reality, it is likely children would require extensive care much less frequently than is budgeted for here and require examination less frequently also. Assuming examination every other year and extensive care every three years the figures are as shown in Table 5.

NUMBER OF PEOPLE	PERCENTAGE UPTAKE	PRIMARY VOUCHER	COST PER ANNUM
1,002,898	0.83	€100	€83.24 millions
1,002,898	0.33*0.83	€300	€82.41millions
		Total	€165.65millions

Table 4

NUMBER OF PEOPLE	PERCENTAGE UPTAKE	PRIMARY VOUCHER	COST PER ANNUM
1,002,898	0.83	€100 every second year	€41.62 millions
1,002,898	0.33*0.83	€300	€82.41 millions
		Total	€124.03 millions

*Population estimates for 2016 https://data.cso.ie/table/E3003 accessed January 2022

Table 5

The costs of the scheme are higher than those mooted by Nolan (2019) which, across the two schemes in her base case analysis, came to €23 million for the adult programme and €26.5 million for the children's programme.

The programme is likely though to achieve greater buy-in from dentists providing wider access to patients and achieve greater improvements in oral health and reductions in health inequalities. While one could speculate that these investments in children could reduce over time, subsequent exposure to need in adults as well as in older children I have chosen not to speculate here on such effects.

The value of vouchers could be redeemed from Government by dentists or from patients compensating them for initial out of pocket outlays. Both approaches have advantages.

For example, dentists redeeming vouchers from government would obviate the need for disadvantaged groups to find the money to pay for dental care initially.

As against this, having the public pay first may serve to stave off unnecessary use and exert downward pressure on costs through user choice. Which would be preferable is open to debate.

CONCLUSION

Current arrangements around publicly funded dental care in Ireland manifestly fail to command the support of many general dental practitioners or meet the needs of citizens. A consensus on how best to reimburse dentists for the services they provide remains elusive.

How best to reimburse dentists though is secondary to an acknowledgement that the revenue offered must at least cover the cost of providing the service.

Based on the figures presented here, current fee levels in the DTSS fail to do so. A suitably resourced voucher-based scheme is in principle less complex than a blended-based reimbursement system and could help ensure that more of the resources committed to it are directed into patient care rather than administration.

It has the potential to leverage competitive forces to maximise health gain, exert downward pressure on costs and offer the funder the opportunity to adjust in an agile manner budgetary commitments. It would foster patient choice which could be augmented through the accommodation of top-up fees.

While more detailed analysis and further research are required than is possible in a document of this nature there would appear to be a prima facie case for its consideration.

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