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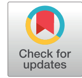
Health Reform Monitor

Ten years since the 2008 introduction of dental vouchers in the Portuguese NHS☆



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ABSTRACT

Since the creation of the National Health Service (NHS) in Portugal, in 1979, dental care is neither provided nor funded by the NHS. Thus, most dental care is paid through out-of-pocket payments, either by patients themselves or through voluntary health insurance or health subsystems. In 2008 the government created the dental voucher targeting children, pregnant women, elderly who receive social benefits, and certain patient groups (HIV/AIDS patients and those who need early intervention due to oral cancer), to be used in private dentists who contracted with the programme. The reform was well received by the different stakeholders, especially dentists and beneficiaries, and the impact of the dental voucher in access and coverage of dental care in Portugal is positive: from May 2008 until December 2017, dental voucher reached 3.3 million NHS users in Portugal and dental care indicators have dramatically improved over the last ten years. Aiming to implement dental care provision within the NHS, the Ministry of Health has announced the foreseen integration of dentists in primary healthcare units, although the current budget constraints might hamper this possibility.

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1. Policy background

The Portuguese National Health Service (NHS) was established in 1979 to meet the principle of every citizen's right to health, embodied in the new democratic constitution of 1976 [1]. The NHS was meant to provide universal, comprehensive and free-of-charge healthcare. However, dental care is one of the areas where public provision has been very limited. Before the establishment of the NHS, dentists were self-employed, a trend that remains until today.

Recognizing the need for promoting oral care, in 1986 outreach school-linked preventive oral care programmes were introduced to promote oral hygiene, and increase nutritional awareness and resistance of teeth to external factors [2]. These programmes were provided by NHS primary healthcare units and targeted school-aged children, focusing on primary prevention of dental caries. The programmes are still active with primary healthcare units across the country having dental hygienists who carry out activities in collaboration with school health programmes.

However, the population other than school-aged children remained with no NHS coverage for dental care. Important inequalities in access have become evident throughout the years. Patients covered by health subsystems (special insurance schemes for certain professions and companies) or private voluntary health insurance (VHI) used private dentists according to their schemes [1]. Each plan or subsystem defines its own list of eligible treatments and fees. Nevertheless, the plafond is considered low in terms of number of treatments covered or reimbursement/co-payments. Patients not covered by health subsystems nor VHI must pay out-of-pocket for dental care treatments [1]. Poor oral health indicators and growing unmet needs for oral healthcare made it necessary to improve access to this type of care [2,3].

In 2005, the National Programme for Oral Health Promotion (NPOHP) was created to reduce the incidence and prevalence of oral diseases in children and adolescents, improve knowledge and behaviours regarding oral health, and promote equity in oral health provision to children and adolescents with special needs [4]. Nevertheless, in 2007 Portugal still recorded large inequalities in unmet dental care needs between high and low income groups [5].

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Table 1
Access to the dental voucher, by target group.

Project	Date of onset	Target group	Maximum number of dental vouchers by patient	Treatments included
Pregnant women	27 Feb 2008	Pregnant women followed at the NHS (by GP referral)	3 per pregnancy (first voucher offered to all pregnant women; the next two vouchers are offered only to those who require further treatment)	Treatment of active caries
Elderly	27 Feb 2008	Elderly who receive social benefits (by GP referral)	2 per year (first voucher offered to all elderly, the second voucher is offered only to those who require further treatment)	Treatment of oral health problems and preparation to dental prosthesis
Child Health	09 Jan 2009	Children aged 6 years (by GP referral in acute situations)	1 per year (maximum of 20.000 children per year)	Treatment of 2 temporary decayed teeth
Children and Adolescents (7, 10 and 13 years)	09 Jan 2009	Children and adolescents aged 7, 10 and 13 years old who attend public schools or social institutions	2 (7 and 10 years old)	**At age 7:** first voucher – treatment and application of fissure sealants in 2 teeth (first molars); second voucher – treatment of other oral diseases affecting permanent teeth and application of fissure sealant in the remaining healthy molars. **At age 10:** first voucher – treatment and sealant application in 2 premolars; second voucher – treatment of other oral diseases affecting permanent teeth and application of fissure sealant in the remaining premolars.
			3 (13 years old)	First voucher – treatment of 2 permanent teeth or sealant application in 2 second molars; second voucher – treatment of other situations affecting third or fourth permanent tooth or sealant application in healthy second molars; third voucher – treatment of all other situations affecting permanent teeth which demand curative or preventive intervention.
Children and Adolescents (intermediate ages)	20 Apr 2010	Children and adolescents aged 8, 9, 11, 12, 14 and 15 years old (by GP referral in acute situations)	1 per year	Treatment of 2 permanent teeth with caries.
HIV/AIDS patients	27 Oct 2010 (1st Phase)	1st Phase: Patients infected by HIV/AIDS	6 per patient	The six vouchers include, overall, the treatment of 11 teeth, or 9 teeth if the treatment plan includes endodontic treatments.
	01 Mar 2016 (2nd Phase)	2nd Phase: Patients infected by HIV/AIDS	2 every 2 years	Patients infected by HIV/AIDS already reached by NPOHP and who have not received treatments for more than 24 months.
Children and Adolescents (16 years)	01 Aug 2013	Adolescents aged 16 years who have completed the treatment plan at the age 13	1 per year	Sealant application in healthy molars and premolars and treatment of caries in permanent teeth
Early Intervention for Oral Cancer	01 Mar 2014	Risk group (opportunistic screening): smoker males aged ≥ 40 years and with drinking habits and patients with lesions in the mouth identified by GP, stomatologist, dentist or patient	2 diagnostic vouchers and 2 biopsy vouchers per year	Clinical diagnosis of malignant or potentially malignant lesions.
Children and Adolescents (18 years)	01 Mar 2016	Adolescents aged 18 years who have completed the treatment plan at the age 16	1 per year	Treatment of all caries in permanent teeth
Children and Adolescents with special needs	01 Mar 2016	Children and adolescents with special needs, mental illness, brain paralysis, Down Syndrome, among others, who have not been reached by NPOHP	2 (7 and 10 years old)	Same as Children and Adolescents (7 and 10 years old)
			3 (13 years old)	Same as Children and Adolescents (13 years old)

Source: NPOHP.

2. Content of the reform

In 2008, the dental voucher programme was launched as an important reform within the NPOHP [6]. The programme entailed the provision of a voucher targeting specific patient or population groups, which could be used to receive care from private dentists who contracted with the NHS for that purpose. Initially, the programme targeted pregnant women and elderly who received social benefits [7]. In the following years it was extended to other groups (Table 1). Currently, besides elderly and pregnant women, the programme targets children and adolescents under 18 years old (including those with special needs) who attend publicly funded schools, HIV/AIDS patients, and patients in need for early intervention due to oral cancer. These groups were chosen given their vulnerability to oral disease or future impact of oral disease on their overall health status.

The Directorate-General of Health is responsible for the national coordination of the NPOHP and the Regional Health Administrations are responsible for the regional coordination and payment of private providers. The NPOHP defines the monitoring and evaluation indicators as well as the rules and procedures that guide the programme.

Dental vouchers are issued by NHS primary healthcare units to all those who are eligible. Beneficiaries are free to choose the provider among dentists who have joined the programme [8] and who are part of a list of providers available both at the primary healthcare units and on the Internet. The NPOHP defined a maximum number of dental vouchers issued per patient annually (Table 1). This number takes into consideration the importance of the target group in terms of prevention and treatment and the prior inclusion in the NPOHP. Regarding children and adolescents, all have access to intervention at age 7, 10 and 13 years, provided by oral hygienists or by dentists, with the goal of treating decayed teeth or applying fissure sealants on all their permanent teeth.

The dental voucher programme is entirely funded by the NHS Budget. The price paid by the NPOHP to the dentists who contracted with the programme was initially set at €40 per patient, but in 2013 the price was lowered to €35 [9]. Although the price paid to dentists is considered to be below Portuguese market value, the underutilization of private oral care made the proposal attractive to many dentists who, otherwise, would struggle to profit from their activity. This situation was considered a win-win situation for both parts. The dental voucher covers preventive treatments (*e.g.* application of fissure sealants, fluoride application), curative treatments (*e.g.* teeth extraction, restauration) and other treatments (*e.g.* scaling), according to the target group (Table 1). On the first appointment, dentists assess the patient's condition and elaborate a treatment plan, according to the number of vouchers entitled to the patient. In practice, dentists must follow that treatment plan in order to ensure that patients have no active dental caries. Dentists' intervention takes into consideration clinical priorities and the number of vouchers for each patient.

3. Policy implementation

The XVII constitutional government (2005–2009), nominated, in 2006, an expert commission to study oral health strategies within the NHS and respond to dental care needs of the population. By the end of 2007, a new information system tailored to support the upcoming programme (SISO, *Sistema de Informação para a Saúde Oral*) was designed and piloted, and in May 2008 dentists and dental clinics were allowed to join the dental voucher programme, by contracting with the NHS. The process demanded little legislation and was led by the Ministry of Health with no need to entail discussions at the Parliament. All stakeholders involved, including the Portuguese Dental Association, the Portuguese Medical Association and other bodies of the Ministry of Health (Central Administration of the Health System, Directorate-General of Health and Regional Health Administrations) were successful in achieving a consensus in a short period. Informative sessions targeting professionals were carried out within the Portuguese Dental Association.

In 2017, the NPOHP contracted with 4678 dentists who joined the dental voucher programme in 8641 facilities, across the country (most dentists in Portugal work in more than one facility). The proportion of municipalities with contracted dental clinics is high, ranging from 97.7% in the North region to 89.4% in the Alentejo region. However, the coverage of the dental voucher by eligible group (number of people who received a dental voucher, among those who are eligible) shows variations according to the targeted population: while pregnant women and children and adolescents have high estimated coverage (624% and 970%, respectively), elderly who receive social benefits record a very low coverage: of the 175,306 elderly who received social benefits in 2017, only 6081 were reached by the dental voucher (3,5% of the all people eligible in this group).

The uptake rate (number of people who used the dental voucher, among those who received a voucher) also shows different trends according to the target group referred to the programme (Fig. 1). Among pregnant women, data shows a slight decrease since 2009 because the number of women referred to the programme grew more rapidly than the number of pregnant women who actually used the dental voucher. The same trend is observed among elderly who receive social benefits. In this group, the uptake rate reached its peak in 2011 (81.6%) and has been stable until 2017. Among children and adolescents, the uptake rate has increased steadily since 2013 and reached 56.9% in 2017. The uptake rate observed in 2012 (93.8%) is explained by the decision to decrease referrals and extend the usage of dental vouchers issued in the previous year. Among HIV/AIDS patients, the uptake rate shows some variations. The implementation of a second phase of treatments offered to these patients (in March 2016) has resulted in a remarkable increase in the number of patients referred to the NPOHP, which is shown by an increase of the uptake rate in 2017.

4. Outcomes of the reform

The DMFT index is one of the simplest and most commonly used indices in epidemiologic surveys of dental caries. This index is applied to the permanent dentition and is expressed as the total number of teeth that are decayed (D), missing (M), or filled (F) in an individual. In 2000, the DMFT index at age 12 years was above EU15 average (1.4), but has decreased remarkably ever since (-60%). In 2000, Portugal recorded a DMFT at 12 years of age of 2.95, by 2006 that index was 1.48 and in 2013 the value was 1.18, which represents a 20% decrease between 2006 and 2013. Portugal has already reached the goal defined by WHO to 2020 of having a DMFT below 1.5 at 12 years of age. The decayed (D) component of DMFT shows that treatment needs at 12 years of age decreased by 68% between 2000 and 2006, and by 51% between 2006 and 2013 (Fig. 2). According to the National Study on Dental Caries Prevalence (2013–2014), 53% of adolescents aged 12 years had no dental caries (*ie* without any present or past lesion caused by dental caries), which shows an improvement since 2006 when that figure was 44% [10]. The proportion of children aged 6 years with no caries, in both primary and permanent teeth, has increased from 51% to 54%, in the same period.

Those studies did not collect data on other populations targeted by the NPOHP, including pregnant women, elderly who receive social benefits or HIV/AIDS patients, and adolescents aged 18 years were only included in the most recent study, which revealed that 32% of them had no caries.

5. Current challenges and ongoing developments

Despite the universal NHS, oral healthcare in Portugal has been largely provided in the private sector. This situation is similar to other southern EU countries with a NHS model, such as Greece, Spain or Italy [11–13]. Like in Portugal, other countries offer very limited publicly funded oral healthcare, usually targeting children and the most vulnerable populations. The Spanish NHS provides emergency care and oral surgery (dental extractions) for adults, and children aged 7–15 years are covered (with some restrictions) by publicly funded oral healthcare [12]. In Italy, oral healthcare is included in the legislation on essential levels of care for specific populations such as children, vulnerable people (medically compromised and those on low income) and individuals who need oral

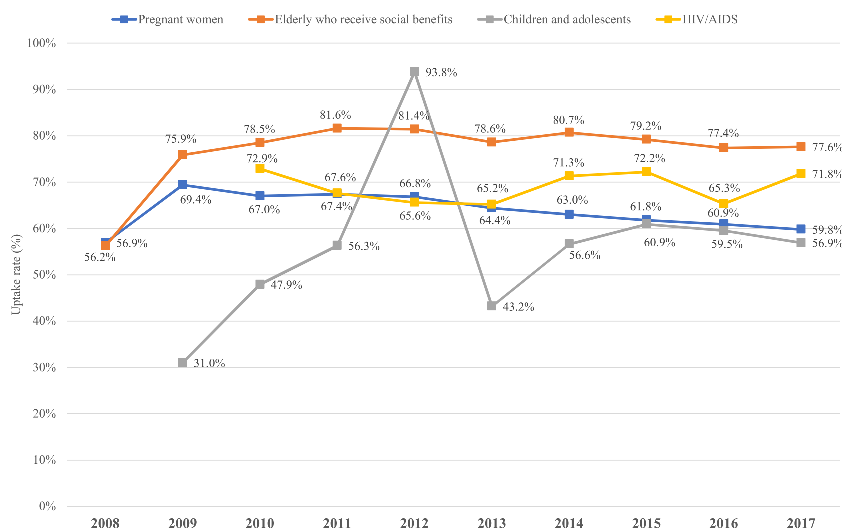

Fig. 1. Uptake rate among the targeted populations of the dental voucher programme, 2008–2017.
Note: Uptake rate is given by the number of people who used the dental voucher, considering the total number of people who were given a dental voucher.
Source: NPOHP.

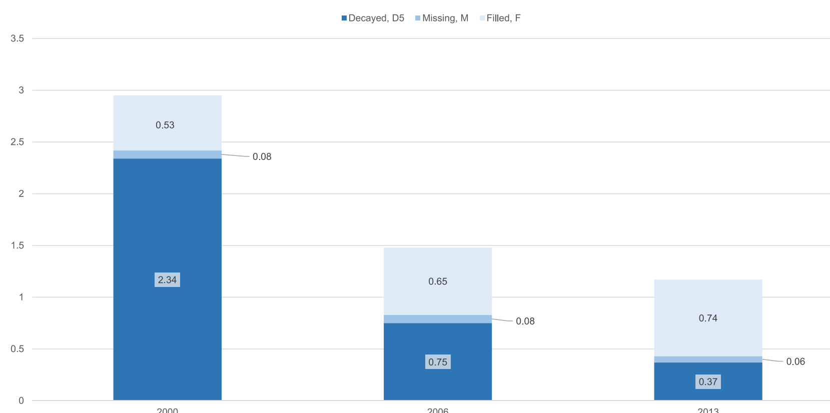

Fig. 2. DMFT index components in children aged 12 years, 2000–2013.

Source: Directorate-General of Health.

healthcare in some urgent/emergency cases [13]. As in Portugal, the vast majority of oral healthcare in these countries is provided by the private sector, where social insurance funds and VHI play an important role.

Given the poor public coverage of oral health in Portugal, contrasting with the existing human resources and installed capacity in the private sector, the government has decided to adopt an innovative model to face increasing demand for oral healthcare and the poor dental health indicators. Despite the universal NHS, the government chose to target vulnerable groups and to contract provision of basic oral care with private providers, thus maintaining the financing responsibility in the public sector and diverging the provision of services to the private sector. The dental voucher is remarkably focused on children and adolescents, and vulnerable groups such as pregnant women, elderly who receive social benefits and HIV/AIDS patients. The dental voucher programme also brought innovation regarding the freedom of beneficiaries to choose their provider.

Nevertheless, the dental voucher presents some features related to the chosen target groups and their level of access to the programme that can motivate debate. As the dental voucher targets the most vulnerable groups of the population, it leaves several potential users out of the reach of this programme: for instance, children and adolescents attending private schools or elderly who receive low pensions but not low enough to have the right for social benefits [14]. Access to the dental voucher is also done differently according to the patient group. Children and adolescents have their dental vouchers issued automatically in primary healthcare units, without any need of referral from the GP, and also distributed at publicly funded schools. All the other groups should be referred by their GP at a primary healthcare setting. However, coverage of GP in the NHS is not yet universal, which might be a barrier for some eligible patients to access their voucher. Finally, it is important to note that pregnant women and children and adolescents are groups within reach of health services, while elderly who receive social benefits and HIV/AIDS patients might not disclose their condition to their GP and, therefore, may not be offered the dental vouchers they are entitled. Particularly, HIV/AIDS patients are usually followed at Infectious Disease Departments in hospitals and doctors at these facilities cannot issue dental vouchers. On the other hand, elderly who receive social benefits are a very vulnerable group of the population, with reduced literacy and may not be fully aware of their right to use a dental voucher, which explains the low coverage among this population (3.5% of all potential users, in 2017).

The price paid per patient by the NHS (below the market value) and highly accepted by dentists and dental clinics did not hamper the expansion of the programme. The adherence was also high

among the potential beneficiaries of the programme, with high uptake rates (>60%) among the different groups.

Children and adolescents are entitled to receive more dental treatments, than other target groups, which highlights the life course approach to prevention of oral problems, already noticed by a remarkable decrease of DMFT index at 12 years of age.

The success of the creation of the dental voucher programme was a result of a general consensus among all stakeholders about the need to improve dental healthcare access and coverage in Portugal. More recently, in September 2016, the Ministry of Health has launched a pilot project for the integration of dentists in NHS primary healthcare units. Implemented initially in 13 units, the project involves providing appointments for the most vulnerable patients not reached by the dental voucher programme, including those with diabetes, cancer, chronic respiratory disease and cardiovascular disease. As the government intends to expand the project to 91 NHS primary healthcare units until 2019, the Ministry of Health has already announced the intention to create a career and pay scale for dentists within the NHS. However, cost containment measures will hardly allow for universal oral health coverage, completely funded by the NHS. In fact, Portugal still faces pressure to cut public spending and contain costs, given the need to reach financial sustainability in the aftermath of the financial bailout in 2011 [15].

6. Conclusion

The implementation and expansion of the dental voucher programme increased the coverage of vulnerable populations to oral healthcare in Portugal. Although the programme has a pronounced non-universal nature, which can put the principle of universal access and equity of public healthcare provision in jeopardy, its coverage has been broadened over the years, taking into account the most vulnerable groups and the need for prevention and early treatment of the most serious oral diseases. The expansion of the dental voucher or even other forms of dental care provision to new target groups within the NHS, might be hampered by the need to contain costs and reach financial sustainability in the NHS. The dental voucher has proven to be an innovative reform that was possible due to a large consensus among all stakeholders, allowing for the patients' freedom of choice and responding to the need of increasing access to oral healthcare in the population.

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