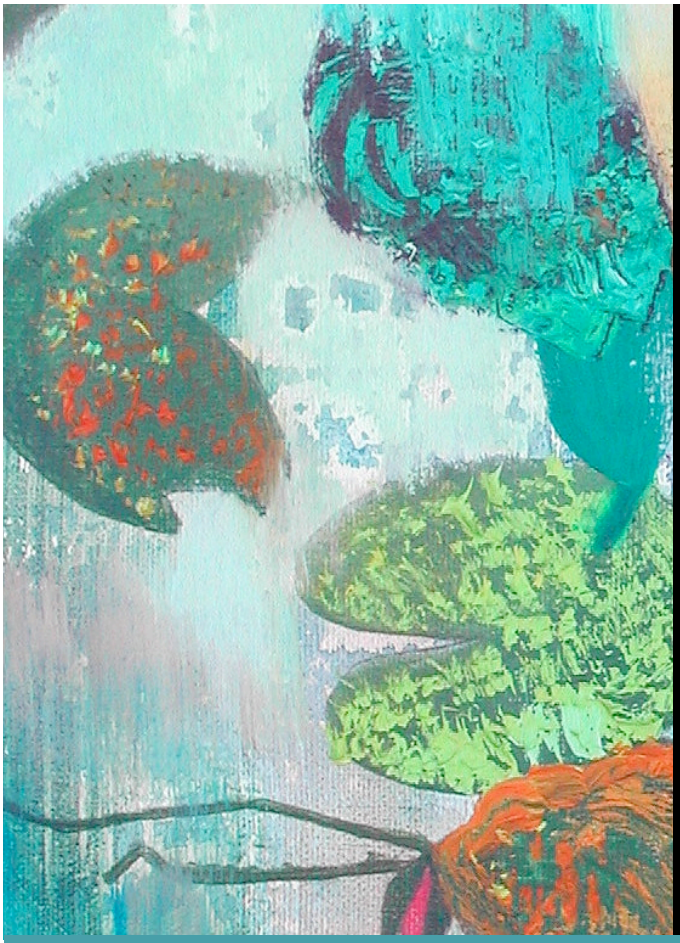

EVIDENCE-BASED OPTIONS FOR AN ORAL HEALTH POLICY FOR OLDER PEOPLE

National Council on Ageing and Older People
An Chomhairle Náisiúnta um Aosú agus Daoine Aosta

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Evidence-Based Options for an Oral Health Policy for Older People

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This report is dedicated
to the memory of our colleague
Ann Foley.
Ann's commitment to improving the quality of life for older people
and her dedication to this project were major factors
in the development of this research.

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Interim Report 2: Review of the Literature and Report on Focus Groups and Interviews with Older People

Interim Report 3: Report on Questionnaires Completed by and Interviews with Service Providers: General Dental Practitioners and Principal Dental Surgeons in the Public Dental Service

Interim Report 4: Report on Interviews with Oral Health Policy Makers

Glossary of Dental Terms

Acute necrotizing ulcerative gingivitis
: An acute infection of the gums characterized by redness and swelling, necrosis of the papillae, spontaneous bleeding and pain.

Bridge
: A fixed partial denture attached to prepared natural teeth that “bridges” a gap where a tooth is missing.

Candidiasis
: Commonly known as “thrush”, this is a fungal infection caused by yeast organisms of the genus Candida.

Craniofacial complex
: The teeth, lips, mouth and jaws

Crown
: A dental restoration that restores the entire surface of the tooth. It can be made of porcelain or metal, and fits over the natural tooth.

Dental caries
: Tooth decay.

Dentate
: Having one or more natural teeth.

Dentition
: The type, number and arrangement of a set of teeth.

Denture
: A full or partial prosthetic replacement for natural teeth.

Denture granuloma
: Overgrowth of soft tissue in the mouth caused by irritation from dentures.

Denture stomatitis
: Inflammation of the mouth caused by irritation from dentures.

Edentulous
: Having no natural teeth.

Flabby ridges
: Displaceable or flabby tissue on the surfaces of the mouth that support the denture. Flabby ridges can affect the retention of dentures, and can cause discomfort.

Gingival recession
: The exposure of root surface caused by the gum receding from its normal position around the neck of the tooth.

Incisal wear
: Wear on the incisal (or biting) surface of the tooth.

Loss of attachment
: Destruction of the tissues supporting the tooth.

Oral lesion
: Irregularity of the mouth, e.g., ulcer or blister

Oral mucosa
: The lining of the mouth, which includes the surface of lips, cheeks, gum and palate.

Periodontal disease
: Disease of the tissues supporting and surrounding the teeth.

Pocketing
: The gap that forms between the tooth and the gum when loss of attachment occurs. The formation of a groove or pocket between the upper portion of the gum and the tooth.

Pulp
: Inner layer of the tooth, the nerve.

Root canal treatment
: Treatment which involves removing the pulp and filling the inner core (root canal) of the tooth.

Root planning
: A procedure for smoothing the roughened root surface of a tooth as part of periodontal therapy.

Scale and polish
: Professional tooth cleaning, which involves removal of hard and soft debris and stains from teeth.

Secondary dentine
: Layer of tooth surface laid down by the tooth internally to repair itself.

Sextant
: For examination purposes, the mouth can be divided into six sections, or sextants.

TMJ Dysfunction
: Dysfunction of the temporo-mandibular joint, which connects the lower jaw to the skull. Can cause difficulty in opening the mouth, jaw stiffness and pain.

Tooth erosion
: Loss of mineralized substances from the surface of the teeth due to chemical attack.

Tooth wear
: Loss of mineralized substances from the surface of the teeth due to physical or chemical attack.

Acronyms and Abbreviations

ASA	American Society of Anaesthesiologists
CPITN	Community Periodontal Index of Treatment Needs
CSO	Central Statistics Office
DHAP	Dental Health Action Plan
DHF	Dental Health Foundation
DMFS	Decayed, Missing, Filled surfaces (of teeth)
DMFT	Decayed, Missing, Filled Teeth
DoHC	Department of Health and Children
DT	Decayed Teeth
DTBS	Dental Treatment Benefit Scheme
DTSS	Dental Treatment Services Scheme
FT	Filled Teeth
GDP	General Dental Practitioner
GMS	General Medical Services
HIQA	Health Information and Quality Authority
HRB	Health Research Board
HSE	Health Services Executive
IDA	Irish Dental Association
LHO	Local Health Office
MHI	Modified Helkimo Index
MT	Missing Teeth
NCAOP	National Council on Ageing and Older People
NESF	National Economic and Social Forum
NSAOH	National Survey of Adult Oral Health
OHSRC	Oral Heath Services Research Centre
PCCC	Primary, Community and Continuing Care
PDS	Principal Dental Surgeon
PRSI	Pay-Related Social Insurance
18+SUNT	Eighteen or More Sound, Untreated, Natural Teeth
TMJ	Temporo-Mandibular Joint
WHO	World Health Organisation

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Executive Summary

This report recommends policy options to improve the oral health and well-being of older people. The emergence of an ageing population dictates an urgent need to develop appropriate oral health services for older people. National surveys reveal an increasingly dentate older population with specific oral health service needs. Older people face particular oral health challenges as a result of progression of dental decay, gum disease and tooth wear, accompanied by a reduction in the natural defence offered by saliva as a side effect of many commonly prescribed medications. Many older people also have a reduced capacity for self care as manual dexterity decreases and the ability to maintain good oral hygiene is reduced. Furthermore, older people are at greater risk of oral cancer: Impediments to their access to oral health care services also reduce the likelihood of opportunistic screening and early detection. This situation of low service utilisation rates and poorer oral health amongst older adults aged 65+ compared to younger adults is evidenced in the National Survey of Adult Oral Health 2000-02 (Whelton *et al*., 2007a).

This report examines the oral health status of older people, the factors affecting their utilisation of services and the constraints to service provision. The recommendations aim to improve their access to oral health services. A blend of quantitative and qualitative research methodologies was adopted, involving survey questionnaires, focus group discussions and interviews with stakeholders, and a secondary analysis of national survey data. The resulting primary and secondary data as well as a comprehensive literature review provide the evidence base for this report.

The main issues identified were: older people's low uptake of dental services; the adequacy of the DTSS in relation to older people's needs; the provision of domiciliary care for those who cannot access clinic-based services; the accessibility of service providers to older people; and the integration of care between the dental profession and the medical profession. The policy options recommended are:

- that a national oral health promotion campaign targeting older people be carried out to raise their awareness of the need for dental visits (even if they have no teeth) and to inform them of their DTSS entitlements;
- that the DTSS range of services and fee levels be reviewed such that older people are assured an equitable and acceptable level of treatment services;
- that domiciliary services, particularly for older people in residential care, be given greater priority by the HSE dental service;
- that appropriate policies and actions be identified and implemented to improve the availability and accessibility of oral health service providers (GDPs) to older people;
- that stronger linkages between dental professionals and other primary care professionals be promoted within the structure of Primary, Community and Continuing Care (PCCC) public services as well as among private sector professionals.

1. Background and Introduction

The Oral Heath Services Research Centre (OHSRC) was commissioned by the National Council on Ageing and Older People (NCAOP) and the Health Research Board (HRB) to conduct the project entitled “Evidence-Based Oral Health Policy for Older People (Protocol No. OHSRC00105)”.

The principal aim of this project was to devise recommendations for the development of an evidence-based, person-centred and equitable oral health policy for older people in Ireland, which will improve their access to appropriate dental services and lead to their improved oral health and well-being.

The project objectives were to:

(1) profile the current and projected future specific oral health needs of older people;
(2) identify the risk factors associated with unmet treatment need among older people;
(3) profile the current patterns of service use among older people using the DTSS;
(4) examine the barriers to oral health care experienced by older people;
(5) consult with dental surgeons, practitioners and policy makers in relation to current practice and their views on challenges and opportunities in service provision for older people;
(6) combine the data collected in objectives (1) to (5) and produce a strategic report that will provide a framework for planning at national and regional levels for the oral health of older people.

Objectives (1) to (5) were achieved using a synergistic combination of quantitative and qualitative research methods - secondary analyses of existing data on the oral health status of older people from the National Surveys of Adult Oral Health (NSAOH) and of DTSS utilisation data from the General Medical Services (GMS) Payments Board (now the HSE National Shared Services Primary Care Reimbursement Service); a review of the literature on dental services for older people; and direct consultations with older people themselves, with service providers and with policy makers.

The oral health profile and treatment needs of older people are based on a nationally representative sample of 714 older people aged 65 years and older who were clinically examined during the NSAOH 2000-02. The quantitative data from the national survey was augmented with qualitative data from focus group discussions and one-to-one interviews with older people. Over a period of 10 weeks between July and September 2006, 12 focus group discussions, with a combined total of 134 participants, and 30 individual interviews were conducted to examine the barriers to care experienced by older people.

To gain insight into current practice and the views of service providers on challenges and opportunities in dental service provision for older people, a questionnaire survey and follow-up telephone interviews of both private sector General Dental Practitioners (GDPs) and public sector

Principal Dental Surgeons (PDSs) were conducted. In total, 75 GDPs (an estimated 5% of total GDPs in active practice) and 31 out of a total 32 PDSs responded to the questionnaire survey. From the survey respondents, 18 GDPs and 18 PDSs were interviewed to further explore their responses. Finally, four telephone interviews with oral health policy makers and representatives of dental special interest groups were conducted to ascertain their views on the main conclusions of the research. The questionnaire survey and interviews of both public and private service providers and of policy makers and key stakeholders were conducted between March and July 2007.

The interim reports on the research milestones as they were achieved by the project team are presented in the Appendix. These interim reports contain the detailed description of the methodologies used and analysis results at each stage of data collection.

This strategic report is a synthesis of the findings presented in the Appendix and fulfils the sixth objective above.

2. Project Rationale

It is recognised that oral health is integral to general health. The World Health Organisation defines health as a "complete state of physical, mental and social well-being and not merely the absence of infirmity...a resource for everyday life..." (WHO, 1948). In keeping with this concept of general health, *oral health* is achieved when the teeth and oral environment are not only healthy but also fulfil the criteria of being comfortable and functional (food can be chewed without pain and teeth are not sensitive to different stimuli such as cold), socially acceptable (mouth does not give rise to bad breath, teeth and gums do not cause embarrassment), and free from sources of infection which may affect general health (OHSRC & DHF, 1999).

In 1998, the NCAOP in association with the Department of Health and Children (DoHC) launched *Adding Years to Life and Life to Years: A Health Promotion Strategy for Older People* (NCAOP, 1998) to mark the start of their Healthy Ageing Programme. This health promotion strategy was based on the premise, supported by review of the literature, that health promotion for older people can improve longevity and benefit health and quality of life, even among those already affected by illness and impairment. The strategy highlighted five key areas - building a healthy public policy; creating supportive environments; strengthening community action; developing personal skills and reorienting health services - as its framework for policy and action. For dental and oral disorders, the goal set by the strategy was "to reduce the morbidity associated with dental and oral disorders in older people." The action plans recommended to attain this goal were: education in relation to dental care and oral hygiene for older people; carers and the general population (the loss of natural teeth should not be regarded as inevitable); and encouraging older people to visit the dentist on a regular basis.

As of 1st July 2001, universal medical card eligibility was extended to every person aged 70 years and over. That every person agred 70 or older is now entitled to a medical card regardless of income, however, has not achieved parity for all older people with regard to oral health services. The low utilisation rates of the Dental Services Treatment Scheme (DTSS) by older people in conjunction with their high levels of unmet treatment need points to the existence of other barriers to oral health care which have not been eliminated by the introduction of universal medical card eligibility for those aged 70+.*

Oral health also impacts on life quality. *"Develop standards of care across the system and emphasise quality of life outcomes"* was a key recommendation advocated by the National Economic and Social Forum in its report *Care for Older People* (NESF, 2005). Though the relationship between health and life quality is not straightforward, recent research has highlighted that the emotional and psycho-social consequences of oral disorders can be as serious as other health disorders (Allen, 2003). The NSAOH 2000-02 revealed that compared to younger adults surveyed, older people aged 65+ had the lowest oral-health related quality of life score (Whelton *et al.*, 2007a).

* Under the Health Act 2008, automatic entitlement to a medical card for persons aged 70 or over ceased on 31st December 2008

2.1. Older People are Not Homogenous

Older people comprise 11% of the total population in Ireland. Though the term “older people” is used in the collective to refer to the population aged 65 years or older, older people are not homogenous. They are a diverse group with varying needs.

Laslett described four ages of life based on life stage, not chronological age (Sebaly, 1992). The majority of older people in Ireland may be said to be in their Third Age - a period of personal fulfillment, without too many limitations due to illness or disability, normally commencing with retirement from a job and lasting until death or onset of the Fourth Age. Contrary to traditional conceptualisations of the older population, only a minority are in their Fourth Age - a period, usually late in onset, of final dependence, decrepitude and death.

Thus older people can be differentiated into “young” and “old” on the basis of their chronological age, “strong” or “frail” on the basis of their physical condition, “advantaged” or “disadvantaged” on the basis of their wealth, “healthy” or “medically-compromised” on the basis of their general health, “community-based” or “in residential care” on the basis of their residence, “independent” or “dependent” on the basis of their ability to care for themselves, “dentate” or “edentulous” on the basis of possession of any natural teeth. These distinctions have a bearing on the formulation of oral health policy for older people.

2.2. Expanding Older Population

The Census 2006 recorded 467,926 individuals aged 65 years and older - 207,095 of whom were males (44.3%) and 260,831 females (55.7%) - who are referred to here as “older people”. Using 80 as the dividing age, 24% of older people are “old” older people (80+). Population projections by the Central Statistics Office predict significant increases in the total number of older people aged 65+ “...to over 1.1 million by 2036 under all combinations of assumptions chosen. The very old population (i.e. those aged 80 years of age and over) is set to rise even more dramatically ... to a projected 323,000 in 2036.” (CSO, 2004a) The present and future generations of older people can also expect to live for considerably longer than their predecessors. Combined with changes in the pattern of oral disease through the life course, these predicted demographic changes will pose new challenges for the oral health services which need to be examined and addressed.

Older Population of Ireland

Age	Number	%
65-69	143,396	30.6
70-74	119,152	25.5
75-79	92,466	19.8
80-84	64,884	13.9
85+	48,028	10.3
Total 65+	**467,926**	**100.0**

Source: CSO 2006

2.3. Healthy Mouth, Healthy Body

Maintaining a natural, functional dentition of more than 20 teeth into old age plays an important role in having a healthy diet rich in fruits and vegetables, a satisfactory nutritional status, and an acceptable body mass index (Marcenes *et al*., 2003). Oral health problems, whether due to missing teeth, ill-fitting dentures, dental decay, gum disease, or infection, can cause older people to have difficulty eating, and can force them to adjust the quality, balance and consistency of their diet (Vargas *et al*., 2001). Such dietary restrictions can compromise nutritional status over time and place older people at health risk (Chauncey *et al*., 1984).

Oral disorders (particularly gum disease) have also been linked to an increased risk of:

- heart disease (Beck & Offenbacher, 1998; Beck *et al*., 1996; DeStefano *et al*., 1993; Okoro *et al*., 2005);
- stroke (Beck & Offenbacher, 1998; Beck *et al*., 1996; Grau *et al*., 1997);
- hardening of the arteries and blood clots (Slavkin & Baum, 2000);
- pneumonia and other respiratory diseases (US Dept. of Health and Human Services, 2000a; Azarpazhooh and Leake, 2006; Mojon, 2002; Scannapieco and Mylotte, 1996: Scannapieco, 1999).

Improved oral hygiene and frequent professional oral health care have been shown to reduce the occurrence or progression of respiratory diseases among high-risk older people living in nursing homes, especially those in intensive care units (Azarpazhooh and Leake, 2006).

In addition to impacting on physical health, oral health also impacts on the psychosocial aspects of quality of life. Our teeth, lips, mouth and jaws allow us to speak, smile, kiss, touch, drink, smell, taste, chew and swallow. Damage to any aspect of the craniofacial complex (teeth, lips, mouth and jaws) has negative implications for self-image, self-esteem, well-being and identity (US Dept. of Health and Human Services, 2000a).

Among adults in Ireland surveyed in 2000-02, older people aged 65+ had the lowest oral-health related quality of life score (Whelton *et al*., 2007a).

3. Oral Health Profile

3.1. Current Picture

The oral health of the older population in Ireland is poor. Based on data from the National Survey of Adult Oral Health 2000-02, 41% of older people possess no natural teeth (i.e. are edentulous) and are reliant on dentures for eating, the most basic of oral functions. Because a large proportion of older people have lost all their teeth, the older person on average possesses only eight natural teeth (out of a full complement of 32 teeth).

Dentures are a prosthetic replacement for natural teeth. A reported 74% of older people wear full or partial dentures to replace the natural teeth they have lost. Among those who wear partial dentures, 35% have dentures that are adversely affecting their oral mucosa. Among those with no natural teeth, 6% do not wear a denture and 48% have dentures that are more than 10 years old. Dentists recommend the regular review and replacement of dentures every 5-10 years.

In 1982, the WHO set the retention of more than 20 natural teeth as a goal for oral health. Only 17% of older people possess more that 20 natural teeth; a mere 3% possess 18 or more sound, untreated and untraumatised natural teeth (18+SUNT).

Dental decay (caries) and gum (periodontal) disease are the two most common oral diseases. The mean number of decayed, missing and filled teeth (DMFT) provides an indication of the level of dental decay affecting a population. Older people, on average, have 25.9 decayed, missing or filled teeth out of a total of 32 teeth. The components of DMFT can be regarded to represent untreated disease (decayed teeth), failed treatment (missing teeth) and successfully treated disease (filled teeth). Among older people, on average, 2% of the total decay experience is untreated (decayed teeth), 88% failed treatment (missing teeth) and 10% successfully treated (filled teeth).

Gum (periodontal) disease mainly affects people who have some natural teeth (dentate). It is a disease which affects the supporting structures of the tooth: the gingivae (or gum), the bone supporting the tooth, and the periodontal ligament which surrounds and attaches the tooth to its bony socket. Loss of attachment and periodontal pocketing are indicators of the presence of gum (periodontal) disease: 68% of older people with some natural teeth have loss of attachment greater than 3 mm and 50% have periodontal pocketing that requires complex periodontal treatment. Only 52% of older people with some natural teeth brush their teeth at least twice a day, as recommended by dentists for the maintenance of good oral hygiene and prevention of oral disease.

Other oral disorders common among older people are temporo-mandibular joint (TMJ) dysfunction, tooth wear, and lesions of the oral mucosa. Among older people in Ireland, 70% suffer some degree of TMJ dysfunction, 7% have tooth wear so severe that the secondary dentine or pulp is exposed, and 30% have lesions in their mouth (including 9.8% with denture stomatitis).

3.2. Differences Within the Ranks

While the general picture of oral health given above is valid for older people in the collective, differences in oral health were found between various sub-groups of the older population:

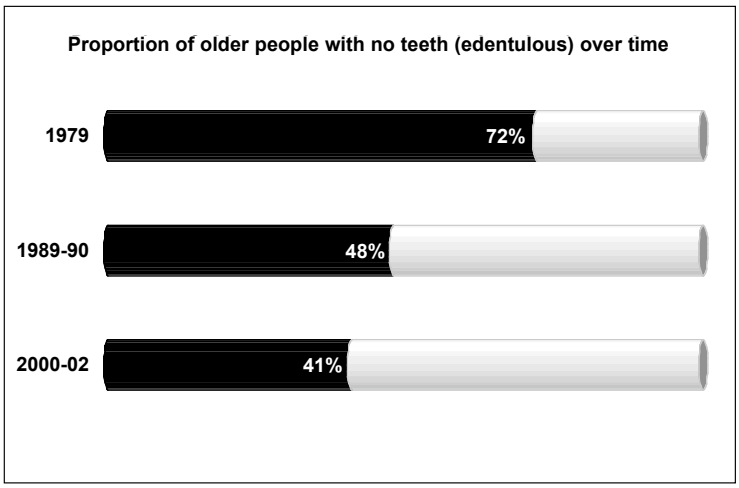
- older females tend to have poorer oral health than older males (though the gap between genders has lessened since 1989-90);
- the socially disadvantaged (represented by medical card holders) tend to have poorer oral health than the socially advantaged;
- older people classified as healthy with no systemic disease tend to have better oral health than older people with systemic disease.

Statistical analysis of the complex relationships between oral health, age, gender, medical card status and water fluoridation showed that age and gender have a significant impact on number of natural teeth present (the average number of teeth possessed by older people decreased as their age increased; women have fewer teeth than men) and that possession of a medical card (social disadvantage) is associated with having fewer teeth.

For older people, the probability of being at high-risk of dental decay increases with increasing age, being female, possessing a medical card, having only a primary level of education and having frequent sweet snacks. Being a regular brusher and/or a regular user of dental services reduces the likelihood of being at high-risk of dental decay.

3.3. Oral Health has Improved Over Time

Despite this picture of poor oral health among the present older population, there were tremendous improvements in the oral health of older people in the three decades between the first and latest national surveys. The first national survey in 1979 reported that 72% of older people were completely toothless (edentulous). The second national survey in 1989-90 revealed a dramatic drop in this statistic to 48%. The proportion of older people with no teeth continued to decline, though at a slower rate, to 41% in 2000-02.



Oral Health Profile of Older People in Ireland: 1989-90 and 2000-02

	1989-90	2000-02
Total loss of natural teeth (edentulousness)		
percentage of subjects who are edentulous (toothless)	48%	41%
Number of natural teeth present		
mean number of natural teeth present	7	8
percentage of subjects in possession of more than 20 natural teeth	11%	17%
percentage of subjects in possession of 18 or more sound, untreated, untraumatised natural teeth (18+ SUNT)	2%	3%
Wearing of dentures		
percentage of dentate and edentulous (toothless) adults wearing any full or partial denture	57%	74%
proportion of those wearing partial dentures whose denture is adversely affecting the oral mucosa.	24%	35%
proportion of edentulous (toothless) adults wearing no dentures	21%	6%
Tooth Decay		
mean number of decayed, missing (all reasons) and filled teeth (DMFT)	27.3	25.9
% of DMFT due to decayed teeth (DT)	4%	2%
% of DMFT due to missing (all reasons) teeth (MT)	90%	88%
% of DMFT due to filled teeth (FT)	6%	10%
Gum (Peridontal) Disease		
percentage of dentate subjects with maximum loss of attachment >3mm		68%
percentage of dentate subjects with periodontal pocketing		50%
TMJ Dysfunction		
percentage of subjects with TMJ Dysfunction (MHI Total Dysfunction Score >0)		70%
Tooth Wear		
percentage of dentate subjects with severe tooth wear (secondary dentine or pulp exposed)		7%
Lesions of the Oral Mucosa		
percentage of subjects with lesions of the oral mucosa		30.4%
percentage of subjects with denture stomatitis		*9.8%*
percentage with acute necrotising ulcerative gingivitis		*0.8%*
percentage of subjects with denture granuloma		*1.6%*
percentage of subjects with candidiasis		*1.5%*

Source: NSAOH

The oral health goal set for older people by the Dental Health Action Plan in 1994 was that by the year 2000, not more than 42% of the older population (65+) should have no natural teeth. This goal was met for older people as a whole (41%), but not for older females (46%) or the socially disadvantaged as represented by those with medical cards (46%).

Between 1989-90 and 2000-02, the mean number of natural teeth among older people also increased from seven to eight. There was a jump of 17% in the proportion of all older people wearing dentures, mainly due to the increased wearing of partial dentures - an indication that a greater proportion of older people were receiving dental services. Service provision to those with no teeth also improved: The proportion of the toothless (edentulous) wearing no dentures dropped from 21% to 6%.

The mean number of decayed, missing and filled teeth (DMFT) dropped from 27.3 to 25.9. On average, the proportion of total decay experience (DMFT) contributed by decayed teeth and by missing teeth each dropped by 2%, and the proportion contributed by filled teeth increased by 4%.

Despite this positive change in dental treatment patterns - more teeth treated by fillings and less by extraction - missing teeth remains by far the largest component of the decay experience among older people: As of 2000-02, for every 100 teeth that had been decayed in older people, 88 had been extracted.

3.4. As the Young Become Old - A Look to the Future

The oral health profile of the tomorrow's older people is dependent on the oral health of today's young. Water fluoridation of public piped water supplies was introduced in Ireland in 1964. An estimated three-quarters of the population in Ireland are serviced by fluoridated public piped water supplies. Fluoridated toothpastes entered the Irish market in the early 1970s. Both of these measures have resulted in improved levels of oral health in Ireland, especially among children and younger adults with exposure to water fluoridation since birth (DoHC, 2002).

The table on the right shows key indicators of oral health for adults aged 16-24, 35-44 and 65+. Two things are obvious: Over time, oral health has improved for all groups; at a given point in time, younger adults tend to have better oral health than older adults.

When the current generation of under 40's who grew up with water fluoridation reach their mid-60's, there will be a dramatic improvement in the oral health profile of older people.

Oral Health Profile of Adults by Age Group and Year

	Age Group		
	16-24	**35-44**	**65+**
Percentage of subjects who are edentulous (toothless)			
1979	0%	12%	72%
1989-90	0%	4%	48%
2000-02	0%	1%	41%
Mean number of natural teeth present			
1989-90	27.2	21.0	7.3
2000-02	28.1	25.2	8.5
Tooth Decay - mean DMFT			
1989-90	7.4	19.0	27.3
2000-02	4.9	15.0	25.9

Source: NSAOH

We can anticipate a growing population of increasingly dentate older people possessing a greater number of teeth. It is reasonable to predict that as less teeth are extracted the demand for dental services to repair, restore and protect teeth among older people will increase and that the nature of dental services required will change.

3.5. Older People in Residential Care

An estimated 4% of the older population are in residential care (i.e. HSE extended care units, HSE welfare homes, voluntary homes/hospitals for older people, voluntary welfare homes, private nursing homes). Among the “old” older people, 11% of those aged 80+ and 16% of those aged 85+ are in residential care[1].

[1] Based on Census 2006 and DoHC *Long-Term Stay Statistics for 2005.*

The *Long-Term Stay Statistics for 2005* published by the Department of Health and Children reported a total of 19,320 residents, 94% of whom were older people. Two out of every three residents were 80 years old or older. Seventy two percent of those in residential care are high or maximum dependency patients (i.e., require assistance for most or all activities of daily self-care), 52% have physical disorders and 36% have mental disorders.

Information on the oral health profile of older people in residential care is very limited. Only three clinical studies, with restricted geographical coverage, have been carried out since the 1980s. These studies - each one conducted in a different decade - point to a low and static level of oral health among older people in residential care: The proportion of residents with no teeth (% edentulous) reported by the separate studies were at the level of toothlessness prevalent among older people in Ireland in 1979 (Lemasney & Murphy, 1984; Daly, 1998; O'Farrell *et al*., 2005).

A non-clinical nationwide survey of long-term residential units (Whelton *et al*., forthcoming) carried out by the OHSRC on behalf of the DoHC and the HSE reported that 60% of residents are fully dependent on staff for their daily mouth care needs. The reported barriers encountered by staff in providing such care included:

- patient cooperation;
- time pressure of (other) normal routines (i.e. staff shortages);
- inadequate training or awareness of the importance of daily oral hygiene.

A majority of the units encountered difficulties in getting dentists to provide routine care to residents on a regular basis; dentists mainly provided emergency services for the treatment of patients in pain. Eighty percent of units indicated a need for the provision of dentures/extractions and denture repairs, while some 60% reported a need for oral hygiene instruction and scaling and polishing services.

Residential care units harbour a concentration of frail older people, a large proportion of whom have physical or mental disorders that compromise their oral health and impact on their access to dental services. Levels of oral health among residents are much lower than prevalent in the general population.

4. Treatment Needs and Utilisation of Services

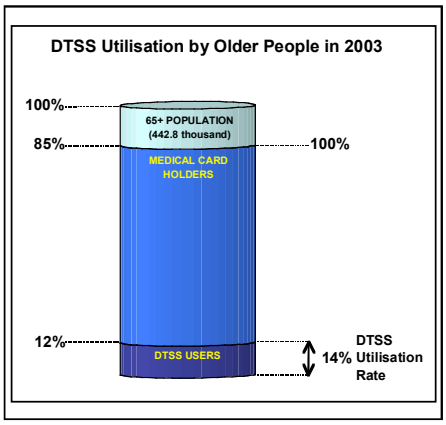
4.1 Treatment Needs

Based on data from the National Survey of Adult Oral Health 2000-02, 79% of all older people have a clinical need for dental (any type) treatment. Denture-related treatment is required by 56% and gum disease (periodontal) treatment by 24%. Gum disease affects those with some natural teeth (dentate). Among older people with natural teeth, 50% required complex periodontal treatment (e.g., root planing or surgical intervention). These high levels of treatment need among older people indicate a low level of dental services utilisation. When questioned on their frequency of dental visits within recent years, 22% of older people with natural teeth and 71% with no natural teeth replied they never visit the dentist.

The findings presented here on treatment need reflect the decisions made by a dentist on examining survey participants in a clinical setting. No radiographs were taken and the teeth were not dried during the survey examinations, thus these findings are likely to underrepresent the level of disease which would be diagnosed in a full or more thorough clinical examination. It should be noted that clinically assessed treatment need may not tally with actual demand for services: As shown in Section 5.1 - Attitudes Towards Dental Care, many older people have a preference to avoid dental treatment, a factor which affects their demand for services.

4.2. Medical Cards and the DTSS

A very high proportion of older people hold medical cards. Sixty five percent of the older people surveyed in 2000-02 held medical cards. Blanket eligibility to a medical card for all persons aged 70 and older, regardless of income, was introduced on 1st July 2001 while the survey was in progress. Seventy percent of those aged 70+ examined during the NSAOH 2000-02 prior to this date held medical cards that were means-tested or issued on the grounds of undue financial hardship owing to medical or other exceptional circumstances. Considering that less than a third of the total Irish population hold medical cards, older people are a disadvantaged group. Of those aged 70+ examined after this date, 96% held medical cards, an indication of the widespread uptake following the introduction of blanket eligibility to a medical card for those aged 70+.



Adults with medical cards are entitled to dental services via the Dental Treatment Services Scheme (DTSS). It is estimated that 85% of older people aged 65+ held medical cards in 2003 and, hence, had access to the DTSS. However, in 2003 only 14% of medical card holders aged 65+ used the DTSS (Whelton *et al*., 2007b).

4.3 Treatment Needs vs. Provision

A detailed comparison of treatment need (as predicted by the NSAOH 2000-02) and the treatment actually provided by the DTSS (as estimated from the DTSS payments database) during the survey period (June 2000 to October 2002) revealed that:

- Older adults aged 65+ had significantly higher unmet treatment needs than younger adults aged 16-24 and 35-44;
- Unmet dental treatment need amongst those aged 65 and over was largely accounted for by extractions and other treatments not covered by the DTSS (e.g., bridges, crowns, root canal treatment);
- Older people with natural teeth (dentate) had, on average, a greater requirement for fillings and extractions and a much greater need for all dental services than all older people (dentate and edentulous);
- Unmet dental treatment need is much greater for older people defined as non-regular users compared to regular users[2].

A key finding for the younger age groups was that once an individual accesses the DTSS, their need for dental treatment largely tends to be met. This did not hold true, however, for older adults. Older adults who were regular DTSS users had significant unmet needs. A large portion of these unmet needs were for advanced restorative treatment not covered by the DTSS (Whelton *et al*., 2007b).

Two major concerns are highlighted by these findings:

- Older people have a very low utilisation rate of the DTSS.
- The treatment services provided by the DTSS do not adequately meet the needs of older people.

4.4. Other Dental Schemes

The Dental Treatment Benefit Scheme (DTBS), operated by the Department of Social and Family Affairs, subsidises dental treatment for those who have made a requisite number of pay-related social insurance (PRSI) contributions. While the medical card DTSS, operated by the Department of Health and Children, provides all covered treatments at no charge to the patient, the PRSI benefit scheme subsidises covered treatments according to a fixed scale of charges and the patient pays the dentist directly for any outstanding balance due.

Though a few other work-related dental benefit schemes exist (e.g. armed forces), the DTSS and the DTBS are the two main dental benefit schemes in operation in the country. Those who do not have dental benefits or other form of dental insurance must pay for dental services privately.

[2] A regular user is defined “a subject who attended the dentist at least once over the last two years” (Beirne, 2003)

5. Impediments to Service Utilisation: Demand-Side Barriers

A host of intertwined factors contribute to the low utilisation of dental services among older people. Among these are their attitudes towards oral health, their past treatment experience; their awareness of their entitlements to dental services; their ability to pay for services not covered by benefits or insurance; their medical complications; their mobility and how easily they can get to a dental clinic; whether they have hearing difficulties and can communicate with a dentist; and whether they have a dentist.

5.1. Attitudes Towards Dental Care

Older people's attitudes towards dental care are in large part forged by their past experiences. The present generation of older people grew up during a period when extraction was the common practice and dentists were feared; when the cost of dental treatment was prohibitive for many; and when dental visits were mainly necessitated by pain and visits for check-ups were not common.

Hence, members of this age group have developed less favourable dental attitudes and have lower oral health expectations than those prevalent among the younger age cohorts (Whelton *et al.*, 2007a).

The table overleaf presents a profile of the behaviour patterns and attitudes towards dental visits among older people surveyed as part of the NSAOH in 2000-02. While older people with natural teeth (dentate) have better attitudes towards oral health care than those with no teeth (edentulous), only 44% of them attend the dentist regularly (every two years or more often). Among older people with no teeth, 71% had not visited the dentist in recent years. Only 38% of those with teeth attend the dentist for routine check-ups; almost none (2%) of those who have lost all their teeth go to the dentist for an oral health check-up. The majority of older people with teeth only go to the dentist when they are in pain and have a problem, or when they feel they need treatment. Those with no teeth tend to not visit the dentist at all, unless they are in need of new dentures or experience pain.

As children, these older people also went to the dentist only when they had problems (>50%); very few attended for routine check-ups. About one out of every five did not see a dentist when they were young.

The prevailing opinion among older people, especially those with no teeth, is that they have no need to visit a dentist. When non-regular dental attendees were asked why they did not visit a dentist regularly, “no need” was cited by 95% of those with no teeth compared to 83% of those with natural teeth. It is a common misconception that if you have no teeth you don't need a dental check-up. Oral lesions were found in 30% of older people examined. Many of the conditions recorded (e.g., acute necrotising ulcerative gingivitis - 0.8%, denture stomatitis - 9.8%, candidiasis - 1.5%) could benefit from clinical treatment. Regular dental visits would also enable opportunistic screening and early detection of oral cancer.

Behaviour Patterns and Attitudes regarding Dental Visits among Older People: 2000-02

	Dentate *(With teeth)*	Edentulous *(No teeth)*
Over the last few years how often have you attended the dentist?		
Every six months or more often	9%	0%
Every 6-12 months	20%	1%
Every 12-24 months	15%	1%
Every 2 years/more	8%	7%
Occasionally	25%	20%
Never	22%	71%
When you do go the dentist, what is the reason for you going? *(response options for edentulous in parenthesis)*		
For check-up of teeth (mouth)	38%	2%
I feel I need treatment (need new dentures/easing of dentures)	22%	41%
In pain/problem	37%	18%
Never visit	3%	40%
Why do you not visit a dentist regularly? *(non-regular dental attendees)*		
No need	83%	95%
Fear	16%	1%
Cost	13%	5%
Other	18%	6%
Reasons for visiting a dentist when a child (under 16 years)		
For check-up	12%	8%
When called to school dentist	19%	16%
Only with trouble	51%	55%
Never attended	18%	21%
How often do you think you should actually go to the dentist?		
Every 6-12 months	75%	18%
Every 18 months	6%	3%
Every 2 years	5%	13%
When in pain/problem	10%	25%
Don't know	4%	25%
Never	-	17%
When were you last at a dentist?		
	(n=406)	*(n=280)*
<1 year	49%	9%
1-2 years	19%	11%
2-3 years	8%	10%
>3 years	24%	70%

Source: NSAOH

When asked how often they thought they should visit a dentist, 75% of those with teeth felt that they should make a dental visit at least every 12 months, but only 49% of them did so. This large discrepancy between opinion and actual practice is a strong indication that other barriers to care, over and above lack of awareness, are in play for older people with teeth.

Older people with no teeth appear to be less well informed regarding the need for dental visits - 25% did not know how often they should visit the dentist, 17% replied “never” and another 25% replied “when in pain/problem”. For older people with no teeth, not being informed of the importance of oral health care is in itself a major barrier to utilisation of services.

It can be conjectured that the differences in oral health awareness (and consequently oral health) between those with teeth and those with no teeth is related to how recently they had their last contact with members of the dental profession. Just under half (49%) of those with teeth had been to the dentist within the previous year, while 70% of those with no teeth had not visited a dentist in over 3 years. Anecdotal stories from the focus groups reveal that many of those with no teeth had not made a dental visit since they received their original set of full dentures: *“I've never been since I got these, so it must be 60 years anyway.”*

The focus group discussions and interviews with older people supported the findings of the NSAOH 2000-02:

- Older people generally avoid the dentist unless they have an absolute necessity for treatment (pain/problem).
- Older people tend not to be aware of the importance of regular oral check-ups in terms of the potential impacts of oral-ill health on their general health.
- Older people experience other barriers, in addition to lack of awareness, which impede their access to dental care.

A summary of the issues raised by older people during the focus group discussions and individual interviews is given in the table overleaf. Both the focus group discussions and individual interviews were guided by a semi-structured schedule of discussion topics, leading from broader health and quality-of-life issues towards a focus on teeth and dentures and access to oral health services. This table shows the main issues raised by the participants and interviewees within each topic and section, and the number of focus groups and of interviewees expressing these issues. For example, in the section on access to services and treatment, visits to the dentist were discussed: One or more participants in all 12 (100%) focus groups and 19 (63%) of the older people interviewed expressed that their visits to the dentist were mainly for emergency treatment. As focus groups and interviews are qualitative, rather than quantitative, these numbers represent only the frequency with which a particular issue was raised among the focus groups and individuals interviewed, and do not convey the strength of feeling or level of difficulty associated with each issue.

Summary of Issues Raised by Older People during Focus Group Discussions and Interviews

Section	Topic	Issues	Groups n=12 (%)	Individuals n=30 (%)
Older People & Health	How older people are regarded by society	Improvement in services	10 (83%)	11 (37%)
		Waiting lists for hospitals	5 (42%)	6 (20%)
		Reduced hours for home helps	3 (25%)	0 (0%)
	Being healthy	Ability to do daily tasks	9 (75%)	4 (13%)
	Attitudes to oral health	Positive change in treatment methods	8 (67%)	12 (40%)
Quality of Life	Negative impacts	Total	11 (92%)	17 (57%)
		Eating	8 (67%)	8 (27%)
		Appearance & smiling	4 (33%)	2 (7%)
		Speech (new dentures only)	3 (25%)	0 (0%)
		Comfort	7 (58%)	12 (40%)
		Eating in front of others	5 (42%)	0 (0%)
		Embarrassment	5 (42%)	0 (0%)
	Positive impacts	Total	7 (58%)	3 (10%)
		Eating	5 (42%)	3 (10%)
		Appearance & smiling	4 (33%)	0 (0%)
		Speech	3 (25%)	0 (0%)
		Comfort	2 (17%)	0 (0%)
Teeth & Dentures	Wearing dentures	Still have some of own teeth	9 (75%)	12 (40%)
		Never wear lower set	9 (75%)	2 (7%)
		Take them out at home	3 (25%)	1 (3%)
	Age of dentures	Dentures more than 30 years old	9 (75%)	6 (20%)
		New dentures in last 5 years	5 (42%)	6 (20%)
	Problems	Sore gums / mouth / lips	8 (67%)	12 (40%)
		Badly fitting dentures	7 (58%)	9 (30%)
Access to Services & Treatment	Visits to dentist	Fear of dentists	9 (75%)	1 (3%)
		No Dentist	12 (100%)	17 (58%)
		In emergencies	12 (100%)	19 (63%)
		Regular check-ups	7 (58%)	6 (20%)
		Awareness of problems related to oral ill-health	2 (17%)	0 (0%)
	Dental treatment schemes	Having to pay affecting seeking treatment	7 (58%)	4 (13%)
		Aware of medical card dental scheme for over 70s	10 (83%)	15 (50%)
		Feel badly informed	6 (50%)	15 (50%)
		Not satisfied with last treatment	5 (42%)	1 (3%)
		Medical card treatment inferior	6 (50%)	1 (3%)
	Barriers and ways of improving access to services	Difficulty travelling to dentist	9 (75%)	4 (13%)
		Mobile dental units	6 (50%)	2 (7%)
		Dentists visiting community centre, etc.	10 (83%)	3 (10%)
		Transport to dentist	6 (50%)	4 (13%)

5.2. Awareness of Entitlements

In order to avail of service entitlements, one must first be aware that these entitlements exist. The bulk of older people have medical cards: While doctors are visited regularly, dentists are not. Only 40% of older people with medical cards surveyed in 2000-02 were aware that they were covered for dental treatment (Whelton *et al*., 2007a). Half of the focus groups included people who were unaware or felt badly informed about the services available to them; half of the older people interviewed did not know that the medical card entitled them to dental treatment via the DTSS.

Several focus group participants emphasised that finding information on their entitlements is a difficult process for older people, particularly for those who are not in the know: *"When you don't know anything about it, you don't know where to go."*

5.3. Satisfaction with Services

There is a high level of satisfaction with dentists and dental surgeries in general. However, among older medical card holders with teeth surveyed in 2000-02, 10.3% were not satisfied with the dental services they last received and 11.2% expressed dissatisfaction with the range of treatments covered under the DTSS (Whelton *et al*., 2007a).

Many focus group participants were happy with the quality of treatment and aftercare they received on the medical card. However, in half of the focus groups, older people voiced the sentiment that medical card patients received inferior quality of dentures and treatment to that provided to paying patients, the inference being that the medical card does not buy the same quality of care that private patients receive. This sentiment may not be entirely unfounded. During interviews with General Dental Practitioners (GDPs), a number of dentists intimated that it was difficult for them to provide the same level of care to medical card patients at present DTSS fee rates as they provided to paying patients. A common view among the GDPs was that the DTSS fee levels were not commensurate with the time and effort involved in providing treatment to older patients, who can be difficult to treat and whose treatments can be difficult. An overwhelming 73% of the GDPs surveyed ranked the inadequacy of DTSS fee levels as one of the three most important barriers they encountered in providing treatment to older people.

Time restrictions on the refilling of teeth and replacement of dentures (i.e., treatments covered) were also cause for dissatisfaction with the DTSS. Older people who were not happy with the fit of replacement dentures obtained under the medical card felt their only recourse was to wait, as the DTSS only provides for the replacement of dentures every five years.

5.4. Cost of Treatment

The cost of dental treatment was cited by 5% of older people with teeth and by 13% of those with no teeth in the national survey as their major reason for not going to the dentist regularly. Not being able to afford dental services was an issue raised by participants in seven of the 12 focus groups. Among the GDPs surveyed, more than two-thirds reported that they "often" and "sometimes" provide *pro-bono* treatment to older people for which they are not paid.

Based on 2003 estimates, however, some 85% of older people possess medical cards and can avail of free dental treatment under the DTSS. Thus, for medical card holders, the cost of dental treatment can only be an issue if:

- medical card holders are not aware they can avail of free dental services under the DTSS;
- the range of services covered by the DTSS does not adequately meet the dental treatment needs of medical card holders.

As discussed in earlier sections (5.2 - Awareness of Entitlements; 4.3 - Treatment Needs vs. Provision), both statements are valid. Many medical card holders are not aware of their DTSS entitlements, and a large portion of the unmet treatment needs of older people are not covered under the DTSS. Among GDPs surveyed, 9% "often" and 41% "sometimes" provide additional treatment not covered by the DTSS to their older DTSS patients, which are paid for privately. Fifty-eight percent of the GDPs surveyed ranked the inadequate range of services covered by the DTSS as one of the three most important barriers they encountered in the provision of treatment to older people.

The issue of cost also calls attention to older people under the age of 70 with no medical card or other dental insurance cover and of limited means. For these people, gaining access to dental services is a waiting game. It was common among the focus group participants with no dental benefits or insurance cover to postpone seeking dental treatment until they turned 70 and became eligible for a medical card; as one participant said - *"but 65 to 70 is a long time for people without a medical card and benefits, it's a long time."*

5.5. Other Barriers

Though older people may say they see no need to visit a dentist or that they are not able to pay for dental treatment, other underlying reasons often exist that act in combination to effectively deny them access to dental care.

Other barriers to dental care raised by older people during the focus group discussions included:

- difficulty getting to the dentist caused by their reduced mobility (e.g. difficulty walking, requiring a wheelchair);
- cost of transport to the dentist (taxi fare) being prohibitive, particularly if they lived in rural areas and had a distance to travel to the dentist;
- requiring a companion to accompany them to the dentist;
- difficulty obtaining suitable and timely dental appointments;
- being on prescribed medications (e.g. anticoagulant medication);
- hearing and/or speaking difficulties which hamper communication with the dentist;
- fear of the dentist (reported by 16% of older people with teeth as a primary reason for not attending the dentist during the 2000-02 survey);
- not having a dentist or difficulty in finding a dentist who would treat them (reported by 10% of older people with teeth and 7.6% without teeth during the 2000-02 survey).

These other barriers can broadly be categorised into ***ageing-related impediments*** (reduced mobility, hearing/speaking difficulties, medical complications, need for companion) and ***access-a-dentist difficulties*** (cost of transport to dentist, distance to dental clinic, getting timely appointments, finding dentist who would treat them under the dental schemes).

5.6. Suggestions by Older People

Suggestions put forward by focus group participants to overcome some of the access barriers they identified included:

- use of a mobile dental unit (akin to a mobile library);
- dental visits to older people at day-care centres, community centres and sheltered accommodation centres, backed by a specific government policy, to improve older people's access to information on services and, if domiciliary treatment was not possible, to organise appropriate dental appointments for those who need treatment;
- a scheme to support transport costs to the dentist (similar to the scheme whereby the HSE pays for transport cost of diabetes sufferers to attend regular three-monthly appointments with a podiatrist at a health centre).

6. Dental Services

The dental profession includes dentists, dental hygienists, dental technicians and dental nurses. The dentist provides treatment of the teeth and gums and is responsible for the oral health of patients; dental hygienists, dental technicians and dental nurses are auxiliaries to the dentist in the provision of oral health care.

To practice dentistry in Ireland, one must be on the Irish Register of Dentists. As of November 2006, there were 2,416 dentists registered in Ireland. Bearing in mind that not all registered dentists are practicing dentists[3], there is one registered dentist for every 1,755 persons in Ireland. The majority of dentists work in the private sector, and the remainder in the public sector. Dental practitioners in the private sector operate on a fee-per-item basis; dental surgeons in the public sector are salaried by the government and patients are not charged for their services. General dental practitioners (GDPs) comprise the bulk of private sector dentists and are the main providers of primary dental care.

6.1. The HSE Public Dental Service

The HSE Dental Service is mandated with the oral health care of children under the age of 16 years, adult medical card holders, patients in HSE hospitals and institutions, and special needs groups. The HSE Dental Service operates through a network of 32 Local Health Offices (LHOs) in four administrative regions (Dublin Mid-Leinster, Dublin North-East, West, and South). The principal dental surgeon (PDS) in each Local Heath Office is responsible for the management of public dental services within his/her respective area.

As of the end of December 2005, there were 365 whole-time equivalent public dental surgeons employed by the HSE. Because of its limited manpower, the HSE-salaried dental service prioritises the care of school-age children and special needs groups. The care of adult medical card holders is contracted out through the DTSS to general dental practitioners in the private sector.

Dental Professionals Employed by the HSE - December 2005
(All numbers as rounded whole time equivalent)

Dental Consultants/Specialists	54
Dental Surgeons	365
Dental Hygienist	59
Dental Technicians	7
Dental Nurse/Assistants	570

Source: Department of Health & Children Personnel Census

Among the 31 PDSs surveyed, only 12 PDSs (39%) reported that the treatment of older people was included in their annual service plan. The services planned included domiciliary visits to HSE residential care units, clinic-based DTSS after-hours/evening sessions, care of older people under their 'Special Needs' remit and, in three areas, oral health screening of older people in residential units.

3 Some registered dentists work as administrators, researchers or are specialists, and thus donot provide primary dental care; some registered dentists presently work outside of Ireland or have retired but still maintain their registration.

Nonetheless, 55% of PDSs reported that HSE-salaried dentists in their respective areas provide clinic-based treatment (mainly during after-hours/evening DTSS sessions) to older people on a routine basis, and 94% on an emergency basis. Similarly, 42% of the HSE service areas engaged in domiciliary care (mainly in HSE residential care units) on a routine basis and 97% on an emergency basis.

A resounding majority of PDSs (73%) were of the opinion that the present priority (care of children) of the HSE-salaried service should not be shifted towards providing more care for older people. The roles perceived for the HSE-salaried dental service with regard to older people remain centred on the provision of care for medical card holders unable to access the services of GDPs via the DTSS, for patients in institutions and for older people with special needs arising from their age or disabilities; the provision of domiciliary services; oral health promotion; and screening for oral health problems.

6.2. General Dental Practitioners

General Dental Practitioners (GDPs) are the principal providers of primary dental care to the general population. GDPs are also contracted by the Government to deliver DTBS and DTSS services.

Based on the number of dentists on the Dental Register as of November 2006 and on the ratio of GDP to non-GDP returns from the survey of GDPs carried out by this research, it is estimated that there are between 1,400 and 1,600 GDPs[4] in active practice in Ireland, or one GDP on average for every 312 older persons.

In terms of how they are paid for their services, GDPs have three categories of patients:

- private patients - dentist paid directly by patient;
- PRSI patients - dentist paid a set amount or percentage of fees by the Department of Social and Family Affairs in accordance with the DTBS schedule of subsidies, patient pays any balance on treatment fees owing;
- medical card patients - dentist paid fully by DoHC according to the DTSS schedule of fees, patient pays no fees.

As over 52% of adults have PRSI benefits and approximately 27% have medical card benefits (Whelton *et al*., 2007a), most GDPs are listed on the PRSI and DTSS register of dentists. Among the GDPs surveyed, 85% held DTSS contracts.

From the point of view of the dentist, there is no material difference between private and PRSI patients: Dentists apply the same service fees to private and PRSI patients, the only difference being that part of the payment for PRSI patients must be claimed from the Government.

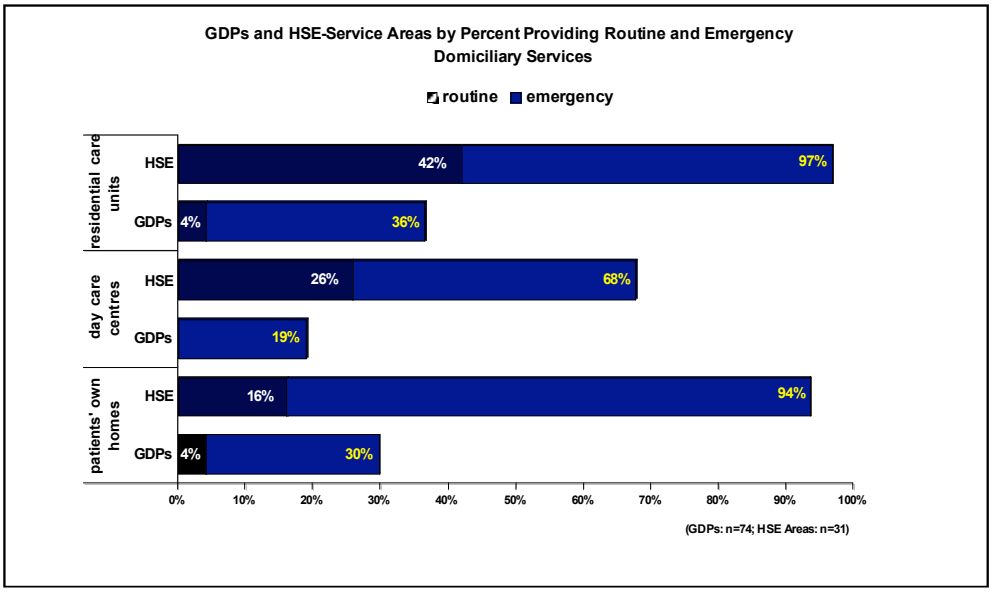
4 The figure for GDPs in active practice in 1999 published in a report commissioned by the Department of Health and Children to review the need for dental specialisation in Ireland was 1,000 GDPs (Gelbier, 2002).

With regard to medical card patients, however, GDPs are paid according to the DTSS schedule of fees, which may differ from the schedule of fees they apply to their private/PRSI patients. Thus, while DTSS patients may be an important source of income for the majority of dentists, the treatment of DTSS patients may not be as financially rewarding as the treatment of private/PRSI patients. The majority (85%) of older people are DTSS patients.

When asked in the questionnaire survey to rank patients categorised into age groups 0-4 years, 5-12 years, 13-18 years, 19-25 years, 26-40 years, 41-64 years and 65+ in order of their preference to treat, GDPs in general were found to have a low preference for treating older people aged 65+. Only young children aged 0-4 and 5-12 were of a lower preference to treat than older people. When asked if they would like to increase the number of older people attending their practice, 61% of GDPs replied NO and only 39% YES.

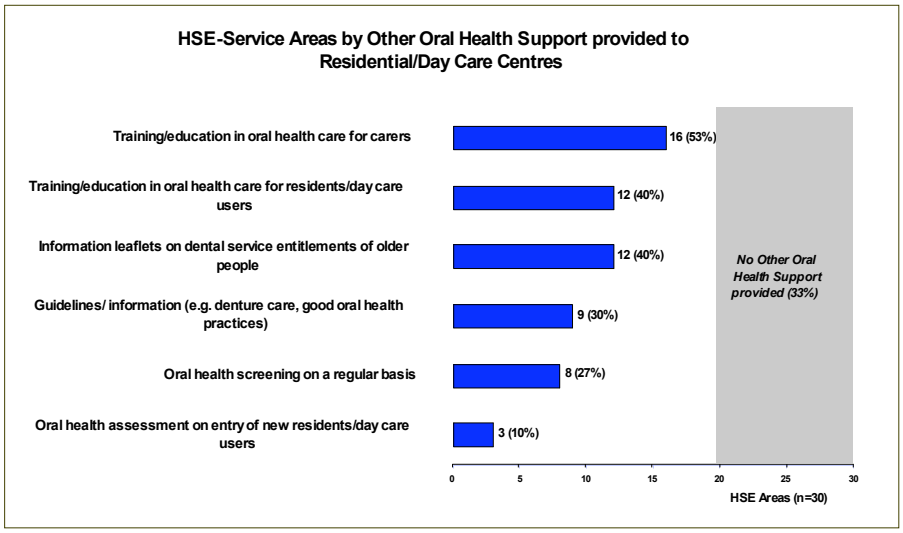
6.3. Domiciliary Services

Dental services are normally provided in a clinic-based setting. While the mainstream of older people can avail of clinic-based services, there remains a segment of the older population who, by virtue of their advanced age and/or medical or other complications, cannot access care in a clinic-based setting. A concentration of older people who are not able to access clinic-based services may be found in long-stay institutions (i.e., HSE extended care units, HSE welfare homes, voluntary homes/hospitals for older people, voluntary welfare homes, private nursing homes). An estimated 4% of the older population are in residential care. Within the community, some older people are housebound or have great difficulties travelling to a dentist. This segment of the older population would benefit from domiciliary services.



Few GDPs engage in domiciliary care. Among the GDPs surveyed, only 4% provided domiciliary care on a routine basis. On an emergency basis, only 36% of GDPs surveyed provided domiciliary care to older people in residential care, 19% in day care centres and 30% in patient's own homes.

The HSE-salaried dental service is the main provider of domiciliary dental care. However, as with GDPs, the HSE dentists mainly engage in reactionary emergency-based domiciliary care, as distinct from preventive care or oral health promotion. While almost all HSE-service areas provide domiciliary care to older people on an emergency basis (97% in residential care units, 68% in day care centres, 94% in patient's own homes), less than half of the HSE-service areas provide domiciliary care to older people on a routine basis. HSE oral health promotion activities in residential care and day care centres were reported by only 53% of the PDSs surveyed.



7. Impediments to Service Provision: Supply-Side Barriers

To gain insight into the barriers affecting service provision to older people and how these barriers could be overcome, the opinions of both private sector GDPs and public sector PDSs were polled through the questionnaire survey. The table below shows the top five responses (GDPs on the left, PDSs on the right) to the questions:

- What are the top three most important barriers to the provision of dental treatment to older people?
- What are your top three most important suggestions to improve oral health services to older people?
- What are the top three most important actions the HSE should undertake to increase the uptake of dental services by older people?

OPINION POLL of GDPs and PDSs on Service Provision to Older People: Most Important Barriers, Suggestions and HSE Actions

GENERAL DENTAL PRACTITIONERS		Rank		HSE PRINCIPAL DENTAL SURGEONS
Most important barriers to the provision of dental treatment to older people				
(n=62)			*(n=30)*	
DTSS fee levels are not adequate	73%	1	83%	Inadequate manpower
DTSS range of services is not adequate	58%	2	33%	Time-consuming/difficult to treat older people
Medical complications of older people	50%	3	30%	Medical complications of older people
Older people don't come in for check-ups/treatment	18%	4	27%	Inadequate training of clinicians in the care of older people
Time-consuming/difficult to treat older people	16%	5	20%	DTSS fee levels are not adequate
Most important suggestions to improve oral health services to older people				
(n=73)			*(n=31)*	
Improve DTSS fee levels	52%	1	61%	Provide training to carers on the oral health care of older people
Improve the range of services covered by DTSS	40%	2	58%	Expand HSE-Salaried Public Dental Service to cater for older people
Expand HSE-Salaried Public Dental Service to cater for older people	38%	3	32%	DTSS financial support/incentives for domiciliary care
Advertise need for regular dental visits (including edentulous elderly)	30%	4	29%	Create a course specialisation on the dental treatment of older people
Provide training to carers on the oral health care of older people	27%	5	26%	Improve DTSS fee levels
Most important Actions the HSE should undertake to increase the uptake of dental services by older people				
(n=65)			*(n=30)*	
Advertise availability of DTSS services for medical card holders	54%	1	67%	Advertise availability of DTSS services for medical card holders
Run oral health awareness campaigns	48%	2	50%	Encourage uptake via Public Health Nurses
Encourage uptake via Family Doctors/GPs	45%	3	40%	Develop domiciliary services
Encourage uptake via mass media (tv/radio/newspapers)	37%	4	33%	Provide incentives for DTSS providers to relocate to rural areas
Develop domiciliary services	29%	5	33%	Run oral health awareness campaigns

7.1. Barriers to Service Provision

For GDPs, the most important barriers encountered in providing services to older people, the majority of whom are DTSS patients, relate to the DTSS. The majority of GDPs cited 'DTSS fee levels are not adequate' (73%) and 'DTSS range of services are not adequate' (58%) as their most important barriers to providing care to older people. The issue of fees bring into question the quality of care that can be provided under the DTSS. In particular, the GDPs interviewed highlighted that the DTSS fees for dentures are not commensurate with the lab fees and other expenses incurred by dentists in the production of high quality dentures, and that the DTSS restrictions on the refilling of teeth within one year and the replacement of dentures within five years prevent the delivery of adequate dental care to older people. Having to obtain prior approval from the HSE (which takes

time) for certain procedures also poses a problem, especially when there is need for immediate treatment. Given their poor oral health profile (Whelton *et al*., 2007a), older people tend to require more complex and expensive treatment services than the rest of the population; a large portion of the unmet treatment needs of older people are for services not covered by the DTSS (Whelton *et al*., 2007b).

For PDSs, the single most important barrier to the delivery of care to older people, either through the Public Dental Service or the DTSS, is 'inadequate manpower' (83%). The recent decision by the Irish Dental Association to withdraw their support for the DTSS is likely to further strain the HSE-salaried service, as it has a statutory responsibility to provide care to medical card holders. Inadequate manpower is a resource constraint that requires the HSE public service to prioritise the allocation of its services. At present, this priority lies with the care of children and special needs groups. PDSs interviewed indicated that they would willingly increase domiciliary services to older people, but could do so only if resources and manpower were made available.

'Medical complications of older people' ranked as the third most cited important barrier among both GDPs (50%) and PDSs (30%). Of the 714 older people examined during the 2000-02 survey, more than one third (35%) were found to have systemic disease[5]: Older people with systemic disease are more likely to require secondary or tertiary care facilities for treatment. Other patient-related barriers regarded as highly important by service providers were that it is time-consuming and difficult to treat older people, that older people don't come in for dental visits and are not aware of their entitlements, and that their treatment outcomes are not as successful as in younger age groups.

'Inadequate training of clinicians in the care of older people' was a major concern for PDSs, but not for GDPs. This is likely related to the fact that the public dental service is concentrated on the care of children, and its services to older people is mainly limited to those with special treatment needs (i.e. older patients with disabilities, residential care patients). Hence, whilst GDPs treat older adults on a regular basis and maintain their skills in this area, many public service dentists treat older people infrequently.

7.2. Suggestions to Improve Services

The perceptions of GDPs and PDSs regarding appropriate means of improving oral health services to older people reflect their main concerns. The most important recommendation for the majority of GDPs was 'improve DTSS fee levels' (52%). This was followed by the recommendation to improve the range of services covered by the DTSS (40%). A number of GDPs and PDSs interviewed suggested the introduction of a domiciliary care fee within the DTSS. Interestingly, two PDSs also proposed the introduction of a higher DTSS fee for the treatment of older people, in respect of the increased time required for their dental care.

5 Based on the American Society of Anaesthesiologists (ASA) classification, 29% had mild to moderate systemic disease (ASA Class 2)and 6% had severesystemic disease that limits activity but is not incapacitating (ASA Class 3. (Whelton, *et al*., 2007a).

For PDSs, the top ranking recommendations were 'provide training to carers on the oral health care of older people' (61%) and 'expand HSE-Salaried Public Dental Service to cater for older people' (58%). Expanding the HSE-salaried service to cater for older people was also a top ranking recommendation for 38% of GDPs (possibly because they have a low preference to treat older people and are disgruntled with the DTSS). Almost all PDSs interviewed were in favour of a specialist post, such as a Senior Dental Surgeon for Gerodontology, to address the demands placed on the HSE-salaried service by the complexity of older patients' treatment needs.

7.3. Actions to Increase Uptake of Services

The majority of GDPs and PDSs both agree that the most important action the HSE should undertake to increase the uptake of dental services by older people is 'advertise availability of DTSS services for medical card holders'. This underscores the poor awareness of older people regarding their entitlements. Other priority recommendations for the HSE Dental Service included running oral health awareness campaigns, encouraging uptake via public health nurses, via family doctors/GPs, via mass media (TV/radio/newspapers) and developing domiciliary services. Prior to the implementation of such measures, the availability and accessibility of services to meet the potential increase in demand for oral care by older people needs to be ensured.

8. Conclusions and Recommendations

As with younger age groups in Ireland, the oral health profile of older people has improved over time. Despite these improvements, oral health levels among older people is still poor. As of the last national survey in 2000-02, 41% had no natural teeth and were completely dependent on dentures for the basic function of eating; the average older person possessed eight (out of a full complement of 32) natural teeth; 79% of all older people had a clinical need for dental treatment.

In respect to their oral health, older people remain a disadvantaged and marginalised group: Older people have the poorest oral health profile, the highest levels of unmet treatment need and the poorest oral health-related quality of life compared to younger age groups.

There is evidently a need for an oral health policy to address the oral health inequities experienced by older people. The DoHC, in collaboration with the HSE and key national stakeholders, will be developing a national oral health policy within the next 12 months. It is imperative that older people are not overlooked in this plan.

The issues that need to be considered for older people include:

- older people's low uptake of dental services:
  - oral health promotion among older people to raise their awareness of oral health and of their DTSS entitlements;
  - oral health promotion by other healthcare professionals and carers who are in frequent contact with older people;
- the adequacy of the DTSS in relation to older people's treatment needs;
- the provision of domiciliary care for those who cannot access clinic-based services;
- the accessibility of service providers to older people;
- integration of care between the dental profession and medical profession.

These issues were discussed with key policy makers and senior government officials, to gain their views on possible options for oral health policy for older people. The policy options presented below emerged from the multifaceted research described in this report and were shaped by the views of older people, service providers and policy makers.

8.1. Older People's Low Uptake of Dental Services: Oral Health Promotion

There are two main reasons for the poor uptake of dental services by older people. Older people, particularly those with no teeth, are generally not aware there is a need to visit the dentist for regular oral health check-ups, and many older people are not aware that the medical card also entitles them to free routine dental care via the DTSS.

It is recommended that a national oral health promotion campaign targeting older people be carried out to raise their awareness of the need for dental visits (even if they have no teeth) and to inform them of their DTSS entitlements.

- *Responsible Agencies: Health Promotion Policy Unit - DoHC, Dental Health Foundation, Population Health- HSE*

The national oral health promotion campaign should be centrally coordinated. Ideally, there should be a designated body with the requisite expertise and provided with adequate resources to map out a well-planned campaign of sustained oral health promotion at all levels - among the older population; among medical and social services professionals who are involved with older people; and among policy makers. Use of the mass media (television/radio/newspapers) would be an option for reaching a wide audience. Possible elements of the campaign could be an Oral Health Awareness Week or an Oral Cancer Week to promote opportunistic screening for oral cancer.

Oral health awareness among other medical professionals and carers who are in frequent contact with older people (e.g. GPs, public health nurses) needs to be raised, as oral health is an integral component of general health, and they would be best positioned to advise older people on a face-to-face basis to visit the dentist.

Hygienists, oral health promoters and oral health education officers should be deployed to nursing homes, day-care centres and other places with a concentration of older people to provide oral hygiene, preventive services and advice within an oral health promotion programme. Health professionals and carers in nursing homes and centres for older people should have standardised, evidence-based training in oral health promotion. These programmes should be established on a pilot basis initially, with input from carers and older people, and should be evaluated from the perspective of carers, older people and oral health outcomes.

8.2. The DTSS

The DTSS is the main vehicle for providing oral health services to older people. In 2003, older people comprised 41% of the DTSS client base. Because older people constitute its broadest client base, the DTSS should be better tailored to meeting their treatment needs. A large portion of the unmet dental treatment needs among the older people surveyed in 2000-02 was for items not covered by the DTSS. At issue here is the DTSS budget, as many of the treatments recommended by dentists for their older patients involve more complex and expensive restorative dentistry.

Based on the NSAOH findings and population growth trends, there will be an increasingly dentate older population with on average a greater number of teeth in an increasingly larger (both in absolute numbers and as a proportion of total population) older population and, hence, an increasing demand for complex restorative dental treatments. Looking to the future, oral health promotion and preventive dentistry measures aimed at children since the 1960s should bring about a much-improved oral health profile among future generations of older people, which hopefully will reduce the demand for

complex restorative treatments. Until then, the treatment needs of the present generation of older people need to be met. At issue here are the resources available to the government and the priority given to maintaining an equitable and acceptable level of treatment services to older people.

GDPs ranked DTSS fee levels and range of services as their most important barriers to providing care to older people. GDPs felt that DTSS fee levels did not provide adequate compensation for quality services and that restrictions imposed by the DTSS prevented them from providing an adequate level of care to patients. Older people also expressed their perceptions that quality of dentures and services provided through the medical card was inferior to that provided to paying patients.

> It is recommended that the DTSS range of services and fee levels be reviewed such that older people are assured an equitable and acceptable level of treatment services.
>
> ■ *Responsible Agency: Health Service Executive*

In particular, an economic evaluation of the costs of providing dentures needs to be undertaken as part of a review of the DTSS fees for dentures. A system of remuneration for domiciliary visits is required under the DTSS.

8.3. Domiciliary services

Among the barriers to care highlighted by older people was their inability to get to a dental surgery. With age, older people experience mobility difficulties. While some of these difficulties can be overcome (e.g. subsidies for taxis, wheelchair-accessible clinics), there are older people who are not able to access clinic-based services and require domiciliary care.

Residential care venues provide a concentration of older people who would benefit from domiciliary care. An estimated 4% of the older population is in residential care. The oral health profile of older people in residential care is considerably poorer than that of the general population.

Residential care centres are governed by quality standards set by the Health Information and Quality Authority (HIQA). These standards are based on *"…the principle that older people in residential care settings should be able to lead full lives that reflect, as far as possible, the lives they led prior to admission…"* Dental care is included within Standard 13: Health of the *Draft National Quality Standards for Residential Care Settings for Older People* (HIQA, 2007).

The HSE-salaried service is the main provider of domiciliary services. However, due to manpower constraints, domiciliary care tends to be provided on a reactionary emergency basis rather than on a proactive preventive routine basis. Standard 13: Health (HIQA, 2007) stipulates *"Each resident's assessed health needs are reviewed and met on an ongoing basis."* Older people in residential care should have an oral health assessment carried out as part of their general health assessment on admittance, followed by a treatment/preventive care plan. This can only be achieved if adequate resources for domiciliary services are made available.

It is recommended that domiciliary services, particularly for older people in residential care, be given greater priority by the HSE dental service.

- *Responsible Agency: Health Service Executive*

The range of domiciliary services could include oral health promotion to both residents and carers, among other initiatives. Incentives for the delivery of domiciliary care by private sector GDPs could also be considered.

8.4. Service Providers

GDPs have a very marked low preference for treating young children aged 0-12. Next to young children, older people are their least favourite group to treat. Among GDPs surveyed, 61% were not interested in increasing the number of older people attending their practice. The recent decision of the Irish Dental Association (IDA) to withdraw its support for the DTSS will have a direct impact on the availability of service providers for older people, the majority of whom are DTSS patients.

The priority of the HSE-salaried service lies with children and the majority of PDSs (73%) are not in favour of shifting their present priority towards providing more care to older people. Considering that young children are GDPs' least preferred age group to treat, there is strong argument for maintaining the HSE's present focus on children. Ensuring good oral health among today's children provides a foundation for good oral health among tomorrow's older people.

However, there is the possibility that although there is a dental service scheme for older people, there will be insufficient service providers. As it stands, the geographical concentration of GDPs in towns puts older people in rural areas at a disadvantage. Reduction in the number of GDPs providing DTSS services would further restrict the availability and accessibility of service providers to older people.

The present impasse with the IDA regarding the DTSS needs to be resolved. Not only should there be a move to increase the proportion of GDPs on the DTSS register, their low preference to treat older people should be addressed with training at both undergraduate and continuing professional development levels (in the treatment of medically compromised older people) and with incentives (to encourage GDPs to take on more older patients). The campaign to get older people to visit the dentist needs to be supported by ensuring the availability of service providers.

It is recommended that appropriate policies and actions be identified and implemented to improve the availability and accessibility of oral health service providers (GDPs) to older people.

- *Responsible Agencies: Department of Health and Children, Irish Dental Association, Health Service Executive, Dental Schools*

The time involved in treating older people, their medical complications, and that treatment outcomes in older people are not as successful as in younger age groups, may be contributing factors to GDPs' low preference for treating older people. Ways to overcome these difficulties need to be considered. These might include continuing education meetings for GDPs on the treatment of older people who have medical complications, are taking a myriad of medications and have fragile dentitions; continuing education for GDPs in the making of dentures; providing incentives to GDPs to take on more older patients.

The capacity of the HSE-salaried service to provide care to older patients with special needs should also be expanded. Almost all PDSs interviewed were in favour of specialist posts (e.g., Senior Dental Surgeon for Gerodontology) to address the demands placed on the HSE-salaried service by the complexity of some older patients' treatment needs.

8.5. Integration with Primary Health Care

The Health Strategy 2001 proposed the setting up of primary care teams involving medical and social services professionals. Dental professionals were seen as part of the wider primary care network, interacting with the primary care teams. Ways to better integrate oral health care into primary care structures should be investigated.

> It is recommended that stronger linkages between dental professionals and other primary care professionals be promoted within the structure of Primary, Community and Continuing Care (PCCC) public services as well as among private sector professionals.
>
> - *Responsible Agencies: Health Service Executive, Department of Health and Children, Dental Health Foundation, Irish Dental Association, Irish Medical Organisation*

Dental practices and HSE dental services should be encouraged to form alliances with primary care teams or medical practices, to facilitate the cross referral of patients from medical to dental care and vice versa, and to facilitate the exchange of information on the interactions of dental conditions with medical conditions and vice versa.

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