



An Roinn Sláinte  
Department of Health

# SMILE AGUS SLÁINTE

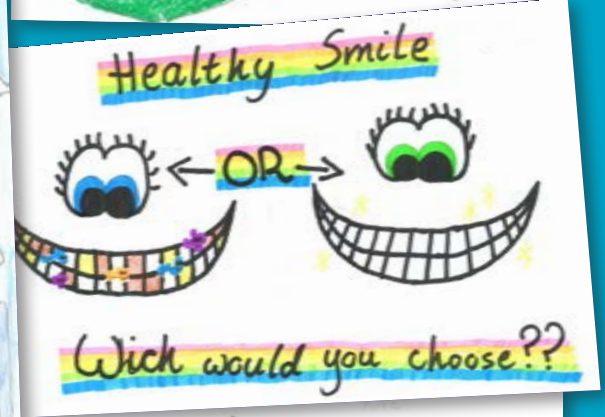
## NATIONAL ORAL HEALTH POLICY



# A Smile is for Life



# LOOK AFTER YOUR TEETH



To keep your teeth white,

<p>✗</p> <p>cola oranges toffee juice soda cookies</p>	<p>tea sugar cake acid</p>	<p>✓</p> <p>milk fruit apple yogurt veg water banana broccoli cheese</p>
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Brush your teeth at night



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# Foreword

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Good oral health is an integral part of our general health and wellbeing, and important to our enjoyment of life. We need a health service that supports us to have our best oral health, from birth to old age. Smile agus Sláinte provides the guiding principles to transform our current oral healthcare service over the next eight years.

Sláintecare is our long-term vision for building a better health service, through a joined-up approach, designed around the needs of people and providing services close to home. Smile agus Sláinte emphasises the same ideals: primary care, integrated oral and general health, and prevention. This keeps the focus on ensuring local access and continuity of care within a primary oral healthcare setting.

The Policy has two key goals:-

- to provide the supports to enable every individual to achieve their personal best oral health.
- to reduce oral health inequalities across the population, by enabling vulnerable groups to access oral healthcare and improve their oral health.

Smile agus Sláinte will facilitate better oral healthcare for everyone. It will support the provision of all levels of care, by appropriate healthcare professionals and in the most suitable settings. Just as importantly, it will support patient choice and access.

People in Ireland have benefitted greatly from the improvements in oral health over the past thirty years. It is vital that these improvements continue and benefit all our population. This will require a wide range of healthcare professionals, in dental and general health, across community, hospital and public and private sectors, working together for the benefit of all our people.

I would like to thank the Chief Dental Officer, Dr Dympna Kavanagh, and her project team who led the development of Smile agus Sláinte. I would like to acknowledge the contribution of the Oral Health Policy Academic Reference Group, who had the task of collating and analysing the scientific evidence to underpin this Policy. This was chaired most effectively by Emeritus Professor Denis O'Mullane, supported by the vice chair, Professor Brian O'Connell. The standards and support provided by external experts ensured that the evidence is in line with international standards.

I look forward to your support in transforming our oral healthcare services over the next number of years and to working with the many stakeholders to deliver Smile agus Sláinte.

A handwritten signature in black ink that reads "Simon Harris".

**Simon Harris TD**  
*Minister for Health*

## Acknowledgements

The development of Smile agus Sláinte involved a wide range of people outside the Department of Health, whose contributions I would like to acknowledge.

The children and adults who participated in clinical examinations, interviews and questionnaires that informed the Policy, provided a person-centred focus for Smile agus Sláinte.

Professionals who took part in the stakeholder consultation day and others who participated in individual interviews, as well as organisations, agencies, professional groups and individuals who took the time to meet us or write to us to share their unique insights, added to our understanding of the challenges faced by people who provide care and highlighted what can be achieved.

Members of the Oral Health Policy Research Group and the associated working groups freely gave their time and knowledge throughout policy development. External experts ensured adherence to international high standards. Researchers gave access to their personal research and undertook commissioned studies, which are available on the Department of Health's website. This work has given Smile agus Sláinte academic rigour, a solid evidence base and the impetus to introduce changes to facilitate better oral healthcare for everyone.

A very sincere thank you to all who directly or indirectly contributed to the work of the Policy.

**Dr Dympna Kavanagh, Chief Dental Officer**

## Collages

For Smile agus Sláinte, children in primary schools across Ireland were asked to draw a picture that best describes healthy teeth/how to achieve a healthy smile.

All the entries were of a high standard, and a selection of the pictures have been included in this launch document.

We would like to take this opportunity to thank all the schools and the children for taking the time to enter the competition and to congratulate those who took part.

Kilgobnet N. S., Beaufort, Killarney, Co. Kerry

Our Lady of Mercy N.S., Bantry, Co. Cork

Scoil Iosogáin, Ardaravan, Buncrana, Co. Donegal

Scoil Mhuire N.S., Knocknagoshel, Co. Kerry

Scoil Phadraig Naofa, Dysart, Co. Westmeath

Shronell N.S., Lattin, Co. Tipperary

St. Catherine's Senior School, Ratoath Road, Cabra, Dublin 7

St. Colman's N.S., Cloyne, Co. Cork

St. Mary's N.S., Enniskeane, Co. Cork

St. Mochta's N.S., Louth Village, Co. Louth

St. Peter Apostle Senior School, Neilstown Road, Clondalkin, Dublin 22

Zion Parish Primary School, Rathgar, Dublin 6

## Table of contents

<b>EXECUTIVE SUMMARY</b>	8
<b>CHAPTER 1: THE NEW POLICY FRAMEWORK</b>	21
1.1 The aim and time frame of Smile agus Sláinte: the National Oral Health Policy	22
1.2 Why do we need a new national oral health policy?	22
1.3 Smile agus Sláinte: the National Oral Health Policy goals	23
1.4 Broader health policies informing Smile agus Sláinte	23
1.5 Theoretical concepts informing Smile agus Sláinte	26
1.6 Developments in oral healthcare services	29
1.7 Development of Smile agus Sláinte	31
<b>CHAPTER 2: ORAL HEALTH TRENDS AND IMPLICATIONS FOR SMILE AGUS SLÁINTE: THE NATIONAL ORAL HEALTH POLICY</b>	35
2.1 Summary of oral health status in Ireland	36
2.2 Children and adolescents	37
2.3 Older persons	38
2.4 People needing special care	41
2.5 Implications of oral health trends for Smile agus Sláinte	45
<b>CHAPTER 3: CURRENT RISK AND PROTECTIVE FACTORS IN ORAL HEALTH</b>	49
3.1 Risk and protective factors to inform future services	50
3.2 Risk factors for oral health	50
3.3 Protective factors for oral health	51
3.4 Projected risk and protective factors impacting on oral health in Ireland in the future	53
<b>CHAPTER 4: CURRENT ORAL HEALTHCARE SERVICES, LEGISLATION AND FRAMEWORK FOR POLICY DEVELOPMENT</b>	55
4.1 Overview of current oral healthcare services and legislation	56
4.2 HSE oral healthcare services	56
4.3 Legislation and standards supporting oral healthcare services	59
4.4 Current delivery systems for oral healthcare	60
4.5 International payment systems	62
4.6 Consultation	64

<b>CHAPTER 5: STRATEGIC DIRECTION OF SMILE AGUS SLÁINTE: THE NATIONAL ORAL HEALTH POLICY</b>	70
5.1 Strategic strands of Smile agus Sláinte	71
<b>CHAPTER 6: HEALTH AND ORAL HEALTH PROMOTION AND PROTECTION</b>	73
6.1 Healthy Ireland and oral health framework	74
6.2 Regulation and policy: general health	75
6.3 Oral health protection programmes	75
6.4 Health promotion and the Making Every Contact Count framework	78
<b>CHAPTER 7: PREVENTION AND TREATMENT SERVICES</b>	80
7.1 Reoriented oral healthcare services	81
7.2 Where will the public access oral healthcare?	83
7.3 Oral healthcare service delivery system	84
7.4 Oral healthcare service delivery for children	85
7.5 Oral healthcare service delivery for adults	88
7.6 Routine oral healthcare services	90
7.7 Complex oral healthcare services	90
7.8 Oral healthcare service delivery for vulnerable people	91
7.9 Advanced oral healthcare centres	92
7.10 Reimbursement mechanisms for implementing Smile agus Sláinte: the National Oral Health Policy	93
<b>CHAPTER 8: WORKFORCE CAPACITY</b>	95
8.1 Assessment of workforce	96
8.2 Compulsory, voluntary and non-registered workforce	98
8.3 Key characteristics of the dental register	101
8.4 Dentist to population ratio	101
8.5 Workforce variation geographically	103
8.6 Auxiliary dental workers	104
8.7 Workforce for advanced oral healthcare centres	105
8.8 Collating information on the dental workforce for the future	105

<b>CHAPTER 9: SAFE, HIGH-QUALITY, PATIENT-CENTRED CARE</b>	107
9.1 Framework to support safe, high-quality and patient-centred care	108
9.2 Education and skills	108
9.3 Regulation and standards for the dental profession	112
<b>CHAPTER 10: ORAL HEALTH EVALUATION, POLICY EVALUATION AND RESEARCH DEVELOPMENT</b>	115
10.1 The background and aims of research and evaluation	116
10.2 Evaluation measures	116
10.3 Smile agus Sláinte: oral health evaluation infrastructure	117
10.4 Pathfinder surveys: oral health evaluation for vulnerable groups	
10.5 Primary oral healthcare research	120
10.6 General surveys and oral health measures	121
10.7 Oral health research programme	122
10.8 Coordination and analysis of oral health evaluations	124
<b>CHAPTER 11: GOVERNANCE AND MANAGEMENT</b>	126
11.1 Introduction	127
11.2 Governance of Smile agus Sláinte	127
11.3 Management of services	128
11.4 Leadership	129
<b>PRIORITIES</b>	131
<b>ACTIONS</b>	133
<b>ANNEX: SUMMARY OF ORAL HEALTH IN IRELAND: TRENDS AND INTERNATIONAL COMPARISONS</b>	137
<b>APPENDICES</b>	142
Appendix A Terms of Reference for the Oral Health Policy Academic Reference Group	143
Appendix B Groups and individuals who assisted to the development of Smile agus Sláinte	145
Appendix C Glossary of terms	147
Appendix D Abbreviations	149
Appendix E Select Bibliography	150
Appendix F Additional reports	157

# SMILE AGUS SLÁINTE

## ORAL HEALTH EVALUATION

Free oral health examinations will be provided to everyone at key ages: (5, 12, 15-19, 35-44 and 65+).  
 These will be provided in the local dental surgery.  
 Data will go to the Public Oral Health Observatory.  
 There will be Pathfinder Surveys to identify oral health needs of vulnerable patients.

**ORAL HEALTH and HEALTH PROMOTION**  
 APPLYING TO ALL PEOPLE OF ALL AGES.



HEALTH PROMOTION PROGRAMMES



HEALTHY IRELAND FRAMEWORK



SIGNPOSTING TO SERVICES

5 YEARS

12 YEARS

15-19 YEARS

35-44 YEARS

65+ YEARS



AGES 0-16 YEARS



ADULTS 16-24 YEARS



ADULTS 25-65 YEARS



ADULTS 65-69 YEARS



ADULTS 70 YEARS AND OLDER

ORAL HEALTHCARE PACKAGES ARE PROVIDED FOR ALL CHILDREN

ORAL HEALTHCARE PACKAGES ARE PROVIDED FOR MEDICAL CARD HOLDERS FROM AGE 16+

## EIGHT PREVENTIVE ORAL HEALTHCARE PACKAGES WILL BE PROVIDED

The relevant four age bands are:

- 0-2 yrs: PACKAGE 1
- 2-6 yrs: PACKAGES 2 and 3
- 6-12 yrs: PACKAGES 4, 5 and 6
- 12-16 yrs: PACKAGES 7 and 8

### PACKAGES INCLUDE

Examination, Preventive advice, Referrals, Prescriptions, Fillings and extractions, Emergency services, Radiographs, Fissure Sealants, Primary care e.g. fillings and extractions, Assessments including orthodontics and oral surgery.



### PREVENTIVE PACKAGE

Every year



### ROUTINE PRIMARY CARE

Every year

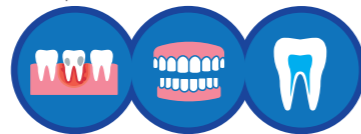
Emergency (extraction of teeth), prescriptions, medication, fillings, periodontal care (cleaning of gums), deep cleaning and root scaling.



### COMPLEX CARE

Every year

Periodontal care, dentures, endodontics and other complex care.



### PREVENTIVE PACKAGE

Every two years

An emphasis on assessment for head and neck cancer.



### ROUTINE PRIMARY CARE

Every year

Emergency (extraction of teeth), prescriptions, medication, fillings, periodontal care (cleaning of gums), deep cleaning and root scaling.



### COMPLEX CARE

Every year

Periodontal care, dentures, endodontics and other complex care – implants according to a clinical care pathway.



### PREVENTIVE PACKAGE

Every two years

An emphasis on assessment for head and neck cancer. Greater emphasis on high fluoride therapies will be provided every two years but if high risk - every year



### ROUTINE PRIMARY CARE

Every year

Emergency (extraction of teeth), prescriptions, medication, fillings, periodontal care (cleaning of gums), deep cleaning and root scaling.



### COMPLEX CARE

Every year

Periodontal care, dentures, endodontics and other complex care – implants according to a clinical care pathway.



### PREVENTIVE PACKAGE

Every year

An emphasis on assessment for head and neck cancer and high prevention/ high fluoride therapies.



### ROUTINE PRIMARY CARE

Every year

Emergency (extraction of teeth), prescriptions, medication, fillings, periodontal care (cleaning of gums), deep cleaning and root scaling.



### COMPLEX CARE

Every year

Periodontal care, dentures, endodontics and other complex care – implants according to a clinical care pathway for denture retention particularly



PROVIDED BY LOCAL DENTIST: PACKAGES OF CARE – PACKAGES WILL CONTAIN THREE LAYERS: PREVENTIVE, ROUTINE PRIMARY CARE and COMPLEX CARE

SUPPORT SERVICES FOR VULNERABLE PEOPLE PROVIDED BY COMMUNITY ORAL HEALTHCARE SERVICES; ADVANCED ORAL HEALTHCARE CENTRES FOR SECONDARY/TERTIARY CARE



# SMILE AGUS SLÁINTE

## Executive summary



## 1.1 Why do we need a new national oral health policy?

The current service is based on the Dental Health Action Plan (1994), which was informed by data from the 1980s. It divides the population into three categories: children, adults, and vulnerable groups. All three populations have separate oral healthcare service structures in different settings and with varying State schemes and approval mechanisms. The current system has left gaps in routine oral healthcare for significant sectors of the population, especially the very young, people with disabilities, and older people.

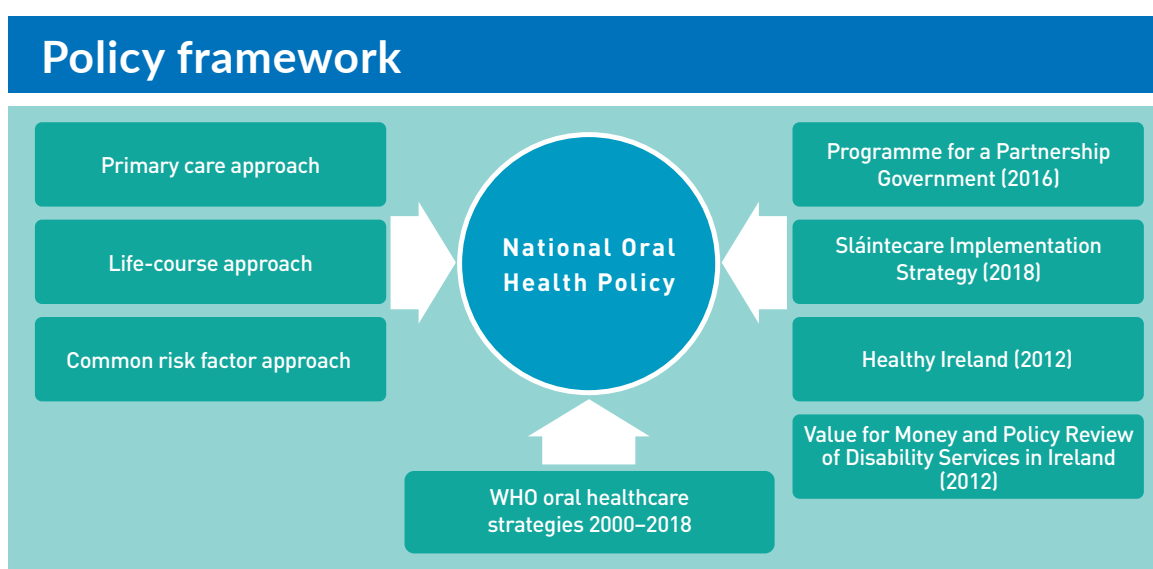
### There are three key reasons why a new national oral health policy is needed:

- Improvements in health, including oral health status, in the general population at all ages have altered the type of healthcare and oral (dental) healthcare required.
- Changing demographics and emerging oral health challenges for vulnerable groups have resulted in inequalities in oral health status and in access to oral healthcare.
- New technology, knowledge and philosophies in oral healthcare have impacted on service delivery and now enable the delivery of complex care in primary oral healthcare settings.

## 1.2 Smile agus Sláinte goals and underlying philosophies

The primary goal of Smile agus Sláinte: the National Oral Health Policy is to provide the supports to enable every individual to achieve their personal best oral health. This will include ensuring that an appropriately accessible and adaptable service is available across the life course. The second goal is to reduce oral health inequalities across the population by providing additional support to vulnerable groups to access oral healthcare and improve their oral health.

The Policy is evidence-informed from research commissioned by the Department of Health. Views of professionals across several disciplines, as well as the views of members of the public, were also taken into account. It aligns with other Government and/or health policies such as Healthy Ireland (2012), the Programme for a Partnership Government (2016) and the Sláintecare Implementation Strategy (2018). The cross-cutting nature of other policies that were simultaneously in development was also considered.



It is also aligned with international policies and especially reflects approaches endorsed by the World Health Organization (WHO) and the European Union (EU). In particular, the WHO oral healthcare strategies from 2000 to 2018 were analysed and considered in detail.

The Policy adopts a 'primary care approach', where the majority of oral healthcare is provided by a local oral healthcare professional of the individual's choosing. This approach emphasises prevention, local access, person- and family-centred care, and facilitation of choice for the public.

Another philosophy that informed the National Oral Health Policy is the 'life-course approach', which supports prevention and oral healthcare from birth into old age. In addition, the 'common risk factor approach' was integrated into the Policy. This approach recognises that risk factors for poor oral health are similar to those for poor general health – namely alcohol consumption, tobacco use and a high-sugar diet.

The mainstreaming ethos, which supports people with disabilities and vulnerable people to have access to oral healthcare services comparable to that of the rest of the population, was also taken into account.

Forty-one actions have been identified within Smile agus Sláinte. The ambitious transformation required in the delivery of oral healthcare services means that a phased plan over eight years is essential to implement the Policy fully. Nine priorities have been identified for the first three years following publication of the Policy.

### 1.3 Who will benefit from Smile agus Sláinte?

Those who are currently eligible for publicly funded primary oral healthcare services will continue to be eligible, i.e. children aged under 16 years and adults with medical cards. Hospital services for patients requiring dental surgery will also reflect current eligibility.

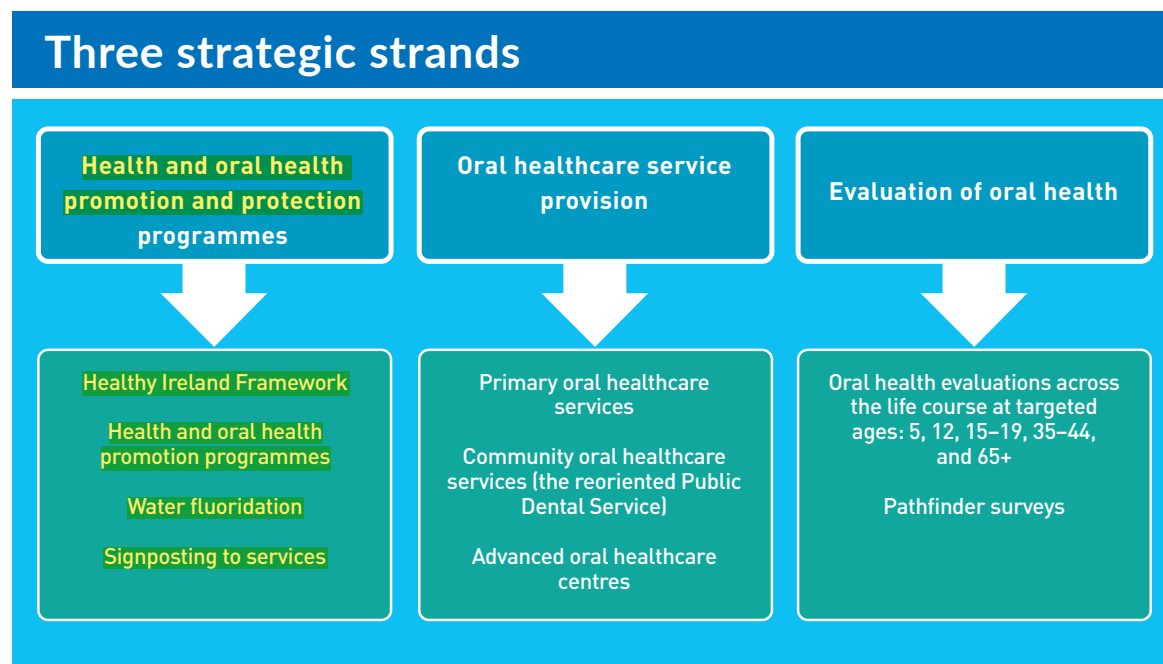
However, Smile agus Sláinte is intended to ultimately benefit the whole population, as the adoption of the primary oral healthcare approach will inform the nature of the services provided by the private sector as well. Regulation and education will support these guiding principles, ensuring that the workforce will be enabled to provide a preventive and primary care-supported approach. It will promote the provision of a broader, person- and family-centred service for all. **In addition, health and oral health promotion programmes will be available to all.** It is therefore expected that oral health will improve throughout the population following implementation of the Policy. Consequently, the separate action of evaluation of the public's oral healthcare needs (clinical surveillance), which will measure the impact of the Policy, will monitor changes in oral health for the whole population.

### 1.4 What programmes and services will be delivered under Smile agus Sláinte?

In order to enable people to achieve their personal best oral health, Smile agus Sláinte must address the risk factors for oral health and **then put in place oral health promotion and protection programmes to combat such risk factors.** People who need treatment must be supported by primary oral healthcare services. These primary oral healthcare services must be supported by 'safety net' services, both in protected environments and in advanced health and oral healthcare settings, e.g. hospitals.

The Policy delivery will have three strategic strands, as follows:

- Health and oral health promotion and protection programmes
- Oral healthcare service provision
- Evaluation of oral health in the population (clinical surveillance programme).



#### 1.4.1 Health and oral health promotion and protection programmes

The first strategic strand will embrace national, community and individual prevention and protection programmes supported by appropriate regulation.

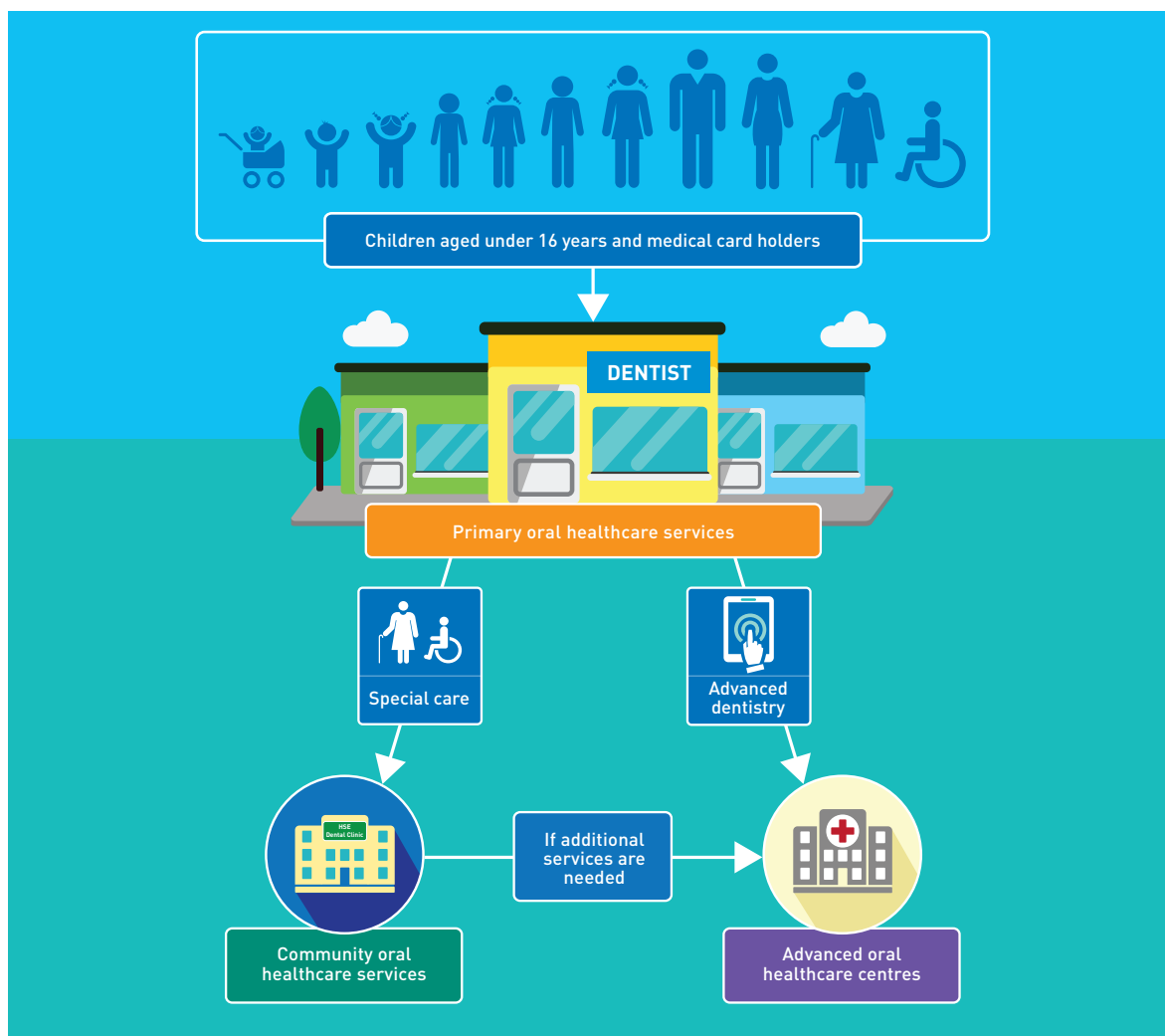
- These programmes will support the Healthy Ireland framework, including the alcohol consumption, tobacco use and obesity strategies.
- A reoriented Health Service Executive (HSE) Public Dental Service will have a community oral healthcare services function. In addition, it will lead the delivery of specific community oral health promotion programmes for the whole population and for targeted groups, and it will evaluate such programmes.
- The water fluoridation oral health protection policy will continue.

#### 1.4.2 Oral healthcare service provision

The second strategic strand, oral healthcare service provision, has three oral healthcare service streams, as follows:

1. Primary oral healthcare services
2. Community oral healthcare services (the reoriented Public Dental Service)
3. Advanced oral healthcare centres.

## Smile agus Sláinte oral healthcare services



Most care will be provided by local dentists and their teams. This means that children, adults and vulnerable people will all be able to access oral healthcare in a primary oral healthcare service (dental practice) of the individual's choosing. People will have access to preventive-focused dental care via 'oral healthcare packages' across the life course.

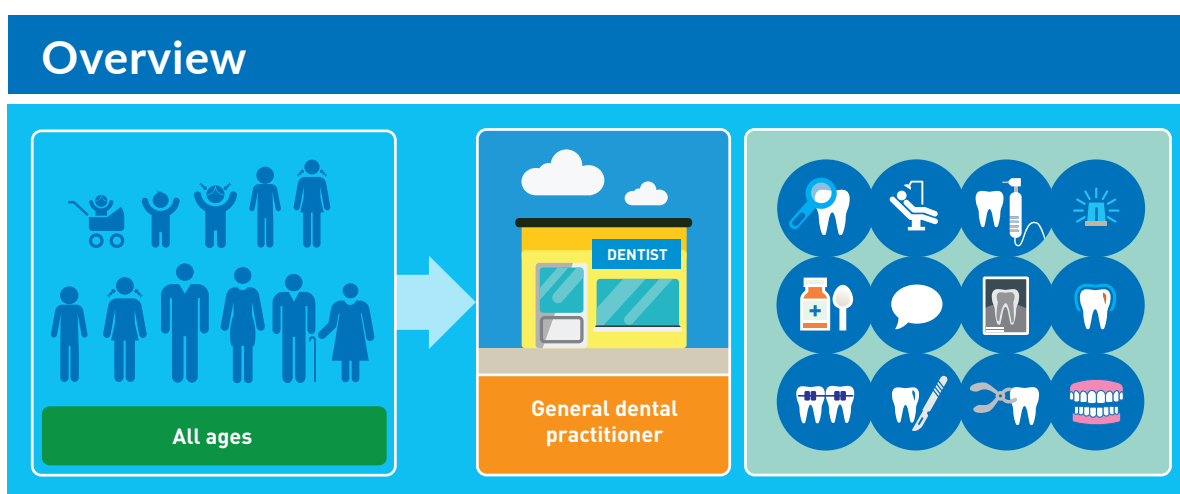
**HSE community oral healthcare services throughout Smile agus Sláinte will have three key functions:**

- **The delivery of oral health promotion programmes**
- The provision of oral healthcare services to vulnerable people who cannot receive care from a local dental team
- Responsibility for assessing the oral healthcare needs of vulnerable people, especially those living in residential care.

Advanced dental treatment will be provided in hospitals, dental hospitals and other settings. These facilities will be designated as advanced oral healthcare centres

#### 1.4.2.1 Primary oral healthcare services

Primary oral healthcare services for children aged under 16 years and medical card holders (including all vulnerable persons) will be provided by local dentists and their teams. Prevention is foremost in all oral healthcare service provision. The dentist will be the first point of contact for all oral healthcare services, and most oral healthcare will be delivered in this primary oral healthcare setting. The provider payment methods (reimbursement) for the primary oral healthcare services will change from a predominantly fee-per-item system to a mixed payment system, i.e. packages, fee-per-item and/or service level agreement.



#### Children (0–16 years)

- Eight oral healthcare packages will be available for children up to the age of 16 years from their local dentist. These will focus on prevention and primary care, e.g. examinations, fissure sealants, fillings and extractions.
- Such oral healthcare packages will be available from the child's birth until they reach their 16th birthday.
- Parents and guardians will be able to choose a dentist and change to another dentist should they wish to do so, following delivery of each oral healthcare package for their child.
- Parents and guardians will be able to determine, in conjunction with the dentist, when and how they want each oral healthcare package delivered for each child.
- Selected simple orthodontic procedures and oral surgery will be delivered by primary dental care practices, supported by clinical care pathways.

### Adults (medical card holders)

The choice of dentist, and the option to change to another dentist, will also be available for adult medical card holders. Oral healthcare for the adult sector of the population will consist of:

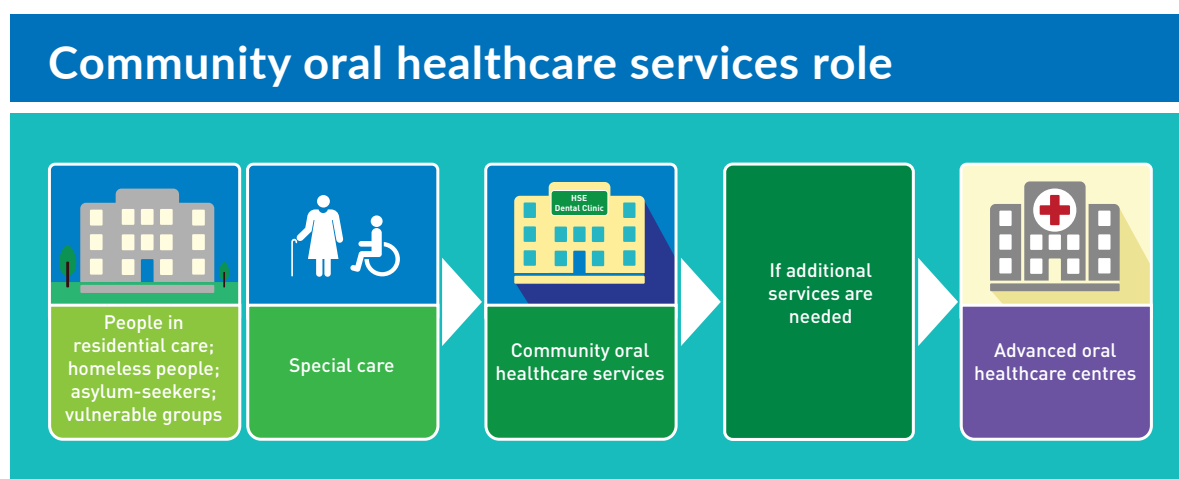
- Preventive and basic primary oral healthcare packages. Adolescents and young people aged between 16 and 25 years will receive an annual oral healthcare package, as will those aged over 70 years. All other adults, unless considered vulnerable or needing additional support, will have available a new oral healthcare package every two years.
- In addition to preventive oral healthcare packages, routine oral healthcare will be provided, e.g. fillings, extractions and periodontal (gum) care.
- Complex care will be available to adult medical card holders; it will be supported by clinical care pathways, e.g. advanced periodontal care and denture provision.

### Vulnerable people (children and adults)

In line with mainstreaming policy the local dentist should be the first point of contact for everyone but will be able to refer patients to the supporting HSE community oral healthcare services or to an advanced oral healthcare centre, if necessary. However, even if a patient has been referred to such a service or centre, the local dentist will remain the oral healthcare coordinator for that patient.

#### 1.4.2.2 Community oral healthcare services

Community oral healthcare services will provide services to vulnerable people referred from their local dentist for episodic care. However, in some cases – such as for people living in residential care or for people with moderate to profound disabilities – services may be provided long term by community oral healthcare services. Assessing, planning and ensuring provision of oral healthcare services to people living in residential care or in a similar environment will be a priority focus for community oral healthcare services.



#### 1.4.2.3 Advanced oral healthcare centres

Advanced oral healthcare centres will provide oral healthcare that requires additional skills and oral healthcare that cannot usually be provided in a primary oral healthcare setting. Advanced oral healthcare is already provided in many settings. A process to formally recognise certain sites – including dental hospitals, hospitals, and other locations with appropriate facilities and skilled staff, even if not in hospital settings – as advanced oral healthcare centres will be undertaken.

### 1.4.3 Evaluation of the public's oral healthcare needs (clinical surveillance programme)

In order to assess both the oral healthcare needs of the population and the impact of Smile agus Sláinte on the oral health of the population, a national population oral health evaluation programme will be put in place. This will assess the public's oral health at critical ages across the life course.

- A targeted evaluation of the public's oral healthcare needs will be an important component in assessing the impact of the delivery of Smile agus Sláinte.
- This oral health evaluation will be provided at key oral health stages during an individual's life. This programme will be available to the whole population via their local dentists.
- Evaluation assessments will be undertaken in the primary oral healthcare service where people already attend a primary care dentist. If an individual who is in a targeted age for evaluation of their oral healthcare needs does not already attend a dentist routinely, they will be directed or signposted to a primary care dentist for evaluation of their oral health. In exceptional cases, the HSE community oral healthcare services will offer an evaluation assessment.
- Pathfinder (targeted) surveys for vulnerable people, especially for those living in residential care, will be undertaken in order to establish their oral healthcare needs. These will be carried out by the HSE community oral healthcare services. This is part of the oral health evaluation programme.
- The oral health evaluation programme will necessitate the coordination, processing and analysis of these findings. This public health intelligence function will facilitate comparison of each individual's oral healthcare needs or risks – as determined from their oral health evaluation check-up – with the oral healthcare needs or oral health risks of their peers. Following the evaluation check-up, individuals will be informed if they have a higher or lower oral health risk when compared with others in their particular age group.

### 1.4.4 Research

In addition to the evaluation programme, the impact of Smile agus Sláinte on the public's oral healthcare needs will be assessed by other methods of evaluation and research. This research will be focused on primary oral healthcare services, where the majority of care is provided.

- The establishment of practice-based research networks<sup>1</sup> and sentinel practices<sup>2</sup> will be a priority, in order to facilitate more effective primary oral healthcare evaluation and research.
- A specific oral health programme of research in key areas will be established.

Both oral health evaluation and research will inform the future planning of oral healthcare services.

## 1.5 Workforce capacity and assessment

An overview of the oral healthcare workforce, focusing on dentists, was undertaken. Both the number and distribution of dentists providing public and private oral healthcare services were assessed.

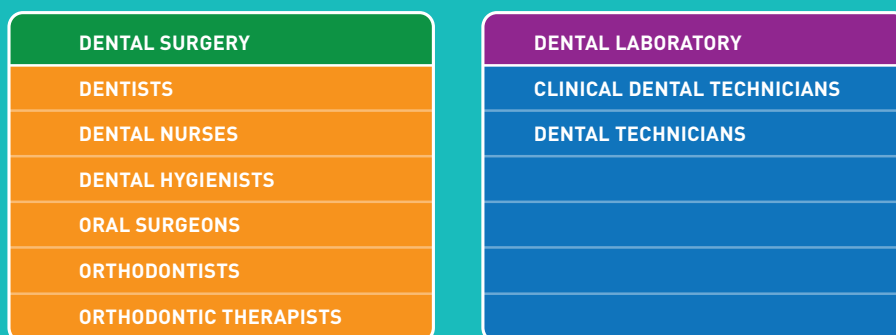
- There are more than 3,000 dentists on the Dental Council register in Ireland. The majority of these are in independent practice. In addition, there are several categories of auxiliary dental workers who support dentists.

1 Practice-based research networks (PBRNs) are collaborations between clinical practitioners and academics. PBRNs aim to foster research in general practice through opportunities to learn more about how to undertake and participate in research; in addition, they assist in translating new knowledge into practice.

2 Sentinel practices are part of a network of carefully selected reporting units that monitor one or more specific illness problems on a regular or continuing basis.



## Dental teams



- In Ireland, there are approximately 7,000 oral healthcare professionals available to work. These include dentists and auxiliary dental workers, such as dental hygienists, as well as clinical dental technicians, dental technicians, orthodontic therapists and dental nurses.
- Dental nurses provide support directly, working with the dentist in the same surgery.
- Dental hygienists support the dentist by providing some clinical work for their patients, such as cleaning of teeth.
- Dental technicians work in laboratories manufacturing dental appliances and devices according to a dentist's prescription.
- Clinical dental technicians provide a range of denture-related services. They are the only auxiliary dental workers who can provide services directly to the public. In all other cases, the dentist must examine the patient first and prescribe a treatment before the patient can be treated by an auxiliary dental worker.
- While there is sufficient capacity overall to implement the Policy, there is an unequal distribution of oral healthcare professionals within Ireland. In general, rural areas have a lower dentist to population ratio compared to urban areas. Addressing this imbalance and ensuring the sustainability of the oral healthcare workforce is essential.
- Enabling greater access for the public to a greater number of oral healthcare professionals would facilitate better access to oral healthcare services. This could be achieved by expanding auxiliary dental workers' scope of practice and in some cases ensuring direct access for the public to them. Considering the scope of practice and public access to dental and clinical technicians is particularly relevant.

## 1.6 Safe, high-quality, patient-centred care

The following actions will ensure safe, high-quality, patient-centred care:

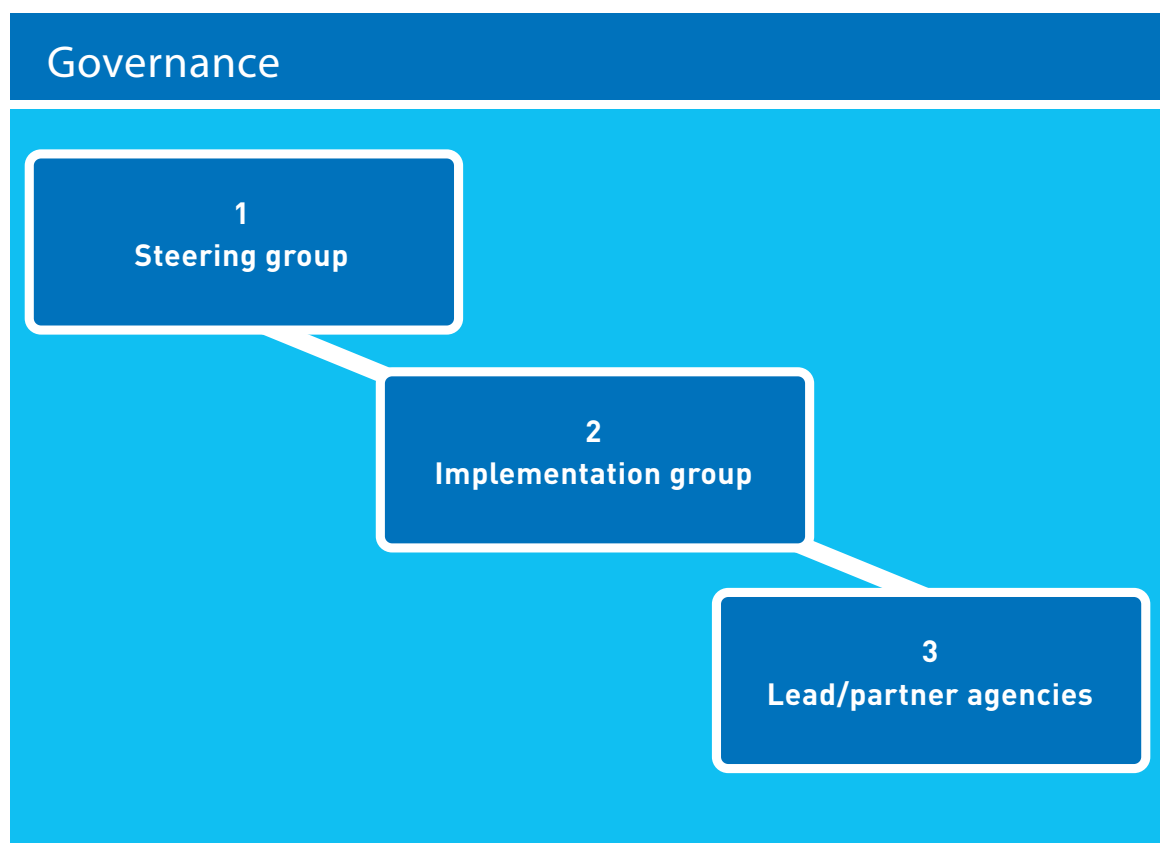
### 1.6.1 Education and training

- A 'skills match' programme, where qualified dentists will be supported to broaden and update their skills, as necessary, will be put in place.
- A review of undergraduate dental training to support skills development in primary care will be undertaken.
- Dental schools and training bodies will develop primary oral healthcare departments to support the adoption of a primary care approach.
- A working group comprising relevant stakeholders will review auxiliary dental workers' scope of practice and training, with an initial focus on dental technician and clinical dental technician training
- A lifelong postgraduate mentoring and supervisory network will be put in place for dentists to support them throughout their professional careers.

### 1.6.2 Regulation

- The legislation to replace the Dentists Act 1985 will provide for comprehensive regulatory governance of the dental profession.
- Smile agus Sláinte will support the implementation of the Regulation (EU) 2017/852 on a reduction in mercury use in dentistry, coupled with a reduction in the disposal of clinical and related waste, for environmental reasons. The EU Regulation provides for the phase-down of amalgam fillings for certain groups in the population.
- Other relevant regulations and standards – such as the Basic Safety Standards (BSS) Directive, the Professional Qualification Directive (PQD), the Cross Border Directive (CBD) and the Health Information and Quality Authority (HIQA) standards – have been taken into account.

## 1.7 Governance and management



Developing an implementation plan and establishing management and governance arrangements will be a priority. Confirming agreement on the implementation plan, as well as confirming related objectives, targets and performance indicators with lead/partner agencies, will be the initial focus.

- Smile agus Sláinte sets out the direction of oral healthcare services and the most appropriate model of care for current and future oral healthcare needs in Ireland.
- It also sets out the proposed role of dentists in both the HSE contracted and salaried services.
- Due to the extent of changes proposed, the implementation of Smile agus Sláinte will require a multifaceted approach from all relevant organisations, including oral healthcare professional representative groups.
- The intention is to deliver Smile agus Sláinte through an implementation framework that will acknowledge and accommodate the various roles and responsibilities of all stakeholders.
- Key leadership roles will need to be put in place to lead the transformation process.

## Lead/partner agencies for initial phase



## 1.8 Priorities

Forty-one actions have been identified within the Policy. The ambitious transformation required in the delivery of oral healthcare services means that a phased plan over eight years is proposed. Nine priorities have been identified for the first three years following publication of the Policy. However, this does not preclude other actions being progressed at the same time.

Lead/partner agencies will be responsible for the implementation of assigned actions. A comprehensive implementation plan, which includes objectives, key performance indicators and the timelines for each action, will be agreed with lead/partner agencies in the first year of implementation.

## PRIORITIES AND ASSOCIATED ACTIONS

Establish a management and leadership structure to implement the Policy.  
(Action 40 and Action 41)

Maintain water fluoridation.  
(Action 2)

Signpost young children and parents to oral healthcare services, oral health promotion and toothpaste usage.  
(Action 3)

Develop appropriate advice on toothpaste use, in line with evidence.  
(Action 31)

Progress preventive packages for children and adults, supporting the phase-down of amalgam fillings as required by EU and Irish regulations.  
(Action 11, Action 12 and Action 29)

Examine the training and scope of work of all auxiliary dental workers, beginning with dental technicians and clinical dental technicians.  
(Action 19 and Action 21)

Evaluate the skills available in the workforce to support the Policy e.g. to provide care to vulnerable groups. Evaluate undergraduate education. Evaluate the scope of primary care practice.  
(Action 25 and Action 27)

Update the Dentists Act 1985.  
(Action 28)

Commence identification of vulnerable groups, clinical care pathways development and clinical management.  
(Action 14, Action 16 and Action 34)

# Chapter 1

## The new policy framework



## 1.1 The aim and time frame of Smile agus Sláinte: the National Oral Health Policy

Smile agus Sláinte: the National Oral Health Policy sets out the Government's strategy to address the oral healthcare needs of the population. The time frame for the implementation of this Policy is from 2019 to 2026.

The Policy sets out the current oral health status of the population, as well as trends and developments in oral healthcare service provision. It also identifies a set of actions to address current and future needs.

## 1.2 Why do we need a new national oral health policy?

Current national oral healthcare service delivery is based on the Dental Health Action Plan (1994). There are three key reasons why we need a new national oral health policy:

- First, **the improvements in health**, including oral health, in the general population at all ages have altered the type and extent of healthcare and oral healthcare required.
- Second, the impact of **changing demographics** and emerging oral health challenges for new vulnerable groups has resulted in inequalities in oral health and in access to oral healthcare.
- Third, **new technology**, knowledge and philosophies in dental care have impacted on service delivery and now enable the delivery of complex care in primary dental care practice settings.

### Why we need a new policy



#### Healthier population

Oral and general health



#### Ageing population

The older population is increasing



#### New technology

Advanced dentistry

In conjunction with these developments, service structures need to be reoriented to maximise their effectiveness in responding to new knowledge, demographics and challenges.

## 1.3 Smile agus Sláinte: the National Oral Health Policy goals

The Policy's primary goal is to provide the supports to enable every individual to achieve their personal best oral health. This will include ensuring that an appropriately accessible and adaptable service is available throughout a person's life. The second goal is to reduce oral health inequalities across the population in Ireland by enabling vulnerable groups to access oral healthcare and improve their oral health. This will also be accomplished by providing appropriate additional support for persons with moderate and profound disabilities; those who are less ambulatory (i.e. are less able to walk about) and are living in residential care; those who are socially excluded due to life circumstances; and those at any stage of life who may undergo an episode of vulnerability.

The goals of the Policy are evidence informed and are aligned with current Department of Health and broader Government policies, as well as with international policies and approaches endorsed by the World Health Organization (WHO) and the European Union (EU).

## 1.4 Broader health policies informing Smile agus Sláinte: the National Oral Health Policy

The health policies that informed the Policy are summarised as follows:

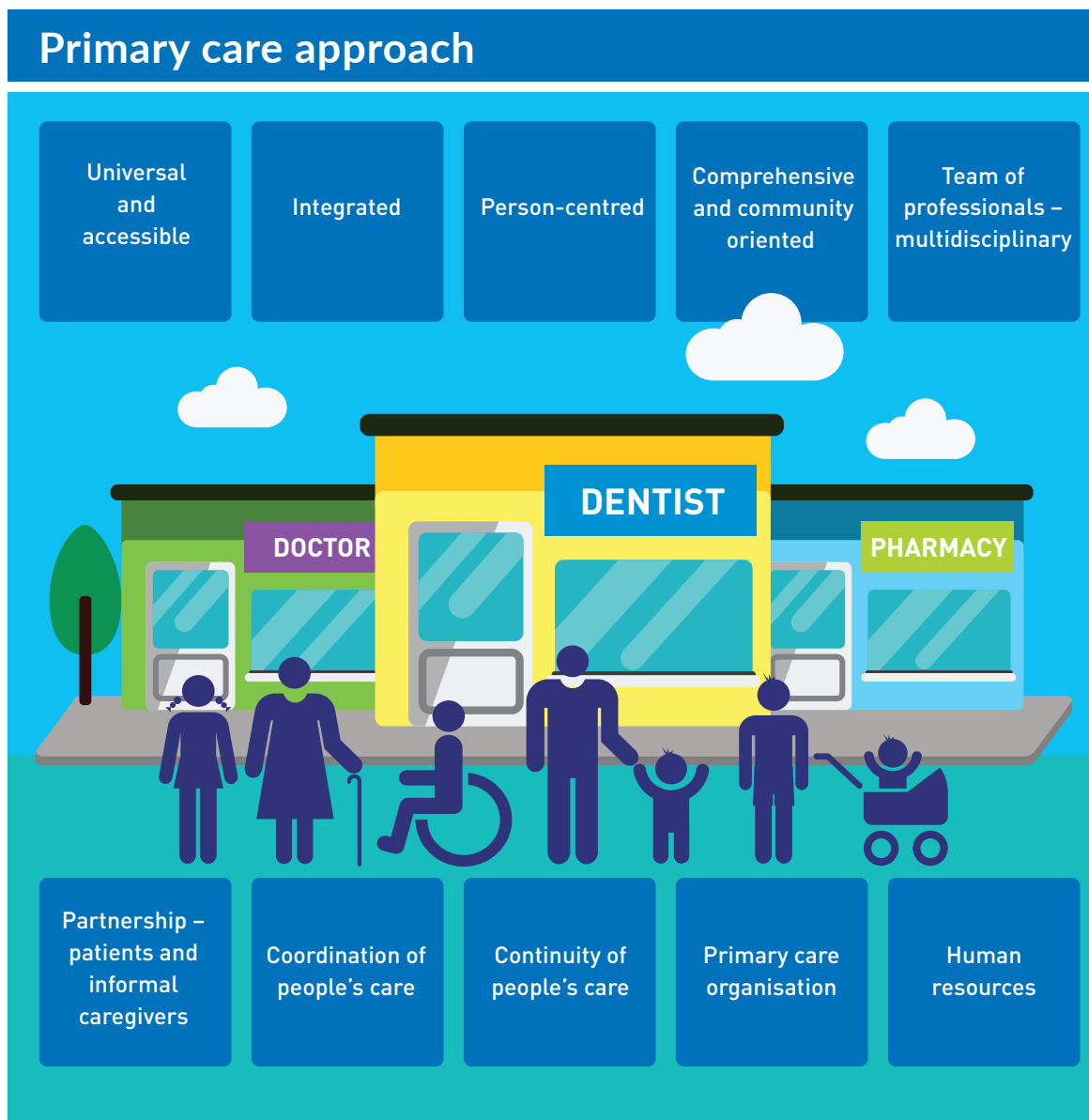
- Primary care approach
- Healthy Ireland
- Government of Ireland – Sláintecare Implementation Strategy
- The Programme for a Partnership Government (2016)
- International policies and strategies

### 1.4.1 Primary care approach

The overriding ethos of the Policy is to embrace a primary care approach, one that emphasises easier access, choice, and utilisation of services throughout a person's life, from infancy to old age. This approach, which is now a core principle for the delivery of healthcare services, focuses on ensuring local access and continuity of care within a primary oral healthcare setting for the population. Provision of care by appropriate healthcare professionals, in the most suitable setting and at the most suitable level of complexity, are essential elements of the Policy.

The Policy is based on ensuring access to network or support services to supplement primary oral healthcare services for more vulnerable people, when required.





The reorientation of oral healthcare services within the primary care approach will require utilisation of current capacity and building on the strengths and successes of the current system, where possible, in order to develop a primary oral healthcare-centred service provided by oral healthcare professionals with the requisite skills.

It will also require the establishment of advanced oral healthcare centres, which will be staffed by highly skilled oral healthcare professionals. At these advanced oral healthcare centres, high volumes of advanced care will be undertaken. This work will be supported by appropriate technology and infrastructure.

### 1.4.2 Healthy Ireland

The Policy is informed by the high-level goals of Healthy Ireland: A Framework for Improved Health and Wellbeing 2013 – 2025. In particular, this means that risk factors are addressed, that protective factors are promoted at every stage of life, and that oral health inequalities are identified and targeted.

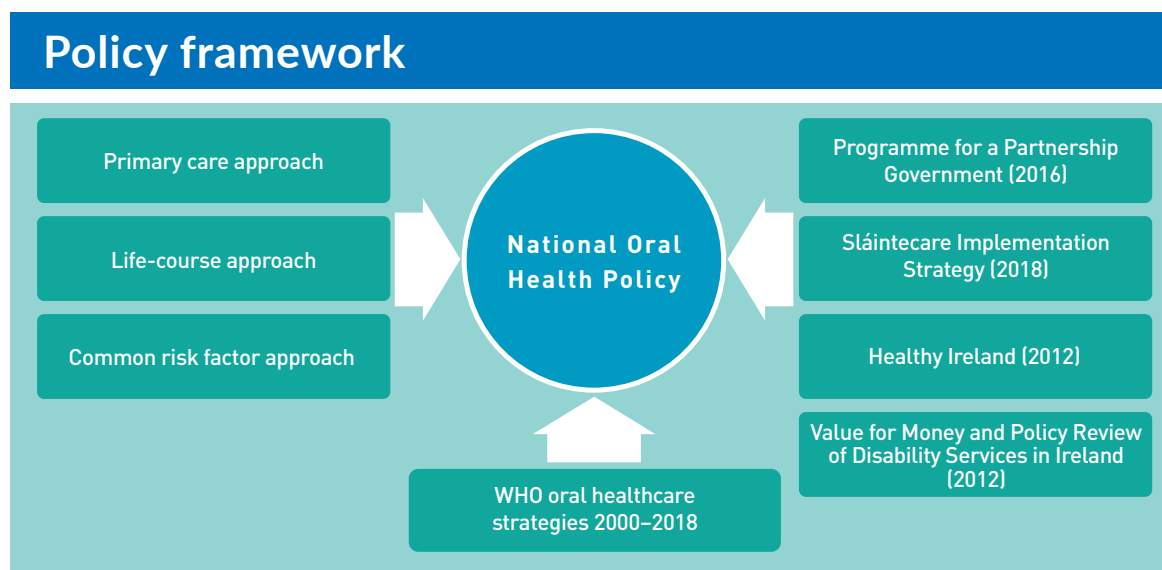
### 1.4.3 Government of Ireland – Sláintecare Implementation Strategy

In August 2018, the Sláintecare Implementation Strategy was published. This is the Government's 10-year strategy to reform Ireland's health and social care services. The Strategy provides a framework for reform with four overarching goals, and 10 strategic actions. It provides a framework for a health service where the majority of care is delivered in the community, care is integrated across different services, and access is based on need and not ability to pay.

The Sláintecare plan advocates a fundamental shift to a population-based approach to health service planning and delivery. It indicates the need to take a system-wide focus, and to support individuals to access and navigate the health system. The approach emphasises an accessible and cost-effective setting. Models of care for particular groups will be developed. Such groups include frail older people, people with complex needs and those with a long-term chronic condition.

### 1.4.4 The Programme for a Partnership Government (2016)

The Programme for a Partnership Government (2016) commits to the introduction of a prevention-oriented service for children aged under six years, and also commits to ensuring that primary oral healthcare services will be made available at key development ages for children up to 16 years of age. In addition, it emphasises timely access to orthodontic care. For adults, the Government is committed to introducing a primary oral healthcare service which has prevention at its core. The Policy supports these commitments.



### 1.4.5 International policies and strategies

The setting of Irish policy within the European and international contexts is also a key issue. The WHO policies, strategies and action plans were therefore used as a reference throughout the development of the Policy. The WHO principles include integration with general health, measuring quality of life as a key outcome, and emphasising a reduction in oral health inequalities specifically at the beginning and end of a person's life. In addition, the WHO defines indicative age groups where oral health assessment should be considered. These age groups are mirrored in the Policy's proposals for evaluation of oral health (clinical surveillance) programmes.

The EU Regulation (2017/852) on mercury which, through Article 10, provides for the phase-down of dental amalgam, (in line with international policy on reducing mercury use), is also taken into account. In Ireland, this Regulation is implemented nationally under S.I. No. 533 of 2018. This Regulation is a response to the United Nations Minamata Convention on Mercury, which is a global treaty that aims to protect human health and the environment from mercury pollution.

Two population cohorts in particular – children and teenagers up to 15 years of age, and pregnant and breastfeeding women – are initial target groups for phase-down of amalgam use. The reduction in the use of traditional ‘filling’ materials requires an overt change in the delivery of oral healthcare services, which to date has emphasised amalgam restoration as a central intervention; this will have a fundamental impact on oral healthcare service provision. However, reduction in the use of amalgam does not involve only the substitution of amalgam fillings with an alternative restoration in the future; prevention and non-intervention will be the preferred actions.

Under EU Regulation (2017/852) each Member State is required to prepare a national plan for submission to the EU, by 1 July 2019, setting out the measures it intends to implement to phase down the use of dental amalgam (up to 2030). The Policy and its implementation plan will fulfil this requirement for Ireland. The Policy supports the phase-down of amalgam, **with its emphasis on health promotion, p**revention and expansion of primary oral healthcare services for the public, for all ages. In parallel, it supports education and broadening skills for the profession. The services proposed in the Policy will support the preferred use of alternative materials and restorations, rather than amalgam, across the life course. In the new service provision, amalgam will only be used in exceptional cases. Other means of enabling mercury reduction in dentistry will also be considered, such as supporting waste disposal mechanisms in dental practices.

## 1.5 Theoretical concepts informing Smile agus Sláinte: the National Oral Health Policy

The concepts informing the Policy are summarised as follows:

- Common risk factor approach
- Life-course approach
- The mainstreaming (integration) policy for vulnerable people.

### 1.5.1 The common risk factor approach

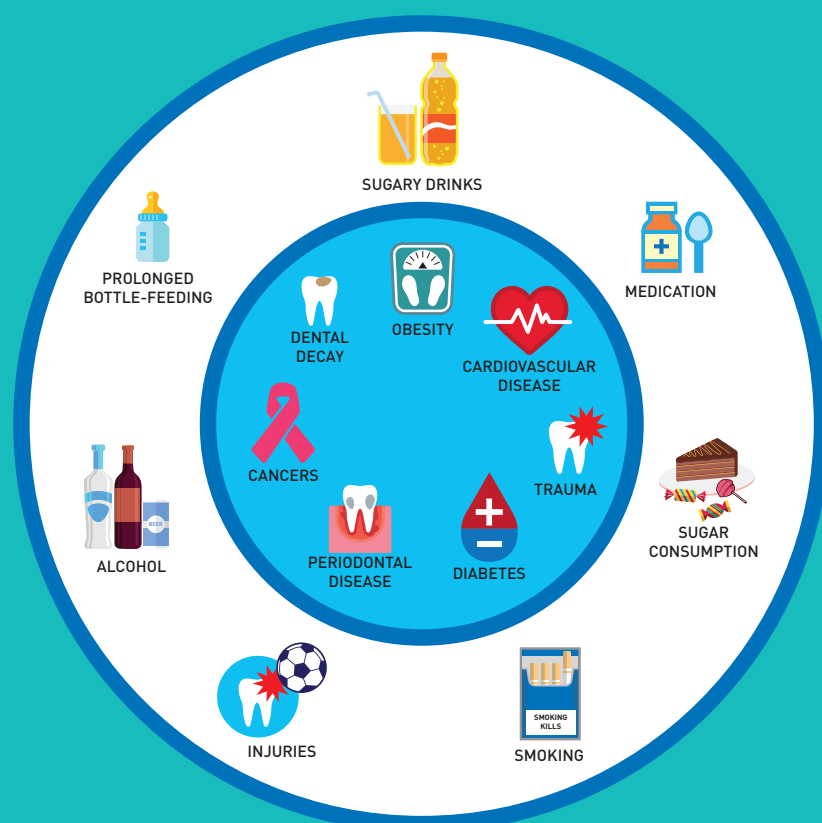
The common risk factor approach highlights the shared origins of poor general and oral health. Risk factors, such as excess intake of sugar and alcohol, as well as tobacco use and stress, all impact detrimentally on both general and oral health. The common risk factor approach emphasises the need for oral healthcare professionals to be integrated as part of a team with other healthcare providers while they work to address these common risk factors.

For example, whereas an oral healthcare professional encourages a reduction in sugar intake to reduce dental decay, a general medical or health practitioner may be more concerned with the impact of excess sugar on diabetes and obesity. Nonetheless, both types of healthcare professionals will have a common message: to reduce sugar intake. Integrating oral healthcare messages with those delivered by other healthcare professionals – and, for dentists, referring to other health conditions when giving oral healthcare advice – embraces the common origins of these conditions.

## Common risk factors

● Outer white circle: RISKS

● Inner blue circle: HEALTH AND ORAL HEALTH CONDITIONS



### 1.5.2 The life-course approach

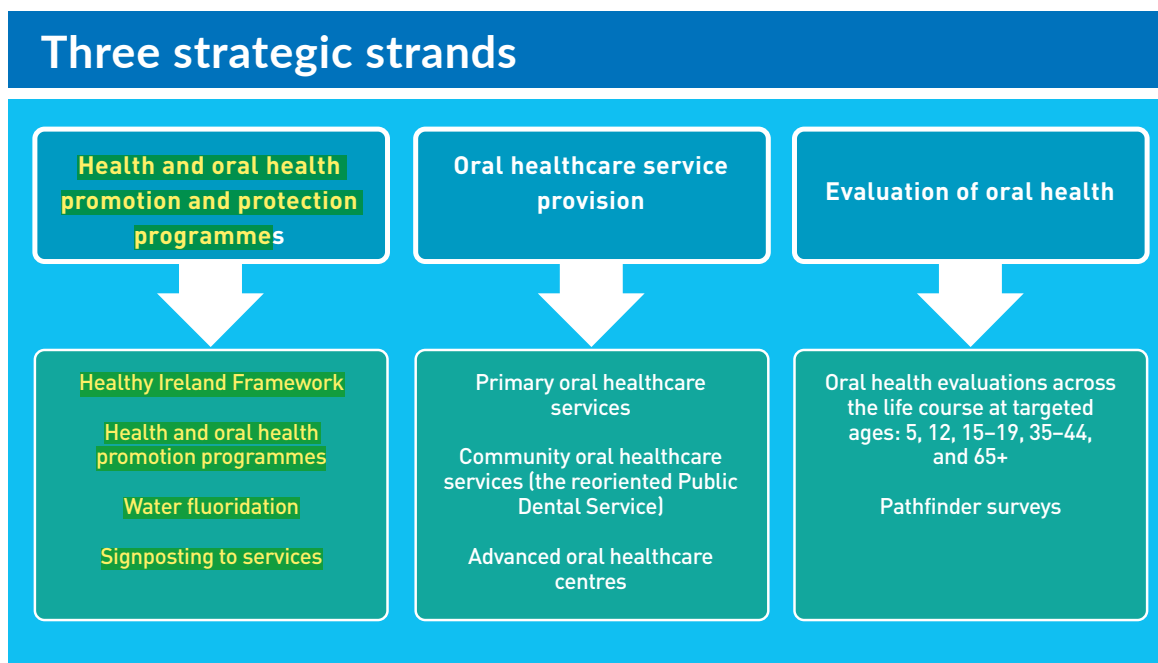
The life-course approach recognises the cumulative impact of life circumstances on current health. This implies that, throughout life, health protection and support for the population is essential at all stages. Oral healthcare needs change throughout a person's life. While early prevention in childhood is a well-established tenet of oral health, there is now a greater emphasis on prevention across the life course adapted for varying circumstances and age groups.

## Life-course approach



### 1.5.3 Mainstreaming policy (integration) for vulnerable people

The Policy has taken into account the importance of access to mainstream primary oral healthcare services for people with disabilities and other vulnerable people. Separate and specific services for routine oral healthcare for vulnerable people are no longer in line with up-to-date principles of accepted practice or policy. A mainstreaming policy, which integrates oral healthcare for vulnerable people with general oral healthcare provision, will remove many of the barriers to accessing care that people with disabilities and other vulnerable people experience. In addition, the Policy recognises that supplementary services must be available on referral to support mainstream primary oral healthcare services. However, the intention is that supporting specific care for vulnerable groups or for patients whose needs cannot be managed in a general dental practice setting will usually be required for episodic or exceptional care only. Such an exception might include providing oral healthcare services for people living in residential care who may not be able to access general oral healthcare services.



A primary oral healthcare approach – where a local general dentist is the first point of access to oral healthcare for all in the community, including vulnerable people – is the overriding ethos of the Policy.

## 1.6 Developments in oral healthcare services

### 1.6.1 Previous and current oral healthcare service philosophies

When the Dental Health Action Plan (1994) was being implemented, the organisation of the provision of oral healthcare services was in line with the philosophies and ethos of healthcare services at that time. Consequently, separate and targeted services were considered preferable for different sectors of the population throughout the 1990s and early 2000s. The outcome of the latter approach is an oral healthcare system that is difficult for the public to navigate at different life stages. A further concern is the separation of the dental profession at the primary oral healthcare level into several discrete areas of service provision. Overall, this separation generates a complex and less holistic service for the public.

Currently, in 2019, an emergency service is available for everyone until they reach 16 years of age; a primary oral healthcare service targeted at children in second, fourth and sixth classes in primary schools is also available.

Approximately one third of adults hold a medical card; however, of those with a medical card, only about one in three in a given year utilises the HSE Dental Treatment Services Scheme (DTSS) system provided by contracted general dental practices. The TILDA study suggests a lack of awareness of services among older adults. However, the reasons for non-attendance are likely to be multifactorial.

Much of the remaining population has access to basic care – examination and, more recently, scaling and polishing (cleaning) and some periodontal treatment – under the Department of Employment Affairs and Social Protection’s Dental Treatment Benefit Scheme (DTBS); an individual’s access to this scheme is based

on Pay-Related Social Insurance (PRSI) contributions. Any additional oral healthcare accessed is purchased privately.

### **1.6.2 Integration of oral health risk factors with other health issues**

The improvement in oral health since the 1980s in Ireland is attributed to the wide availability of fluoride in both water and toothpaste, and to changes in practice, such as secondary prevention interventions (e.g. fissure sealants). The latter are protective plastic coatings on back teeth provided by a dentist or hygienist to protect against dental decay, as well as to prevent progression of very early dental decay.

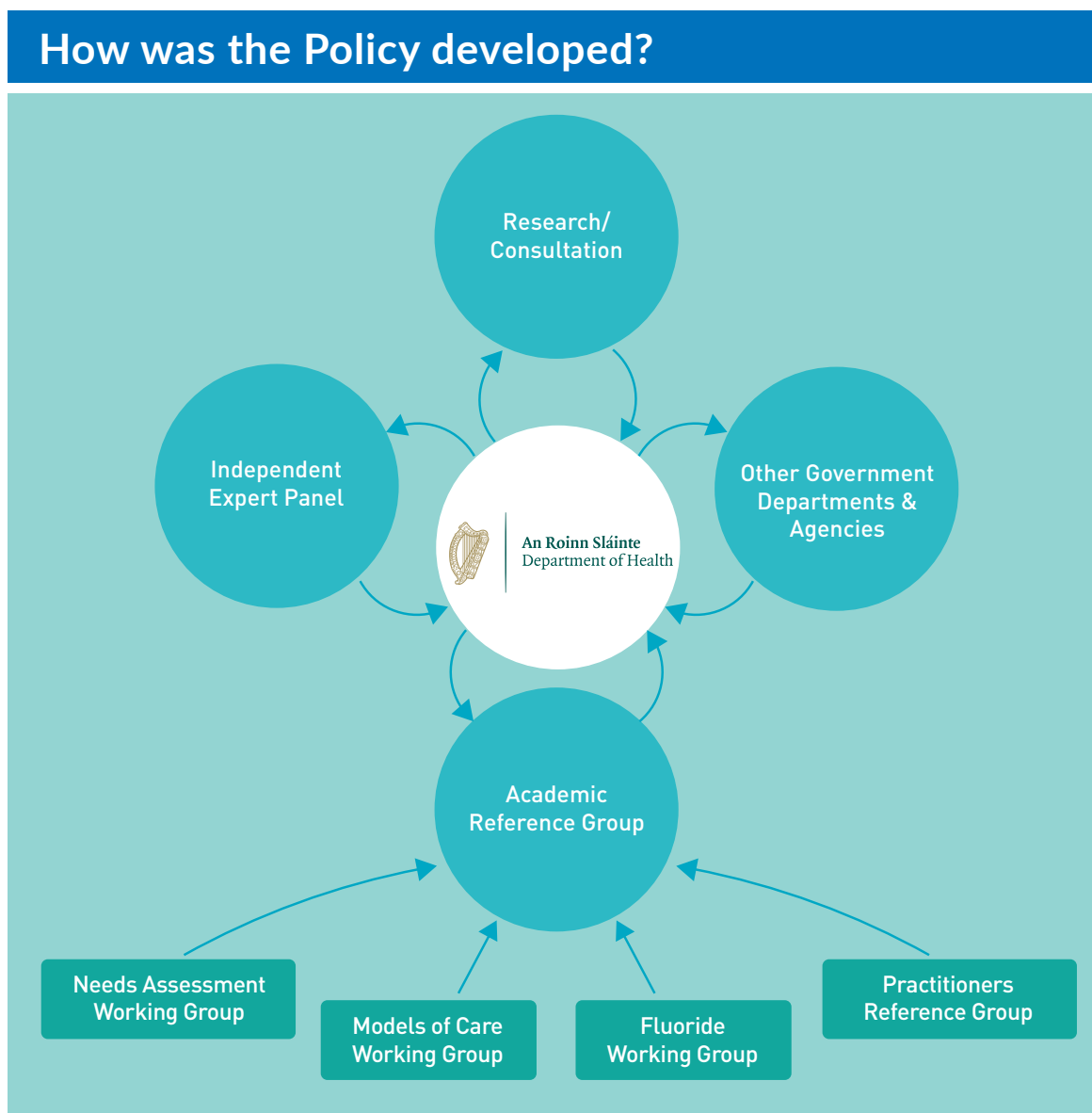
The risk factors for poor oral health – namely sugar, tobacco use and alcohol consumption, which impact on levels of caries, periodontal (gum) disease and oral cancer – continue to be significant. Legislation and action plans on tobacco use (smoking) and alcohol consumption, as well as the Sugar Sweetened Drinks Tax, are key decisions that have impacted on health, including oral health, and are expected to continue to do so.

Risk factors for poor oral health are the same as those for other non-communicable diseases, such as diabetes, cardiovascular disease and cancer. The obesity campaign, A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016–2025, focusing on diet and exercise in younger age groups is welcome. However, the encouragement of engagement in contact sports highlights the on-going need for advice on prevention and treatment of dental trauma as a result of falls and sports activities.

## 1.7 Development of Smile agus Sláinte: the National Oral Health Policy

### 1.7.1 How was the Policy developed?

The development of the Policy commenced in 2014 and was led by a Department of Health project management team.





The strategies contained in the Policy have been informed by the deliberations of oral healthcare professionals through a series of working groups, and by detailed research and surveys which were commissioned in recent years. The Economic and Social Research Institute (ESRI) has had a pivotal role in costing proposed future delivery mechanisms.

The Oral Health Policy Academic Reference Group (OHPARG) was a central working group whose work focused on assessing the current oral healthcare needs of the Irish population and how these needs could be met in a way that complies with best practice and is suited to an Irish setting. The establishment of the OHPARG provided the opportunity to embed contemporary educational and research (academic) expertise within the Department of Health project management team. An accompanying Practitioners Reference Group was established to support the OHPARG in its early policy development stages. Within these groups, separate working groups were developed to investigate particular issues. Separately, an independent panel with specific expertise in the areas of needs assessment, resource review, and public consultation was appointed to quality assure findings and applications. The Department of Health project management team considered and assessed the inputs and research undertaken or commissioned by the supporting the Policy working groups.

## Research



Research, or analysis of research, was procured from several organisations, bodies and universities throughout the development of the Policy. This was to ensure that the evidence-based approach was as up to date as possible.

The Department of Health commissioned a survey of a representative sample of the public in 2015, with a particular focus on oral health-related quality of life. In addition, national surveys, such as the Healthy Ireland surveys (2016, 2017 and 2018), engaged with the public to determine their utilisation of dental services, as well as other related aspects of oral health.

The Department of Health also engaged in consultations with a variety of dental and oral health organisations during a stakeholders' day held to discuss the emerging evidence-based recommendations from the OHPARG. There was also engagement on specific topics with dental practitioners in independent practice as well as with dentists in the Health Service Executive (HSE) Public Dental Service (PDS). Overall, their views highlighted an appetite for change in the delivery of oral healthcare services, while in parallel emphasising the challenges associated with such changes.

The evidence base that informed the policy includes published research (See Select Bibliography), commissioned research, expert advice, analysis and reviews, some of which are included in the appendices.

### 1.7.2 Policy framework

The OHPARG recommended that the following issues be considered for the development of an oral healthcare service:

- Making prevention central to all services
- Broadening the oral healthcare team to support a whole-team approach
- Making primary dental care the core pillar of services, embracing choice and access
- Integrating oral healthcare with other healthcare services and vice versa
- Making the common risk factor approach central to all service provision
- Making older people a core component of oral healthcare provision
- Incorporating services for people with disabilities into general oral healthcare services (mainstreaming).
- Collecting oral healthcare service data in general oral healthcare practice for surveillance, and the use of pathfinder surveys for vulnerable groups.

### 1.7.3 Scope of the Policy

The current eligibility criteria for publicly funded oral healthcare services will remain in place, i.e. children aged under 16 years and adults with medical cards will be eligible to access these services. The eligibility for hospital services for those who need dental surgery will remain the same.

The Policy remit extends beyond the provision of oral healthcare services to eligible persons. The adoption of a primary oral healthcare approach will inform the nature of the services provided by the private sector also. In view of this, oral health is expected to improve throughout the population. Consequently, the oral health evaluation (clinical surveillance) programme, which will measure the impact of the Policy, will monitor changes in oral health for the whole population.

Furthermore, in order to reduce inequalities, some strategies will be aimed at vulnerable groups of people. These groups are either particularly susceptible to poor oral health and/or the treatment of poor oral health is especially challenging for them. **While oral healthcare service delivery and the Healthy Ireland framework will be a central focus, appropriate supports (such as targeted health promotion programmes) for those who are most vulnerable will be put in place.**

# Chapter 2

## Oral health trends and implications for Smile agus Sláinte



## 2.1 Summary of oral health status in Ireland

This chapter examines the oral health status of different population groups and indicates implications for the Policy. A summary of the key statistics is set out in the Annex<sup>3</sup>. Further details of current and historical oral health trends are set out in the appendices and select bibliography.

Recent studies show that there have been significant improvements in Irish oral health compared with studies from the 1980s and early 1990s, which informed the Dental Health Action Plan (1994). These improvements in Irish oral health are in line with international trends. Current Irish oral healthcare policy supports a curative approach, based on the premise that dental decay was commonplace; however, by 1994, there was already evidence emerging from child and adult Irish national surveys (1984 and 1989) that dental decay levels and tooth loss were declining by comparison with previous decades.

Improvements in the healthy ambulatory population are particularly evident. When compared with the period 1980–2000, there has been a decrease in the number of children with dental decay, and the average number of teeth with dental decay per child has reduced. Dental decay in the biting surfaces of back permanent (adult) teeth now accounts for most of the dental decay in children's permanent teeth; dental decay in the permanent front teeth is now rarely seen. Similarly, adult oral health has improved since the 1980s, with increased retention of natural teeth. Total tooth loss in older adults is a legacy of the poor oral health of earlier generations and of former treatment philosophies, which relied more on total removal of teeth.

Now, as in previous decades, socioeconomic status can be an indicator for either good or poor oral health status. This inequality in oral health, linked with socioeconomic status, is apparent across the whole life course, although these inequalities increase further with age.

The decline in dental decay in Ireland has been attributed to:

- The widespread use of fluoridated toothpaste since the 1980s
- The protective presence of fluoride in public water supplies since the 1960s.

The decline in tooth loss has been further ascribed to:

- Changes in treatment philosophies, emphasising prevention as well as stabilising and reversing early dental decay. Minimal intervention techniques are increasingly used, supported by improved technology.
- Maintenance of dentition, rather than tooth loss, is now preferable and expected by the public.

A person's oral health status across the life course is not just dependant on dental decay levels. While dental decay is the main component of a child's oral health status, beyond these early years many other oral conditions contribute to poor oral health and tooth loss. These include orthodontic anomalies, periodontal disease and root dental decay. Difficulty eating and speaking, pain and poor dental aesthetics can affect self-esteem, ability to work and social interaction and consequently personal quality of life.

The increasing prevalence of head and neck cancer is a separate development requiring attention.

3 See Annex: Summary of oral health in Ireland trends and international comparisons, Page 137

## 2.2 Children and adolescents

### 2.2.1 Demographics

Ireland, after France and Sweden, has the highest fertility rate in the EU. However, birth rates internationally and in Ireland are much lower than in previous decades. In fact, Ireland's birth rate has been declining in the past decade; in 2009, 75,554 babies were born, whereas by 2016 the annual birth rate had fallen to 63,897. The annual birth rate is projected to continue falling until 2029. Overall, the demographics are changing in Ireland, similar to the rest of Europe, from a predominantly young population to an older one.

### 2.2.2 Dental decay

Overall oral health in young children began improving in the 1970s and has continued to do so since then. Dental decay still affects at least one in three young children by five years of age, but the extent (the number of teeth affected) and the severity (the depth of dental decay into the tooth surface) are much lower. In children over six years of age, once permanent (adult) teeth begin erupting, the majority of dental decay in permanent dentition is confined to the biting surfaces of the back adult teeth.

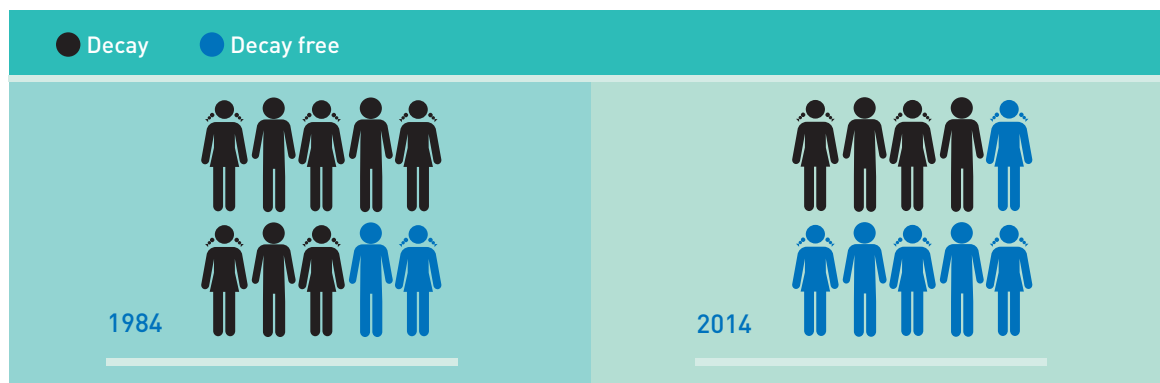
#### Oral health in Ireland

##### Dental decay in 5-year-olds



#### Oral health in Ireland

##### Dental decay in 12-year-olds



Those at high risk of dental disease are predominantly from poorer socioeconomic backgrounds and/or rural non-fluoridated areas, and this cohort's levels of dental decay continue to reflect the levels recorded among all children in the 1980s, when 12-year-old children had on average of four or more teeth with evidence of dental decay. Currently, it is estimated that one in 10 children in Ireland (or up to approximately one in five children, depending on their socioeconomic status and their access to water fluoridation) has a disproportionate level of dental decay compared to their peers.

### 2.2.3 Orthodontics

In adolescents (12- to 16- year-olds), both internationally and in Ireland, orthodontic indices since the early 2000s indicate that one in three teenagers would benefit from orthodontic treatment. Waiting lists for public orthodontic services vary regionally and according to the complexity of the condition: there are generally longer waiting lists for the least complex care.

### 2.2.4 Dental trauma

Dental trauma is also a concern, and it is estimated to affect more than one in 10 children by the time they reach their teenage years. Its association with sport and physical activity means that mouthguards need to be easily available and promoted to this teenage cohort as a preventive measure.

### 2.2.5 Congenital defects

Other oral health conditions in the young, especially those related to congenital defects (for example missing teeth), have received insufficient attention within current policy.

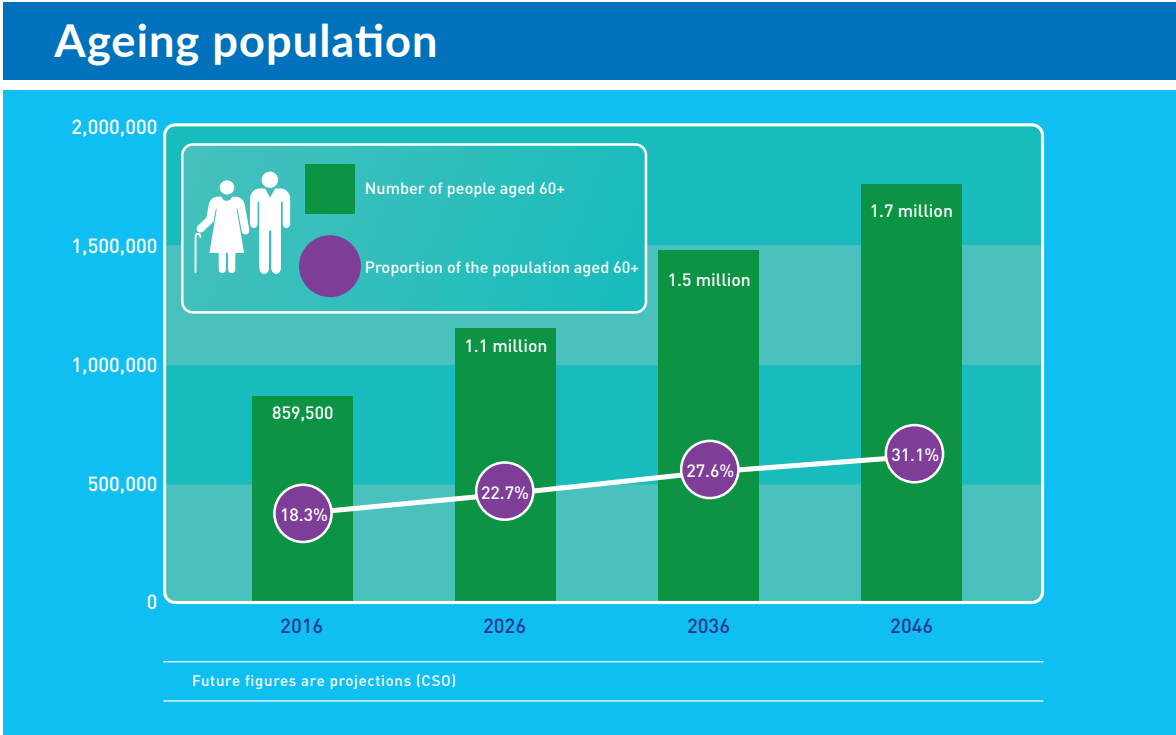
### 2.2.6 Summary of oral health conditions for children and adolescents

In summary, while dental decay still needs to be prevented, other oral health conditions also require attention in younger age groups (i.e. children from birth until 16 years of age). This broader focus on oral health conditions – including orthodontics, dental trauma and congenital malformations – requires a different primary oral healthcare service approach than that currently in place.

## 2.3 Older persons

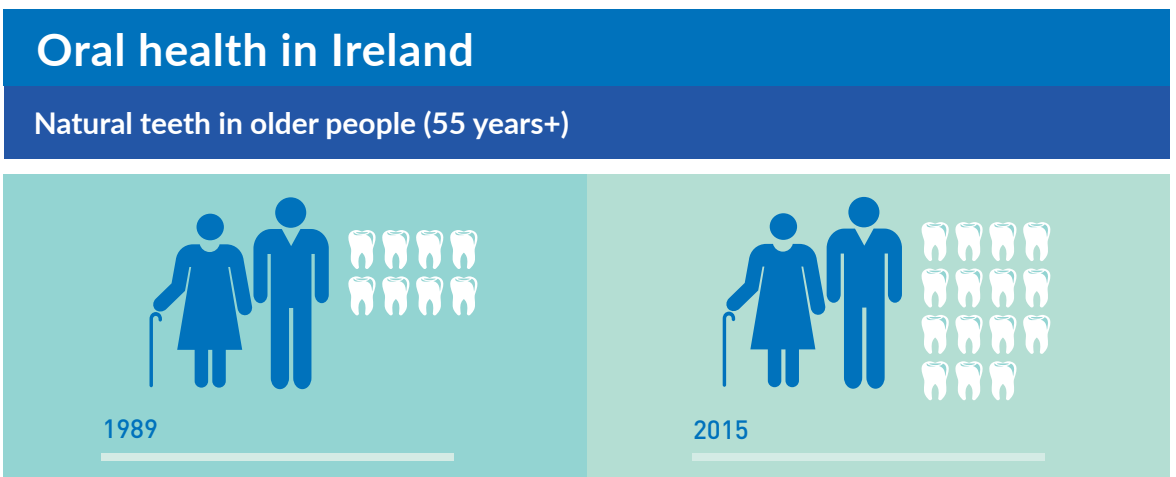
### 2.3.1 Demographics

A much larger proportion of the population in Ireland is now living to old age as outlined in the graphic. By 2046, according to the Central Statistics Office, nearly one in three of the population will be over 60 and those over 80 years will also increase in both number and proportion of the population compared to 2019.



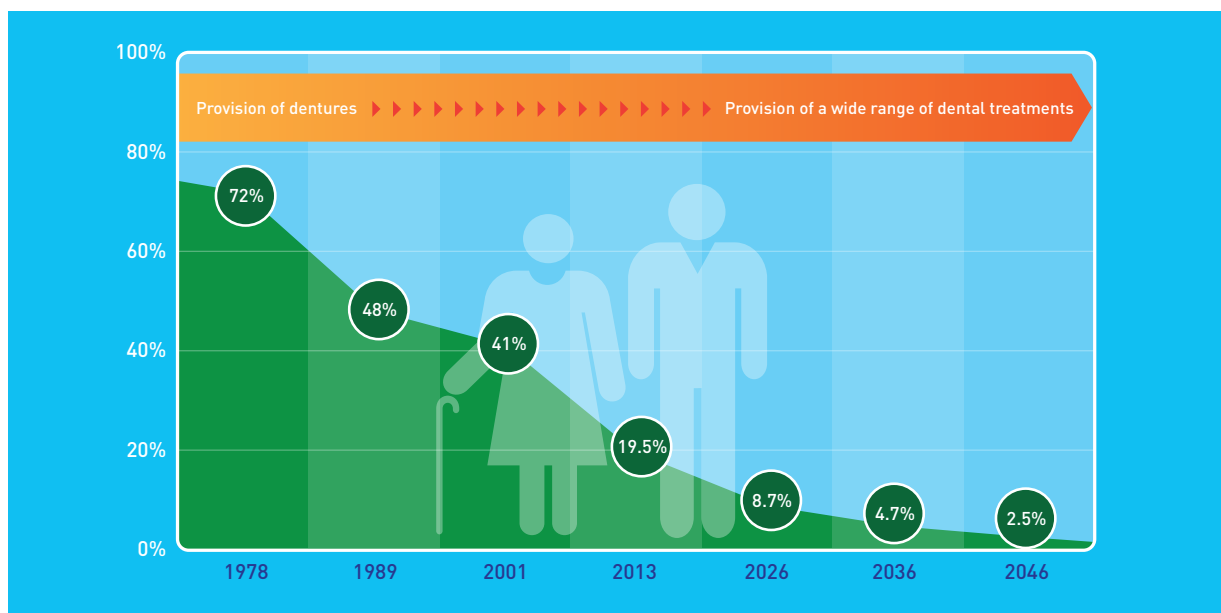
### 2.3.2 Dental decay

As a result of lower dental decay rates in their youth, those in the older age cohort have retained more of their teeth into advanced years. Such preservation means that many more tooth and root surfaces are now susceptible to root dental decay and periodontal disease; these two conditions are likely to be the main causes of tooth loss. People aged 65 who have total tooth loss have the poorest oral health-related quality of life of all age groups, and this is linked with depression and withdrawing from society. Both the Irish Longitudinal Study on Ageing (TILDA, 2017) and the Healthy Ireland (2018) studies illustrate a decline in oral health quality of life in older age groups compared to younger age groups. In the TILDA study, this is shown to be particularly profound in those who have lost teeth.





## Total tooth loss in older people (65 years+)



### 2.3.3 Access

The vast majority of older people benefit from preventive and primary oral healthcare delivered by mainstream oral healthcare services to retain their teeth into old age, i.e. a population approach. However, a proportion of the population has medical complexities or increasing frailty that affects their ability to access oral healthcare services, and the provision of their dental care can be complex and problematic. In addition, older people in nursing homes and residential institutions require particular tailored interventions and, if they are non-ambulatory, on-site care is required. Currently, minimal or, in many cases, no oral healthcare services are provided to these groups.

There is also a poor uptake of oral healthcare services among older age groups, especially in rural areas. In the TILDA study, this is reported as older people having a lack of understanding of the current system and of their personal eligibility for oral healthcare services. The combination of increasing frailty, comorbidity and use of multiple medications, as well as poor access to, and awareness of, oral healthcare services, all exacerbate the poor oral health-related quality of life of this age group.

### 2.3.4 Head and neck cancer

The rising incidence and prevalence of head and neck cancer is also evident particularly in older age groups. In older groups this reflects a legacy of earlier tobacco and alcohol use.

### 2.3.5 Summary of future oral healthcare services for older people

In summary, increased longevity means that, as in other health service areas, oral healthcare services for older people need to be reoriented. This reflects World Health Organization recommendations. Oral healthcare services should focus on neglected aspects of oral health and should provide prevention and intervention across the whole life course.

## 2.4 People needing special care

### 2.4.1 Vulnerable groups – general

The TILDA, Fluoride and Caring for Children’s Teeth (FACCT), and Healthy Ireland surveys have demonstrated the level of unmet need, poor oral health-related quality of life and risk in certain vulnerable groups: children who require early intervention, adolescents with increased risk factors, people with disabilities in mid-life, and frail older people. Refugees, homeless people, people with mental health conditions, and others in residential settings are also susceptible to poor oral health. Preventing tooth loss and enabling good oral health quality of life of vulnerable groups is a key focus of Smile agus Sláinte.

Vulnerable people, such as those with disabilities who require special care, are living longer and healthier lives. It is estimated that there are nearly 140,000 vulnerable people in Ireland who require assessment and possibly targeted oral health promotion programmes. While the majority can receive care in mainstream oral healthcare settings, an estimated 30,000 patients require more complex interventions and are considered high risk. Consequently, they will require greater time inputs by oral healthcare professionals, skilled support and appropriate infrastructure.

### 2.4.2 People with disabilities

In Ireland, in 2018, it was estimated that there were:-

- 8,500 people in adult residential settings
- 27,000 people accessing day places in 800 locations
- 6,500 people availing of respite care
- 5,000 children seeking assessments under the Disability Act.

### 2.4.3 People with mental health needs

In 2018, it was estimated that:-

- 12,000 children and adolescents were referred to Child and Adolescent Mental Health Services (CAMHS)
- 32,000 adults were admitted to hospital for a mental health related issue.

### 2.4.4 Socially excluded

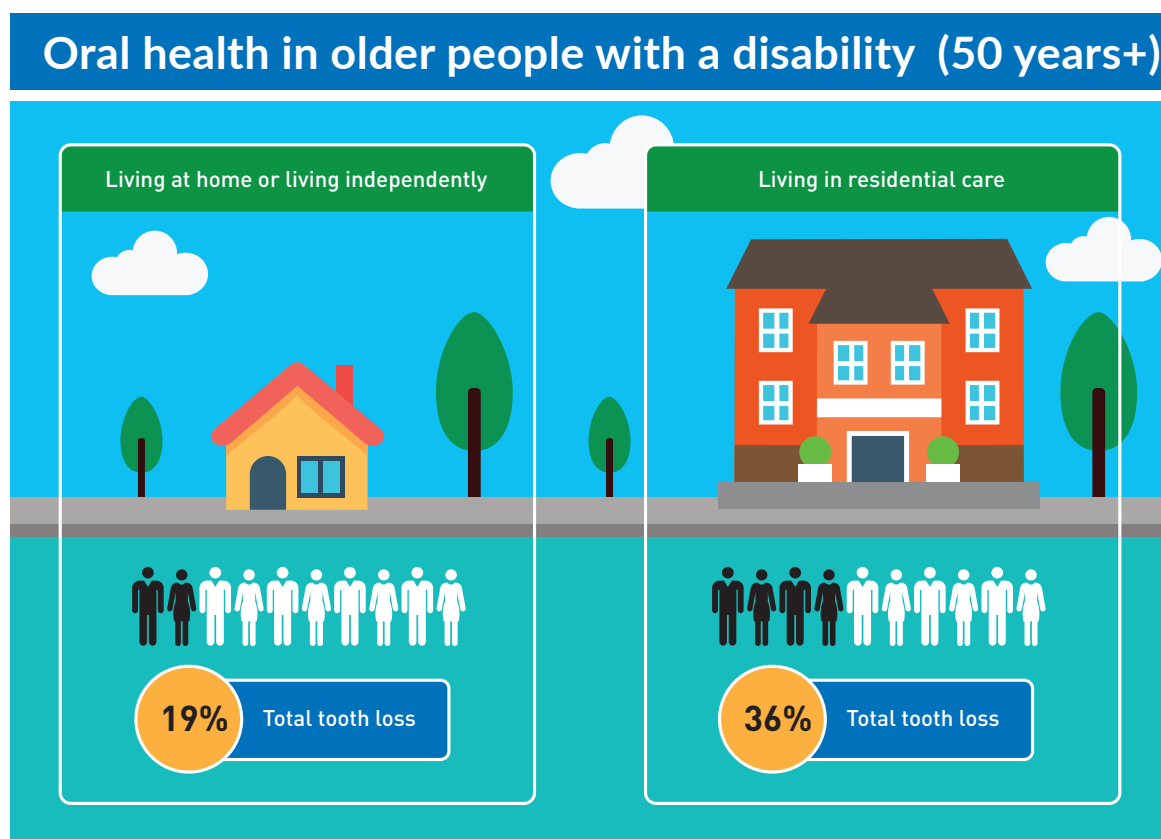
In 2018, approximately 50,000 other persons were considered vulnerable and in need of oral healthcare assessment. These included:-

- Homeless: 10,000
- Drug users: 30,000
- Refugees: 12,900.

### 2.4.5 Oral health concerns

Although evidence indicates that care for vulnerable groups can be provided in primary oral healthcare services, the Intellectual Disability Supplement to TILDA (IDS-TILDA Report 2017) and earlier work conducted in residential care settings, such as that undertaken by University College Cork in 2005, show that among people with disabilities and people in certain vulnerable groups oral healthcare was, and still is, poor by comparison with the remainder of the population in Ireland. Access to oral healthcare for this

group is currently limited or, in many cases, non-existent. A striking statistic highlighted in the IDS-TILDA study findings is that more than one-third of older people with disabilities in residential settings suffer total tooth loss, whereas less than one-fifth of those with disabilities living at home or living independently and accessing mainstream local oral healthcare services suffer such tooth loss. These latter groups have similar levels of oral health and tooth loss as their contemporaries who do not have disabilities.



The number of other conditions related to congenital or medical syndromes or disabilities is also increasing amongst the population, especially in older age groups. This reflects decreased mortality rates among people with disabilities in parallel with improved awareness of their oral health needs. Lack of oral healthcare services is also an issue in medically compromised groups. Examples include those requiring hip replacements or those with cardiac conditions or uncontrolled diabetes, which not only complicate their general health and their oral health status but also play a key role in their treatment and health outcomes.

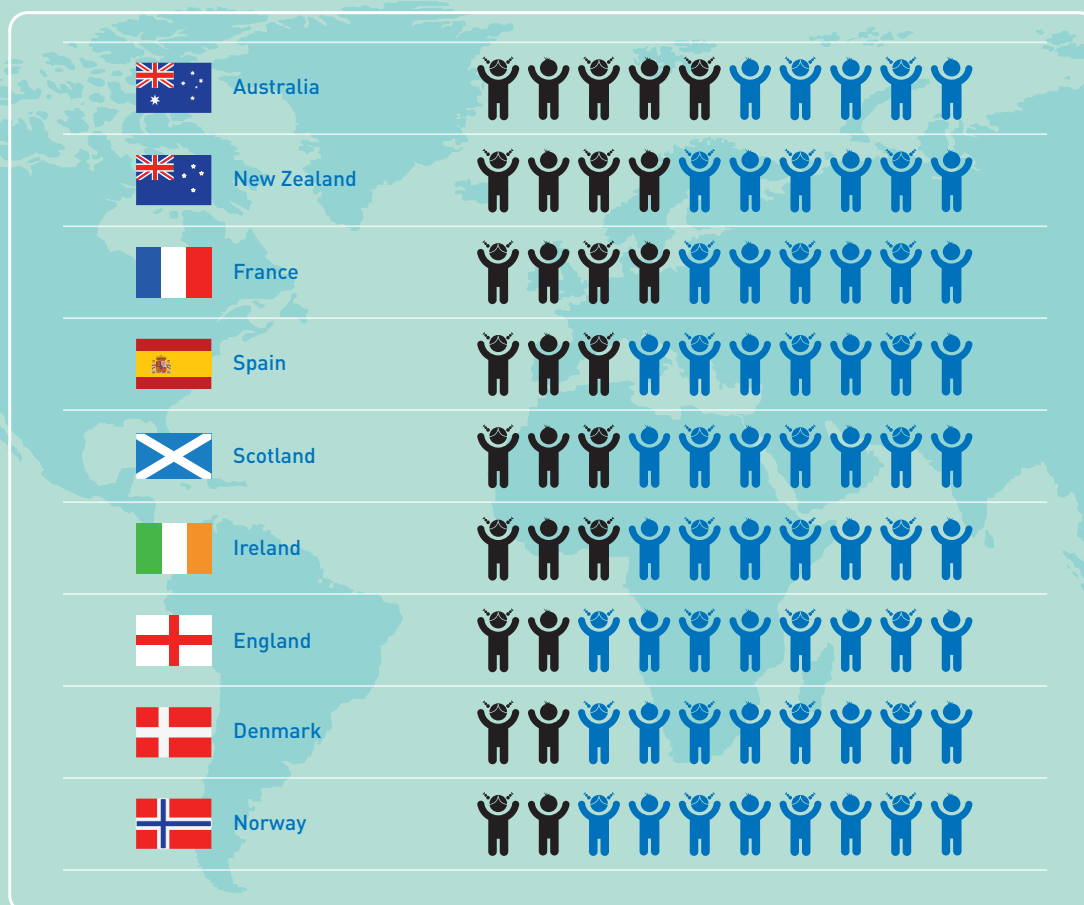
#### 2.4.6 Impact of international trends on oral health

Levels of oral health in other countries can provide insights into the likely impact of the oral health of immigrants, asylum seekers or refugees on future oral healthcare services in Ireland. International comparisons are also important to aid understanding of how we are performing in oral healthcare delivery compared with other countries. Unfortunately, to date international measures focus on dental decay levels in young children and, for older people, only on total tooth loss. For these particular indices, Ireland's current dental decay levels compare favourably with other European countries, although there is considerable opportunity for improvement. Dental decay levels vary between countries where generally poorer oral health is associated with economic deprivation and where oral health inequalities remain. This means that some people coming into Ireland from other countries may initially seek significant levels of oral healthcare services.

## International comparisons

5/6-year-olds – Proportion with dental decay

● Decay ● Decay free



## International comparisons

12-year-olds – Average number of decayed teeth

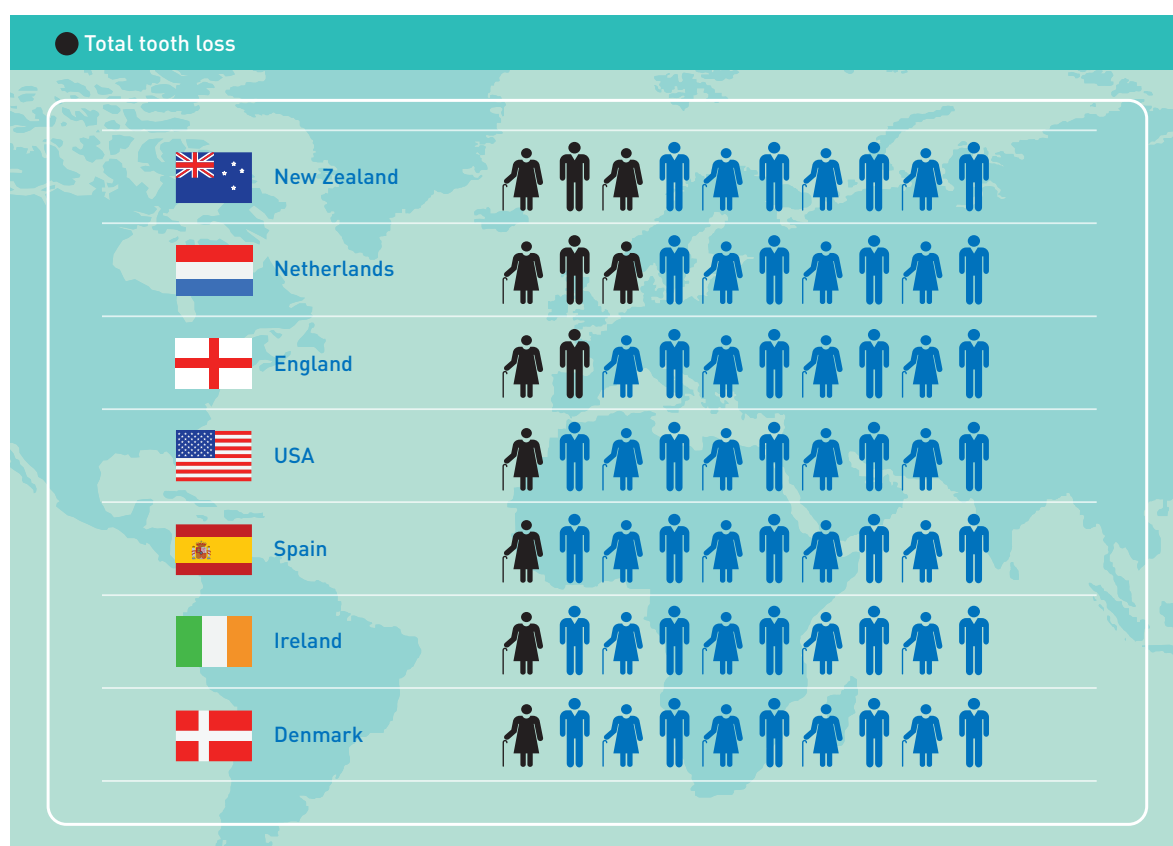
● Decay ● Decay free



Internationally, there is a lack of data on vulnerable groups, and it is only in recent years in some countries that more comprehensive data for older people have begun to emerge.

## International comparisons

### 65–74-year-olds – Proportion with total tooth loss



Access to oral healthcare has been measured across the EU and has been published in Eurobarometer survey results. The trends indicate that there are few difficulties accessing oral healthcare for the majority of Europeans. There is some variation, however, and people living in rural areas have less access. Where dental care is necessitated, most Europeans (79%) prefer to go to a dental practice or a private clinic. Some 14% of those surveyed state that, if necessary, they would go to a public clinic or a hospital. In the Eurobarometer statistics, a clinic which requires a journey time of greater than 30 minutes is not considered to be accessible.

### 2.4.7 Conclusion

Current oral health issues are outlined above. In general, oral health changes have been positive in Ireland, similar to those internationally, but there are now emerging inequalities in oral health among vulnerable groups, especially for very socially deprived younger children, people with disabilities, and older people, as well as the socially excluded, such as homeless people and refugees.

The current HSE salaried service was developed with an emphasis on treating high levels of dental decay in young children. However, this is not a comprehensive primary care treatment service and it only focuses on targeted groups aged over six years. To date, the emphasis has been on a curative programme for young children, specifically targeting schoolchildren only (i.e. those in first or second class, and in some cases those in fourth or sixth class), in addition to providing emergency care for all other children aged under 16 years.

This current service is not designed to deliver prevention and advice before poor oral health symptoms commence, nor does it support the development of self-reliance in patients. Such a service approach does not facilitate the establishment of a local relationship with a dentist of choice; neither does it enable the selection by patients of their primary oral care 'home' across the life course throughout their lives.

## 2.5 Implications of oral health trends for Smile agus Sláinte: the National Oral Health Policy

Changing demographics, such as the growing numbers of older people in the Irish population, together with increased longevity, have changed future oral health concerns. The findings of the Fluoride and Caring for Children's Teeth (FACCT) study, the TILDA study, and the Healthy Ireland study, in addition to the sporadic nature of local assessments of oral healthcare in residential care facilities, all highlight unmet population oral healthcare needs and inequalities in vulnerable groups that cannot be addressed by current oral healthcare service models. Additionally, on occasion across the life course, vulnerable groups – such as those with disabilities or those with a high burden of disease – may require more advanced skills or oral healthcare services from a supporting service to provide them with special care.

Central themes in Smile agus Sláinte are:

- Easily accessible services for all
- A population-based approach
- Regular evaluation of the population's oral health status in order to identify those who
  - o are not receiving care, or
  - o who are at increased risk and require targeted interventions in order to overcome their concerns.

The older population requires an urgent reorientation of oral healthcare services in order to address their oral healthcare requirements. Current oral health profiles show that most oral healthcare demands, in this cohort, can now be substantially addressed by a local dentist of the patient's choice in a primary care setting. At the core of the Policy's ethos is a mainstream oral healthcare approach for the eligible Irish population, including vulnerable groups, with local, easily accessible services provided across the life course. Also integral to the Policy is additional targeted oral healthcare, either episodically or routinely, for at-risk individuals, as well as a comprehensive oral health evaluation programme designed to ensure that those who may not be receiving sufficient care can be identified. A more accessible, preventive-based service across the life course will be put in place.

Vulnerable groups who may not be able to access or be treated in a primary care setting routinely at all stages across the life course include the following:

- Children and adults in residential settings
- Refugees, asylum seekers, homeless people, and those in other socially excluded groups
- Those with profound disabilities and very frail older people.

Their care should usually be provided in mainstream primary oral healthcare services, and should be supported by additional care when required. For some vulnerable groups, their care may only be possible in high-support settings.

### 2.5.1 Children

A substantial proportion of very young children (under six years of age) have some level of dental decay in their baby teeth. However, children under six years of age only have access to an emergency service, and the evidence indicates that their attendance is symptom-led, i.e. they attend only when they are in pain. Access to early oral healthcare, especially advice and prevention, before starting school is a priority action designed to enable good oral health across the life course. Establishing a personal primary oral care 'home' and a chosen local dentist early in life is crucial to creating good lifelong oral health behaviours and is a central philosophy in the Policy. By developing early access to oral healthcare and using a similar oral healthcare system throughout life, the habit of, and familiarity with, regularly accessing care is established from an early age for all groups, including the most vulnerable. The principles of early identification and adherence to clinical care pathways for groups of children who require complex and advanced care are addressed in the Policy.

This strategy aims to reduce the one in three children with dental decay in their baby teeth by six years of age, and to minimise the demand for general anaesthesia for tooth extractions. The latter is both high risk and extremely costly (estimated at up to €1,000 per patient) for an easily preventable condition.

While an easily accessible local oral healthcare service is essential, evaluating oral healthcare status at key target ages is crucial to ensuring that these vulnerable groups avail of care. The Policy includes an oral health evaluation programme to measure oral health outcomes. Additional support can then be provided in accordance with clinical risk.

### 2.5.2 Adolescents

Currently, adolescents only have access to emergency dental care. Yet, adolescence is a period that is marked by the use of alcohol and tobacco, and oral healthcare services have a key role in advising on risk factors related to this. During adolescence, an increased emphasis on oral hygiene and self-care is important in view of increased susceptibility to periodontal disease at this life stage. Access to an easily accessible and broader range of primary oral healthcare services and prevention for adolescents is supported in the Policy.

Adolescents experience lengthy waiting periods before they can access orthodontic services. International evidence supports the provision of simpler orthodontic care in primary care settings. The Policy supports early intervention and simple orthodontic care in primary care settings where possible.

Dental trauma in adolescence due to accidental injury, including from contact sports, has been identified as another area of concern. Prevention of such injuries is a focus of the Policy.

### 2.5.3 Adults and older adults

Better oral healthcare and higher levels of prevention are required in older age groups so that individuals can maintain good functional dentition that enables them to eat, speak and socialise while also, in many cases, coping with failing health and multiple medications. Retaining functional dentition into old age provides better oral health-related quality of life. Prevention and minimal intervention throughout life is a key principle of the Policy. In parallel, expanding primary oral healthcare in order to provide maintenance and treatment of previous restorative care, e.g. fillings, especially for those in mid-life and older people, is required in order to maintain good oral health. Finally, for the older population in particular, the availability of opportunistic screening for cancer and other conditions, and a plan to minimise the impact of tooth loss on oral health-related quality of life, are both crucial.

The shift in population demographics, as well as the increase in the average number of natural teeth present in older adults, affects the pattern of future oral healthcare provision. It means that oral healthcare services have to provide access to periodontal (gum) disease prevention and treatments throughout the patient's life in order to prevent tooth loss. Such patient care is in addition to dental decay intervention. Retaining functional dentition into old age brings the advantage of better oral health-related quality of life. The Policy supports easily accessible oral healthcare services for the public, available across the life course from local dentists.

Tooth loss will continue to have the single biggest effect on oral health-related quality of life for older adults in Ireland for some time. The estimated annual rates of decline in tooth loss in those aged over 50 years will eventually lead to fewer than one in 10 over-65-year-olds having no teeth in 30 years' time (i.e. by 2049). Of those who have total tooth loss, research indicates that at least one in 10 will particularly benefit from more advanced intervention such as implant-retained dentures. This ideal service provision for some older adults who have total tooth loss is supported in the Policy.

The TILDA report (2018) highlights that, for older people, there appears to be a lack of available oral healthcare services and that it is also difficult for people in this age group to access such services in rural areas. The oral healthcare workforce distribution and its impact will be considered further in Chapter 8.

A lack of understanding of their eligibility for free oral healthcare services is a key reason why older people in Ireland do not access such services. **The Policy aims to ensure that a clear public communication initiative on how the system operates is part of oral health promotion programmes and is integrated into oral health evaluation (clinical surveillance) initiatives.**

Increasing the availability of regular local access to the dentist supports opportunistic screening for head and neck cancer especially for those at risk, including older people.

For older people, periodontal disease and dental decay, especially root dental decay, are the main conditions requiring examination and/or intervention by an oral healthcare professional. Recent evidence, from TILDA reports (2015-2018), indicates that the majority of oral healthcare for older people can be provided in a primary care setting.

### 2.5.4 Vulnerable people

The Policy's ethos supports all vulnerable people to have easily accessible primary oral healthcare and, where necessary, additional supportive oral healthcare services.

In Ireland, there are more than 23,000 people living in nursing homes and more than 8,000 in residential settings for people with disabilities; overall, there are an estimated 167,000 vulnerable people in need of oral healthcare provision. Currently, a minimal service is provided to these individuals. Most of their care can be provided in a primary care setting, with a supporting targeted service when required.

People who are socially deprived as well as those living in rural areas (with less access to fluoridated water) avail of fewer oral healthcare services and have poorer oral health than those living in fluoridated urban areas. **Targeted oral health promotion programmes and additional incentives to encourage dentists to provide oral healthcare for patients with the greatest oral healthcare service requirements are included in the Policy.**

Facilitating vulnerable people, to access mainstream oral healthcare locally, in parallel with their peers, is a core principle of the Policy. Such vulnerable people include those with disabilities or those who are socially excluded. Intervention for people with disabilities can be problematic for some treatments; in



certain circumstances, this can be due to the need for the oral healthcare professional to allow extra time for treatment delivery, or to provide hoist support, sedation or other treatment adjuncts. The Policy provides for a dedicated service to be available on referral to provide this support.

Arising from vulnerable people's difficulties in accessing oral healthcare services, a variety of different approaches aimed at enabling them to avail of oral healthcare services have to be offered. These include clinical care pathways (for referral from primary care to supporting dedicated oral healthcare services) and pathfinder surveys for people in residential settings. The latter approach is a key component of oral health assessment for vulnerable groups and is necessary, as are individual oral health evaluation (clinical surveillance) assessments.

### 2.5.5 Other vulnerable groups

Refugees and asylum seekers have to be supported to access mainstream oral healthcare for initial evaluation of their oral healthcare service requirements. Homelessness across the life course is increasing; homeless people are particularly susceptible to periodontal disease, tooth loss and lack of maintenance of dentition. Head and neck cancer risk is particularly high in this group. People with mental health issues also suffer from poor oral health. This is exacerbated by medication use and inability to access appropriate oral healthcare.

In order to enable all groups who require special care to achieve their personal best oral health, there is a need for:

- A preventive rather than curative oral healthcare service approach
- Easily accessible primary oral healthcare services
- Regular oral health evaluation
- When necessary, essential care pathways for referral.

# Chapter 3

## Current risk and protective factors in oral health

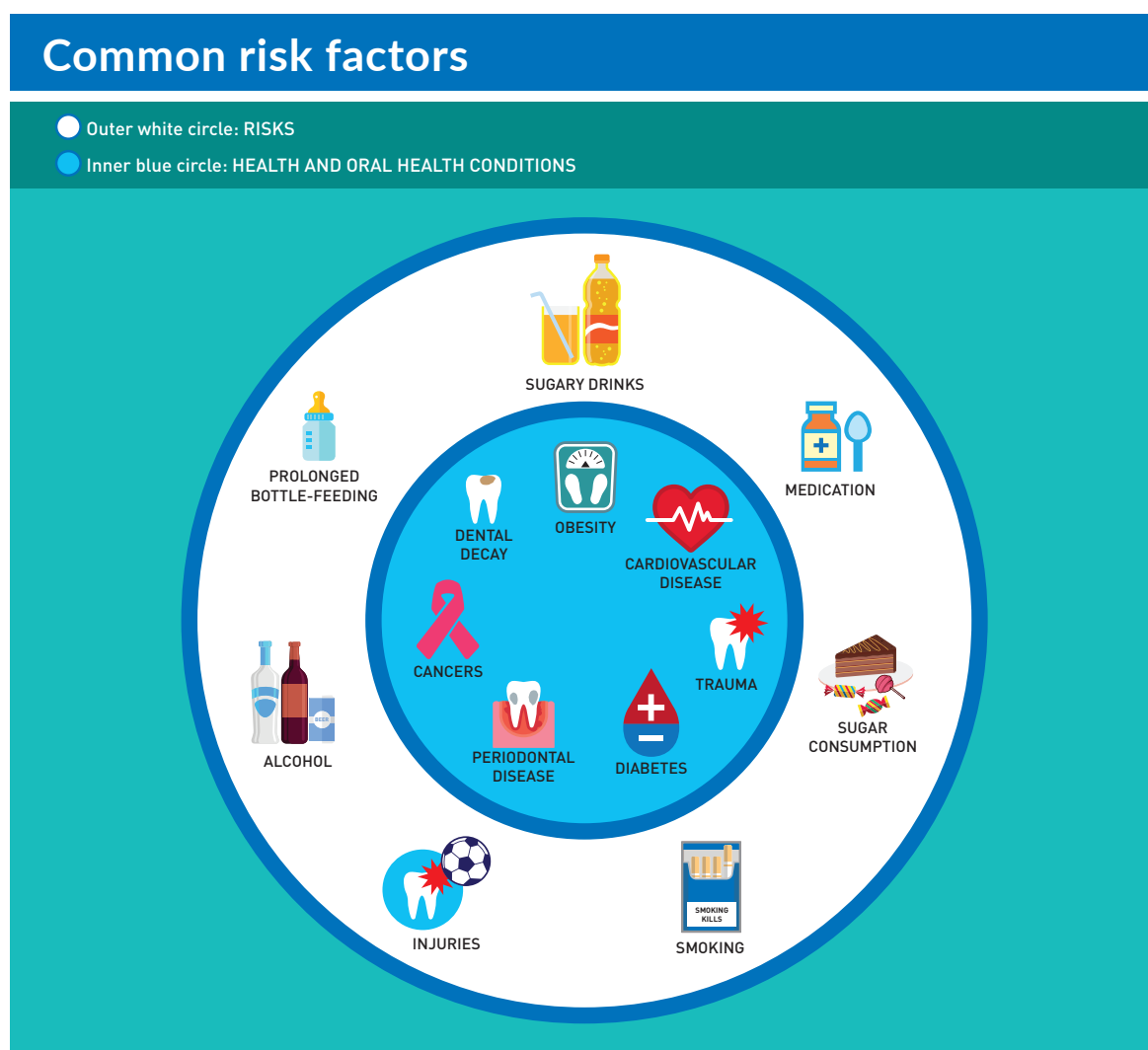


### 3.1 Risk and protective factors to inform future services

The previous chapter outlined the indicative oral health status of children, younger and older adults, and vulnerable groups. In order to ensure that people can achieve their personal best oral health, the Policy must address the current causes and risks of poor oral health and support evidence-based protection interventions in oral healthcare throughout the life course. Specifically, it is necessary to address the relevant risk factors and then put in place protective programmes to combat these risk factors. **This is the basis of the future direction of oral health promotion programmes and service provision in the Policy.** These risks and protective factors are evidence based and are grounded in data drawn from the FACCT (2013–2017) and TILDA (2015) studies, as well as from broader evidence-based literature.

### 3.2 Risk factors for oral health

The risk factors for oral health are generally similar to those for general health. Such issues include diet, tobacco usage and alcohol intake.



### 3.2.1 Diet

- The risk factors for dental decay evident in children are diet (excessive sugar intake), long-term baby bottle use and frequent snacking.
- There is little evidence of active coronal dental decay (in the crown of the tooth) in older age groups (those aged over 50 years), but obesity and diabetes, the risk of which increases with age in adults, as well as increased susceptibility to root dental decay, mean that diet (sugar intake) continues to be a risk factor for adults.

### 3.2.2 General health

- There is an association between uncontrolled diabetes and periodontal disease. This supports the World Health Organization (WHO) advice to reduce daily free sugar consumption to less than 10% of total daily energy intake.
- Reduced salivary flow in old age, either as a result of medication or of other disorders, increases the risk of dental decay starting later in life.

### 3.2.3 Topical fluorides: inappropriate use

- Current evidence indicates that early commencement of fluoride toothpaste use, i.e. before a child reaches two years of age, remains a risk for dental fluorosis of front permanent teeth.

### 3.2.4 Tobacco and alcohol

- Most twelve-year-olds have good oral health. However, risk behaviours, especially the use of tobacco and alcohol, typically commence in Irish schoolchildren in the formative teenage years. For adults, tobacco use and alcohol consumption are risk factors for many cancers, including oral, head and neck cancers. Alcohol intake was cited in the National Cancer Strategy 2017–2026 as being associated with more than 50% of cases of head and neck cancer.
- Tobacco use is also a risk factor for other oral health conditions, e.g. periodontal disease. In 2002, half of adults (specifically 35–44-year-olds) who had teeth and who also smoked had poor gum (periodontal) health.

## 3.3 Protective factors for oral health

As for risk factors, protective factors for oral health are in many cases similar to that for general health for example prevention of trauma. Some are specific to oral health such as water fluoridation. However, the practice of drinking sufficient water is a general health principle and enables the population to access sufficient fluoride per day to protect their dentition.

## Protective factors



### 3.3.1 Fluoride

- Use of fluoride toothpaste (1000 ppm<sup>4</sup> or more) twice a day is protective against dental decay, and is advised for children aged over two years. Prescription toothpastes (2500 ppm or more) provide much greater protection for adolescents and adults with high dental decay levels and active dental decay.
- Other topical fluorides, particularly fluoride mouthrinsing (daily, weekly and fortnightly), have been shown to be protective for children aged between eight and 12 years during the period when rinsing takes place. However, a study in Waterford in the 1990s indicated that any benefits

from a fortnightly fluoride mouthrinsing scheme depended on continuing the scheme. Once the scheme was discontinued, participants soon showed the same level of dental decay as their teenage contemporaries living in non-fluoridated areas who did not engage in a fluoride mouthrinsing practice when they were younger. **This means that a life course approach to continuing prevention and health promotion habits for all ages is essential.**

- Water fluoridation confers protection against dental decay in all age groups.
- Chlorhexidine gluconate is an over-the-counter (does not require a prescription) therapeutic agent, available in rinse or gel form, often used to treat the early stages of gum disease. It can be used individually or in targeted programmes. The latter is especially appropriate for vulnerable groups, such as those living in residential care, who cannot maintain their oral hygiene.

### 3.3.2 Other protective factors

- Among children who were not breastfed, more than one-third had evidence of dental decay which was much greater than that for children who were breastfed for up to six months and beyond (i.e. approximately one-quarter of the infant population).
- Application of fissure sealants reduces pit and fissure dental decay<sup>5</sup> (currently the predominant type of dental decay) throughout life.
- Mouthguards are known to be protective against trauma in contact sports.
- Brief intervention advice by general and oral healthcare professionals (i.e. diet, alcohol, tobacco, oral hygiene advice), in line with the HSE's Making Every Contact Count (MECC) framework, is an effective way to combat common risk factors.
- The HPV (human papillomavirus) vaccine offers protection against oral cancer. In 2018, at least three in every five girls received the HPV vaccine in Ireland; it is essential to provide support to all healthcare and oral healthcare professionals to promote HPV vaccine uptake in both boys and girls. Other vaccinations, such as that for herpes zoster (shingles), are also linked with better oral health-related quality of life and are especially important in older age groups.

## 3.4 Projected risk and protective factors impacting on oral health in Ireland in the future

### 3.4.1 Risk and protective factors impacting on dental decay and tooth loss

#### 3.4.1.1 Diet

- In Ireland, for children aged under six years, diet is the main influence on levels of dental decay. For babies, if breastfeeding rates continue to increase in Ireland, the impact of negative dietary factors, especially prolonged bottle-feeding (i.e. using a bottle beyond the age of 12–14 months), is expected to reduce. However, promoting this behavioural change will take considerable effort on the part of all healthcare professionals.
- Diet is a core common risk factor for oral health and general health, e.g. diabetes, periodontal disease, cardiac concerns and obesity, for the whole population. The Policy's focus will be to reduce daily free sugar intake to less than 10% of total daily energy intake.

5 Pit and fissure decay is dental decay on the biting (top) surfaces of back teeth or the pits on the back of incisors (front teeth).

### 3.4.1.2 Fissure sealants

- Preventing and treating pit and fissure dental decay remains a chief concern among oral healthcare professionals, especially for permanent teeth. Although the occurrence of new (active) coronal dental decay decreases with age, fissure sealants will remain a core prevention intervention throughout life.

## 3.4.2 Fluoride

- The current advice is that fluoride toothpaste use should not commence before a child reaches the age of two years. Further research will be undertaken in Ireland to assess the long-term impact of this advice.
- Oral health inequalities between communities in fluoridated and non-fluoridated areas will remain a challenge. The expansion of the fluoridation of public water supplies over time will reduce oral health inequalities. Other means of reducing such inequalities include the implementation of community-based fluoride preventive care programmes, such as mouth rinsing, and encouraging more extensive use of fluoride toothpaste by individuals.
- Oral health inequalities for older rural dwellers, which may be linked to access to fluoridation of public water supplies, also need to be addressed. Fluoride promotion initiatives, such as mouthrinsing, will help reduce such inequalities. Oral health inequalities can also be addressed by providing incentives to people living in rural areas to seek access to care.

## 3.4.3 Other risk and protective factors

### 3.4.3.1 Trauma

Encouraging increased physical activity – in line with Healthy Ireland programmes – for all age groups may increase the number of people who experience dental or facial injuries. Increased use of mouthguards during contact sports will help to reduce this risk.

### 3.4.3.2 Malocclusion of teeth

With decreasing rates of dental decay, orthodontics will have greater emphasis as a treatment required in adolescence. The demand from adults for such treatment is also expected to increase across the life course.

### 3.4.3.3 Cancer

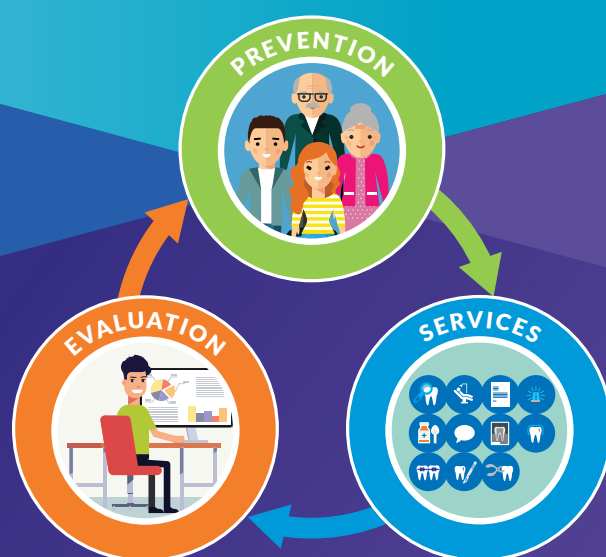
The prevalence of oral cancer is expected to continue to increase in Ireland. This is likely to reflect improved diagnosis and greater awareness, but it is also the legacy of earlier high levels of tobacco use and excessive alcohol use, along with other factors. There is insufficient evidence to show that population screening programmes for oral cancer can reduce mortality from oral cancer in countries which have prevalence rates similar to Ireland's. The challenge will be to improve the uptake of regular check-ups for the population in order to facilitate opportunistic screening, i.e. assessment of cancer risk and early detection as part of a regular check-up.

Preventing commencement of tobacco and alcohol use in adolescence will remain challenging for both healthcare professionals and policy-makers. In addition, smoking cessation and alcohol awareness programmes enabled by the Healthy Ireland framework will continue to be required. Dentists and other oral healthcare professionals must play a key role in these Healthy Ireland alcohol and tobacco prevention, awareness and cessation programmes.

In the context of the relationship between oral HPV infection and oral cancers, oral healthcare professionals are encouraged as part of Smile agus Sláinte to improve and advise the uptake of HPV vaccination for both boys and girls. Improving vaccination rates will ultimately help to reduce the risk of head and neck cancer.

# Chapter 4

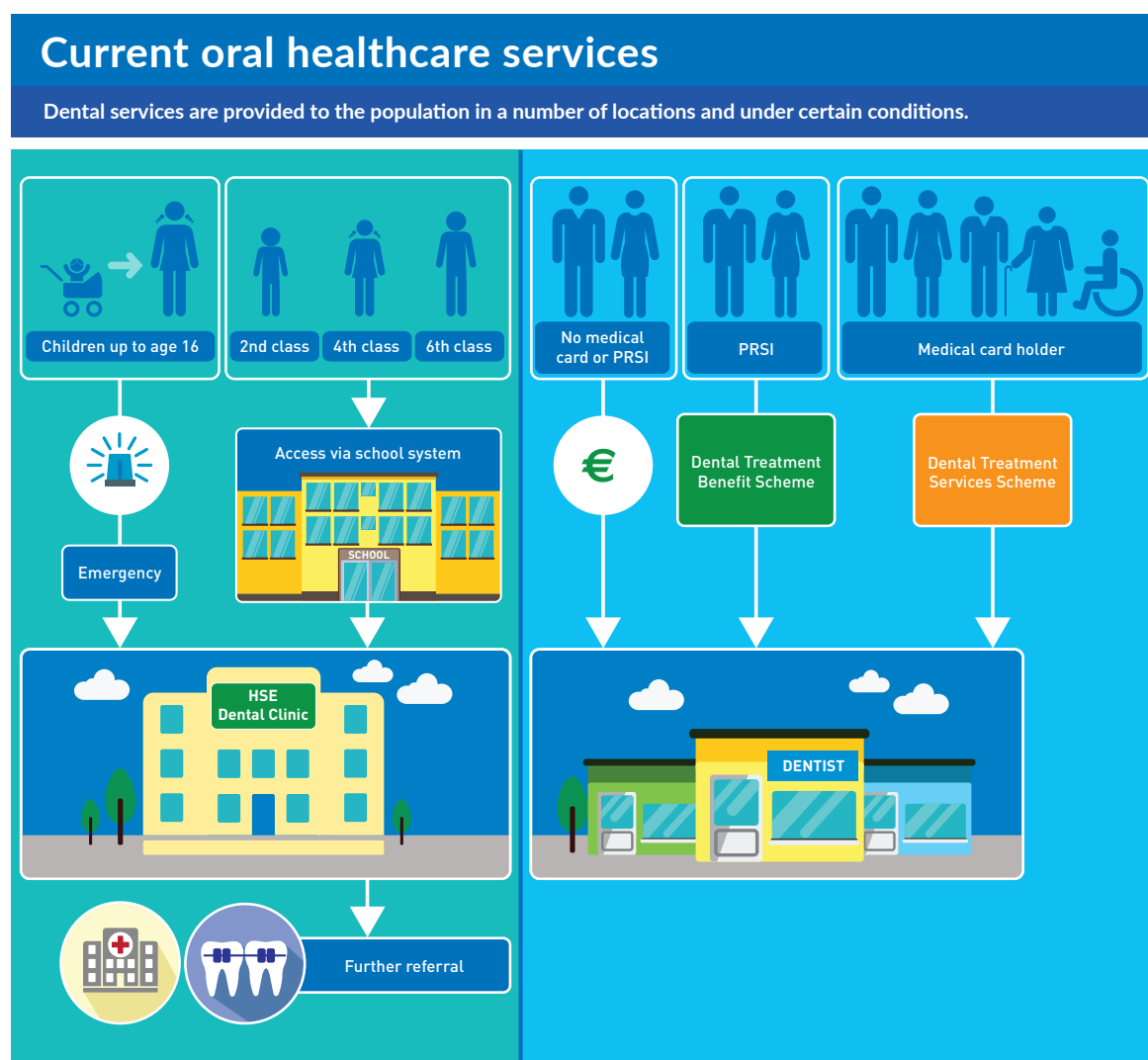
## Current oral healthcare services, legislation and framework for policy development





## 4.1 Overview of current oral healthcare services and legislation

This chapter outlines Ireland's current oral healthcare services and the legislation supporting these services. It compares the models of service in Ireland with that elsewhere in Europe. In addition, the chapter considers inputs from the public, stakeholders and oral healthcare professionals.



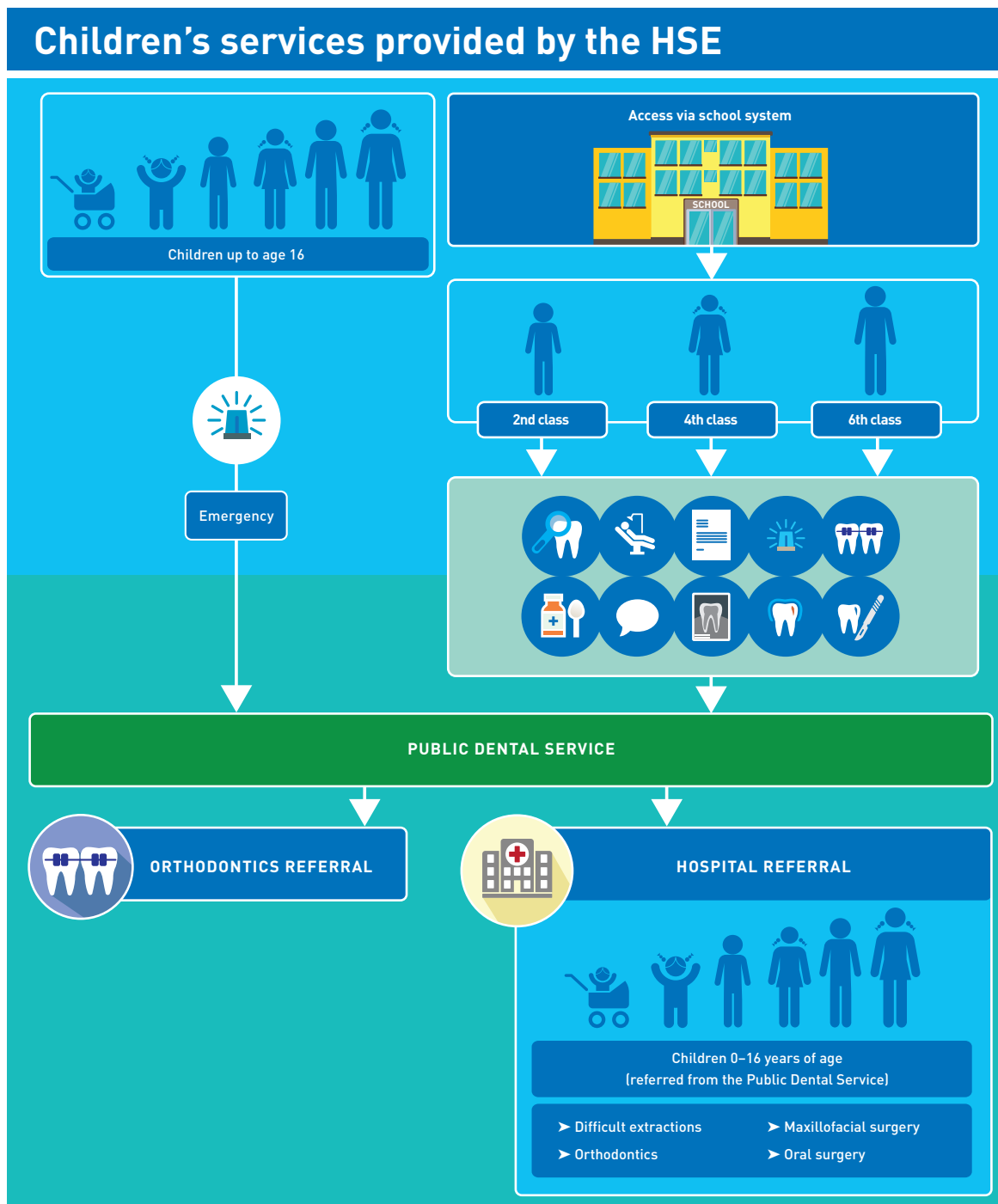
## 4.2 HSE oral healthcare services

Oral healthcare services are provided by the HSE for children up to 16 years of age, for children and adults with special needs, and for adult medical card holders. Currently, all of these groups are served by separate primary oral healthcare practice service structures in different locations, and follow varying schemes and approval mechanisms.

This system was put in place as part of the implementation of the Dental Health Action Plan (1994), which was developed in response to the identified oral healthcare needs of children and adults at that time.

### 4.2.1 Child oral healthcare services

The HSE salaried service – the Public Dental Service (PDS) – provides oral healthcare for children, including routine dental and emergency treatment. The service is provided by staff employed by the HSE in premises owned and maintained by the HSE.



## 4.2.2 Special care oral healthcare services

The PDS also provides services for children and adults needing special care dentistry<sup>6</sup>. The service provided is limited in its extent, due in part to the predominant emphasis being on providing oral healthcare for children, which in turn reflects the focus of the Dental Health Action Plan (1994).

As outlined in Chapter 2 of this policy document, there is evidence of a high level of unmet need for vulnerable groups living in residential care. In addition, for older people, especially for those who are less mobile, access to oral healthcare is a key issue. Oral healthcare is currently provided in an ad-hoc manner for people living in residential care.

## 4.2.3 Oral healthcare referral services

Orthodontics, along with other specialist services, such as oral surgery and the medical specialty of oral and maxillofacial surgery, are defined here as 'referral services'. Orthodontics is currently assessed using a modified Index of Orthodontic Treatment Need (IOTN), which determines need according to a clinical hierarchy. Patients requiring complex types of restorative and other advanced care are usually referred to either of the two dental hospitals in Ireland, or to independent practitioners who provide more advanced care.

## 4.2.4 Adult oral healthcare services

### 4.2.4.1 Dental Treatment Services Scheme

Dental services for adult medical card holders are provided under the Dental Treatment Services Scheme (DTSS). Currently, this service is used by one in three members of the eligible population each year. The treatments provided under the DTSS are limited in extent, with a focus on emergency care<sup>7</sup>. Further treatments are available on prior approval by the HSE<sup>8</sup>; the provision of such treatments is in accordance with DTSS rules and criteria. A wider range of treatments can be obtained for patients who are considered high risk or vulnerable. These treatments are only provided on approval from local HSE Principal Dental Surgeons.

### 4.2.4.2 Dental Treatment Benefit Scheme

Separately, adults with certain Pay-Related Social Insurance (PRSI) contributions are entitled to some<sup>9</sup> treatments under the Department of Employment Affairs and Social Protection's Dental Treatment Benefit Scheme (DTBS).

## 4.2.5 Summary of current oral healthcare services

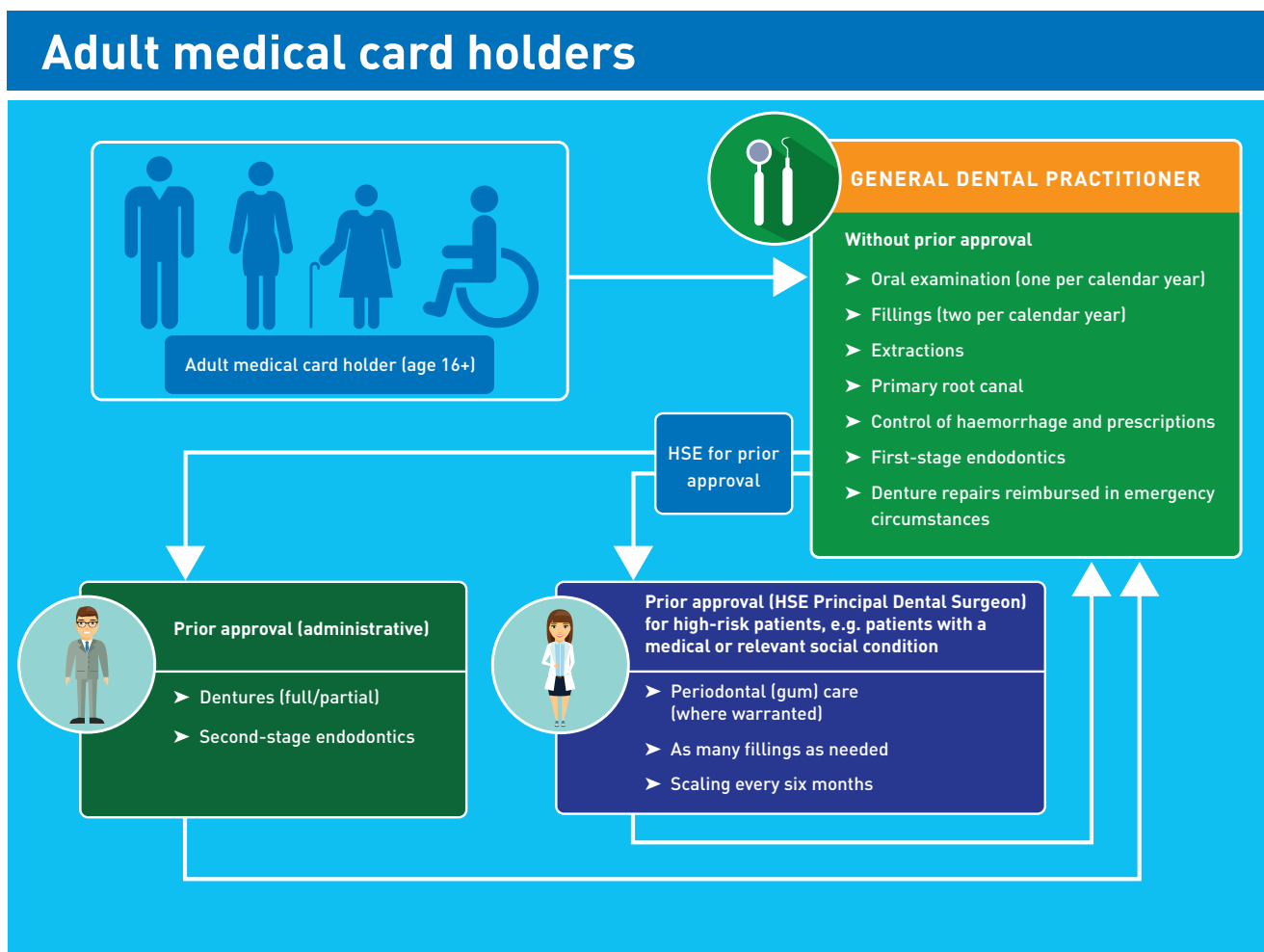
The existing system has left gaps in routine care for significant sectors of the population – especially the very young, the vulnerable, people with disabilities, and older people. Moreover, access to oral healthcare services is more difficult for those who are most vulnerable or who require complex care services, as illustrated by long waiting lists for general anaesthetic and referral services.

6 Within the field of dentistry there is a specialty known as 'special needs', which provides oral healthcare to adults needing special care dentistry. In order to avoid confusion with the formal UK dental specialty, the term 'special care' is used in this policy document, since it applies to both adults and children who have special needs.

7 Since 2010, in general, a dental examination, two fillings, and extractions (as necessary) are available every calendar year for each eligible patient. Prior to 2010 a wider range of treatments were available.

8 These treatments include prosthetics (dentures), advanced periodontal (gum) treatments, and root treatments.

9 As of 2018, examination, scaling and periodontal (gum) treatment are provided to patients. The periodontal (gum) treatment requires a contribution privately from the patient.



## 4.3 Legislation and standards supporting oral healthcare services

Current oral healthcare services are underpinned by legislation and policy. The key primary legislation is the Health Act 1970.

### 4.3.1 Health Act 1970 and the Health (Amendment) Act 1994

Under the Health Act 1970, the HSE is required to provide free dental treatment and appliances to preschool children and children of primary school age, including those taught at home, who are referred from child and school health examinations. Outpatient services are available free of charge for children (aged up to 16 years) in respect of mouth/dental defects noted at child and school health examinations. Services are available in outpatient settings free of charge for adults who hold a medical card. Children who are referred for dental treatment under general anaesthetic can also avail of treatment free of charge in a hospital/outpatient setting. The Health (Amendment) Act 1994 makes provision for services for children aged up to 16 years.

### 4.3.2 Other legislation and standards

Other relevant legislation and standards include:

- Dentists Act 1985
- Health Act 2004
- Health (Fluoridation of Water Supplies) Act 1960
- Regulation (EU) 2017/852 on mercury and S.I. No. 533 of 2018
- Health Information and Quality Authority (HIQA) standards.

## 4.4 Current delivery systems for oral healthcare

Any oral healthcare system has individual strengths and weaknesses. From a State perspective, maximising effectiveness and efficiency, building on the evidence-based strengths and capacities of different structures, and enabling these structures to work in synergy will provide the greatest benefit for the population.

The current State services are predominantly focused on the HSE Public Dental Service (PDS), the Dental Treatment Services Scheme (DTSS) and the Dental Treatment Benefit Scheme (DTBS).

The current State schemes rely predominantly on either direct employment (salaried services) or on fee-per-item (contracted care) system. The HSE directly employs dentists and other oral healthcare professionals in the PDS to provide care, mainly for children. The current State-funded schemes for adults (i.e. the DTSS and the DTBS) are both based on a fee-per-item system. Under these schemes, treatment for patients is divided into several items of care, each of which is paid for separately by the State. A further characteristic of the DTBS is that patients are required to make a co-payment for certain items of care.

The particular merits and impacts of these systems of oral healthcare funding are now better understood by policy-makers and oral healthcare professionals. As a consequence, decisions on the organisation of future oral healthcare services and their possible oral health impacts can be better informed.

### 4.4.1 Overview of salaried oral healthcare services

Following publication of the Dental Health Action Plan in 1994, a salaried service, the PDS, was considered the most appropriate delivery mechanism for oral healthcare professionals dealing with high levels of dental decay in children. This service system also supported the early development of special care and secondary care services.

The key advantage of a salaried service is in the provision of oral healthcare to patients who need access to additional resources, including appropriate physical facilities and/or the provision of more treatment time.

In short, vulnerable patients will benefit from additional services where physical resources such as hoists or sedation services are available. These capital investments are more easily justified in a salaried service that is dedicated to providing special care where these supports will be regularly used. In many cases, patients who require a considerable amount of treatment time – which may not always be available to them in a mainstream primary oral healthcare practice setting – are better suited to treatment in a salaried service oral healthcare setting, where there are fewer restrictions on the oral healthcare professional's time. These are not necessarily patients who require secondary or advanced care; rather, they require primary oral healthcare in a more protective setting. A salaried service can also foster high skill levels, which can be maintained more effectively if a group of high-need patients is the focus of care.

Other aspects of oral healthcare, such as oral health promotion programmes, can also be provided from a salaried service more easily than from a mainstream services setting. In other countries, oral health promotion has become a core function of many salaried services.

#### 4.4.2 Overview of fee-per-item oral healthcare services

The oral healthcare service for eligible adults is currently provided on a fee-per-item basis under the DTSS. The advantages of a fee-per-item system are its transparency, the financial incentive for a dentist to encourage an increase in the uptake of services, and the number of patients treated in the system<sup>10</sup>. In general, this improves utilisation of oral healthcare services nationally. The principal disadvantage of a fee-per-item system is that it encourages clinical intervention to be undertaken in preference to a reliance on prevention. This means that a curative approach is the norm.

There are up to three times more general dental practices, owned by private contractors, than the number of dental clinics in the PDS. The availability, flexibility and spread of general dental practices encourage choice and access for the public, which are key principles of a primary care approach.

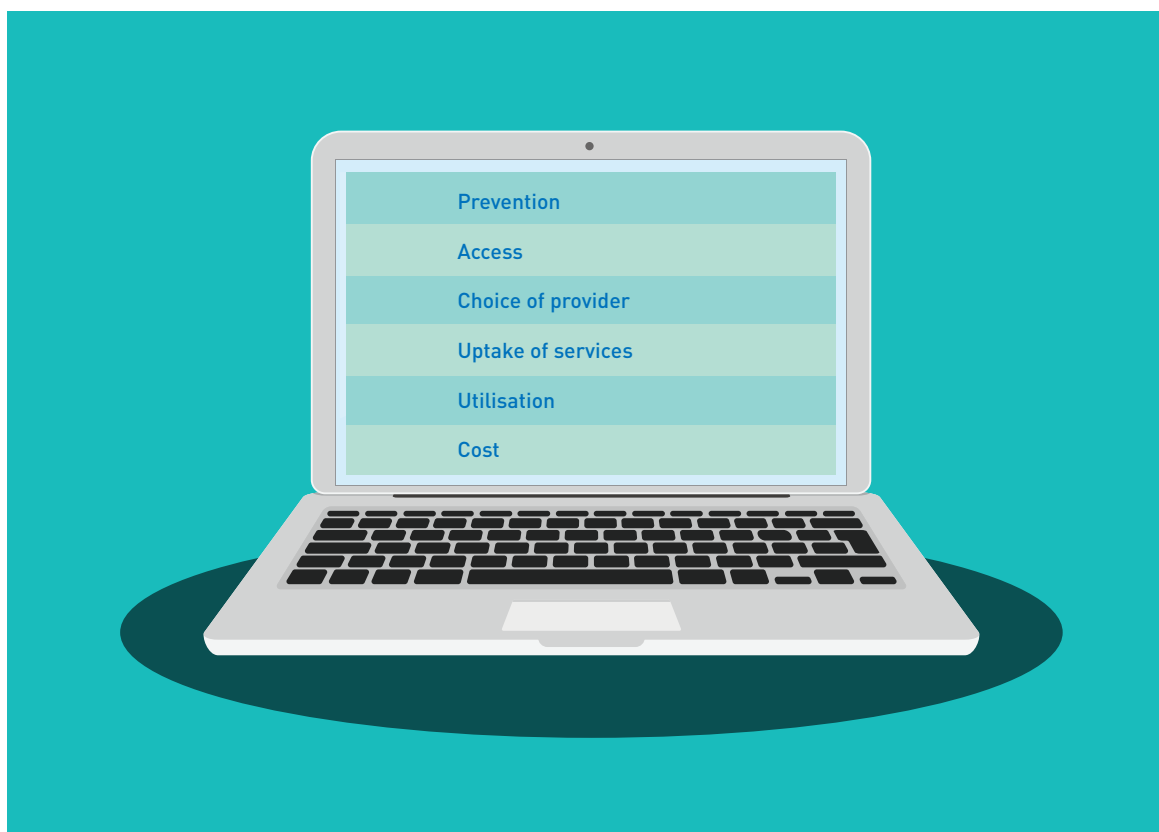
#### 4.4.3 Overview of oral healthcare service delivery and funding mechanisms

Overall, the evidence to date shows that there is no one satisfactory payment method across oral healthcare services internationally. For different settings and for different types of care, separate payment systems need to be employed. In general, a mixture of payment systems is the most satisfactory mechanism to support an efficient primary oral healthcare system, including prevention. In parallel, a strong programme of evaluation of the public's oral health is also essential. The goals of the Policy, in line with a primary care approach, are to maximise the use of oral healthcare services, improve access to such services, and facilitate choice of dentist. Also, a system that facilitates a prevention approach and enables a variety of both general and medical healthcare and oral healthcare professionals to provide oral healthcare to a community is preferable.

The 2015 TILDA study shows that there was a lack of clarity among older people on their eligibility for, and costs of, oral healthcare services. A system of oral healthcare delivery that is supported by a payment mechanism that improves transparency and reduces the level of bureaucracy for the patient is essential.

<sup>10</sup> Expert advisors reviewed reimbursement systems and their impact on health, oral health and financial outcomes.

## Dimensions of oral healthcare service delivery

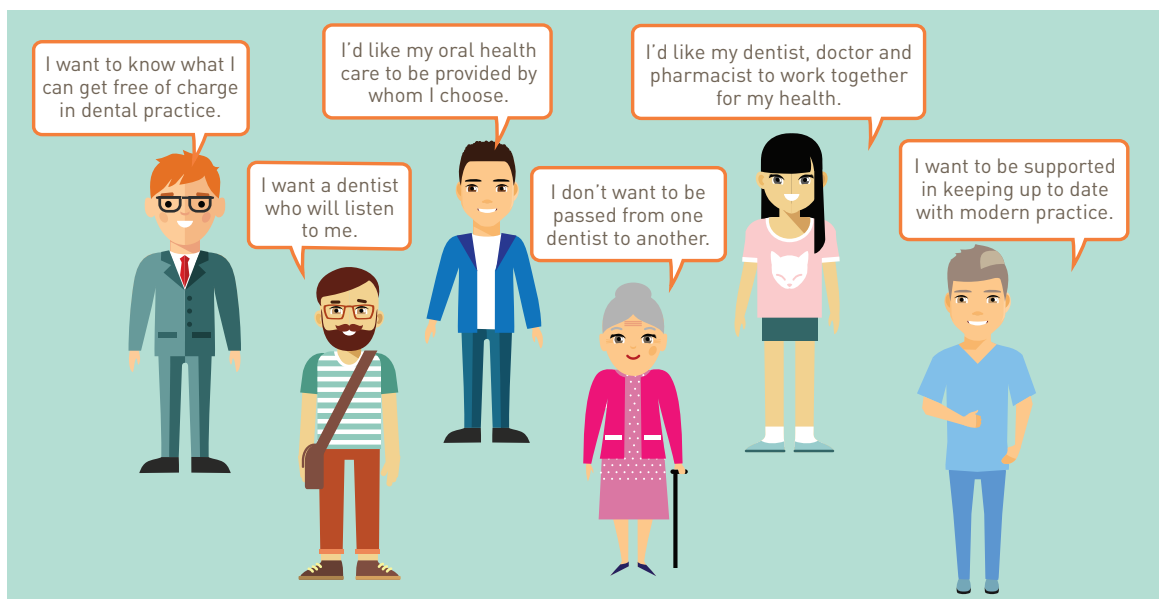


### 4.5 International payment systems

During the process of developing the Policy, a review of healthcare and oral healthcare service provision in other countries was carried out. Both third-party-funded schemes, such as publicly funded healthcare and oral healthcare schemes and private insurance-funded healthcare and oral healthcare schemes, were assessed and evaluated.

The outcomes of this evaluation indicated that the systems used internationally are predominantly capitation, salaried, and fee-per-item systems. A capitation system is often cited as an alternative to a fee-per-item system. This system relies on an annual (or other fixed period of time) payment for care of the population. However, recent evaluations of international capitation systems indicated that these payment mechanisms do not necessarily improve the amount of preventive care provided, nor do they encourage oral healthcare service utilisation. There is also less incentive for vulnerable cohorts to receive care under this system. Other systems have also been reviewed; these include pay for performance (P4P), which is often combined with salaried services in order to improve patient throughput.

## Factors considered in the development of the Policy





The review of international payment systems supports the view that Ireland's primary oral healthcare services, which are currently based on the salaried and fee-per-item models, no longer best serve the current and emerging trends in oral healthcare or Ireland's changing demographics. The use of financial incentives and insurance-type models – including 'oral healthcare packages', often called 'bundling' systems – has emerged as a mechanism that is suited to maximising efficiencies and effectiveness in general dental practices, especially when providing prevention-oriented oral healthcare services.

When salaried and general dental practice oral healthcare services are compared, the latter has advantages in terms of access, service utilisation and cost when primary oral healthcare is being provided. Furthermore, third-party healthcare and insurance-type models (which depend on oral healthcare packages or bundling) deliver advantages in terms of financial planning, improved access to services, and greater service utilisation. However, for these systems which are new developments in oral healthcare services, oral health outcomes need to be continually evaluated in order to ensure that any new oral healthcare system that is put in place is both appropriate and effective.

## 4.6 Consultation

The process of developing the Policy involved targeted consultation with dental practitioners, stakeholders and the public on specific issues.

### 4.6.1 Consultation with dental practitioners

Both general dental practitioners and PDS (HSE salaried) dental practitioners were asked for their views regarding the recommendations of the Oral Health Policy Academic Reference Group (OHPARG). To recap<sup>11</sup>, the recommendations included:

- Making prevention central to all services
- Broadening the oral healthcare team to support a whole-team approach
- Making primary dental care the core pillar of services, embracing choice and access
- Integrating oral healthcare with other healthcare services and vice versa
- Making the common risk factor approach central to all service provision
- Making older people a core component of oral healthcare provision
- Incorporating oral healthcare services for people with disabilities into general oral healthcare services (mainstreaming)
- Collecting oral healthcare service data in general practice for surveillance and the use of pathfinder surveys for vulnerable groups.

**There was universal acceptance among dental practitioners that developing a prevention ethos in general dental practice and encouraging oral health promotion strategies was an appropriate way forward.**

11 See Section 1.7.2

## Feedback from professional consultations

It's a bit of variety as well like general practice where you might have to do a difficult extraction on somebody there, big filling on another and then you're seeing some children doing some preventative fissure seals or just having a look at their teeth, about brushing and that type of thing, so yes, it's a good variety of each.

We see a few elderly patients here, they come in the wheelchair taxi and we take a bit of time over them.

I don't go out and do domiciliary care, home visits or anything like that, because it's quite difficult.

I think variety keeps things interesting. I find if you do the same thing all the time it might get a little frustrating.

When they come in in pain you don't have a chance to get a rapport.

I feel in my heart, another thing that would make an impact is talking to very young mothers.

Allowing dental nurses to carry out extended duties...can allow for more efficient dental services.

If you're non-mobile, if you can't make it to a dental clinic you're in trouble dental wise.

I'm not sure what the ideal system is. It will be difficult to find one that works for everyone.

A dentist should be able to do a bit of everything, whether it's basic orthodontics or surgery.

It's not my job to persuade a patient to get expensive treatments. I just want to make them pain free and confident with how they look.

When you qualify as a dentist, you're qualified to do everything ... you're not going to use all these skills when you work in the Public Dental Service.

Dental hygienists are strong supporters of educating their patients on the links between oral health and overall physical, social and mental wellbeing.

We share the same risk factors, what we eat, how much we drink, whether we smoke...

It is a very drawn-out process for medical card patients to obtain necessary treatment.



Many general dental practitioners expressed a willingness to broaden primary oral healthcare by treating other patient cohorts – and children in particular – in general dental practice. However, at the same time, these practitioners emphasised that a supporting service or structure for the referral of vulnerable patients, frail older people, and people with severe disabilities is required due to possible difficulties in care management in a primary dental healthcare setting. Dentists in third-party State-contracted arrangements identified the cumbersome administration associated with contractual arrangements with the HSE. These particularly referenced delays and variations in approval mechanisms for complex oral healthcare for patients.

In the PDS (salaried services) there was an eagerness for change among frontline general dental practitioners and a particular interest in the opportunity to use and expand their skills. However, this had the caveat that they would be adequately supported with training. Concerns were raised about the geographical inequality of oral healthcare provided to the public, which is dependent on the approach and/or resources of the local HSE areas. In addition, there was a perception that members of the public receive different services depending on the local HSE administrative approach in the area in which they live.

#### **4.6.2 Consultation with stakeholder organisations**

A stakeholders' day was held in 2015 in order to elicit views on key issues from oral healthcare professionals' representative organisations. Themes discussed included information for the public about oral healthcare services, what services should be prioritised, and the need to collect oral health data.

A team approach to improving oral healthcare provision was supported. In addition, a need to expand skill sets for general dental practitioners and auxiliary dental workers was debated. There was consensus that this team approach was particularly important in relation to vulnerable groups. There was debate regarding the use of surveys and other methods to assess oral healthcare needs. There was also consideration of the continuing need to provide oral healthcare for children, in tandem with the need to provide oral healthcare for the growing number of older people in the population.

### 4.6.3 Consultation with the public (oral health-related quality of life and oral health status)

## Public concerns

In a study on the public's attitudes to oral health issues, the extent of problems due to poor oral health was measured. Respondents reported:

Food catching

Tooth not looking right

Appearance affected

Sore spots

Difficulty chewing

Painful aching

Feeling tense

Feeling upset

Feeling miserable

Avoiding eating

Interrupted meals

Trouble getting on with other people

Financial loss



An assessment of oral health-related quality-of-life indicators for people of all ages, is now considered by the WHO to be a key outcome measure used to compare the oral health status of each country with that of other countries. Market research into this measure was commissioned by the Department of Health. The study included methods of assessing the public's oral health-related quality of life, as well as measuring other aspects of oral healthcare service utilisation by the public.

The research showed that the majority of the survey respondents reported having no major oral health problems. However, one in five respondents stated that they had functional limitations, such as food catching, or chewing problems. The younger the person was and the more teeth they had, the more likely they were to consider their oral health-related quality of life to be very good. Concerns regarding the cost of dental services and access to same were also raised by the public.

The market research survey informed the use of oral health-related quality of life as a measure within the TILDA study and also within the Healthy Ireland surveys.

In the most recent Healthy Ireland Survey (2018), the majority of people reported that overall they had 'good' to 'very good' oral health. There was minimal change between 15 and 54 years of age in this perception, where approximately eight of 10 people (89% of 15–24-year-olds falling to 78% of 45–54-year-olds) had 'good' or 'very good' perceptions of their oral health. However, after 55 years of age, this personal positive view of oral health declines so that by 75 years of age and older, six out of 10 people (65%) felt positive about their oral health. Almost one in three (30%) of those in the older age group (aged over 75 years) describe their oral health as 'fair'. In the younger age groups (15-24 year olds) less than one in 10 (9%) respondents felt the same way.

Smokers and ex-smokers were more likely to perceive that they had poor oral health. While the majority (85%) of non-smokers considered that they had 'good' or 'very good' oral health, a lower proportion, although still more than half (68%), of smokers described their oral health in the same way. Oral health quality of life also varied with economic deprivation. Sixty-five per cent of unemployed people stated that they had either 'good' or 'very good' oral health, but a higher proportion (83%) of employed people felt this way. Similarly, among residents of a deprived area, three out of four people (75%) viewed that they had 'good' or 'very good' oral health, but among those living in a more affluent area, more than eight out of 10 people (83%) held this view.

#### 4.6.4 Other oral health-related questions

Other oral health-related questions, such as utilisation of dental services, use of fluoride toothpaste, diet, tobacco and alcohol use were taken into account.

##### 4.6.4.1 Utilisation of dental services

The nationwide Healthy Ireland surveys include questions related to dental services and oral health. In the most recent Healthy Ireland Survey (2018), respondents were asked how often they attended the dentist. Nearly half of the respondents (47%) aged over 15 years indicated that they attended once a year. Women between the ages of 35 and 74 attended more frequently than men of the same age (52% compared to 43%, respectively). Otherwise, there was no difference between genders.

Unemployed people and those living in more deprived areas were less likely to visit a dentist (42% and 41% respectively) compared to their employed (51%) and affluent (55%) peers. However, for adolescents and adults aged 15 years and over, this was generally for prevention or for symptomless treatment, with only 12% attending because of pain. This contrasted with early attendance in children, which was usually related to symptoms.

The results from the TILDA study undertaken in 2015 indicated that among older adults, over 50-years of age, there was evidence of a difference between those living in rural and urban areas in terms of accessing oral healthcare. Rural dwellers (outside of any urban areas) visited their dentist less frequently, with 15% not attending at all in recent years; the comparable figure for older people living in Dublin was 7%. Furthermore, in this older age group, both rural and urban dwellers' use and awareness of State dental services are low, particularly among older people with no teeth.

In the FACCT study, the majority of children (61%) had not accessed care before the age of six years. If and when they did access oral healthcare earlier than age six, fewer than one in 10 (7%–8%) accessed care when aged under three years. The children who had not attended for oral healthcare before age six were less likely to have had dental decay than those who had visited a dentist earlier. This suggested a symptom-led use of services for children under the age of six, where parents sought care on an emergency basis.

#### 4.6.4.2 Use of fluoride toothpaste

In the FACCT study, parents were also asked about the age their children started to use fluoride toothpaste. The majority of parents (80%) indicated that their children had used fluoride toothpaste before two years of age, which is not in line with the recommendations of the Forum on Fluoridation.

#### 4.6.4.3 Diet

Diet continues to be an issue for the maintenance of good oral health. The Healthy Ireland Survey (2018) showed that one in three (34%) people in Ireland have a sugary drink weekly or more often. Slightly less than one in 10 (9%) drink sugary drinks daily, although in those aged under 24 years this rises to 15%. Excess sugar intake linked with oral and general health concerns, such as diabetes and obesity, needs to be addressed. The WHO recommendation to limit the total daily intake of free sugars to no more than 10% of daily total energy intake, and ideally comprising no more than 5% of daily total energy intake, is challenging. However, the WHO has emphasised that this consistent message, focusing predominantly on the amount of sugar ingested daily rather than on other aspects such as the frequency of sugar intake, must be supported for all age groups.

Encouragingly, 86% of respondents drink water once a day, with 51% drinking it three or more times a day. It was not determined if this water was from public water supplies, which would enable exposure to fluoride, positively supporting oral health.

#### 4.6.4.4 Tobacco use (smoking) and alcohol intake

The Healthy Ireland Survey (2018) showed that 19% of 15–24-year-olds are already smoking and 66% are drinking alcohol. The survey also showed that, for smokers of all age groups, smoking cessation advice was commonly received from dentists (21%).

From analysis of the responses to the TILDA oral health questionnaire (Wave 3 in 2015), smoking was shown to have a negative impact on tooth retention. Adults aged over 50 years who have lost their teeth are more likely to be current smokers than adults who have retained their teeth (40% versus 15%; the difference is particularly noteworthy in those aged 54–64 years). In contrast, the impact of living in a water-fluoridated area was found to be positively associated with retention of teeth in adults aged over 50 years.

# Chapter 5

## Strategic direction of Smile agus Sláinte: the National Oral Health Policy



## 5.1 Strategic strands of Smile agus Sláinte: the National Oral Health Policy

The primary goal of the Policy is to provide the supports to enable every individual to achieve their personal best oral health. In line with the principles of the primary oral healthcare approach, this will be accomplished by ensuring that an appropriately accessible and adaptable oral healthcare service, including prevention and treatment, is available. **General health and oral health promotion are also essential to support this service framework.**

Overall, the needs of the majority of the population are most appropriately met in general dental practice settings within local communities. This requires a realignment of oral healthcare services to mirror a primary oral healthcare approach. The oral healthcare needs of the population are best served by local provision of, and on-demand access to, primary oral healthcare services.

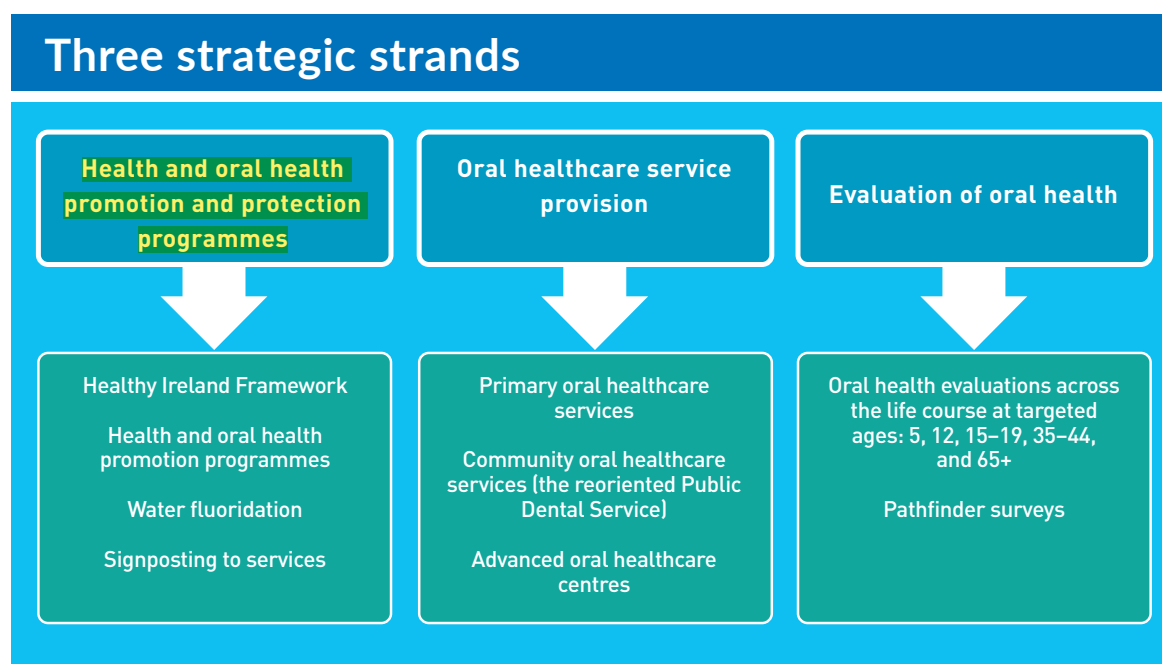
A second goal is to reduce oral healthcare inequalities across the population. In the Policy, primary oral healthcare services will be at the forefront, with all care originating in a primary oral healthcare setting.

In order to enable people to achieve their personal best oral health, the Policy has to address the risk factors for oral health and then put in place protection and prevention programmes to combat these. People who need treatment must be supported by a primary oral healthcare service, which in turn must be supported by services providing oral healthcare in protected environments and by services providing more advanced care.

**The Policy delivery system will have three strands, as follows:**

- **General health and oral health promotion and protection programmes**
- **Oral healthcare service provision**
- **An oral health evaluation programme.**

This future direction is outlined in the remaining chapters. The time frame for implementation of the Policy will be 2019 to 2026, with the focus in the initial three years on putting in place a framework for policy implementation.





# Chapter 6

## Health and oral health promotion and protection



## 6.1 Healthy Ireland and oral health framework

This policy embraces the key principles of Healthy Ireland: A Framework for Improved Health and Wellbeing 2013–2025. The Healthy Ireland framework is an inclusive, multidisciplinary model which aims to enhance the health of the community. **The oral health promotion framework is based on the life-course and common risk factor approaches, which encompass the core values that are embedded in the Healthy Ireland framework.**

Regulation and broader health policy support an environment that enables the public to optimise their oral health. **The oral health promotion framework also includes specific oral health protection programmes such as water fluoridation, compliance with the recommended use of fluoride toothpaste, and targeted programmes to reduce inequalities. The support of key health messages through the HSE's Making Every Contact Count (MECC) framework, targeted at all age groups, is a key component of the Policy.**

### Prevention and support



## 6.2 Regulation and policy: general health

Regulation and broader policy to support optimum general health is essential for providing a supportive environment to optimise oral health. This includes regulations and actions such as the Sugar Sweetened Drinks Tax (SSDT) provided for in the Finance Act 2017; the Public Health (Alcohol) Act 2018, which builds on the recommendations contained in the Steering Group Report on a National Substance Misuse Strategy and is reinforced in Reducing Harm, Supporting Recovery: A health-led response to drug and alcohol use in Ireland 2017–2025; and the Tobacco Free Ireland Action Plan. It also embraces legislation on the sale and use of tobacco products. The impact of these actions will be seen in future years; an immediate impact on oral health is not expected.

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*Action 1: To support regulation and strategies to reduce alcohol use, stop tobacco use and improve diet control.*

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## 6.3 Oral health protection programmes

### 6.3.1 Water fluoridation

Water fluoridation is one of the main contributory factors to good oral health throughout life. Maintaining water fluoridation, ensuring its quality and effectiveness, and improving its reach is a key action area. The expansion and maintenance of water fluoridation requires close working with Irish Water. The monitoring of its impact on oral health and general health will continue.

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**PRIORITY**

*Action 2: To maintain water fluoridation.*

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## Advice and preventive interventions



### 6.3.2 Toothpaste use promotion programmes

The most appropriate age to commence fluoride toothpaste use in children is under consideration internationally. The need to minimise the risks of fluorosis while maximising the anti-caries benefits of fluoride toothpaste must be balanced. The most vulnerable period for fluorosis is when the adult teeth are developing. The front four teeth are developing in the first few years of life. Fluorosis on these teeth has the greatest impact aesthetically.

#### PRIORITY

**Action 3:** To develop an oral health promotion programme promoting compliance with fluoride toothpaste use.

The current evidence still supports the Forum on Fluoridation (2002) recommendation that, in order to minimise the risk of dental fluorosis, fluoride toothpaste use should not commence any earlier than two years of age. However, this advice will be kept under review.

Topical fluoride programmes, including fluoride toothpaste programmes, for children aged under six years will not be undertaken as part of the Policy. This reflects considerations relating to fluorosis and concerns due to swallowing of toothpaste by young children.

### 6.3.3 Topical fluoride programmes

The discrepancy between dental decay levels in children living in fluoridated areas as compared with children living in non-fluoridated areas remains. To reduce oral healthcare inequalities, targeted topical fluoride programmes, such as use of high-dose fluoride mouthrinsing, will be put in place.

In rural schools, where appropriate, such targeted topical fluoride programmes will help to address imbalances in oral health between children living in fluoridated areas and those living in non-fluoridated areas. The programmes will be confined to children aged over six years; this is to ensure that the four front teeth are fully developed and no longer at risk of fluorosis. In addition, the strength of fluoride used in these mouth rinses, especially those administered fortnightly, are extremely high. Over the age of six years, the swallowing reflex will also be more likely to be fully developed, thus reducing the risk of swallowing excess fluoride from such high strength topical fluorides such as prescription fluoride mouth rinses.

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**Action 4: To develop targeted topical fluoride programmes, including fluoride mouthrinsing programmes, for children over six years of age.**

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**Action 5: To develop oral health promotion programmes for vulnerable groups in line with the Healthy Ireland framework.**

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TILDA outcomes indicate that people in older age groups appear to benefit from living in fluoridated areas. Older adolescents and adults living in non-fluoridated areas will be able to reduce their risk of dental decay with daily mouthrinsing or prescription toothpastes, if necessary, prescribed by a dentist or other healthcare professional.

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**Action 6: To develop guidelines for advice and prescription of preventive topical agents in dental practices for eligible adults.**

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In addition, for people living in residential care and for older people living in inaccessible rural areas, especially non-fluoridated areas, evidence-based topical fluoride therapies or local oral healthcare services promoting tailored high-fluoride toothpaste usage will be considered. **Such initiatives will support other oral health promotion programmes developed for these vulnerable groups.**

### 6.3.4 Targeted approaches to reduce oral health and oral healthcare inequalities

Socioeconomically disadvantaged areas, both rural and urban, also require targeted oral health promotion programmes. These programmes will be prioritised and tailored for each area's particular needs. Such programmes will not be limited to targeting children and adolescents; rather, they will target people across the life course and will encompass workplaces and other settings, including residential settings for older people and/or people with disabilities. The common risk factor approach will be employed across the whole spectrum of risk for all oral health issues.

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**Action 7: To develop targeted oral health promotion programmes for socioeconomically disadvantaged areas.**

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Quality of life measures have highlighted the detrimental effects of total tooth loss, including dissatisfaction, avoidance of social occasions and isolation. Intervention measures to prevent total tooth loss will include tackling periodontal disease and dental decay. For periodontal disease, risk factors are tobacco use and poor oral hygiene. Protection is conferred by using chemotherapeutic agents, i.e. substances that stop or inhibit growth of microorganisms. For dental decay, preventive oral hygiene, as well as diet and the protective influence of fluoride, are all important.

Preventing tooth loss will involve working with other healthcare professionals outside the field of dentistry in order to influence patients appropriately regarding diet and tobacco use. A targeted oral health promotion approach will also enable the prevention of tooth loss.

## 6.4 Health promotion and the Making Every Contact Count framework

The inclusion of oral health promotion in general health promotion initiatives is an appropriate way to inform the public about common risk factors. Such oral health promotion messages have a particular focus on diet, tobacco use and alcohol intake. In addition, embracing the common risk factor approach means that, where possible, similar messages will be reflected across all healthcare disciplines. In many cases, these communications will be provided through public health workers, pharmacists and general medical practices, both from general practitioners (GPs) and practice nurses, rather than by oral healthcare professionals exclusively. This is in line with the HSE's MECC framework.

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**Action 8: To develop health promotion programmes focused on improving oral health throughout life.**

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Oral healthcare professionals will refer patients to management and cessation programmes to address poor diet, as well as tobacco and alcohol use. In addition, awareness of, and referral to, other clinical care programmes (e.g. for diabetes) will be an essential aspect of practice.

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**Action 9: To support oral healthcare professionals to work with general healthcare professionals to improve health and oral health.**

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Some oral healthcare professionals may prefer to provide the majority of prevention advice and support on alcohol, tobacco and diet control themselves. However, even then, liaison with professionals in other healthcare disciplines, such as pharmacists, general medical practitioners, practice nurses, and community and public health nurses, will be essential in order to support these key messages.

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***Action 10: To develop referral pathways from oral healthcare professionals to formal, structured intervention programmes for alcohol, tobacco and diet control.***

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# Chapter 7

## Prevention and treatment services





## 7.1 Reoriented oral healthcare services

The oral healthcare service will be reoriented to embrace a primary oral healthcare approach. The service will be aligned with the theoretical concepts of the Policy, which were outlined in Chapter 1.

A key issue which influences service provision is the projected changes in the population:

- By 2046, nearly one-third of the population in Ireland will be over 60 years of age. This raises new and complex challenges for prevention and oral healthcare service provision.
- The proportion of the population living with multiple health challenges is likely to continue to increase.
- The focus in the future will be on enabling all vulnerable people to live at home independently for as long as possible, which will put a greater emphasis on the accessibility of primary oral healthcare services.
- Providing oral healthcare for some sectors of the population will require particular and substantive service support in order to manage the complexity of their general health status. This will be reflected in changes in services for older people and people with disabilities, as well as for other vulnerable groups. The ethos will be to ensure that oral healthcare service provision remains in the community.
- In 2016, the Central Statistics Office indicated that persons born abroad accounted for 17% of the population. The variability of oral health internationally means that some of this population may initially have greater needs.
- The child and young adult population, as with the population in general in Ireland, will change over time, being influenced by birth rates and migration patterns. The majority will require mainly oral health prevention and protection services. However, certain cohorts of the population remain at high risk of developing poor oral health.

Under the Policy, the existing eligibility criteria for accessing publicly funded oral healthcare services will remain:

- All children up to their 16th birthday
- All medical card holders.

Eligibility will be in line with current legislation.

## Smile agus Sláinte oral healthcare services



Based on the emerging themes of prevention, primary oral healthcare and mainstreaming, the oral healthcare service will be transformed into three core oral healthcare service streams, as follows:

- Primary oral healthcare services will be provided for the majority of the eligible population.
- A supporting service for vulnerable patients will be provided by a reoriented Public Dental Service. In order to reflect its new focus and central role in the community, these services will be known as community oral healthcare services. They will be networked services as defined in the Primary Care Strategy (2001).
- Advanced oral healthcare centres, i.e. designated centres of care, including dental hospitals and acute services, will provide secondary and tertiary care when required.

Primary oral healthcare services, including preventive care and dental care packages, will be available for the eligible population across the life course and provided by oral healthcare professionals in a primary dental care practice of the individual's choosing. Most oral healthcare services will be provided in this setting.

The future oral healthcare service will have the following characteristics:

- Oral healthcare will, for the most part, be delivered from birth to old age in a primary oral healthcare setting.
- This service will be provided for the eligible population, which currently includes all those aged under 16 years and all those with medical cards.
- Services will be accessed in a person's own local community or near their place of work or education. Each individual will be able to select the dental practice and the services of their choosing.
- Each patient will have allocated oral healthcare packages. This will apply to both adults and children for prevention and some basic interventions.
- For children, oral healthcare packages will include all primary oral healthcare delivery. Eight oral healthcare packages will be available for children up to the age of 16.
- Adults will have a basic preventive care package available at least every two years.
- Vulnerable patients (with a medical card) will be eligible to access oral healthcare from a general dental practitioner in a primary oral healthcare setting in line with the mainstreaming policy. Support services, e.g. in community oral healthcare services, will be available on referral.
- Advanced care delivery (for secondary and tertiary care) will be provided in designated advanced oral healthcare centres.

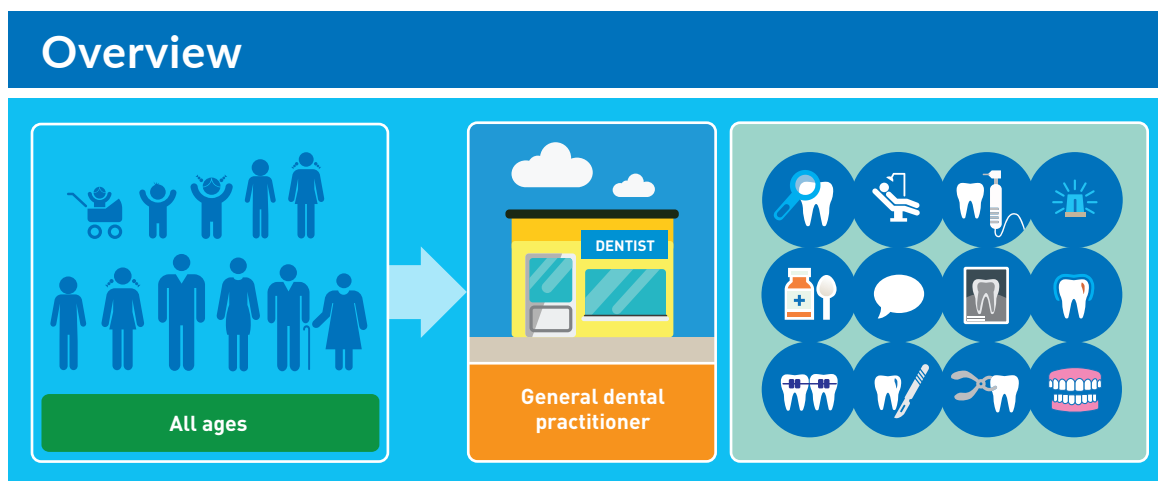
Section 7.2 describes where oral healthcare will be provided, Section 7.3 describes when and how services will be provided, and Sections 7.4 to 7.7 outline what will be available to the public.

Section 7.8 defines the additional support structures for vulnerable patients' services, and Section 7.9 describes advanced oral healthcare settings and services.

## 7.2 Where will the public access oral healthcare?

All primary oral healthcare services will be centred on general dental practice. Primary oral healthcare will be provided to the public across the life course, from childhood to old age.

Primary oral healthcare professionals (dentists and their teams) will be the core providers of all oral healthcare in the community. If referrals to other healthcare or oral healthcare professionals are necessary, the individual's initial primary oral healthcare professional will remain the coordinator of their oral healthcare. This applies only to the particular issue of referral or for the duration of the oral healthcare package in question. A patient can choose to go to other dentists or oral healthcare professionals throughout their life and is not restricted to one dentist or practice.



The greater number and availability of independent practices, as well as the volume of oral healthcare professionals at each practice, enables capacity and access issues to be more easily addressed when services are centred on general dental practice.

Both the community oral healthcare services and the advanced oral healthcare centres will receive referrals from primary oral healthcare services. The former will focus on referrals of vulnerable people, whereas advanced oral healthcare centres will receive patient referrals for complex care.

## 7.3 Oral healthcare service delivery system

The selection of the oral healthcare service delivery system was based on evidence and is designed to reflect the Policy's underlying framework. A mixed service delivery system was selected, with an emphasis on prevention underpinning all services, as well as on services being available easily, on demand, and locally. The community oral healthcare services will centre on vulnerable and special care support services, as well as on needs assessment for people in residential settings and others who require additional supports. **Oral health promotion programmes will also be within its remit.**

Advanced oral healthcare centres will be based in dental hospitals, general hospitals and other designated centres.

The primary oral healthcare service system will be divided into three tiers:

- 1) **Oral healthcare packages**, with a focus on prevention. These oral healthcare packages will be available for both children and eligible adults.
- 2) **Routine primary care**. This covers routine primary oral healthcare items, such as additional restorations and comprehensive periodontal (gum) care for adults.
- 3) **Complex care**. These items will be provided by reference to clinical care pathways or prior clinical assessment. These will be more individually tailored to the patient.

## 7.4 Oral healthcare service delivery for children

### 7.4.1 Introduction: primary oral healthcare services for children

The service delivery system set out below describes when, what and how oral healthcare services will be provided for children up to 16 years of age in a general dental care practice. Oral healthcare packages will be the basis of service provision for children. The oral healthcare packages will include:

- Prevention
- Primary care
- Emergency care.

These oral healthcare packages will be made available to children up to 16 years of age. For children living in designated rural areas (mainly non-fluoridated areas), there will be additional support items attached to the standard package in order to reflect the higher risk associated with these patients and the need for greater prevention such as topical fluoride therapy.

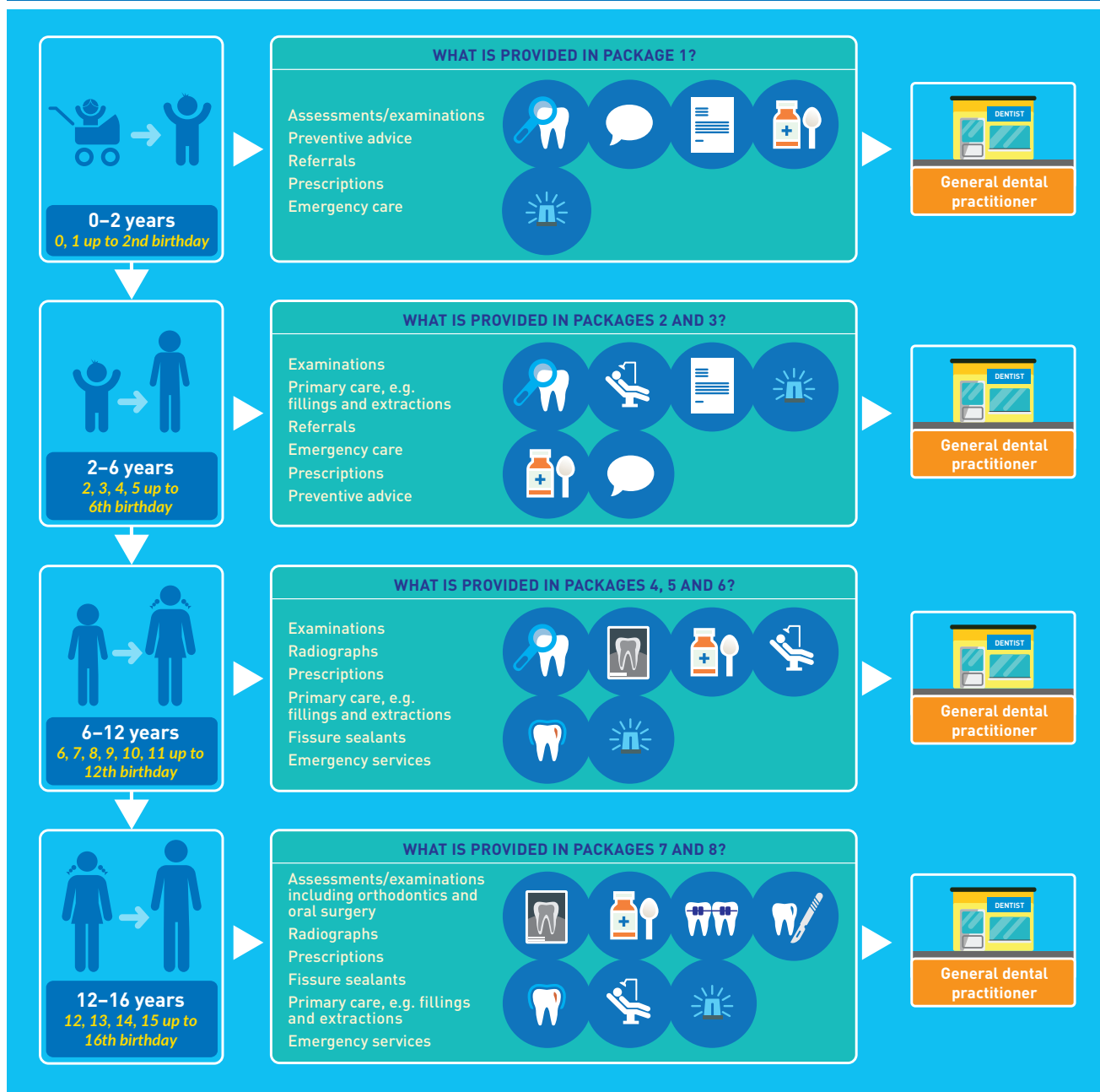
For the duration of a single oral healthcare package, the primary oral healthcare practice that the patient attends will be their primary oral care 'home'. This is where all oral healthcare is provided, or coordinated from, for this single oral healthcare package. Each oral healthcare package will be treated as a single, standalone package or 'bundle' and can be provided in one visit or over several visits.

Choice of dentist means that the child's parent/guardian can, if they wish, select a different dentist or service provider to deliver subsequent oral healthcare packages until the child is 16 years old.

In brief, eight preventive oral healthcare packages will be provided from birth until the child reaches their 16th birthday. The four relevant age bands are:

- From birth until the child reaches their second birthday
- From the child's second birthday until their sixth birthday
- From the child's sixth birthday until their 12th birthday
- From the child's 12th birthday until their 16th birthday.

## Eight packages to be provided to children aged 0–16



### 7.4.2 When, what and how will oral healthcare be provided for children?

#### 7.4.2.1 Package 1

**When?** Up until the child's second birthday (i.e. from birth to the age of two years). An oral healthcare package can be obtained for a child at any time until they reach their second birthday.

**What will be provided?** An assessment or examination of oral health, emergency care, all preventive care advice, and necessary referrals.

**How many oral healthcare packages will be provided?** One oral healthcare package will be available for a child at any time until they reach their second birthday.

#### 7.4.2.2 Packages 2 and 3

**When?** From the child's second birthday until they reach their sixth birthday.

**What will be provided?** Examination and provision of primary oral healthcare, including referrals. This will also include emergency care and preventive care advice.

**How many oral healthcare packages will be provided?** Two oral healthcare packages will be available for this age group between the child's second and sixth birthdays.

#### 7.4.2.3 Packages 4, 5 and 6

**When?** From the child's sixth birthday until they reach their 12th birthday.

**What will be provided?** Examination, including all diagnostic supports (e.g. radiographs, orthodontic assessments where relevant, and oral surgery assessments), will be available. This will include emergency care. Primary oral healthcare and prevention interventions (fissure sealants, fluoride therapy and/or other prevention if necessary).

**How many oral healthcare packages will be provided?** Three oral healthcare packages will be available to the child during this period. This will enable the child to obtain fissure sealants at the optimum age, when their individual adult molar (back) teeth have appeared. Seeking treatment at the optimum age is in line with best international practice. Children living in rural (non-fluoridated) areas and in disadvantaged areas will have additional support, e.g. more frequent attendances available and an expanded menu of services.

#### 7.4.2.4 Packages 7 and 8

**When?** From the child's 12th birthday until they reach their 16th birthday.

**What will be provided?** Examination, including all diagnostic supports (e.g. radiographs). Advice on oral and general health, including high-dosage fluoride toothpaste and/or mouth rinses, where relevant. Assessments, including for orthodontics and oral surgery, and treatment as required. All prevention, including fissure sealants and additional fluoride therapy, as necessary. All primary oral healthcare interventions, including emergency services.

**How many oral healthcare packages will be provided?** Two oral healthcare packages will be available during this four-year period.

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### **PRIORITY**

*Action 11: To develop prevention and primary care packages for children up to 16 years of age.*

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## 7.5 Oral healthcare service delivery for adults

### 7.5.1 Introduction: primary oral healthcare services for adults

The primary oral healthcare service for adults will also include oral healthcare packages. These will be available for all medical card holders and will focus on prevention. For medical card holders, a publicly funded fee-per-item system will remain in place for services beyond the preventive care and basic oral healthcare packages. Particular consideration will be given to the clinical appropriateness of different types of complex care, such as very advanced periodontal (gum) care and prostheses (dentures).

The service delivery system below describes when and what will be provided for adults in a primary dental care practice. Adults will be able to choose and change their dentist. Oral healthcare for the adult sector of the population will consist of:

- Preventive and basic primary oral healthcare packages
- Additional routine oral healthcare, e.g. fillings, extractions and simple periodontal (gum) care
- Complex care, e.g. dentures.

### 7.5.2 Oral healthcare packages for eligible adults

The preventive oral healthcare packages will include the following (but are not exclusive of other oral healthcare):

- Prevention (examinations, including all diagnostic supports, advice, and preventive therapies such as scale and polish, fissure sealants, and fluoride therapy). High-dose fluoride toothpaste will also be included for some groups.
- Assessments for referral for oral surgery and other advanced care. Referrals for preventive interventions, such as counselling for alcohol, tobacco and diet issues, will also be available.
- Primary dental care, e.g. a filling and/or fissure sealant and/or simple periodontal (gum) care.

These preventive oral healthcare packages will be tailored for adult age groups in accordance with their needs at the following age bands:

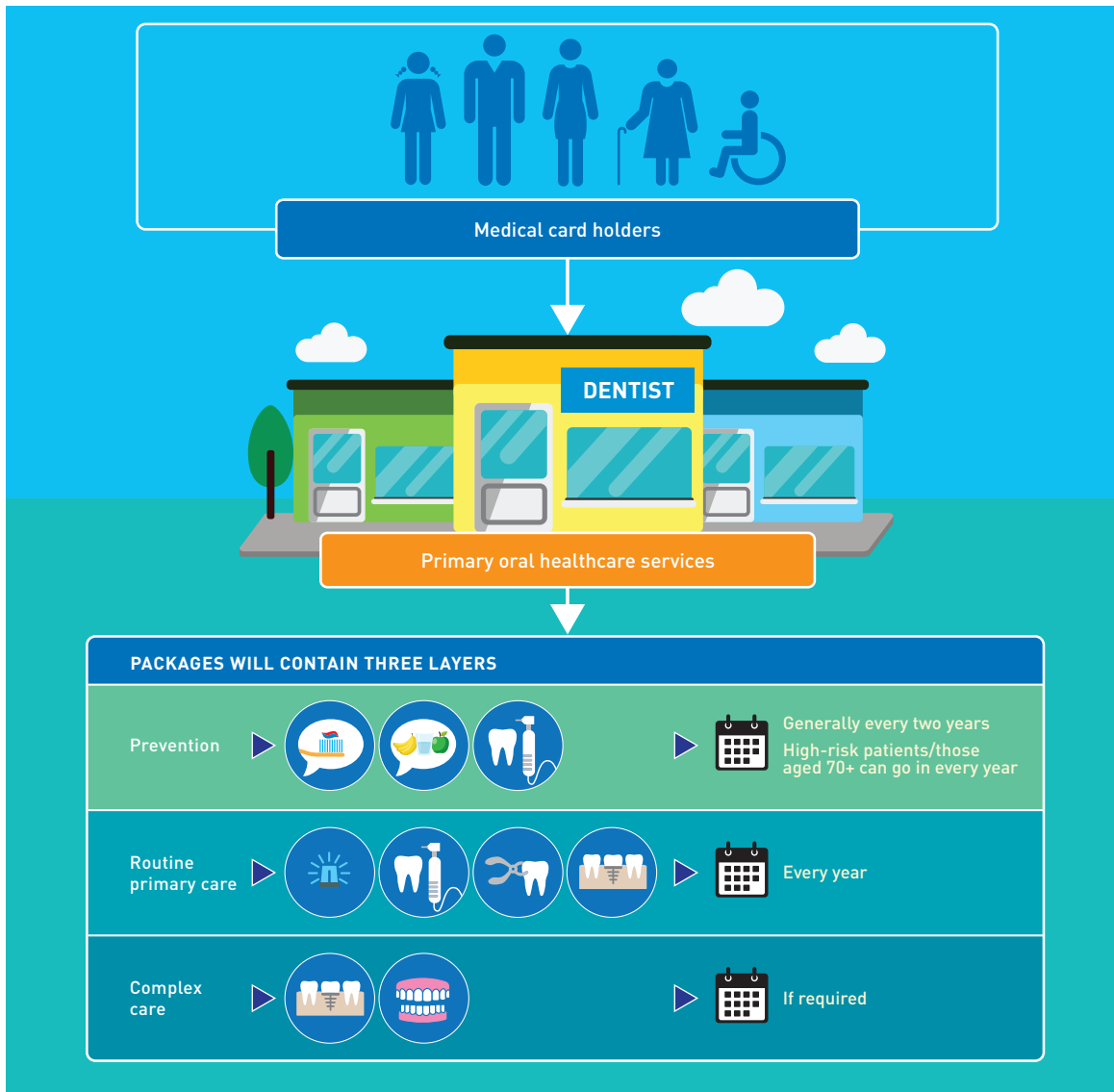
- From the ages of 16–24 years (young adults)
- From the ages of 25–65 years (mid-life adults)
- From the ages of 65–69 years (older adults)
- From the age of 70 years and older (senior adults).

Generally, preventive packages will be available every two calendar years to mid-life and older adults who are low risk. For adults living in designated rural areas (mainly non-fluoridated areas) and in designated socioeconomically disadvantaged urban areas, additional support will be provided in order to reflect the higher needs of these patients. This will emphasise more frequent access to preventive packages, e.g. every calendar year, and an expanded preventive menu.

For the duration of a single oral healthcare package, the primary dental care practice that the patient attends will be their primary oral care 'home'. This home is where all oral healthcare services will be provided, or coordinated from, for the duration of a single oral healthcare package. The oral healthcare package will be provided in one visit or over several visits depending on the agreement between the dentist and the patient. Patients will have the option to change to another dentist on completion of the package.



## Medical card holders



'Choice of dentist' means that the patient will be able to select a different dentist or oral healthcare professional, such as a clinical dental technician, to provide subsequent oral healthcare packages at different ages in their life, or they may choose to remain with the same dentist throughout their life course.

### 7.5.2.1 Oral healthcare packages from age 16 until their 25th birthday (young adults)

**When?** Every year.

**What will be provided?** All examinations and referrals for secondary care; advice on the use of high-fluoride toothpaste and mouth rinses; fissure sealants; one filling. There will be a focus on providing advice on alcohol and tobacco use and on diet.

### 7.5.2.2 Oral healthcare packages from age 25 until their 65th birthday (mid-life adults)

**When?** Every two years, unless the patient is considered vulnerable or needs additional support.

**What will be provided?** All examinations and assessments, including orthodontics and referrals for secondary care; oral cancer risk assessment; prevention advice; high-fluoride toothpaste and mouth rinses; basic primary care, e.g. one filling; advice for alcohol control, tobacco cessation and diet.

### 7.5.2.3 Oral healthcare packages from age 65 until their 69th birthday (older adults)

**When?** Every two years, but patients can apply for packages every calendar year if they are higher risk (frequency will be tailored according to oral health risk).

**What will be provided?** All examinations and referrals for secondary care. Oral cancer risk assessment (alcohol and tobacco use). Prevention advice, especially regarding common risk factors, and clinical therapies such as cleaning and fluoride applications and high-fluoride toothpaste. In addition, fissure sealants and basic primary care, such as one filling. Prosthetic clinical need assessment and periodontal (gum) care will be available.

### 7.5.2.4 Oral healthcare packages from age 70 and older (senior adults)

**When?** Every year.

**What will be provided?** All examinations and referrals for secondary care; oral cancer risk assessment; prevention advice and clinical therapies, such as cleaning; high-fluoride toothpaste advice; fissure sealants; basic primary care, such as one filling; prosthetic clinical need assessment; periodontal care and advice.

The 70 years and older age group is expected to require additional support due to higher levels of tooth loss than younger age groups and becoming more vulnerable over time.

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*Action 12: To develop preventive packages of oral healthcare for eligible adults.*

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## 7.6 Routine oral healthcare services

All primary dental care outside of the preventive care package will be reimbursed by a fee-per-item mechanism. These service items, such as additional restorations, will be available on demand.

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*Action 13: To develop routine oral healthcare services for eligible adults.*

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## 7.7 Complex oral healthcare services

Advanced periodontal (gum) care, endodontics and prosthetics will be provided according to clinical care pathways and will enable more complex care to be tailored to the individual.

A priority for clinical care pathway development is the restoration of acceptable oral health after total tooth loss. Research indicates that an estimated one in ten patients benefits from implant-retained dentures to improve their oral health-related quality of life. Reliance on an acrylic removable denture as the only solution for such a compromised group of patients is unlikely to uniformly improve patients' oral health-related quality of life. A variety of approaches to restore oral health function will be made available to this age group.

A series of clinical care pathways will need to be developed in order to support this oral healthcare approach.

Orthodontics, oral surgery and other areas that are usually considered secondary care will also have clinical care pathways developed so as to ensure that some aspects of care, where appropriate, will be more readily available in a primary dental care practice, and also to ensure that these oral healthcare services will be more locally accessible.

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*Action 14: To develop clinical care pathways for the provision of complex care for eligible adults.*

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## 7.8 Oral healthcare service delivery for vulnerable people

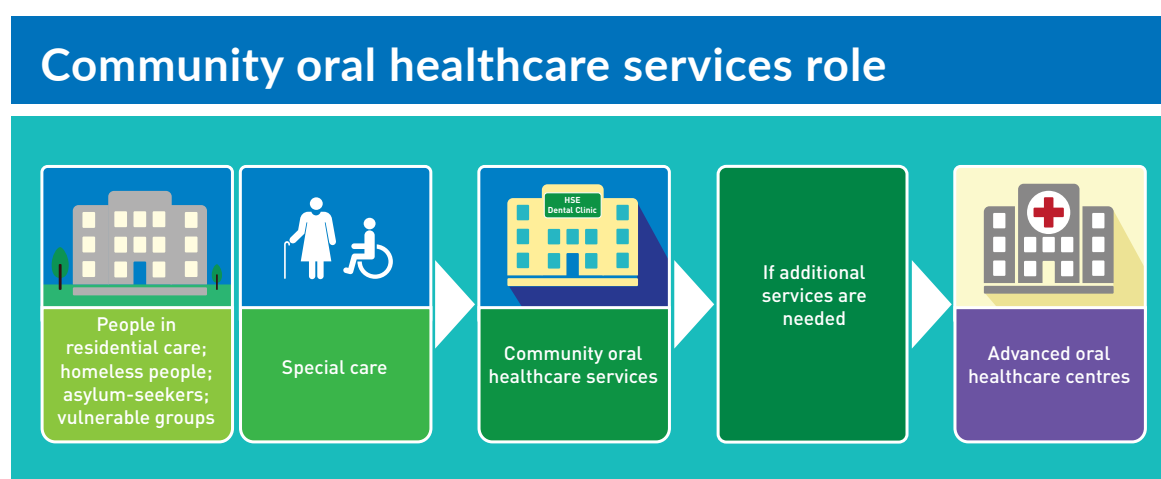
### 7.8.1 Community oral healthcare services (the reoriented PDS)

The ethos of the Policy is to maximise the services available in a primary oral healthcare setting. For vulnerable people, the first point of attendance and treatment will be in a primary oral healthcare setting with their local general dental practitioner. However, in line with the mainstreaming ethos, additional support will be required in order to facilitate vulnerable people to access mainstream oral healthcare.

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*Action 15: To develop referral pathways of care from primary care to community oral healthcare services.*

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The primary oral healthcare service will be supported by a salaried community oral healthcare service. The latter, will be a networked service, providing separate services for people referred from a primary oral healthcare service. Such a networked service is aimed at a population of 20,000–40,000 and contrasts with primary oral healthcare services, which are more numerous (i.e. approximately one dentist per 2,000–5,000 population). Community oral healthcare services will provide the additional support, technology and time required to treat more vulnerable patients. The care provided is not necessarily more complex; if it were, it would be provided in an advanced oral healthcare centre. A principal focus of the community oral healthcare services will be to undertake needs assessments (pathfinder surveys) of vulnerable people living in residential care in order to identify their oral healthcare requirements. The ethos of mainstreaming – a core value of Department of Health policy – will be maintained by ensuring that the primary oral healthcare service remains the principal coordinator of oral healthcare for all population cohorts.

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**Action 16: To develop an oral healthcare needs assessment programme for vulnerable people in residential settings.**

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All people living in institutional care and residential care will be the initial focus for the community oral healthcare services, as these people are the least likely to be able to access a primary oral healthcare setting.

The salaried community oral healthcare services will, in the majority of cases, provide once-off or occasional episodic care. Only in some exceptional cases, such as for people with moderate and profound disabilities, will more long-term support be provided by these services.

## 7.9 Advanced oral healthcare centres

Across the life course, people may need an advanced care intervention to be provided in a high-technology secondary or tertiary setting (i.e. an advanced oral healthcare centre). When required, this care will have to be easily and quickly available. It should be provided by dental practitioners who carry out high volumes of such advanced work and who are supported in a centralised setting by other equally highly qualified and experienced peers.

- Where advanced oral healthcare is necessary for conditions that cannot be treated in a primary oral healthcare setting or in a community oral healthcare services setting, this service will be provided in an advanced oral healthcare centre.
- The advanced oral healthcare centres will undertake aspects of dentistry that are not within the scope of the primary oral healthcare or community oral healthcare services. Defining the scope of primary care practice for oral healthcare services will be an essential first step in ensuring that only the referrals requiring advanced care will be sent to the advanced oral healthcare centres.
- Oral healthcare professionals providing these services will be highly skilled and will have the appropriate resources and technology to enable them to carry out this work.
- In line with clinical care pathways, secondary care referrals will be sent directly from a primary oral healthcare practice to advanced settings or to community oral healthcare services.
- A programme of assessing and verifying waiting lists for all secondary and advanced oral healthcare services will be included as a programme specific to the Policy.

The designation of advanced oral healthcare centres for patients who need more specialised care on a once-off or episodic basis is required. The Policy will support advanced oral healthcare services being provided in acute care facilities, dental hospitals and other designated centres of care.

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**Action 17: To develop requirements for designated advanced oral healthcare centres.**

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It was estimated in the North South Survey of Children's Oral Health in Ireland, 2002 that in the Republic of Ireland an average of one in three 12-year-olds and almost one in four 15-year-olds requires orthodontic treatment. This prevalence suggests that children and young adults are just as likely to be identified as having an orthodontic treatment need as being identified as needing treatment for dental decay. Based on analyses of Irish oral healthcare service data, much of the orthodontic treatment needs, in line with international evidence, can be provided in different types of primary oral healthcare (dental) settings, where the level of skill of the oral healthcare practitioner will match the complexity of care required. However, for some patients, orthodontic treatment involving inpatient surgical interventions and multi-specialty advanced care will need to be provided in advanced oral healthcare centres.

In the initial stages of implementation of the Policy, attention will be focused on supporting the development of a primary oral healthcare approach. Primary oral healthcare standards, the scope of primary care practice, and the extended new role of dentists will be clarified and progressed. The impact of skill mix and team development on the dentist's role will also be investigated. These preceding initiatives will inform the development of advanced oral healthcare services.

Issues that will require attention when developing advanced oral healthcare include the lack of oral healthcare clinical care pathways that facilitate access to secondary and tertiary care originating in primary oral healthcare services. These aspects of care include such complex clinical services as maxillofacial surgery, advanced oral healthcare treatment for cancer patients, and other similar advanced oral healthcare areas. This advanced treatment requires centralised, highly advanced skills supported by clinical care pathways that originate in a primary oral healthcare practice. However, even when a patient is receiving advanced care, all oral healthcare that can be provided in a primary oral healthcare setting should be provided there. This will ensure that the patient will continue to have oral healthcare support available in a setting as close as possible to where they live. Primary oral healthcare practitioners will remain the chief coordinators of oral healthcare for their patients, including patients who need advanced care.

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**Action 18: To develop clinical care pathways that originate in primary care to access oral healthcare in advanced oral healthcare centres.**

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## **7.10 Reimbursement mechanisms for implementing Smile agus Sláinte: the National Oral Health Policy**

A review of the reimbursement mechanisms for implementing the Policy was undertaken by the Department of Health Economics at University College Cork and, subsequently, the costing of preventive packages was undertaken by the Economic and Social Research Institute (ESRI) under the Department of Health ESRI Research Programme in Healthcare Reform; 2014.

The reimbursement mechanism used can be an important factor in the success of a service delivery system. External reviews and expert reports found that mixed payment methods generally had the best outcomes for people's oral health. Prospective payment systems tend to promote prevention and may discourage intervention, whereas a fee-per-item systems tend to encourage access, utilisation and intervention. Salaried services are best placed to provide care to lower volumes of patients with more complex needs and/or those who require more treatment time.

After reviewing the theoretical and empirical evidence – and in line with the concepts and broader health objectives to be achieved – the Policy supports a mixed system of payment for provider services.

A bundling or package system combines similar items of care in a financial package or bundle. The oral healthcare package would be confirmed at the time of assessment by the dentist/oral healthcare professional, and payment would be made to the oral healthcare service provider irrespective of the number of items provided when the patient accesses care. The dentist is paid for the whole oral healthcare package and not per item provided within the package.

The package is assigned to the patient. Thus, the 'packaging system' allows several providers in the same oral healthcare practice, or even providers referred between and among several practices, to provide care to one patient as part of an oral healthcare package.

For adults living in rural areas (mainly non-fluoridated areas), and also for adults living in socioeconomically disadvantaged urban areas, there will be additional support within a package, especially for the provision of high-dose fluoride toothpaste, fluoride therapies, fissure sealants and preventive advice. Prevention packages and supporting funding will be weighted in favour of younger adults (i.e. between 16 years and 25 years) and senior adults (i.e. those aged over 70 years). The additional funding will be allocated according to the patient's home address, and not the location where the service is provided.

A fee-per-item system will continue for routine treatment services, e.g. restorations and extractions. For children, orthodontic extractions will be paid for on a fee-per-item basis.

More advanced treatments in practice, e.g. dentures, some orthodontics and oral surgery, will be managed by clinical care pathways and paid for on a fee-per-item basis and/or by service level agreements.

HSE salaried staff will continue to operate under the new community oral healthcare services, which will, among other things, provide a supporting service for vulnerable patients.

However, for all provider payment systems, it will be essential that an oral health evaluation (clinical surveillance) system of the public's oral health outcomes should be put in place in order to ensure that changes over time and possible impacts – both positive and negative – can be identified. A strong oral health evaluation system must be in place in order to ensure that oral health outcomes are optimal and that adequate care is provided to support good oral health. Regular evaluation of the oral health status of the age cohorts identified as WHO indicative age groups will be undertaken in order to ensure that the services can adapt and respond to current and future needs.

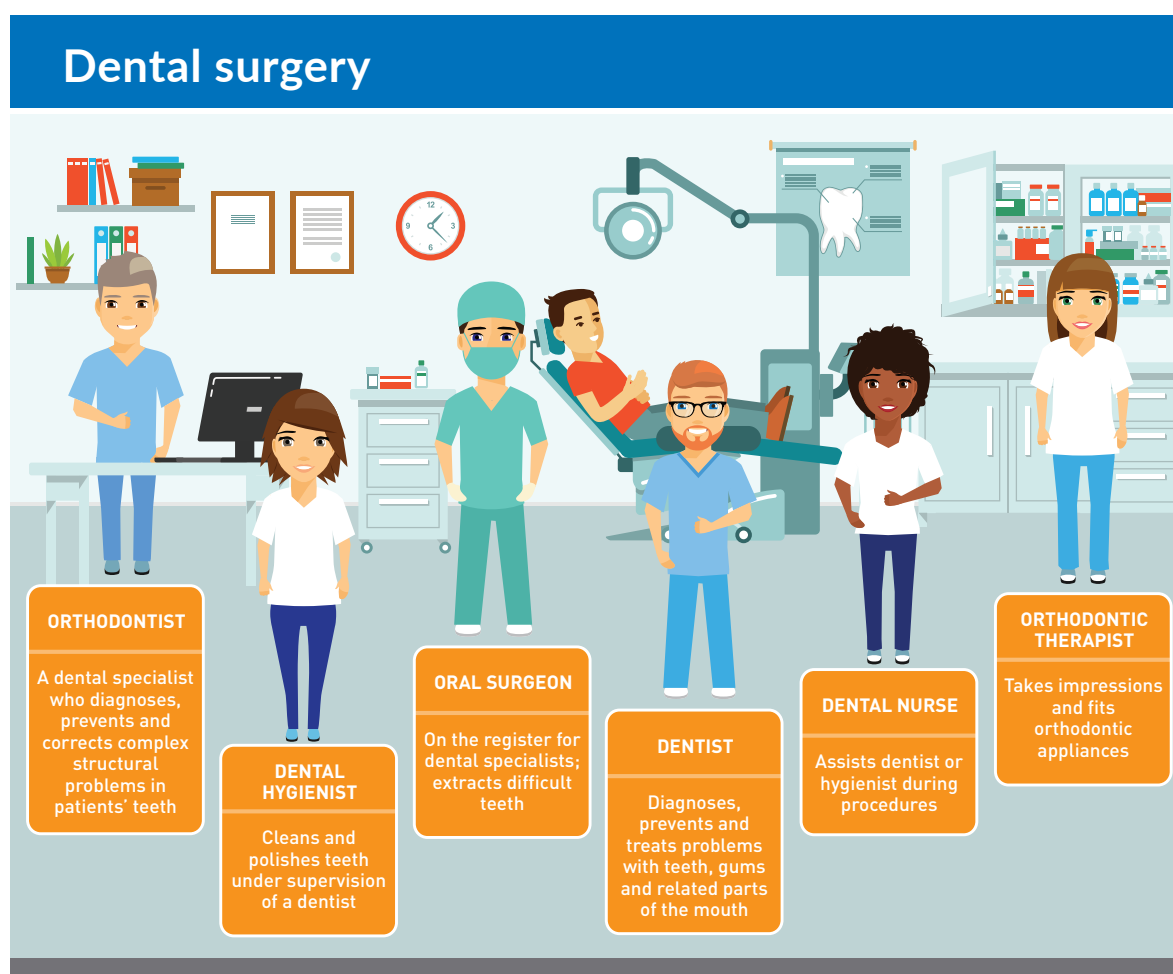
# Chapter 8

## Workforce capacity



## 8.1 Assessment of workforce

Improving and enabling easy access for the public to oral healthcare services is a key component of the Policy. The workforce includes all oral healthcare professionals registered with the Dental Council (i.e. the dental regulatory authority), as well as auxiliary workers either voluntarily registered or not required to register with the Dental Council but who are also essential in order to both support and provide oral healthcare services for the public.



The auxiliary dental workers that assist dentists and provide oral healthcare services for the public range from those who support the dentist in the surgery to those who work in laboratories who manufacture and sometimes fit dental appliances. Those who work in a dental surgery as part of a dental team include dental nurses, dental hygienists and orthodontic therapists. Extended duty dental nurses, who are trained to take radiographs, are also part of this team.

The dental nurse assists the dentist at the chair side. Their work is to aid the dentist in all practice matters. The dental hygienist's practice is mainly confined to cleaning teeth and tooth roots to reduce inflammation of gums (periodontal care): they work to the prescription or direction of a dentist. Another category of support practitioner, the orthodontic therapist, is restricted to working in orthodontics, the discipline of dentistry



that straightens and aligns teeth. They support orthodontists by putting on braces under the orthodontist's prescription or direction. The extended duty nurse has a very specific skill in providing radiographs, also under the prescription of a dentist.

Dental technicians and clinical dental technicians are chiefly involved in making dental appliances. They work outside the dental surgery in a laboratory. They manufacture removable dental devices such as mouthguards, removable braces and dentures of all types (metal or acrylic (plastic) based). Fixed dental devices (such as crowns and bridges) to replace or fit natural teeth are also all made by dental technicians. Clinical dental technicians have an additional role in fitting certain types of dentures for patients.

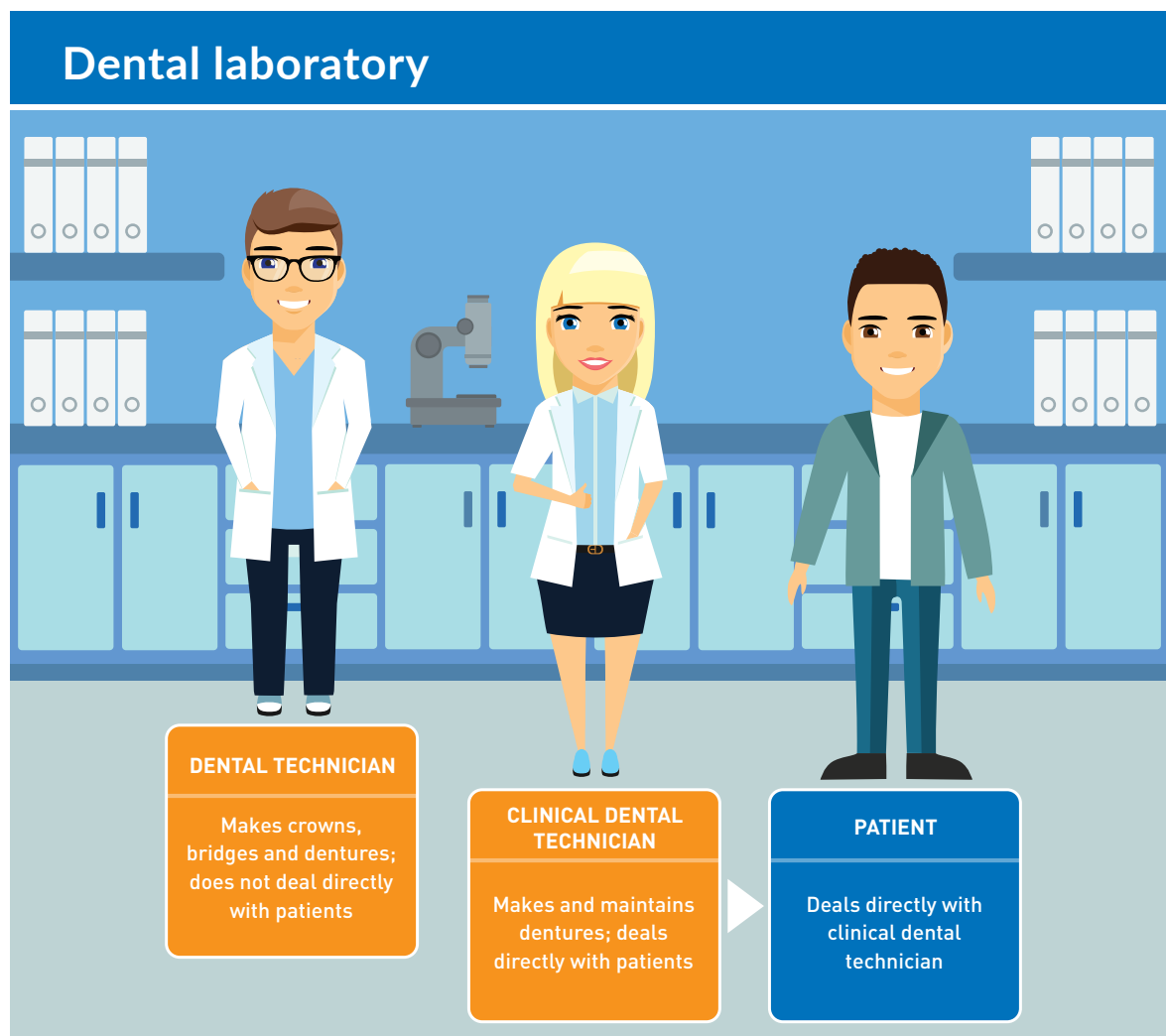
A suitably skilled workforce should be available to provide appropriate oral healthcare across all settings, ranging from primary to advanced oral healthcare. This workforce must include oral healthcare professionals providing the highest level of care in advanced oral healthcare centres, or in secondary/tertiary care centres, as well as oral healthcare professionals providing oral healthcare advice and preventive care directly to the public in primary oral healthcare settings. For those in advanced oral healthcare settings, the training and education requirements are such that staff with relevant skills and expertise will be required. However, in primary oral healthcare settings, access for the public to multiple oral healthcare professionals, including auxiliary dental workers, with varying skills will be essential in order to support and manage oral healthcare in the population.

A focused programme, led by the Dental Council, will be required in order to reassess auxiliary dental workers' scope of practice. This programme should consider enabling the public to have direct access to additional auxiliary dental workers, where possible. This ethos will be supported by the new Dentists Act.

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***Action 19: To reassess auxiliary dental workers' scope of practice, enabling direct access to the public where appropriate.***

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## 8.2 Compulsory, voluntary and non-registered workforce

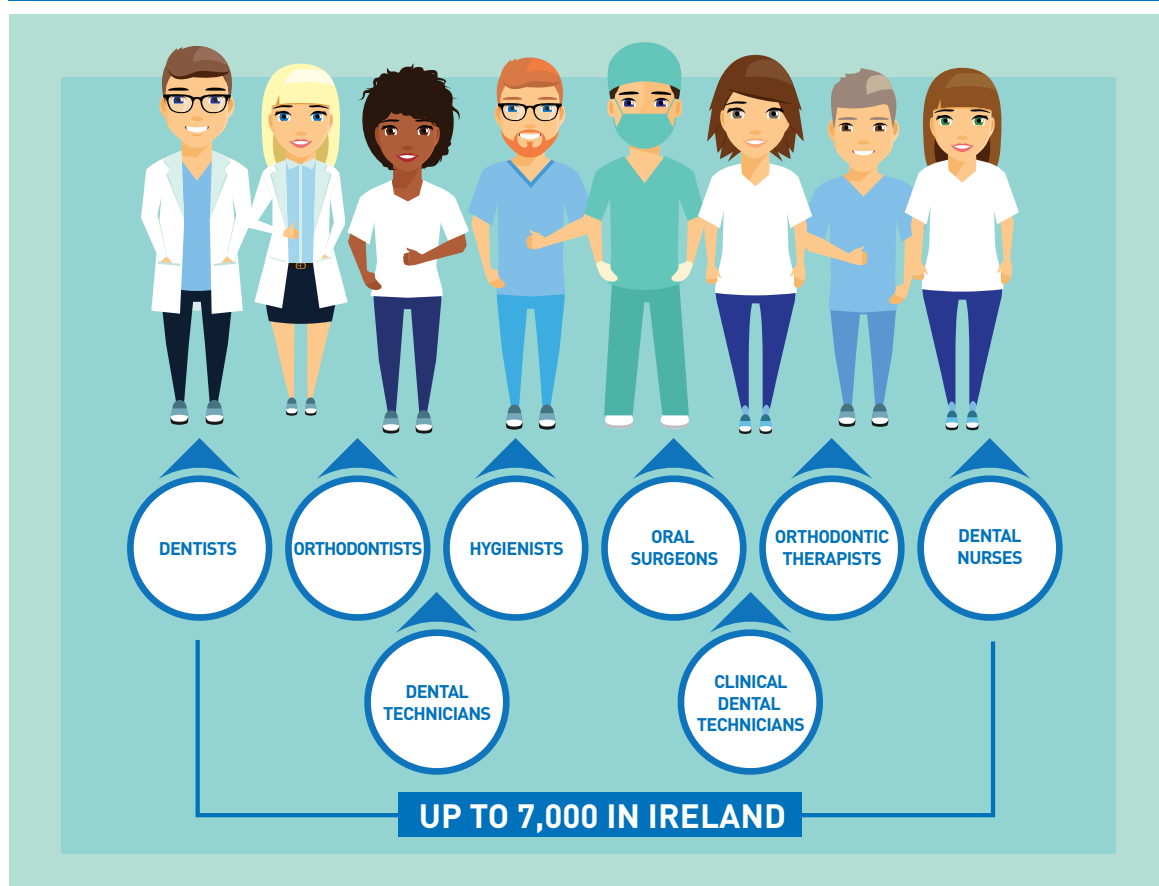
Currently in Ireland, varying Dental Council registration requirements are attached to different oral healthcare professionals depending on the level of dentistry practised. This ranges from compulsory registration in order to practise, to voluntary registration, to no requirement to register. This variation in registration reflects the amount and level of dental practice and the oral healthcare professional's involvement with hands-on patient service delivery. Currently, once provision of oral healthcare services directly to a patient is involved, oral healthcare professionals generally fall into the compulsory registration category, i.e.:

- Dentists
- Dental hygienists
- Clinical dental technicians
- Orthodontic therapists
- Dental nurses who have extended duties and take radiographs (X-rays).

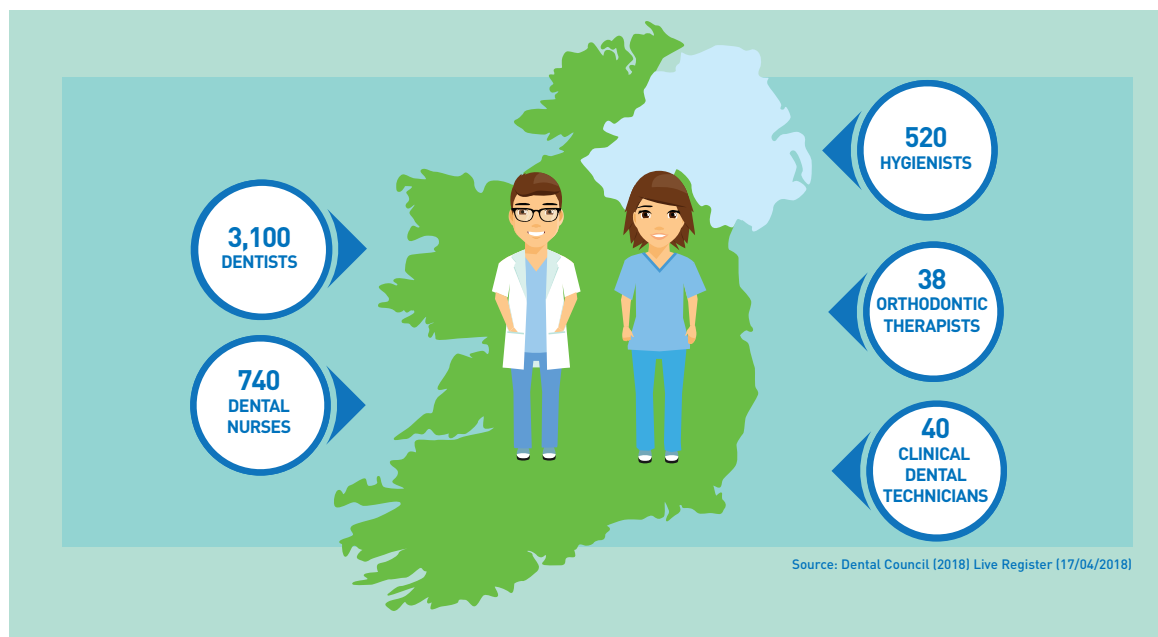
Only one category of oral healthcare professional, i.e. the dental nurse, currently has an option to voluntarily register with the Dental Council.

Dental technicians have no requirement to register, nor do they have access to a voluntary register at present.

## Oral healthcare professionals



## Numbers registered with the Dental Council of Ireland



The total number of Dental Council registrants, including those voluntarily registered, would suggest that up to 5,000 oral healthcare professionals are qualified to work in Ireland.

When all others, mainly unregistered dental nurses and dental technicians, are included, a total oral healthcare workforce of more than 7,000 individuals is estimated to be qualified to work in Ireland.

In order to assess the Irish oral healthcare workforce in greater depth, a study was carried out to determine the availability of dentists and hygienists to provide oral healthcare services to both publicly funded and private patients.

The Dental Council register was used as the source of information for this study. Some notable trends emerged, key elements of which are outlined in Section 8.3. Other international oral healthcare workforce trends were also considered and compared with the characteristics of the Dental Council register.

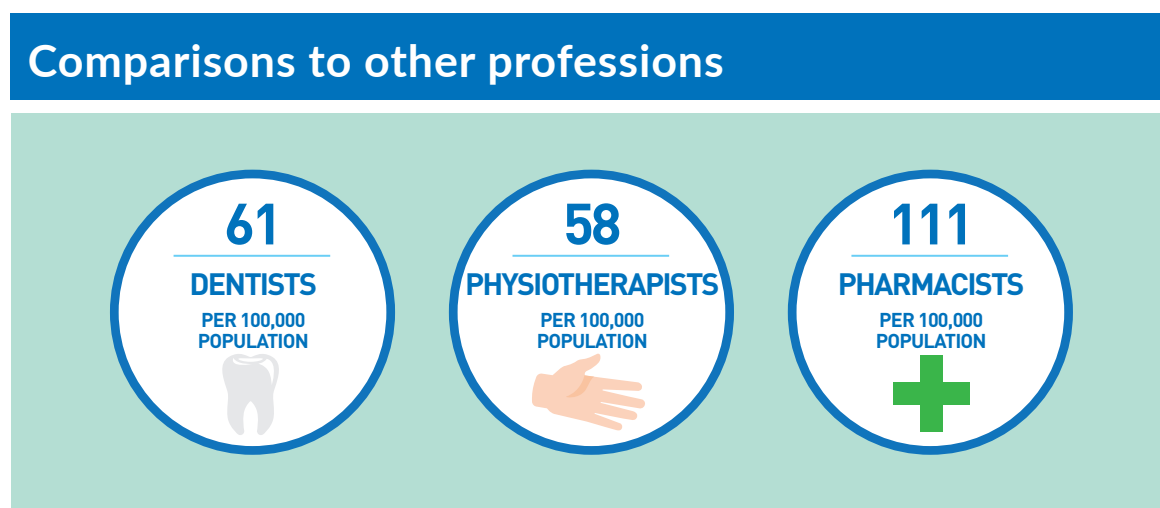
Unemployment among oral healthcare professionals across the EU has been more evident since around 2010, and is considered to be a result of the increased numbers of private and public dental schools, coupled with improvements in the oral health status of populations across the EU. EU workforce mobility has also had a positive impact on Ireland's workforce capacity, and this trend is expected to continue. While dentists are often considered a transient workforce, more than 38% of dentists from elsewhere in the EU who are based in Ireland remain registered here for five years or longer.

## 8.3 Key characteristics of the dental register

- Nearly 40% of oral healthcare professionals on the dental register in Ireland have qualified outside of Ireland.
- UK-qualified graduates historically accounted for the greatest number of oral healthcare professionals on the dental register who qualified abroad. Currently, however, EU registrants (excluding those from the UK) surpass the number of UK graduates registered in Ireland.
- EU graduates (excluding graduates from Ireland) account for approximately one in three new Irish registrants.
- A greater proportion of EU graduates (excluding graduates from Ireland and the UK) were found to be working in the North Dublin area or in the west of Ireland.
- UK graduates work mainly near the border with Northern Ireland.
- Seventy per cent (70%) of Irish-qualified dentists remain on the dental register for more than five years; the comparable figure for EU graduates on the dental register in Ireland is 38%.

## 8.4 Dentist to population ratio

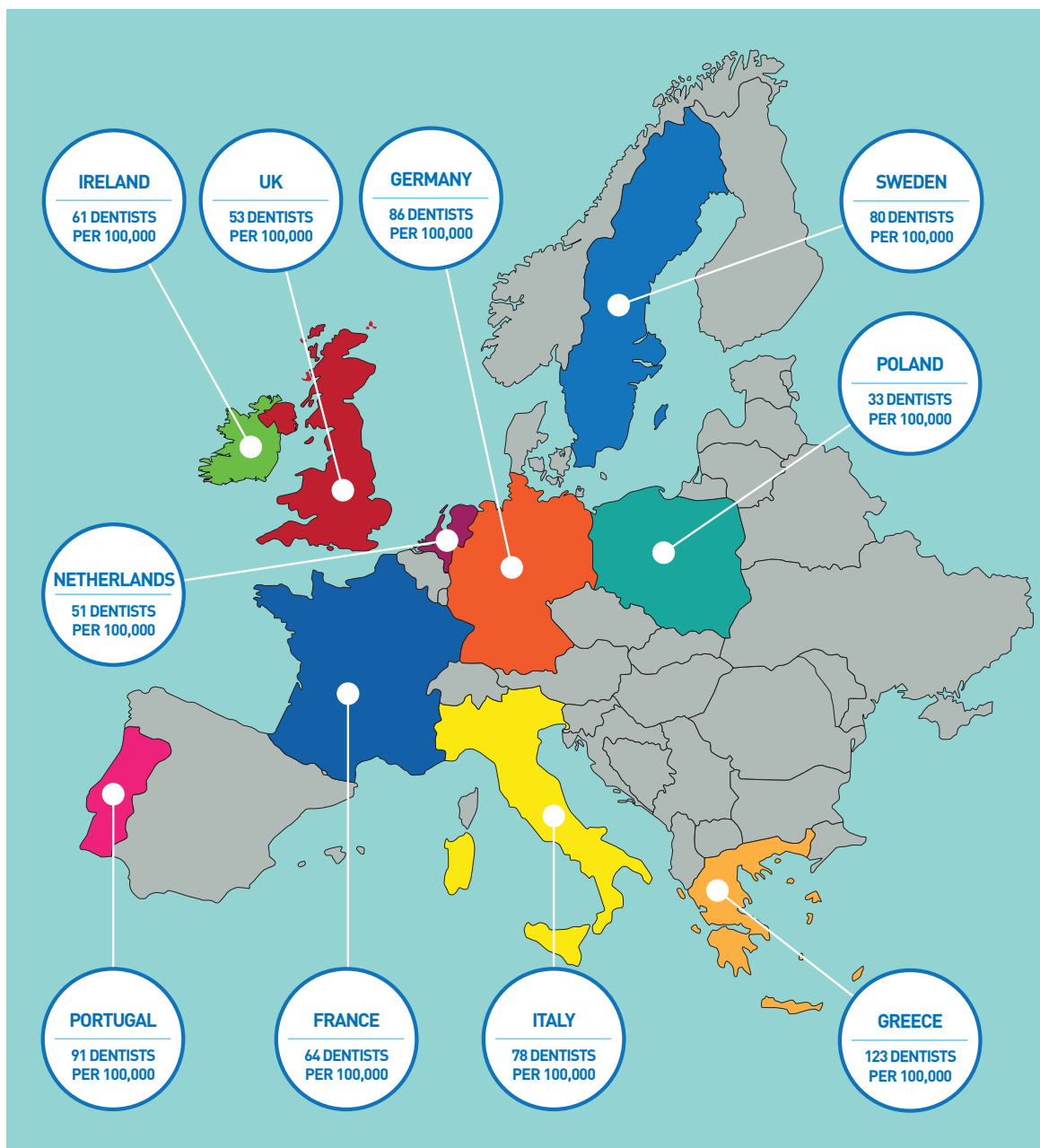
In Ireland, 58 dentists per 100,000 of the population are available to work, although 61 per 100,000 are registered. By comparison with other EU countries, the Irish dentist workforce capacity indicates a favourable dentist to population ratio. In the Netherlands and the UK, for example, the ratio is 51 and 53 dentists per 100,000 of the population, respectively. Both of these countries have a similar oral healthcare workforce structure, where dental nurses are employed to support dentists. In addition, in these countries, hygienists and other auxiliary dental workers also constitute members of the available oral healthcare workforce.



The EU countries that have the highest dentist to population ratios include Greece and Portugal. Both experience high rates of unemployment and emigration of dentists. In addition, Greece, Portugal and other countries in the Mediterranean region do not have access to a workforce of auxiliary dental workers such as hygienists. Furthermore, Mediterranean and Eastern EU countries are recording an increasing number of

dentists qualifying from both private and State colleges. Such changes are likely to continue to impact on the number of dentists registering in Ireland in the future.

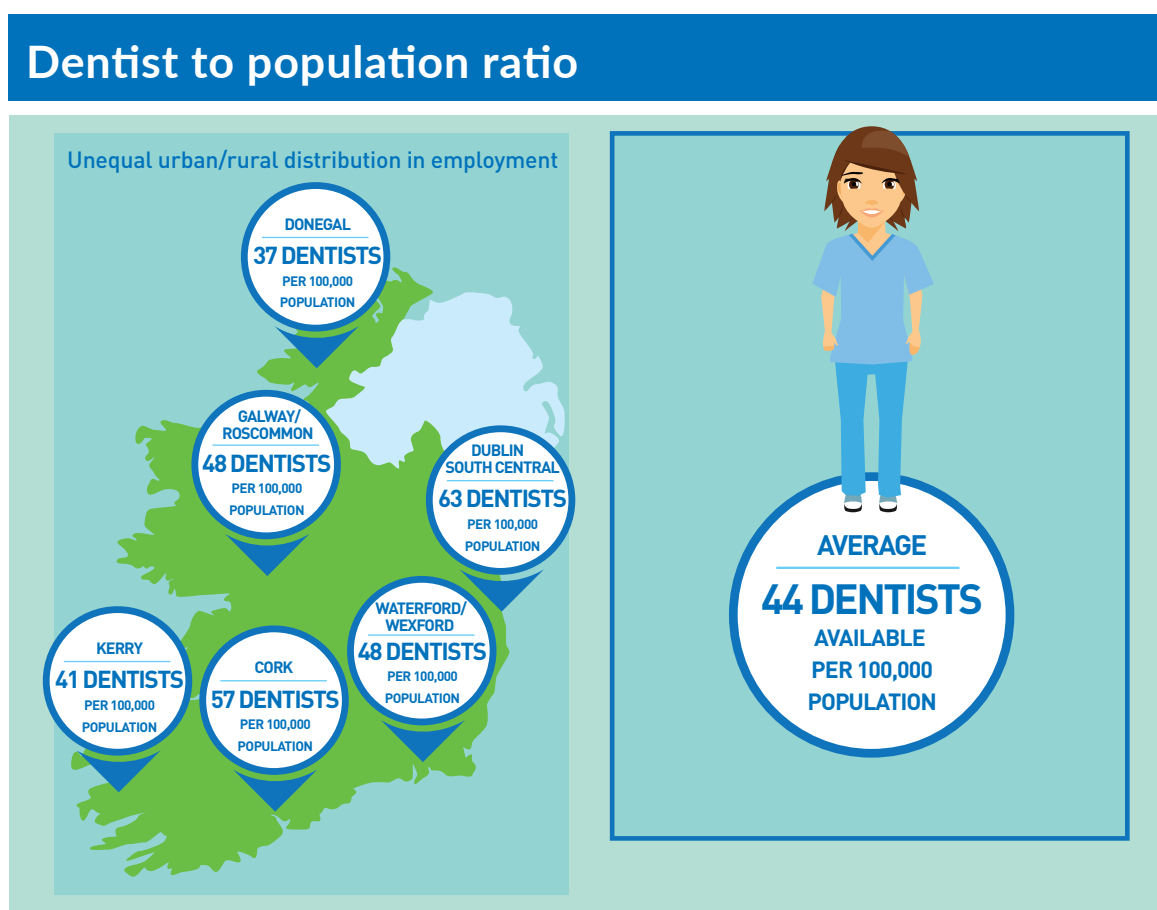
## Registered dentist to population ratio – Europe



## 8.5 Workforce variation geographically

The dentist to population ratio differs throughout Ireland. In the most economically advantaged areas, the number of dentists available per 100,000 of the population is almost double that of less economically advantaged areas. Dublin has the most dentists per capita. However, one in 10 Dublin-based dentists provides private care only, a percentage that compares with fewer than one in 20 outside the capital.

In Ireland, dentists are primarily located in large urban areas, and consequently people in certain rural areas lack sufficient access to oral healthcare services. This is consistent with the findings from the recent TILDA oral health study questionnaire (data collected in 2015) which shows that poor access to dentists is an issue for older adults in rural areas. In particular, along the western seaboard, from Mayo to West Cork, there are fewer dentists overall than the rest of Ireland. In addition, there is a lower proportion of younger, recently graduated dentists working along the western seaboard and in rural areas in general than in urban areas. The lack of sufficient access to oral healthcare services is compounded in rural areas by an older population demographic, which is less likely to seek access to oral healthcare.



It is important to note that the dentist to population ratio constitutes just one aspect of access. Other issues – such as the ability of the population to access transport, disability access in oral healthcare practices, opening hours, and the location of dental practices by reference to other healthcare providers – are just some of the factors that would be expected to impact on access. Against this background, a key action in

the Policy is a need for a programme to encourage the redistribution of oral healthcare professionals to underserved areas. This action will be implemented in parallel with supporting older people in rural areas to access care. In order to support this action, the service delivery model for services in rural areas for both adults and children will have to be designed in such a way that it encourages greater service uptake, especially for residents in rural areas.

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**Action 20: To develop a programme to support dentists and/or other oral healthcare professionals who serve rural and other underserved areas.**

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For oral healthcare professionals working in isolated rural areas far away from centres of education, it will be essential to provide support in the form of mentoring programmes as well as by introducing long-distance and accessible continuing development education programmes.

## 8.6 Auxiliary dental workers

### 8.6.1 Direct access and triage policy

The Dentists Act 1985 requires that a patient must access a dentist before they attend an auxiliary dental worker such as a hygienist. Direct access to a clinical dental technician is the only exception. As a consequence, dentistry in Ireland remains different from many other healthcare professions. While this model has its merits, it would be preferable, in line with the primary oral healthcare approach, if it were possible to have an auxiliary dental worker assess a patient initially and refer the patient onwards to a dentist when necessary. Such a triage system would also be in line with the Sláintecare implementation plan.

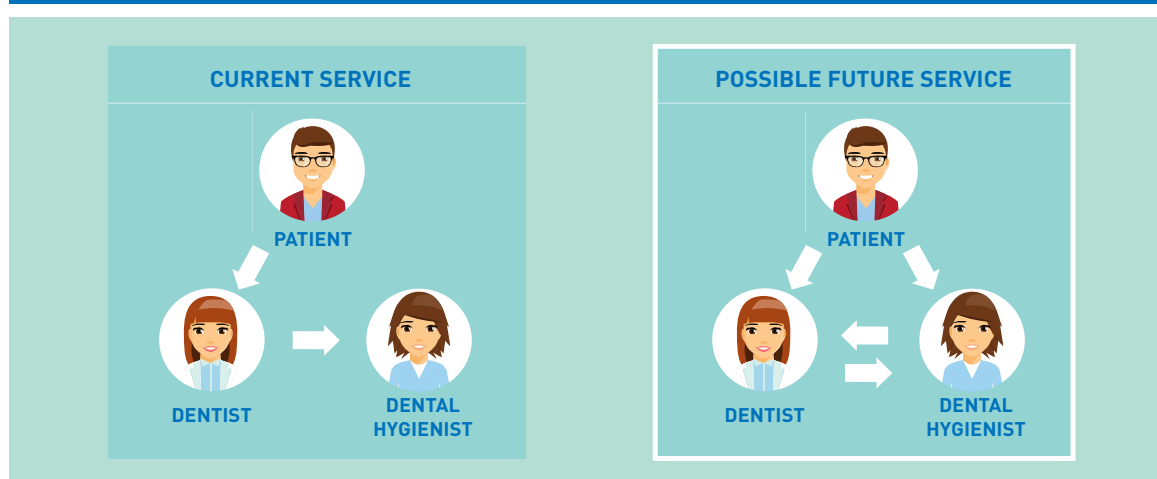
#### PRIORITY

**Action 21: To evaluate the training, focus and scope of practice of clinical dental technicians and dental technicians.**

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Any potential risks to the public of implementing a triage system have to be considered and regulated accordingly. Nonetheless, such a system would ensure improved access for the public overall.

### Triage – dental hygienist





### 8.6.2 Dental hygienists in the workforce

In view of the preventive care needs and primary oral healthcare focus of the Policy, dental hygienists are essential members of the oral healthcare workforce. Despite this, only about two-thirds of the estimated total number of registered dental hygienists is known to be clinically active in Ireland.

Supporting an expanded scope of practice and direct access for patients, as well as facilitating dental hygienists who wish to establish themselves as sole practitioners, would further increase dental hygienists' ability to provide preventive care to the public.

### 8.6.3 The role of auxiliary dental workers in providing oral healthcare for older persons with total tooth loss

The future role of dental technicians and clinical dental technicians will be considered, including their role in improving the oral health-related quality of life for those who have experienced total tooth loss.

For older people suffering total tooth loss, ensuring access to oral healthcare professionals with the relevant skills to restore their oral health-related quality of life must be prioritised. While the majority of older people benefit from standard dentures (e.g. cobalt chrome-based dentures) provided in a primary dental care setting, a small but significant percentage of older people will require implant-retained dentures. Access to relevant oral healthcare professionals is therefore essential.

The TILDA 2015 findings show that such access is not easily available. In view of this difficulty, carrying out a joint evaluation of clinical dental technicians' and dental technicians' scope of practice and remit is necessary. The impact on their education and training can then be considered.

## 8.7 Workforce for advanced oral healthcare centres

Appropriately qualified and trained dentists with advanced skills will be required in order to maintain the effectiveness and quality focus of the advanced oral healthcare centres. Supporting auxiliary dental workers will be needed to staff these centres to the required standard. Adequate numbers of professionals with advanced skills will be employed in centralised settings so as to ensure that on-call rotas, peer support and highly technical services are maintained. The assessment of the numbers of oral healthcare professionals and the skill needs required for advanced oral healthcare centres will involve a separate programme of work.

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*Action 22: To establish a programme to assess the numbers and skills required for advanced oral healthcare centres.*

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## 8.8 Collating information on the dental workforce for the future

A key challenge when assessing the future workforce requirements for primary oral healthcare service provision was the dearth of meaningful information available to assist in the evaluation, including a lack of insight into the characteristics of services to be provided. Currently, the oral healthcare needs identified for the population are predominantly focused on prevention and management of primary dental care issues.

It will be essential to ensure that the population has access to information about services provided by oral healthcare professionals; moreover, such information should be easily accessible to all. This will require the creation of a database of workforce and practice services. In future, these data should be collected by the Dental Council each year, either by way of an annual registration process or by directly requesting the information from all oral healthcare professionals nationwide.

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***Action 23: To establish a database to collect and assess trends in the oral healthcare (dental) workforce.***

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The issues of data protection and the most suitable way to gather data will have to be considered by the Dental Council in line with a key principle of the Policy, i.e. to improve public access to oral healthcare services. Any workforce evaluation will also have to be in line with WHO principles.

# Chapter 9

## Safe, high-quality, patient-centred care



## 9.1 Framework to support safe, high-quality and patient-centred care

The achievement of the Policy's goals requires that oral healthcare services are safe, are of high quality and are patient-centred. The framework to support this will stem from the education and skills of the oral healthcare profession, the regulation and maintenance of standards for the profession and for the environment in which oral healthcare professionals work, and the standards for the delivery of oral healthcare generally.

## 9.2 Education and skills

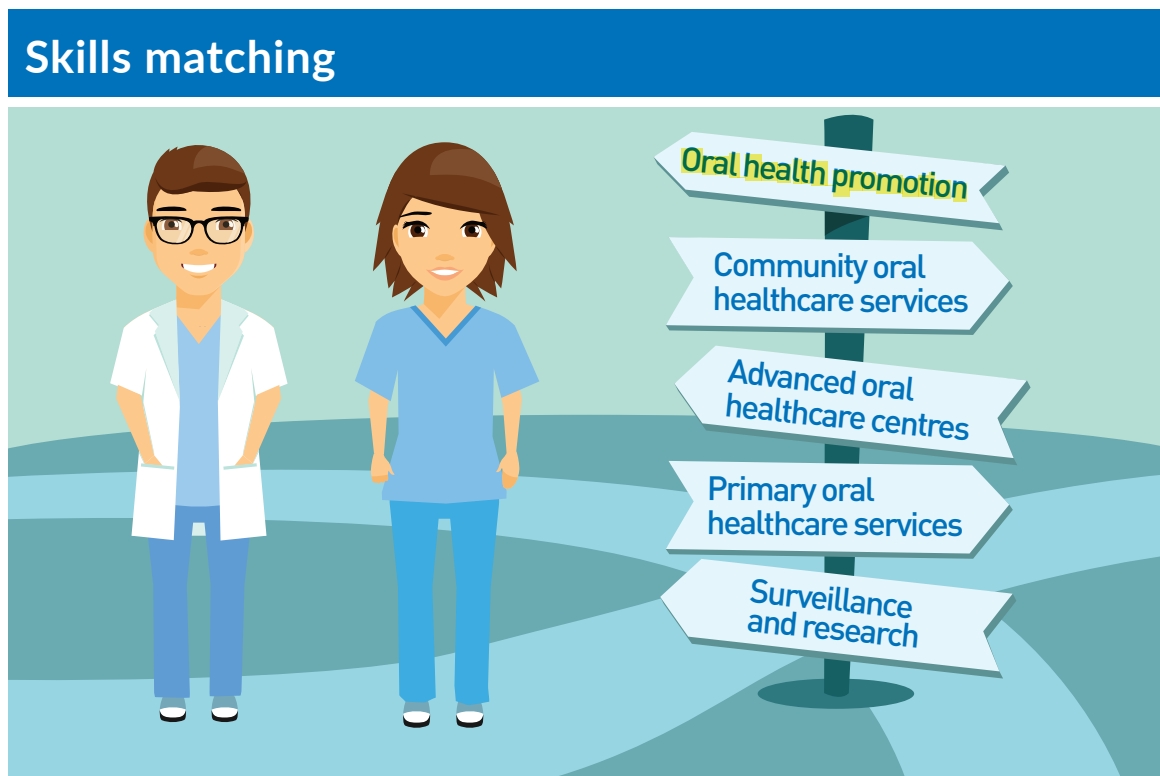
The realignment of services to establish and support the primary oral healthcare approach was outlined earlier in Chapter 7. Dentists were consulted, using a qualitative and structured approach, on the realignment of services. Some key challenges emerged: in the first instance, the current available skills within the oral healthcare profession are unknown but presumed to be variable. Undergraduate dental education will need to be realigned with the Policy by placing primary oral healthcare at its centre.

Isolation, perceived lack of support, and the need for continuing skills development throughout their career were key issues raised by graduate dentists working in primary oral healthcare practices. Developing a framework of supervisory and mentoring networks to address these challenges will ensure that support will be available to oral healthcare professionals, including dentists, throughout their careers.

### 9.2.1 Impact of Smile agus Sláinte on education and skills

The primary oral healthcare approach represents a significant change which requires an education system, both at undergraduate and graduate level, to ensure that the profession can respond to the oral healthcare needs of the whole population. In addition, ensuring that a sufficient breadth of skills is maintained in the profession will enable it to be flexible and responsive as the population's oral health needs change.

The way in which undergraduates are trained understandably impacts on their philosophy and their approach to the provision of oral healthcare when they graduate. For primary oral healthcare professionals embracing a primary oral healthcare approach, the provision, recognition and understanding of the practice of dentistry across the full range of oral healthcare disciplines and age groups will be essential. In line with the Policy, the care of the whole community in a primary dental care setting will be within the general dental practitioner's remit. He/she will be the first and continuing point of care. Preparing the undergraduate will be critical, and the support of current graduates to embrace a primary oral healthcare approach will also be essential.



### 9.2.2 Undergraduate education and skills

There are two dental schools in Ireland, as well as the Faculty of Dentistry in the Royal College of Surgeons in Ireland (RCSI). The dental schools provide undergraduate and postgraduate education, whereas the RCSI has a particular focus on continuing professional development for graduate dentists.

Approximately 80 new undergraduates qualify to practise dentistry every year; additionally, a number of graduates from other countries register in Ireland.

A protected educational, training and research environment focusing on primary care dentistry to support both undergraduate and postgraduate education will be a priority for the implementation of the Policy. Furthermore, placing an academic focus on primary oral healthcare in dental schools and training centres will facilitate the creation of structured support for dentists that will prepare them for all the requirements of service delivery while still in training; it will also assist their future primary oral healthcare skills development.

Existing research identifies the need for teaching methods that facilitate engaged learning – including study abroad, undergraduate research, service learning in dental practices, living-learning oral healthcare provision within communities, and higher education in oral healthcare – to support the Policy.

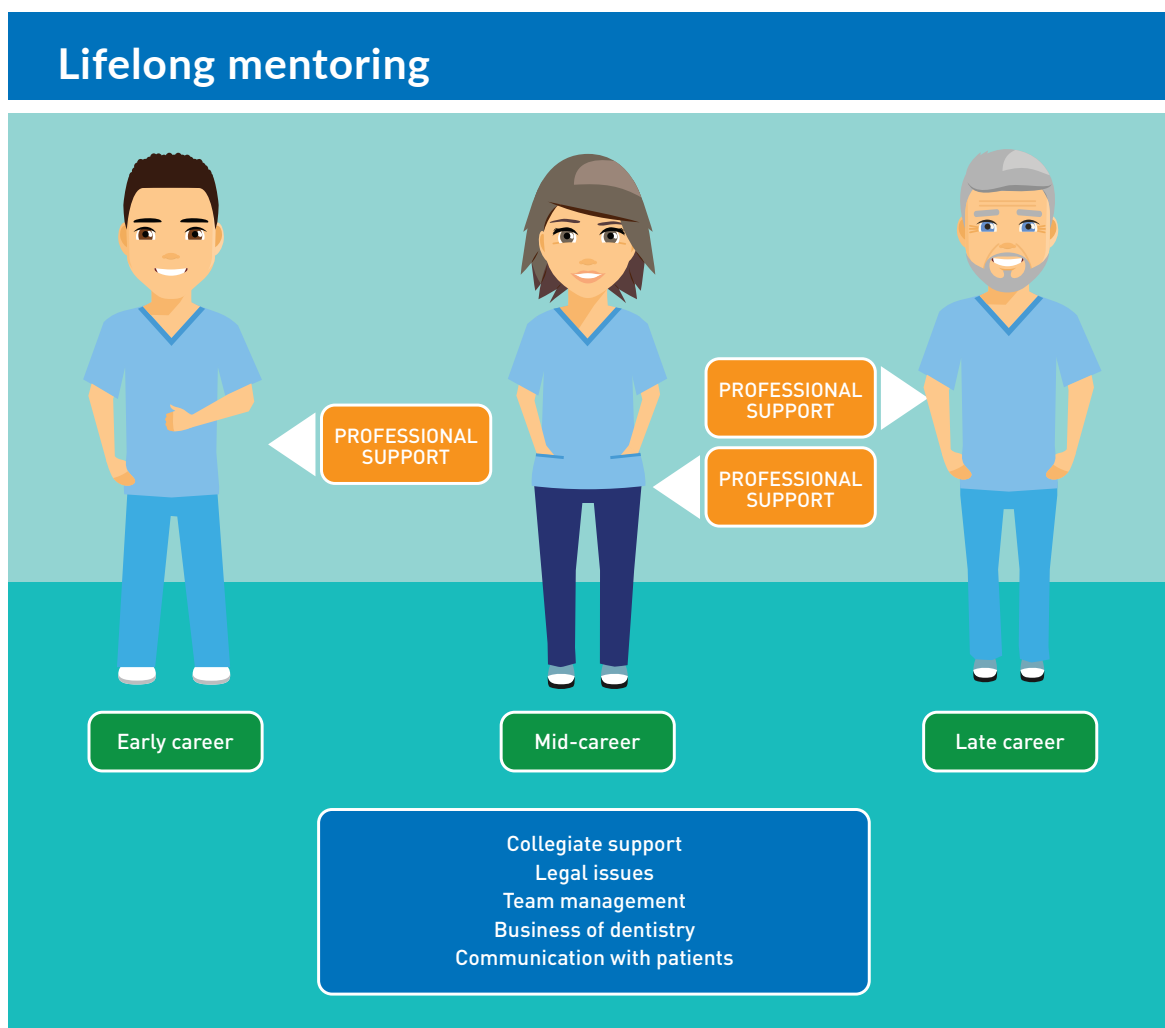
Through engaged learning, students will also have opportunities to engage deeply in their own learning, to practise the application of knowledge across different healthcare courses and off-campus contexts, to interact with other perspectives and voices, to receive frequent feedback about their performance, and to reflect on both that feedback and their learning.

### 9.2.3 Lifelong professional support and development

The dentists who were consulted as part of the development of the Policy emphasised that there was little support available to help them manage a long and continually changing career, especially when practising dentistry in isolated rural areas. Concerns raised were wide-ranging and included communication with patients, collegiate support, fear of litigation, and the ability to manage an oral healthcare team and the business of dentistry.

Engaged learning for an oral healthcare professional in undergraduate training, coupled with lifelong mentoring and supervision networks for graduates, are models that have been evaluated successfully for other healthcare professionals, and will be emphasised in the revised undergraduate and postgraduate education for oral healthcare professionals.

**Action 24: To evaluate graduate education and put lifelong postgraduate mentoring and supervisory networks in place for dentists to support their professional career.**



Consistency in the application, implementation and evaluation of clinical standards will also be supported. For the HSE community of oral healthcare professionals, opportunities to broaden skills and address any narrowing of skills that has occurred will be a priority.

Fostering a culture of team working across the dental healthcare team and among the broader primary oral healthcare team, coupled with maximising the use of skill mix, are issues that will be addressed during all education and training programmes.

#### 9.2.4 Skills matching and skills development

Placing an emphasis on lifelong learning for all graduate dentists is a the Policy priority; this will also include determining the skills match necessary for the provision of oral healthcare in a variety of settings across the life course and for people with diverse healthcare and oral healthcare needs.

The assessment of the oral healthcare profession's baseline qualifications and skills, together with a process of skills matching the current graduate dentists to the Policy requirements will be necessary in order to progress the priorities. For pragmatic reasons, a review of skills will take place at various points throughout a dentist's career, both in the public and private domains. A programme to ensure delivery on this priority will be developed and implemented by the Dental Council in conjunction with other stakeholders.

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##### **PRIORITY**

*Action 25: To assess the baseline skills of the oral healthcare profession, starting with dentists, and put a skills match programme in place.*

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#### 9.2.5 Academic primary oral healthcare centres

One of the Policy's actions is the development of primary oral healthcare discipline in the dental schools and training centres for undergraduates. Leadership roles in primary oral healthcare at these education centres, as well as in service provision, will be established. Separately, as is the case in other healthcare disciplines, a programme of engaged learning (as described in Section 9.2.3) will be developed. Consequently, the expansion of selected primary oral healthcare practices into education 'hubs', designed to support training at all levels, will be required.

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*Action 26: To develop primary oral healthcare centres in dental schools and training centres.*

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#### 9.2.6 Review of undergraduate education

In order to incorporate these education changes in a coordinated way, an external strategic review of undergraduate education must be undertaken. The purpose of the review will be to provide a clear roadmap for educational institutions of the future developments necessary for undergraduate and graduate training to support the delivery of Smile agus Sláinte. This initiative will be led by the Department of Education and Skills and the Higher Education Authority, but they will also work collaboratively with the Dental Council to facilitate its development.

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##### **PRIORITY**

*Action 27: To undertake an undergraduate review of dental education, placing primary care at its centre and embracing engaged learning.*

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## 9.3 Regulation and standards for the dental profession

Regulation of the dental profession is key to protecting/advancing the quality and safety of all oral healthcare services provided for the whole population.

### 9.3.1 Dentists Act 1985

One of the National Oral Health Policy's priorities is to update the Dentists Act 1985 in order to bring it into line with the governance of other healthcare professionals. As part of the process of reviewing the Act, the issue of broadening the scope of practice for dental auxiliary workers and enabling direct access for the public, when appropriate, will be considered. In addition, the review process will consider issues such as inspection of dental practice premises to ensure satisfactory quality and standards for infection control, disposal of clinical waste, and the maintenance of appropriate standards in clinical domains, such as record-keeping and drug prescribing. Continuing professional development programmes will need to be regulated in order to assure the public that oral healthcare professionals providing care are up to date with current evidence and that their services are in line with best practice.

Another aspect of providing assurance for the public is the need for regulation to enforce standards for dental practice premises in line with Dental Council policies, ethics and recommendations. The protection of the public and ensuring high oral healthcare standards will be the central focus of the new legislation.

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#### **PRIORITY**

*Action 28: To update the Dentists Act 1985.*

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### 9.3.2 Environmental legislation

Currently, environmental legislation regarding a reduction in mercury use in dentistry and the disposal of clinical and related waste are key issues for oral healthcare professionals. European environmental legislation (Regulation (EU) 2017/852) will support a reduction in mercury use, with a phase-down of the use of amalgam fillings being provided for in Article 10 of the EU Regulation.

This EU provision will be implemented by S.I. No. 533 of 2018.

Clinical guidance will be developed to assist the dental profession in managing the change from using amalgam to using alternative restorative approaches. Initially, the reduction in the use of amalgam will be primarily focused on children aged under 15 years, and pregnant and breastfeeding women.

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#### **PRIORITY**

*Action 29: To put in place preventive packages and outline measures, including the necessary research, to support the phase-down of amalgam in accordance with EU requirements.*

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The EU Regulation aims to promote a prevention approach in order to reduce the need for amalgam fillings. The prevention ethos espoused in the Policy – including water fluoridation, implementing prevention and oral healthcare packages, and expanding primary oral healthcare services – will support this initiative.

This regulatory implementation requires close collaboration between the Department of Health, the Department of Communications, Climate Action and Environment, and the Environmental Protection Agency.

### 9.3.3 Other regulations

The Health (Fluoridation of Water Supplies) Act 1960 governs the optimal level of fluoride to be present in water. This legislation provides for the adjustment of the natural concentration of fluoride in public water supplies to the optimal recommended level (0.6–0.8 ppm) for the prevention of dental caries. Water fluoridation undergoes regular review, including reviews of new and emerging evidence on its effectiveness and any potential health effects. Such reviews will continue during implementation of the Policy.

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*Action 30: To continue to review emerging evidence in relation to water fluoridation.*

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The labelling of fluoride toothpaste will be kept under review during the lifetime of the Policy. The current policy for toothpaste use, which was based on the Forum on Fluoridation 2002 recommendations, advises against the use of fluoridated toothpaste for children aged under two years. Other general regulations that impact on the safety and quality of oral healthcare services and the work of the oral healthcare profession are:

- Council Directive 2013/59/Euratom lays down basic safety standards for protection against the dangers arising from exposure to ionising radiation. The provisions under the remit of the Department of Health deal exclusively with protection against the dangers of medical exposure to ionising radiation. Medical exposure in the BSS Council Directive is defined as “exposure incurred by patients or asymptomatic individuals as part of their own medical or dental diagnosis or treatment, and intended to benefit their health, as well as exposure incurred by carers and comforters and by volunteers in medical or biomedical research”. S.I. No. 256 of 2018 European Union (Basic Safety Standards for Protection Against Dangers Arising from Medical Exposure to Ionising Radiation) Regulations 2018 transposes these requirements. This legislation will be enforced by the Health Information and Quality Authority.
- Health and Safety Authority (HSA) legislation and guidelines for the workplace also contain directions in relation to protection of staff from occupational hazards in the workplace, including the disposal of mercury and protection from contaminated waste.
- **Regulations to tackle the common risk factors (alcohol, sugar and tobacco): The marketing, development and use of alcohol, sugar and tobacco is continually changing, and is an area that needs careful observation by the oral healthcare profession, in conjunction with other healthcare professionals, so as to ensure that health promotion strategies are sufficiently robust to deal with emerging risks.**

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#### **PRIORITY**

*Action 31: To develop appropriate advice on toothpaste use in line with evidence.*

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Broader social and health legislation and policy also impact on the work of oral healthcare professionals in practice. This legislation includes provisions concerning people with disabilities, such as the Assisted Decision-Making (Capacity) Act 2015.

### 9.3.4 Health Information and Quality Authority standards

The Health Information and Quality Authority (HIQA) has developed guidelines and standards for all healthcare, providing a framework for safer and better healthcare and service provision; these encompass patient safety standards. HIQA standards have also been developed for the management of healthcare-associated infections and medical device decontamination, while recognising the significance of antimicrobial guidelines. These are key issues in dentistry and have a particular impact on primary dental care provision.

HIQA has also established standards of care for older people, and for people with disabilities living in residential care. For older people, the need for primary dental care provision is highlighted in HIQA's National Standards for Residential Care Settings for Older People in Ireland, 2016. The HIQA standards are relevant when providing oral health assessments and oral healthcare to both older people and people with disabilities who are living in residential care.

# Chapter 10

## Oral health evaluation, policy evaluation and research development



## 10.1 The background and aims of research and evaluation

One of the key principles driving the development of the Policy was to ensure that it was evidence informed. However, some key gaps were noted, which resulted in the need for commissioned research to be carried out to inform the Policy. For the future, a research infrastructure that will enable evidence to be readily available to the oral healthcare profession and policy-makers needs to be put in place. The development of such a framework will be a priority in the initial phase of the Policy's implementation.

Some key areas will require a priority focus. These are:

- An oral health evaluation programme to evaluate the Policy
- Research in primary dental care practice settings
- Future evaluation and research.

The Policy will require a data collection and needs assessment infrastructure<sup>12</sup>. This will include:

- A national oral health evaluation programme
- A pathfinder studies programme
- A practice-based research network (PBRN)
- A sentinel practices network
- The inclusion of oral healthcare questions in general healthcare studies
- An overarching oral health research programme.

Collating, coordinating and analysing these clinical data will be necessary. A health intelligence programme will be central to the evaluation of the public's oral health status and planning for services. This supports Sláintecare's implementation strategy to include population health planning to inform development of services. Future research issues for consideration will also be identified from this analysis.

The development of a long-term oral health evaluation process and dedicated research programme to support the Policy and its strategies will be essential.

## 10.2 Evaluation measures

The aim of the Policy is to enable every person in Ireland to achieve their personal best oral health. While professionally assessed oral health indicators, such as dental decay and gum (periodontal) disease, will be included as part of the oral health evaluation programme, a key indicator will be the oral health-related quality of life of the population in Ireland.

12 'Oral health evaluation' is used throughout the text interchangeably with the term 'clinical surveillance'. Clinical surveillance differs to the term 'screening', although both terms are often used interchangeably. Clinical surveillance, however, differs in its remit: clinical surveillance is the systematic, on-going and analytic process of monitoring to scrutinise an oral health condition within a population and determine that population's needs. Clinical surveillance includes the on-going follow-up with patients at increased risk of disease (poor oral health). Clinical surveillance also investigates the prevention and control measures for oral health and if they are working. All aspects of clinical surveillance are to be considered under Smile agus Sláinte, including both active (seeking out patients with poor oral health status) and passive (monitoring patients who already attend practice) and sentinel surveillance (looking at specific aspects of an oral disease or condition). Overall, the process of taking information from a clinical assessment and identifying the need for on-going care is involved.

Determining certain process measures would be worthwhile in evaluating the success of the Policy. Such early successes would include the ability to access and use oral healthcare services, the availability of choice of oral healthcare professional, and the uptake of prevention interventions. All of these reflect the principles of the Policy. Overall, detailed process measures and the number of treatments and interventions provided cannot substitute for oral health outcomes. Evaluation of the success of the Policy and subsequent research will focus on general and oral health outcomes.

## 10.3 Smile agus Sláinte: oral health evaluation infrastructure

### 10.3.1 Introduction

Currently, there is no national oral health evaluation (clinical surveillance) system in place. The advantages of such a system would be tangible at both the population and patient levels. At a national population level, such a programme would assess the needs of the population, assess current services, and help policy-makers to plan for future requirements. On an individual basis, it would provide the opportunity to actively encourage patients who do not usually attend practice to attend for care and be referred, where necessary, for on-going care.

The Policy provides for a move away from traditional national dental and oral health surveys as the process of assessing oral healthcare needs. A national oral health evaluation programme will be put in place. It will involve the monitoring of oral health status throughout all life stages in order to mirror the life-course approach and thus determine the most appropriate care needed at each life stage. As well as determining the most appropriate care, the oral health evaluation programme will facilitate the comparability of oral healthcare service delivery in Ireland with service delivery in other countries, the identification of research, and the evaluation of the Policy measures. For this reason, the WHO indicative age groups for oral health evaluation (clinical surveillance) will be used.

The establishment of a national database of oral healthcare measures and the monitoring of oral health are an integral part of any modern oral healthcare system. A particular strength of the oral health evaluation programme is that it will provide a baseline of measures for oral health and it will assist in the evaluation of the impact of interventions undertaken, such as the introduction of a new service. With regard to evaluation of the Policy, it will be important to ensure agreement on a baseline for oral health status before policy initiatives are implemented. Recent data for the oral health status of children and older adults are available. However, data on adolescents' oral health needs and behaviours, which would provide an insight into people's potential oral health challenges in mid-life, are not available. For this reason, assessing the oral health status of both adolescents and mid-life adults will need to be prioritised in order to get greater clarity of their oral healthcare needs and the services they will require, and to evaluate the impact of these services on their oral health status.

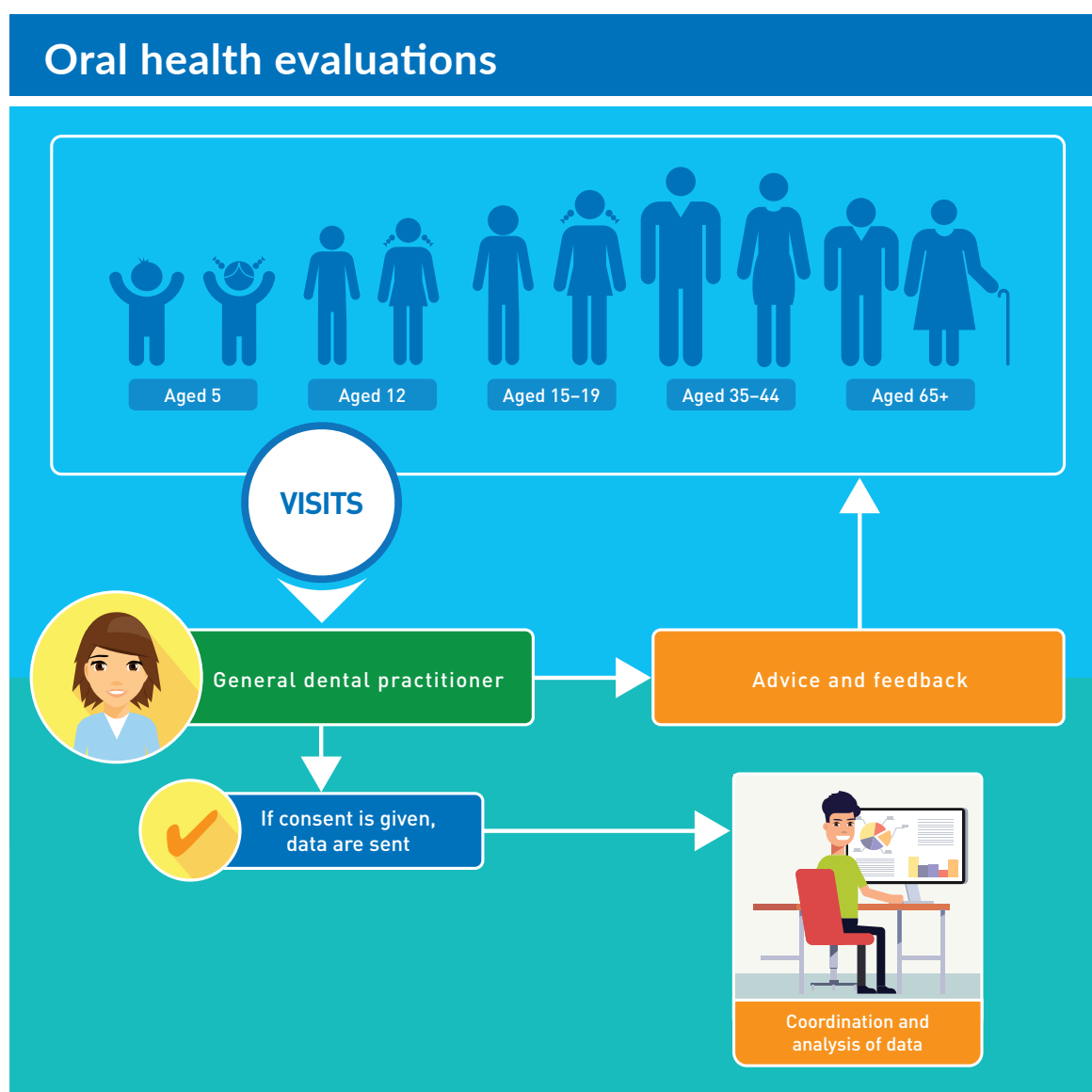
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**Action 32: To develop a national oral health evaluation programme for WHO indicative age groups integrated with routine dental visits in primary oral (dental) healthcare.**

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In addition, the national oral health evaluation programme will be able to identify any new issues emerging in oral healthcare across the whole population because it will extend to people beyond those eligible for care. The oral health evaluation programme will deliver national benefits and will identify emerging issues requiring research. Furthermore, the programme will be able to evaluate the impact on oral health outcomes

following the implementation of various Smile agus Sláinte: National Oral Health Policy measures. At an individual level, at key ages, a person's risk of oral disease will be identified and the patient will be directed to oral healthcare services and other services, if necessary.



### 10.3.2 Targeted oral health evaluation (clinical surveillance) – indicative age groups

In order to identify the key life stages where oral health assessments should be undertaken, the WHO recommends using indicative age groups. In this context, the key oral health evaluation (clinical surveillance) groups are 5-year-olds, 12-year-olds, 15–19-year-olds, 35–44-year-olds, and those aged 65 and older. Assessing these groups at regular intervals, in accordance with WHO recommendations and as an integral part of a service programme for the whole population, will facilitate comparability with other countries that are using similar WHO methodologies.

The establishment of core clinical datasets and measures of oral health conditions relevant to different age groups will be essential. In line with WHO recommendations, a nationally agreed set of oral healthcare measures for each indicative age group will be drawn up, and this will dictate the oral healthcare assessments that are most relevant for each age cohort.

### 10.3.3 Identification of risk and referral and/or signposting to services from the national oral health evaluation programme

One benefit of the proposed national oral health evaluation programme is that each individual's level of risk for oral health conditions will be identified. Unlike screening, which is not diagnostic, clinical surveillance can more assuredly facilitate referral for further care. For example, the WHO defines a high-risk 12-year-old child as someone having more than four decayed, missing or filled teeth. For other oral health conditions, at different ages, similar categories of high risk can be identified. Once they have been clinically assessed, a person's oral health can be compared to that of their peers and to international norms. Accordingly, they can be placed into a high-, medium- or low-risk category. This categorisation will determine if the individual will need to be referred for oral healthcare or general healthcare services within a certain time frame. If they are low risk, and where no immediate intervention is deemed necessary, the person, or their guardian(s) if appropriate, will be advised regarding the availability of relevant healthcare services. This also provides an opportunity for oral healthcare advice and information. However, no targeted clinical surveillance or screening is definitive and it is not a substitute for regular visits to a dentist and/or other oral healthcare professionals.

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**Action 33: To develop a nationally agreed set of core criteria to assess at each WHO indicative age group for oral health evaluation (clinical surveillance) for five-year-olds, 12-year olds, 15–19-year-olds, 35–44-year-olds, and those aged 65 and older.**

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Oral health evaluation will be an adjunct to, and, where possible, part of, routine visits to local dentists at key targeted ages for the whole population. This includes patients who receive care under any State scheme or the HSE's directly provided services, and/or who receive care as private patients. It will be particularly important for the surveillance programme to identify members of the public who are not accessing any dental services on a regular basis. These people may have oral health concerns that have not been assessed opportunistically through regular dental attendance. The greater the proportion of any targeted age cohort included in the oral health evaluation programme, the more representative the findings will be of that cohort's oral health status.

Where possible, the oral health evaluation assessments will be carried out by the patient's usual dental practitioner. People who have not attended a dentist for a long time can select to attend a dentist of their choosing who provides this service. In exceptional cases, such as for vulnerable patients, the oral health evaluation assessment may be provided by the HSE community oral healthcare services.

A key focus of the Policy is to improve the use of dental services across the life course. Encouraging people to attend for oral health evaluation at their local dentist means that they are more likely to have any necessary treatment provided in good time. As is evidenced in other oral health screening programmes internationally, where oral health evaluation takes place at a location other than where the individual's routine oral healthcare services are provided, uptake of referral for oral healthcare services or follow-up intervention services is less likely to occur.

Those who do attend for oral health evaluation will have the opportunity to be advised on how and where to access oral healthcare services (signposting to services), thus exploiting an opportunity to improve the utilisation of oral healthcare services and, in particular, to encourage the uptake of prevention services.

Oral health evaluation data will in most cases be collected in a primary dental care practice setting. This will necessitate the availability of appropriate information and communications technology (ICT) in the dental practice setting. The collation of oral health evaluation data will involve drawing up a separate contract from the standard dental practitioner's service contracts for publicly funded care so as to enable as many dentists as possible to provide the data and also to enable as many members of the public as possible to access the surveillance service. It will ensure that the broadest and most representative sample data can be obtained and it will also enable the patient to follow up on issues, whether publicly or privately, with their own dentist.

## 10.4 Pathfinder surveys: oral health evaluation for vulnerable groups

Vulnerable groups have been identified as a key cohort to be prioritised for oral health evaluation (clinical surveillance) if their oral health needs are to be identified. While recent data from the 2018 study, Health, Wellbeing and Social Inclusion: Ageing with an Intellectual Disability in Ireland – Evidence from the First Ten Years of The Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing (IDS-TILDA) Wave 3 IDS-TILDA<sup>13</sup>, provides insight into the needs of those with an intellectual disability, there remains a lack of information on the specific oral healthcare needs of older people living in residential care. A baseline evaluation of their needs should be undertaken prior to the introduction of any oral healthcare programme for this group.

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### **PRIORITY**

*Action 34: To develop a programme for pathfinder studies for vulnerable people, with an initial focus on residential centres.*

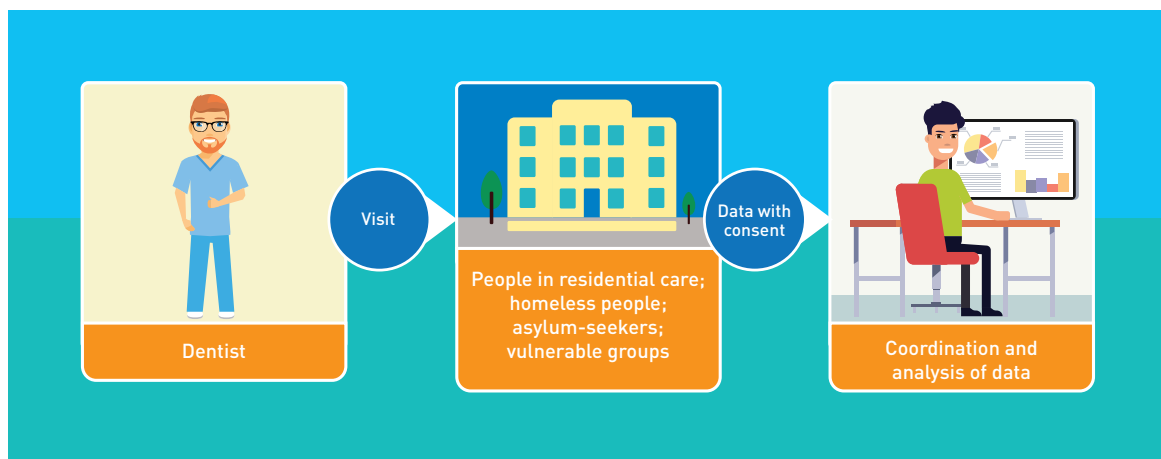
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While older people and adults with disabilities living in residential care will require particular attention when it comes to oral healthcare provision, refugees and homeless people in hostels will also benefit from a targeted oral health evaluation programme. Vulnerable people are not able to easily access a dental practice to avail of oral healthcare. Exclusive reliance on attendance at primary oral healthcare facilities for oral health evaluation (clinical surveillance) or needs assessment is neither effective nor efficient for these people.

For these particular groups, the use of dedicated pathfinder surveys (to be undertaken by community oral healthcare services) in order to assess their oral health status is appropriate. Pathfinder surveys are small and specific surveys which can be used to help develop a national overview of a particular age group and/or of a specific issue. In such surveys, it is important to identify three aspects: first, the group's oral healthcare needs; second, the types of oral healthcare professionals and specific skills that will be required to provide care; and third, the settings where the oral healthcare should be provided. An oral health evaluation (clinical surveillance) plan – outlining the appropriate approach to assessing the oral health status and oral healthcare needs of vulnerable groups – will be developed.



## Oral health evaluation – pathfinder surveys



Research will be required to identify the causes of poor oral health and the best approaches to overcoming these challenges for people with disabilities. Another key area will be research into how oral health can be maintained into older ages, with the purpose of preventing tooth loss.

## 10.5 Primary oral healthcare research

### 10.5.1 Primary oral healthcare practice-based research network

The aim of a primary oral healthcare approach is to enable as broad a range of the population as possible to be seen in independent practice. In addition, it will be essential to ensure that the maximum range of services is available to the population at locations as close as possible to where they live. Insight into the primary oral healthcare practice characteristics that support the best oral health outcomes for the public will inform future oral healthcare service developments.

Primary oral healthcare services are one of the key areas where research in Ireland has been inadequate. Research data on this area would inform evaluation of the best strategies for achieving optimal oral health for the wider population.

During the implementation of the Policy, a key focus will be the development of a practice-based research network.

### 10.5.2 Development of a primary oral healthcare practice-based research network

In order to enable practice research to be undertaken, a primary oral healthcare practice-based research network must be developed. This means that oral healthcare practices that are to be included in practice-based research will be recruited into a network. Recruiting a diverse range of oral healthcare practices in different geographical areas will be essential. These oral healthcare practices will have an opportunity to participate in further research. This will enable the examination of issues that emerge from oral healthcare service data.

The development of the oral healthcare practice-based research network will need to be supported by dental schools, training centres and academic institutions; as such, development must be grounded in research principles. A particular focus on primary oral healthcare issues in academic institutions and training schools should provide the necessary support for this practice-based research to develop.

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*Action 35: To develop a primary oral healthcare practice-based research network.*

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### 10.5.3 Primary oral healthcare sentinel practices

Some oral healthcare practices that will provide even more in-depth information for research will be selected in addition to the routine oral healthcare practice-based research networks. These practices, based on the principles of sentinel practices, will be recruited because they have particular characteristics that differentiate them from others. They will be able to provide insight into exceptional practices and will provide high-quality services in response to their community. For example, compared with other oral healthcare professional practices, they may provide an exceptionally high volume of specific services, e.g. a high volume of complex periodontal care. Alternatively, they may be located in a geographical area that requires them to treat an especially high number of a particular cohort of the population, e.g. people with disabilities, refugees or particular ethnic groups.

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*Action 36: To recruit sentinel practices for in-depth service research and service development.*

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## 10.6 General surveys and oral health measures

Evaluation of the Policy will not be limited to reliance on the oral health evaluation programme and the primary oral healthcare practice-based research network. It will also encompass oral health assessments by questionnaire and/or clinical examinations that are integrated into other general health surveys, such as TILDA and the Healthy Ireland survey. In the case of the latter two studies, oral health-related questions have already been included. The inclusion of oral health- and oral healthcare-related questions in other national surveys of general health is in line with the Policy's aim to integrate oral health and general health policies.

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*Action 37: To integrate oral health, oral healthcare and oral health-related quality of life questions into general health surveys such as Healthy Ireland.*

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The assessment of oral health-related quality of life is now considered by the WHO to be a key outcome measure by which to compare oral health in multiple countries. It is essential that, where possible and appropriate, oral health-related quality of life is included as a core measurement in surveys and assessments of oral health.

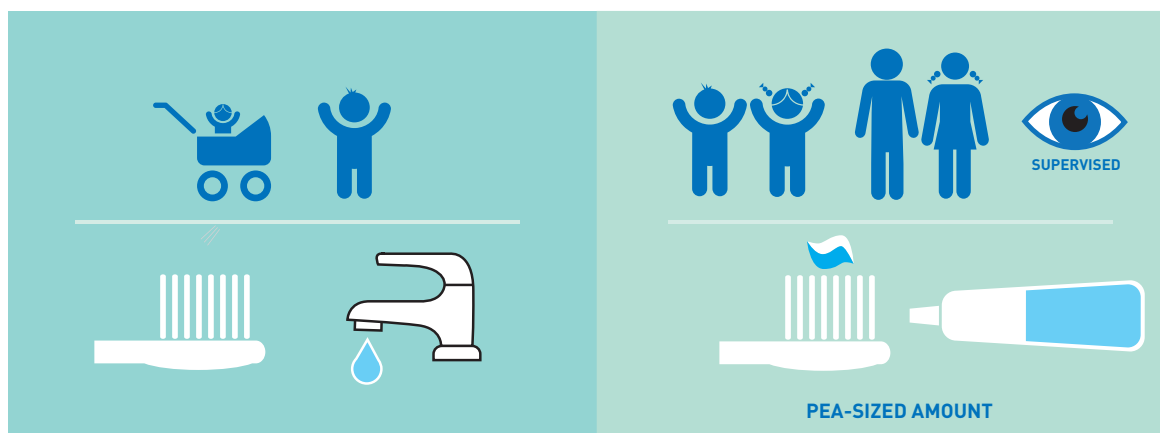
## 10.7 Oral health research programme

### 10.7.1 Fluorides and health

In 2015, the Department of Health commissioned the Health Research Board (HRB) to carry out a review, entitled Health Effects of Water Fluoridation, to determine the relationship between water fluoridation and general health. The findings in the published review indicated that water fluoridation is safe at optimal levels. However, two key areas emerged where further research is required; these include bone health (more specifically osteosarcoma and bone density) and thyroid function (hypothyroidism).

The most recent Cochrane review on fluoridation, entitled Water Fluoridation to Prevent Tooth Decay (2015), identified the lack of research relating to exposure to fluoridated water in older people and its impact on oral health. In view of the fact that an estimated 70% of the Irish population receives fluoridated water, the development of definite and accessible mapping systems to ensure that people's individual fluoride status can be easily and quickly identified is an important research area. Such a research project has already begun, supported by a HRB grant and led by the Dublin Dental University Hospital, with collaborators in the National University of Ireland, Maynooth, the Cork University Dental School and Hospital, Irish Water, HSE and the Department of Health.

### Fluoride toothpaste usage



A further research issue is the need to define the most appropriate age to commence using fluoride toothpaste and/or additional topical fluorides in early childhood. The views of health experts internationally vary in terms of the age range (i.e. from birth until either two years or four years old) during which the use of fluoride toothpaste and other high-dose fluoride medicaments should be restricted or eliminated in order to prevent inadvertent excess absorption of fluoride through swallowing. Excessive fluoride absorption, when the enamel of the front adult teeth is developing, impacts on eventual fluorosis levels. Consequently, to reduce fluorosis prevalence, the advised age to start using fluoride toothpaste, is generally after the majority of enamel formation of the adult front four teeth has occurred. The use of some fluoride therapies, such as fluoride mouth rinses in very young children before the swallowing reflex is fully developed, means that very high doses of fluoride can be ingested inadvertently. A cautious approach is indicated to ensure that no unintentional impact occurs particularly in population based programmes.

In Ireland, reported fluorosis levels have not changed since 2007, despite a reduction in water fluoridation levels. However, as the FACCT study shows, the majority of children were not compliant with the Forum

on Fluoridation's 2002 recommendation, which is for children under two years of age to avoid the use of fluoride toothpaste. The evidence was recently updated by a policy working group to consider the 2002 Forum on Fluoridation recommendation.

Research to monitor the pattern of fluoride toothpaste use up to the age of four years, while also measuring fluoride absorption during that period, will be required in order to assess the relationship between these measurements and subsequent fluorosis levels in later years when a child's permanent front teeth appear, i.e. after eight years of age. Other aspects to consider in tandem include the pattern of tooth eruption and the dental decay levels in these younger children.

A further issue is that an estimated 30% of the population of Ireland does not have access to water fluoridation. One of the alternatives – already being used in some parts of Ireland – is school-based fluoride mouthrinsing programmes. The effectiveness of such programmes has not been assessed in recent years, and it will be essential to measure their value as a way to reduce oral health inequalities, as there is existing scientific evidence indicating that their initial benefit for participants' oral health diminishes throughout the teenage years after fortnightly school-based fluoride mouthrinsing practice ceases at completion of primary school.

### 10.7.2 Impact of reduction of amalgam use on oral health outcomes

Regulation (EU) 2017/852 of the European Parliament provides for the phase-down of dental amalgam, in line with international policy on reducing mercury use. The Policy will fulfil such requirements under Action 29, which will support the phase-down of amalgam through, among other things, caries prevention, guidance, and the facilitation of intervention with non-amalgam alternatives in the State-supported system.

In tandem, a research programme initiated by the Environmental Protection Agency (EPA) commenced in 2018 to assess the impact of composites and other alternative filling materials on the environment and on oral healthcare outcomes. The HRB is undertaking a research review (2019) of international implementation guidance for the use of alternatives to amalgam in oral healthcare services to further inform this action.

### 10.7.3 Other oral health research priorities

The establishment of the national oral health surveillance programme – including pathfinder studies; the primary oral healthcare practice-based research network, sentinel practices; and the incorporation of general health questions in surveys – will result in the emergence of key oral health research and service issues that will require investigation. Currently, strategic issues already identified that require research include barriers to service utilisation, evaluation of prevention in primary care practice settings, and poor oral health-related quality of life in older people.

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**Action 38: To establish an overarching oral health research programme.**

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An overarching research programme will be developed that will support the evaluation of the impact of the Policy, as well as emerging research issues in practice.

## 10.8 Coordination and analysis of oral health evaluations

The collation of evidence is the first step in oral health evaluation and research. To develop an evidence-based system requires the weighting, interpretation and analysis of facts with the purpose of informing future service and research initiatives.

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*Action 39: To coordinate and analyse oral health evaluation data.*

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Data will be coordinated and analysed from:-

- oral health evaluations across the life course,
- primary oral healthcare practice-based research networks,
- sentinel practices, and
- pathfinder surveys for vulnerable groups.

The availability of personnel with organisational, research and public health skills, including expertise in statistical methodology and epidemiology, will be required.

# Chapter 11

## Governance and management



## 11.1 Introduction

Effective governance and management structures are essential in order to ensure that Smile agus Sláinte objectives are achieved. Governance will include compliance with existing policies and legislation, as well as development and compliance with any new policies and legislation. In addition, key leadership roles and a management structure in the various stakeholder organisations will be developed.

### PRIORITY

*Action 40: To put in place a management structure to oversee the implementation of the Policy.*

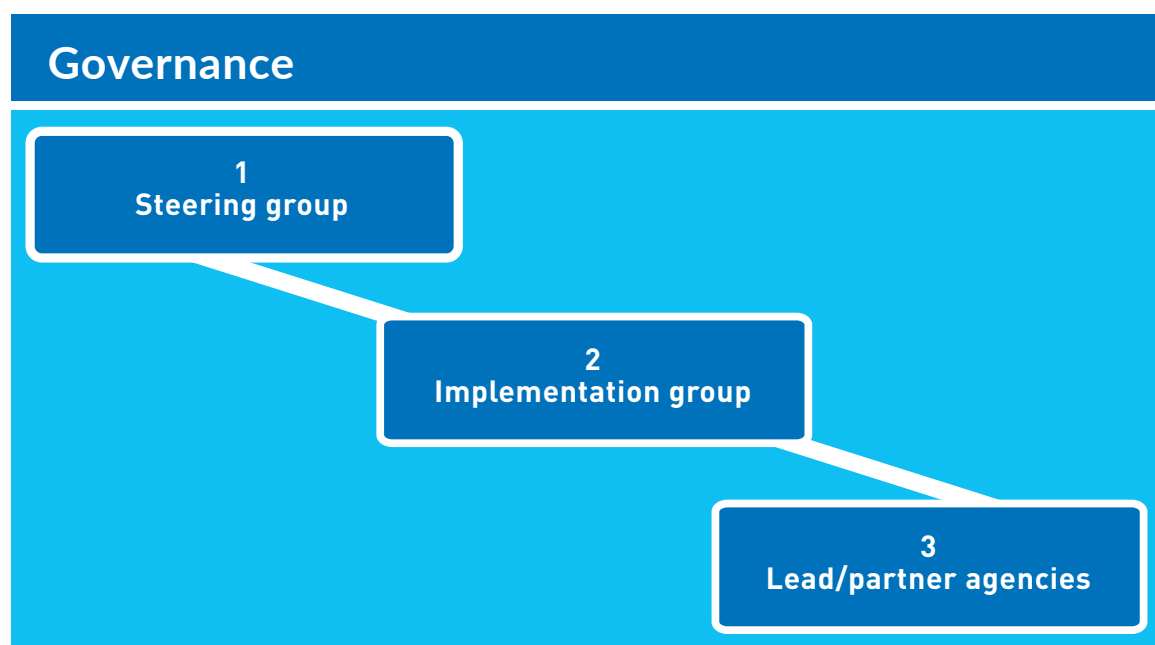
Developing an agreed implementation plan and establishing management and governance arrangements will be a priority. The agreement of the implementation plan, the objectives, targets and performance indicators with lead/partner agencies will be the initial focus.

## 11.2 Governance of Smile agus Sláinte.

Governance of the Policy will be overseen by the Department of Health. The structure will include both an oversight group (steering group) and a separate implementation group. The implementation group will be responsible for planning the delivery of policy actions over the eight year period. This will include the delivery of the three strategic strands:-

- General health and oral health promotion and protection programmes
- Oral healthcare service provision
- An oral health evaluation programme

In addition, the implementation group will also be required to design the delivery of additional strategies which support the Policy, which embrace diverse areas such as education, lifelong learning and mentoring, legislation and regulation, workforce planning and development and research. The implementation group, for some aspects, will be reliant on lead and partner agencies such as the Dental Council.



## 11.3 Management of services

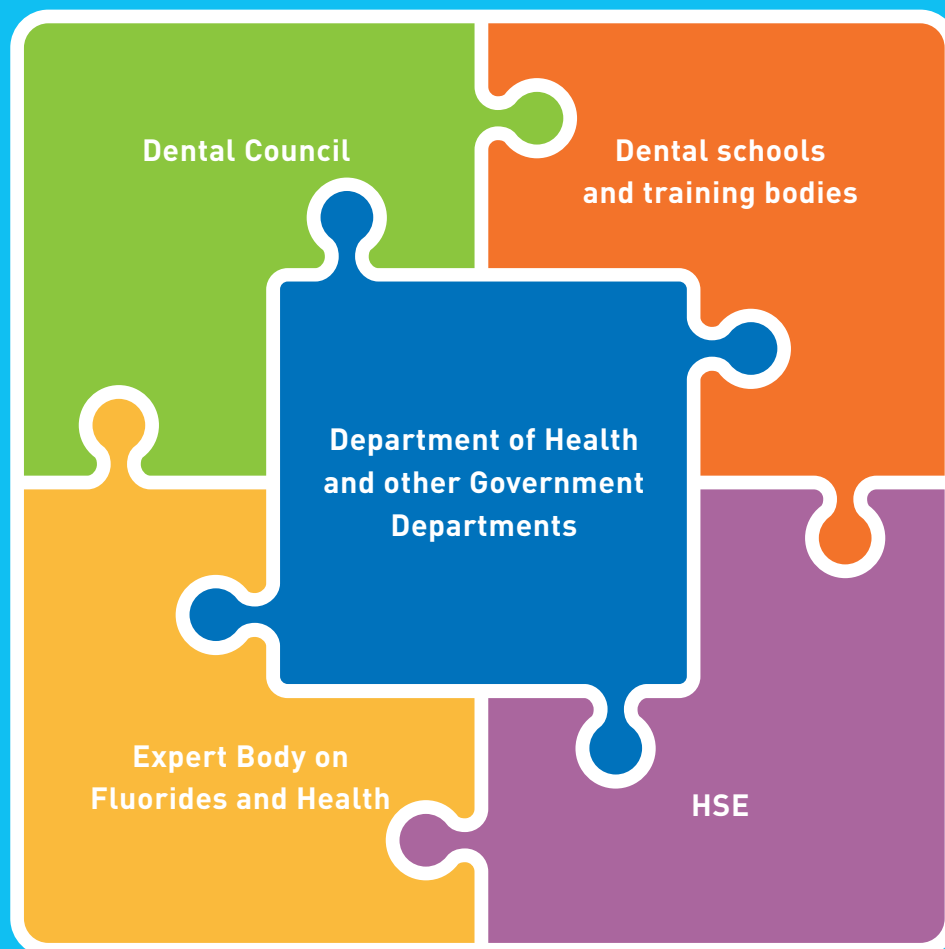
The primary oral healthcare approach will be a challenging prospect initially, requiring a reorientation in their way of working for many oral healthcare professionals. A transparent management and support structure is essential to support its development.

These service development work streams will include the development and delivery of the strategic strands including:-

- General health and oral health promotion and protection
  - o Regulation and policy
  - o Oral health protection programmes
  - o Health promotion and MECC
- Oral Health Care services
  - o Primary oral healthcare services
  - o Community oral healthcare services
  - o Advanced oral healthcare centres.
- The national oral health evaluation programme including planning of
  - Oral health evaluation for WHO target age groups
  - Pathfinder surveys
  - Practice based research networks
  - Sentinel practices
  - Evolving research



## Lead/partner agencies for initial phase



## 11.4 Leadership

### 11.4.1 Services leadership

Primary oral healthcare will be placed at the centre of all services. Leadership development in primary oral healthcare services is a Smile agus Sláinte priority, and a primary oral healthcare clinical leadership structure must be put in place.

It is important to emphasise that some patients, due to their circumstances, will be ill-adapted to receiving services in an independent primary oral healthcare practice setting. In view of this, transparent clinical care pathways and supporting services must be readily available for these more vulnerable patient groups. This

guidance also applies to patients requiring care in advanced oral healthcare centres. Clinical leadership roles focused on the development of oral healthcare services for vulnerable population groups, will be required. Separately, clinical leadership for the development of advanced care is also necessary.

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#### **PRIORITY**

*Action 41: To put in place a leadership structure to support the implementation of the three strategic strands*

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#### **11.4.2 Oral health promotion**

The HSE will require specific leadership in health promotion, including the development of community programmes. There will be an opportunity to introduce skill-mix for the community-based oral health promotion programmes and many programmes will be resourced predominantly by auxiliary dental workers.

#### **11.4.3 Oral health evaluation leadership**

The collation, coordination, and analysis of the Policy's oral health evaluation programme data and its findings are crucial to ensure their feedback into service development and research. The analysis of this data will also be the mechanism through which improved oral healthcare outcomes can be measured. One of the oral health evaluation programme's initial tasks will be the development of core datasets for each WHO indicative age group that has been targeted for oral health evaluation.

Specific leadership roles in public health and research will be essential to progress these actions.

#### **11.4.4 Education and training leadership roles**

Key leadership roles for the primary oral healthcare (dental) discipline in dental schools will be critical in providing support for the primary oral healthcare approach. These primary oral healthcare leaders and their teams will work closely with both undergraduates and graduates to implement the actions of the Policy. The leadership roles will drive forward the necessary change in training and education in the dental schools.

### **11.5 Summary of governance of Smile agus Sláinte**

- Smile agus Sláinte sets out the direction of oral healthcare services and the most appropriate model of care for current and future oral health needs.
- It also sets out the proposed role of dentists both in the HSE contracted and salaried services.
- Due to the extent of changes proposed, the implementation of Smile agus Sláinte will require a multifaceted approach from all relevant organisations.
- The intention is to deliver the Policy through an implementation framework that will acknowledge and accommodate the various roles and responsibilities of all stakeholders.
- Key leadership roles will need to be put in place to lead the transformation process.

# Priorities



## Priorities

Forty-one actions have been identified within the Policy. The ambitious transformation required in the delivery of oral healthcare services means that a phased plan over eight years is proposed. Nine priorities have been identified for the first three years following publication of the Policy. However, this does not preclude other actions being progressed at the same time.

Lead/partner agencies will be responsible for the implementation of assigned actions. A comprehensive implementation plan, which includes objectives, key performance indicators and the timelines for each action, will be agreed with lead/partner agencies in the first year of implementation.

PRIORITIES AND ASSOCIATED ACTIONS
Establish a management and leadership structure to implement the Policy. (Action 40 and Action 41)
Maintain water fluoridation. (Action 2)
<b>Signpost young children and parents to oral healthcare services, oral health promotion and toothpaste usage.</b> (Action 3)
Develop appropriate advice on toothpaste use, in line with evidence. (Action 31)
Progress preventive packages for children and adults, supporting the phase-down of amalgam fillings as required by EU and Irish regulations. (Action 11, Action 12 and Action 29)
Examine the training and scope of work of all auxiliary dental workers, beginning with dental technicians and clinical dental technicians. (Action 19 and Action 21)
Evaluate the skills available in the workforce to support the Policy e.g. to provide care to vulnerable groups. Evaluate undergraduate education. Evaluate the scope of primary care practice. (Action 25 and Action 27)
Update the Dentists Act 1985. (Action 28)
Commence identification of vulnerable groups, clinical care pathways development and clinical management. (Action 14, Action 16 and Action 34)

# Actions



## Actions

Priority actions for the first three years are highlighted as white text in an orange background

### ACTION

Action 1: To support regulation and strategies to reduce alcohol use, stop tobacco use and improve diet control.

Action 2: To maintain water fluoridation.

Action 3: To develop an oral health promotion programme promoting compliance with fluoride toothpaste use.

Action 4: To develop targeted topical fluoride programmes, including fluoride mouthrinsing programmes, for children over six years of age.

Action 5: To develop guidelines for advice and prescription of preventive topical agents in dental practices for eligible adults.

Action 6: To develop oral health promotion programmes for vulnerable groups in line with the Healthy Ireland framework.

Action 7: To develop targeted oral health promotion programmes for socioeconomically disadvantaged areas.

Action 8: To develop health promotion programmes focused on improving oral health throughout life.

Action 9: To support oral healthcare professionals to work with other healthcare professionals to improve health and oral health.

Action 10: To develop referral pathways from oral healthcare professionals to formal, structured intervention programmes for alcohol, tobacco and diet control.

Action 11: To progress prevention and primary care packages for children up to 16 years of age.

Action 12: To progress preventive packages of oral healthcare for eligible adults.

Action 13: To develop routine oral healthcare services for eligible adults.

Action 14: To develop clinical care pathways for the provision of complex care for eligible adults.

Action 15: To develop referral pathways of care from primary care to community oral healthcare services.

Action 16: To develop an oral healthcare needs assessment programme for vulnerable people in residential settings.

Action 17: To develop requirements for designated advanced oral healthcare centres.

Action 18: To develop clinical care pathways that originate in primary care to access oral healthcare in advanced oral healthcare centres.

Action 19: To reassess auxiliary dental workers' scope of practice, enabling direct access to the public where appropriate.

Action 20: To develop a programme to support dentists and/or other oral healthcare professionals who serve rural and other underserved areas.

Action 21: To evaluate the training, focus and scope of practice of clinical dental technicians and dental technicians.

Action 22: To establish a programme to assess the numbers and skills required for advanced oral healthcare centres.

Action 23: To establish a database to collect and assess trends in the oral healthcare (dental) workforce.

Action 24: To evaluate graduate education and put lifelong postgraduate mentoring and supervisory networks in place for dentists to support their professional career.

Action 25: To assess the baseline skills of the oral healthcare profession, starting with dentists, and put a skills match programme in place.

Action 26: To develop primary oral healthcare centres in Dental schools and training centres.

Action 27: To undertake an undergraduate review of dental education, placing primary care at its centre and embracing engaged learning.

Action 28: Update the Dentists Act 1985.

Action 29: To progress preventive packages and outline measures, including the necessary research, to support the phase-down of amalgam in accordance with EU requirements.

Action 30: To continue to review emerging evidence in relation to water fluoridation.

Action 31: To develop appropriate advice on toothpaste use, in line with evidence.

Action 32: To develop a national oral health evaluation programme for WHO indicative age groups integrated with routine dental visits in primary oral (dental) healthcare.

Action 33: To develop a nationally agreed set of core criteria to assess at each WHO indicative age group for oral health evaluation (clinical surveillance) for 5 -year-olds, 12-year-olds, 15-19-year-olds, 35-44-year-olds, and those aged 65 and older.

Action 34: To develop a programme for pathfinder studies for vulnerable people, with an initial focus on residential centres.

Action 35: To develop a primary oral healthcare practice-based research network.

Action 36: To recruit sentinel practices for in-depth service research and service development.

Action 37: To integrate oral health, oral healthcare and oral health-related quality of life questions into general health surveys such as Healthy Ireland.

Action 38: To establish an overarching national oral health research programme.

Action 39: To coordinate and analyse oral health evaluation data.

Action 40: To put in place a management structure to oversee the implementation of the Policy.

Action 41: To put in place a leadership structure to support the implementation of the three strategic strands.



# Annex:

## Summary of oral health in Ireland: trends and international comparisons



This Annex outlines trends in oral health since 1994, as well as current oral health and international comparisons for the key age cohorts. This evidence influenced the direction of Smile agus Sláinte.

## Studies that informed trends in oral health status

The production of retrospective trends in oral health status involved comparing the current oral health of children, adolescents and adults in Ireland with oral health status reported in earlier studies that informed the Dental Health Action Plan (1994). These studies were carried out in the 1980s: in 1984 for children and in 1989 for adults. In line with international trends in other developed countries, oral health in Ireland has continually improved since the mid-1990s, although inequalities remain. Two key studies were used to inform the current national status of oral health in children and adults living in Ireland. These were the Fluoride and Caring for Children's Teeth (FACCT) study (2013-2017) and The Irish Longitudinal Study on Ageing (TILDA), from the latter specifically the results available from Wave 3, in 2015. Additional analyses were carried out on both studies' datasets in order to inform the preparation of the National Oral Health Policy<sup>14</sup>.

FACCT was not a nationally representative sample; only children from the Cork, Kerry and Dublin areas were included. However, Cork and Kerry counties are areas with consistently higher dental decay levels compared with other geographical regions in earlier national studies. In contrast, children in the Dublin area had generally lower levels of dental decay compared with the rest of the country. Since the FACCT study examined two contrasting geographical areas, where divergent oral health outcomes are traditionally reported, the regions included in the FACCT study could be reasoned to inform current national oral health status<sup>15</sup>.

TILDA (Wave 3, 2015) included both a questionnaire and an oral health clinical examination. The characteristics of the samples for both the TILDA questionnaire and the TILDA clinical examination are described within the individual reports. However, it is important to note that the questionnaire was a nationally representative sample and that this component explored dental service utilisation, tooth loss and oral health-related quality of life. The TILDA findings showed that the oral health clinical examination population sample represented a healthier and more affluent population sample than was the case for the questionnaire respondents' population sample. The requirement for consent – as well as the need for time and transport to participate in the study – generally favours healthier, more educated and more affluent participants. Clinical conditions such as dental decay levels, periodontal disease experience, and numbers of teeth retained, as well as more detailed clinical analyses, were recorded as part of the clinical examination process.

Where more recent data were not available for some age groups, such as teenagers and adults, data gleaned from Irish national surveys of child and adult oral health conducted between 2000 and 2002 were used. For vulnerable adults, a key report relied upon for information was the Intellectual Disability Supplement to TILDA, Health, Wellbeing and Social Inclusion: Ageing with an Intellectual Disability in Ireland (2017).

Ireland's recent oral health status was compared internationally using data collated from across EU by the regional EU WHO office in 2018, as well as reviewing data from national surveys carried out in the United States of America (USA), Australia and New Zealand. Dental decay and tooth loss were presented for the key ages of 5 and/or 6, 12, and 65 years or older in these international datasets; as a result, the Department of Health's data analysis was restricted to comparisons with these age groups. Only key findings of these reports are presented in this Annex. Surveys depend on representative samples from the population, assessed at different times, and are an approximation of the current oral health status of the populations

14 Additional information including the analyses undertaken on FACCT and TILDA for this policy, are set out in reference to Appendices and select bibliography.

15 A detailed overview of the sample, and the analysis of this sample, is described in the reference to Appendices.

being considered. Further details from the reports are available in either the select bibliography or the reference to Appendices.

## Trends in oral health

### Dental decay and tooth loss

- In the last thirty years, both the amount and severity of dental decay has decreased.
- In 1984, half of 5-year-olds had dental decay. By 2013-14, this had reduced to one third
- In 1984, nearly one in five of 5-year-olds had very high levels of dental decay, i.e. more than four primary teeth affected, compared with less than one in ten in 2013-14.
- In 1984, eight out of ten 12-year-olds had dental decay. This was halved in 2013-14 to less than four out of ten.
- In 1984, approximately one in five 12-year-olds had more than four teeth affected by dental decay, i.e. very high levels of dental decay. By 2013-2014, this figure dropped to less than one in twenty.
- In 2002, approximately three-quarters of 15-year-olds in Ireland had decay in their permanent teeth; this was estimated as nine out of ten in 1984.
- Total loss of natural teeth declined from an estimated four in one hundred in 1989 to one in one hundred in 2002. Total loss of natural teeth among people over 50 years of age declined from approximately four out of ten in 1989 to one out of ten in 2015.
- Currently, among 50–64-year-olds, 17 teeth on average have experienced decay. Those over 75 years have 22 teeth so affected.
- In 1989, approximately 50 out of 100 of those aged 65 years or older had total tooth loss; in 2015 this estimated to be less than 20 out of 100.
- In a 2003 study it was reported that treatment by extraction was more common among adults living in residential care than among adults in the general population. Also, more adults living in residential care had untreated dental decay and missing teeth.
- In 1989 to 1990, people aged over 55 years, had on average eight natural teeth present. In 2015, this had increased to an average of 15 natural teeth per capita in this age cohort.
- Nearly three quarters of 50–64-year-olds have 10 tooth contacts<sup>16</sup>. Among those aged over 75 years, only one in three have 10 tooth contacts.
- In 2015, vulnerable adults not living in residential care had oral healthcare needs broadly similar to their peers. Overall, nearly one third of people with an intellectual disability reported that they had no natural teeth present. By age 65 years and older, half of people with an intellectual disability had no natural teeth.
- Almost one quarter living in community group homes and more than one third living in residential care have total tooth loss.

### Oral health: Other conditions

- In 2002, one in five 15-year-olds required oral hygiene and plaque or calculus (hard, calcified deposits on teeth requiring professional cleaning or scaling) removal.

<sup>16</sup> In TILDA, measuring tooth contacts is a method used to define dentition that is functioning well. If 10 or more teeth between the upper and lower jaw are in contact (where two contacts are assigned to molars – back biting teeth), this is considered to be a threshold for dentition which can acceptably function: a functional dentition.

- In a 2003 study it was reported that the vast majority of these adults had some evidence of gum disease. A similar trend still prevails today for those living in residential care.
- In 2002 approximately one in three 12- year- olds required orthodontic assessment/treatment, a figure similar to what was recorded in 1984.
- In 1984 and 2002 approximately one in twenty 12-year-olds and one in ten 15-year-olds in Ireland were affected by dental trauma to their front permanent teeth.
- Since 1984 there has been little change in fluorosis levels in eight- year- olds, despite the lowering of levels of fluoride in water since 2007.
- In 2002, just over one in twenty of 35-44 year-olds had periodontal (gum) deep pocketing (gingival pockets of  $\geq 6$ mm). The remainder required instruction in oral hygiene, routine scaling and polishing. In older populations that have retained more natural teeth there is more opportunity for periodontal disease to be present.

## Inequalities

- At 5- years of age, children born outside of Ireland, as well as those who had moved residence within Ireland or from another country, were more likely to have higher dental decay levels.
- Both 5- year- olds and 12- year- olds' oral health was better for those living in water fluoridated areas. In 1984, approximately seven out of ten 12- year-olds in fluoridated communities had dental decay, compared to nine out of ten in non-fluoridated communities.
- Approximately three out of ten 12-year-olds living in fluoridated areas in Cork and Kerry and Dublin (2013 to 2014) had dental decay compared with approximately five out of ten 12-year-olds living in non-fluoridated parts of the same counties.
- There was a wide variation in service provision across different areas of Ireland noted in 1984. This oral health inequality remained in 2013 to 2014. One example is that just over half of 12-year-olds in the Dublin area had fissure sealants, whereas in counties Cork and Kerry this figure was estimated as nearly nine out of ten.
- Inequalities were evident both in 1984 and in 2013 to 2014 where social class or mother's education had a positive correlation with better oral health among 12- and 15- year- olds.
- In both 1989 and 2015 loss of natural teeth was higher among medical card holders and those with lower educational attainment.
- In 2015, older adults living in rural (non-urban areas) areas in Ireland were twice as likely to have lost all their teeth compared with older adults living in Dublin.
- Gender inequality in terms of oral health still remains, as was the case in 1989. In 2015 women in Ireland were still more likely than men of the same age to have lost all their teeth. However, the gender gap for tooth loss has considerably narrowed since 1989.
- People living in rural areas (outside towns and cities) were less likely to attend a dentist compared with people living in Dublin.
- Less than one in ten older people (over 50 years) used a state-provided dental treatment service. The majority of older people were unaware of their eligibility for, the presence of or how to access any state dental treatment.

## Quality of life

- In 2015 among adults aged 50 years and older with no teeth, with or without dentures, had poorer oral-health quality of life. They reported less active social participation, more depressive symptoms and increased loneliness compared with adults who have their own teeth.
- Among those aged 75 years and older approximately one in ten had difficulty eating due to problems with their mouth, teeth or dentures.

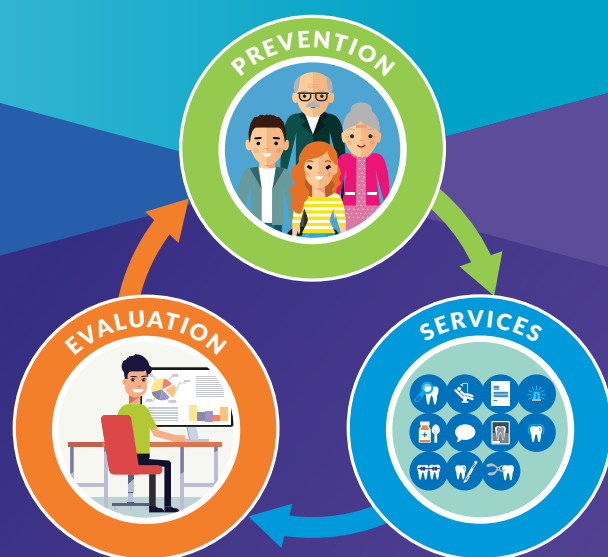
## Cancer

The National Cancer Strategy 2017–2026 highlighted the increasing prevalence of oral cancer and head and neck cancer. Between 1994 and 2009, a total of 2,147 new cases of oral cancer were registered in the National Cancer Registry in Ireland. Among older adults, cases of oral cancer and head and neck cancer in men still predominate, but since the 1990s, reported cases of these cancers among women and younger people have become more evident in Ireland. Between 1994 and 2009, men accounted for two out of three cases, and, overall, the condition was more common among smokers.

## International trends

- Across the EU it is estimated that between three out of ten and up to nine out of ten, 5- and/or 6-year-olds have dental decay. The figures from North to South EU differed, where Northern states tend to have lower levels of dental decay.
- The overall average rate of dental decay in 12-year-olds in 2013-2014, in Cork/Kerry and Dublin in Ireland is less than one permanent tooth.
- To illustrate the variation across the EU, 11-year-olds in the Netherlands, in 2011, have on average less than one decayed tooth (an average of just over half a decayed tooth), whereas in Latvia, in 2014, the average was nearly three decayed teeth in this age.
- In, fluoridated communities in the UK, in 2015 similar, if not slightly higher, levels of very mild and mild, fluorosis were evident similar to Ireland in fluoridated communities. Less than one in five children were so affected in both countries.
- According to the WHO, in 2018, for those aged 65 years and older, the percentage of people in the EU with total tooth loss ranged between 5% and 51%. Rates of tooth loss among older people in New Zealand (2009) was estimated to be one of the highest internationally, with figures showing total tooth loss for four out of ten people aged over 75 years and approximately three out of ten for people aged 65–75 years.

# Appendices



## Appendix A

### Terms of Reference for the Oral Health Policy Academic Reference Group

#### Background

1. The Department of Health (“the Department”) wishes to see the development of a national oral health policy for Ireland. This work will be undertaken through a number of work streams involving a wide range of stakeholders including both professional groups and the public.

2. The work to help develop the national policy will be undertaken by two groups, the Oral Health Policy Academic Reference Group (“the Academic Group”) and the Practitioners Reference Group (“the Practitioners Group”). The role of the Academic Group is to help identify relevant evidence to ensure a framework for services that are underpinned by informed practice. The role of the Practitioners Group is to develop the framework policy into practice.

3. To help ensure that the Academic Group and the Practitioners Group achieve their goals, the Department of Health has created a third group, the Oral Health Policy Independent Panel (“the Independent Panel”). These three groups will work together with the Department reporting through the Chief Dental Officer to help produce an oral health policy.

4. The Department of Health will seek advice and direction from the Independent Panel in relation to the Academic Group and the Practitioners Group and other advice as it sees fit. The Department will take independent decisions on foot of any advice or direction provided by the Independent Panel.

#### Purpose

5. The aim of the Academic Group is to identify and collate information to provide an evidence base for the decisions taken when developing oral health policy.

6. The Academic Group will consider any new scientific evidence or information relevant to the programme that might have a direct bearing on the future conduct of any of the work-packages and will provide advice on the transferability of the research findings into recommendations for practice.

#### Key Tasks

7. To identify and determine the qualities and relevance of the existing literature on oral health needs assessment.

8. Compare the current arrangements for oral health needs assessment in Ireland to the material identified in (7) and suggest arrangements to address possible shortcomings. This will include the identification of any key data requirements and arrangements to ensure their subsequent collection.

9. Propose models for delivery of oral health care working with the Practitioners Group and liaise with the Independent Panel to help ensure the qualities of the work.

#### Working methods

10. The work will be led from within the Department of Health with administrative support from a secretariat appointed by the Department.

11. The Academic Group will report monthly or as required to the Department of Health via the Chief Dental Officer and respond to requests to attend other meetings as felt appropriate by the Chief Dental Officer and/or Department personnel in order to achieve its key tasks.

12. The Academic Group will take account of the feedback from both the Practitioners Group and the Independent Panel as their work develops during the development of the national oral health policy. It will also pay heed to possible other developments affecting the work for example regulatory changes or workforce and education developments.

### **Outputs**

13. The Academic Group will report on their activities to the Practitioners Group, the Independent Panel and the Department of Health as requested to ensure timely progress on their work and the overall development of the oral health policy framework. In addition, the Academic Group will present at meetings as requested by the Chief Dental Officer and/or other Department of Health personnel.

### **Accountability**

14. The Academic Group will report to the Department of Health via the Chief Dental Officer.

### **Timescale**

15. The Academic Group will establish a schedule of meetings internally to ensure their work can be completed and will continue to undertake their work until the Chief Dental Officer and/or the Department of Health is satisfied that the group has provided the final feedback necessary to develop the national oral health policy.



## Appendix B

### Groups and individuals who assisted to the development of Smile agus Sláinte

#### Oral Health Policy Academic Reference Group (OHPARG)

Professor Denis O'Mullane, Emeritus Professor, University College Cork (Chair)  
 Professor Brian O'Connell, Dean, Dublin Dental University Hospital  
 Professor Margaret Barry, National University of Ireland, Galway  
 Dr Alison Dougal, Dublin Dental University Hospital  
 Professor David Madden, University College Dublin  
 Professor Gerry McKenna, Queen's University Belfast  
 Dr Noel Woods, University College Cork  
 Ms Kathryn Neville, University College Cork  
 Dr Jacinta McLoughlin, Dublin Dental University Hospital

Professor O'Mullane thanks all who made presentations or contributions to OHPARG meetings, in particular Professor Ken Eaton, Advisor to Council of Europe Dental Officers, University of London, Dr Peter Hayden (Ex-Army Dental Corps), Dr Caoimhin MacGiolla Phadraig (Dublin Dental University Hospital), Dr Paul O'Dwyer (Group Clinical Advisor, Dental Care Ireland), Professor Poul Eric Peterson, Head of Oral Health, WHO Regional Office for Europe, and Professor Iain Pretty (University of Manchester).

#### Practitioners Reference Group

Mr Pat O'Dowd, HSE (Chair)  
 Dr John Lee, HSE Principal Dental Surgeon  
 Dr Noel Henderson, General Dental Practitioner  
 Dr Joseph Green, HSE, National Oral Health Lead  
 Dr Frank Ormsby, General Dental Practitioner

#### Independent Panel

Professor Paul Batchelor, Oral Care Consulting Ltd, UK  
 Professor Barry Gibson, University of Sheffield  
 Dr Trutz Haase (RIP), Independent Consultant

#### Members of Working Groups who were not members of OHPARG or Independent Panel

Professor Leonie Clarke, President, Pharmaceutical Society of Ireland  
 Professor John Clarkson, Professor Emeritus, Trinity College Dublin  
 Dr Carmel Parnell, HSE  
 Dr Jane Sixsmith, National University of Ireland, Galway

#### Secretariat to National Oral Health Policy working groups

Ms Patricia Gilsean O'Neill, Chief Executive, Dental Health Foundation  
 Dr Conor Kennedy, Project Officer, Dental Health Foundation (2014 – 2016)  
 Ms Etain Kett, Public Affairs and Communications Manager, Dental Health Foundation  
 Ms Sandra Byrne, Project Officer, Dental Health Foundation  
 Ms Michelle Spearman Geraghty, Business Manager (2017 – 2018) Dental Health Foundation,  
 Ms Eimear Corrigan, Administrator (2017 – 2018), Dental Health Foundation  
 Ms Liz Flynn, Executive Assistant, Oral Health Services Research Centre, University College Cork

**Department of Health Project Team**

Dr Dympna Kavanagh, Chief Dental Officer  
Mr Fergal Goodman, Assistant Secretary  
Mr Finian Judge, Principal Officer (2017 – present)  
Mr Paul Bolger, Principal Officer (2016 – 2017)  
Ms Teresa Cody, Principal Officer (2014 – 2016)  
Ms Bernadette McDonnell, Assistant Principal Officer  
Mr Peter Henshaw, Higher Executive Officer  
Ms Alana Johnston, Executive Officer (2019)  
Ms Maureen Kenny, Clerical Officer

Dr Kavanagh also thanks all members of staff of the Department of Health who assisted in the development of the Policy.

## Appendix C

### Glossary

**Auxiliary dental workers:** A supporting team which assists dentists with dental treatment. It includes clinical dental technicians, orthodontic technicians, dental hygienists, orthodontic therapists and dental nurses.

**Clinical care pathway:** A care plan that outlines the main clinical interventions undertaken by healthcare professionals in the care of service users with a specific condition or set of symptoms.

**Dental decay/dental caries:** Damage to a tooth that can happen when bacteria in the mouth make acids that attack the tooth's surface, or enamel. Root decay occurs when cavities form on the root surfaces of teeth. Decay above the root is known as coronal decay.

**Dental Treatment Benefit Scheme (DTBS):** A scheme run by the Department of Employment Affairs and Social Protection which provides dental services to insured workers and retired people who have the required number of Pay Related Social Insurance (PRSI) contributions.

**Dental Treatment Services Scheme (DTSS):** A HSE scheme that provides dental services to all medical card holders aged over 16 years.

**Dental filling (restoration):** A treatment to restore the function, integrity and morphology of a missing tooth structure resulting from caries or external trauma; it also refers to the replacement of such a structure supported by dental implants.

**Engaged learning:** A process in which students actively participate in their learning. This may include decision making of the course of their study and participating in "real-life" activities through collaboration, exploration, and discovery with peers.

**Fissure sealants:** A thin coating that is applied to the grooves (pits and fissures) on the chewing surfaces of back teeth to prevent decay by creating a physical barrier against bacteria and food.

**Fluoride:** A natural mineral found in soil, fresh water, sea water, plants and many foods.

**Fluorosis:** Enamel fluorosis is a dose-response effect caused by excess fluoride ingestion during the pre-eruptive development of teeth. This change in the enamel surface is characterised by an altered appearance, ranging from the more common fine white lines or patches to the less frequently occurring pitting of the enamel surfaces.

**Free sugar:** Defined by the WHO and the Food and Agriculture Organization of the United Nations as all monosaccharides and disaccharides (simple sugars) added to foods by the manufacturer, cook or consumer. These sugars are also naturally present in honey, syrups and fruit juices.

**Health Service Executive (HSE):** The organisation responsible for running the State's health and personal social services.

**Mainstreaming:** Provision of services for people who have particular difficulties or needs in the same locations as everyone else.

**Medical card:** Issued by the HSE, on the basis of the applicant's circumstances, this entitles the holder to a range of health services free of charge.

**Opportunistic screening:** When a doctor, dentist or other health professional provides a check or test on the request of a patient, or they offer such a check or test.

**Oral and maxillofacial surgery:** A medical/surgical specialty requiring both medical and dental degrees. It is involved in all aspects of the diagnosis and surgical care of the mouth, jaws, skull, face, head and neck as well as the associated structures and their reconstruction.

**Oral health:** "A state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing." (WHO definition)

**Oral health-related quality of life:** A measure that reflects (among other things) people's comfort when eating, sleeping, and engaging in social interaction; their self-esteem; and their satisfaction with respect to their oral health. It is associated with functional factors, psychological factors, social factors, and experience of pain or discomfort.

**Oral surgery:** A specialty of dentistry dedicated to the diagnosis, planning and treatment of disease, injuries or deformities of the mouth, jaws and teeth.

**Orthodontics:** The branch of dentistry concerned with preventing and correcting irregularities of the teeth, bite and jaw.

**Periodontal disease:** An inflammatory disease that affects the gum and bone structures that support the teeth.

**Practice-based research networks (PBRNs):** Collaborations between clinical practitioners and academics. PBRNs aim to foster research in general practice through opportunities to learn more about how to undertake and participate in research and assist in translating new knowledge into practice.

**Primary oral healthcare 'home':** Typically, a local dental practice where the whole community can access preventive, routine and complex oral healthcare, including emergency care, and from which they can be referred for further care, if necessary.

**Residential services:** Long-term care given to adults or children who stay in a residential setting other than their own home or family home.

**Sentinel practices:** Part of a network of carefully selected reporting practices that monitor one or more specific conditions on a regular or continuing basis.

**Water fluoridation:** The adjustment of the natural concentration of fluoride in drinking water to the optimal recommended level for the prevention of dental caries.

## Appendix D

### Abbreviations

BSS	Basic Safety Standards
CAMHS	Child and Adolescent Mental Health Services
CPD	Continuing Professional Development
CPITN	Community Periodontal Index of Treatment Needs
DCCA	Department of Communications, Climate Action and Environment
DoH	Department of Health
DTSS	Dental Treatment Services Scheme
DTBS	Dental Treatment Benefit Scheme
EPA	Environmental Protection Agency
ESRI	Economic and Social Research Institute
EU	European Union
FACCT	Fluoride and Caring for Children's Teeth
GPs	General Practitioners
HPV	Human Papillomavirus
HRB	Health Research Board
HSA	Health and Safety Authority
HSE	Health Service Executive
ICT	information and Communications technology
IDS	Intellectual Disability Study
IOTN	Index of Orthodontic Treatment Need
HIQA	Health Information and Quality Authority
MECC	Making Every Contact Count
OHPARG	Oral Health Policy Academic Reference Group
P4P	Pay for Performance
PDS	Public Dental Service
PQD	Professional Qualification Directive
PRSI	Pay-Related Social Insurance
SSDT	Sugar Sweetened Drinks Tax
TILDA	The Irish Longitudinal Study on Ageing
WHO	World Health Organization

## Appendix E

### SELECT BIBLIOGRAPHY

Ali H, Sinnott SJ, Corcoran P, Deady S, Sharp L, Kabir Z (2016). Oral cancer incidence and survival rates in the Republic of Ireland, 1994-2009. *BMC Cancer*. 16(950):1-7.

Australian Institute of Health and Welfare: Chrisopoulos S, Harford JE, Ellershaw A (2016). Oral health and dental care in Australia: key facts and figures 2015. Canberra: Australian Institute of Health and Welfare.

Beltrán-Aguilar ED, Barker L, Dye BA (2010). Prevalence and severity of dental fluorosis in the United States, 1999-2004. *NCHS Data Brief*. (53):1-8.

Cardiff University, Public Health Wales (2015). Picture of oral health 2015: dental epidemiological survey of 3 year olds in Wales 2013-14: first release report on caries into dentine. Cardiff: Cardiff University and Public Health Wales.

Central Statistics Office (2013). Population and labour force projections 2016-2046. Dublin: Stationery Office.

Commission on the Status of People with Disabilities (1996). A strategy for equality: report of the Commission on the Status of People with Disabilities. Dublin: Commission on the Status of People with Disabilities.

Crowley E, Whelton H, Murphy A, Kelleher V, Cronin M, Flannery E et al. (2005). Oral health of adults with an intellectual disability in residential care in Ireland 2003. Dublin: Department of Health and Children.

Currie LM, Blackman K, Clancy L, Levy DT (2013). The effect of tobacco control policies on smoking prevalence and smoking-attributable deaths in Ireland using the Ireland SS simulation model. *Tob Control*. 22(e1):25-32.

Department of Children and Youth Affairs (2014a). Better outcomes brighter futures: the national policy framework for children & young people 2014-2020. Dublin: Stationery Office.

Department of Children and Youth Affairs (2014b). Value for money and policy review of youth programmes. Dublin: Government Publications.

Department of Children and Youth Affairs (2018). First 5: a whole-of-government strategy for babies, young children and their families 2019-2028. Dublin: Government Publications.

Department of Education and Skills (2016). Ireland's national skills strategy 2025. Dublin: Department of Education and Skills.

Department of Education and Skills (2016). Action plan for education 2016-2019. Dublin: Department of Education and Skills.

Department of Health (1994). The dental health action plan. Dublin: Department of Health.

Department of Health (2012a). Future health: a strategic framework for reform of the Health Service 2012 - 2015. Dublin: Department of Health.

Department of Health (2012b). Value for money and policy review of disability services in Ireland. Dublin: Department of Health.

Department of Health (2013a). Tobacco free Ireland: report of the Tobacco Policy Review Group. Dublin: Department of Health.

Department of Health (2013b). eHealth strategy for Ireland. Dublin: Department of Health.

Department of Health (2013c). Healthy Ireland: a framework for improved health and wellbeing 2013 – 2025. Dublin: Department of Health.

Department of Health (2016a). Better health, improving health care. Dublin: Department of Health.

Department of Health (2016b). A healthy weight for Ireland: obesity policy and action plan 2016 – 2025. Dublin: Stationery Office.

Department of Health (2016c). Healthy Ireland survey 2016: summary of findings. Dublin: Stationery Office.

Department of Health (2016d). Introducing a tax on sugar sweetened drinks: health rationale, options and recommendations – a Department of Health working paper. Dublin: Department of Health.

Department of Health (2016e). Department of Health statement of strategy 2016 – 2019. Dublin: Department of Health.

Department of Health (2017a). Working together for health: a national strategic framework for health and social care workforce planning. Dublin: Department of Health.

Department of Health (2017b). Health in Ireland: key trends 2017. Dublin: Government Publications.

Department of Health (2017c). Healthy Ireland survey 2017: summary of findings. Dublin: Government Publications.

Department of Health (2017d). Ireland's national action plan on antimicrobial resistance 2017-2020. Dublin: Department of Health.

Department of Health (2017e). National cancer strategy 2017–2026. Dublin: Department of Health.

Department of Health (2017f). Reducing harm, supporting recovery: a health-led response to drug and alcohol use in Ireland 2017-2025. Dublin: Department of Health.

Department of Health (2018a). Healthy Ireland survey 2018: summary of findings. Dublin: Government Publications.

Department of Health (2018b). Health in Ireland: key trends 2018. Dublin: Government Publications.

Department of Health and Children (2001). Primary care: a new direction. Dublin: Stationery Office.

Department of Health and Children (2002). Forum on Fluoridation 2002. Dublin: Stationery Office.

Department of Health and Children (2006). Quality and fairness: a health system for you – action plan progress report 2005. Dublin: Department of Health and Children.

Department of Health and Children (2008). Tackling chronic disease: a policy framework for the management of chronic diseases. Dublin: Department of Health and Children.

Department of the Taoiseach (2016). A programme for a partnership government. Dublin: Department of the Taoiseach.

Directorate-General for Health and Food Safety (European Commission) (2018). A new drive for primary care in Europe: rethinking the assessment tools and methodologies: report of the expert group on health systems performance assessment. Luxembourg: Publications Office of the European Union.

Downer MC, Drugan CS, Blinkhorn AS (2006). Salaried services in the delivery of dental care in Western industrialised countries: implications for the National Health Service in England. *Int Dent J*. 56(1):7–16.

Dye BA, Thornton-Evans G, Li X, Iafolla TJ (2015). Dental caries and tooth loss in adults in the United States, 2011–2012. Hyattsville: National Center for Health Statistics (NCHS Data Brief No. 197).

Dye BA, Tan S, Smith V, Lewis BG, Barker LK, Thornton-Evans G et al. (2007). Trends in oral health status: United States, 1988–1994 and 1999–2004. *Vital Health Stat* 11. (248):1–92.

European Commission (2009). Eurobarometer 72.3: public health attitudes, behavior, and prevention, October 2009. Ann Arbor: Inter-university Consortium for Political and Social Research.

European Commission (2013). Health inequalities in the EU: final report of a consortium. Consortium lead: Sir Michael Marmot. Brussels: European Commission Directorate-General for Health and Consumers.

European Union (2017). Key figures on Europe: 2017 edition. Luxembourg: Publications Office of the European Union.

Fielding JE, Kelly HA, Clothier HJ (2005). An evaluation of the Australian Sentinel Practice Research Network (ASPREN) surveillance for influenza-like illness. *Commun Dis Intell Q Rep*. 29(3):231–47.

Fleming DM, Schellevis FG, Paget WJ (2003). Health monitoring in sentinel practice networks: the contribution of primary care. *Eur J Public Health*. 13(3 Suppl):80–4.

Food Safety Authority of Ireland (2018). Total diet study 2014–2016: assessment of dietary exposure to fluoride in adults and children in Ireland. Dublin: Food Safety Authority of Ireland.

Gavin A, Keane E, Callaghan M, Molcho M, Kelly C, Nic Gabhainn S (2015). The Irish health behaviour in school-aged children (HBSC) study 2014. Dublin: Department of Health.

Government of Ireland (2018). Sláintecare implementation strategy. Dublin: Government of Ireland.

Health and Safety Authority (2016). Guidance on occupational hazards in dentistry. Dublin: Health and Safety Authority.

Health Information and Quality Authority (2012a). National standards for safer better healthcare. Dublin: Health Information and Quality Authority.

Health Information and Quality Authority (2012b). Screening: the evaluation of a referral made for a child and/or family to assess which service the referral should be forwarded to. Dublin: Health Information and Quality Authority.

Health Information and Quality Authority (2013). National standards for residential services for children and adults with disabilities. Dublin: Health Information and Quality Authority.

Health Information and Quality Authority (2017). National standards for the prevention and control of healthcare-associated infections in acute healthcare services. Dublin: Health Information and Quality Authority.

Health Information and Quality Authority (2018). National standards for infection prevention and control in community services. Dublin: Health Information and Quality Authority.



Health Information and Quality Authority, Mental Health Commission (2018). Adult safeguarding: background document to support the development of national standards for adult safeguarding. Dublin: Health Information and Quality Authority and Mental Health Commission.

Health Service Executive (2006). A vision for change: report of the Expert Group on Mental Health Policy. Dublin: Stationery Office.

Health Service Executive (2017). Transforming lives progress report 2016: supporting person-centred disability services. Dublin: Health Service Executive.

Holland T, O'Leary K, O'Mullane D (1987). The effectiveness of a fortnightly mouthrinsing programme in the prevention of dental caries in school children. *J Ir Dent Assoc.* 33(2-4):24-7.

Holland TJ, Whelton H, O'Mullane DM, Creedon P (1995). Evaluation of a fortnightly school-based sodium fluoride mouthrinse 4 years following its cessation. *Caries Res.* 29(6):431-4.

Iheozor-Ejiogor Z, Worthington HV, Walsh T, O'Malley L, Clarkson JE, Macey R et al. (2015). Water fluoridation for the prevention of dental caries. *Cochrane Database Syst Rev.* (6):CD010856.

International Agency for Research on Cancer (2016). European code against cancer: 12 ways to reduce your cancer risk. Geneva: World Health Organization.

Keane E, Gavin A, Perry C, Molcho M, Kelly C, Nic Gabhainn S (2017). Trends in health behaviours, health outcomes and contextual factors between 1998-2014: findings from the Irish health behaviour in school-aged children study. Dublin: Department of Health and National University of Ireland Galway.

Kuh D, Ben-Shlomo Y, editors (2004). A life course approach to chronic disease epidemiology, second edition. Oxford: Oxford University Press.

Kuruville S, Sadana R, Montesinos EV, Beard J, Vasdeki JF, Araujo de Carvalho I et al. (2018). A life-course approach to health: synergy with sustainable development goals. *Bull World Health Organ.* 96(1):42-50.

Marmot M, Allen J, Goldblatt P, Boyce T, McNeish D, Grady M et al. (2010). Fair society, healthy lives: the Marmot Review. Strategic review of health inequalities in England post-2010. London: The Marmot Review.

Martin S, Horgan D, Scanlon M (2016). Healthy lifestyles: a consultation with children and young people. Dublin: Government Publications.

McCarron M, Haigh M, McCallion P, editors (2017). Health, wellbeing and social inclusion: ageing with an intellectual disability in Ireland. Evidence from the first ten years of The Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing (IDS-TILDA) Wave 3. Dublin: The Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing.

Ministry of Health (2010). Our oral health: key findings of the 2009 New Zealand oral health survey. Wellington: Ministry of Health.

Morgan K, McGee H, Watson D, Perry I, Barry M, Shelley E et al. (2008). SLÁN 2007: survey of lifestyle, attitudes & nutrition in Ireland: main report. Dublin: Department of Health and Children.

Naseer A, McLoughlin J, Donoghue O, Kenny RA, O'Connell B (2018). Oral health status of community dwelling adults aged 50 years and over in Ireland. A cross-sectional analysis of the Wave 3 TILDA cohort. [version 1; referees: 1 approved with reservations]. *HRB Open Res.* 1(26).

- National Cancer Registry (2014). Cancer projections for Ireland 2015-2040. Cork: National Cancer Registry.
- Nolan, A. (2019). Reforming the Delivery of Public Dental Services in Ireland: Potential Cost Implications. Dublin: Economic and Social Research Institute.
- Nowak AJ, Casamassimo PS (2002). The dental home: a primary care oral health concept. *J Am Dent Assoc.* 133(1):93-8.
- Nowak AJ, Casamassimo PS (2016). The dental home. In: Berg JH, Slayton RL, editors. *Early childhood oral health*, second edition. Hoboken: John Wiley & Sons, Inc. 120-33.
- O'Brien M, Scott A (2016). Making every contact count: a health behaviour change framework and implementation plan for health professionals in the Irish health service. Dublin: Health Service Executive.
- Oireachtas Committee on the Future of Healthcare (2017). Committee on the Future of Healthcare: Sláintecare report. Dublin: Houses of the Oireachtas.
- Organisation for Economic Co-operation and Development (2017). *Health at a glance 2017: OECD indicators*. Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (2018). *Health at a glance 2018: OECD indicators*. Paris: OECD Publishing.
- O'Mullane DM, Whelton HP (1992). *Oral health of Irish adults 1989-1990*. Dublin: Stationery Office.
- O'Mullane D, Clarkson J, Holland T, O'Hickey S, Whelton H (1986). *Children's dental health in Ireland, 1984: a survey conducted on behalf of the Minister for Health by University College Cork*. Dublin: Stationery Office.
- O'Mullane DM, Baez RJ, Jones S, Lennon MA, Petersen PE, Rugg-Gunn AJ et al. (2016). Fluoride and oral health. *Community Dent Health.* 33(2):69-99.
- Petersen PE (2018). *Oral disease burden in Europe*. Copenhagen: WHO Regional Office for Europe.
- Petersen PE, Ogawa H (2018). Promoting oral health and quality of life of older people – the need for public health action. *Oral Health Prev Dent.* 16(2):113-24.
- Pratt BA, Frost LJ (2016). The life course approach to health: a rapid review of the literature (focusing on conceptual and operational considerations). White paper. Geneva: World Health Organization.
- Pretty IA (2014). The life course, care pathways and elements of vulnerability. A picture of health needs in a vulnerable population. *Gerodontology.* 31(Suppl 1):1-8.
- Pretty IA, Ellwood RP, Lo EC, MacEntee MI, Müller F, Rooney E et al. (2014). The Seattle Care Pathway for securing oral health in older patients. *Gerodontology.* 31(Suppl 1):77-87.
- Pretty IA, Boothman N, Morris J, MacKay L, Liu Z, McGrady M et al. (2016). Prevalence and severity of dental fluorosis in four English cities. *Community Dent Health.* 33(4):292-6.
- Public Health England (2014). *Oral health survey of three-year-old children 2013: a report on the prevalence and severity of dental decay*. London: PHE Publications.
- Public Health England (2017a). *Dental public health epidemiology programme: oral health survey of adults attending general dental practices 2017/18*. London: PHE Publications.

Public Health England (2018). National dental epidemiology programme for England: oral health survey of five-year-old children 2017: a report on the inequalities found in prevalence and severity of dental decay. London: PHE Publications.

Public Health (Alcohol) Act 2018 Number 24 of 2018. Dublin: Stationery Office.

Scottish Dental Needs Assessment Programme (2017). Oral health and dental services for children: needs assessment report. Bothwell: Scottish Dental Needs Assessment Programme.

Sheiham A, Watt RG (2000). The common risk factor approach: a rational basis for promoting oral health. *Community Dent Oral Epidemiol.* 28(6):399–406.

Speight PM, Epstein J, Kujan O, Lingen MW, Nagao T, Ranganathan K et al. (2017). Screening for oral cancer - a perspective from the Global Oral Cancer Forum. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 123(6):680–7.

Steele J, O'Sullivan I (2011). Executive summary: adult dental health survey 2009. In: The NHS Information Centre. Adult dental health survey 2009 – summary report and thematic series. Leeds: The Health and Social Care Information Centre

The NHS Information Centre (2011). Adult dental health survey 2009 – summary report and thematic series (2011). In: NHS Digital [website]. Leeds: NHS Digital (<https://digital.nhs.uk/data-and-information/publications/statistical/adult-dental-health-survey/adult-dental-health-survey-2009-summary-report-and-thematic-series>, accessed 31 January 2019).

Trauma Steering Group (2018). A trauma system for Ireland: report of the Trauma Steering Group. Dublin: Department of Health.

United Nations (2013). Minamata Convention on Mercury. Nairobi: United Nations Environment Programme.

Watt RG, Sheiham A (2012). Integrating the common risk factor approach into a social determinants framework. *Community Dent Oral Epidemiol.* 40(4):289–96.

Whelton, H., Crowley, E., O'Mullane, D., Cronin, M., Kelleher, V. & Byrtek, M. (2007) Oral Health of Irish Adults 2000 – 2002. Department of Health & Children, Dublin.elch V, Glenny AM

Whelton H, Crowley E, O'Mullane D, Harding M, Guiney H, Cronin M et al. (2006). North south survey of children's oral health in Ireland 2002. Dublin: Brunswick Press Ltd.

Williams J, Greene S, Doyle E, Harris E, Layte R, McCoy S et al. (2009). Growing up in Ireland: national longitudinal study of children – the lives of 9-year-olds, child cohort, report 1. Dublin: Stationery Office.

Woods N, Ahern S, Burke F, Eaton KA, Widström E (2017). The healthcare system and the provision of oral healthcare in European Union member states. Part 7: Republic of Ireland. *Br Dent J.* 222(7):541–8.

World Health Organization (1986). Ottawa charter for health promotion. In: First international conference on health promotion, Ottawa, Canada, 21 November 1986. Geneva: World Health Organization.

World Health Organization (2000). The implications for training of embracing: a life course approach to health. Geneva: World Health Organization.

World Health Organization (2008). The global burden of disease: 2004 update. Geneva: World Health Organization.

World Health Organization (2011). Health at key stages of life – the life-course approach to public health. Copenhagen: World Health Organization Regional Office for Europe.

World Health Organization (2012). Proposal to develop a life course framework for the work of WHO. Geneva: World Health Organization.

World Health Organization (2013a). Health 2020: a European policy framework and strategy for the 21st century. Copenhagen: World Health Organization Regional Office for Europe.

World Health Organization (2013b). Oral health surveys: basic methods, fifth edition. Geneva: World Health Organization.

World Health Organization (2015a). Guideline: sugars intake for adults and children. Geneva: World Health Organization.

World Health Organization (2015b). World report on ageing and health. Geneva: World Health Organization.

World Health Organization (2017a). WHO monograph on tobacco cessation and oral health integration. Geneva: World Health Organization.

World Health Organization (2017b). Healthy cities Pécs declaration. In: WHO European Healthy Cities Network Annual Business and Technical Conference, Pécs, Hungary, 1–3 March 2017. Geneva: World Health Organization.

World Health Organization (2018a). Diet and oral health: factsheet on oral health and sugars intake. Copenhagen: World Health Organization Regional Office for Europe.

World Health Organization (2018b). Factsheet on tobacco and oral health. Copenhagen: World Health Organization Regional Office for Europe.

World Health Organization Regional Office for Europe (2018). Copenhagen consensus of mayors: healthier and happier cities for all. A transformative approach for safe, inclusive, sustainable and resilient societies. Copenhagen: World Health Organization Regional Office for Europe.

## Appendix F

### ADDITIONAL REPORTS

In the course of developing the policy we relied on published research. As there were gaps in knowledge, additional research was commissioned to inform the Policy. In addition, we had the benefit of the expertise of academics and experts in oral health and other disciplines such as public health, economics, statistics and sociology. Below is a selection of reports, briefs and documents that informed the Policy. These are available on the Department of Health's website, [www.health.gov.ie](http://www.health.gov.ie)

Adults with maximum value of CPITN score
Briefing document on Fluoride and Caring for Children's Teeth (FACCT) study outcomes
Child Oral Health brief 28 June 2017
Demand for and supply of dental practitioners in the Republic of Ireland
Dental reimbursement arrangements under Medicaid Scheme alternatives, e.g. bundling
Dental Workforce Planning briefing paper
Engaging with stakeholders
FACCT study: summary statistics dental caries 5-and 12-year-olds
FACCT study: summary statistics on dental fluorosis in 8-year-olds
Mapping the divide - distribution of dentists
Measurement of oral healthcare survey design
Oral health access and experience
Oral health needs of older persons
Oral health needs of persons aged 75 years and over
Oral Health Policy Academic Reference Group recommendations
Overview of Dental Health Action Plan (1994) Policy Document
Projected edentulousness in Ireland for people aged over 65 years
Projection of populations over 60 in Ireland 2011-2046
Public consultation: oral health quality of life
Reform of health services: impact on oral health services
Report of Working Group on use of fluoride toothpaste
Role of payments systems in influencing oral healthcare provision
Smile agus Sláinte: a synopsis of dentists' views
Smile agus Sláinte: stakeholders consultation day
Smile agus Sláinte: theoretical framework
Steps in citizen consultation
Summary of 'Healthy Ireland: A Framework for Improved Health and Wellbeing 2013-2025
TILDA: Relationship between oral health and general health
Use of TILDA findings
Value of packaging systems in oral health



Oh, I wish I looked after me teeth!



Brush your teeth or they'll smell like my feet

Do it!

