NHS Grampian Dental Plan 2016 - 2022

A Revised Framework for Continued Improvement in Oral Health and Provision of Quality Assured Dental Services in Grampian

November 2016

Contents

1. Introduction

There has been a sustained improvement in the oral health of children and adults in Grampian in the last decade, with record numbers of children now decay free. We have also seen record numbers of patients now accessing NHS Dentistry and private dental care. Despite these improvements, inequalities still exist in oral health status and in access to dental services.

While the inequalities in oral health status can be found along social deprivation lines, the inequalities in access are mostly in the adult and vulnerable population.

The landscape for healthcare has changed a great deal since the publication of the last Dental Plan in 2013. The introduction of integration of health and social care services with the delegation of General Dental Services (GDS) and the Public Dental Services (PDS) to Integrated Joint Bodies (IJB)[1] provides an opportunity to revisit the Dental Plan. This is to ensure that dental services in Grampian continue to meet the needs and expectations of the people they serve and contribute to improving their health and quality of life.

A stakeholder event was held in June 2015 to discuss key issues in oral health and dentistry across the North of Scotland with delegates drawn from service users, providers and managers. Discussions around the themes of access to dental services, health improvement, quality of care, reducing health inequalities and workforce development have contributed greatly towards developing the vision for oral health in Grampian.

Other key strategic policies that have informed the revised Dental Plan include:

- NHS Grampian Child Health 2020 strategy
- Scottish Government Dentistry Outcomes Framework 2016-17
- An Action Plan for improving oral health and modernising NHS dental services in Scotland (2005)
- National oral health improvement strategy for priority groups (2012)
- Scottish Government's 2020 Strategic vision for e-Dentistry
- NHS Grampian Clinical Strategy (2016)
- The Strategic Plans for the three Integrated Joint Boards in Grampian (Aberdeen City, Aberdeenshire & Moray)
- The Healthcare Quality Strategy for NHS Scotland (2010)

[1] Public Bodies (Joint Working) (Scotland) Act 2014

2. Vision for Oral Health

In developing the vision for oral health in Grampian, significant consideration of the impact of the challenges facing the oral health of the Grampian population was a fundamental part of articulating that vision.

These challenges include managing the oral health of an ageing dentate population with complex needs alongside a younger, predominantly disease free population. Other key challenges include the prevailing inequalities associated with oral health and access to dental care and workforce development for future delivery systems.

The vision for oral health in Grampian is for the best possible oral health for all.

This is anchored in the belief that the Grampian population should be able to ***develop and maintain their dentition and oral health in a good state with minimal intervention from dental services through their life course.***

There will be a renewed focus and emphasis on tackling inequalities associated with oral health and access to dental care to ensure equitable oral health outcomes.

The strategic goal is to create an equitable and responsive oral healthcare system with more focus on prevention, supported self care and management, and treatment for all in relation to need with a reduction in unnecessary variations in practice and outcomes.

The strategic aims of this revised Dental Plan are to:

1. Seek continuous improvements in the oral health of the population of Grampian.
2. Improve access to high quality NHS Dental services for all those who request and need routine and unscheduled dental care.
3. Enhance and strengthen the role of the Oral and Dental Health Managed Clinical Network (MCN) as a platform for delivering our vision of the best possible oral health for all.
4. Help and support people to maintain and improve their oral health by emphasising prevention and supported self care and management of oral diseases.
5. Strengthen and improve the effectiveness and efficiency of the dental quality improvement and assurance framework.

The common thread running through all these aims is the overarching strategic priority to reduce the prevailing inequalities in access to dental care and oral health outcomes.

3. Oral Health in Grampian

Oral health is integral to general health and essential for wellbeing. Good oral health implies being free of largely preventable diseases and disorders that affect the teeth, gums and supporting bone, and the soft tissues of the mouth, tongue and lips. The most common oral diseases are dental caries (tooth decay) and periodontal disease (gum disease). Other conditions include oral cancer, developmental disorders such as cleft lip and palate and malocclusions.

The causes of oral diseases are multi-factorial and many of the key factors that lead to poor oral health are risk factors for other diseases. The common risk factors include diets high in sugary foods and fizzy drinks, tobacco use, excessive alcohol consumption, poor oral hygiene, inappropriate infant feeding practices and inadequate exposure to fluoride. People living in areas of material and social deprivation and other vulnerable groups in society have poorer oral health and they often access dental services less frequently.

Poor oral health also has major financial and psychosocial impacts on both the individual and society at large.

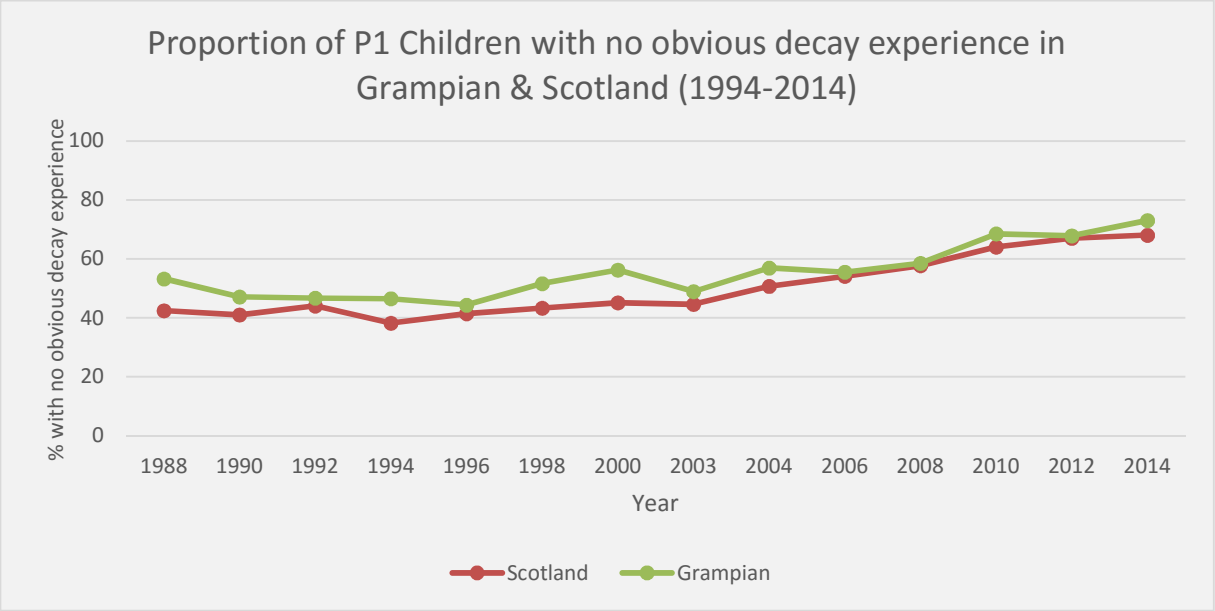
NHS Grampian has seen a trend of oral health improvement for children and adults over the last 20 years, with sustained continuous improvement most obvious in the last decade. Despite these improvements in oral health, inequalities associated with deprivation still persist.

Children's Oral Health

Children's oral health has been improving with the proportion of primary 1 children (average age 5.6yrs) that are decay free at an historic high of 73% in 2014 (Fig. 1). Similarly, the severity of the disease has been reducing, with the average number of teeth affected by decay (dmft[2]) falling to 1.00, which is also at its lowest level (Fig. 2). Despite these improvements in children's oral health, the prevalence of dental decay is still relatively high with 27% of P1children in Grampian having the disease in 2014. In this group of children with the disease, the average number of teeth with decay experience (dmft) was 3.84.

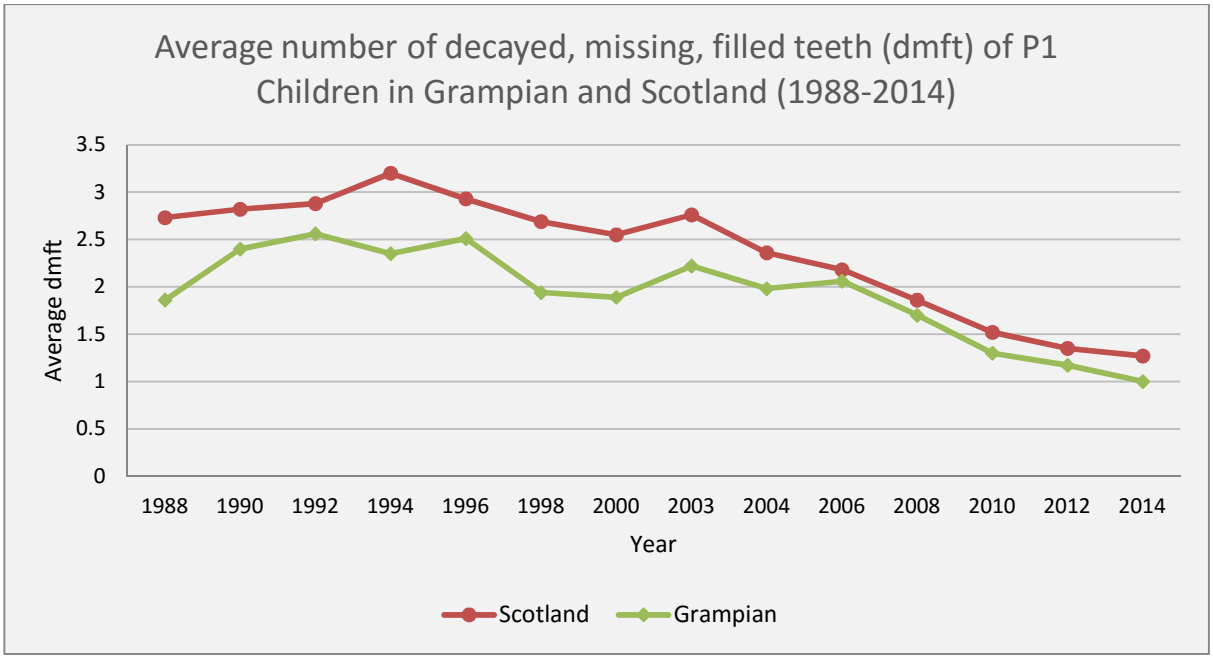
[2] dmft – decayed, missing and filled primary teeth

FIGURE 1



Sources – NDIP, SHBDEP

FIGURE 2



Sources – NDIP, SHBDEP

The table below highlights the local variation in the oral health of P1 children at Health and Social Care Partnership (HSCP) level. Five year old children in Moray have the best oral health in Grampian compared with their counterparts in Aberdeenshire and Aberdeen City. Over a quarter of P1 children in Grampian have active tooth decay which would suggest that these children need some form of clinical intervention to manage the disease. A significant finding was that 6% of P1 children had early childhood caries which is defined as 'caries involving one or more surfaces of upper anterior teeth'. This pattern of decay is often linked with long term use of a feeding bottle with sugar-containing drinks.

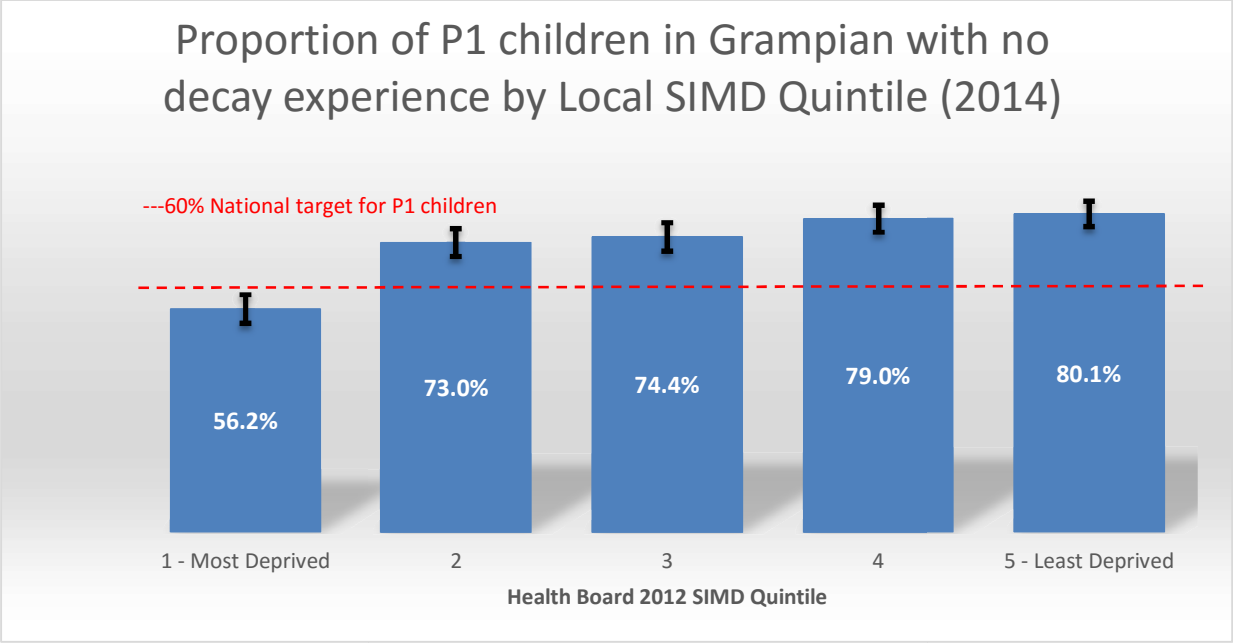
TABLE 1

	Aberdeen City	Aberdeenshire	Moray	Grampian
Weighted % with no decay experience	72.0%	72.4%	75.7%	73.2%
Weighted % with decay experience (dmft > 0)	28%	27.6%	24.3%	26.8%
Weighted average dmft	1.1	1.0	0.8	1.0
Average dmft for children with decay experience	4.1	3.7	3.4	3.8
% with active decay (un-weighted)	27.3%	26.4%	20.5%	25.8%
% with extraction experience	6.1%	4.4%	3.1%	4.9%
% with dental abscess	0.9%	0.8%	2.5%	1.1%
% with gross caries	6.8%	3.6%	5.4%	5.3%
% with ECC (early childhood caries)	6.3%	6.1%	5.0%	6.0%

Source - NDIP

Inequalities in dental health still persist among P1 children, with the differences between the SIMD quintiles highlighted in Figure 3. There is an absolute inequality of 24% between the most deprived children in SIMD1 and the least deprived children in SIMD5 in terms of the proportion of children having no decay experience. We are unable to determine whether this gap is narrowing or widening due to lack of local trend data, but nationally the gap has stayed at around 30% since 2008. In addition, the national target of 60% of all P1 children with no obvious decay experience, which was set in 2010, is yet to be met in the most deprived category of SIMD1.

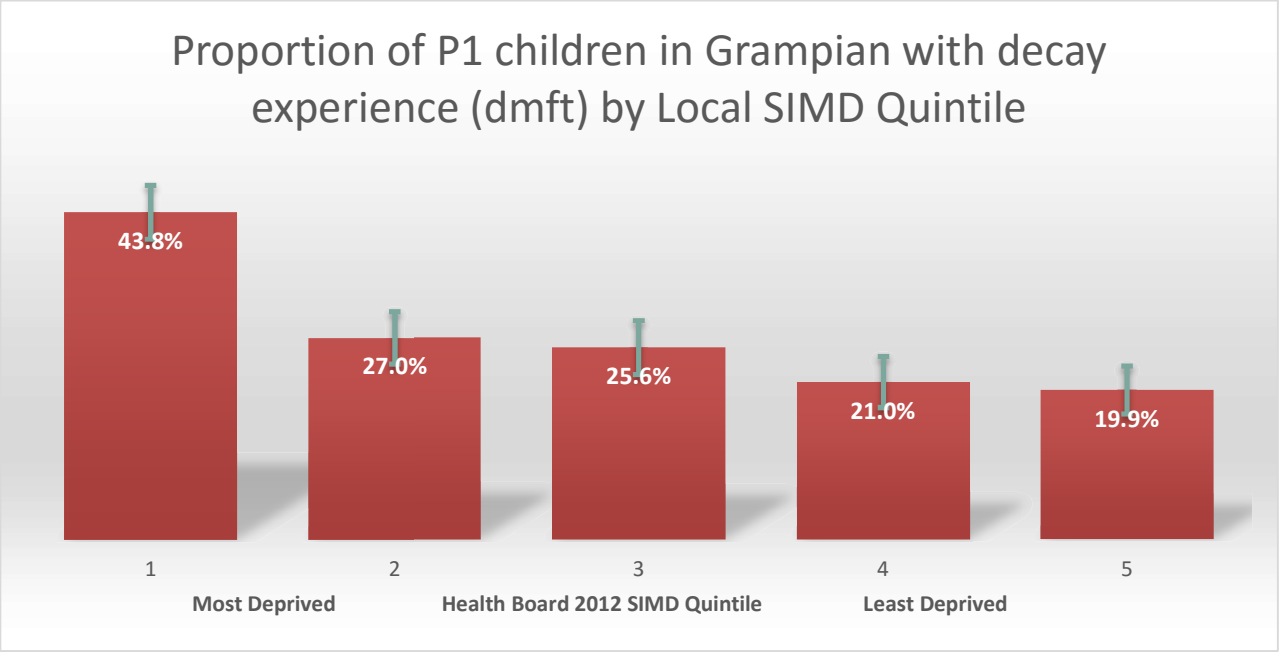
FIGURE 3



Source – NDIP, ISD

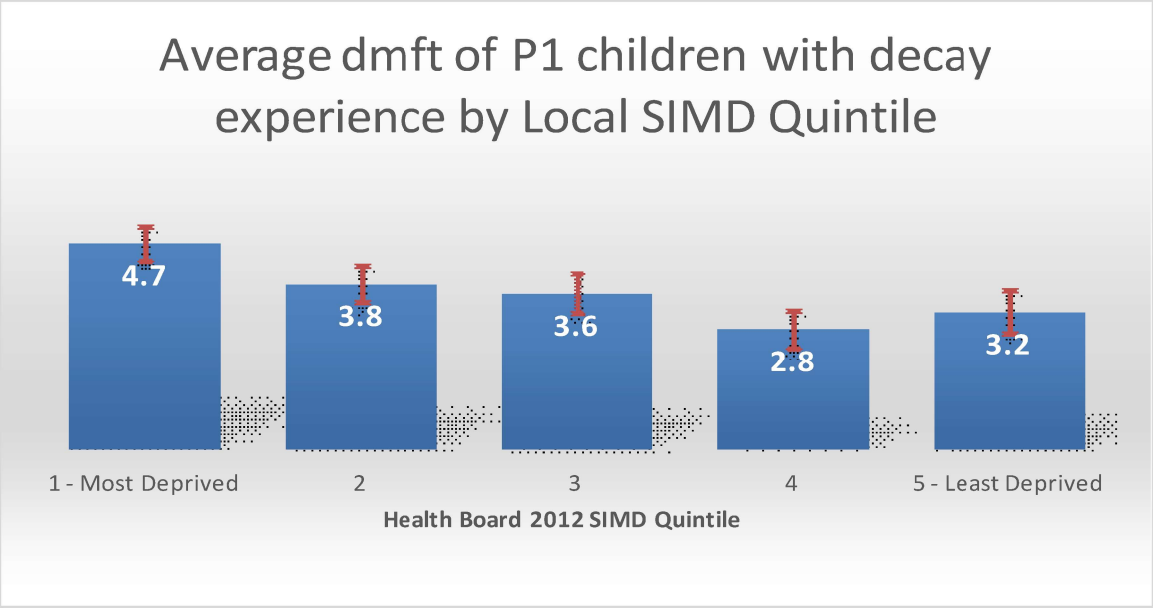
The 2014 survey results also indicate that if you are a child living in the most deprived quintile in Grampian, you are more than twice as likely to start school with tooth decay experience compared to a child from the least deprived quintile (Fig. 4). Furthermore, the most deprived P1 children also have more decayed teeth (average dmft 4.7) compared to other less deprived P1children (Fig. 5).

FIGURE 4



Source – NDIP, ISD

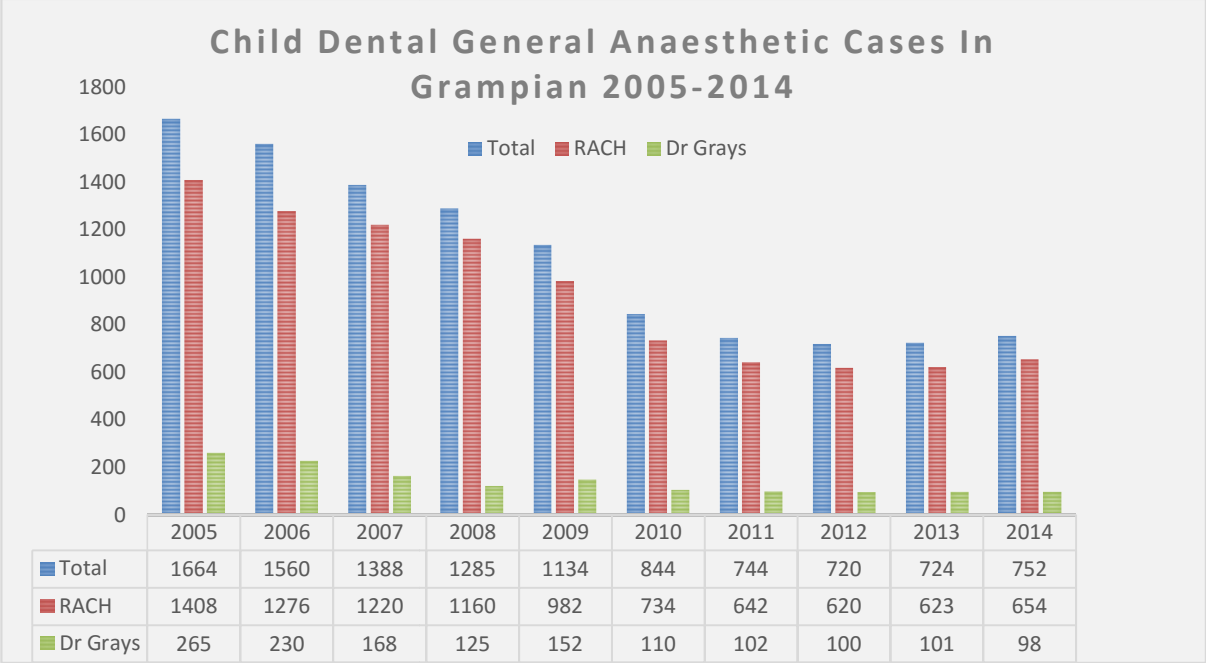
FIGURE 5



Source – NDIP, ISD

The significance of this is that the risk of the most deprived children having teeth extraction under general anaesthesia is relatively higher than that for less deprived children. Paediatric dental general anaesthesia is an expensive hospital procedure that involves hospital and dental staff and is usually one of the main reasons for childhood admissions for elective surgery. This is a procedure that is never without risk but the improvements in children's oral health in Grampian has seen a significant reduction in the number of day case admissions for tooth extraction under general anaesthesia (Fig. 6). However, there still remains a sizeable proportion of our young children who are still having general anaesthesia for teeth extraction and, given the disproportionate distribution of the disease in the deprived population, it is important that we continue to maintain the existing prevention programmes but with more proportionate targeting of resources to tackle these inequalities in children's oral health.

FIGURE 6

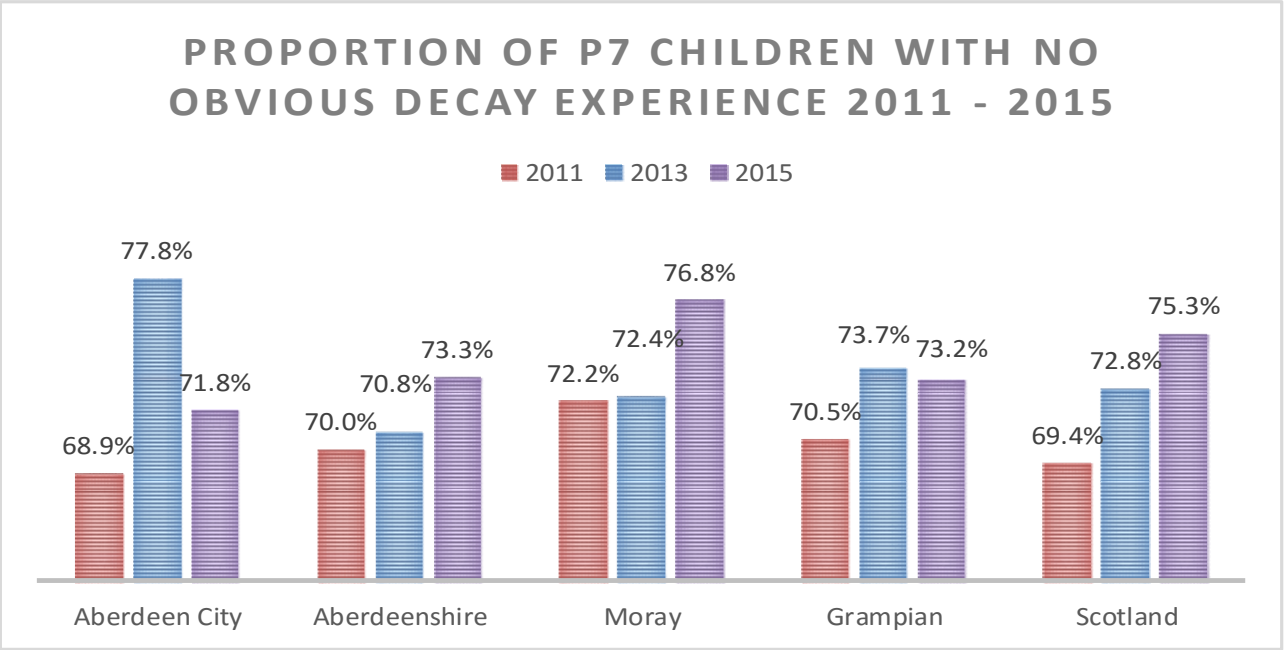


	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total	1664	1560	1388	1285	1134	844	744	720	724	752
RACH	1408	1276	1220	1160	982	734	642	620	623	654
Dr Grays	265	230	168	125	152	110	102	100	101	98

Source – NHSG PDS

The picture for the oral health of P7 children in Grampian shows a similar pattern of improvement. The proportion of P7 children with no obvious tooth decay experience has increased from 70.5% in 2011 to 73.2% in 2015 (Fig. 7). There is some local variation at HSCP level, but generally the trend in Moray and Aberdeenshire is of continued improvement in the oral health of P7 children. In Aberdeen City, whilst there was a spike in 2013 followed by a dip in 2015, the overall trend is still one of continuous improvement. Further detailed analysis was not possible at the time of this report due to a delay in receipt of detailed local data from Information Services Division, Scotland (ISD).

FIGURE 7

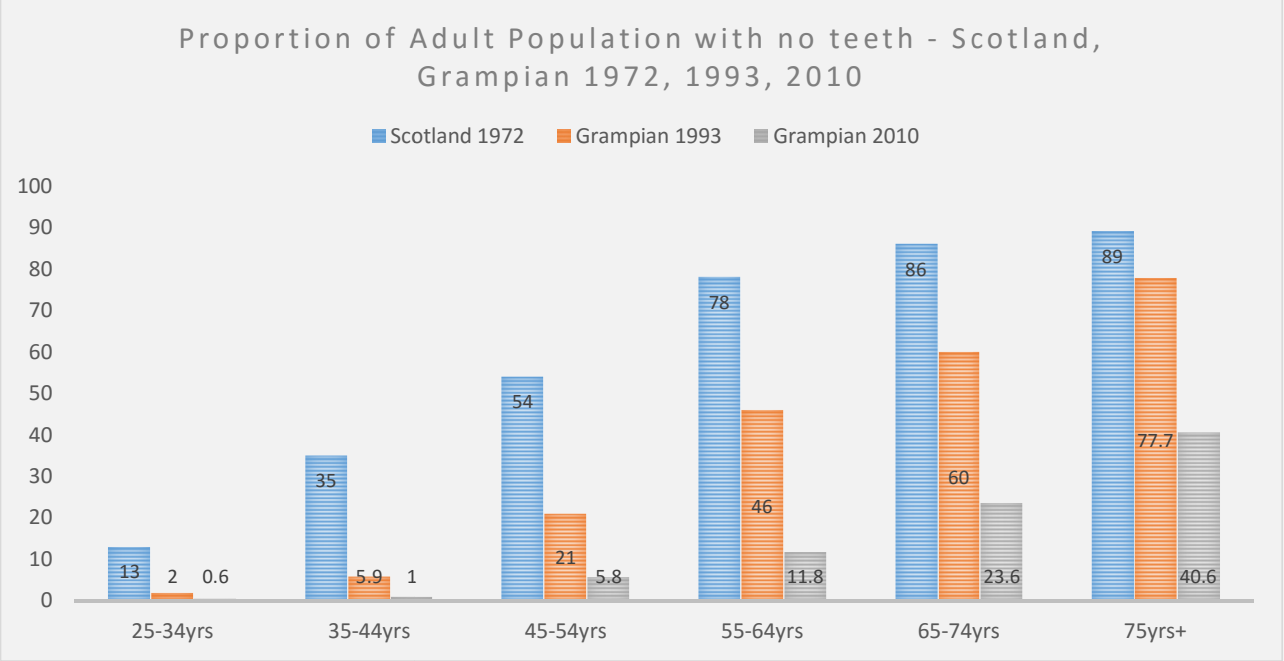


Source – NDIP, ISD

Adult Oral Health

Adult oral health is improving across Scotland, with 90% of adults having some or all of their natural teeth (SHeS[3] 2013). The picture is similar in Grampian, with 90.9% of adults over 16 years having some or all of their natural teeth (GADHS[4] 2010). The Grampian survey shows that 9.1% of adults have no teeth remaining, indicating that Grampian has met the Scottish Government target of 'less than 10% of adults to have no teeth remaining by 2010'. This is an improvement on the 1993 findings of 22.9% of Grampian adults with no teeth remaining. The proportions of adults with no teeth remaining increases with age and Figure 8 below shows that just over 40% of adults aged 75 years and over have no remaining natural teeth. The corollary to this is that 60% of the adults in this age group have some natural teeth remaining but only 16% of them have enough natural teeth left for a functional dentition. With an ageing population and associated multi-morbidities, dental care for this cohort of the population is likely to become more complex and resource intensive.

FIGURE 8



Source – GADHS 2010

[3] SHeS – Scottish Health Survey

[4] GADHS – Grampian Adult Dental Health Survey

Oral Cancer

Oral and pharyngeal cancers include cancers of the lip, tongue, mouth, salivary glands, oropharynx, piriform sinus, hypopharynx and other ill-defined sites. The majority of oral malignancies are squamous cell carcinomas. About a third of oral cancers occur in the mouth cavity and a similar proportion is diagnosed on the tongue. The risk of developing oral cancer increases with age and in Scotland, the majority of cases occur in people aged 45 or over. It is more common in men than women with a gender ratio of about 2:1.

The main causes of oral cancer are tobacco usage and excess consumption of alcohol. These factors together are thought to account for about three-quarters of oral cancer cases in Europe[5]. Other risk factors include diet and nutrition, ultraviolet light, human papilloma virus immunosuppression and other factors. Oral cancer incidence is also strongly related to socioeconomic deprivation, with the highest rates occurring in the most disadvantaged sections of the population.

During the 4 year period between 2008 and 2012, four thousand two hundred and fifty four (4254) people in Scotland were diagnosed with oral cancer, which accounted for almost 3% of all cancer cases diagnosed in Scotland in that period. Oral cancer incidence has been rising steadily in both Scotland and Grampian over the past two decades (Fig. 9). There were 87 cases of oral cancer diagnosed in Grampian in 2013, an increase of 55% since 1989. The absolute increase in cases was spread evenly between men and women but the age standardised incidence shows a rise in females from 6.4 per 100,000 person-years at risk in 1989 to 10.8 per 100,000 person-years at risk in 2013. During the same period, age standardised incidence trends in males fell from 27.2 to 22.6 per 100,000 person-years at risk.

Of the 308 deaths in Scotland from oral cancer in 2014, thirty one of those deaths were in Grampian, with 21 deaths in males and 10 in females. The number of deaths has increased by 35% from 23 deaths since 1989 but the overall age standardised mortality rate has decreased slightly from 6.7 in 1989 to 6.1 per 100,000 person-years at risk in 2014.

Survival is very dependent on early diagnosis and patients seen at an early stage can usually be cured, but for those with metastatic disease the aim is to contain the disease and maximise quality of life. Survival is also dependent on the site of the cancer; patients with cancer of the lip had the best outcome with over 90% surviving five years, followed by oral cavity, tongue, and oropharynx, with the lowest survival for hypopharyngeal tumours[6]. Survival is also better for younger patients and it has been shown that deprivation affects survival rates as well. An

[5] La Vecchia, C., et al., Epidemiology and prevention of oral cancer. Oral Oncol, 1997. 33(5): p. 302-12.

[6] Office for National Statistics. One- and five-year survival of patients diagnosed in 1991-95 and 1996-99: less common cancers, sex and age, England and Wales. 2005.

analysis of the five year survival rates for 1986-90 showed significant differences between the most affluent and most deprived groups for cancers of the tongue, oropharynx and oral cavity[7].

At the end of 2013, there were 5,290 persons living with oral cancer (prevalence) in Scotland, which equates to 0.1% of the Scottish population. This figure was higher in those aged 65 years and over at 0.3% of the population. This age group also formed the highest proportion of those living with oral cancer at 53.5% whilst the 45-64 years age group made up 41% of survivors. The majority of survivors (37.5%) lived between 1 to 5 years after diagnosis while 23% had been diagnosed over 10 years previously.

The main forms of treatment are surgery and radiotherapy and in advanced disease chemotherapy may be used to enhance the effect of radiation (chemoradiation). Often treatment can have debilitating consequences for patients resulting in loss of function and facial disfigurement.

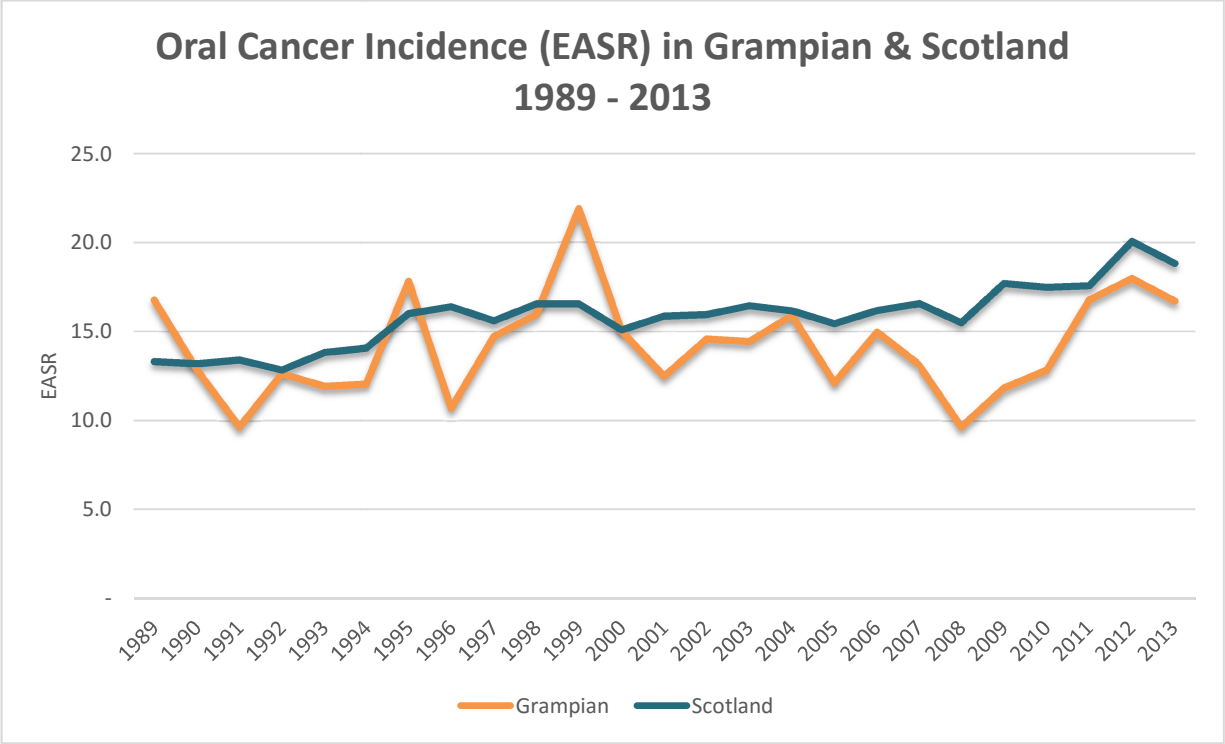
Evidence has shown that three-quarters of the disease could be prevented by elimination of tobacco use and the reduction of alcohol consumption. Smoking cessation is associated with a 50% reduction in risk of oral cancer within 3-5 years and the risk for ex-smokers approaches that of life-long non-smokers after ten years of smoking cessation[8]. We know that the prognosis is better if patients present early and so screening for premalignant and early stage disease has been advocated for prevention and improving outcomes. However, there is insufficient evidence to support population screening, but opportunistic screening of high-risk groups attending primary care services has been considered to be cost-effective in improving early detection[9]. Efforts should be made to encourage opportunistic screening of high-risk groups attending general dental practices and to raise public awareness about the causes and symptoms of oral cancer.

[7] Coleman, M., P. Babb, and P. Damiecki, Cancer Survival Trends in England and Wales, 1971-1995: Deprivation and NHS Region. 1999: TSO.

[8] Samet, J.M., The health benefits of smoking cessation. Med Clin North Am, 1992. 76(2): p. 399-414.

[9] Speight PM, Palmer S, Moles DR, Downer MC, Smith DH, Henriksson M, Augustovski F. The cost-effectiveness of screening for oral cancer in primary care. Health Technol Assess. 2006; 10(14): 1 -144

FIGURE 9



EASR: age-standardised (using the 2013 European Standard Population) incidence rate per 100,000 person-years at risk
Source – Scottish Cancer Registry, Information Services Division (ISD)

4. Where do we want to be? Recommendations and Targets for Oral Health

Children's Oral Health

Children's oral health has seen great improvements over the years but inequalities still exist, with P1 children in the most deprived SIMD quintile in Grampian twice as likely to start school with tooth decay compared to their classmates in the least deprived quintile. The recommendations for improving children's oral health include:

a. Strengthening the delivery of the Childsmile programme to improve its efficiency and effectiveness. Efforts should be made to proportionately target resources towards the children with the highest levels of needs through preventive programmes provided in priority nurseries and primary schools in Grampian.
b. Childsmile teams should continue to work with health visitors and independent general dental practitioners to improve the delivery of the Childsmile Practice element of the programme.
c. Given the evidence of a causal relationship between deprivation and poor health including oral health, it is recommended that oral health improvement teams should further explore working with other public health teams and key partners to address the determinants of health by adopting the common risk factor approach[10]. This integrated approach addresses risk factors common to a number of chronic conditions, such as obesity, dental decay and diabetes, thus offering far greater potential benefits compared to isolated interventions.
d. Working with key stakeholders and partners to develop public health policies and practices that support oral health promoting behaviours.

[10] Sheiham A, Watt RG. The common risk factor approach: a rational basis for promoting oral health. *Community Dent Oral Epidemiol* 2000; 28: 399–406.

Targets for Children's Oral Health

The following targets are recommended for children:

1. Oral Health Improvement - Grampian Primary 1

- 75% of P1 children with no obvious dental decay by 2018.
- 80% of P1 children with no obvious dental decay by 2022.

The 2022 target is in line with the Scottish Government Dentistry Outcomes Framework 2016-17 NHS Boards Childsmile target of a:

10% increase on 2014 (P1) NDIP result from each NHS Board by 2022.

2. Oral Health Improvement Equity - Grampian Primary 1

- By 2020, at least 60% of children in each SIMD quintile will have no obvious dental decay in Grampian.

- By 2018 & (2022) in all:
- Health and Social Care Partnerships (HSCPs) - 75% (80%) of P1 children will have no obvious dental decay.
- Associated School Groups (ASGs) & Community School Networks (CSNs) - at least 50% (60%) of P1 children will have no obvious sign of dental disease.

3. Oral Health Improvement - Grampian Primary 7

- 75% of P7 children with no obvious dental decay by 2018.
- 80% of P7 children with no obvious dental decay by 2022.

The 2022 target is in line with the Scottish Government Dentistry Outcomes Framework 2016-17 NHS Board Childsmile target of a –

10% increase on 2014 (P7) NDIP result from each NHS Board by 2022.

4. Oral Health Improvement Equity - Grampian Primary 7

- By 2020, at least 60% of children in each SIMD quintile will have no obvious dental decay in Grampian.

- By 2018 & (2022) in -
- All HSCPs - 75% (80%) of P7 children will have no obvious dental decay.
- All ASGs & CSNs - at least 50% (60%) of P7 children will have no obvious sign of dental disease .

Targets for Adult Oral Health

Grampian has met the Scottish Government target of less than 10% of adults to have no teeth remaining by 2010.

The recommended target for adult oral health in Grampian is that:

5. Adult Oral Health

- Less than 5% of adults in Grampian should have no teeth remaining by 2022.

Oral Cancer

The latest data for oral cancer in Grampian shows that the number of cases is increasing. However, the age standardised incidence rate shows a gender difference, with the rate rising in females and falling in males.

The recommended target for oral cancer in Grampian is for a reversal of the rising incidence of the disease by 2022. The following actions will be undertaken to facilitate the intended reversal of the current trend:

1. An annual public campaign working with key stakeholders to raise awareness about oral cancer and the associated risk factors and symptoms.
2. Encourage opportunistic screening of high risk groups attending general dental practices.
3. Work with primary and secondary care practitioners to ensure suspected and confirmed oral cancer patients have access to high quality, safe and effective cancer services.
4. Work with all stakeholders to ensure that oral cancer services meet care standards.

6. Oral Cancer

- To reverse the rising incidence of oral cancer in Grampian by 2022.

5. NHS Dental Registration and Access to NHS Primary Care Dentistry

Primary Care Dental Services

Primary care dental services in Grampian are provided by independent contractors who work either as single-handed practitioners or in partnerships. There are also a growing number of dental corporate bodies' providers.

The Public Dental Services, which are delegated to the three Health and Social Care Partnerships in Grampian, also provide primary care dental services for groups with special needs and routine care in areas with access difficulties. The services also provide general anaesthetic services for children and special care adults. In addition, they also have a dental public health function, which includes dental inspection programmes and oral health improvement activities, such as the Childsmile and Caring for Smiles programmes.

The NHS Grampian Dental list as at April 2016 includes 85 General Dental Services (GDS), 5 orthodontic and 30 Public Dental Services (PDS) practices across Grampian.

For the majority of the GDS practices, their geographical location and size are a legacy of the period before the advent of "local commissioning" as provided by the Scottish Dental Access Initiative (SDAI). The scheme, which is no longer available in Grampian, gave the Health Board some flexibility to develop new services to meet local needs and reduce prevailing oral health inequalities.

Access to Primary Dental Care Services

Access is a complex, multi-dimensional concept which is affected by several factors relating to contact with health services and the degree of fit between healthcare services and the client. The factors affecting contact include sociological and psychological factors such as culture, beliefs, attitudes, expectations and definitions of sickness which can impact on service use. The 'degree of fit' might be affected by the availability, affordability, accessibility, acceptability and accommodation of the service.

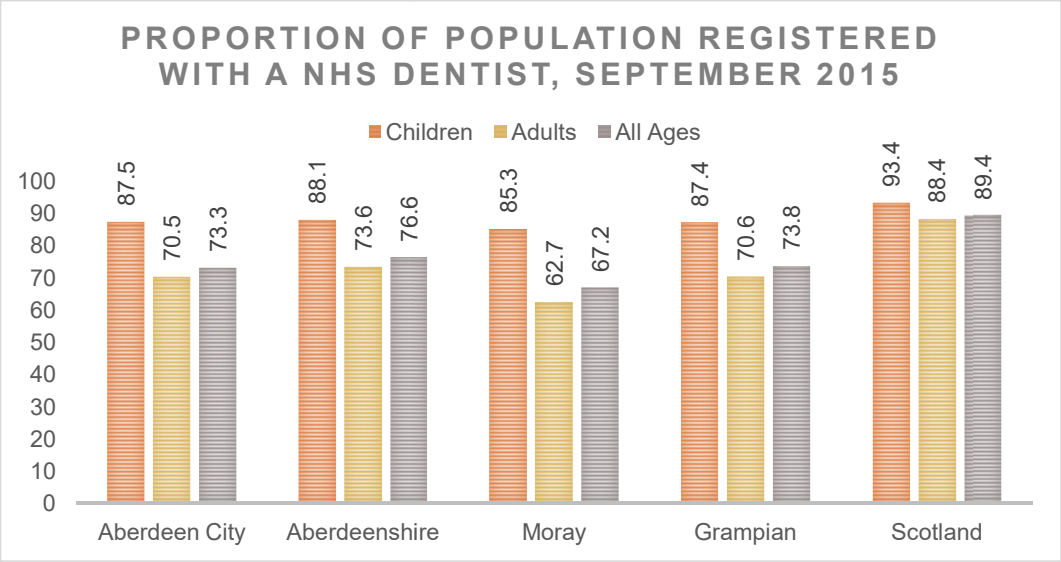
The primary measure of access to primary dental care services is the number of people registered with a NHS dentist. NHS dental registration is a key stage in the pathway of care and gives patients right of access to dental services, both within and out with normal hours.

Historically, Grampian has had low levels of NHS dental registration, due in the main to a lack of NHS committed dental practices. However, due to a number of initiatives to improve access, including the recruitment of salaried General Dental Practitioners (sGDPs) and the SDAI scheme, registration rates have been rising since 2007. The latest ISD statistics show that just over 7 out of 10 people in Grampian are now registered with a NHS dentist as at September

2015 (73.6%; 431,268). The proportion of the Grampian population registered with an NHS dentist increased from 35.2% to 73.6% between March 2007 and September 2015. Despite this huge improvement in registration, NHS Grampian still has the lowest registration rates in Scotland, particularly amongst adults. This may be explained by the historical low levels of registration and the relatively higher use of private dentistry in Grampian.

The chart below shows the comparison of registration rates between Scotland and Grampian and highlights the variation within Grampian between the three local authority (partnership) areas. Registration rates are generally higher across Aberdeenshire compared to Aberdeen City and Moray. The 2016 adult registration target of 70% as set out in the NHS Grampian 2020 Dental Plan has been achieved in Grampian, Aberdeenshire and Aberdeen City, but is yet to be achieved in Moray.

FIGURE 10



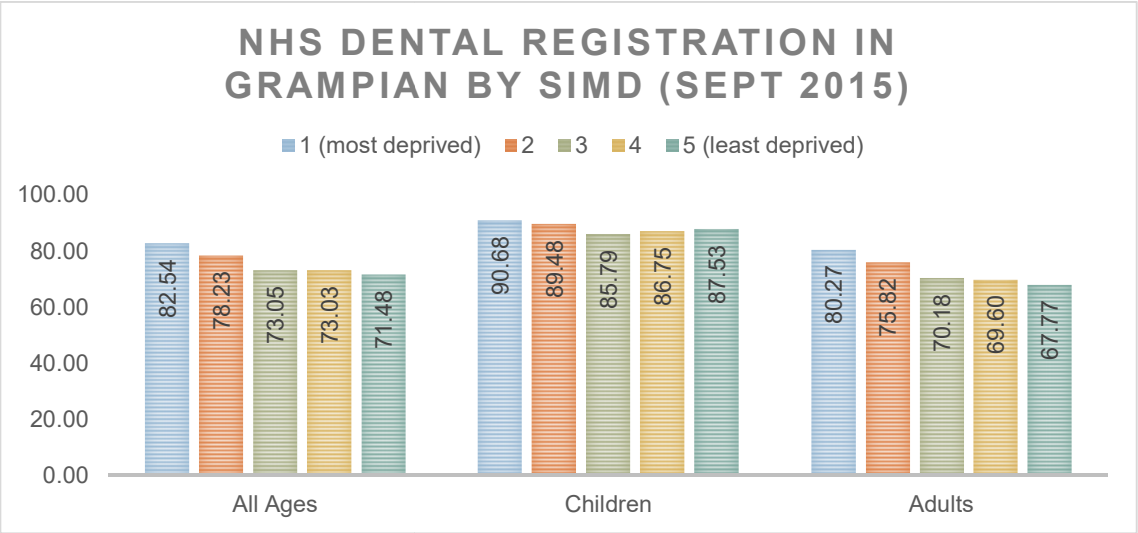
Source - ISD

The 2016 registration rate target for children of 90% is yet to be achieved across Grampian. It is currently at 87.4% in Grampian and ranges from 85.3% – 88.1% across the 3 partnership areas.

Analysis of registration rates along deprivation categories shows that the Grampian population living in the most deprived quintiles is more likely to be registered with a NHS dentist compared to those in the least deprived quintiles (Fig. 11). This is an important finding as dental disease is associated with deprivation and improved access in the deprived population cohort is important for reducing the prevalence and impact of dental disease. However, participation rates (which measure contact with the GDS for examination and treatment in the last 2 years) have been falling, with 78.3% of those registered having seen a NHS dentist in

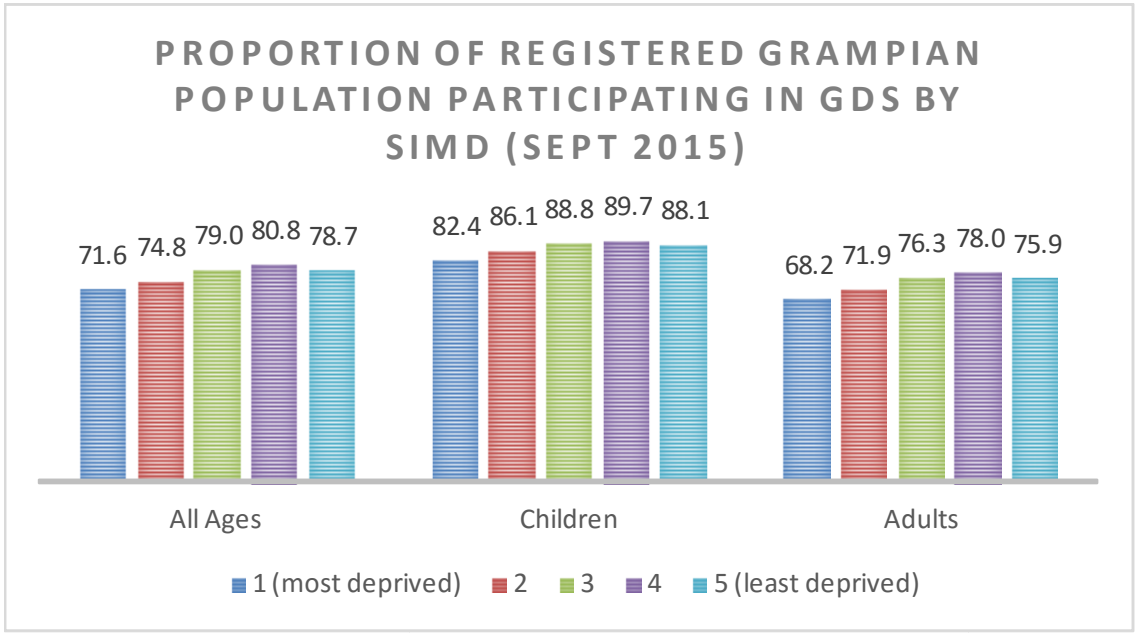
the last 2 years as of September 2015. This is in line with the general trend across all NHS Boards in Scotland, although the Grampian figures are still higher than the Scottish average of 72.9%. When we look at participation in relation to deprivation, we see a different picture to registration with those living in deprived areas less likely to have seen their dentist in the last 2 years (Fig. 12).

FIGURE 11



Source - ISD

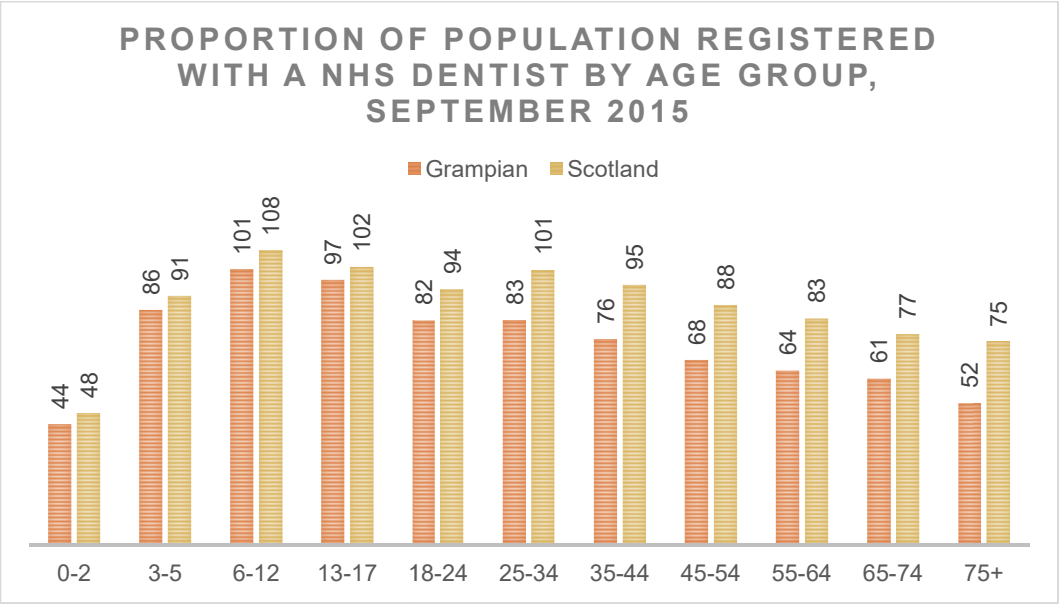
FIGURE 12



Source - ISD

A breakdown of registration rates by age group shows that rates in children increased with age and there was no considerable difference between Grampian and the Scottish average (Fig. 13). In adults, registration rates generally decreased with age from 83% in the 25-34 years age group to 52% in people aged 75 years and over. There were also considerable differences between the Grampian and Scottish averages in the adult age groups. These differences might be partly explained by the relatively higher use of private dentistry in Grampian, but the overall picture does indicate that further improvements in registration rates could be achieved particularly in people aged 45 years and over. We anticipate that the ongoing realignment and refocusing of the Public Dental Services towards providing care for the more vulnerable population will help close the access gap for the elderly and dependent population.

FIGURE 13



Source – ISD

6. Where do we want to be? Recommendations and Targets for Dental Registration

Children

In order for children to have the best start in life, it is important that they have access to the full spectrum of oral health improvement programmes, including targeted prevention in the clinical setting. The 2016 target of 90% for child registration across Grampian, as set in the previous 2020 Dental Plan, is yet to be achieved. Figure 13 on the previous page shows that the main area for improvement is in the 0-2 years age group where only 44% of them are registered with a NHS dentist. We have decided to extend the period for achieving the target of 90% by two years to 2018 and to aspire to 95% by 2022.

7. Registration - All Children (0-17 years) 2016 - 2022

- 90% of all children should be registered with an NHS dentist by the end of 2018.
- 93% by the end of 2020.
- 95% by the end of 2022.

Adults

The 2016 target of 70% adult NHS dental registration has been achieved in parts of Grampian including Aberdeen City and Aberdeenshire. The current adult registration rate in Moray is 62.7%, which is at considerable variance with the Grampian average of 70.6%. The Grampian average is considerably lower than the Scottish adult registration level of 88.4%. This is likely to be due to the historical low levels of registration and the relatively higher use of private dentistry in Grampian. The Scottish Health Survey 2013 suggests that about 20% of the Scottish adult population have had dental treatment on a private basis. However, the use of private dentistry may be higher in Grampian as indicated by the findings the Grampian Adult Dental Health Survey 2010 (GADHS 2010). The survey of the oral health status of adults in Grampian showed that about 38% of the adult population had regular private dental care with the highest level (46%) observed in Moray. More recently, the 35th Viewpoint Survey 2014, which is a survey of the Aberdeenshire Citizens Panel established by the Aberdeenshire Community Planning Partnership, found that 30% of Aberdeenshire residents were either registered with a private dentist or received care through a private dental plan.

The GADHS 2010 also found that about 33.4% of respondents found private treatment costly and 28.4% felt they could not get dental treatment under the NHS. It is conceivable therefore

that, with the economic downturn and the availability of more NHS dental practices across Grampian, there is likely to be more demand for taking up NHS dental registrations.

It is therefore recommended that a minimum of 75% of the adult population should be registered with a NHS dentist by 2020, increasing to 78% by 2022.

8. Registration - Adults (18+) 2016 - 2022

- 73% of adults should be registered with an NHS dentist by the end of 2018.
- 75% by the end of 2020.
- 78% by the end of 2022.

Implications for Planning

The table below presents the number of new registrations required to meet the new proposed targets for 2020 in each of the partnership areas and across Grampian. These figures have been produced using the latest available mid-year population estimates (2015). The figures show that, in order to meet the 2020 target of 93% of children registered in Grampian, there is a requirement for 6,427 new registrations. The adult target of 75% by 2020 would require 23,259 new adult registrations across Grampian. This would amount to 29,686 new registrations in Grampian by 2020. These figures are likely to vary as more up-to-date mid-year population estimates become available. Table 2 below presents a breakdown of the new registration requirements for the 2020 and 2022 targets in each of the partnership areas.

TABLE 2

	2020			2022		
	Children	**Adults**	**All Ages**	**Children**	**Adults**	**All Ages**
Target	**93%** registered by 2020 Currently 87.4%	**75%** registered by 2020 Currently 70.6%	**78%** registered by 2020 Currently 73.8%	**95%** registered by 2022	**78%** registered by 2022	**81%** registered by 2020
Aberdeen City	2234	9409	11643	756	5777	6533
Aberdeenshire	2877	3821	6698	1099	6210	7309
Moray	1316	10029	11345	378	2299	2676
Grampian	**6427**	**23259**	**29686**	**2233**	**14286**	**16518**

7. Model of Care – Managed Clinical Network (MCN), Care Pathways and Quality Dental Services

The achievement of the desired outcomes in oral health in Grampian is dependent on the provision of accessible, high quality and holistic dental services. These services need to be patient-centred and evidence-led coupled with promotion of a long term preventive approach with elements of supported informed self care by patients of their own oral health. The Managed Clinical Network (MCN) for Oral and Dental Health has played a vital role towards delivering this vision of dental services. The MCN has been instrumental in developing referral protocols and a primary care referral hub to ensure patients are able to receive the right care in the right place at the right time. The MCN has also played an important role in service redesign across primary and secondary care dental services

However, given the opportunities and challenges presented by Health and Social Care Integration and the wider changes in NHS Scotland, the role of the MCN has become even more important in enabling and supporting the delivery of a person-centred, safe and effective dental service. The MCN has the unique role and opportunity to act as the platform for developing a shared vision for oral health and for aligning and re-enforcing shared strategic aims and priorities.

The role of the MCN can be further improved and enhanced to deliver the desired outcomes for oral health by:

1. Increasing clinician, patient and partner participation in decision making, care pathway and policy development;
2. Increasing dissemination and implementation of evidence-based practice;
3. Reducing variation in clinical practice and in oral health outcomes;
4. Improving patient experience;
5. Improving integration of continuous quality improvement activities which enhance care pathways to ensure safe, effective care at the right time and in the right place;
6. Increasing workforce development activities.

These aspirations will serve as the key drivers for the Oral and Dental Health MCN during the life course of this Dental Plan.

Quality Improvement and Assurance for Oral Health & Dental Services

Quality improvement of health services in Scotland is based on the priorities identified by the peoples' views such as[11]:

- Caring and compassionate staff and services;
- Clear communication and explanation about conditions and treatment;
- Effective collaboration between clinicians, patients and others;
- A clean and safe care environment;
- Continuity of care; and
- Clinical excellence.

These priorities help form the key drivers for a quality health service:

- Person-centred;
- Safe;
- Effective;
- Efficient;
- Equitable; and
- Timely.

NHS Grampian has put in place key components of a quality framework for dentistry which include:

- A structured approach to quality and clinical governance in which the combined practice inspection process is a core part of ensuring that services are provided in a clean and safe environment.
- Clear accountability arrangements for standards and professionalism in dentistry including the management of poor performance.
- The Oral and Dental Health MCN plays a key role in improving clinical excellence by promoting effective collaboration between clinicians and patients and ensuring continuity of care through the development of appropriate care pathways.
- The Clinical Governance and Quality in Dentistry (CG-QID) Group coordinates all clinical governance issues in dentistry and reports to the NHS Grampian Clinical Governance Committee.

Measurement is an important tool for driving quality improvement and requires the use of appropriate measures in a timely fashion. This is an aspect that requires further improvement and will benefit from dedicated resources and investment in data collection and appropriate technology.

[11] The Healthcare Quality Strategy for NHS Scotland (2010)

The Scottish Government is currently piloting a set of quality indicators for dentistry in order to provide a standardised approach across Scotland for quality assurance processes in dentistry. The Supporting Better Practice Initiative will provide a dashboard of information on ten indicators (three at practice level, seven at individual practitioner level) where practices will be able to see their relative scores. This quality or governance tool will be a key determinant of practice and practitioner performance and will allow NHS Boards the opportunity to intervene early, should improvement at practice or practitioner level be required. We await the outcomes of this pilot scheme and intend to implement the recommendations when they are published.

In the interim, we intend to strengthen our current system by developing a Dental Performance Advisory group to provide an overview of all performance concerns that come into the system to ensure that such concerns are properly and effectively managed.

8. Action Plan 2016 – 2022

We have set various targets for oral health improvement and access to dental services including the need to reduce oral health inequalities. The following action plan is designed to facilitate achievement of these targets.

Aim 1 – Continuous improvements in the oral health of the Grampian population

NHS Grampian, along with the Integrated Boards and Health & Social Care Partnerships (HSCPs), will:

1. Maintain the current emphasis on the two main oral health improvement programmes –
    a. Childsmile
    b. Dental Priority Groups – Caring for Smiles (Older people), Smile4Life (Homeless) and Mouth Matters (Prison)
2. Seek improvements in the delivery and quality of the programmes with a focus on improving oral health in deprived and vulnerable populations in an effort to close the inequalities gap.
3. Re-engage with Health Visitors and their managers to enhance Health Visitors' oral health improvement role and improve referrals of newborns to the Childsmile programme.
4. Develop and implement a child dental health surveillance programme to ensure children with poor dental health receive the treatment necessary to meet clinical needs and preventative interventions to reduce future caries risk.
5. Roll out the accredited Caring for Smiles training for carers to all Care Homes in Grampian following the success of the pilot.
6. Work with key stakeholders to implement an oral (mouth) cancer awareness campaign annually on the causes, signs and symptoms of the disease.
7. Encourage opportunistic screening of high risk groups attending general dental practices.
8. Work with acute sector partners (Head & Neck cancer services and Aberdeen Dental Hospital) to embed preventive initiatives such as smoking cessation and alcohol brief interventions in their clinical pathways.
9. Work with partners to advocate for national and local policies on tighter controls on advertising, promoting and labelling of sugary foods and drinks.

Aim 2 - Improve access to high quality NHS Dental services for all those who request and need routine and unscheduled dental care

Registration figures show that seven out of ten people in Grampian are currently registered with a NHS dentist as at September 2015 (73.6%; 431,268). The target proposed is to increase NHS registrations by 46,204 between 2016 and 2022.

NHS Grampian, along with the Integrated Boards and Health & Social Care Partnerships (HSCPs), will:

1. Undertake evidence-led registration campaigns to further improve NHS dental registration and participation rates in Grampian. Particular emphasis will be placed on trying to encourage the registration and participation of very young children, the elderly and the vulnerable population.
2. Work with Health Intelligence to develop an interactive database using geographic information system (GIS) for demonstrating dental statistics such as NHS dental registration and participation rate patterns to inform the Dental Plan.
3. Ensure the 'rebalancing' of the Public Dental Services (PDS) creates increased opportunities for access to NHS dental care and oral health improvement for vulnerable groups.
4. Implement the recommendations of the Special Care Dentistry Needs Assessment to improve the special care dentistry service provided by the PDS.
5. Undertake a Grampian Adult Dental Health survey to provide information on the oral health status of adults in Grampian.
6. Explore the feasibility of undertaking an oral health survey of dependent older people in Grampian, e.g. Care Home residents. This is to provide information on the oral health status of dependent older people and to inform the design and provision of dental services for this population cohort in Grampian.

Aim 3 - Enhance and strengthen the role of the Oral and Dental Health MCN as a platform for delivering the vision of best possible oral health for all.

The Oral and Dental Health MCN will:

1. Undertake a review of the MCN structures and processes to improve its effectiveness and ensure that it is fit for its future role.
2. Carry out a review of the current model of care for surgical dentistry to ensure the care provided is of high quality, safe, effective and sustainable.
3. Undertake a review of the Grampian Dental Emergency Services (GDENS) to ensure it continues to meet the changing demand for unscheduled dental care.
4. Explore the feasibility of developing a pilot cognitive behavioural therapy (CBT) service to complement the provision of anxiety management dental services.

5. Explore opportunities to strengthen engagement with general dental practitioners to increase participation in decision making, care pathway and policy development and implementation of evidence-based practice.
6. Work with the North of Scotland Planning Group, Aberdeen Dental School & Hospital, NHS Grampian Acute Sector and other stakeholders to develop solutions to address the shortage of paediatric dentistry specialist skills across the North of Scotland.
7. Work with Aberdeen Dental School & Hospital, the Public Dental Services and General Dental Practitioners to develop an appropriate model of care for endodontic service provision in Grampian.
8. Work with Aberdeen Dental School & Hospital, NHS Education for Scotland and other stakeholders to develop appropriate training programmes to close the skills gap in the local workforce in areas such as oral surgery, special care dentistry, sedation and endodontics.

Aim 4 - Help and support people to maintain and improve their oral health by emphasising prevention and supported self care and management of oral diseases.

NHS Grampian will:

1. Update the Teeth TLC website to provide information on oral health for the Grampian population to support prevention, self care and management.
2. Continue to develop the Teen TLC website with partners to provide an online platform for health and wellbeing information targeted at teenagers.
3. Develop an oral health care management resource for the self management of long term conditions, such as diabetes.

Aim 5 – Strengthen and improve the effectiveness and efficiency of the dental quality improvement and assurance framework.

NHS Grampian will:

1. Develop a Dental Performance Advisory Group to provide an overview of all dental performance concerns to ensure the proper and effective management of such concerns.
2. Ensure the introduction of appropriate quality standards for primary care dental services as currently being piloted by the Scottish Government.
3. Recruit to a dental clinical effectiveness role to support audit, care standards development and performance management in Dental Services.
4. Work with Scottish Government, IJBs/HSCPs and the local dental workforce to achieve the objectives of the Strategic Vision for e-Dentistry, particularly the management of the increased requirement for timely good quality data and analysis to target healthcare improvement and meeting the clinical, governance and business support requirements of primary care dentists.

9. Conclusion

Oral health is integral to general health and essential for wellbeing, and is important in overall quality of life, self-esteem and social confidence. This revised Dental Plan builds on the success of the 2020 Dental Plan and proposes a renewed focus on tackling inequalities associated with oral health and access to dental care to ensure equitable oral health outcomes. Ultimately, the goal is to establish an equitable and responsive oral health care system to deliver the vision of the best possible oral health for the Grampian population.

The document outlines the key aims, priorities and actions to deliver better oral health for all. There is particular emphasis on prevention, supported self care/management and increased partnership working across health and social care agencies to tackle the determinants of poor oral health and reduce the inequalities gap.