Public Health Scotland

The impact of COVID-19 on NHS dental services and oral health in Scotland: Annual Report

A Management Information release for Scotland

Publication date: 26 April 2022

Translations and other formats are available on request at:

phs.otherformats@phs.scot

0131 314 5300

Public Health Scotland is Scotland's national agency for improving and protecting the health and wellbeing of Scotland's people.

www.publichealthscotland.scot

This is a Management Information publication

Published management information are non-official statistics which may be in the process of being transitioned into official statistics. They may not comply with the UK Statistics Authority's Code of Practice with regard to high data quality or high public value but there is a public interest or a specific interest by a specialist user group in accessing these statistics as there are no associated official statistics available.

Users should therefore be aware of the aspects of data quality and caveats surrounding these data, all of which are listed in this document.

Find out more about Management Information on the **UK Statistics Authority website**.

Contents

Introduction

The timeline of the COVID-19 pandemic in Scotland is well documented[1]. For the context of this report, key points are summarised here. The World Health Organization declared the SARS-CoV-2 virus outbreak a public health emergency of international concern on 30 January 2020, and a pandemic on 11 March 2020[2]. On 17 March 2020 the NHS in Scotland was placed on an “emergency footing”, and on 23 March 2020 a UK-wide national lockdown was announced.

In Scotland, the first national lockdown ended on 28 May 2020, moving to phased level restrictions based on the rate of infection in each of the areas in Scotland. With the infection rate rising again towards the end of 2020, restrictions were increased and tightened around the festive period then on 5 January 2021 mainland Scotland went into a second lockdown. The vaccination programme roll-out commenced in Scotland on 25 January 2021. Easing of restrictions began with the phasing of children returning to schools and nurseries from 22 February 2021 and lifting of stay at home restrictions from 2 April 2021.

Most restrictions were lifted from the whole of Scotland on 19 July 2021 and by 9 August 2021 only some protective measures were in place (such as the use of face coverings, Test and Protect system and two metre physical distancing in healthcare settings). Community transmission of the Omicron variant in Scotland was confirmed on 3 December 2021. Further guidance on reducing social interactions was introduced from 14 December 2021 continuing over winter and easing in the spring. On 30 March 2022 the Scottish Government announced that the legal requirement to wear a face covering on public transport and most indoor settings will end on 18 April 2022.

In healthcare settings, infection prevention and control guidance has been in place throughout the pandemic to control the number of cases and reduce harm from the virus. The National Infection Prevention and Control Manual has had various addenda on COVID-19, with the most recent one covering winter 2021/22[3]. This was revised following a letter from the Chief Nursing Officer on 31 March 2022 which de-escalated infection prevention and control measures to alleviate system pressures[4].

Policy and guidance in relation to NHS Dental Services in Scotland during COVID-19

Due to the anticipated risks of transmission associated with receiving dental care, during the first lockdown period in Scotland, all National Health Service dental practices were not able to see patients on their premises. Across Scotland over seventy Urgent Dental Care Centres (UDCCs) were established for the provision of emergency dental treatment.

The remobilisation of primary care NHS dental services was undertaken in several time periods, as follows:

● From 20 May 2020: Capacity in UDCCs was increased, and provision expanded to include patients with acute and essential oral health care needs[5].

● From 22 June 2020: All dental practices reopened for face-to-face consultation with patients requiring urgent dental care treatments that could be provided using non-aerosol generating procedures (AGPs)[6].

● From 13 July 2020: Dentists were able to see patients for the full range of routine non-AGP dental care. From 17 August 2020, aerosol associated treatments were permitted for urgent dental care only[7].

● From 1 November 2020: Practices were able to provide the full range of NHS treatments to all patients in need of both urgent and non-urgent care. Dentists were also able to provide domiciliary care[8].

● From 1 April 2022: Dentists were allowed to de-escalate their infection prevention and control measures in line with national guidance to alleviate system pressures and allow an increase in patient throughput[9,10].

Main points

- Access to NHS primary dental care in Scotland has reduced due to COVID-19. Socioeconomic inequalities in access to these dental services, while apparent prior to the pandemic, have increased in the most recent months.
- Dental contacts and treatments in the General Dental Service (GDS) declined due to the COVID-19 public health measures and have not yet fully recovered to pre-pandemic levels.
- Public Dental Service (PDS) activity reduced during the first national lockdown and although not yet fully recovered, some parts of this service have returned to pre-pandemic levels.
- There has been a reduction in Hospital Dental Service (HDS) activity with recent levels still lower than before the pandemic.
- Oral health improvement programmes were impacted by the COVID-19 public health measures (particularly in schools and care homes), with reduced activity evident in Childsmile and Caring for Smiles. In-person aspects of these programmes have only recently recommenced.

Results and commentary

These analyses of the impact of the COVID-19 pandemic are reported using data from primary and secondary care dental services and oral health improvement programmes in Scotland.

In this report, the pre-pandemic period is defined as the 13 months from 1 January 2019 to 31 January 2020 (inclusive). The most recent three-month period is defined as 1 December 2021 to 28 February 2022 (inclusive).

Data are analysed using Scottish Index of Multiple Deprivation (SIMD) population-weighted quintiles[11], where SIMD 1 represents the 20% of the population living in the most deprived areas and SIMD 5 represents the 20% living in the least deprived areas.

Inequalities in access to NHS primary dental care

As reported in the Public Health Scotland Registration and Participation publication, child registration rates were over 90% across all SIMD quintiles prior to the COVID-19 pandemic (September 2019). In contrast, adults living in the most deprived areas were more likely to be registered with 98.1% registered in SIMD 1 compared to 89.8% in SIMD 5 (least deprived areas)[12].

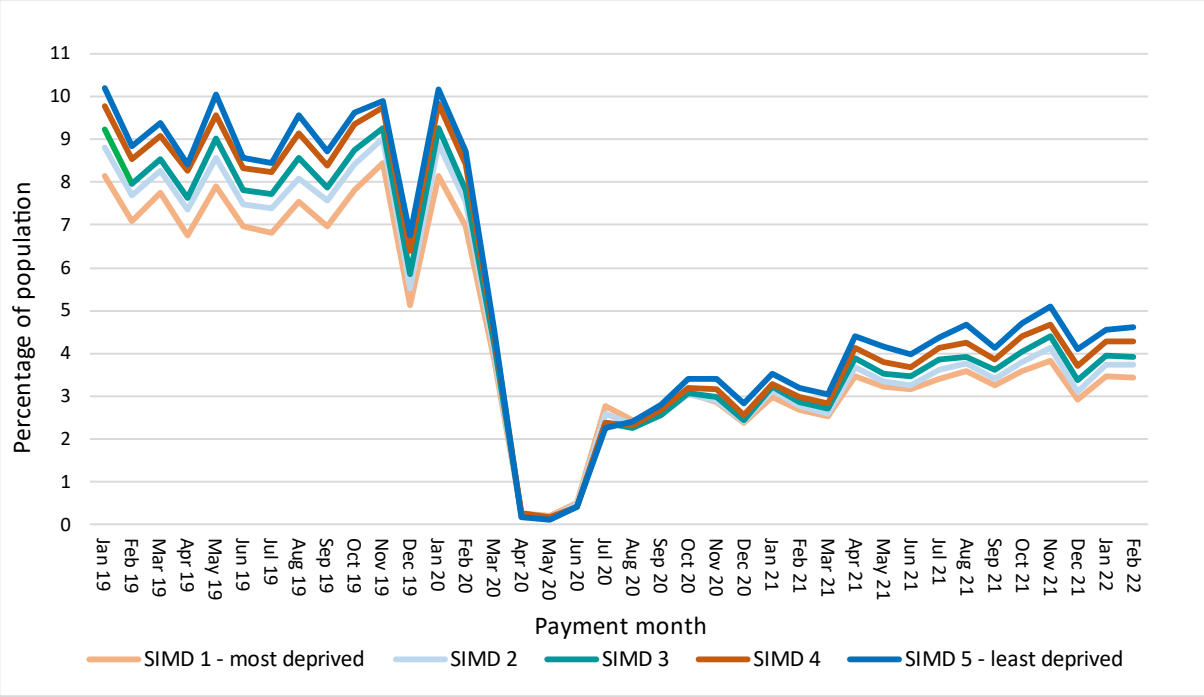
However, despite high registration rates, socioeconomic inequalities in access to NHS primary dental care (in terms of contact) were evident. In September 2019, registered patients from the most deprived areas (SIMD 1) were least likely to have participated (attended) within the last two years, with 79.9% of children from SIMD 1 participating compared to 89.0% from the least deprived areas (SIMD 5); and 62.1% of adults from SIMD 1 compared to 71.6% in SIMD 5.

In this section, inequalities in access to NHS primary dental care across Scotland have been assessed. This is undertaken using the monthly median percentage of the population who had contact with primary care NHS dental services (regardless of registration status), by SIMD quintile, then comparing the pre-pandemic period with the most recent three-month period. Changes in inequalities were further examined

between the most recent three months and pre-pandemic periods by calculating the absolute (slope index of inequality – SII) and relative (relative inequality index – RII) inequality metrics and comparing these metrics over the two periods.

At the population level, inequalities in access to NHS primary dental care were evident prior to the pandemic (Figure 1). In the month of January 2019, 10.2% of those living in the least deprived areas (SIMD 5) had contact with primary care NHS dental services compared to 8.1% in the most deprived areas (SIMD 1).

Figure 1 Percentage of the population that had contact with primary care NHS dental services, by payment month and SIMD quintile; January 2019 to February 2022*



*The percentage axis has been shortened to highlight the differences between SIMD quintiles

The monthly median percentage of the population that accessed NHS primary dental care in the most recent three-month period is lower for all SIMD levels compared to pre-pandemic monthly medians (Table 1). The percentage recovery is highest for those in the least deprived (SIMD 5) quintile.

Table 1 Median percentage of the population that had contact with primary care NHS dental services, by SIMD quintile

SIMD quintile	Median per month - pre-pandemic (Jan 2019 to Jan 2020)	Median per month - most recent three months (Dec 2021 to Feb 2022)	Level of recovery - recent monthly median relative to pre-pandemic (%)*,**
1 (most deprived)	7.5	3.4	45.8
2	8.1	3.7	46.2
3	8.5	3.9	46.0
4	9.1	4.3	47.1
5 (least deprived)	9.4	4.6	48.6

* Calculated as 'most recent three-month period median' x 100 / 'pre-pandemic median'

** Due to rounding, some percentages may not correspond exactly with the calculation above

The average Slope Index of Inequality (SII) in the most recent three-month period was 59.7% of the SII in the pre-pandemic period (SII 15.95 - recent; SII 26.7 - pre-pandemic), indicating a reduction in absolute inequalities, which would be expected due to the reduced levels of activity across all SIMD quintiles. However, the Relative Index of Inequality (RII) is 27.6% higher in the most recent three-month period compared to the pre-pandemic period (RII 0.37 - recent; RII 0.29 - pre-pandemic), indicating an increasing of relative inequalities. Therefore, while there has been a reduced number of patients seen overall, as dental services recover there has been an increase in inequalities (relative to the already existing pre-pandemic inequalities), with those from the most deprived areas (SIMD 1) less likely to have contact with a primary care NHS dentist than those from the least deprived areas (SIMD 5).

General Dental Service

Most of the population in Scotland access routine dental care through the primary care setting of the NHS General Dental Service (GDS). GDS represents the usual first point of contact for NHS dental treatment. The majority of GDS is provided by independent dentists ("High Street dentists") who have arrangements with NHS Boards to provide GDS.

Triage Coding

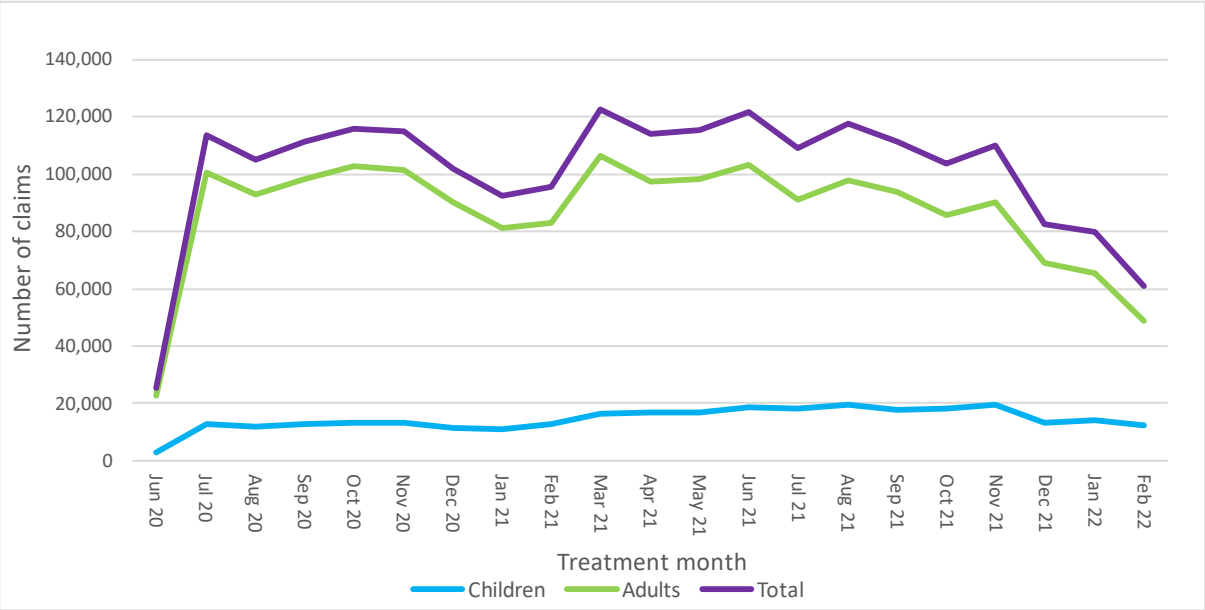
The Statement of Dental Remuneration (SDR) lists all the treatments and fees that dentists can provide and claim payment for. An important factor influencing monitoring of activity levels has been the introduction of triage activity codes[13]. These additional new codes were introduced on 22 June 2020 for use initially in Urgent Dental Care Centres (UDCCs) but were also then used in the GDS and PDS as services remobilised. The codes include treatments such as: telephone advice, issuing prescriptions, undefined aerosol generating procedures (AGPs) and non-AGPs.

These triage codes, which previously could not be claimed, may result in additional claims since June 2020. Only five triage codes: ‘Initial telephone call triage’, ‘Advice and closing the case’, ‘Advice and prescription’, ‘Aerosol generating procedure’ and ‘Non-aerosol procedure’ are included in counts of treatments in this report.

As the triage codes include undefined AGP and non-AGP procedures, it is not possible to identify what procedures were undertaken unless other SDR treatments are also recorded within the claim. Therefore, figures for individual treatments in this report may undercount the number of treatments undertaken.

The highest record of GDS triage activity claims was in March 2021 (122,500) and the number of claims has gradually reduced in the subsequent months of the pandemic (Figure 2.1).

Figure 2.1 Number of GDS triage activity claims, by month; June 2020 to February 2022

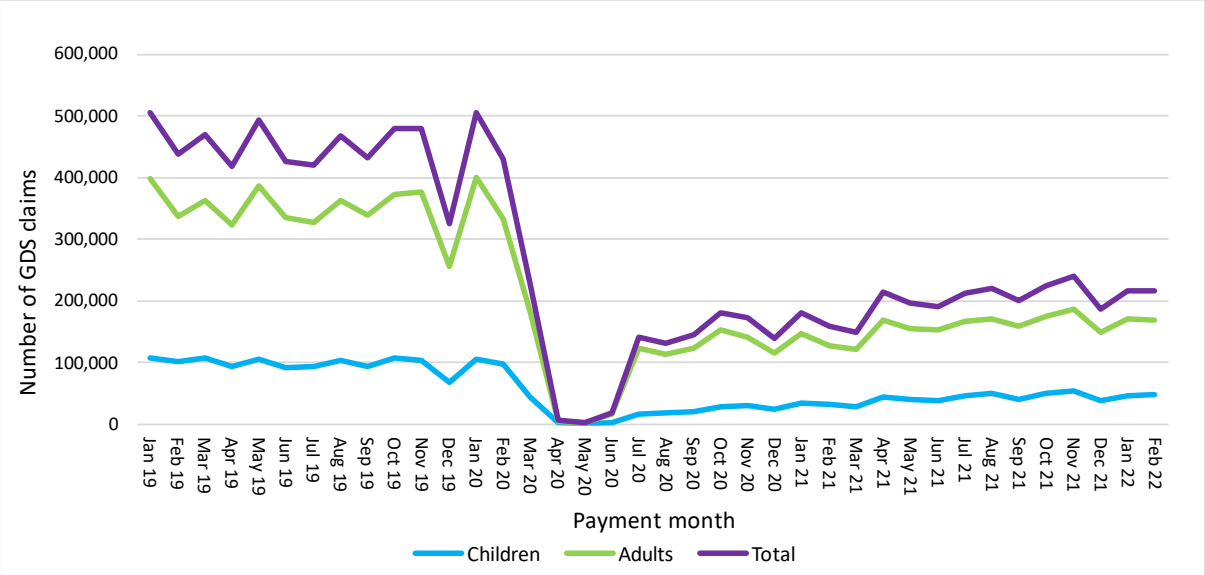


Episodes of Care

In this report, the number of dental claims is used as a proxy for the number of episodes of care.

In March 2020, there was an abrupt drop in the number of GDS episodes of care, coinciding with the beginning of lockdown on 23 March 2020 (Figure 2.2).

Figure 2.2 Number of episodes of care (claims) by payment month; January 2019 to February 2022*



*Note that these figures include triage claims which were not available before June 2020.

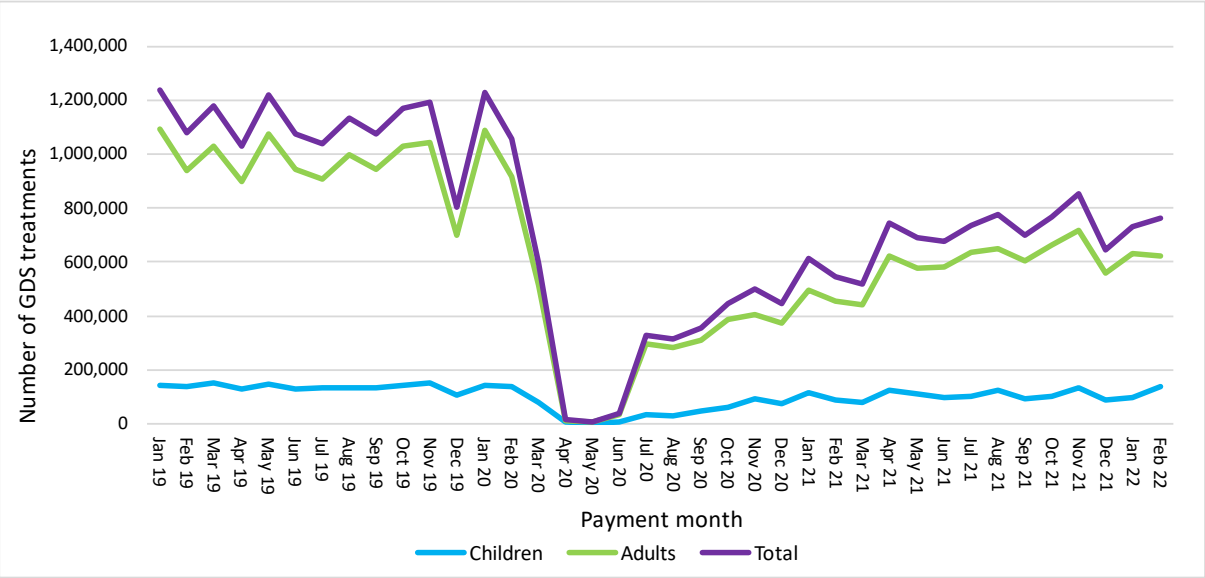
With the remobilisation of GDS practices, there has been some recovery. In line with previous years, there was a drop in the number of episodes of care in the months of December 2020 and December 2021.

Since April 2021, activity has remained higher than 2020 levels but remains less than half of the activity levels observed in 2019. The monthly median number of GDS episodes of care in the most recent three-month period was 44.8% of the pre-pandemic monthly median for children (46,334 - recent; 103,311 - pre-pandemic) and 46.4% for adults (168,397 - recent; 362,833 - pre-pandemic).

GDS Treatments

There was a marked reduction in the number of GDS treatments claimed between March 2020 and July 2020. There has since been some gradual recovery (Figure 2.3).

Figure 2.3 Number of GDS treatments, by payment month; January 2019 to February 2022*



*Note that these figures include triage treatments which were not available before June 2020 (Initial telephone call triage, Advice and closing the case, Advice and prescription, Aerosol generating procedure (AGP), and Non aerosol generating procedure).

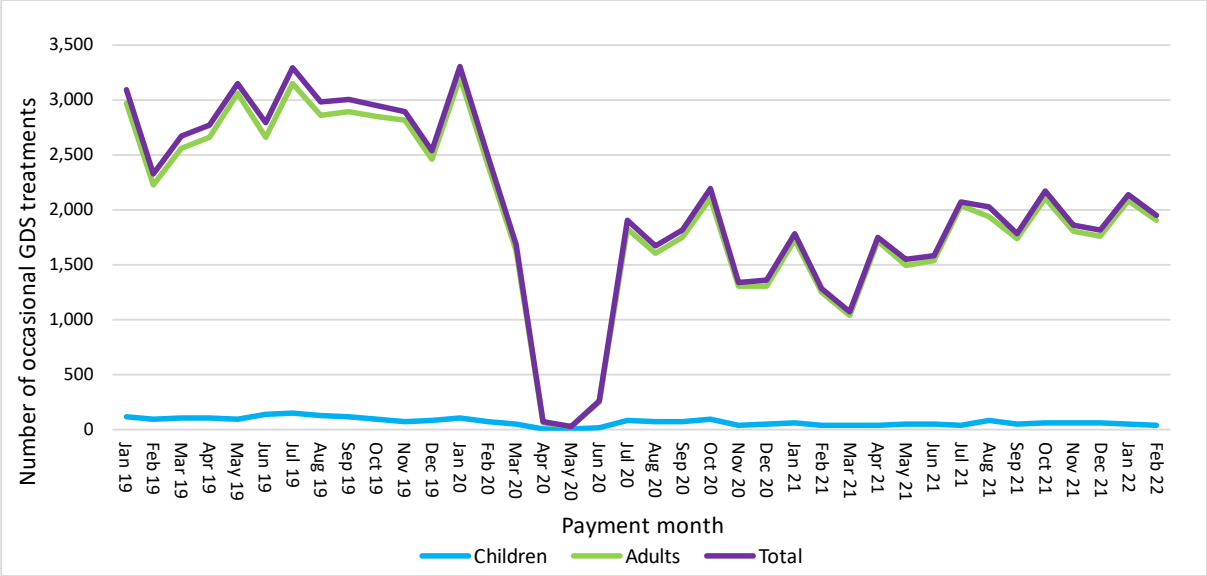
The monthly median number of treatments claimed during the most recent three-month period was 71.1% of the pre-pandemic monthly median for children (99,112 - recent; 139,305 - pre-pandemic) and 62.0% for adults (619,525 - recent; 998,527 - pre-pandemic).

Occasional Treatments

Occasional treatments are claimed when patients are not registered with the dentist delivering care, either because the patient is registered with another dentist or is unregistered - this is often for emergency/unscheduled care.

In line with the total number of dental treatments, occasional activity reduced abruptly in March 2020 and remains below pre-pandemic levels (Figure 2.4).

Figure 2.4 Number of occasional GDS treatments, by payment month; January 2019 to February 2022*



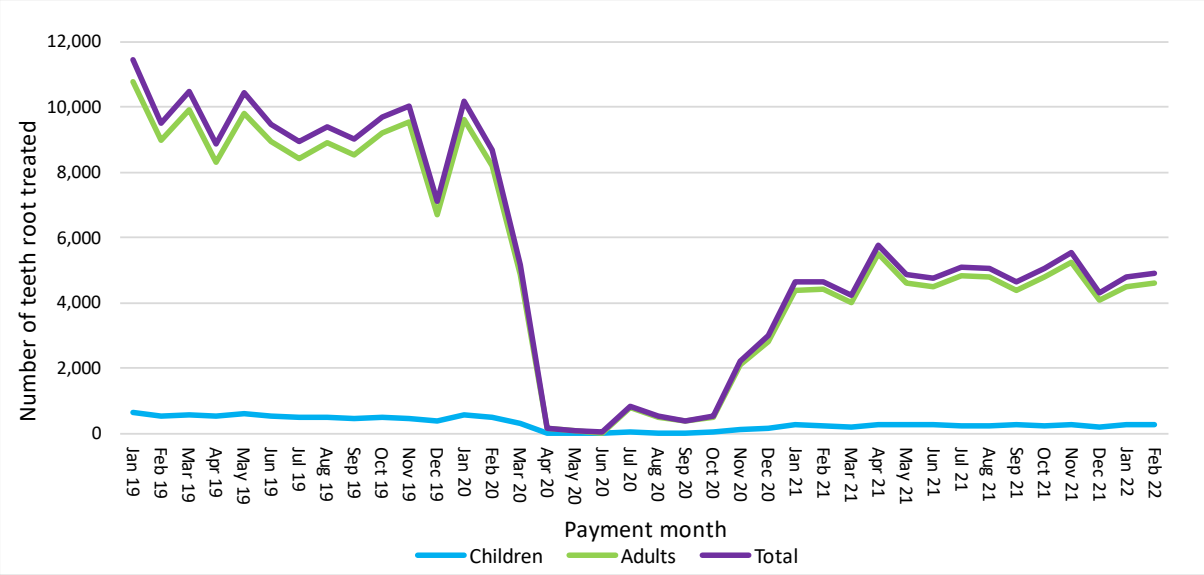
*For triage claims with no corresponding SDR treatment codes, it is not possible to identify whether these were occasional treatments. As a result, data since June 2020 may undercount the number of occasional treatments undertaken.

The monthly median number of occasional treatments in the most recent three-month period was 51.0% of the pre-pandemic monthly median for children (53 - recent; 104 - pre-pandemic) and 66.8% for adults (1,903 - recent; 2,850 - pre-pandemic).

Root Canal Treatments

There was a steep fall in the number of root canal treatments claimed in March 2020 (Figure 2.5).

Figure 2.5 Number of teeth root treated, by payment month; January 2019 to February 2022*



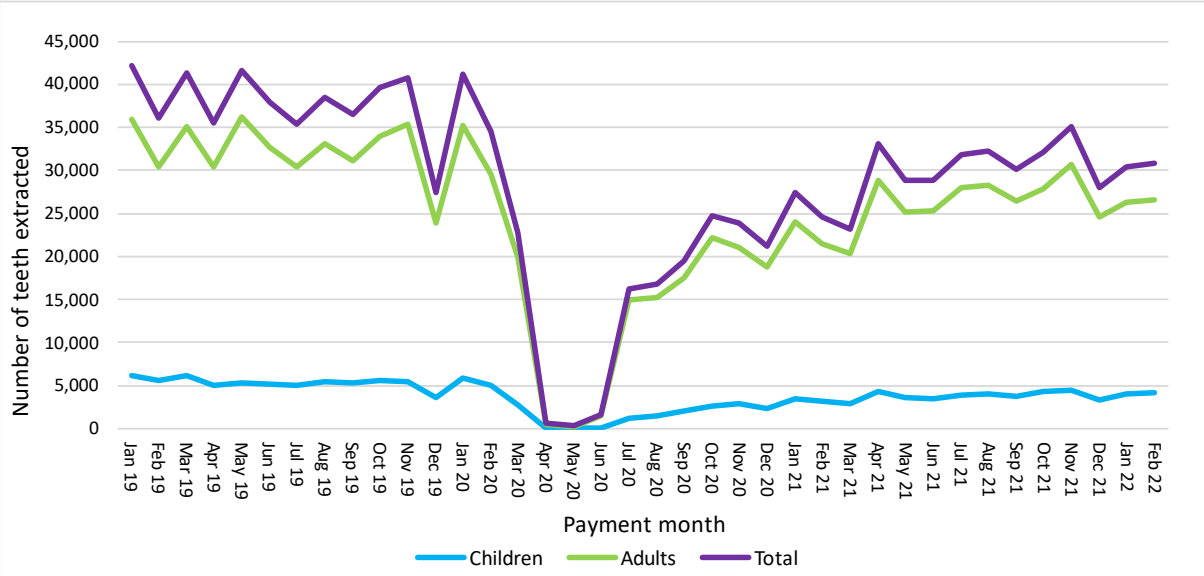
*As the triage codes include undefined AGP and non-AGP procedures, it is not possible to identify which procedures were undertaken unless other SDR treatments are recorded within the claim. Therefore, data reported here may undercount the number of root canal treatments.

The monthly median number of root canal treatments in the most recent three-month period was 50.9% of the pre-pandemic monthly median for children (277 - recent; 544 - pre-pandemic) and 50.3% for adults (4,511 - recent; 8,968 - pre-pandemic).

Tooth Extractions

There was a steep fall in the number of dental extractions claimed in March 2020. There has been a relatively higher level of recovery for dental extractions compared to root canal treatments (Figure 2.6).

Figure 2.6 Number of tooth extractions by GDS, by payment month; January 2019 to February 2022*



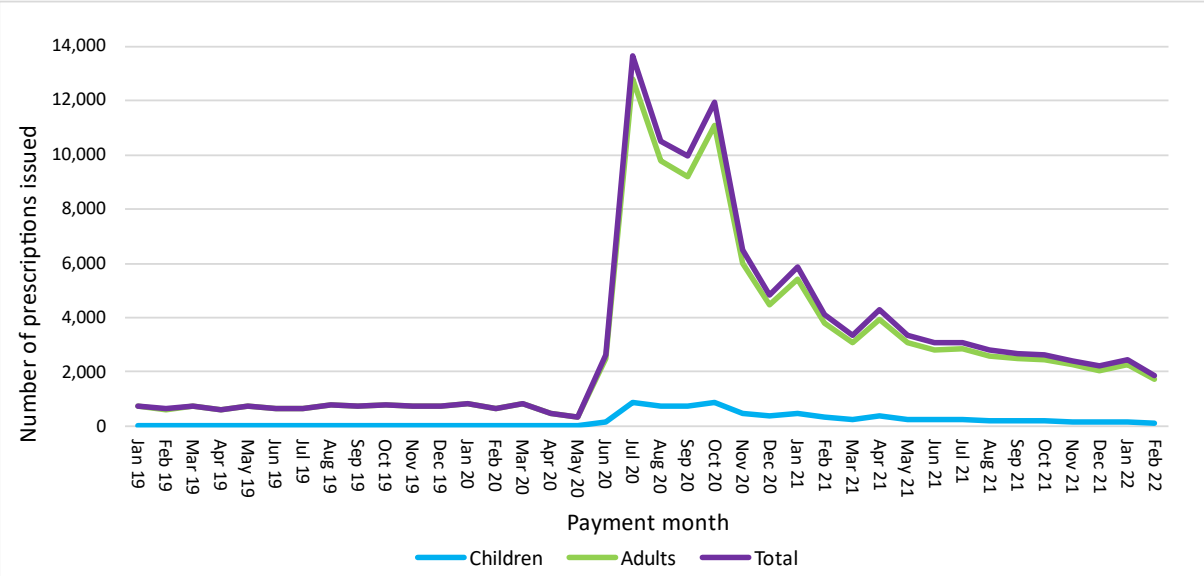
*As the triage codes include undefined AGP and non-AGP procedures, it is not possible to identify which procedures were undertaken unless other SDR treatments are recorded within the claim. As a result, data reported here may undercount the number of extractions.

The monthly median number of extractions in the most recent three-month period was 75.2% of the pre-pandemic monthly median for children (4,068 - recent; 5,410 - pre-pandemic) and 79.4% for adults (26,295 - recent; 33,129 - pre-pandemic).

Prescriptions

Triple AAA (Advice, Analgesics and Antibiotics) prescribing advice was issued during the early days of the pandemic[14]. As a result, there was a spike in the number of prescriptions issued by the GDS during this time (Figure 2.7).

Figure 2.7 Number of prescriptions issued by GDS, by payment month; January 2019 to February 2022



*Note that these figures include triage prescription codes which were not available before June 2020.

Although the numbers of prescriptions issued have since fallen, they remain higher than pre-pandemic levels. The monthly median number of prescriptions issued to children in the most recent three-month period was 156 compared to 0 in the pre-pandemic period. For adults, there was almost a three-fold increase (2,048 - recent; 739 - pre-pandemic).

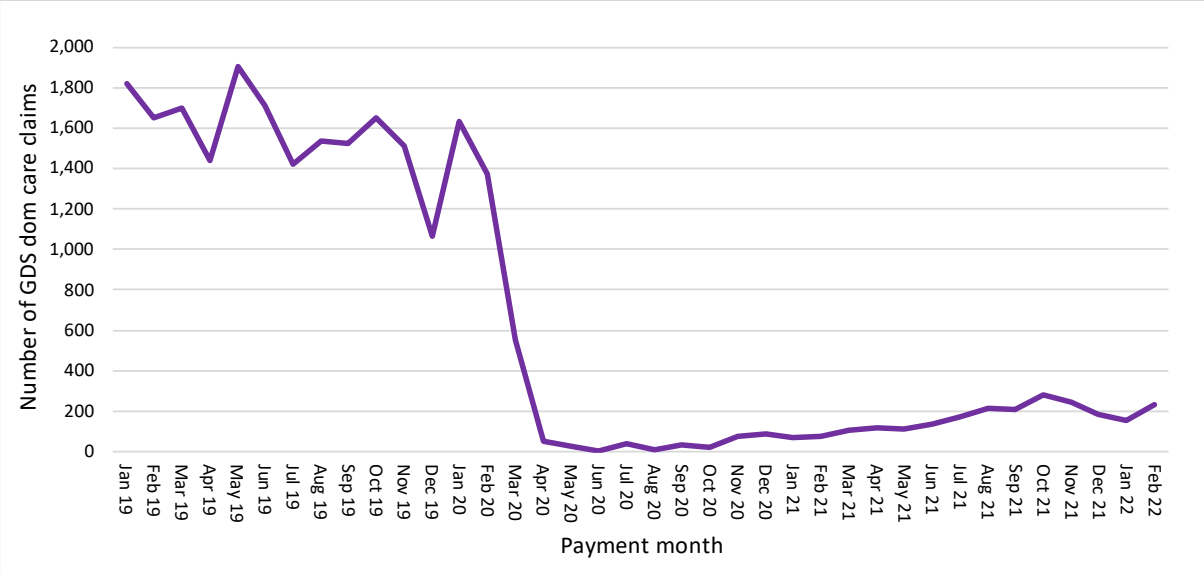
Domiciliary Care Claims

Domiciliary care covers the provision of dental care at a person's temporary or permanent residence (typically in care homes). Dentists can only submit one domiciliary claim per visit irrespective of how many patients were seen. Therefore, the data may undercount the number of patients seen in a domiciliary care setting.

Domiciliary care delivery by GDS varies depending on local arrangements and circumstances within each Health Board.

There has been a reduction in GDS domiciliary care claims since March 2020 (Figure 2.8).

Figure 2.8 Number of GDS domiciliary care claims, by payment month; January 2019 to February 2022



GDS domiciliary care has experienced particularly low activity during the pandemic. The monthly median number of domiciliary care claims in the most recent three-month period is 11.4% of the pre-pandemic monthly median (186 - recent; 1,630 - pre-pandemic).

Public Dental Service

The Public Dental Service (PDS) provides access to primary NHS dental care for patients who cannot obtain treatment from a general dental practice. This includes vulnerable patients such as those living in care homes, people with learning disabilities and those who may have complex needs.

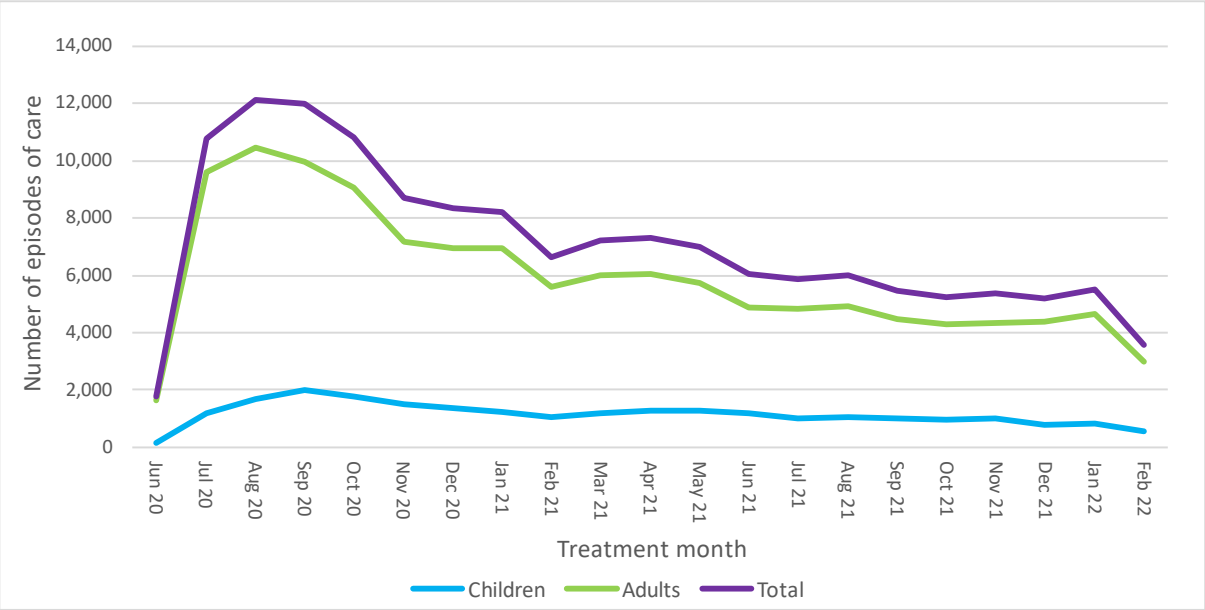
In this report, complexity is measured using the Special Care Need Modified Casemix Tool (mCMT).

Triage Activity

Triage codes were mainly used in the Urgent Dental Care Centres (UDCCs) for emergency treatment but were later utilised in the PDS.

The number of PDS episodes of triage care peaked in August 2020 before showing an overall decline (Figure 3.1).

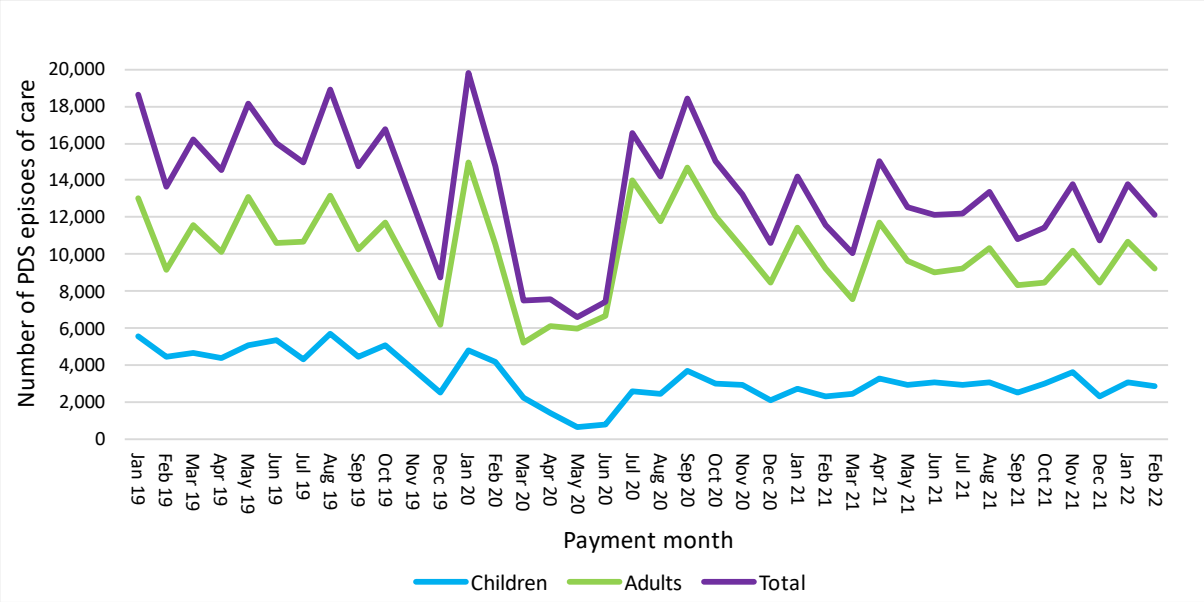
Figure 3.1 Number of PDS episodes of triage care, by month; June 2020 to February 2022



Episodes of Care

Between March 2020 and June 2020, there was a reduction in the number of PDS episodes of care (Figure 3.2).

Figure 3.2 Number of PDS episodes of care, by payment month; January 2019 to February 2022*



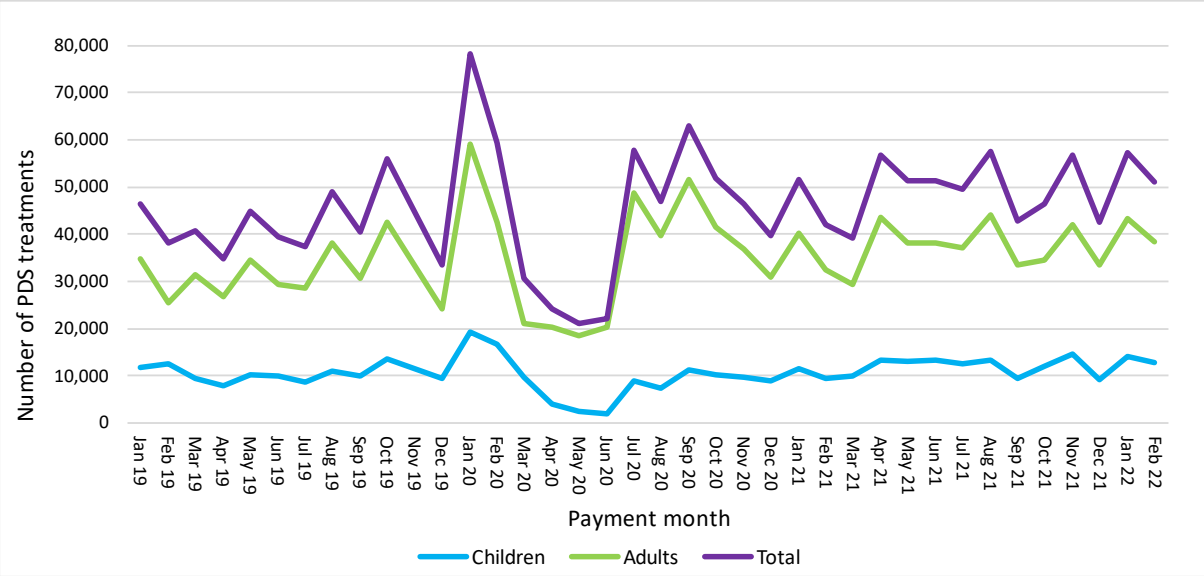
*Note that these figures include triage activity which was not available before June 2020.

The monthly median number of PDS episodes of care in the most recent three-month period is 60.1% of the pre-pandemic monthly median for children (2,899 - recent; 4,826 - pre-pandemic) and 79.8% for adults (9,235 - recent; 11,567 - pre-pandemic).

PDS Treatments

Between March 2020 and June 2020, there was a reduction in the number of treatments undertaken by PDS (Figure 3.3). In contrast to GDS, PDS activity has increased to higher than pre-pandemic levels.

Figure 3.3 Number of PDS treatments, by payment month; January 2019 to February 2022*



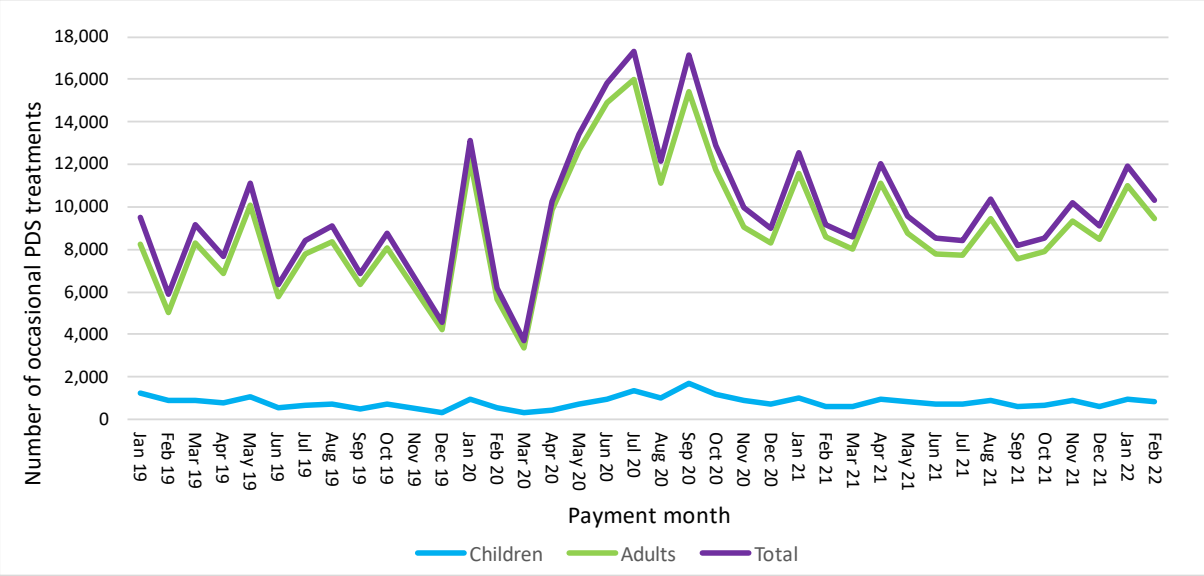
*Note that these figures include triage treatments which were not available before June 2020 (Initial telephone call triage, Advice and closing the case, Advice and prescription, Aerosol generating procedure (AGP), and Non aerosol generating procedure).

The monthly median number of PDS treatments in the most recent three-month period was 24.8% higher than the pre-pandemic monthly median for children (12,883 - recent; 10,325 - pre-pandemic) and 21.9% higher for adults (38,150 - recent; 31,298 - pre-pandemic).

Occasional Treatments

The number of PDS occasional treatments peaked during the pandemic and remains higher than pre-pandemic levels (Figure 3.4).

Figure 3.4 Number of PDS occasional treatments, by payment month; January 2019 to February 2022*



*For triage claims with no corresponding SDR treatment codes, it is not possible to identify whether these were occasional treatments. As a result, the data since June 2020 may undercount the number of occasional treatments undertaken.

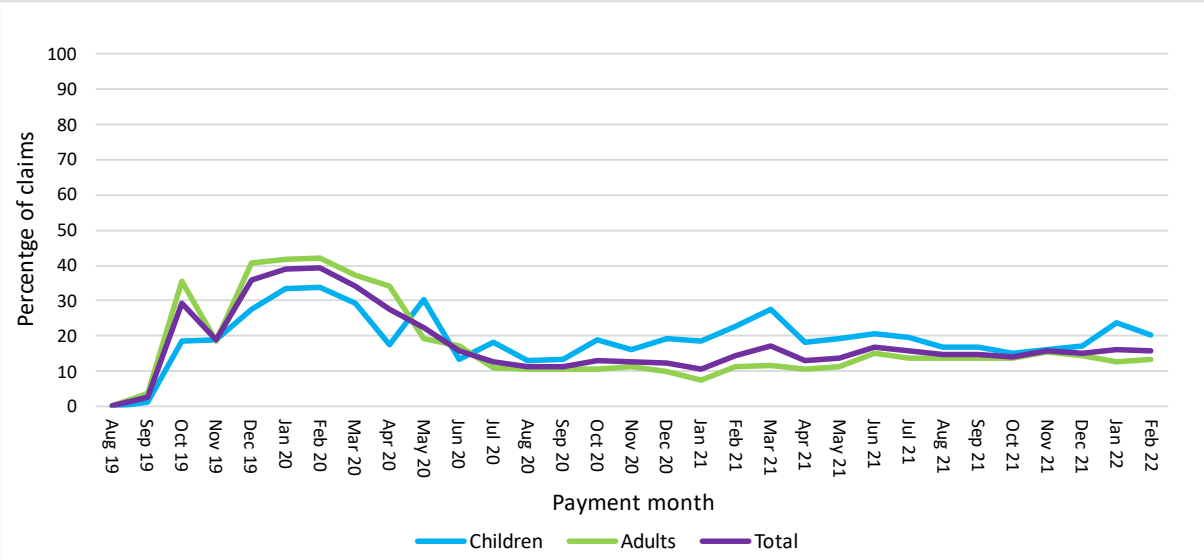
The monthly median number of occasional treatments in the most recent three-month period was 4.1% higher than the pre-pandemic monthly median for children (830 - recent; 797 - pre-pandemic) and 17.4% higher for adults (9,456 - recent; 8,055 - pre-pandemic).

Patient Complexity

The PDS provides access to NHS primary dental care for patients who may have complex needs. Some complex patients are identified using the Special Care Need Modified Casemix Tool (mCMT). The mCMT score was incorporated into dental claims in August 2019.

The percentage of PDS episodes of care that were for complex patients peaked in February 2020 (Figure 3.5). These figures include patients registered with PDS only.

Figure 3.5 Percentage of episodes of care for complex patients, by payment month; August 2019 to February 2022



The monthly median percentage of episodes of care for complex patients in the most recent three-month period was 9.4% higher than the pre-pandemic monthly median for children (20.4% - recent; 18.6% - pre-pandemic (Aug 2019 - Jan 2020)) but 37.7% lower for adults (13.5% - recent; 35.7% - pre-pandemic (Aug 2019 - Jan 2020)).

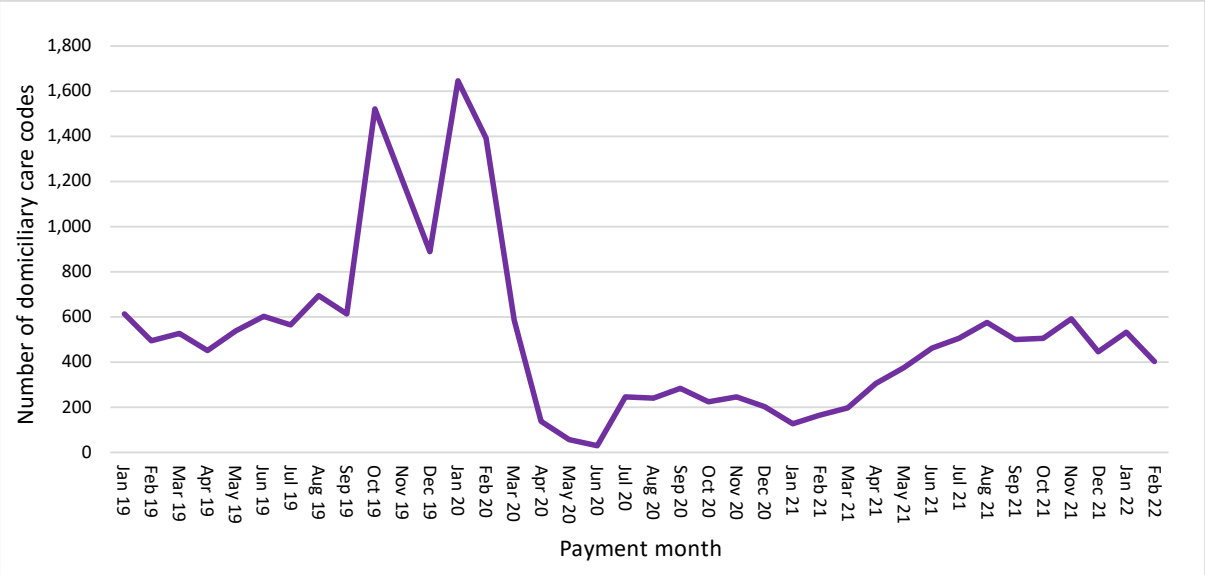
Domiciliary Care

Domiciliary care delivery varies depending on local arrangements and circumstances within each Health Board.

Dentists can only submit one domiciliary code per visit irrespective of how many patients were seen. Therefore, the data may undercount the number of patients seen in a domiciliary care setting.

Following a general increase in domiciliary care activity during 2019 and early 2020, there was an abrupt drop in March 2020 (Figure 3.6). PDS domiciliary care gradually approached pre-pandemic levels by November 2021, though has declined in recent months.

Figure 3.6 Number of PDS domiciliary care codes, by payment month; January 2019 to February 2022



The monthly median level of domiciliary care in the most recent three-month period was 72.5% of the pre-pandemic monthly median (443 - recent; 611 - pre-pandemic).

Hospital Dental Service

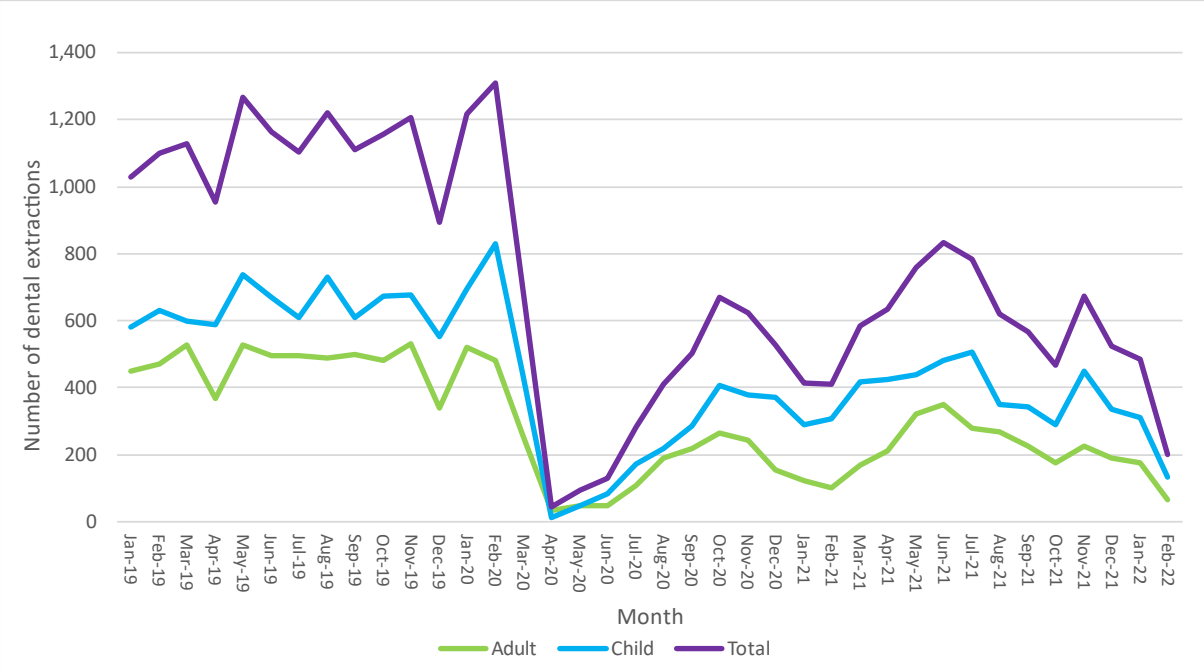
Hospital Dental Service (HDS) is a secondary care service which accepts patients on referral from medical and dental practitioners. In the HDS, patients can be either treated in outpatient clinics or, depending on what treatment is required, admitted as an inpatient or a day case[15].

HDS Dental Extractions

Prior to the pandemic, dental extraction under general anaesthetic was the most common reason for elective hospital admissions in children[16].

The number of HDS dental extractions reduced during the first national lockdown and remains below pre-pandemic levels (Figure 4.1).

Figure 4.1 Number of HDS dental extractions, by month; January 2019 to February 2022*



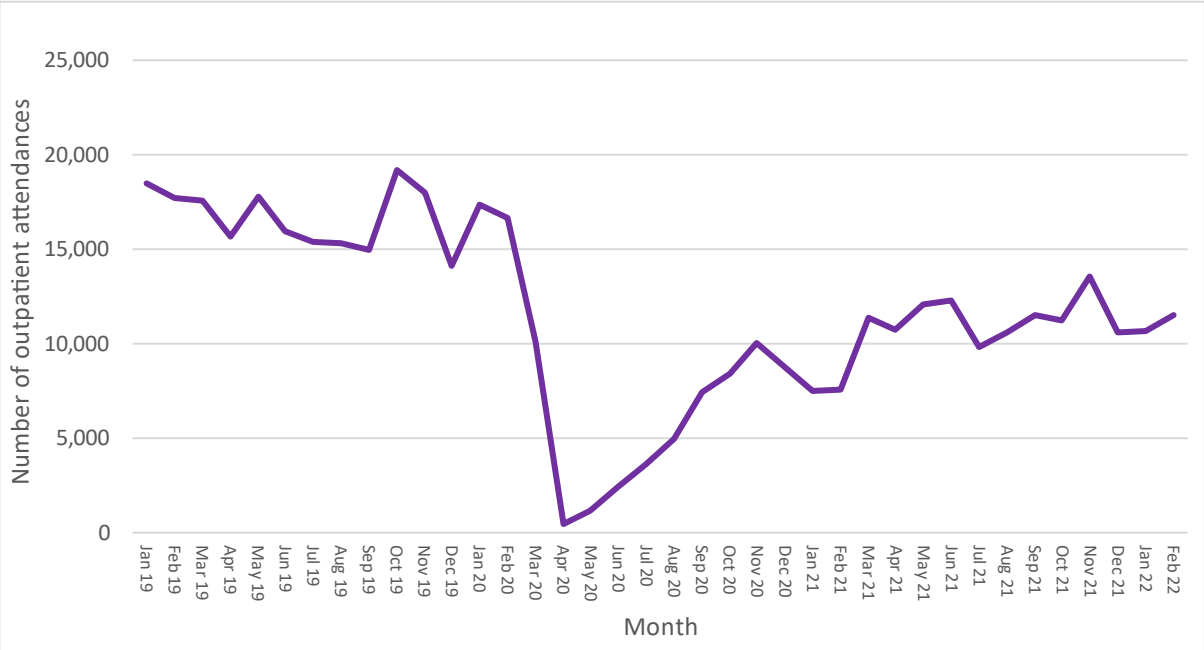
*Data for the last 3 months may not be complete due to submissions still pending

The monthly median number of HDS dental extractions in the most recent three-month period is 49.2% of the pre-pandemic monthly median for children (310 - recent; 630 - pre-pandemic) and 35.4% of the pre-pandemic monthly median for adults (175 - recent; 494 - pre-pandemic).

New Outpatient Attendances for Dental Specialties

The number of new dental consultations (for all dental specialties) in hospital outpatient clinics dropped in March 2020. There has been some recovery (Figure 4.2).

Figure 4.2 Number of New Outpatient Attendances for Dental Specialties, by month; January 2019 to February 2022*



*Data for the last 3 months may not be complete due to submissions still pending

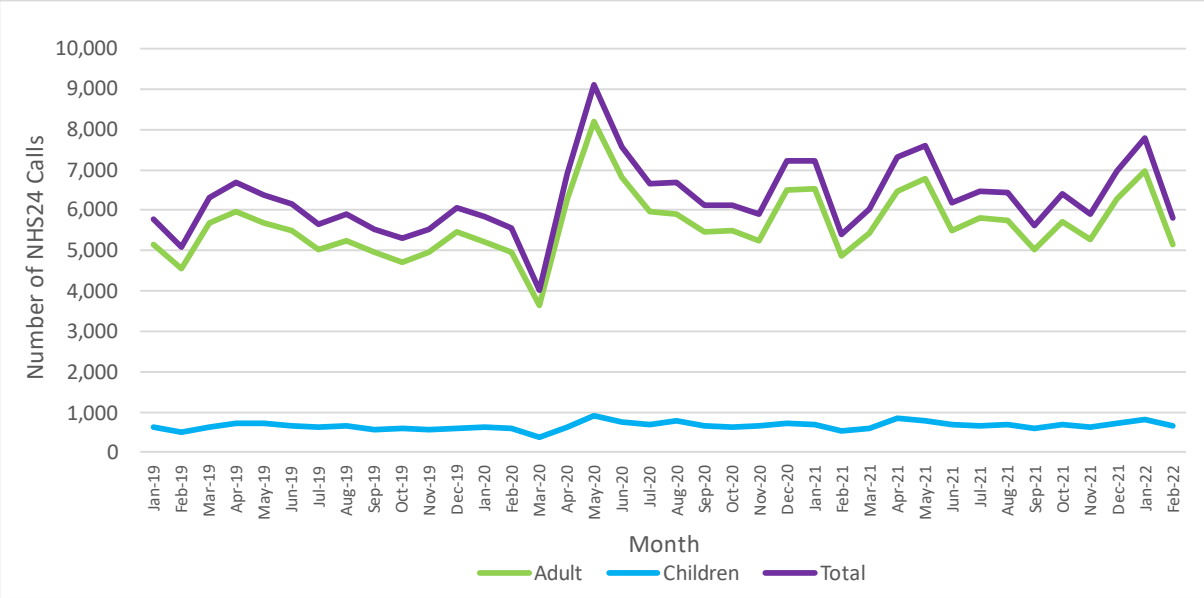
The monthly median number of dental consultations in the most recent three-month period is 61.5% of the pre-pandemic monthly median (10,674 - recent; 17,349 - pre-pandemic).

Out of Hours - NHS24 Dental Calls

NHS24 is Scotland's national telehealth and telecare organisation, one of Scotland's seven special health boards and includes two types of services: NHS Inform and the 111 Service. The 111 service provides urgent care and advice when GP, pharmacy, or dental practices are closed[17].

There was an increase in the number of NHS 24 111 calls relating to dental care during the early days of the pandemic (Figure 5).

Figure 5 Number of NHS24 111 calls, by month; January 2019 to February 2022



The monthly median number of NHS24 111 dental calls during the most recent three-month period was higher than the pre-pandemic monthly median by 15% for children (714 - recent; 621 - pre-pandemic) and 20.6% higher for adults (6,270 - recent; 5,199 - pre-pandemic).

Oral Health Improvement Programmes

In Scotland, there are five national oral health improvement programmes targeted at various priority groups across the life course. These include Childsmile (for children), Smile4life (for people experiencing homelessness), Mouth Matters (for prisoners), Open Wide (for adults with additional care needs) and Caring for Smiles (for dependent older people). Data are currently available for Childsmile and Caring for Smiles.

Childsmile

The impact of the COVID-19 pandemic on children's oral health in Scotland is not yet fully known or understood. The National Dental Inspection Programme (NDIP) in Scotland provides both annual population epidemiological data on primary school age children (Primary 1 (5-year-olds) and Primary 7(11-year-olds)), as well as identifying urgent dental needs among individual children and directing them into appropriate dental care. NDIP data had shown a continuous population improvement in child oral health in recent years[18]. However, due to the pandemic, this programme was paused in the school year 2020-21 and it will only partially be restarted in the school year 2021-22.

The improvements in Scotland's child oral health population observed for over a decade have been shown to be driven by the world leading national child oral health improvement programme for Scotland (Childsmile)[19,20]. However, this multifaceted public health improvement programme delivered in nurseries and schools (daily supervised toothbrushing and fluoride varnishing), in communities (dental health support workers) and in primary care dental practices (clinical dental prevention) has been paused through the pandemic.

Revised guidance and protocols have been produced to support the recovery of this programme. The return of Childsmile is reliant on partnerships between NHS dental services and local authority education departments. While Scottish Government national guidance for education establishments [21,22] does enable dental services to go into these settings, there has been variation in local interpretation and opportunity

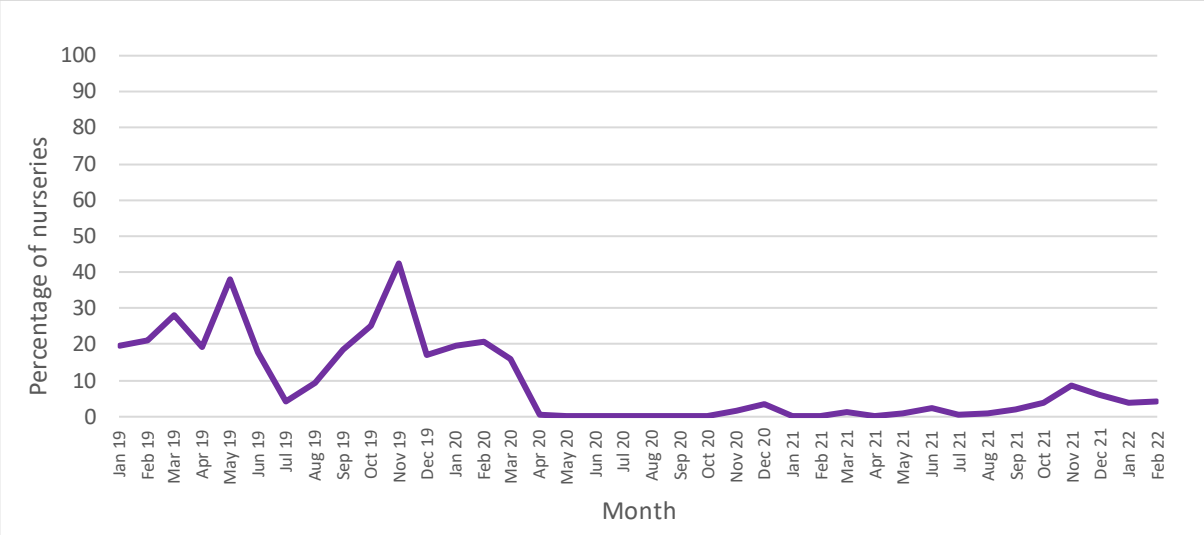
(e.g. staff redeployment and localised outbreaks of infection) impacting on the restart of Childsmile and NDIP programmes in nurseries and schools.

The impact of COVID-19 on the Childsmile programme has been examined in this report by assessing the number of Childsmile toothbrushing monitoring nursery visits and the number of nurseries participating in fluoride varnishing across Scotland. It is important to note that the number of Childsmile toothbrushing monitoring nursery visits do not indicate whether supervised daily toothbrushing is happening in nurseries (this will be known at the end of the school year), however, it does give an indication of the routine Childsmile programme monitoring activities both pre- and since the pandemic started.

Childsmile toothbrushing monitoring visits to nurseries

Figure 6.1 presents data on Childsmile toothbrushing monitoring visits to nurseries. Monitoring visits are limited to term time and nurseries typically receive one visit per term.

Figure 6.1 Percentage of nurseries receiving a Childsmile toothbrushing monitoring visit, by month; February 2019 to February 2022



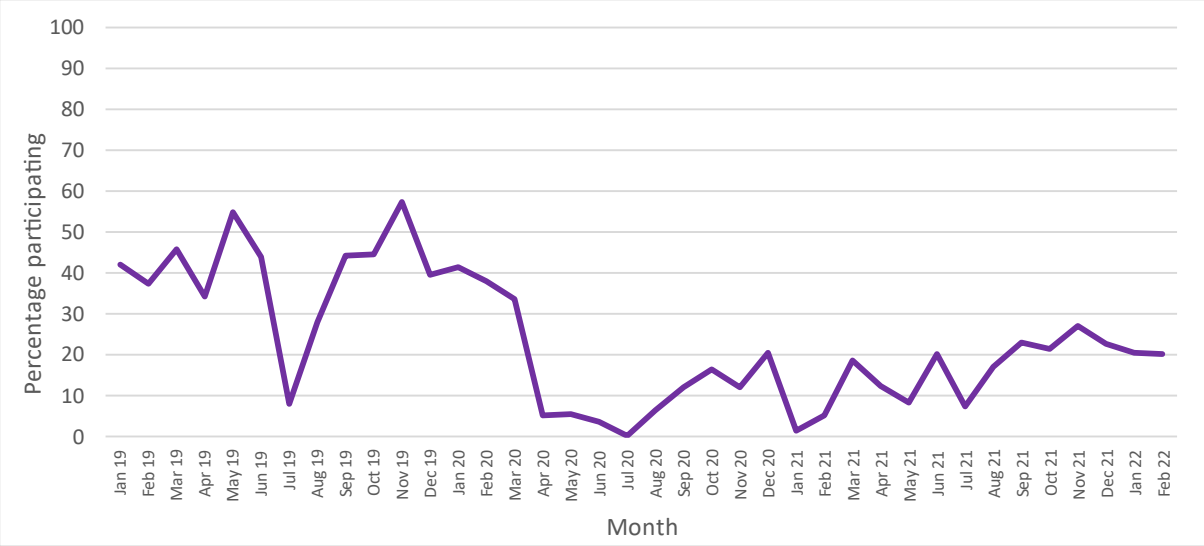
Source: University of Dundee Health Informatics Centre Childsmile database

The monthly median percentage of nurseries visited for toothbrushing monitoring for the most recent three-month period is 20.8% of the pre-pandemic monthly median (4.1% - recent; 19.5% - pre-pandemic).

Childsmile Fluoride Varnishing in nurseries

Figure 6.2 presents the percentage of nurseries that participated in fluoride varnishing each month.

Figure 6.2 Percentage of nurseries participating in fluoride varnishing, by month; January 2019 to February 2022



Source: University of Dundee Health Informatics Centre Childsmile database

The monthly median percentage of nurseries visited for fluoride varnishing for the most recent three-month period is 48.8% of the pre-pandemic monthly median (20.6% - recent; 42.1% - pre-pandemic).

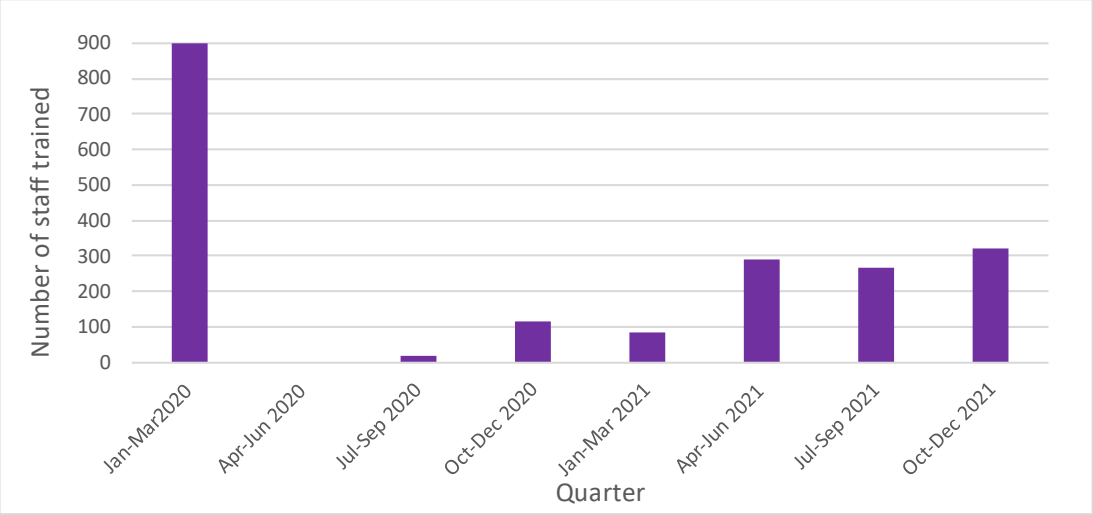
Caring for Smiles

Caring for Smiles provides training and support to health and social care staff in delivering daily oral care to dependent older people. The training includes non-accredited and Scottish Credit and Qualifications Framework (SCQF) accredited training. This is usually in-person training delivered within care homes or other central venues and can include classroom-based learning, practical demonstrations, reflective practice accounts and a final direct observation of practice.

Over the course of the pandemic as in-person training has been paused, other methods such as online training and training videos have also been utilised. Staff trained across the course of the pandemic included care home staff, care at home staff, supported living staff, NHS staff, student nurses, organisations for people with learning disabilities and their families and a healthcare support worker academy.

Quarterly training figures are obtained from oral health improvement teams in NHS Boards across Scotland. In the financial year 2019/2020, 2,623 health and social care staff were trained, with 890 being trained in the quarter immediately before the pandemic (Figure 7.1). In the early period of the pandemic no staff were trained. This slowly began to increase until December 2020 but fell during the second lockdown in January to March 2021. In total, 218 staff were trained in the financial year 2020/2021. From April 2021 the number of staff trained has shown some recovery.

Figure 7 Caring for Smiles - Number of Health and Social Care staff trained in Scotland



Source: Caring for Smiles Programme, via Oral Health Improvement Teams in NHS Boards

Glossary

Caring for Smiles

National oral health improvement programme for dependent older people in Scotland.

Childsmile

National oral health improvement programme for children in Scotland.

MIDAS

Management Information & Dental Accounting System. Computerised payment system for GDS and PDS dentists.

SIMD

Scottish Index of Multiple Deprivation. Data in this report are analysed by the 'Scotland level' Scottish Index of Multiple Deprivation (SIMD) population-weighted quintiles. Each quintile consists of approximately 20% of the population living in Scotland, where SIMD 1 represents the 20% of the population living in the most deprived areas and SIMD 5 represents the 20% living in the least deprived areas.

Triage Activity Codes

Triage activity codes were not claimed prior to June 2020 and were brought in during the COVID-19 pandemic for use initially in the Urgent Dental Care Centres but were also then used in GDS and PDS as services remobilised. These codes cover some items which could be considered emergency treatment, including telephone triage, advice, and prescription.

Methods:

Calculated Median

The calculated median value is used for comparison between the 13 pre-pandemic months (January 2019 to January 2020) and the most recent three-month period in the pandemic (December 2021 to February 2022). The use of median month activity in these periods was considered a better measure of the average level of activity during each period than comparing activity in individual calendar months (e.g. January 2022 with January 2020).

In November 2019, PDS activity going back to 2012 was uploaded into MIDAS resulting in a spike in activity for that payment month. Therefore, PDS figures for November 2019 are omitted from this report. As a result, for PDS, the median is calculated as the highest between the 6th and 7th middle values in the pre-pandemic median.

Slope Inequality Index

One of the recommended tests of absolute health inequality, as it reflects the entire socioeconomic status distribution and weights for the population share in the respective groups. SII may be interpreted as the absolute difference overall in the median monthly numbers of primary care dental contacts when moving across the SIMD categories and is indicative of the total experience of individuals in the whole population.

Relative Inequality Index

One of the recommended tests of relative health inequality, as it reflects the entire socioeconomic status distribution and weights for the population share in the respective groups. RII can be interpreted as the relative difference overall in the median monthly numbers of primary care dental contacts when moving across the SIMD categories. It can be calculated by dividing the SII by the weighted mean of the median numbers of primary care dental contacts in the population.

References

1. SPICE (2022) Timeline of Coronavirus (COVID-19) in Scotland. Available: **https://spice-spotlight.scot/2022/03/18/timeline-of-coronavirus-covid-19-in-scotland/** [Accessed March 2022]
2. WHO (2020) World Health Organisation: Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. Available: **https://www.who.int/director-general/speeches/detail/** [Accessed March 2022]
3. National Infection Prevention and Control Manual (NIPCM): Winter (21/22), Respiratory Infections in Health and Care Settings Infection Prevention and Control (IPC) Addendum **https://www.nipcm.hps.scot.nhs.uk/winter-2122-respiratory-infections-in-health-and-care-settings-infection-prevention-and-control-ipc-addendum/** [Accessed April 2022]
4. Chief Nursing Officer: De-escalation of COVID-19 infection prevention and control (IPC) measures in Health and Social Care settings to alleviate system pressures. Available: **https://www.sehd.scot.nhs.uk/dl/DL(2022)07.pdf** [Accessed April 2022]
5. Chief Dental Officer & Dentistry Division: Remobilisation of NHS Dental Services in Scotland. Available: **https://www.scottishdental.org/wp-content/uploads/2020/05/CDO-Letter-Remobilisation-of-NHS-Dental-Services-20-May-2020.pdf** [Accessed April 2022]
6. Chief Dental Officer & Dentistry Division: Remobilisation of NHS Dental Services in Scotland. Available: **https://www.scottishdental.org/wp-content/uploads/2020/06/NHS-Dentistry-Remobilisation-letter-18-June-2020.pdf** [Accessed April 2022]
7. Chief Dental Officer & Dentistry Division: Phase 3 – Remobilisation. Available:**https://www.scottishdental.org/wp-content/uploads/2020/06/DC20200624RemobilisationPhase3.pdf** [Accessed April 2022]
8. Dentistry & Optometry Division: the future of NHS dental services. Available: **https://www.scottishdental.org/wp-content/uploads/2020/10/CDO-Letter-NHS-Dental-Remobilisation-12-October-2020.pdf** [Accessed April 2022]

9. Chief Nursing Officer: De-escalation of COVID-19 infection prevention and control (IPC) measures in Health and Social Care settings to alleviate system pressures. Available: **https://www.scottishdental.org/wp-content/uploads/2022/04/DL202207.pdf** [Accessed April 2022]
10. Scottish Dental: CDO(2022)2 – CDO Letter – Updated Standard Operating Procedures (SOP). Available: **https://www.scottishdental.org/cdo20222-cdo-letter-updated-standard-operating-procedures-sop/** [Accessed April 2022]
11. Public Health Scotland (PHS): Scottish Index of Multiple Deprivation (SIMD). Available: **www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/** [Accessed April 2022]
12. Public Health Scotland (PHS) Dental statistics - registration and participation: Statistics as at 30 September, 2021. Available at: **https://publichealthscotland.scot/publications/dental-statistics-registration-and-participation/dental-statistics-nhs-registration-and-participation-25-january-2022/** [Accessed March 2022]
13. Scottish Dental: STATEMENT OF DENTAL REMUNERATION - AMENDMENT NO. 144. Available at: **https://www.scottishdental.org/wp-content/uploads/2020/06/Amendment-No-144.pdf** [Accessed April 2022]
14. Chief Dental Officer & Dentistry Division: Practices should operate on an Advice: Analgesia: Anti-microbial basis. Available at: **https://www.scottishdental.org/wp-content/uploads/2020/03/CDO-Letter-Cessation-of-Routine-Dental-Care-Further-Advice-23-March-2020.pdf** [Accessed April 2022]
15. Public Health Scotland. Hospital Dental Service, 2020. Available at **https://www.isdscotland.org/Health-Topics/Dental-Care/Hospital-Dental-Service/** [Accessed March 2022]
16. Moles DR, Ashley P. Hospital admissions for dental care in children: England 1997-2006. British dental journal. 2009 Apr;206(7): E14-E14. [Accessed April 2022]
17. National Health Service (NHS24) NHS 111 and NHS inform, 2022. Available at: **https://www.nhs24.scot/** [Accessed April 2022]

18. National Dental Inspection Programme (NDIP) 2020 Report. Public Health Scotland, 2020. **https://www.scottishdental.org/wp-content/uploads/2020/10/2020-10-20-ndip-report.pdf** [Accessed March 2022]
19. Childsmile. Childsmile – improving the oral health of children in Scotland, 2022: Available at: **http://www.child-smile.org.uk/** [Accessed March 2022]
20. Macpherson LM, Anopa Y, Conway DI, McMahon AD. National supervised toothbrushing program and dental decay in Scotland. Journal of dental research. 2013 Feb;92(2):109-13. [Accessed April 2022]
21. Scottish Government. Coronavirus (COVID-19): guidance on reducing the risks in schools, 2021. Available at: **https://www.gov.scot/publications/coronavirus-covid-19-guidance-on-reducing-the-risks-in-schools/documents/** [Accessed March 2022]
22. Scottish Government. Coronavirus (COVID-19): early learning and childcare services, 2022. Available at: **https://www.gov.scot/publications/coronavirus-covid-19-early-learning-childcare-services** [Accessed March 2022]

Acknowledgements

COVID-19 Dental Recovery Analysis group

Abodunrin Aminu (University of Glasgow/PHS), Raymond Braid (PHS), Caroline Buchanan (PHS), Claire Clark (PHS), David Conway (PHS/University of Glasgow), Shauna Culshaw (University of Glasgow), Maura Edwards (PHS/NHS Ayrshire & Arran), Megan Gorman (PHS), William Mackay (University of West of Scotland), Ahmed Mahmoud (PHS), Alex McMahon (University of Glasgow/PHS), Andrea Sherriff (University of Glasgow/PHS), Chris Watling (PHS).

Contributions from

Leigh Deas (NHS Ayrshire & Arran), Peter King (NHS Lanarkshire), Lorna Macpherson (NDIP), Sara McDonald (PHS), Deborah Sigerson (PHS), William Wright (University of Glasgow).

Contact

Ahmed Mahmoud
Principal Information Analyst
Public Health Scotland
phs.dental-info@phs.scot

David Conway
Honorary Consultant in Dental Public Health
Public Health Scotland
phs.dental-info@phs.scot

For all media enquiries please email **phs.comms@phs.scot** or call 0131 275 6105.

Further information

Further information and data for this publication are available from the **publication page** on our website.

The next release of this publication is scheduled for 2023.

Rate this publication

Let us know what you think about this publication via. the link at the bottom of this **publication page** on the PHS website.

Appendices

Appendix 1 – Methodology

Data Extraction

Data are extracted from MIDAS. Claim forms are submitted by dentists after the completion of a course of treatment (but must be received by **Practitioner Services Division** (PSD; now part of Practitioner & Counter Fraud Services) within three months of the completion date of treatment). As a result, dental activity may take several months to be included in MIDAS.

Missing/Invalid Postcodes

If a patient's postcode is missing or invalid, these cannot be matched to a SIMD quintile. Similarly, a number of postcodes do not have full deprivation information attached to them. This can be the case if the postcode has been deleted or is a large user postcode (allocated to single addresses receiving at least 500 mail items per day (e.g. business addresses)).

When analysing Scotland level data, patients with postcodes where deprivation information is unknown are **included**. However, these are **omitted** from the SIMD level figures presented within the main body of the publication and footnoted accordingly.

As a result, care should be taken when interpreting SIMD data. These may by undercounted as data for missing or invalid postcodes cannot be distributed across the relevant SIMD categories.

Appendix 2 – Population Estimates

All rates in this release are based on the 2020 population mid-year population estimates as these were the most recently available at the time of publication.

Population estimates should be treated with caution as there are potential issues that may arise when using the estimates as denominators, including short term migrants who had not been accounted for in the estimated population may be treated by an NHS dentist and therefore counted in the numerator.

Appendix 3 – Publication metadata

Publication title

The impact of COVID-19 on NHS dental services and oral health in Scotland: Annual Report

Description

This release provides information on NHS dental activity between January 2019 and February 2022

Theme

Dental health care

Topic

Dental health care

Format

Excel workbooks

Data source(s)

MIDAS, NRS, SMR01, SMR00, NHS24, Childsmile Programme, Caring for Smiles Programme

Date that data are acquired

March 2022

Release date

26 April 2022

Frequency

Annual

Timeframe of data and timeliness

The latest data is from February 2022, therefore two months in arrears.

Continuity of data

Annual

Revisions statement

n/a

Revisions relevant to this publication

n/a

Concepts and definitions

Methods:

Calculated Median, Slope Inequality Index, Relative Inequality Index – see glossary for definitions

Relevance and key uses of the statistics

A Management Information release for Scotland

Accuracy

[Insert details about the accuracy of these statistics]

Completeness

[Insert details about the completeness of these statistics]

Comparability

[Insert details about how these statistics can be compared]

Accessibility

It is the policy of Public Health Scotland to make its web sites and products accessible according to published guidelines. More information on accessibility can be found on the **PHS website**.

Coherence and clarity

[Insert details about how the coherence and clarity of this publication]

Value type and unit of measurement

[Insert details about the value types and unit of measurement used within this publication]

Disclosure

[Insert details about disclosure levels of risk in relation to this publication]

Official Statistics designation

Management Statistics

UK Statistics Authority Assessment

n/a

Last published

n/a

Next published

April 2023

Date of first publication

26 April 2022

Help email

phs.dental-info@phs.scot

Date form completed

07 April 2022

Appendix 4 – Early access details

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", PHS is obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

Jennifer Rodgers (NHS Forth Valley) **jennifer.rodgers@nhs.scot**

Gill Sinclair (NHS 24) **gill.sinclair@nhs24.scot.nhs.uk**

Standard Pre-Release Access:

Scottish Government Health Department

NHS Board Chief Executives

NHS Board Communication leads

Early Access for Management Information

These statistics will also have been made available to those who needed access to ‘management information’, ie as part of the delivery of health and care:

Early Access for Quality Assurance

These statistics will also have been made available to those who needed access to help quality assure the publication:

Appendix 5 – PHS and Official Statistics

About Public Health Scotland (PHS)

PHS is a knowledge-based and intelligence driven organisation with a critical reliance on data and information to enable it to be an independent voice for the public's health, leading collaboratively and effectively across the Scottish public health system, accountable at local and national levels, and providing leadership and focus for achieving better health and wellbeing outcomes for the population. Our statistics comply with the **Code of Practice for Statistics** in terms of trustworthiness, high quality and public value. This also means that we keep data secure at all stages, through collection, processing, analysis and output production, and adhere to the '**five safes**'.