

The Impact of the COVID-19 Pandemic on the Offer of Dental Care in the Public Service of a Brazilian Medium-Sized County

Impacto da Pandemia pela COVID-19 na Oferta de Atendimento Odontológico pela Rede Pública em um Município Brasileiro de Médio Porte

El Impacto de la Pandemia de COVID-19 en la Prestación de Atención Odontológica en el Servicio Público de un Municipio Brasileño de Mediano Porte

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Abstract

Objective: This study sought to assess the reduction in the offer of dental care by the public service, during the COVID-19 pandemic, in the municipality of Alfenas/MG.

Method: Consultation of public data by DATASUS according to a historical series (2015 to 2019) and the pandemic period (2020 to June 2021), which were tabulated and integrated. Descriptive statistics were obtained and application of the Shapiro-Wilk and Wilcoxon-Mann-Whitney statistical tests with 5% significance ($p < 0.05$) were performed. **Results:** Through two comparisons (historical series and pandemic period; and only 2019 and the pandemic period), there was a significant reduction of procedures offered. Restorative procedures and collective and preventive ones were the most affected with increase in invasive and/or mutilating procedures. It was also noticed a decrease in preventive procedures since 2019 and collective since 2017. **Conclusion:** The COVID-19 pandemic negatively impacted the offer and type of dental care offered by the public health system in Alfenas/MG.

Descriptors: COVID-19; Dental Health Services; Unified Health System; Delivery of Health Care.

Resumo

Objetivo: Avaliar a redução na oferta de atendimentos odontológicos pelo serviço público, durante a pandemia pela COVID-19, no município de Alfenas/MG. **Método:** Consulta de dados públicos pelo DATASUS conforme série histórica (2015 a 2019) e período pandêmico (2020 até junho de 2021), seguida de tabulação e integralização dos dados. Obtenção de estatísticas descritivas e aplicação dos testes estatísticos de Shapiro-Wilk e Wilcoxon-Mann-Whitney com 5% de significância ($p < 0,05$). **Resultados:** Por duas comparações (entre série histórica e período pandêmico; e apenas 2019 e o período pandêmico) percebeu-se redução significativa procedimentos ofertados. Procedimentos restauradores e de ordem coletiva e preventiva foram os mais afetados, bem como aumento perceptível em procedimentos invasivos e/ou mutiladores no período pandêmico. Destaca-se a queda nos procedimentos preventivos desde 2019 e dos coletivos desde 2017. **Conclusão:** A pandemia pela COVID-19 impactou negativamente na oferta e no tipo de atendimentos odontológicos ofertados pelo sistema público municipal em Alfenas/MG.

Descritores: COVID-19; Serviços de Saúde Bucal; Sistema Único de Saúde; Atenção à Saúde.

Resumen

Objetivo: Este estudio buscó evaluar la reducción en la oferta de atención odontológica por parte del servicio público, durante la pandemia de COVID-19, en el municipio de Alfenas/MG. **Método:** Consulta de datos públicos por DATASUS según serie histórica (2015 a 2019) y periodo de pandemia (2020 a junio de 2021), los cuales fueron tabulados e integrados. Se obtuvieron estadísticas descriptivas y se aplicaron las pruebas estadísticas de Shapiro-Wilk y Wilcoxon-Mann-Whitney con un 5% de significancia ($p < 0,05$). **Resultados:** A través de dos comparaciones (serie histórica y periodo de pandemia; y solo 2019 y periodo de pandemia), hubo una reducción significativa de trámites ofertados. Los procedimientos restaurativos y colectivos y preventivos fueron los más afectados con aumento de procedimientos invasivos y/o mutilantes. También se observó una disminución en los procedimientos preventivos desde 2019 y colectivos desde 2017. **Conclusión:** La pandemia de COVID-19 impactó negativamente la oferta y el tipo de atención odontológica ofrecida por el sistema de salud pública en Alfenas/MG.

Descriptores: COVID-19; Servicios de Salud Dental; Sistema Único de Salud; Atención a la Salud.

INTRODUCTION

The provision of dental care by the public health system is a reality within the Brazilian Unified Health System (SUS), which allows access to several procedures for free¹. The Smiling Brazil Program (PBS) was created in 2004 with the objective to expand and improve the offer of public dental care. This has increased the number of active oral health teams within the network and favored access to this service throughout the national territory, regardless of socioeconomic status or regional location^{2,3}.

However, despite the promotion of oral health in the public health system and successful political programs, such as the National Oral Health Policy (PNSB) and the incorporation of Dentistry

into the Family Health Strategy (ESF), there are still challenges to be overcome^{4,5}. In certain locations, the public dental service is still not adequately offered, which demonstrates differences in access and availability to this type of service⁶. This serves as a parameter for understanding the impact that the absence of this offer causes when compared to a region where this occurs properly.

The municipality of Alfenas, located in the south of the state of Minas Gerais, has a population of 79,996 inhabitants, according to the last 2010 census⁷. It has 18 ESF teams plus 7 equivalent teams (according to the e-Gestor AB portal, in October 2021), with an estimated 62,100 inhabitants covered by the ESF (77.63%) and 79,996 covered by primary care (100%). It is a

privileged municipality in terms of the offer and access of dental services by the public health network, with 12 ESF with a dental team (12 dentists and 10 oral health assistants), plus a Municipal Dentistry Center (CEMO).

However, certain situations can directly affect the functioning and stability of this network. An example was the pandemic caused by COVID-19, declared by the World Health Organization (WHO) on March 11, 2020, in which this service was severely affected⁸.

Due to the high risk of contamination, social distancing recommendations, and restrictions on health services to only perform urgent and emergency procedures, the care has been drastically modified⁹⁻¹¹. As a result, an atypical panorama emerged in the provision of dental services at national, regional, and local levels. Understanding this impact makes it possible to understand which demands were repressed, prior to the moment of reestablishing the conventionality of care. This is essential to find out how to operationalize and readjust the offer of dental services in the municipality at the appropriate time and create strategies to minimize the negative impact of the pandemic on the population. Thus, this work seeks to evaluate the impact of the COVID-19 pandemic on the provision of dental care in the municipal public health network of Alfenas/MG, Brazil.

MATERIAL AND METHOD

The research took place in the health setting of the municipality of Alfenas/MG, located in the south of the state of Minas Gerais, Brazil. The project was approved by the Research Ethics Committee of the Federal University of Alfenas (CAAE 41032720.9.0000.5142) and the data were collected in the e-SUS database (SUS Informatization Strategy) through the DATASUS platform, in relation to the Outpatient Information System of the Unified Health System (SIA/SUS). In a single search, data referring to the historical series (2015, 2016, 2017, 2018 and 2019) and to the service affected by the pandemic context (2020 whole and 2021 until the month of June) were retrieved. Data were tabulated using the MS TABWIN software (version 4.1.5 August 2018). The data of interest for this study were those related to the exclusive productivity of oral health, at the Primary Care level, in all Municipal Health Units with a dental team in the municipality of Alfenas/MG (ESFs, equivalentes, and CEMO), characterized by the referring codes procedures allocated to oral health, and which are used in the municipality by authorization and guidance from the Oral Health Coordination.

These data referring to the absolute values obtained were then organized in a virtual

spreadsheet (Microsoft Excel, v. 16.0, 2019). The tabulated database was exported to the R statistical software version 4.0.3 (R CORE TEAM, 2020), where the statistical analyzes and graphs of interest were performed. Data were integrated into visits per year, per health unit (rows), and per procedure (columns). Normality was tested by the Shapiro-Wilk statistical test, and the descriptive statistics were obtained (means, standard deviations, frequency distributions, and graphs), and the Mann-Whitney-Wilcoxon test was used to compare the medians considering 5% significance ($p < 0.05$)¹².

The procedures were grouped according to their type, being "preventive", "collective", "restorative procedures", "endodontics", "prosthesis", "image", "surgical" and "periodontics" to verify the tendency of these groups, according to the average frequency through the years. The results of this evaluation were given in the form of graphs.

RESULTS

Of the 69 procedures available for use by the ESB, selected according to the list selected in the SUS Procedures, Medicines and OPM Table Management System (SIGTAP) by the Oral Health Coordination, the data referring to 53 of these were recorded and analyzed. Were discarded those that did not present applicable data to the statistical tests, either because of the non-existence of the code for a certain period or because the entry was zeroed for the entire period evaluated. Procedures that were not exclusively used by the ESB (such as Removal of Simple Surgical Stitches) were also discarded to avoid any reporting bias.

Data normality was denied by the Shapiro-Wilk test. Thus, the non-parametric Wilcoxon-Mann-Whitney test was performed, with a p-value being assigned to each procedure, and those with $p < 5\%$ presented a statistically significant reduction. Table 1 contains the absolute values of each procedure consulted according to the Historical Series (HS) and the Pandemic Period (PP), the mean of these values, and the p-value obtained by the non-parametric test.

Table 2 shows similar data but using the year 2019 as a comparison criterion with the DP only. This specific comparison with the year 2019 was made to have a benchmark directly prior to the pandemic period.

Figures 1 and 2 show, respectively, the bar-plots referring to the compared data of the HS-PP and 2019-PP. The reference line in Figures 1 and 2 corresponds to a p-value of 0.05, so that all procedures below them are those with a statistically significant reduction. From Figure 1, it is possible to see that there was a significant reduction in the performance of 23 procedures (43.39%). Of these, most are primary interventional procedures

(56.52%), followed by collective and preventive procedures (34.78%), and finally, outpatient interventions (8.7%). It's important to notice that the codes used to create the X axis of the graphs (Figures 1-4) are present in the first column of Tables 1 and 2.

Table 1. Comparison between absolute value and descriptive statistics of services referring to the historical series (2015-2019) and during the pandemic (2020-2021). Alfenas/MG, 2021

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value * (HS/PP)
Collective action of topical fluoride application (ACFT)	018.871	0391,0000	0000	000,0000	0,0056
Collective action of fluoride mouthwash (ACBF)	001.990	0083,0000	0000	000,0000	0,0650
Collective action of supervised toothbrushing (ACES)	122.231	1.674,0000	0426	028,4000	0,0000
Collective action of oral examination with epidemiological purpose (ACEBe)	002.030	0037,5926	0044	004,0000	0,0853
Cariostatic agents' application (ApC)	000.038	0000,8837	0002	000,1111	0,0666
Sealant application (ApS)	002.477	0033,0000	0024	001,0000	0,0000
Topical fluoride application (ApF)	005.446	0070,0000	0399	017,0000	0,0000
Evidence of bacterial plaque (EPB)	004.445	0053,0000	0003	005,0000	0,0000
Temporary sealing of the dental cavity (SPCD)	009.999	0126,4400	1787	054,0000	0,0024
Oral hygiene guidance (OHB)	000000	0000,0000	1218	002,0000	0,0275
Collective action to prevent oral cancer (ACPCB)	000000	0000,0000	0086	026,6667	0,0000
Dental prosthesis hygiene guidance (OHPD)	000000	0000,0000	0048	000,0000	1,0000
Periapical and interproximal radiographs (RxPI)	01.954	0037,0000	0207	017,0000	0,2498
Periapical radiographs (RxIp)	000000	0000,0000	0014	000,0000	1,0000
Interproximal radiographs (RxPa)	000000	0000,0000	0222	008,1250	0,0000
First programmatic dental appointment (PC)	021.204	0282,7200	1.402	074,6250	0,0000
Pulp capping (CP)	006.319	0084,2533	0479	021,6875	0,0031
Restoration of anterior permanent tooth with composite resin (RDPArc)	015.276	0203,6800	1380	066,5625	0,0000
Posterior permanent tooth restoration (RDPP)	035.829	0477,7200	1735	107,8125	0,0000
Initial treatment of the traumatized tooth (TDT)	000000	0000,0000	0004	000,0000	1,0000
Restoration of posterior primary tooth with composite resin (RDDPPrc)	000000	0000,0000	0100	004,8000	0,0000

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

Table 1 (continuation). Comparison between absolute value and descriptive statistics of services referring to the historical series (2015-2019) and during the pandemic (2020-2021). Alfenas/MG, 2021

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value * (HS/PP)
Restoration of primary posterior tooth with amalgam (RDDPam)	000000	0000,0000	0005	000,0000	1,0000
Restoration of posterior primary tooth with ionomer (RDDPciv)	000000	0000,0000	0075	002,4000	0,0000
Restoration of anterior primary tooth with composite resin (RDDArc)	000000	0000,0000	0031	001,0000	0,0275
Restoration of posterior permanent tooth with composite resin (RDPPrc)	000000	0000,0000	0770	014,1818	0,0000
Removal/restoration of posterior permanent tooth amalgam (Ram)	000000	0000,0000	0034	002,0000	0,0275
Adequacy of children's behavior (ACC)	000000	0000,0000	0003	000,0000	1,0000
Access to dental pulp and medication (APMIC)	004.018	0053,5733	1.009	040,3750	0,1212
Indwelling dressing with or without biomechanical preparation (CD)	003.683	0049,1067	0166	036,3125	0,1312
Endodontic treatment of biradicular permanent tooth (TEDPbr)	000001	0000,2000	0000	000,0000	0,7518
Endodontic treatment of anterior permanent tooth (TEDPA)	000012	0002,4000	0000	000,0000	0,4687
Endodontic treatment of primary tooth (TEDD)	000000	0016,6000	0003	001,5000	0,9342
Pulpotomy (Pulpo)	000130	0001,7330	0024	001,3125	0,1850
Supragingival scaling, smoothing and polishing (RAPSupra)	009.630	0139,5652	0000	000,0000	0,0002
Subgingival scaling and smoothing (RASub)	125.568	1.674,2400	4.186	245,1250	0,0019
Coronal scaling (RCR)	000796	0039,8000	0000	000,0000	0,0295
Prophylaxis/plaque removal (PHO)	008.737	0116,4933	0705	041,8750	0,1747
Supragingival scaling, smoothing and polishing (RAPsup)	030.205	0402,7333	3.230	183,1875	0,1300
Pericoronitis treatment (TperC)	000000	0000,0000	0027	000,0000	1,0000
Molding for dental prosthesis construction (MPD)	000013	0000,4330	0000	000,0000	0,0529
Denture relining and repair (RCPD)	000119	0004,1034	0009	001,3333	0,5906
Dental prosthesis cementation (CimPD)	000903	0012,3699	0233	011,1333	0,1740
Dental prosthesis fitting (AdapPD)	000194	0002,6575	0047	002,3333	0,3598
Occlusal adjustment (AjO)	002.413	0033,0548	0336	016,5333	0,1988
Dental prosthesis installation (InstPD)	000034	0001,0000	0004	000,8000	0,3513

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

Table 1 (continuation). Comparison between absolute value and descriptive statistics of services referring to the historical series (2015-2019) and during the pandemic (2020-2021). Alfenas/MG, 2021

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value* (HS/PP)
Abscess drainage (DrenA)	000068	0001,5455	0034	002,6667	0,7577
Deciduous tooth extraction (ExoD)	002.542	0033,8933	0258	012,2500	0,0000
Permanent tooth extraction (ExoP)	007.466	0099,5467	2.334	050,2500	0,0003
Gingivectomy (GV)	000014	0000,7000	0007	000,7500	0,5035
Odontosection / tunneling radilectomy (OTR)	000009	0000,9000	0011	003,0000	0,3877
Dry socket treatment (TAlv)	000167	0002,6094	0017	001,0000	0,0157
Ulotomy / Ulectomy (UloUle)	000111	0001,8814	0018	001,3333	0,1580
Provisional crown (CProv)	000001	0000,2000	0004	004,0000	0,0519

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

Table 2. Comparison between absolute value and descriptive statistics of services referring to the year 2019 and during the pandemic (2020-2021), Alfenas/MG, 2021.

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value* (HS/PP)
Collective action of topical fluoride application (ACFT)	000492	049,2000	0000	000,0000	0,0473
Collective action of fluoride mouthwash (ACBF)	000000	000,0000	0000	000,0000	1,0000
Collective action of supervised toothbrushing (ACES)	01.634	108,9333	0426	028,4000	0,2102
Collective action of oral examination with epidemiological purpose (ACEBe)	00004	000,3636	0044	004,0000	0,2727
Cariostatic application (ApC)	00014	001,5556	0002	000,1111	0,0100
Sealant application (ApS)	00699	043,6875	0024	001,0000	0,0000
Topical fluoride application (ApF)	01.406	098,875	0399	017,0000	0,0045
Evidence of bacterial plaque (EPB)	00039	020,7143	0003	005,0000	0,2087
Temporary sealing of the dental cavity (SPCD)	02.227	105,6875	1.787	054,0000	0,1099
Collective action to prevent oral cancer (ACPCB)	000000	000,0000	0086	026,6667	0,0237
Dental prosthesis hygiene guidance (OHPD)	000000	000,0000	0048	000,0000	1,0000
Periapical and interproximal radiographs (RxPi)	00467	057,0909	0207	017,0000	0,0870
Periapical radiographs (RxPa)	000000	000,0000	0014	000,0000	1,0000
Interproximal radiographs (RxIp)	000000	000,0000	0222	008,1250	0,0001
First programmatic dental appointment (PC)	04.453	278,3125	1.402	074,6250	0,0005
Pulp capping (CP)	01.261	078,8125	0479	021,6875	0,0602
Restoration of anterior permanent tooth with composite resin (RDPArc)	03.576	223,5000	1.380	066,5625	0,0025
Posterior permanent tooth restoration (RDPP)	07.284	455,2500	1.735	107,8125	0,0009
Initial treatment of the traumatized tooth (TDT)	000000	000,0000	0004	000,0000	1,0000

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

Table 2 (continuation). Comparison between absolute value and descriptive statistics of services referring to the year 2019 and during the pandemic (2020-2021), Alfenas/MG, 2021.

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value* (HS/PP)
Restoration of posterior primary tooth with composite resin (RDDPrc)	000000	000,0000	0100	004,8000	0,0021
Restoration of primary posterior tooth with amalgam (RDDPam)	000000	000,0000	0005	000,0000	1,0000
Restoration of posterior primary tooth with ionomer (RDDPeiv)	000000	000,0000	0075	002,4000	0,0020
Restoration of anterior primary tooth with composite resin (RDDArc)	000000	000,0000	0031	001,0000	0,4795
Restoration of posterior permanent tooth with composite resin (RDPPrC)	000000	000,0000	0770	014,1818	0,0000
Removal/restoration of posterior permanent tooth amalgam (Ram)	000000	000,0000	0034	002,0000	0,4795
Adequacy of children's behavior (ACC)	000000	000,0000	0003	000,0000	1,0000
Access to dental pulp and medication (APMIC)	01.098	068,6250	1.009	040,3750	0,1015
Indwelling dressing with or without biomechanical preparation (CD)	00343	048,8125	0166	036,3125	0,5595
Endodontic treatment of biradicular permanent tooth (TEDPbr)	000000	000,0000	0000	000,0000	1,0000
Endodontic treatment of anterior permanent tooth (TEDPA)	000000	000,0000	0000	000,0000	1,0000
Endodontic treatment of primary tooth (TEDD)	000000	000,0000	0003	001,5000	0,4017
Pulpotomy (Pulpo)	00041	002,5625	0024	001,3125	0,3313
Supragingival scaling, smoothing and polishing (RAPSupra)	000000	000,0000	0000	000,0000	1,0000
Subgingival scaling and smoothing (RASub)	15.986	999,1250	4.186	245,1250	0,0058
Coronal scaling (RCR)	000000	000,0000	0000	000,0000	1,0000
Prophylaxis/plaque removal (PHO)	02.562	160,1250	0705	041,8750	0,0039
Supragingival scaling, smoothing and polishing (RAPsup)	10.152	634,5000	3.230	183,1875	0,0158
Pericoronitis treatment (TperC)	000000	000,0000	0027	000,0000	1,0000
Molding for dental prosthesis construction (MPD)	00001	000,1667	0000	000,0000	0,1949
Denture reline and repair (RCPD)	00018	003,0000	0009	001,3333	1,0000
Dental prosthesis cementation (CimPD)	00268	017,8667	0233	011,1333	0,0086
Dental prosthesis fitting (AdapPD)	00075	005,0000	0047	002,3333	0,0872

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

Table 2 (continuation). Comparison between absolute value and descriptive statistics of services referring to the year 2019 and during the pandemic (2020-2021), Alfenas/MG, 2021.

Procedure (CODE)	Historical Series (HS)	Mean (HS)	Pandemic Period (PP)	Mean (PP)	p-value* (HS/PP)
Occlusal adjustment (AJO)	00796	052,9333	0336	016,5333	0,7540
Dental prosthesis installation (InstPD)	00003	000,6000	0004	000,8000	0,3823
Abscess drainage (DrenA)	00004	000,4444	0034	002,6667	0,2166
Deciduous tooth extraction (ExoD)	00626	039,1250	0258	012,2500	0,0150
Permanent tooth extraction (ExoP)	01.475	092,1875	2.334	050,2500	0,0545
Gingivectomy (GV)	00001	000,2500	0007	000,7500	0,3889
Odontosection / tunneling radiclectomy (OTR)	00003	001,5000	0011	003,0000	0,8026
Dry socket treatment (TAlv)	00032	002,2857	0017	001,0000	0,2473
Ulotomy Ulectomy (UloUle)	00024	002,0000	0018	001,3333	0,1514
Provisional crown (CProv)	00000	000,0000	0004	004,0000	0,4795

* Nominal significance level 0,05. All values below 0.05 have been significantly reduced and are highlighted in bold.

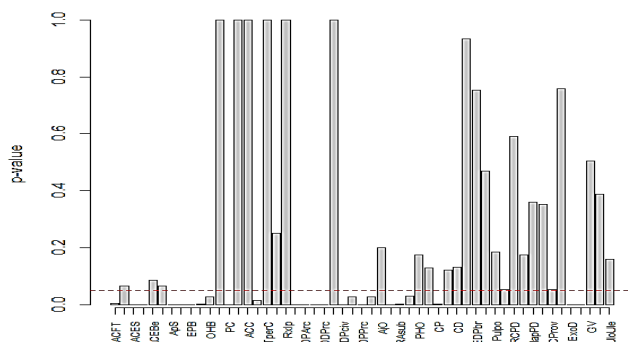


Figure 1. Bar-plot comparing HS and PP. The dashed line shows nominal significance level 0.05. Alfenas/MG, 2021.

In Figure 2, it is possible to observe a significant reduction of 18 procedures (33.96%), with a variation of 5 procedures in relation to the comparison with the historical series (11.32% of the total).

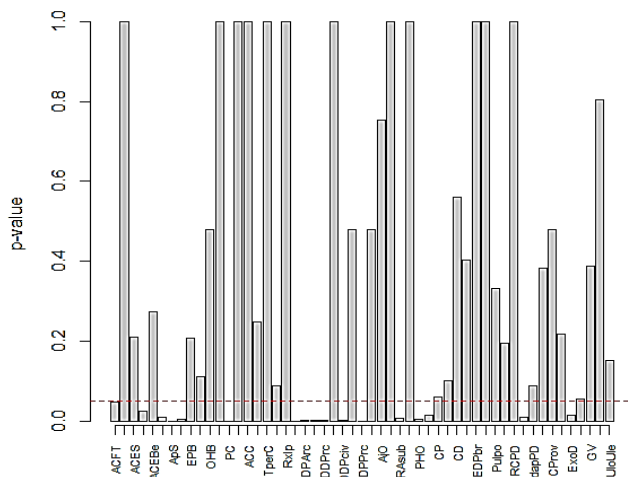


Figure 2. Bar-plot comparing 2019 and PP. The dashed line shows the nominal significance level 0.05. Alfenas/MG, 2021.

Figures 3 and 4 show the results of the trend assessment of the procedures. In them, it is

possible to perceive the general trend of a decrease in the frequency of execution of the procedures in the period referring to the PP, with few exceptions (Permanent Tooth Extraction, Periapical Radiography, Dental Prosthesis Hygiene Guidance and Restoration in Posterior Permanent Tooth with Composite Resin). Among these, it is important to highlight the constant decline shown by preventive and periodontics procedures since 2019 that accentuated in the PP, and the minimum expression of frequency of collective procedures since 2017.

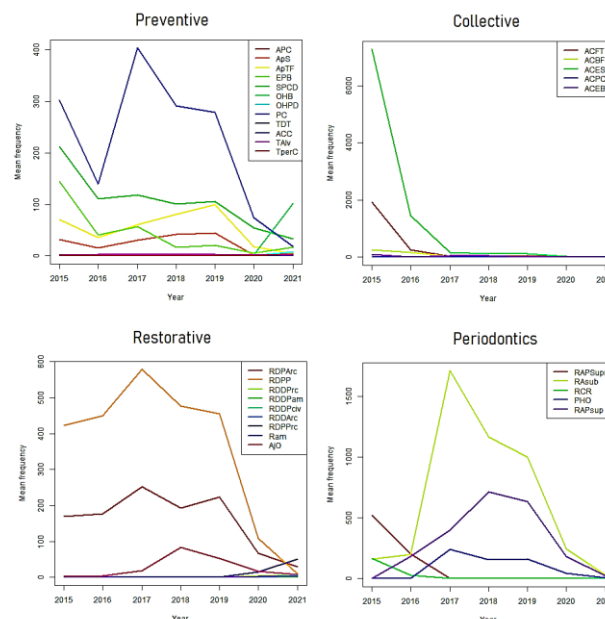


Figure 3. Trend graphs of the "Preventive", "Collective", "Restorative" and "Periodontics" procedure groups, respectively. Alfenas/MG, 2021.

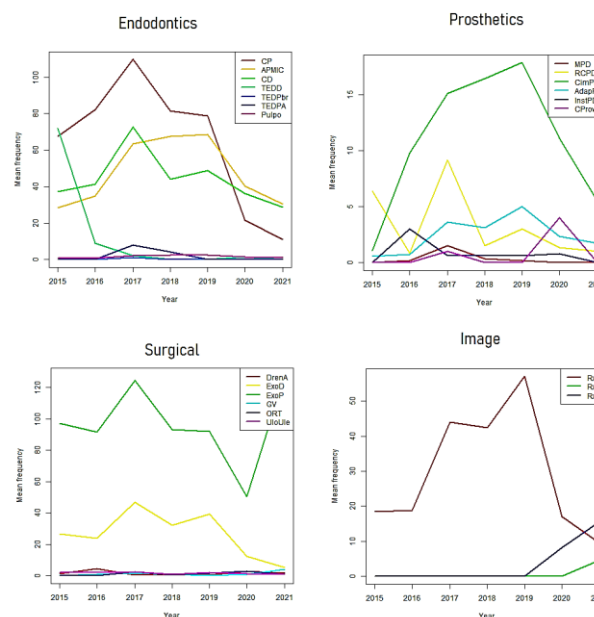


Figure 4. Trend graph of procedures in the "Endodontics", "Prosthetics", "Surgical" and "Image" groups, respectively. Alfenas/MG, 2021.

DISCUSSION

With the confirmation of community transmission of SARS-CoV-2 in Brazil (Post Office MS nº 454)¹¹, the routine of health services and the Health Care Networks (RAS) underwent considerable changes. This occurred especially to the decrease in the transmissibility of the virus, and the management of patients diagnosed with COVID-19¹³. Coping plans were prepared, contingency measures and new care and triage protocols were implemented. Oral Health was especially affected by these adjustments, mainly due to the high risk of contamination in the dental environment, both for the patient and the professional team¹⁴. Even more challenging was to apply and understand this dynamic in the public health system context, in which adjustments were necessary also to ensure health care and to respect the integrality, universality and equity of the system¹⁵. In this context, and in compliance with the Technical Note 9/2020 of the Ministry of Health¹⁰, the municipality of Alfenas/MG kept its public oral health care restricted to urgent care for a period of 18 months (March 2020 to August 2021).

An expected consequence of this reduction in the number of procedures offered was the negative impact on indicators of quality of access and resoluteness of the system, in addition to a direct damage to the patient's oral health condition and a considerable repressed demand¹⁶. This impact assessment by the pandemic in the provision of public dental care is in line with the literature, corroborating data at a macro (national) level, such as the study by Santos et al. (2021)¹⁷ and at the micro level (regional and local)¹⁸⁻²¹ where a great reduction in the registration of preventive procedures, scheduled consultations, and collective activities was perceived.

Collective activities, in particular, were more affected due to the impossibility of grouping individuals because the need of physical distance¹⁷. It is important to highlight that the restrictions imposed by the pandemic were responsible for zeroing the offer of collective activities, and practically exhausting the offer of preventive procedures. However, as the results of this work and a previous epidemiological survey²² point out, both were already showing substantial decreases before the pandemic period. This occurrence must come from a devaluation of these procedures in the planning of ESB activities since the numbers start to decrease drastically from 2017, which coincides with the transition period of municipal political management. This management transition should also be considered as another complicating factor for the resumption of ESB activities in 2021.

In addition to collective and preventive procedures, the others also showed a considerable reduction in supply. In relation to these, this was due to the restriction to the care of cases configured

as urgency, highlighting the cases of pain, severe aesthetic deficiency, and acute infections. Associated with this pattern of reduction, a higher frequency of performing more invasive interventions is also perceived, such as extractions, pulp access and medications, and temporary and/or extensive restorations. It is important to note that even though a slight increase is perceived, it is still a lower number compared to what is expected in the context of normal care¹⁷. The distance required in the pandemic context is not the only complicating factor to be evaluated in the provision of health services. As Cavalcanti et al. (2020)¹⁹ present, the financial impact on the acquisition of PPE (which grew by almost 1,862% in the pandemic period) and the adequacy of the new biosafety recommendations directly affect health services. This negative and significant impact on Oral Health goes against all advances obtained since the implementation of the ESB in the ESF²³, and the improvement in the parameters of the dental practice, especially for the poor population, such as the reduction in the prevalence of caries and early loss of teeth⁶. Thus, jointly understanding how these complicating factors acted, and as results prior to the pandemic already presented problems, it is necessary to emphasize the chances of a scenario similar to that prior to PBS at the end of the pandemic. This denotes the absence of consistent public policies in oral health, focused on prevention, collective action, and harm reduction policy, which may favor the predominance of exclusionary and mutilating practices²⁴. This prediction, associated with the observed trend measures and the significant reduction in collective, preventive and restorative procedures corroborates the forecast of a dismal resumption of elective care in the municipality.

However, even with a direct association between reports in the literature and the results of this work, some limitations must be evaluated. First, this study was carried out with data collection entirely from secondary databases, in which the possibility of underreporting, inconsistencies in the supply of the system, and variation in the number and context of health units and procedures must be considered. In relation to this variability, during the historical series used as a comparison criterion, there was the accreditation of four new ESBs to ESFs of the municipality, as well as the de-accreditation of another three, in addition to a considerable change in the codes used to launch the procedures in the system. in 2019⁵. This change in codes is relevant in the evaluation of results, given that procedures had their nomenclature changed, their code updated or discontinued, and the inclusion of new ones. This justifies, for example, the tendency to increase the procedure "Restoration in Posterior Permanent

Tooth with Composite Resin”, even during the context of the pandemic, because it replaced another used until then (Restoration of Posterior Permanent Tooth).

It is necessary to understand that the impact on Oral Health means, far beyond the number of procedures performed, direct damage to a portion of the population at high risk of precariousness and assisted only by the public service. Even though Brazil has the largest network of public oral health services, with universal access²⁵, it is far from ideal. According to the PNSB's own guidelines, dental actions and services must result from an adequate knowledge of the population's health reality and thus generate the construction of a practice that is both effectively resolute and efficiently preventive²⁶. With this, more practices are aimed at prevention and collective action, especially with dental caries, periodontal disease, oral cancer, dental trauma, edentulism, malocclusion, and dental fluorosis, which are the most prevalent conditions²⁶. However, this is not the scenario actually observed, in which the impact of the pandemic collaborates directly to hamper progress. If before, almost half of the users already perceived difficulty in accessing the dental appointment and in the continuity and completion of dental treatment²⁷, let's think about the scenario after the pandemic. In view of the trend measures, Alfenas/MG will also be a municipality directly affected.

FINAL CONSIDERATIONS

Considering the results of this work, a considerably negative impact of the COVID-19 pandemic on the provision of dental services by the municipal public health network in Alfenas/MG is perceived. Compared with reports in the literature, it can be seen that the process of resuming the normality of care must take into account the high pent-up demand, which will consist of a complex challenge when understood that this must be simultaneously attended to the spontaneous demand and planned programmatic consultations.

Collective and preventive procedures should receive special attention, due to the drop observed in relation to the historical series and reinforced in the context of a pandemic. In a similar context of concern, it is necessary for the service to organize itself, decentralizing the service and seeking to prioritize care based on equity criteria, and not just logistical ones, so that further progress can be made in the resumption of activities and better numbers and standards of dental care offerings.

The public administration will be decisive in the organizational process of the return of activities since new biosecurity measures must be obeyed, and new complicating factors will be added to those already perceived in the routine of public health

services. The character of overcoming is an indispensable tool for Primary Care and in the trans-pandemic context, and especially post-pandemic, it is understood that it will be increasingly requested, and must, above all, recognize the existing weaknesses to act in a more efficient way. coherent and effective.

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CONFLICTS OF INTERESTS

The authors declare no conflicts of interests.

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