

SUMMARY REPORT

ADEA Policy Research Series  
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# Resilient Dental Schools, Better Oral Health Care for the Underserved

## The Impact of the COVID-19 Pandemic on U.S. Dental Schools

Dental schools are critical to oral health care across the country. Dental school clinics serve as a safety net by providing affordable, high-quality dental care to vulnerable and underserved communities—they registered more than 2.8 million patient visits in the 2019–20 academic year.<sup>1</sup> Dental school clinics are a major source of oral health care, student education and training and employment in their local communities.

More than 200,000 dentists are practicing in the United States, and every one of them began their clinical training in a dental school clinic.<sup>2</sup> With the help of 10,400 full-time and part-time faculty,<sup>3</sup> the 67 accredited U.S. dental schools provide curricular and clinical education to 25,800 dental students<sup>4</sup> annually. In contrast to medical schools and their affiliated hospitals, dental schools run their own “hospitals” to ensure clinical training and education for their students.

Due to COVID-19 pandemic-related regulations on the provision of health care and federal designations regarding essential health care workers, dental school clinics were fully or partially closed for extended periods of time. The impact of these measures resulted in reduced access to care for patients, immediate conversion to online didactic courses, reduction in faculty and staff and increased measures to ensure the safe provision of care and reduction of virus transmission.

ADEA conducted a survey to determine the impact of the COVID-19 pandemic on U.S. dental schools between November 2020 and January 2021. Following are the results of the survey analysis.

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1. American Dental Association, Health Policy Institute. Survey of Dental Education Series, 2019–2020. Table 23: Patient Care Provided by CODA-accredited and Canadian Dental School Students During the Recent Year, 2019-20. At: [ada.org/en/science-research/health-policy-institute/data-center/dental-education](https://ada.org/en/science-research/health-policy-institute/data-center/dental-education). Accessed: March 15, 2021.
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**-50%**

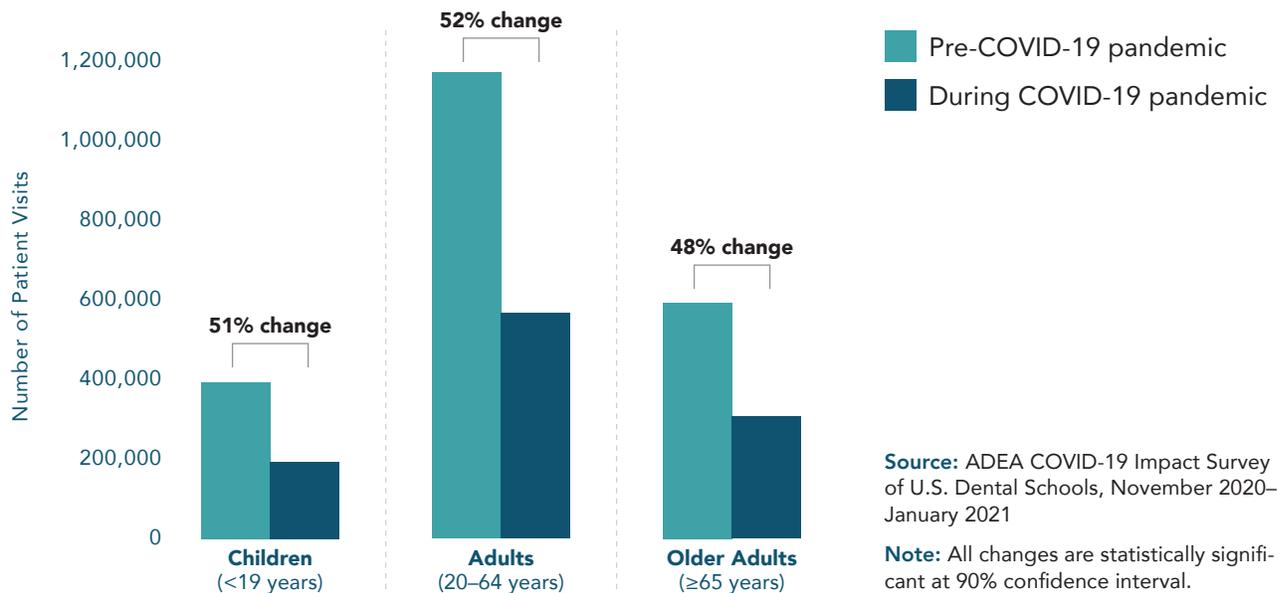
Decline in the number of patient visits to dental school clinics during the first eight months of the COVID-19 pandemic.

**1 DENTAL SCHOOLS EXPERIENCED DRAMATIC DECLINES IN THE NUMBER OF PATIENT VISITS TO THEIR DENTAL CLINICS.**

In the first eight months of the COVID-19 pandemic, patient visits at dental school clinics plummeted by 50%, relative to the same period in 2019. This decline occurred across most age groups, with the largest drop (52%) among working-age adults (20–64 years) (Figure 1). Independent of age, the number of patient visits among special needs patients dropped by almost two-thirds. Dental school clinics in the Midwest recorded the largest decline in patient visits compared with other clinics across the country (56%). Although almost all community-based patient care experiences for students were suspended for the 2020–21 academic year, dental schools continued to provide emergency oral health care services during the majority of the pandemic period, under strained capacity.

Dental school clinics in the Midwest recorded the largest decline in patient visits compared with other clinics across the country.

**FIGURE 1** Number of Patient Visits in Dental School Clinics, April to December 2020, Relative to April to December 2019



**-42%**  
Decline in dental  
school clinics  
revenue during the  
first eight months  
of the COVID-19  
pandemic.

**2** TWO-THIRDS OF DENTAL SCHOOLS HAVE SEEN THEIR BUDGETS CUT IN THE FIRST EIGHT MONTHS OF THE COVID-19 PANDEMIC, RELATIVE TO 2019.

The typical decline in budget was 7%, while dental school clinic revenue dropped 42%. A variety of factors contributed to the budget cuts, from reduction of the university budget (for 57% of dental schools) and state impacts, such as budget withholds from the state government (17%) and reallocation of state funds (8%). Fewer patient visits resulted in lower clinic revenue, which led to budget cuts for a fifth of the dental schools. While dental schools reported considering a number of options to address budget shortfalls, including increasing fees and decreasing costs, cutting costs was the most frequently cited approach. More than two-thirds of dental schools plan to cut costs to cope with the budget decline.

Dental schools employ health care professionals as faculty and administrators as well as support staff for clinical operations. Budget reductions were consequential in personnel changes at dental schools (Table 1). Dental schools limited job losses by focusing on less drastic measures, such as suspending hiring for clinical faculty and staff (53% of dental schools) and nonclinical faculty and staff (61%) and reducing spending on professional development for clinical (67%) and nonclinical faculty and staff (61%) during the first eight months of the pandemic.

Some of the drastic measures undertaken to limit the financial impact of the pandemic included furloughs, postponement of the tenure process and pay cuts. Nineteen percent and 33% of the schools postponed the tenure process and implemented furloughs for clinical faculty and staff, respectively, while 29% implemented furloughs for nonclinical faculty and staff. As a last resort measure, a small proportion of dental schools implemented pay cuts for clinical faculty and staff (23%) and nonclinical faculty and staff (15%) as well as layoffs among clinical faculty and staff (27%) and nonclinical faculty and staff (21%). Dental schools also experienced a significant number of resignations.

**27%**

of dental schools had to lay off clinical faculty and staff during the first eight months of the COVID-19 pandemic.

All vacant funded faculty and staff positions were frozen or unfunded.

**Table 1** Consequential Impacts of COVID-19 on Dental School Faculty and Staff, Percent of Dental Schools, as of December 2020

	Clinical faculty and staff	Nonclinical faculty and staff
Layoffs	27%	21%
Furloughs	33%	29%
Resignations	59%	41%
Pay cuts	23%	15%
Hiring suspension	54%	61%
Retirement	31%	13%
Delayed tenure process	19%	21%
Professional development	68%	61%

Source: ADEA COVID-19 Impact Survey of U.S. Dental Schools, November 2020–January 2021.

**18%**  
Decrease in  
patient care  
clinic expenses  
for dental school  
clinics in the first  
eight months of  
the COVID-19  
pandemic.

### **3 DENTAL SCHOOLS MADE INFRASTRUCTURE INVESTMENTS RELATED TO THE COVID-19 PANDEMIC FOR BOTH CLASSROOMS AND THEIR HOSPITAL-LIKE CLINICAL OPERATIONS.**

While the number of patient visits plummeted, investments increased to ensure patients, students, faculty and staff stayed safe.

Dental schools are constrained by the capital-intensive nature of their facilities. In contrast with medical schools, dental schools run their own “hospitals”—the dental school clinics. Students receive the majority of their clinical training in the dental school clinic, given that most hospitals do not have oral health care facilities in which dental students can provide comprehensive oral health care. In comparison, medical students rotate through ongoing service areas in hospitals for their clinical experiences. Dental school graduates must be practice “ready and able” to obtain a license upon graduation, whereas medical students must be residency ready upon graduation to continue with more clinical training, after which they can seek licensure to practice.

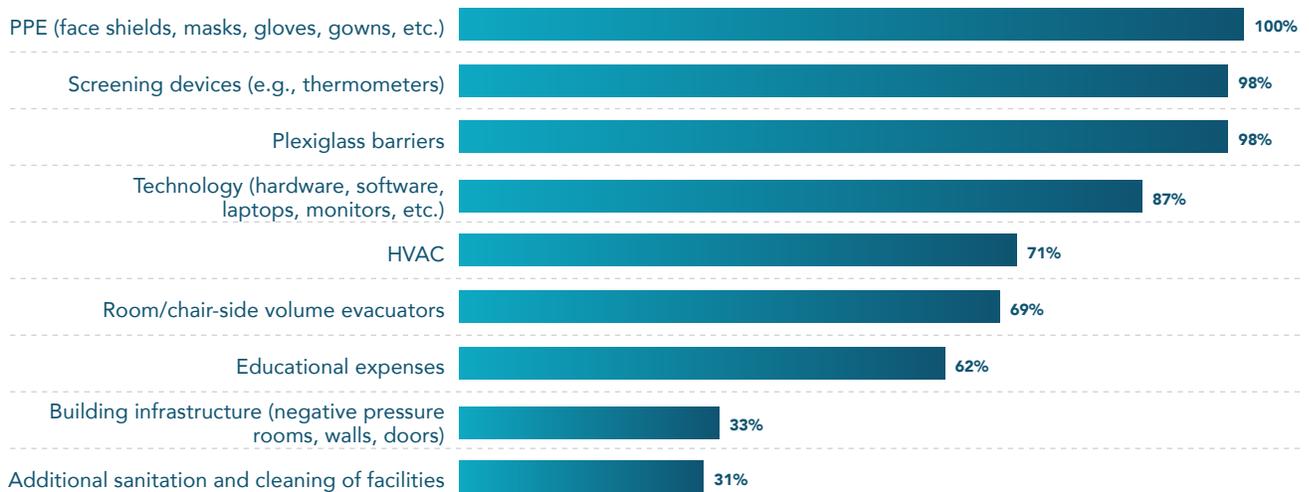
During the first eight months of the COVID-19 pandemic, dental schools reported that patient care clinic expenses declined by 18% relative to the same period in 2019. However, dental schools invested in a variety of infrastructure modifications to prevent the spread of COVID-19 or to continue didactic and simulation courses (Figure 2). Investments ranged from personal protective equipment (PPE), such as masks, gloves and gowns (100% of dental schools implemented this measure), and plexiglass barriers for protection while providing emergency dental procedures (98% of schools). Dental procedures can produce aerosolized particles that may contain saliva, blood, bacteria and other viral pathogens. Therefore, 69% of dental schools invested in chair-side evacuators for aerosol mitigation. To comply with the Occupational Safety and Health Administration COVID-19 guidance on sanitation protocols and ventilation in the workplace, 71% of dental schools also invested in infrastructure modifications to heating, ventilation and air condition (HVAC) systems, and 31% invested in additional sanitation and cleaning of facilities.

71%

of dental schools invested in infrastructure modifications to heating, ventilation and air conditioning (HVAC) systems.

FIGURE  
2

### Dental Schools' Additional Investments Related to COVID-19 Pandemic, Percent of Dental Schools as of December 2020



Source: ADEA COVID-19 Impact Survey of U.S. Dental Schools, November 2020–January 2021

## Conclusion

During these difficult times, dental schools remained steady in their mission to educate and train the next generation of oral health care practitioners and provide oral health care to their local communities. While the number of patient visits fell precipitously in the first eight months due to COVID-19 restrictions, dental school expenses decreased as well to offset the costs. From technology investments to hard infrastructure investments in HVAC systems, chair-side evacuators for aerosol mitigation and building changes, dental schools invested in infrastructure to keep their patients, students, faculty and staff safe. Although these investments have allowed dental schools to remain operational for emergency oral health care services with limited capacity, they may not be enough to recover from the financial impact of the COVID-19 pandemic in the years to come. Dental schools need the federal government to partner with them and support needed infrastructure investments so they can continue to educate and train oral health care providers and care for under-served populations.

## Methodology Appendix

This research analyzes the results of an American Dental Education Association (ADEA) survey of the 67 accredited U.S. dental schools to assess the COVID-19 pandemic’s impact on dental school operations and finances. The survey was conducted between November 2020 and January 2021. While U.S. dental schools implemented various policies and actions related to the pandemic at different times, the ADEA survey con-sidered March 2020 as the start of the COVID-19 pandemic in the United States. This starting point was determined by the U.S. declaration of a national emergency concerning the COVID-19 pandemic on March 13, 2020.<sup>5</sup> The ADEA survey identifies two time periods:

- During the COVID-19 pandemic: eight months since the pandemic’s start (April 2020–December 2020).
- Before the COVID-19 pandemic: comparison period, same time period one year earlier (April 2019–December 2019).

The ADEA survey had a 67% percent response rate. The response sample is representative of the population of U.S. dental schools based on the distribution of U.S. dental schools by Census region (see Table A-1). The authors conducted a one-sample chi-square test to investigate whether the proportions in the sample are equal to the proportions in the population of U.S. dental schools, based on Census region. The authors employed sample weights to rebalance the data to reflect the results for the population of U.S. dental schools. All the percentage differences discussed in this study are statistically significant at 90%confidence interval, unless noted otherwise.

Table  
A-1

**ADEA Survey Response Sample and the Population of U.S. Dental Schools, by Census Region, as of December 2020**

	Response Sample		Population	
	Count	Percentage	Count	Percentage
West	12	27%	14	21%
Midwest	11	24%	15	22%
South	14	31%	24	36%
Northeast	8	18%	14	21%
U.S. Dental Schools—Total	45	100%	67	100%

5. Centers for Disease Control and Prevention. New ICD-10-CM code for the 2019 Novel Coronavirus (COVID-19), April 1, 2020. At: [www.cdc.gov/nchs/data/icd/Announcement-New-ICD-code-for-coronavirus-3-18-2020.pdf](http://www.cdc.gov/nchs/data/icd/Announcement-New-ICD-code-for-coronavirus-3-18-2020.pdf). Accessed: November 2020.

# ADEA

THE VOICE OF  
DENTAL EDUCATION

**ABOUT ADEA:** The American Dental Education Association (ADEA) is The Voice of Dental Education. Our mission is to lead and support the health professions community in preparing future-ready oral health professionals. Our members include all 78 U.S. and Canadian dental schools, more than 800 allied and advanced dental education programs, 50 corporations and approximately 18,000 individuals. Our activities encompass a wide range of research, advocacy, faculty development, meetings and communications, including the esteemed *Journal of Dental Education*<sup>®</sup>, as well as the dental school application services ADEA AADSAS<sup>®</sup>, ADEA PASS<sup>®</sup>, ADEA DHCAS<sup>®</sup> and ADEA CAAPID<sup>®</sup>.

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