Pandemic-related events appear poised to create a spike in oral disease among adults.

A Coming Surge in Oral Health Treatment Needs

Pandemic-related events appear poised to create a spike in oral disease among adults.

SUGGESTED CITATION
Copyright ©2021 CareQuest Institute for Oral Health, Inc.
Dental health trends during COVID-19 strongly suggest the health system could suffer a significant spike in the need to treat oral disease and address its impact on overall health.

As coronavirus vaccines reach more and more adults, many Americans are eagerly looking forward to post-pandemic life. In addition, many health systems and public health leaders anticipate a climate in which demand for hospital and other acute care services subsides. Unfortunately, these health leaders — and dental professionals — should brace themselves for a likely surge in tooth decay, periodontal (gum) disease, and other forms of oral disease.

The prospects for this spike emerged from a recent, nationally representative survey of 5,320 adults, commissioned by the CareQuest Institute for Oral Health. (See the Methodology section for details.) This survey has identified several troubling, simultaneous developments:

- An estimated 6 million American adults have lost their dental insurance because of a job loss or benefits change that was caused by COVID-19.

- Among those who cited COVID-19 as the reason for losing dental insurance, 65% reported having an oral symptom that often stems from a disease affecting teeth, gums, or other tissues in the oral cavity.

- More than 1 in 10 (11%), or 28 million, adults have delayed getting dental care because of one or more concerns, including the cost of care, lack of insurance, or concerns about risk of exposure to the virus.

Having been ill with COVID-19 likely explains why some people cancelled or put off a dental visit. In the survey, 10% of adults reported having been infected with the virus at some point.
Impact on the Larger Health System

These findings portend a considerable increase in untreated oral disease whose impact will extend beyond the dental care system. Hospitals are likely to feel the consequences, too. Adults who lack coverage for preventive or restorative dental care often put off care until pain prompts them to visit a hospital emergency department (ED). Research confirms that the dentally uninsured or underinsured are more likely to visit EDs. These visits are expensive and rarely address the root cause because EDs typically are not equipped with the clinicians, instruments, or supplies to properly treat oral disease.

Even before COVID-19, the financial impact of dental-related ED visits was substantial. In 2017, the costs from roughly two-thirds of these visits were paid for by Medicaid, Medicare, or private insurance companies. The findings from this new survey suggest that hospitals and ambulatory care centers could experience a noticeable spike in ED visits.

Although 26% of adults cited concerns about COVID-19 as a reason for their reluctance to seek oral health services, Americans were more likely to cite the cost (38%) and the lack of insurance (33%) as reasons they would not seek dental care. Unfortunately, the broader impact of COVID-19 on insurance status, the economy, and other dynamics has deepened the preexisting inequities of dental care access.

Intensifying Disparities

Last year, reports that people of color were disproportionately suffering hospitalization and death from COVID-19 brought greater attention to the issue of health disparities. The findings from this new survey suggest that a potential surge in oral disease also will fall disproportionately on people of color.

Among those who did not have dental insurance but reported having recently lost their dental insurance because of conditions resulting from the pandemic, people of color stand out. Asian American adults (19%) were three times more likely than whites to have experienced this, and African American adults (14%) suffered this coverage loss at a rate that was more than double that of whites. Hispanic adults (8%) were slightly more likely to report a loss of dental insurance than whites (6%).

As noted earlier, among those who lost coverage due to COVID-19, 65% reported having an unaddressed oral symptom. This compares with 56% of adults, overall, who said they had an oral symptom.

Among the overall survey sample, these symptoms included:

- A toothache (23%)
- Cracked or broken teeth (20%)
- Swollen or bleeding gums (18%)
- Frequent dry mouth (15%)
- Pain when chewing or swallowing (14%)
- Clicking of the jaw/temporomandibular joint pain (11%)
- Chronic bad breath (7%)
- Swelling of the face or cheek (5%)
- Ulcers or sores in the mouth (3%)

Although many people consider bad breath (halitosis) to be an annoyance but not a serious condition, chronic bad breath is typically a sign of initial or advanced periodontal disease. While many oral ulcers or sores go away on their own, some can be symptoms of significant underlying health conditions, including celiac disease, HIV, lupus, or an iron deficiency.
A Spillover Effect

More than one-third (35%) of adults surveyed said they have at least one chronic health condition. In addition, 68% of those with at least one such condition also reported an unaddressed oral symptom. Nearly 58% of these individuals had not seen a dental provider or visited a hospital ED to seek care for their oral symptom. Given the link between oral health and a variety of chronic health conditions, the anticipated rise in oral diseases has serious implications for the broader health care system.

Diabetes is a good example of a chronic disease with well-established connections to oral health. Research shows that people with diabetes and untreated periodontal disease have a harder time managing their blood glucose levels. A European study that examined health insurance claims found that the average diabetes-related costs were 31% lower for patients who had received periodontal treatment than for patients who had not obtained such care. State Medicaid programs bear much of the financial impact of higher diabetes-related costs because the disease disproportionately affects low-income adults.

Cardiovascular disease is another condition associated with poor oral health. Researchers have found an association between the risk of stroke and both periodontal disease and tooth loss. Additionally, researchers have linked poor oral health with dementia.

35% of adults surveyed had at least one chronic health condition

68% of those with at least one such condition reported an unaddressed oral symptom
Barriers to Routine Dental Care

COVID-19 was bound to disrupt access to routine and preventive dental care, but the pandemic magnified preexisting access barriers. Indeed, even before the pandemic, many adults — especially those living in or near poverty — faced hurdles to accessing oral health care. Although some state Medicaid programs provide comprehensive dental benefits for adults, most states do not. This makes dental visits unaffordable for many low-income adults.

A similar predicament is faced by adults whose jobs do not offer dental coverage and whose incomes slightly exceed their state’s Medicaid eligibility ceiling. Lacking coverage for preventive care leads many adults to put off dental visits — care that could keep the early signs of disease from progressing to a severe infection. As a result, these adults are more vulnerable to tooth decay and other oral diseases, and it means their nascent forms of disease are more likely to become severe infections.

Lacking coverage for preventive care leads many adults to put off dental visits — care that could keep the early signs of disease from progressing to a severe infection.

Tooth decay and periodontal disease are conditions that worsen until they are treated. While deaths are rare from oral health conditions, they can and do happen. Untreated decay can cause periapical abscesses — severe infections that reach the dental pulp. A nine-year study revealed 61,439 U.S. hospitalizations that were primarily caused by periapical abscesses. The average length of stay was three days, and 66 of these patients died. Most of the hospitalized patients (62%) in the nine-year study were enrolled in either Medicaid or Medicare, or were dentally uninsured. This finding underscores how illusive coverage for oral health services can be. Medicare doesn’t cover dental examinations and other routine care, and most states don’t cover comprehensive preventive services for adults through Medicaid.

In recent years, many states have seen a widening gap between low-income and high-income working-age adults use of dental care. The fact that so many adults entered this pandemic dentally uninsured or underinsured — combined with people delaying care (regardless of insurance status) because of anxiety about COVID-19 transmission — has set the nation on a path toward a potentially serious wave of oral disease in the near future.

Several states are using teledentistry to address longstanding access barriers. One example is a teledentistry program that relies on specially-trained dental hygienists and assistants who collect dental records and other information about a patient and then share this information with a dentist. The dentist, in turn, prepares a treatment plan that is tailored to that patient’s needs. Unfortunately, many states have scope-of-practice laws, Medicaid reimbursement rules, or other policies that frustrate efforts to launch or expand teledentistry initiatives.
Other Findings

In the survey, nearly one-third (32%) of adults said they were more hesitant to visit a dental office because of the pandemic, while 58% said COVID-19 did not affect their willingness to seek care, and 9% said they were less hesitant.

Perhaps one reason many are hesitant to seek oral health care lies in their proximity to COVID-19 cases. In the survey, over three-quarters of respondents (78%) said they knew someone who has had COVID-19, and 39% said they know someone who has died because of COVID-19. As stated previously, nearly 10% of adult Americans have had COVID-19 themselves. However, this probably understates the prevalence, because this percentage does not count asymptomatic infections and tests that produced false negatives. Health officials estimate that about 21% of Americans have contracted COVID-19 since the pandemic began.

COVID-19 has affected oral health care behaviors and beliefs, as well as inflicting instability on Americans’ everyday lives. Researchers have identified the role that stress can play in facilitating periodontal disease. Nearly 1 in 3 adults (29%) has felt significant economic stress during the pandemic:

- 12% said they have lost a job
- 12% said they have been worried they will lose their current job
- 4% said they have started a new job that they did not like
- 4% have taken on an additional job

COVID-19 has also had an impact on American adults’ living situations; 9% reported having missed a rent or mortgage payment, and 6% said they have had to move since the pandemic began.

The fact that millions of adults have delayed dental visits is not a reflection of their broader attitudes toward oral health. In fact, the survey revealed that 80% of adults considered oral health care “an important component of staying healthy” during the pandemic. Moreover, the overwhelming majority of those who have had a dental visit during COVID-19 described their experience positively. In fact, 95% said they were satisfied with the infection control or other safety procedures their dental office had practiced.

Perhaps one reason many are hesitant to seek oral health care lies in their proximity to COVID-19 cases.
Longstanding barriers to dental care, combined with the realities of COVID-19, have created a climate of significant unmet oral health needs — a burden that has contributed to persistent health inequities. These survey findings show that millions of Americans have lost their dental insurance as a result of the pandemic, and nearly two-thirds of them have a symptom that is frequently linked to oral diseases, such as tooth decay and periodontal disease.

As vaccines reach more Americans and our nation enters a post-pandemic phase, both its dental care system and overall health system are likely to see more patients in pain with much more serious forms of oral disease. This could be accompanied by a rise in diabetic complications and other systemic health conditions, which would impose additional demands and costs on our health care system just as it hopes to emerge from the stresses caused by the pandemic.

Although low-income Americans are at greater risk for oral disease, most state Medicaid programs do not cover comprehensive dental services. Medicare has never covered routine oral health care. As a result, a crisis like COVID-19 has the potential to worsen an already challenging situation.

By expanding dental coverage, state and federal policymakers can break down longstanding barriers to care and help adults address their oral health needs “upstream” — before they progress to become more serious, more costly, or even life-threatening conditions.
Authors

Eric P. Tranby, PhD
Data and Impact Manager, Analytics and Evaluation
CareQuest Institute for Oral Health

Matt Jacob, BA
Scientific Writer and Communication Consultant
CareQuest Institute for Oral Health

Abigail Kelly, MS
Biostatistician, Analytics and Evaluation
CareQuest Institute for Oral Health

Julie Frantsve-Hawley, PhD, CAE
Director, Analytics and Evaluation
CareQuest Institute for Oral Health

Acknowledgements

Mary Bayham, MPH
Health Improvement Manager
CareQuest Institute for Oral Health

Michael Monopoli, DMD, MPH, MS
Executive Director, Grants Strategy
CareQuest Institute for Oral Health

Sarah Raskin, PhD, MPH
Assistant Professor
Virginia Commonwealth University

Methodology:

The Survey of National Oral Health Equity (SNOHE) is a nationally representative survey of consumer and patient attitudes, experiences and behaviors on oral health. It was designed by the DentaQuest Partnership for Oral Health Advancement. SNOHE was collected in January and February 2021 on adults 18 and older by NORC at the University of Chicago on the AmeriSpeak panel. AmeriSpeak is a probability-based panel designed to be representative of the US household population. Randomly selected US households were sampled using area probability and address-based sampling, with a known, non-zero probability of selection from NORC National Sample Frame. Sampled households were contacted by U.S. mail, telephone, and field interviewers. A sampling unit of 16,986 was used, with a final sample size of 5,320 and a final weighted cumulative response rate of 5.2%. All data presented account for appropriate sample weights. The margin of effort for the survey is 1.86%.
CareQuest Institute for Oral Health

CareQuest Institute for Oral Health is a national nonprofit championing a more equitable future where every person can reach their full potential through excellent health. We do this through our work in grantmaking, research, health improvement programs, policy and advocacy and education as well as our leadership in dental benefits, care delivery and innovation advancements. We collaborate with thought leaders, health care providers, patients and local, state and federal stakeholders, to accelerate oral health care transformation and create a system designed for everyone. To learn more, visit carequest.org.

This report and others are available at carequest.org.