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SCENARIO IV: UNDER-RESOURCED BUT RESILIENT AND TRANSFORMATIVE

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SCENARIO HIGHLIGHTS

Educational innovation in Scenario 4 comes not as an option but as a necessity. In this scenario, academic dental institutions suffer from reduced financial resources, but in response, they have chosen to embrace change and innovation. Strong relationships within universities and with other professions have allowed for pooling resources, resulting in improved access to care and collaborative research activities.

The COVID-19 pandemic boosted momentum for significant change in the entire healthcare system towards a focus on disease prevention, patient-centered collaborative care, and improved access to care for all populations. By 2026, these systemic developments, along with increased financial constraints faced by academic dental institutions, have helped overcome the resistance to change and are in the process of transforming dental education and practice. This new system is defined by interprofessionalism. Once all health professions' schools, including dentistry, understood the cost savings to be gained from combining much of their students' basic science training, they developed methods for sharing faculty, facilities, and other resources. A similar shared process is now being used for clinical education, expanding hands-on collaborative training, and combining clinics to provide one-stop patient-centered care all under one roof and within one electronic health record. Interprofessional community clinics have been greatly expanded, and dental students now rotate, not only to the school's on-site and community clinics, but also to hospitals and urgent care centers.

These innovations have enabled academic dental institutions to better meet their educational, research, and service missions, while reducing costs and strengthening their position within their parent institutions. The combination of interprofessional education and innovations in teaching dentistry is educating students to practice more efficiently and effectively than before and better prepare them for the lifelong learning needed for this evolving profession. Expanded faculty development and recruitment programs are succeeding in providing students with a re-energized, diverse group of educators, who

receive dedicated time to focus on their research or particular areas of interest. Oral health research has also benefitted from this focus on interprofessionalism, with more multidisciplinary teams combining expertise in dentistry with the areas of epidemiology, biostatistics, behavioral sciences, dietetics, and other fields. These collaborative efforts—many with an emphasis on translational research—have resulted in innovative discoveries and cost-saving solutions. Finally, after the pandemic demonstrated the cost of inequities in accessing healthcare, academic dental institutions, in conjunction with other health professions' schools, have recommitted themselves to meeting their service mission. As a result, the expansion of their clinical programs has enabled them to improve access to oral healthcare across the country and provide care for many formerly underserved populations. It is a testament to the leaders and faculty of academic dentistry that schools were simultaneously able to reduce costs, expand care, and take significant steps toward transforming dental education.

LIFE IN THIS SCENARIO

The dean of the Mid-Atlantic School of Dentistry, April Yoo, optimistically began the orientation for the CODA site team. "The cross-pollination of dental and other health professions' disciplines has led to improvements in our school, as well as a better current state of dental education overall," she said. "The last discussion I had with our university president," she continued, "was about integration of our school's didactics with those of public health, nursing, and other students, which has really freed up the schedule for the other providers to oversee clinic operations. The faculty is appreciative of the dedicated time for the clinic and teaching. We have created more clinical-track faculty positions, and those faculty members do not have to worry about how many publications they are completing. The research team has been working hard on applying for grants in collaboration with students and faculty colleagues in other schools and departments."

One of the site team members asked, “How have you been able to make this progress in view of the financial stress dental schools have been under in the last five years?”

“Well, I wouldn’t be a dean if I didn’t worry about money,” Dean Yoo said, smiling. “However, even though it may seem contradictory, the financial constraints that forced us to seek more cost-effective ways of meeting our mission have actually led to innovations that many of us wanted before the pandemic struck. The budget crunch helped break the resistance to change, since it became clear to all that it was simply no longer possible to keep doing things the same way they’d always been done. Innovation became a necessity.”

Academic Dean Cameron Patel added, “So much of it comes down to our new mantra: interprofessionalism always, in every way. As you know, the entire healthcare system is in the process of transforming to patient-centered collaborative care. We’re proud that the progress we’d made in our school’s interprofessional education program prior to the pandemic formed a strong basis for expansion over the last five years. Now our integrated model of a coordinated team of faculty provides a core medical curriculum for dental, nursing, pharmacology, and medical students. That both saves money and introduces students to interprofessionalism from day one.”

Another member of the site visit team spoke up. “As a nurse, I’ve seen how interprofessionalism has changed our education and practice, and I’m eager to see what you’re doing in dental education. Are there also changes in the students’ clinical education?”

Kenton Taylor, chair of the Department of Community Programs, explained. “More seasoned dental students are conducting rotations in emergency room and urgent care environments. The community health center dental clinic is closely linked with the Medical Center to provide comprehensive care to communities that previously had little access to care. The dental students rotate with medical residents and faculty and nursing students, enabling collaboration in a one-on-one environment. Combined medical-dental insurance now applies to endodontics, crowns, implant-supported restorations, operative, and oral surgery services, expanding the care that we can provide”

The CODA team knew they were in for an exciting site visit.

SCENARIO DETAILS

Unlike some other parts of the American economy, the end of the COVID-19 pandemic in 2021 did not lead to a financial boost for academic dental institutions. Instead, even greater financial constraints than had existed previously had to be accepted as a given. However, those constraints made educational, clinical, and research innovations that had formerly been desirable now a necessity. That factor, along with the pandemic's effects on the structure of healthcare and the practice of dentistry, has led to a transformed dental education in 2026, and has focused on disease prevention and interprofessional care and education, collaborations within universities and health science centers, multidisciplinary research, diverse faculties and student bodies, and improved access to care.

Rapidly evolving from the pandemic, the healthcare system shifted its focus from disease management to disease prevention and health promotion. This system of care encourages interprofessional education and high-value collaborative care. By embracing this forward-thinking model of care, the dental profession now focuses more on the management of oral health, acceleration of the search for reliable biomarkers of risk assessment, and the development of innovative diagnostic and interventional strategies designed to minimize disease progression. Achieving this outcome has required an approach to care wherein providers are incentivized and reimbursed for preventing disease and helping patients develop personal plans for achieving optimal oral health.

Dental schools have become models of patient-centered, collaborative care, offering the most advanced, efficient, evidence-based oral healthcare available. Implementation of a competency-based curriculum and the expansion of hybrid learning support problem-based learning in preclinical years, case-based learning in clinical years, and early clinical exposure. Students are educated in intra- and interprofessional teams that consider the oral

and general health of all patients. This model promotes a diverse community, resulting in stimulating an inclusive environment in patient care delivery.

Collaborative care teams are an important feature of the personalized healthcare environment post-pandemic, and dentists and other health professionals have embraced the opportunity to work in settings that are both challenging and exciting. To successfully train future members of the healthcare team, health professions' schools have implemented interprofessional competencies that embrace all health professions and are driven by individual patient needs and communities of interest. As a result of the ongoing evaluation of existing knowledge domains and competencies, a progressive educational agenda that strengthens scholarship and promotes innovation has been developed. Health professions' schools and accrediting agencies have embraced common standards that support interprofessional education and new models of collaborative care. Interprofessional education experiences are widely thought to provide students with the opportunity to learn and practice the knowledge, skills, behaviors, and attitudes that will translate into the provision of safer, higher quality, team-based patient care.

The Commission on Dental Accreditation (CODA)'s process for accrediting dental schools has also been modernized in response to the adopted interprofessional model and new challenges in dental education. Since the introduction of an electronic format, the application and site visit processes have been facilitated and expedited. Site visit teams include individuals from other health professions and various backgrounds who bring a diversity of thought into the accrediting process, thus allowing CODA to better serve the diverse patient population.

The new focus on collaborative care and interprofessional education has also led to the core relationship between dental schools and their parent institutions becoming one of mutual respect, collaboration, and innovation. The culture of an institution drives its success, and in this era of weakened financial resources, it is imperative to apply a progressive and

innovative approach to problem-solving. As a result, strategies have been implemented to utilize resources that can maximize productivity and reduce educational costs.

One innovative approach in this era of reduced budgets is to capitalize on the delivery of student services between departments and schools. Research activities, shared student services, and delivery of patient care via interprofessional clinics now have the ability to eliminate redundancy, share expenses across schools and departments, and improve efficiency overall. Second, educational delivery systems have had to evolve rapidly in the last few years, with a large increase in the number of remote, online courses. Because of this development, larger numbers of students can now be accommodated per class, where previously, limitations on class size were dictated by physical structure. This online approach to education allows students a geographically distributed way of contacting and interacting with their professors. This has led to the opportunity to have a smaller faculty cohort teaching the same or greater numbers of students. Third, in an era of increased financial constraints, academic dental institutions need to be nimble and seek grant opportunities through partnerships with other health professions' schools, pharmaceutical companies, and organizations to foster interprofessional education. Sharing supportive functions, facilities, and faculty is a key innovative educational approach in the era of financial restraints. By sharing resources from various university units, such as dentistry, medicine, nursing, pharmacy, and public health, the cost of education and service is shared. This sharing of strengths includes expert-provided education in the health sciences and the incorporation of histology, pathology, pharmacology, gross anatomy, and infection control.

The interprofessional, collaborative focus has also benefitted oral health research. Nationally and globally, multidisciplinary research focused on collaborative efforts has resulted in innovative discoveries and cost-saving solutions to problems. Oral health research has spread beyond the bounds of traditional dentistry, utilizing diverse components of the university, including biomedical sciences, epidemiology, biostatistics, behavioral/social sciences, biophysics, bioengineering, and hybrid sciences, such as nutritional sciences.

Academic dental institutions have become more interdisciplinary, transdisciplinary organizations that move healthcare into much more prevalence. This development is a natural part of an emphasis on translational research and the acceleration of implementing new scientific discoveries. By better integrating research and discovery into dental school curricula and providing students with opportunities to participate in research, dental schools are educating practitioners who will remain relevant and up-to-date in their knowledge and be better prepared to meet the challenges of the evolving healthcare environment.

During this period, a number of factors have come together to support increased diversity of dental faculty and students, as well as improved development and retention of all faculty members. CODA standards mandating efforts to increase both the diversity and cultural competence of faculty and students were strengthened. Pharmaceutical companies and the National Institute of Dental and Craniofacial Research provided grant funds to promote a diverse oral health research workforce through mentoring and supporting programs. These initiatives have resulted in a multi-institutional network of investigators of different races and ethnicities who actively participate in collaborative research. In addition, educational organizations have developed documents, tools, and resource guides to assist dental schools improve the recruitment, retention, and development of faculty. Currently, dental schools have developed programs and strategies to achieve desirable levels of diversity in their communities; focus efforts to retain students, faculty, and staff from diverse backgrounds, races, and ethnicities; and evaluate strategies to enhance the institutional climate for diversity. Collaborative support programs that are relevant, current, and engaging have been developed. Online faculty development programs have been expanded to support junior and senior faculty members based on reverse and mutual mentoring and providing clear guidance for promotion and tenure. Recognition of the necessity for diversity, equity, and inclusion training, support, and resources has resulted in well-established national and university-based programming to support a diverse faculty.

The final area of change involves access to care. The pandemic has dramatically demonstrated the challenges faced by those with limited access to basic healthcare due to geographical, informational, cultural, financial, medical, or developmental barriers. Post-pandemic efforts have resulted in improvement in the delivery of basic oral healthcare and in overcoming access-to-care barriers for many populations throughout the country. Innovative solutions that address access barriers have been implemented by dental schools through the targeted delivery of care to underserved communities. Schools are well positioned in the community to deliver low-cost care via a student workforce through extramural rotations and outreach programs in community clinics, hospitals, and FQHCs. Dental clinics have now been established in hospital and urgent care centers to provide dental emergency care. Third- and fourth-year dental students rotate through these clinics to gain experience in emergency care and care treatment for diverse populations. Not only do these new clinics expand access to care, but they have financial advantages for dental schools, reducing the need for faculty coverage, dental materials, and staffing support in on-site clinics. Dentists receive loan reimbursement or multiyear retention bonuses for every year they work in these areas.

In addition to this expense- and revenue-sharing between community clinics and dental schools, licensure costs can also be defrayed by providers who work in areas of need, such as rural and low-income health centers and clinics specializing in patients with special needs. Counties with access to care issues allow licensure by credentials. The resulting financial savings allow for more flexibility by the dental school to plan for future shortfalls or transformative innovations. Patient groups served by this dental workforce include individuals who are homeless, veterans, nursing home residents, and individuals with special needs. Through the process of caring for these patients via traditional dental delivery or through novel mechanisms, such as teledentistry, students gain tremendous skill and insight into what is possible in the care of underserved populations—one of many positive outcomes of this period in which financial constraints have been, perhaps paradoxically, accompanied by beneficial educational innovation.