FROM PILOT TO SYSTEMS CHANGE:
INTEGRATING THE VIRTUAL DENTAL HOME INTO CALIFORNIA'S SYSTEM OF ORAL HEALTH CARE FOR CHILDREN

Introduction

Technology continues to transform the ways in which children develop, learn, and interact with one another, their parents, teachers, and providers. As more communities have access to high-speed internet, technology provides an opportunity to equip health care providers and systems with tools to improve quality, care coordination, and overall effectiveness of health care delivery systems.[1] These advances are creating opportunities for widespread adoption of telehealth to improve access to care for children, including oral health care access.

Oral health care is essential to both children's health and ensuring success in school. While largely preventable, dental caries (tooth decay) is the number one chronic disease among children.[2] It accounts for persistent pain, trouble eating and sleeping, missed school days, and expensive emergency room visits for preventable dental problems. Yet, much of the reason dental disease persists comes down to the fact that children and other vulnerable populations in California lack access to routine oral health care.

The Virtual Dental Home (VDH) is a system of dental care that uses technology to bring high-quality and safe dental care to children—as well as adults—where they already spend time, such as at schools and early learning sites. It has been proven both successful and cost-effective in demonstration projects throughout California and can contribute to the solution of getting dental care to those who need it most.

The purpose of this issue brief is to document the success of the VDH in meeting the dental care needs of California's underserved children, summarize the evolution of policies that have supported the spread of the VDH throughout communities in California, and broadly identify what is needed to integrate this model into California's dental care delivery system in order to improve access to oral health care services for California's children and families. In short, widespread adoption of the VDH must be a critical strategy toward achieving oral health equity for California's most vulnerable communities.

The Case for Telehealth for Children's Oral Health

Dental disease is a serious and persistent problem among children in California and across the nation. In the United States, 20 percent of children ages 5-11 have at least one untreated, decayed tooth. Further, California is among those states with the worst results in providing dental care to children enrolled in Medicaid.[3] Only 47.2 percent of children enrolled in Medi-Cal, California's Medicaid program, had a dental visit in 2017.[4] Children of color and poor children experience greater instances of dental disease than their white, more affluent counterparts.[5] Children with special health care needs (SHCN)—especially those in low-income families—experience higher prevalence of unmet oral health care needs and are at greater risk for poor oral health.[6]

As a result, these children are at risk of ongoing oral health and other health problems throughout their lifetime.[7] Children who have poor oral health are three times more likely to miss school as a result of dental pain. Relative to children with good oral health, they are at risk for doing poorly academically, putting them on a trajectory of not thriving.[8, 9]

Unfortunately, the traditional office-based dental care delivery system does not reach a large segment of California's population, especially children from underserved communities. Many families face significant barriers related to finances, transportation, language, and culture in accessing dental care.

In California, 21 percent of children under the age of 18 live in poverty, and studies show that these children have five times more untreated dental decay than children from higher incomes.[10] Further, there is a limited number of providers who can address patients' diverse cultural and language needs. Dentists and dental hygienists in California are overwhelmingly white, while the majority of the state's population is not white, and the percentage of populations of color grows as we look at lower-income Californians.[11] These barriers exist in addition to the difficulty finding dental offices that accept Medi-Cal.[12]

School- and early-learning on-site telehealth programs provide an opportunity to leverage technology utilizing a health care delivery method that has promising evidence supporting its efficacy in improving access to care and health outcomes for children. Telehealth is also evolving as an important tool to help improve school performance and attendance by providing convenient options for working families who might otherwise sacrifice work and school time for health care visits or, worse, forego necessary care. Telehealth services for children often target certain key populations and conditions and utilize a range of community partners in both urban and rural areas, including community health centers, Head Start sites, child care centers, preschools, elementary schools, and high schools.

The Virtual Dental Home: Bringing Care to Children and Other Underserved Populations in Community Settings

Created by the Pacific Center for Special Care at the University of the Pacific School of Dentistry (Pacific), the Virtual Dental Home uses innovations in technology and workforce to bring dental care to patients in community settings—such as schools, early learning sites, and nursing homes.

Through the VDH, specially trained dental hygienists and assistants go to community sites to provide preventive dental care in partnership with a collaborating dentist. They start by collecting dental information from patients, including dental x-rays, photographs, charting, health history, and other information.

After initial information is collected, the information is sent electronically via a secure web-based system (called "store-and-forward telehealth," asynchronous telehealth by which health data are collected in one location and electronically forwarded to a provider for review at a later time) to the collaborating dentist at a clinic or dental office. The dentist uses that information to establish a diagnosis and create a dental treatment plan. The hygienist or assistant carries out the parts of the plan that fall within her or his scope of practice. For procedures that require the skills of a dentist, the hygienists and assistants refer patients to dental offices in the community.[13]

In the Virtual Dental Home Demonstration, which took place between 2010 and 2016, almost 3,500 individuals were seen through nearly 8,000 visits in 50 community sites across 13 regions in California. The majority, 2,862, were children. A rigorous evaluation has demonstrated patient safety with no adverse outcomes. Approximately two-thirds of the children

seen were able to receive the care they needed at the community site.[14] Because of the VDH, children have a dental home; even if they do not see their dentist in person, they are connected to a dentist at a nearby clinic or dental office who is monitoring them and is often available to the children if they need more complex care.

Moreover, several indicators point to the VDH as a more cost-effective system of dental care, overall. Patients do not come into the dental office for care as frequently, resulting in less overhead. The establishment of a care team that includes the dental hygienist or assistant and the dentist allows for a more efficient use of resources. The dentist uses minimal time to review the previously gathered records and develop a treatment plan. With dental hygienists handling the majority of the care that a child may need in a community setting, the dentist can be in the clinic or in their dental office taking care of patients with more complex needs. Therefore, the VDH can provide services to more patients at a lower cost while providing high-quality, safe dental care.

Finally, the investment in preventive services pays off in the long run by reducing the need for more expensive restorative care. Indeed, data from the demonstration indicated that when patients were receiving care through the VDH for up to 18 months, the need for referral to a dentist to treat advanced disease fell from 33 to 25 percent.[15]
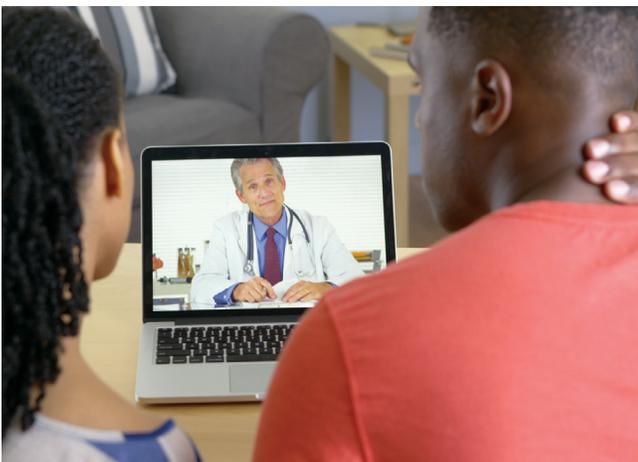
The Policy Evolution of the Virtual Dental Home

The Virtual Dental Home has evolved over the past decade and has become a well-known system of oral health care in California. It started as a pilot project, in part supported by a unique mechanism in California called the Health Workforce Pilots Project (HWPP) Program. Through the California Office of Statewide Health Planning and Development (OSHPD), organizations can apply for an HWPP to evaluate new or expanded roles for health care professionals or new health care delivery systems before changes in licensing laws are made by the Legislature.[16]

Through an HWPP, Pacific tested two duties not previously included in the scope of practice for dental hygienists and assistants. First, the pilot allowed these allied dental providers to decide which x-rays to take in order to facilitate an oral health exam by the collaborating dentist. This practice has proven to be safe and contributes to the provision of care in the community. Second, the HWPP allowed these providers to place interim therapeutic restorations (ITRs) on patients' teeth, as appropriate and directed by the collaborating dentist. ITRs are provisional fillings that stop the progress of cavities and are placed without the use of local anesthetic and without the need for drilling on the tooth.[17] This practice has also proven to be safe and effective at offering care to children and other patients in community settings.

The initial demonstration lasted six years and indicated that the Virtual Dental Home system of care is a safe and effective way to bring dental care to underserved populations in community settings. Federally Qualified Health Centers/Rural Health Centers (FQHCs/RHCs) are the most frequent oral health care provider engaged in the VDH. Health centers recognize the value in utilizing the VDH to get needed oral health care to their consumer base and have partnered with dozens of community sites to reach patients they may not have been able to reach otherwise.

However, without policy change, the opportunity to address the oral health care needs through this successful model would have been lost. Therefore, with support from dozens of stakeholders, Assembly Bill (AB) 1174, signed into law in 2014, made permanent the scope of practice changes so dental hygienists and dental assistants can provide more care in the community and required Medi-Cal to pay for dental care provided through store-and-forward telehealth.

While this legislation was a seminal step in taking the VDH statewide, more is needed to integrate the model into California's oral health care delivery system. Specifically, there is a need for an upfront investment in training, equipment, technical assistance, and other support that providers require to get started so that there is a critical mass of VDH programs to spread the VDH statewide and truly be integrated into California's delivery system.

Fortunately, stakeholders across the state have seen the benefits of the VDH and have used funding opportunities to implement the VDH in their communities. Aligned with California's State Oral Health Plan, most significant are the Local Dental Pilot Projects (LDPPs) that allow local communities to test innovative strategies to increase the use of risk-based preventive and disease management services and to increase continuity of care for children enrolled in Medi-Cal.[18] As part of the California 1115 Medicaid Waiver's Dental Transformation Initiative (DTI), the state has funded 13 LDPPs, and five of these projects are currently implementing the VDH, covering six counties. Through these pilots, additional data and information are being collected to strengthen the case for integration of the VDH into traditional care delivery. Further, other state and philanthropic funders are supporting VDH projects in five additional underserved communities across California, ranging from Eureka, in the far north, to East Los Angeles, in Southern California.

Of note, the VDH model is being spread or planned in five other states, including Colorado, Oregon, Hawaii, Missouri, and North Carolina. California has often been a leader in testing promising models that can serve large numbers of children and then spreading them to other states across the nation. This is another example where California is playing an important role in shaping national policy.
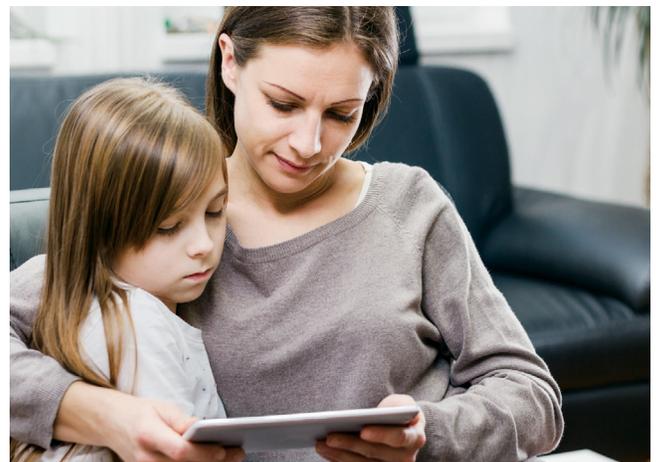
Taking the Next Step: Integrating the Virtual Dental Home into California's System of Oral Health Care for Children

The evidence demonstrates that the VDH is a successful, high-quality, safe, and cost-effective system of bringing dental care to underserved children and other populations who most likely would otherwise go without needed care. And communities across the state see the value in using this model to address the oral health disparities that they see every day.

The next step for California leaders is to continue to promote policies and payment systems to truly integrate the VDH into California's system of oral health care for children and other underserved populations. Since the VDH is a different type of delivery model from traditional office-based practices, it needs different programmatic and policy support to ensure its success in meeting the preventive dental care needs of California's most vulnerable populations. Specifically, policymakers should take the following actions:

▶ Clarify current policies, legislatively and administratively, to ensure FQHCs and rural health clinics (RHCs) can establish a patient relationship—and thus be reimbursed for services—through store-and-forward teledentistry.

▶ Ensure that the success of the LDPPs continues after the Medicaid waiver has expired in 2020. The Legislature should start now to identify financial and policy mechanisms to sustain best practices associated with the VDH, such as paying for care coordination and equipment and providing training and technical assistance to clinics and other oral health care providers, community sites, and other stakeholders.

▶ Incentivize providers to focus on positive oral health outcomes in the least invasive and most cost-effective ways, such as providing care in community settings and using preventive and early intervention strategies.

We must start now to find ways to sustain best practices so that we do not lose ground in improving the oral health of California's children and other vulnerable populations. With the investment from policymakers, oral health and health care systems, communities, and other stakeholders, the VDH can put California one step closer to oral health equity.

Endnotes

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