'Virtual dental homes' prove safe, effective in six-year California study

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Bringing "virtual dental homes" to schools, nursing homes and long-term care facilities can keep people healthy - reducing school absenteeism, lessening the need for parents to leave work to care for an ailing child, and helping to prevent suffering for millions of people who have no access to a dentist, a six-year study by University of the Pacific demonstrates.

The findings were reported today by the Pacific Center for Special Care, a program of the university's Arthur A. Dugoni School of Dentistry. Pacific developed the teledentistry system and has evaluated it in more than 3,000 patients across California since 2010. More than $5.5 million in federal, state and other grants supported the demonstration project.

The virtual dental home is a community-based oral health care delivery system that uses telehealth technology to link specially trained dental hygienists in the community with dentists in dental offices and clinics. The approach was developed by Pacific Center Director Paul Glassman, a professor of dentistry at University of the Pacific, who collaborated with a broad range of stakeholders to leverage advances in dentistry and telehealth, create training programs for dentists and hygienists, and win policy and other changes needed to pilot and evaluate the system.

"Our six-year demonstration project confirms that this is a safe, effective way to bring care to people who need it," Glassman said. "Basing a virtual dental home in a school, a nursing home or other community setting allows dental hygienists to prevent or treat the majority of oral health problems on site, and also brings prevention information to patients, families and caregivers. Finally, it connects on-site care in the community to dentists in dental offices."

Since the demonstration project began, Glassman and his team have implemented the system in 50 California Head Start preschools, elementary schools, community centers, residential care facilities for people with disabilities, senior centers and nursing homes. Preliminary findings persuaded Oregon, Hawaii and Colorado to also pilot the system.

One of the first virtual dental homes opened its doors at Harmon Johnson Elementary School in North Sacramento, where almost 100 percent of students are eligible for Medi-Cal.

The school's dental "home" is a cheery room, just off the cafeteria, where kids can have their teeth checked by a dentist via telehealth. The school's part-time, grant-funded dental hygienist cleans teeth, treats some small cavities, and teaches tooth brushing, flossing and tooth-friendly nutrition. She gives away free toothbrushes to children and their family members, with as many free replacements as needed.

"Our students and families are excited because the preventive dental care takes place at school, a safe and caring learning environment that's a second home to them. There are smiles all around, even among staff," said Michelle Rivas, president of the Twin Rivers Unified School District Board of Trustees. "When children have less need to travel to a dental office, they are less likely to miss hours of critical instructional time in the classroom. Being able to receive preventive care will also help keep them healthy and better able to learn."

Other children's advocates also endorse the approach.

"California's children are facing an oral health care crisis," said Mayra Alvarez, president of The Children's Partnership, a California-based national children's advocacy organization. "The virtual dental home helps bring critical, comprehensive care to children where they are. With care in the community by oral health providers working at the
top of their expertise, we are helping to better meet the diverse needs of California's children and families."

California Assemblymember Evan Low (D-Silicon Valley) also argues that more schools and other community settings should have on-site teledentistry care.

"Results from the research further demonstrate the benefits of this oral health care delivery system and how this program can reach children and communities that would otherwise likely go without," Low said.

He is author of a bill now before the Legislature, which would provide $4 million in funding to expand virtual dental homes statewide. The measure is cosponsored by The Children's Partnership and California Dental Association.

"AB 648 will supply more community-based sites across the state with access to preventive and basic dental care through the virtual dental home model," Low said.

The California State Auditor underscored the need in a 2014 report. It found that in 32 of California's 58 counties there were too few dentists to serve children enrolled in Medi-Cal. Five counties had no active Medi-Cal dentists. In 11 counties, not a single dentist accepted new Denti-Cal patients.

In California, 24 percent of all children complete elementary school without ever having seen a dentist. The situation is even worse for low-income children. In 2013, only 41 percent of children eligible for Medi-Cal received any dental services.

Findings of the six-year report include:

- Examining dentists using the telehealth system determined that approximately two-thirds of children and about half of seniors and people with disabilities in long-term care facilities can have their oral health needs met by dental hygienists in the community, without the need to see a dentist in person.
- No adverse outcomes were reported for any of the procedures performed by hygienists.
- The virtual dental home system delivers significantly more prevention and early intervention at less cost per patient than the current Denti-Cal system.
- Financial projections based on the demonstration project experience indicate the system could be financially viable in the Denti-Cal system.

The Pacific Center for Special Care is committed to improving the oral health of underserved people throughout California and nationally. In addition to creating best-practice models, it advocates for improved access to dental care for anyone who faces challenges to receiving oral health services through the traditional oral health care system. These include people who have difficulty maintaining good oral health or accessing oral health services because of medical, physical, social, economic or geographic conditions.

Provided by University of the Pacific