

Preventive dental services by physicians reduce tooth decay treatments in preschoolers

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(PhysOrg.com) -- A preventive dental program targeting preschoolers under age 4 administered by physicians instead of dentists effectively reduces the need for tooth decay-related treatment among young children, a University of North Carolina at Chapel Hill study shows.

The North Carolina program, "Into the Mouths of Babes," trains physicians and nurses to screen and assess risks for dental caries and other problems, counsel parents about children's oral health and apply fluoride varnish to children's teeth. It was established in 2000 by the N.C. Medicaid program in response to rising early childhood tooth decay rates. At the time, nearly 40 percent of children entering kindergarten had a history of early childhood caries, with rates as high as two-out-of-three children in some counties. Eligible recipients are enrolled in Medicaid, since most children with early childhood caries belong to low-income families.

Dozens of states around the country have adopted the North Carolina model to create similar prevention programs.

A study published Feb. 28, 2011, online in the journal *Pediatrics* shows that children up to age 6 who had four or more "Into the Mouths of Babes" visits before they turned 3-years old had, on average, 17 percent fewer treatments for dental caries than a similar group who did not.

"Parents rarely take their infants or toddlers to the dentist," said Gary Rozier, D.D.S., professor of public health policy in the UNC Gillings



School of Global Public Health and a study author. "They are much more likely to bring the children in to see a pediatrician or primary-care doctor for well-baby visits."

Physicians have endorsed the program, wanting to help improve oral health, he said. Parents have expressed satisfaction with the preventive care services their children receive.

"What we didn't know, until we completed this study, was whether the program was effective in reducing the amount of treatment that children get for <u>tooth decay</u>, and thus hopefully leads to a reduction in Medicaid expenditures," Rozier said.

The program was most effective when children were seen for their first visit at about 1 year of age (when baby teeth are first starting to emerge) and when they have regular follow-up visits, he said. The best results came when well-baby visits happen most often; children who had preventive visits at 12 and 15 months had 49 percent fewer dental caries treatments at 18 months of age compared to those with no visits. For high-risk children, application of fluoride varnish is recommended every three to four months starting at 6 to 9 months of age.

"As the children get older, the time between well-child visits increases," Rozier said. "They have new teeth coming into the mouth that have not been treated with the fluoride varnish and are more susceptible to caries. Multiple applications of fluoride at the time primary teeth are emerging seem to be the most beneficial."

Participating medical providers are trained by Kelly Close, preschool oral health coordinator with the oral health section in the public health division of the N.C. Department of Health and Human Services, with support from county-based section staff. At least one pediatric practice, family medicine practice or community clinic participate in the program



in all 100 N.C. counties, and the program has continued to expand.

"It's gratifying to know that 'Into the Mouths of Babes' works as well as we'd thought," said Rozier. "Children with early childhood caries often experience pain, difficulty eating and sleeping, all of which affect their quality of life." If children have caries early, they are more likely to develop <u>caries</u> in permanent teeth, he said.

"Early intervention – including counseling caregivers to establish good oral hygiene habits and a healthy diet as part of daily routines – will help set a path for good <u>oral health</u> throughout their lifetime, and that's the goal we're ultimately aiming for," Rozier said.

More information: pediatrics.aappublications.org ... act/peds.2010-1457v1

Provided by University of North Carolina at Chapel Hill

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