Improving Children's Oral Health Through Community- and Risk-based Care

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Many children's hospital administrators are well aware of the financial costs and trauma that families suffer when young children are treated for tooth decay in operating rooms (ORs) under general anesthesia. However, most Americans have no idea. Last year, my organization, the Children's Dental Health Project (CDHP), sponsored focus groups of policymakers and influencers to explore where gaps exist in public knowledge of oral health's impact. Here is one of the facts we shared that surprised participants the most — in 2014, more than 3,000 kids were treated for tooth decay in hospital ORs at Colorado's largest children's hospital, costing between $10,000 and $15,000 per case.

Nearly all cavities, which result from untreated tooth decay, are preventable. But nationwide, about one in four children has experienced decay by the time they enter kindergarten. Recent research has found that two-thirds of outpatient surgery stays by children under six years old are primarily due to caries—the disease that causes tooth decay. Of those visits, three year olds have the highest rate of hospitalization to treat this illness. Behind these numbers may be many anxious families in hospital waiting rooms. Unfortunately, treatment for severe tooth decay in the operating room doesn't tend to address the underlying dental disease. Consequently, at least 40 percent of treated children have new cavities within six months to a year of being treated in the operating room.

Even more concerning, research indicates that subjecting young children to general anesthesia can have lasting negative effects on their cognitive development. For a disease that's largely preventable, hospital

surgery should be the very last resort.

So how did we get to this point — and how can we make progress? These questions are worth exploring by policymakers and children's advocates.

Enhancing a community-based approach to prevention

Due to systemic inequities that make dental care difficult to obtain, tooth decay disproportionately affects kids in low-wage families and communities of color. In addition to assessing and acting on their risk for dental disease, we need to reach parents and caregivers earlier with oral health prevention and education. Families need more support in understanding concrete steps they can take to keep their children healthy. A 2015 survey commissioned by CDHP revealed that 43 percent of U.S. adults mistakenly felt they had only "some" or "no" control over whether they got a cavity. In reality, with the right support for families, tooth decay is a process that can be prevented or halted.

Part of the solution to supporting children's and families' oral health needs lies outside the dentist's office. Many stakeholders outside of dentistry have interactions with children and parents long before the typical child has their first dental visit. These interactions present opportunities to meaningfully manage the risk factors for disease, similar to how we help patients address other chronic conditions like diabetes.

Community health workers (CHWs) offer one example. As public health educators often from the community they serve, CHWs are effective in helping individuals manage chronic conditions and improve their health. Engaging with families through home visits in culturally competent ways has contributed to their success. CHWs counsel parents and caregivers about how to reduce children's risk of decay, like brushing with fluoride toothpaste when an infant's first tooth appears and limiting sugary drinks. CHWs also help families access dental care and other support services.

Several community strategies not only benefit children's health but also serve as innovative ways to reduce health care spending. The Affordable Care Act allows states to delegate certain preventive services to non-traditional providers, such as CHWs. In addition, managed care organizations (MCOs) have wide flexibility in how they administer care to their patient population; the use of CHWs could extend the reach of important tools like oral health risk assessment, oral health education and case management. Recent research, conducted in part by CDHP, found that states could save at least $2.02 per every Medicaid dollar if they invested in certain CHW home-visiting practices that encouraged oral health interventions in toddlers before age two. Our nation can do much more to capitalize on these tactics, investing in family-centered approaches to address children's oral health.

Advancing risk-based care to meet children's needs

Community-based interventions can only go so far for kids with greater dental needs. Oral health risk assessments are an important part of the solution, helping health care professionals identify which children need more interventions than others to prevent or stop tooth decay. These assessments are recommended by the American Academy of Pediatrics and American Academy of Pediatric Dentistry. This approach also aligns with Medicaid's own guidance to provide dental care at "intervals as indicated by medical necessity."

Yet if a child needed tailored treatment, their coverage would likely present a roadblock:

- Current insurance payment models are based on a "one-size-fits-all" approach, largely covering two dental visits per year. And while important services like fluoride varnish are usually covered, more frequent yet necessary services for high-risk children often require prior authorization and may not be listed as covered under the state's benefit plan. State leaders and managed care officials have a responsibility to uphold Medicaid's benefit standards. Therefore, it is important to educate them about how such insurance practices impede kids from getting the most appropriate care.

- Most state Medicaid programs, including Pennsylvania's, do not cover oral health risk assessments. Among the handful of states that do, it is not apparent that benefit and payment policies support more intensive and frequent care that patients at elevated risk for tooth decay might need.
- Few state Medicaid programs explicitly allow or reimburse health providers who are not dentists to conduct oral health risk assessments.

As our 2014 research brief shows, aggressive care based on risk can achieve significant gains — lowering cavity prevalence and maximizing the impact of Medicaid dollars. Multi-year efforts by the DentaQuest Institute to implement risk-based care protocols at multiple clinics across the country have significantly decreased disease and reduced the need to refer children to operating rooms for care. More states should take advantage of oral health risk assessment billing/procedure codes established in 2014 by the American Dental Association. This key step will help focus resources on children most at risk for tooth decay, who may well end up in the hospital if the disease isn't properly managed.

Treating kids for dental disease in our hospitals is a horribly painful symptom of a broken system — but one that we can repair. Investing in community prevention efforts and taking a risk-based approach to care are two potential solutions. In the end, it will take a variety of strategies, stakeholders, and continued innovation to make progress. Cultivating a generation without tooth decay is well worth the effort.

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