

Why Millions Suffer with Preventable Oral Disease

By Bryant L. Scott

The emergency room (ER) at Boston Medical Center (BMC) is the largest and busiest of all the hospitals in New England. "Asthma attacks, sickle cell anemia cases, and major trauma resulting from automobile accidents," are examples of what we typically see in the ER, says David Dorfman, MD, who specializes in pediatric emergency medicine.

Four years ago, Dorfman was puzzled by a peculiar trend: large numbers of children showing up at the ER presenting with nontraumatic dental complaints or what really amounted to untreated dental cavities. "It just struck me as a little odd that these kids would come to the ER for their dental pains rather than seeking out a dentist or a dental clinic," he says. But these were not cases of simple toothaches. According to Dorfman, these kids were walking in with significant amounts of tooth decay and sometimes mouthfuls of cavities.

Dorfman initially speculated that this trend might be confined to Boston's South End, an urban community undergoing gentrification that the hospital serves. When asked to describe the South End, Dorfman pauses before letting out a sigh. In a voice filled with resignation and affection, he describes the area as both "fancy and poor; it's sort of a varied neighborhood."

"Almost all the kids we were treating came in because they were in pain," Dorfman says. Their pain was so severe that a number of them could no longer eat or drink. In instances when Ibuprofen and Tylenol were not strong enough, Dorfman says, doctors [had to] reduce the short-term pain with narcotics.

Numerous kids presented with long-standing infections and abscesses, which can spread through the sinuses and into the nose, eyes, and ears, Dorfman explains.

Dorfman recalls one school-aged boy who developed an abscess and a facial cellulitis. His face was swollen on the infected side from "the lower jaw to the lower eyelid," Dorfman says. This particular case required general anesthesia to sedate the child and surgery to drain the abscessed area of pus, followed by an overnight stay in the hospital during which time he received a steady course of antibiotics, intravenously. With the antibiotics he received in the hospital and the ones he followed up with at home, he recovered quickly, Dorfman says.

"At that point, I realized we were not prepared to deal with these dental conditions," Dorfman says. The dental care these kids received in the ER was limited to medications and referrals to dentists, and when necessary, incision and drainage of abscesses, Dorfman says, adding that what these kids really needed was their local dentist.

An Epidemic of Cavities

Dorfman enlisted the help of two BMC colleagues, Beth Kastner, MPH, and Robert Vinci, MD, to administer a survey to 200 randomly selected patients who visited the ER with dental complaints.

The results showed that 75% of the cases were related to dental cavities, nearly 50% of the patients were African-American and more than 50% of respondents were

enrolled in Medicaid—the federal-state health insurance for some 44 million low-income Americans. But when patients were asked why they didn't seek a dentist for their dental cavities, following the most common response, "dental office was closed," were "had no insurance—too expensive" and "didn't have a dentist".

Dorfman was caught off-guard by the fact that respondents indicated they "lacked dental insurance." But what he learned is that this confusion over Medicaid dental benefits is another symptom of an epidemic of dental cavities affecting approximately 23 million low-income children, according to the highly publicized report *Oral Health in America: A Report of the Surgeon General*, issued May 2000 by then U.S. Surgeon General David Satcher, MD, PhD.

The first-ever comprehensive look at the status of the nation's oral health, *Oral Health in America: A Report of the Surgeon General* found dental caries [cavities] to be the most chronic childhood condition—five times more common than asthma and seven times more common than hay fever. Poor Mexican and African American children aged two-to-nine are the most likely to suffer with massive amounts of untreated tooth decay, the Report concluded.

Another study, published in the January 2002 issue of the *American Journal of Public Health (AJPH)*, found untreated dental caries [cavities] is present in 25% of all children entering kindergarten.

The most shocking finding of *AJPH's* study was that 30% of all kindergarten students accounted for about 95% of all tooth decay in the United States. "Typically, these children with untreated tooth decay are from families of lower socioeconomic backgrounds and are eligible for Medicaid," write the study's authors.

In theory, Medicaid guarantees medically necessary services, including preventive dental care, under its Early, Periodic, Screening, Diagnostic, and Treatment (EPSDT) provision. And, experts agree that cavities can be prevented with low-cost measures such as dental sealants.

Despite this fact, CDC reports that approximately one-third of Americans still lack access to a community fluoridated water supply, and only 18.5% of children have at least one sealed tooth.

Although the reasons dealing with culture, ethnicity, and the economics of Medicaid are more complicated, the



What these kids really needed was their local dentist.

bottom line is that dentists frequently decline Medicaid patients because of low reimbursement levels for preventive services, such as applying dental sealants, according to Oral Health America's President Robert Klaus

Dentists also complain about the administrative hassles of completing burdensome Medicaid paperwork, which they say amounts to bureaucratic red tape.

Unofficially, there is a stigma attached to Medicaid patients—they are thought to be uneducated and unprofitable—that organized dentistry is reluctant to discuss publicly, Klaus says. The result is that less than one-fifth of Medicaid-eligible children are seen by a dentist in any given year, he says.

According to Klaus, what's happening in the South End's Boston Medical Center is consistent with what's happening not only in large urban hospitals, but in small rural hospitals all over the country. Part of the problem with this lack of access to dental care is due to what Klaus calls a manpower issue, that is, the widely reported shortage of dentists to care for an ever-increasing population.

In 2001, the federal government estimated that more

than 31 million people lived in communities designated dental health professional shortage areas, where there is less than one full-time-equivalent dentist per 4,000 to 5,000 people. According to *Oral Health in America: A Report of the Surgeon General*, the ratio of dentists to the total population has been steadily declining for the past 20 years, and at that rate, by 2021, there won't be enough active dentists to care for these populations.

There is a more complex set of issues dealing with "culture, ethnicity, and the economics of Medicaid," a dysfunctional and inadequately funded

public program, Klaus says. Most troubling is that the burden of oral disease is unevenly spread throughout the country, Klaus says. And the impact of untreated dental cavities is devastating for small children.

The chronic pain associated with cavities affects "eating, drinking, speech, and sleeping," Klaus says. However,

systemic health problems resulting from a mouth rife with infection along with the embarrassment and social anxiety of never smiling for fear of being ridiculed because of poor dentition also add to the mix. "The saddest part of this problem," Klaus says, "is that dental caries [cavities] is a wholly preventable disease when treated appropriately."

No Place to Turn

The pain can be crippling and having nowhere else to turn, kids often end up in a hospital emergency room. But services in an ER, such as chest X-rays and blood work, Dorfman says are admittedly, the most expensive type of medical care rendered.

Klaus agrees with this, but goes a step further saying, "kids who wind up in the ER for preventable oral diseases, namely cavities, spend other Medicaid funds there, and it just drives attending physicians crazy. It's a total waste of resources."

A study conducted in Louisiana from 1996–97 offers a glimpse into how treating children in the ER for dental cavities can consume a disproportionate share of a state's Medicaid dental budget. Researchers followed a population of 40,565 Louisiana children who had a total of 233,635 dental procedures performed that year.

The average cost of dental care for a child who was hospitalized fell in the range of \$1,500, compared with \$104 for nonhospitalized children, or kids who received preventive services such as dental sealants. Again, the procedures performed most frequently in the hospitals were caries related, the report concluded.

Total Medicaid reimbursements for services rendered by both medical and dental providers amounted to approximately \$11.5 million, with 45% of that going to pay for kids who were hospitalized. In other words, 2,142 kids, or 5% of the study population who were hospitalized, the majority of the time for dental cavities, cost the state of Louisiana \$7 million out of an \$11.5 million Medicaid dental budget.

Medicaid Underfunded, Underutilized

"Historically, the biggest problem with Medicaid is that it has been chronically underfunded, which results in underutilization by both patients and dentist providers," explains Jim Crall, DDS, ScD, director of the Oral Health Disparities Policy Center at New York's Columbia University. A national figure on the policymaking side of oral health care, Crall says that the key to understanding Medicaid is that eligibility requirements vary, but the services stay pretty much the same across states.

Keep in mind that Medicaid is a federal-state program, meaning the federal government matches at least dollar-for-dollar what individual states spend on services. Some states spend more than others, and this affects access rates for all kids, Crall says. Understanding this explains why some states have access rates as low as 20% whereas others, like Vermont, have access rates as high as



Unofficially, there is a stigma attached to Medicaid patients—they are thought to be uneducated and unprofitable...

45%, according to Crall. But the overriding issue is that there aren't enough resources to go to all the dental services that need to be provided.

Crall points to a 2001 survey he designed on behalf of the U.S. General Accounting Office (GAO). In that survey, he found that less than 10% of dentists would see the reimbursement fees offered by the Medicaid program as anywhere near reasonable. "It's no surprise that you don't get dentists to participate in the program if the reimbursement levels are woefully inadequate to cover their costs—in most cases," he says.

Connecticut is one of those "in most cases" exceptions Crall was alluding to. In 1993 Connecticut's Medicaid administrators raised reimbursement rates substantially to 80% of dentist's customary fees for preventative procedures such as sealants. In turn, the Medicaid program doubled the reimbursement rates and the total number of dentist providers willing to see Medicaid patients dropped even further, according to a lawsuit filed against Connecticut's Medicaid administrators.

As a result, Connecticut, in addition to 16 other states, is facing a class action lawsuit under the EPSDT provision of Medicaid. In *Carr v. Wilson*, plaintiffs allege that the Connecticut Department of Social Services (DSS) has not "funded or administered the Medicaid dental program sufficient to attract an adequate number of dentists as required by law." Jane Perkins, legal director of the National Health Law Program (NHeLP), a health consumer advocacy group that has been active in these cases, says that poor children depend on Medicaid to provide basic medical and dental care.

In fact, the day he was interviewed for this article, Crall was just returning from Hartford, Connecticut, where he testified before a public commission about this very issue. Crall maintains that even when reimbursement rates are increased, dentists can be still put off by the administrative headaches of Medicaid. "The paperwork creates more hassle for people who want to participate in the program," he says.

For instance, the American Dental Association (ADA) developed and licenses *Current Dental Terminology (CDT)*, which acts as a billing guide for dentists and commercial dental insurance companies.

On the public side, most states use medical managed care firms versus commercial dental insurance plans to administer their Medicaid dental programs. In the 1980s, managed care companies were successful reining in costs for unnecessary medical procedures. However, most medical managed care firms lack the provider networks and friendly relationships with private-sector dentists that many commercial dental plans enjoy.

Even with these pronounced problems, there is some evidence that State Children's Health Insurance Program (SCHIP), 1997 legislation that set aside \$24 billion to be distributed over a five-year period to help states expand health insurance to families who earn too much for traditional Medicaid, is making some inroads. SCHIP programs allow states greater flexibility in designing programs to fit the specific needs of its citizens, Crall explains.

To date, four million new kids have been enrolled in SCHIP nationwide. Crall points to a statewide CHIP program

known as the MICHILD dental plan, which he says provided a model for the Medicaid program. Medicaid out sourced the plan to Delta Dental insurance, so that it would be successful. One of the reasons dentists were willing to participate was that they were already familiar with the administrative procedures so it was easier to do, according to Crall.

In fact, 75% of dentists in the states that use the policy are being reimbursed 100% of their usual fee, Crall says. For example, in the first eight months of Michigan's 37-county Medicaid program, Healthy Kids Dental, went from 18% of kids utilizing the services to 34%," he says.

"Other problems associated with Medicaid patients such as missed appointments and being late for appointments virtually went away," Crall continues. Part of the explanation for that is there are many more providers participating in the program. This reduces the travel distance for people who often can't afford cars or to miss time from work. "They don't have to drive by three dentists offices to find one who will take their child on Medicaid," he says.

There was a great deal of excitement last year about taking the Healthy Kids Dental program statewide, Crall says. However, Michigan is coping with a budget crisis even as legislators are convinced this program would make remarkable improvements in kids' access to dental services in a relatively short period of time.



"The paperwork creates more hassle for people who want to participate in the program."

Recession Means Medicaid Cuts

Last year, this country spent about \$1.4 trillion on health care, including prescription drugs and nursing home care for seniors, hospital procedures, private insurance, and dental services, according to figures collected by the government.

As a result of the recession, most legislatures are doing a balancing act with declining state revenues and the escalating health care costs. Medicaid, which grew by a substantial 11% last year, is one of the biggest expenditures for states. This forces politicians like those in Michigan to make tough choices between programs such

as the Michigan CHIP plan and spending on prescription drugs for low-income adults.

As Howard Bailit, DMD, PhD, head of the Center for Health Policy Research at the University of Connecticut, explains, the constituent groups represented by senior citizens and physicians are far more powerful than organized dentistry in terms of lobbying for Medicaid dollars. He hopes that state legislators will not even consider cutting Medicaid dental benefits for poor children.

In fact, Bailit says this country should spend triple what it does now on dental services. Currently we're spending about \$60 a year per child on Medicaid dental benefits, but that should be raised to about \$180. "That would bring expenditures up to privately insured patients," Bailit says.



Currently we're spending about \$60 a year per child on Medicaid dental benefits, but that should be raised to about \$180.

United States. The federal and state government pays for about 45% of medical care, but it pays for about 4.3% of dental care. What's wrong with that picture?"

One solution is to get kids who don't have access to dental care into the private system through initiatives such as the Michigan CHIP program. This is the status quo approach advocated for years by organized dentistry. But, as Bailit explains, a second approach is to set up a safety-net system of community health centers, school-based clinics, and municipal clinics. The current safety-net system is totally inadequate for the size of the problem, which is why we should be looking for help from this huge untapped pool of dental resources, including dental hygienists.

"With that amount of funding, access to care would increase from about 20% to about 50% ... and we would see a marked reduction in the number of teeth extracted and days lost from school in a population that doesn't have access to dental care," Bailit explains.

Bailit insists that the increase in funding is trivial when you look at the big picture. "We're spending about \$2.8 billion a year on Medicaid today, and if that were increased to \$6 or \$7 billion, we'd be fine. And you have to remember that this is in a \$1.4 trillion health budget in the

Public Health, Community Dentistry

Why is organized dentistry less supportive of a public health approach to improving access to care? Perhaps that's because Americans spent roughly \$64 billion on dental procedures last year with more than half of those procedures being cosmetic—fillings, crowns, implants, and high-end restorative procedures, according to government data. "That may indicate a trend away from primary care," says Carl Ebert, DDS, director of Apple Tree Dental, a community dental outreach program based in the Twin Cities, Minnesota.

In dentistry, there is very little focus on providing reduced-fee preventive services to low-income populations, Ebert says. Dentistry is strongly rooted in an entrepreneurial approach to oral health care, according to Ebert. "The system works well for patients who have resources, transportation, initiative, and an understanding of the importance of maintaining good oral health.

"The [biggest challenge] comes from those who don't have the initiative, resources, or the awareness," Ebert says, adding that that's where public health or population-based dentistry could step in and play a big role. The idea, he explains, is to bring services to populations who most need them but cannot, for a number of reasons, access care in a traditional dental office.

Ebert describes public health dentistry's attempts to serve the largest number of people, contrasted with private practice that serves individuals. The example he uses is fluoride and how it reaches two-thirds of Americans through drinking water, a delivery system everyone uses. And, in theory, all kids go to school, making a nationally based dental sealant program in the public schools an ideal way to deliver cost-effective services to kids.

For example, a dental sealant program implemented in Ohio's public schools in 1998 and 1999 contracted with dental hygienists to provide sealants for third-graders attending schools in 87 of the state's 88 counties. The results showed 50% of the most vulnerable eight-year-olds had received at least one dental sealant, and, more importantly, 70% of the sealants were provided by dental hygienists in the school-based program.

So, why hasn't this approach been implemented all over the country—in Massachusetts, Maine, Louisiana, Illinois, and Minnesota, the state that has the lowest percentage of low-income kids with sealants? "Dental hygienists, with their focus on prevention, are ideally suited to carry out effective population-based oral health programs," Ebert says. But restrictions on practice acts in most states need to be loosened."

ADHA President Ann E. Naber, RDH, strongly agrees with Ebert, adding that if state laws were changed to allow dental hygienists to provide oral health care services with less restrictive supervision in more settings outside private dental offices, then dental hygienists could help resolve the access crisis in this country. [See sidebar, page 37]

Legislation has been introduced in several states to amend state dental practice laws to allow dental hygienists to work in schools with high rates of cavities. In Illinois, HB3788 would allow dental hygienists to perform these procedures in a public school setting if approved

Access to Care: ADHA's Position

It is not only socially responsible, but also fiscally prudent to increase access to preventive oral health care services to all Americans, according to a position paper released by the American Dental Hygienists' Association.

The ADHA report stresses that lack of access to oral health care is a critical issue in the United States due to disparities in the health care delivery system. The report follows up on the *Oral Health in America: A Report of the Surgeon General*, which called untreated poor oral health a "silent X-factor promoting the onset of life-threatening diseases which are responsible for the deaths of millions of Americans each year."

"Oral health care—a fundamental component of total health care—is the right of all people, yet 50 % of Americans are not getting the care they need, either because they can't afford it, or because there aren't enough dentists available to serve them," says ADHA President Ann E. Naber, RDH.

Naber adds that an anticipated shortage of dentists is expected to make the access problem in the U.S. even worse.

"Dental hygienists could help resolve the access crisis in this country if state laws were changed to allow us to provide oral health care services in more settings outside private dental offices, with less restrictive supervision," says Naber.

"Licensed dental hygienists are educated and qualified to perform oral health care services, and can serve as an efficient pipeline for identifying and sending on those who need the care of a dentist."

Key points of ADHA's position paper include:

- One in four American children is born into poverty (annual income of \$17,000 or less for a family of four). Children and adolescents living in poverty suffer twice as much tooth decay as their more affluent peers while their disease is more likely to go untreated.
- Each year, millions of productive hours are lost due to dental diseases. Children missed nearly 52 million hours of school, or an average of 1.17 hours per child, due to treatment problems, according to one survey in 1989. Workers lost more than 164 million work hours, an average of 1.48 hours per worker, because of no care for dental disease.

- According to the federal government, there are 140,750 licensed dental hygienists and 130,836 dentists in the United States. Since 1990, the number of dentists per 100,000 U.S. population has continued to decline. This decline is predicted to continue so that by the year 2020, the number of dentists per 100,000 U.S. population will fall to 52.7.*
- From 1985–1986 to 1995–1996, the number of dental hygiene graduates has increased by 20%, while the number of dentist graduates has declined by 23%.
- Recent research has identified periodontal disease as a risk factor for heart and lung disease; diabetes; premature, low-birth weight babies; and a number of other systemic diseases.
- Dental caries (decay) is the most common chronic disease nationally affecting 53% of six- to eight-year-olds and 84% of 17-year-olds.
- The cost of providing restorative treatment is higher than it is for providing preventive services. For example, the Centers for Disease Control and Prevention's 2001 recommendations for using fluoride to prevent dental caries reports that in 1991, the annual cost of water fluoridation in the U.S. was \$0.72 per person. In addition, the average cost of applying one dental sealant is less than half the cost of one silver filling.
- In addition to financial barriers, there are bureaucratic and legal barriers that prevent dental hygienists from providing access to care. For instance, there are ways that state laws and regulations restrict access to care by limiting the type of practice settings, and by imposing restrictive supervision requirements on dental hygienists.
- Licensed dental hygienists, by virtue of their comprehensive education and clinical preparation, are well prepared to deliver preventive oral health care services to the public, safely and effectively, independent of dental supervision.

For a copy of ADHA's position paper on access to care, contact ADHA at 312/440-8920, or go to www.adha.org and click on "Professional Issues."

*The 140,750 in ADHA's position paper is based on government data that tracked dental positions, *not* individuals. ADHA's data indicates that after taking into consideration dental hygienists who work in more than one practice, the number of dental hygienists in the U.S. is approximately 120,000.

by the state legislature. And last year, the Minnesota Legislature voted down similar measures that would have allowed dental hygienists to provide preventive oral health care to populations that have been shut out of dentists' offices.

Julia Lear, PhD, director of the not-for-profit Center for Health and Health Care in Schools (CHHCS), says it shouldn't even be an argument. "Poor kids need help, and dental hygienists are in a great position to help them. Where's the

argument?" Lear is both passionate and convinced that school-based dental sealant programs would reduce the burden of dental caries on low-income children, as well as reduce oral health disparities that adversely affect minority children.

Lear is passionate and convinced that a national school-based dental sealant program would virtually eliminate the disparities seen in this disease.

Baillit says that much of these preventive dental services can be legally provided by dental hygienists in every state.

Shortage of Dentists

Another problem contributing to poor access to dental care for low-income children, Bailit says, is lack of dentists. According to *Oral Health in America: A Report of the Surgeon General*, there are 130,836 dentists in the United States. For years, organized dentistry denied the profession's dwindling numbers, at least until the report identified it as a major obstacle to overcome if this country is to improve access to dental care for its most vulnerable citizens.

The racial and ethnic composition of the oral health care workforce also is an issue, says Kathy Alvarez, RDH, BS, president of the Hispanic Dental Association and ADHA past president. Minority dentists are more likely to practice in minority communities, but they make up a small portion of the dental workforce, she points out.

This further exacerbates the access problem for Latino kids, says Ernest L. Garcia, Jr., DDS, a Hispanic dentist who operates two dental clinics, one in Marysville, California, and the second in downtown Phoenix, Arizona. Garcia points out that the traditional Hispanic diet is high in carbohydrates and sugars, partially because Hispanic children are often rewarded for good behavior with sweet snacks. As a result, almost half of Mexican-American children have untreated cavities, according to *Oral Health in America: A Report of the Surgeon General*.

Phoenix has the fifth-largest Spanish-speaking population of any city in the country, which is one reason Garcia opened up his second practice there. Most of his patients are Hispanic kids who come from middle- and low-income families. Garcia observes that the language barrier is probably the biggest problem for non-Spanish-speaking dentists. He adds that the Mexican culture is based on cash. "[Hispanics] will pay for a service provided, but the concept of insurance is foreign to [them]," Garcia says, adding that "the concept of a co-pay is something they don't understand. They think they're being told their insurance pays everything."

In response to these kinds of problems, the California Dental Association and the Hispanic Dental Association are putting a lot of pressure on California Governor Gray Davis to increase funding for bilingual outreach programs. However, the state is in an energy crisis right now and running at a deficit where, across the board, there's probably going to be a 15% Medicaid cut. Dental benefits for poor kids are sure to take a hit, Garcia says.

Facing the Issues


In 2001, Oral Health America issued an Oral Health Report Card, which examined how individual states were faring with regard to recommended dental care

and preventive procedures. Massachusetts received a "C" in the area of access to dental sealants and care for low-income kids. Meaning that it's doing an average job when compared to the rest of the states.

But consider that 86% of the state's practicing dentists are not active providers in MassHealth, the state's CHIP program, contributing to a crisis in access to care for almost 500,000 kids enrolled in the program. MassHealth dental expenditures are declining due to decreasing dentist participation, even though the eligible MassHealth population expanded by 41% in the past three years. And dental care was the second most requested health service in calls to the Mayor's Health Line in Boston from 1995 to 1998.

Then in late March of this year, the Massachusetts state legislature cut dental benefits for Medicaid-eligible adults. Benefits to kids were spared, but the legislative session isn't over yet. Dorfman says that not much has changed since he began his study back in April 1998.

"And if the oral health needs of poor kids are not being met by dentists, then it has to be met by someone

else, whether it's pediatricians or dental hygienists," Klaus says. "The leadership on this issue has to come from organized dentistry. They're the ones who have to get way out in front on these issues of disparities in access to care, because poor kids are the ones paying the price." 



"The leadership on this issue has to come from organized dentistry."