SUSAN HAD CAREFULLY MONITORED HER HEALTH IN the months leading up to the delivery of her first child. She visited her obstetrician for regular checkups, downed prenatal vitamins every morning, and stopped smoking. Although she worked full time, she made sure to get plenty of rest. Many of her friends at work were parents and they gave her advice daily, telling her: keep exercising; don't jog, swim instead; don't eat too many tuna fish sandwiches. One thing she heard over and over again—an old wives' tale, really—was that she shouldn't go to the dentist because of "x-rays in the air." So Susan skipped her annual dental checkup even though she was concerned by how her gums bled when she brushed her teeth. Everyone assured her that this was normal.

As she lay in her hospital bed after the premature delivery of her tiny little daughter, she wondered what had gone wrong. Her baby had arrived just eight months into her pregnancy.

Susan is not alone. According to the March of Dimes, each day 1,300 babies in the U.S. are born prematurely for reasons linked to specific risk factors like smoking or high blood pressure. And if emerging research proves true, periodontal (gum) disease will be a new addition to that list. In fact, if the bacteria and inflammation from gum infection do indeed play a role in preterm deliveries—as well as other conditions such as pneumonia, stroke, heart disease and diabetes—the reverberations across our health care system will be seismic and transformative. "Medically necessary dentistry" will become the new slogan of our time.

# PUBLIC POLICY & ORAL HEALTH: A WHOLE NEW game

**Governments, insurers, clinicians & the public must all recognize the changing face of dental medicine.**

BY **SHEILA RIGGS**

The generations-old barriers that inadvertently disconnect the mouth from the body in terms of patient care are substantial. Most of our physicians and dentists are trained in different schools, practice in different settings, and receive payment through different systems. When your physician asks you to "open wide," he or she is examining your throat, not your mouth. Meanwhile, your dentist focuses on saving your teeth and gums; he or she doesn't necessarily view periodontal treatment as a way to prevent inflammation that can cause harm throughout the rest of your body.

It takes an average of 17 years before Americans benefit from new knowledge gained from medical research, according to Carolyn Clancy, M.D., director of the Maryland-based Agency for Healthcare Research and Quality. This raises an important question: How long will the time lapse be between what we know and what we do when it comes to an issue that crosses unusually hardened divides in our health care system?

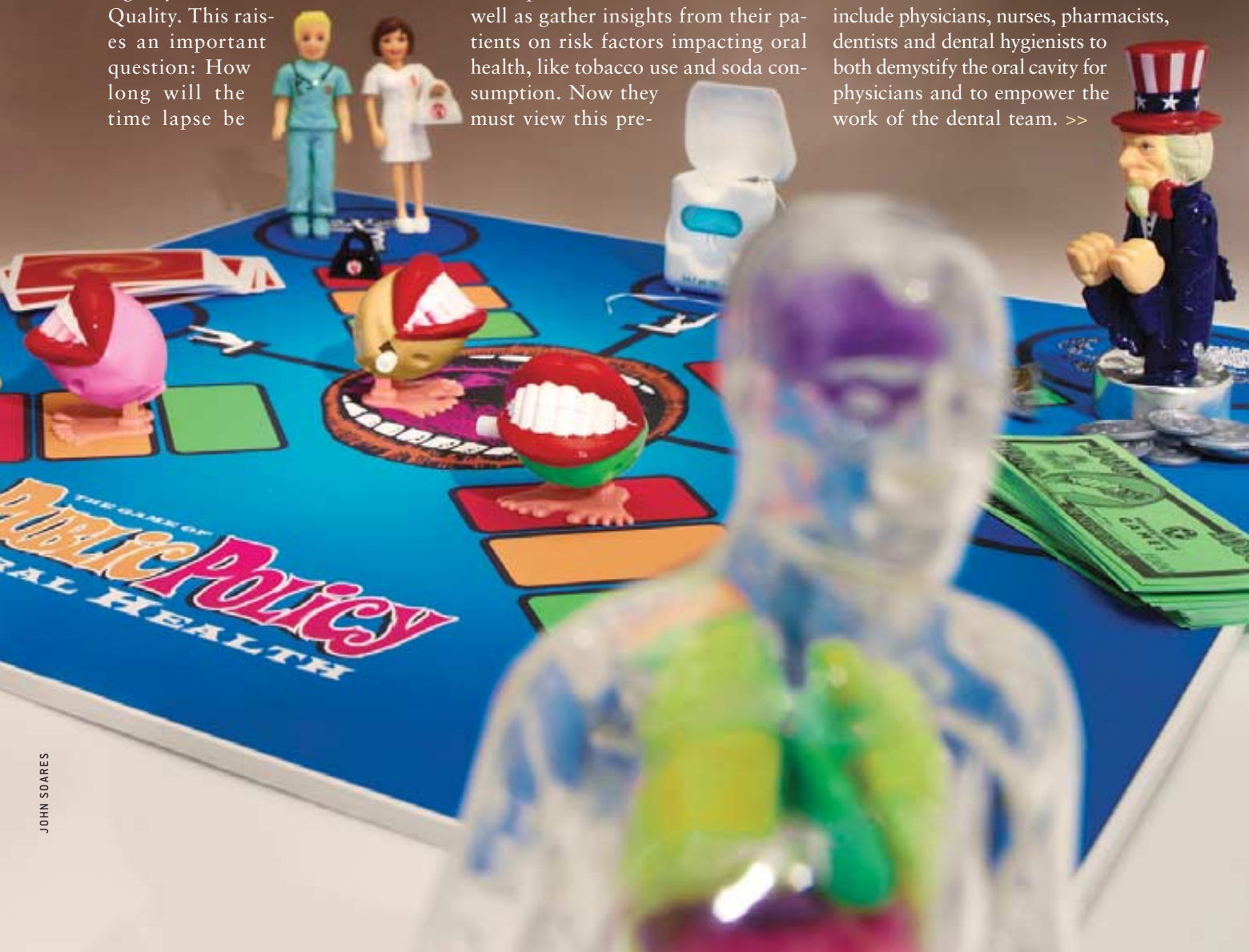
## A WHOLE NEW GAME

LET US ASSUME that all the research linking periodontal disease to many of our nation's most prevalent and costly chronic health conditions reaches the same conclusion: the presence of active oral disease causes system-wide complications, and treatment and prevention will improve overall health. Our whole perception of dentistry will need to change, as will its role in our health care system.

In this new paradigm, dentists should be recognized as the physicians of one part of the body, not just the surgeons of a perfect smile. Dentists take blood pressures and health histories as well as gather insights from their patients on risk factors impacting oral health, like tobacco use and soda consumption. Now they must view this precious information through the lens of a primary care physician.

Dentists are usually the most accessible members of the medical team. Typically, Americans visit their dentist twice a year for preventive care. According to Dr. Michael Glick, editor of The Journal of the American Dental Association, "Dentists can play an important role in the primary prevention of cardiovascular disease…and refer patients for more in-depth evaluation."

Referrals will come more easily when dentists and physicians train together in classrooms. It is also crucial that they work side by side in clinical settings during graduate school, for example, co-treating a pregnant patient. Defining and implementing a unified primary care team from day one in school will create a powerful new norm. Team members should include physicians, nurses, pharmacists, dentists and dental hygienists to both demystify the oral cavity for physicians and to empower the work of the dental team. >>




JOHN SOARES

Curriculum changes, however, are not sufficient. This new knowledge ultimately must translate into the everyday practices of physicians and dentists and be covered by insurance companies—and there are precedents. Numerous "quality improvement initiatives" related to medical care are currently underway in clinics and hospitals nationwide. These initiatives implement standardized treatment guidelines to insure that patients receive proper care. They also establish who is responsible for carrying out each step outlined by these new guidelines. Hospitals and clinics using these new initiatives are examining their protocols to make sure no step in patient care is overlooked. For example, patients hospitalized with a heart attack should begin beta-blocker therapy (medication that lightens the heart's workload) within seven days of discharge. New protocols dictate who is responsible for issuing the prescription.

*It takes an average of 17 years before Americans benefit from medical research.*

These efforts are frequently sponsored by insurance companies or employers. Using financial incentives, they speed the time it takes for new research on health care practices to become everyday patient treatment. They must now also be injected with a healthy dose of dentistry, which would reconfigure programs to include gum disease as a preventable risk factor for several common health problems.

Some very large employers now directly pay bonuses to doctors; the "Bridges to Excellence" diabetes care program is one example. General Electric and other companies provide a bonus of $80 per patient to physicians who meet National Committee for Quality Assurance standards in caring for their diabetic employees, with a focus on improving patients' blood sugar levels, blood pressure and cholesterol levels. This saves employers about $350 a year per patient.

If our assumption about periodontal disease proves true, such "pay for performance" programs should also include teeth cleaning and dental care. Likewise, when the federal government tracks how many Americans with diabetes receive essential monitoring and care in their annual National Healthcare Quality Report, a new dental component will need to be added to their survey.

## MINNESOTA AS A PRACTICE FIELD

MINNESOTA, a state known for its health care reform, may be the ideal place to launch this revolution. All the major stakeholders currently working to improve the quality of the state's health care are in place—and they are capable of getting this new research into practice sooner rather than later. Included in this group are educators, health care professionals, insurers, employers, consumers and entrepreneurs.

On the educational front, the deans of the University of Minnesota's medical, dental, pharmacy, nursing and public health schools are discussing joint classes and a linked curriculum. "We are working through the details of launching on-campus and clinic-based educational opportunities, like at the Rice Memorial Hospital in Willmar," said Patrick Lloyd, dean of the School of Dentistry.

Another important initiative is the Minnesota-based Institute for Clinical Systems Improvement (ICSI), a health insurance–funded think tank that establishes guidelines for medical treatment and improved care. For over a decade, ICSI has worked with virtually every medical group and hospital system throughout the state, designing ways to implement the best clinical practices. ICSI's "collaboratives" are currently in place to improve care to pregnant women and to those suffering from diabetes and heart disease. The standards created by these collaboratives are rewarded by health plans in their "pay for performance programs": insurance companies pay physicians a bonus for meeting or exceeding treatment metrics.

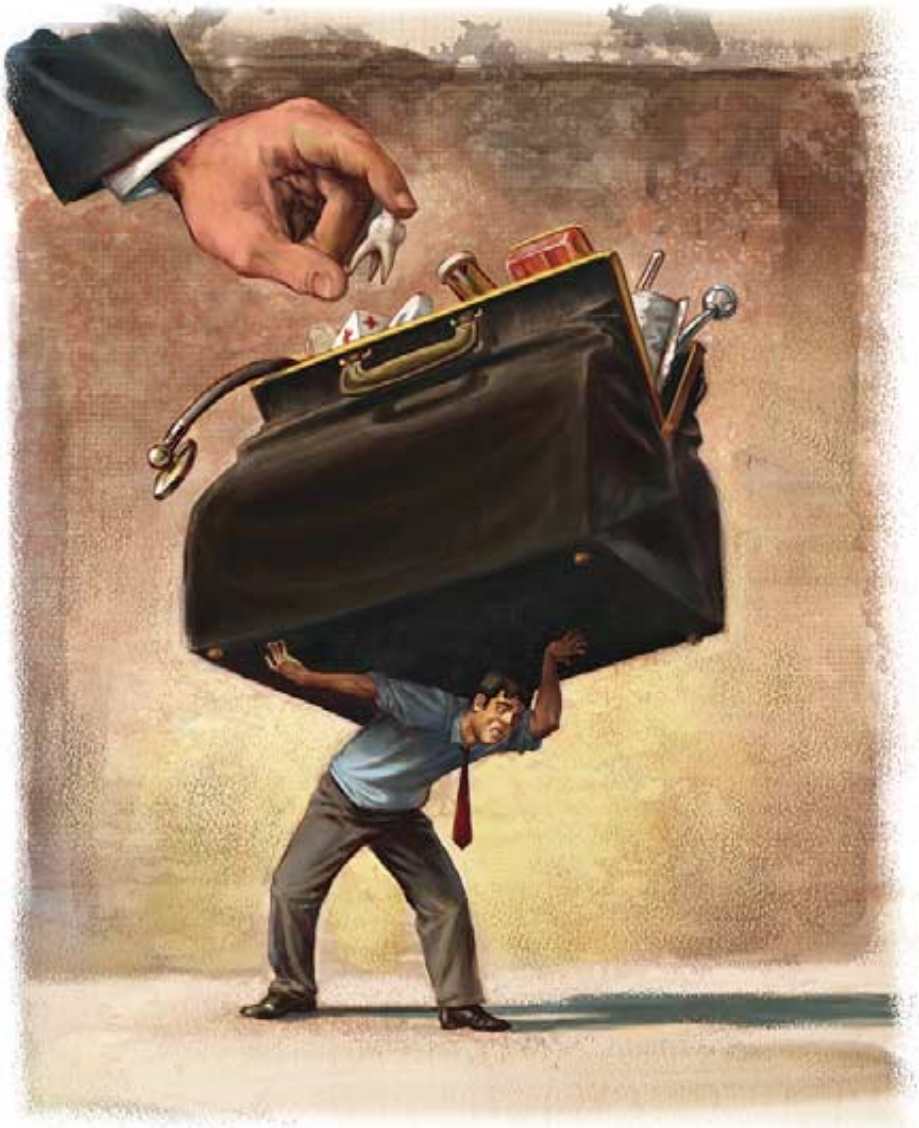
Another standard component of disease management is a program that connects pregnant Minnesotans or those suffering from chronic conditions with a registered nurse. In regular checkup phone calls, their nurse helps them improve lifestyle habits and coordinate care. These same nurses could also educate their patients on the importance of dental care.

Currently, more than 250,000 patients with diabetes, heart disease and other conditions are enrolled by two medical insurance companies who already partner with one of Minnesota's largest dental insurers, Delta Dental. Broadening dental coverage for these populations with fewer co-pays would encourage preventive care.

Employers, consumers and innovators are also active in health improvement efforts in Minnesota. Companies are acting to lower health care expenses, which have spiraled dramatically upward over the past decade: The cost to employers in 2003 for a healthy newborn's two-day hospital stay was about $1,700, while a premature or underweight baby's average 24.2-day stay was around $77,000, according to the March of Dimes.

An employer coalition called the Buyers Health Care Action Group is in place to encourage and reward improvement initiatives in Minnesota's health care. Recently, they issued a report comparing the performance of the state's health plans in both clinical areas (such as prevention and chronic disease management) and in administrative practices (like extending personal digital assistant devices to physicians and nurse practitioners). In the future, employer coalitions should evaluate insurers' efforts to encourage their employees with chronic conditions to seek dental care.

But it could be the entrepreneurs at one of Minnesota's 450 medical device companies that offer the best solutions. For example, one company is developing a topical liquid for use by dentists that



MATT COLLINS

**THE BURDEN OF DISEASE**: Poor oral health impacts individuals and whole communities and results in pain, suffering, impairment of function and reduced quality of life. According to the World Health Organization (WHO), oral disease is the fourth most expensive condition to treat in most industrialized countries. As more research links oral health to overall health, policymakers will need to address new models of prevention and treatment.

disrupts plaque biofilm, removing the harmful effects of the bacteria that cause periodontal disease in the first place. Ongoing research into oral-systemic health links will certainly spawn much more development among product makers and life sciences companies.

In the end, these solutions will be necessary to change the cultures of the medical and dental practices to embrace the new research findings on the connectedness of the mouth to the body.

## FEDERAL GOVERNMENT'S ROLE

THE FEDERAL GOVERNMENT also has "skin in this game" both as a primary funder of medical research and as the provider of Medicaid and Medicare. National policymakers should fund studies to confirm whether periodontal disease is indeed a risk factor for often preventable "medical" conditions that affect millions of Americans. "In order to move from uncovering an association between periodontal disease and various systemic diseases and conditions, to actually demonstrating causality, large-scale clinical trial research is needed," said Christopher H. Fox, executive director of the International and American Associations for Dental Research. "While the cost for these trials is high, it is pennies compared to the lifelong treatment costs for low birth weight babies or for patients with cardiovascular disease." The landmark government report issued in 2000, "Oral Health in America: A Report of the Surgeon General," made a similar call for future research.

When Medicare was established in 1965, Congress made a blanket exclusion of dental care. Medicaid coverage varies state to state, but adult periodontal services are covered in just nine states, according to a U.S. Government Accountability Office report to Congress. So although the poor and the elderly have some of the highest occurrences of heart conditions and diabetes, there is little public assistance available for periodontal treatment, which costs between $100 and $1,000 per year depending on its severity. In developed countries, 44 to 57 percent of adults have moderate periodontitis; 7 to 15 percent have an advanced form of the disease.

In their 2003 "Public Health Implications of Chronic Periodontal Infections in Adults" report, the Centers For Disease Control and Prevention (cdc) suggested restructuring benefits to provide dental infection control services to Medicaid and Medicare recipients. If preventing and treating periodontal disease does indeed avert preterm deliveries and decrease the illness burden of Americans with diabetes and heart disease, covering dental treatment for adults in our public entitlement health programs should be considered.

So that the next time Susan is pregnant, there will be a brand-new member on her health care team—her dentist.

*SHEILA RIGGS* received her dental degree (D.D.S.) from the University of Iowa College of Dentistry and went on to earn her doctorate of medical sciences (D.M.Sc.) in oral epidemiology from Harvard University. She was recently appointed president and CEO of Delta Dental Plan of Minnesota, one of the largest dental benefit providers in the upper Midwest, which serves more than 3.3 million individuals at 8,500 Minnesota-based companies and is leading the effort to integrate the latest dental and medical research into its dental offerings.