Clinical Significance

The evidence-based effectiveness of dental therapists in improving public health is based on them limiting their practice to children, practicing in the public sector, and serving as distinctive members of the oral health workforce with credentials that do not require those of a dental hygienist. Requiring a merging of roles with the dental hygienist and limiting their practice to private rather than public settings are counterproductive when trying to expand patients' access to dental health care. Having them serve in school-based clinics provides an excellent way to reach underserved pediatric patients.

CREDENTIALING AS A DENTAL HYGIENIST

Requiring dental therapists to also be dental hygienists places an unneeded restriction on the expansion of the oral health workforce. Although existing dental hygienists could obtain therapist training over the course of about 1 year and expand their role, this also does not contribute to an expansion of the workforce itself. The American Dental Hygienists' Association (ADHA) promotes the acquisition of dental therapist skills by hygienists in a master's degree curriculum. However, requiring dental hygienist credentialing not only increases the length of training for dental therapists but also raises the cost of training. As with the requirement that dental therapists work directly under the supervision of dentist, the integration of dental therapist and dental hygienist roles does not expand the outreach to underserved populations.

Nash DA, Mathu-Muju KR, Friedman JW: The dental therapist movement in the United States: A critique of current trends. *J Public Health Dent* 78:127-233, 2018

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FINANCING

Changing oral health care delivery and financing

BACKGROUND

Consumers of health care are seeking to secure the best value for their dollar. This demand requires that the providers of goods and services must demonstrate or at least claim value for their product or service. The value of dentistry remains to be determined in many cases and must be seen in the context of the trade-offs, constraints, and opportunities in dental care financing and delivery as well as the federal policy impact on dental care financing.

THREE-PART AIM AND CARE DELIVERY INNOVATION

Currently the traditional value proposition for health care is that providers know what is best for an individual's health and for the payer who funds the care. Both individuals and payers accept that the charges for care are appropriate to the quality, quantity, and potential benefit of the services delivered. Thus more health care equates to better health care, and more costly health care is more valuable than less costly health care. Health care outcomes are directly tied to the care delivered. This forms the 'iron triangle,' in which cost, access, and quality exist in tension with one another as trade-offs. Less or more of any one parameter affects the others, so that lower cost necessitates either reduced access or poorer quality of care and greater access either costs more or mandates poorer care.

The Patient Protection and Affordable Care Act (ACA) of 2010 addressed the cost component of this triangle by providing extensive federal financial subsidies to states, employers, and individuals so that more people could be covered by health insurance that ensured they would receive comprehensive essential health benefits (EHBs) and greater financial access to care. The law then sought to promote more efficient and effective care that would increase the value by improving health outcomes at a lower cost. The goal was to impose a 'triple aim' to replace the iron triangle. In this concept, better individual and population health outcomes were anticipated at a lower cost by having health care personnel work smarter and by assessing conventional treatments for value based on their contribution to the health outcomes. The federal Center for Medicare & Medicaid Innovation (CMMI) was created to advance value-based care rather than volume-based care through grants to states and nonprofit agencies so they could conduct value demonstrations. Programs were rewarded when they demonstrated better health outcomes were achievable at lower cost, with better population health and patient experiences achieved through the redesign of care systems to focus on efficiency and effectiveness.

Dental public health characteristics within the programs included focusing on populations rather than individuals, paying attention to the highest risk subpopulations, engaging in preventive and disease management approaches, using evidence-based strategies, involving nontraditional approaches to deliver oral health messages, coordinating across care and service systems, and demonstrating better health outcomes at lower cost with better patient experiences. The federal regulatory change made in 2014 supported the delegation of tasks to helping professionals and lay health workers, who are then paid by Medicaid. These community health workers (CHWs) engaged in home-based and community-based oral health promotion strategies targeted to high-risk subpopulations. They supplied counseling and preventive strategy facilitation involving the application of fluorides. These workers offer the potential to deliver cost-effective, high-quality, culturally competent health services to underserved populations.

FINANCING INNOVATION

Several approaches to health care innovation have explored payment methods that may be linked to better health outcomes at lower cost. A rubric of alternative payment mechanisms was developed, as follows:

- Tier 1: fee-for-service with no link to quality and value.
- Tier 2: fee-for-service with links to quality and value through 1 of 4 levels, specifically, 2A, which involves foundational payments for infrastructure and operations; 2B, which involves payment for reporting; 2C, which rewards performance; and 2D, which offers rewards and penalties based on performance.
- Tier 3: mechanisms built on fee-for-service architecture that include 3A, which are alternative payment models (APMs) with upside gainsharing, and 3B, which are APMs with upside gainsharing and downside risk.
- Tier 4: population-based payment that can be either 4A, condition specific, or 4B, comprehensive.

Dental value-based reimbursement is related to the stage of dental delivery organization and the greater health care environment. The traditional fee-for-service and small group practices siloed from the larger health care delivery system are most compatible with the Tier 1 fee-for-service framework because they lack the capacity and demand from payers to assess the impact of their care or become accountable to objectively measured oral health outcomes. They deliver dental services with the expectation that traditional care will result in improved oral health. In Tier 2, which ties payment or imposes financial risk to some level of accountability capacity or performances, induces dental organizations to prioritize prevention and disease management. It is most applicable to group dental practices or multiple practices networked through dental management organizations. This practice model has sufficient size and structure to develop the needed capacity, be paid for performance, or even accept the upside and downside financial risks. Tier 3, which is a transitional phase from fee-for-service to global payment, requires an even larger regional dental network that can achieve outreach and case management and may function as a dental accountable care organization (ACO). These dental delivery systems function best when addressing a defined population and accepting responsibility for specified oral health targets. Tier 4 institutes global payments for either a specified discipline or for the complete care of a population. Most dental providers practice in environments that are not amenable to APMs, but very large group dental practices and the aggregation of dental practices into large virtual and physical networks that share electronic health systems can create the capacity to engage in advanced APMs, as well as potentially to partner with complementary dental public health authorities in population oral health management efforts.

There are structural constraints to dentistry's adoption of value-based purchasing arrangements, including the following:

- The limited penetration of dentistry in public insurance and high proportion of dental expenditures that are paid for out of pocket.
- The significant variation in coverage by both public insurance and private dental plans.
- The reluctance of the dental profession to accept payment arrangements other than fee for service.
- The absence of professional guidelines and quality measures to establish performance expectations and metrics.
- The inter-dentist treatment variability due to a lack of evidence-based studies that support definitive guidelines.
- The lack of valid, reliable treatment outcome measures.
- The difficulty assessing outcomes without diagnostic codes that indicate why treatments are performed.

Although much work is currently underway to address these issues by individual dental professional organizations, dentistry as a whole is not yet ready to embrace value-based purchasing programs. Nearly 90% of dental care delivered in the United States

Clinical Significance

Dental public health has been focused on those who fall outside employer-based private systems. It often must provide for the dental care of socially vulnerable children, elderly persons, poor people, and disabled individuals. To address these needs and achieve better oral health outcomes at a lower cost for all people will require a system that approaches health preventively and holistically rather than the current one that focuses disproportionately on medical and surgical interventions that address disease that is already present. Based on the needs of all people, dental public health as a specialty is expected to grow in relevance and impact because it offers a useful perspective, relevant tools, and invaluable talents to the current health and health-financing systems.

today is funded by private insurance or out-of-pocket personal expenditures, with just 12% through public insurance and 2% by direct care programs.

ADDITIONAL CONSIDERATIONS

Dental care financing differs significantly between different age groups. Children are covered by the ACA and other programs, but adults, especially older adults, are paying a disproportionate share of dental care costs out of pocket. Attempts to repeal and replace the ACA face the same trade-offs and challenges present before this became law.

As a result of these factors, the United States will continue to have significantly higher per capita health care costs than in other developed countries and achieve worse health outcomes. Medical inflation in the United States outpaces overall inflation, and politically acceptable approaches to encouraging or requiring coverage and stabilizing the health insurance marketplace continue to be elusive. Health care solutions require sophisticated policymaking that aims to maximize outcomes and cause the least possible harm.

Edelstein BL: A public health perspective on paying for dentistry, the Affordable Care Act, and looking to the future. *Dent Clin N Am* 62:327-340, 2018

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HEALTH SCREENINGS

Expanding dental services into chairside screening

BACKGROUND

Cardiovascular disease (CVD) and diabetes mellitus (DM) are among the primary noncommunicable disease causes of morbidity and mortality in the world. Coronary heart disease (CHD) is the major contributor to heart disease mortality, and DM is the seventh leading cause of mortality in the United States and a significant cause of morbidity. The best strategy for control of the CVD and DM epidemics is to prevent the disease or control disease severity. Early disease detection and integrated health care delivery are essential in prevention and in achieving optimal health outcomes. Oral health care providers could contribute to the effort to maximize patient health outcomes by screening for medical diseases such as CVD and DM. This screening is designed to facilitate the early identification of disease risk rather than establish a diagnosis, which would exceed the scope of practice for oral health care professionals. Chairside screening of medical conditions in the dental setting and the issues associated with these activities were discussed.

ATTITUDES TOWARD SCREENING IN DENTAL SETTINGS

Surveys of oral health care providers and their patients have indicated that most have favorable attitudes toward chairside screening for medical conditions in dental settings. Dentists have expressed the belief that chairside screening for hypertension, CVD, DM, HIV, and hepatitis C constitute an important aspect of providing care. The majority of dentists would be willing to refer patients to physicians, collect saliva samples, conduct screening that yields immediate results, and collect finger stick blood samples. The barriers to incorporating chairside screening into a dental practice include insurance coverage, liability, time, cost, and the patient's willingness to participate, with insurance coverage considered perhaps the most important ingredient.

Dental hygienists (DHs) have also been surveyed for their attitude toward including health screening in dental care. Their results were similar to those of the dentists.

Patients believe chairside screening in a dental setting is an important undertaking and would be willing to participate. Their primary concern is confidentiality. They have no serious concern that the screening is not done by a physician. Most believe dentists can conduct screening for CVD, hypertension, and DM and favor tests that yield immediate results. They would be willing to discuss the results with the dentist, receive a referral from the dentist to a physician, provide saliva specimens, provide a finger stick blood sample, and pay $10 to $20 for the screening. The majority of the patients who have been surveyed believe their opinion of a dentist who screens them for medical conditions would improve in the areas of competence, compassion, knowledge, and professionalism. The primary concern is how time consuming the process could be.

Primary care providers (PCPs) would also be a party to these dental office screenings. The majority of PCPs who have been surveyed believe these screenings would be effective and