

Report of the National Oral Health Quality Improvement Committee

A Vision for the U.S. Oral Health System for 2023

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Executive Summary

The DentaQuest Institute has been interested in advancing the U.S. oral health system through the use of quality improvement tools for some time. In 2011, the Institute co-sponsored a report on *Oral Health Quality Improvement in the Era of Accountability* which highlighted opportunities in this area. This report was followed by a national conference where a broad stakeholder coalition discussed the implications of this report. In 2012, the DentaQuest Institute (DQI) formed a National Oral Health Quality Improvement Committee to extend this work.

The purpose of the National Oral Health Quality Improvement Committee was to develop a “Ten Year Roadmap to Improve the Oral Health of All Using the Tools of Quality and Accountability.” The three objectives identified to accomplish this goal were:

- Develop a vision for the characteristics of the desired oral health care system in 2023
- Consider how the tools of quality and accountability can move the current system to the desired system
- Make recommendations for actions to apply the strategies developed in this process to move the current system toward the desired vision for 2023

Over a two-year period, with multiple in-person meetings and using an inter-session Delphi process, the committee developed *A Vision for the U.S. Oral Health System for 2023* and a set of recommended strategies to realize that vision. The vision includes five basic principles and a description of nine key characteristics of the oral health system in 2023. In addition, seven initial important and feasible implementation strategies that can be accomplished in a three year period of time were developed.

The next phase of work for the National Oral Health Quality Improvement Committee is to disseminate this report and work to identify and encourage various entities to begin or expand existing work on these strategies.

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Committee Structure and Activities

Committee Structure

The DentaQuest Institute is interested in advancing the U.S. oral health system through the use of quality improvement tools. In 2011, the Institute co-sponsored a report on *Oral Health Quality Improvement in the Era of Accountability* which highlighted opportunities in this area.¹ This report was followed by a national conference where a broad stakeholder coalition discussed the implications of this report. In 2012, the DentaQuest Institute (DQI) formed a National Oral Health Quality Improvement Committee to extend this work. The DentaQuest Institute determined that it would act in a facilitative leadership role, convening meetings and staffing the process. However, the conclusions of the committee would solely represent the opinions of the committee members. Committee members were selected to represent a group of stakeholders from professional dental organizations, group practices, education and research, state and federal government, commercial benefits companies, philanthropy, general health organizations and other interests.

The National Oral Health Quality Improvement Committee met seven (7) times over a two (2) year period. In addition, committee members provided input through a Delphi process described below.

A Steering Committee was appointed which synthesized committee deliberations and recommendations and helped direct the committee's activities. The Steering Committee consisted of the committee chair, three committee members and committee staff.

Charge to the Committee

The purpose of the National Oral Health Quality Improvement Committee was to develop a "Ten Year Roadmap to Improve the Oral Health of All Using the Tools of Quality and Accountability." The three objectives identified to accomplish this goal were:

- Develop a vision for the characteristics of the desired oral health care system in 2023
- Consider how the tools of quality and accountability can move the current system to the desired system
- Make recommendations for actions to apply the strategies developed in this process to move the current system toward the desired vision for 2023

Assumptions

The committee agreed early in the vision development process to accept two major assumptions which would form the basis for all the subsequent work. These were:

- The U.S. oral health system is moving into the Era of Accountability and will increasingly become focused on health outcomes and measuring and achieving value.
- Achieving “oral health for ALL” is a shared value of the committee.

It should be noted that the phrase “oral health system” is used to describe the sum of oral health activities, even while recognizing that these activities are fragmented, not well coordinated, and uneven in application and outcomes. Many of the terms related to quality improvement are defined in the previous DQI sponsored report, *Oral Health Quality Improvement in the Era of Accountability*.¹ A few of these definitions are repeated here. The term “Quality” is based on the Institute of Medicine definition which is “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent

with current professional knowledge.”² The term “value” is used to describe *health outcomes over the lifecycle of conditions per unit of cost*. The term “intermediate oral health measures” is used to describe *process measures with good evidence that they lead to improved oral health outcomes*. In addition, it was agreed that “Oral Health for All” is the goal, even while recognizing that it may not be fully achievable in the time span of this roadmap. Finally, the committee recognizes that, while the initial implementation strategies listed in this document vary in how directly they are tied to quality improvement methodology, they are all expected to contribute to improvement in the quality of oral health systems and oral health of the U.S. population.

Phases of the Committee Work

The committee accomplished the work described above in four phases. These are illustrated in Figure 1. In the first phase of the work, the



Figure 1. National Oral Health Quality Improvement Committee Action Steps

committee developed a broad vision which described a desired oral health system in the year 2023. This was accomplished over two meetings and using two rounds of a Delphi process.

After completion of the Vision, the committee looked broadly at the potential impact of the vision on four components of DentaQuest Systems Framework illustrated in Figure 2. The components are Policy, Funding, Care, and Community. While it was recognized that most actions will have implications in more than one of these components of the framework, it was useful to try to understand or predict what needs to change in order to realize the committee's vision.

The next meetings of the committee were spent identifying strategies for moving the current oral health system to the one described in the committee's vision. Initially, 47 strategies were identified and reviewed to determine those most important and feasible to implement in a three year timeframe. These were included in a set of initial implementation strategies that will be monitored and revised over time. This work took place over four meetings with several intervening Delphi processes. The result was a list of seven initial implementation strategies that the committee felt were the most important and feasible to accomplish in the following three years.

The Delphi Process

The committee input was facilitated at multiple steps through the use of a Delphi process. The Delphi survey technique uses serial rounds of anonymous questionnaires to achieve a long-distance, roundtable discussion to obtain



Figure 2. DentaQuest Systems Framework

the opinions of experts in a given field. In the sequential rounds of the survey, experts give their opinions and then defend minority opinion stances they have taken. Finally, the minority opinion defenses are aired to the full panel for final consideration. Whenever possible, a consensus opinion of the expert panel is developed, which often is accompanied by statements that include the minority dissenting opinions if no consensus is achieved.

The Delphi process used by the National Oral Health Quality Improvement Committee consisted of group brainstorm sessions at in-person meetings followed by one or more rounds of anonymous online surveys to determine

agreement about statements developed as a result of the in-person meetings. Results of the anonymous online surveys were presented at the next in-person meeting for further discussion and refinement. In some phases of the work, the Steering Committee synthesized the work of the whole committee in preparation of the next step. This process was used to develop the vision statement, identify and rank the broad list of strategies that could be pursued, and then determine the final list of seven recommended initial implementation strategies.

A Vision for the U.S. Oral Health System for 2023

The vision for the U.S. oral health system for 2023 developed by the National Oral Health Quality Improvement Committee consists of a preamble, a set of five basic principles that underlie the vision, and a list of nine characteristics of the oral health system in 2023

Preamble

More than a decade after the 2000 Surgeon General's Report, *Oral Health in America*, profound disparities still exist in the oral health of the U.S. population. In that report, these disparities were described as being concentrated among people from racial and ethnic minorities, individuals with disabilities, elderly individuals, individuals with complicated medical and social conditions and situations, low income groups and those living in rural areas.³ In 2011, the Institute of Medicine (IOM) and the National Research Council of the National Academies of Science issued two reports on oral health, *Advancing Oral Health in America and Improving Access to Oral Health Care for Vulnerable and Underserved Populations*.^{4,5} Both reports again describe the significant proportion of the U.S. population that does not have adequate access to oral health services. They indicate that the same groups identified in 2000 as experiencing severe oral health disparities, continue to experience profound oral health disparities and significant challenges taking advantage of the traditional oral health care delivery system.

Over the last decade, the U.S. health care system has entered the *Era of Accountability*.¹ In this era, there is increasing attention on using the tools of quality and accountability to achieve the "Triple Aim" of improving the experience of care, improving the health of populations, and reducing per capita costs of health care.⁶ There is also increasing realization that we need to move health care payment systems from "Volume to Value."⁷ A "value-based" health system has been described as one where "Value" is defined as the health outcomes achieved per dollar spent over the lifecycle of a condition.^{8,9,10} There is also increasing attention being paid to

achieving value through strategies for management of chronic disease where the emphasis is on empowering individuals to help manage their own disease using medical, behavioral and social interventions.¹¹ All these trends apply to and will have profound impact on the oral health system.⁵

The National Oral Health Quality Improvement Committee is interested in creating an environment by 2023 where everyone has the ability to be free from active oral disease and maintain good oral health. To that end, the committee developed a *Ten Year Roadmap to Improve the Oral Health of All Using the Tools of Quality and Accountability*.

Principles

In developing this roadmap, the committee has agreed to certain basic principles:

1. The U.S. oral health care system has entered the *Era of Accountability* and the tools of quality improvement and accountability will be instrumental in making progress toward the committee's vision.
2. Increased integration with the overall health care system and with the education and social service systems is essential.
3. The major drivers of a rapidly changing overall health system all apply to and will have profound impact on the oral health system.
4. It will be increasingly important for the oral health care system to demonstrate the "Value" produced by the nation's oral health expenditures.
5. There must be an increased emphasis on prevention and disease management if the segments of the population with the greatest oral health disparities are to achieve and maintain good oral health.

Characteristics

The National Oral Health Quality Improvement Committee envisions a U.S. Oral Health System in 2023 with the following characteristics.

The system will:

1. Improve population health while increasing the value of health care expenditures.
2. Be focused on health outcomes.
3. Assure equity and eliminate disparities in oral health.
4. Promote basic oral health for All including freedom from active disease.
5. Be integrated with the overall health care system.
6. Prioritize prevention and disease management in the context of comprehensive care.
7. Permit multiple options for the delivery of services.
8. Develop and use evidence to improve consistency and reduce unwarranted variability in the delivery and outcomes of oral health care.
9. Engage people as active partners in care.

Recommended Strategies

After developing the *Vision for the U.S. Oral Health System for 2023*, the National Oral Health Quality Improvement Committee identified a set of promising initial implementation strategies with the potential to contribute to realizing the vision. Those strategies are identified here with objectives and a set of high level activities that could be used to accomplish the strategy and objectives. These initial implementation strategies were identified by the committee as having the potential, should resources be available, to accomplish within a three-year period of time and which would contribute to important progress toward the vision.

I. Coverage

Secure public and private coverage for oral health services across the age and income spectrum through established government supported or government regulated approaches.

OBJECTIVES:

- Define approaches through various government supported or regulated financing systems.
- Develop strategies for implementing the most promising approaches.
- Work with the Medicaid/CHIP State Dental Association (MSDA) to develop a report card for supported or regulated financing systems.
- Develop and provide advocacy information targeted to the federal Medicaid and CHIP Payment and Access Commission (MACPAC).

ACTIVITIES:

- Develop and disseminate a toolkit for advocacy at the state level with evidence for the importance of oral health coverage and advocacy strategies to include dental care for adults as a mandatory Medicaid benefit. Include:
 - Specific materials and instructions for use of the materials to advocate for:
 - » CHIP reauthorization
 - » Mandated dental coverage in exchanges
 - Specific case studies as examples
- Identify alternative financing approaches for publicly funded oral health care so states could realize better outcomes from the investments they make in oral health.
 - Develop a model evidence-based fee-for-service payment structure.
 - Develop the evidence base to set fee-for-service rates for specific services and coverage decisions based on their relative contributions to oral health.
 - Develop performance measures and design and test value-based purchasing approaches for managed care oral health purchasing programs.

II. Disease Management

Promote adoption of chronic disease management approaches for the prevention and management of common oral diseases.

OBJECTIVES:

- Assess the status of the use of chronic disease management protocols in dentistry.
- Disseminate knowledge about biological, medical, behavioral, and social tools useful to address chronic oral diseases (primarily focused on dental caries and periodontal disease).
- Develop strategies to emphasize tools of chronic disease management in the education of oral health professionals, deployment of delivery systems, and development of reimbursement systems.
- Develop and disseminate training materials for use in oral health systems on the use of chronic disease management protocols.
 - Develop tools and materials to educate inter-professional teams to use coordinated chronic disease management tools. Emphasize the potential to coordinate efforts in and with patient-centered medical homes.
 - Consider variations in populations – Example: prioritize early childhood caries (ECC) strategies, or other specific conditions or populations.

ACTIVITIES:

- Assess the current use of chronic disease management protocols in dentistry (i.e. coordinated biological, medical, behavioral, and social tools).
 - Use the 2009 New York Academy of Sciences conference on *“Improving pediatric health through bio-behavioral interventions: State of the science in early childhood oral disease management”* as the basis for describing tools of chronic disease management.
 - Include strategies for partnering with educational, social, and general health systems.
- Develop proposals to engage dental education programs to increase the focus on chronic disease management.
 - Develop a cariology curriculum that emphasizes use of the tools of chronic disease management.
- Develop strategies for tying values-based payments to outcomes-based measures and supporting the spread and financing of chronic disease management tools.
- Change the model for how dental schools are reimbursed.
 - If dental education programs received patient care revenue based on the health outcomes of the services they provide they would increase emphasis on the tools of chronic disease management and on educating graduates to use these tools.

III. Health Promotion

Advance family- and community-level oral health promotion initiatives.

OBJECTIVES:

- Assess potential strategies for improving access to oral health promotion initiatives in order to determine strategies which have evidence of effectiveness.
- Disseminate and encourage use of strategies that have evidence of effectiveness focused on dental caries and periodontal disease.

ACTIVITIES:

- Conduct a literature review to catalog available evidence for effective oral health promotion activities and best practices.
- Disseminate and support evidence-based strategies such as availability of fluoridation and fluoridated toothpaste.

IV. Community-based Oral Health Delivery

Advance low-cost community-based, prevention-oriented interventions.

OBJECTIVES:

- Develop a scan of models that use community-based prevention and early intervention strategies.
- Disseminate and support promising models.

ACTIVITIES:

- Evaluate, from the perspective of community members, the desired characteristics of an oral health system.
- Identify various strategies for bringing dental care into community settings. Consider systems that:
 - Deliver oral health services in community locations in partnership with educational, social, and general health organizations that serve people with the highest oral health disparities.
 - Use telehealth-connected teams to deliver prevention-focused, community-based care.
 - Use evidence- and risk-based prevention and early intervention strategies delivered in community locations.
 - Provide services to groups with the greatest oral health disparities.
- Advocate with CMS and other systems measuring delivery of oral health care to allow states to “count” services provided in community settings by dental hygienists as performed by dental providers.

V. Move Payment from Volume to Value

Develop payment and incentive arrangements based on intermediate health outcomes and health outcomes.

OBJECTIVES:

- Promote development of value-based purchasing systems as a critical ingredient in moving the oral health system to one focused on health outcomes.
 - Develop a framework for model health outcome-based payment mechanisms.
 - Design specific methodologies and pilot projects that use value-based payment mechanisms.
- ### ACTIVITIES:
- Support and disseminate the work of the Dental Quality Alliance and other quality measurement development groups for use in value-based systems.
 - Support and disseminate the work of the All-Payer Claims Database Council and other outcomes data collection groups for use in value-based systems.
 - Raise awareness of the importance of value-based purchasing systems by developing and disseminating descriptions of this approach to improving oral health and reducing health disparities.
 - Evaluate general health Medicaid and commercial value-based purchasing systems. Determine how they could be applied to dental payment systems.
 - Develop and fund pilot projects to use value-based purchasing in oral health and learn about best practices and opportunities for spread.
 - Present value-based purchasing programs to the federal Medicaid and CHIP Payment and Access Commission (MACPAC).

VI. Consumer Empowerment

Increase public understanding and appreciation for oral health, with the goal of making oral health as important and valuable to people as other health concerns.

OBJECTIVES:

- Develop strategies that can be used by groups, such as health plans, who are in touch with consumers.
- Disseminate the strategies to these groups.

ACTIVITIES:

- Identify and assess teaching materials for use in primary and secondary schools and promote use of these materials.
- Identify and assess strategies for reaching pregnant women, mothers of high-risk children and caregivers of other high-risk groups.

- Engage groups with marketing expertise to develop strategies for using social media campaigns in high risk populations.
 - Develop strategies for specific populations.
- Identify and develop various messaging strategies and develop tests of effectiveness, for example:
 - Re-positioning oral health as essential and as important as physical health.
 - Promote actions that people can take individually.

VII. Accountable Care

Develop and reward networks of care providers cooperating to improve oral health outcomes as in Accountable Care Organizations.

OBJECTIVES:

- Analyze Accountable Care Organizations (ACOs) and Patient-Centered Medical Homes (PCMHs) to evaluate the potential role of oral health in these structures.
- Design specific methodologies and pilot projects to include oral health in ACOs and PCMHs.

ACTIVITIES:

- Identify groups already working to integrate oral health in ACOs and PCMHs. Support dissemination of opportunities identified in these efforts.
 - Engage the Patient-Centered Primary Care Collaborative (PCPCC), Medical Homes Organizations, and other similar organizations to understand how dental care could be incorporated.

- Develop models for incorporating oral health services in ACOs and PCMHs. Understand specific strategies that could be used, including:
 - How quality is being measured and improved.
 - How health promotion is being handed off to health promotion specialists.
 - How team-based care is being structured.
 - How revenues, expenses, and shared savings are distributed among partners in these organizations.
 - How data is liked, shared and used among partners in these organizations.

Further Work

The next phase of work for the National Oral Health Quality Improvement Committee is to disseminate this report and work to identify and encourage various entities to begin or expand existing work on these initial strategies. Progress on these strategies will be monitored over time; the strategies may be modified or new ones developed as needed.

Individuals or organizations with an interest in this work are encouraged to contact Palmer Corson at the DentaQuest Institute, palmer.corson@dentaquestinstitute.org.

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The logo for DentaQuest Institute. The word "DentaQuest" is in a blue, sans-serif font with a blue arc under the "Q". Below it, the word "INSTITUTE" is in a smaller, blue, all-caps, sans-serif font.

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