# Case Studies in Oral Health Integration from across the care delivery spectrum:

## **Lessons learned for Massachusetts**

**June 2017** 



# HEALTH CARE FOR ALL

### **Authors:**

Kelly Vitzthum, MPH Health Care For All

Neetu Singh, DMD, MPH Health Care For All

### Special thanks to:

Man Wai Ng, DDS MPH Boston Children's Hospital

Nancy Regan
Darlene Guerin
Holyoke Health Center

Julie Bluhm, MSW Hennepin Health

Mohamed Alyajouri, MPH Oregon Primary Care Association

Eli Schwarz, DDS MPH PhD Oregon Health & Science University

Toyin Ajayi, MD MPhil Jessica Medeiros Commonwealth Care Alliance

Ashwini Ranade, BDS MPH Northeastern University

### This work was made possible by



### **Executive Summary**

To adequately support innovative medical and dental integration efforts, the following areas must be addressed:

### **Payment Structure**

There are many ways to arrange provider and ACO payments, but payment systems need to better incentivize preventive, risk-based dental care to increase value for patients. Quality metrics in dentistry must be better developed to ensure value-driven care.

### **Care Coordination**

A critical part of ensuring integrated care, especially for vulnerable populations with low dental utilization rates. Coordination may be structured in a number of ways, but all need to be consumer-centered to ensure meaningful engagement in care planning and delivery.

### **Health Information Technology**

HIT greatly facilitates care coordination. There must be adequate investments made in HIT infrastructure, particularly HIT that can interface with both medical and dental providers.

### **Provider Training and Workforce Development**

Provider training, either through formal education systems or continuous learning, is key to ensuring integrated care that meets consumer needs. Workforce development must follow accordingly. Midlevel dental providers are also worth exploring and may prove remarkably valuable in new payment and care delivery models.

### Introduction

Thousands of Massachusetts residents lack access to basic dental services, significantly contributing to profound oral health disparities. The social and economic cost of poor oral health is astounding, with poor oral health linked to millions of hours of lost work and school days in the US. In Massachusetts alone, over \$2 million is spent annually on preventable emergency dental services for adults. High out-of-pocket costs, lack of dental coverage, and other systemic barriers cause the most vulnerable among us to experience greater disease and poorer overall health outcomes. These barriers are often discussed piecemeal in the policy world, though it is the existing separation between medical care and dental care that creates many of these obstacles. Health care reform has largely excluded oral health services, even in light of mounting evidence that oral health is essential to overall health.

There is a significant opportunity in Massachusetts to catalyze the integration of medical and dental care as the state redesigns its health care system towards *value*-based care and away from *volume*. Similar to the current work around behavioral health integration, oral health should be also included in integration efforts, particularly in the structure of the state's forthcoming Medicaid and commercial Accountable Care Organization standards.

We recognize, however, that there are many challenges that must be overcome in order to truly integrate care. The historical separation of the two fields has led to completely separate educational systems, practice cultures, and financing. To simply mirror the efforts in medicine to create patient-centered care systems may not be enough; true integration will require creative thinking that prioritizes the patient experience while simultaneously melds the two fields of practice.

The following case studies highlight the range of innovative work integrating medical and dental care both in our state and others, and suggest lessons learned as well as best practices to adopt on the road to wholly integrated, patient-centered care in Massachusetts. The first two cases are more system-level integration efforts conducted at a state and county level. These cases suggest a number of policy changes that would facilitate more on-the-ground integration efforts, seen in the in-state examples of an insurance company, community health center, and a hospital.

### **Oregon Coordinated Care Organizations and Dental Care Organizations**

Oregon

In 2012, the Centers for Medicaid and Medicare (CMS) approved Oregon's 1115 Medicaid expansion waiver, giving Oregon additional funding and flexibility to use federal funds to expand coverage. The waiver allowed Oregon to establish Coordinated Care Organizations (CCOs), locally-governed Accountable Care Organization (ACO)-like entities, which receive a global budget from Oregon's Medicaid program to deliver medical, behavioral, and oral health care for a defined population in a particular service area. In line with its overall emphasis on preventive care and management of chronic conditions to avoid more costly health events like emergency department visits, the waiver also established dental services as a part of the standard Medicaid benefit package. Prior to the waiver, dental benefits were available only for pregnant women and children.

Over a quarter of all Oregonians are enrolled in Medicaid, with approximately 90-95% of members' care coordinated by the 16 CCOs operating in various communities around the state. Each CCO is currently required to contract with all Dental Care Organizations (DCOs) in their service area as a means to establish their dental provider networks.

The inclusion of dental services stemmed from the recognition of overwhelming unmet oral health needs in the state. Community water fluoridation, though safe and highly cost effective, has limited reach in Oregon, with only around 20% of its population on a fluoridated public water system. Oregon is ranked 48<sup>th</sup> in the country for the status of its children's oral health, an issue that garnered significant attention across various Oregon communities. Policymakers too were

Carving out dental in an integrated accountable care model can help ensure adequate resources allocated to oral health services

aware of the prevalence of the problem, which helped the drive toward dental inclusion in CCOs.

Each CCO is held accountable to quality measures and patient outcomes. Currently, three percent of global payments is withheld and placed in an incentive pool, and the percentage of shared risk held by CCOs increases annually. Shared savings are then determined based on achievement of a number of quality metrics

and targets set by the Oregon Health Authority Metrics and Scoring (M&S) Committee, and some exceptionallyperforming CCOs have received more than 100% of their withholds. On the basis of recommendations from the Dental Quality Metrics Workgroup, the M&S Committee has established two dental incentive quality measures: the percentage of 6-14 year old children who have received a dental sealant on a permanent molar and a more transformative metric that assesses the percentage of foster care children who have received a physical health assessment, a mental health assessment, and a dental assessment within 60 days of placement. Though DCOs are not included in shared risk and savings structures, because each CCO is initially required to contract with every DCO in their service area, DCOs are incentivized to produce high quality care to maintain contracts in future years when the requirement to contract with all DCOs is lifted. Due to the simultaneous introduction of Medicaid expansion and comprehensive adult dental benefits in 2014 there have been notable capacity challenges in the implementation stage. Specifically, a corresponding increase in provider capacity was not planned for, leaving many patients experiencing significant delays in accessing dental care.

Dental care is included in the global budget CCOs receive from the state Medicaid office, and the contractual payment to DCOs is paid on a capitated per member per month sum. But there may be variations in the contracts that CCOs have established with the DCOs and in the way dental care providers are reimbursed depending on the specific DCO and their provider structure (panel/group practice/employed), including traditional fee-for-service or capitation. CCOs work with DCOs to develop improvement strategies and facilitate referral relationships between dental and primary care providers.

All CCOs have made significant investments in health information technology (HIT), though data systems employed by each CCO vary. Investments are made based on existing capabilities and resources among providers and approaches to HIT differ accordingly. Efforts have included a community-wide EHR that include data on over 85% of members, a regional health information exchange tool, and data warehouse pilots. Disparate EHR systems and difficulty with EHR interoperability were cited as large barriers to HIT implementation and included challenges such as incorporating dental record systems and difficulty with referrals. However, during the last few years incentive metrics have helped to standardize EHR systems and patient-centered primary care homes, and a few dental organizations have introduced Epic based medical systems (WISDOM). Some CCOs are also employing workarounds to ensure adequate care coordination through a closed-loop referral system that includes dental providers.

There have also been a number of pilot programs approved by a state review process that are currently undergoing implementation. These include a workforce expansion program that uses new midlevel dental provider models in a number of Indian Health Service clinics, a program that focuses on training dental hygienists to place Interim Therapeutic Restorations (ITRs), and a new teledentistry pilot that seeks to expand care access to community and rural settings.

### **Lessons Learned for Massachusetts:**

- Local governance of CCOs has proven important for effective management of services, especially considering the varied geographic regions and populations covered.
- Inclusion of dental services in Oregon's CCO structure has spurred the medical and dental provider communities to emphasize oral health and innovate around care coordination and integration.

### **Hennepin Health**

Hennepin County, Minnesota

Hennepin Health is a county-based Medicaid Accountable Care Organization (ACO) made up of four different organizations that share financial risk for over 30,000 patients: a safety-net medical center with nine affiliated clinics including a dental clinic (Hennepin County Medical Center), a county social services organization with some clinical providers, an FQHC (NorthPoint Health & Wellness Center), and an HMO insurer. The insurer, named Hennepin Health, serves as the ACO's program administrator. As of January 2016, Hennepin Health expanded to cover care for patients in the Prepaid Medical Assistance Program (PMAP), which includes low-income adults, children, and pregnant women. The ACO also contracts with other clinics and community organizations to improve network adequacy and offer access to additional services such as vision, behavioral health, and dental.

The decision to include dental services in the ACO stemmed from a number of different factors. Like Oregon, comprehensive dental care is a required component of the Minnesota adult Medicaid benefit. In particular, Hennepin Health noted a profound need for dental services in its patient population and specifically identified dental pain as one of the highest cost drivers in the emergency department. Accordingly, dental services were determined to be an area worth addressing to improve patient outcomes and accrue savings. Also considered was pain medication dependency associated with untreated oral health problems, particularly for a population with high rates of mental illness and chemical dependency issues. Including dental services fit in with Hennepin Health's strategy of focusing

New midlevel dental providers, known in Minnesota as dental therapists, have helped lower costs while expanding the capacity of dental services available for safety net dental clinics

specifically on lower cost outpatient care to avoid more costly inpatient care. This overall approach resulted in a decrease in ED visits by 9.1% compared to 3.3% overall increase to outpatient visits between 2012 and 2013.

Hennepin Health receives a risk-adjusted capitated per-member per-month payment from Medicaid. Clinical providers in HCMC, NorthPoint, and county public health clinics are reimbursed with traditional fee-for-service models, including around 25 dentists employed by Hennepin County Medical Center (HCMC) and NorthPoint. The dental clinic at HCMC also began employing new midlevel dental providers, known in the state as dental therapists, which has helped lower costs while expanding the capacity of dental services available. All providers within the ACO are included in risk sharing and eligible for shared savings bonuses, which are calculated as the amount saved relative to per-patient per-month capitated payments and distributed to partners based on formulas that reflect the amount of care provided to members given size. A percentage of Hennepin Health's revenue is withheld by the Minnesota Department of Human Services, with its return dependent on improvements to state-determined quality measures. Among these measures is the annual dental visit rate, along with HEDIS measures and results of its patient satisfaction survey. In addition, the ACO conducts internal reviews using a 12-page scorecard that measures health outcomes related to specific medical conditions as well as ED visits.

Contracted independent providers, by comparison, also receive fee-for-service payments but are not included in shared risk and savings. This includes over 1600 unique dentists in the broader Hennepin Health network through Delta Dental of Minnesota. Social services are paid for using state and county human service funds and are supplemented by ACO

capitated payments if needed. Social service spending is also tracked monthly to examine its relation to medical spending and savings.

Care coordination is a vital part of the Hennepin Health care model, and is conducted by a team stationed in each practice made up of community health workers, registered nurse clinical coordinators, and social workers. Members prioritized for care coordination have a designated primary care coordinator who is the person with the best relationship or most frequent contact with the member. Because dental services are included as a benefit and are facilitated through care coordination efforts, over time, primary care providers have also increased their attention to oral health prevention. In well child visits for children aged 0-3, a dental provider joins the physician to provide the first dental visit and offers preventive parent education. An integrated electronic health record system across the ACO allows providers to identify and notify patient care coordinators with treatment updates, outcomes, and follow-up needs, which allows for better continuity and coordination of care. Hennepin Health's dental services, however, use a separate system and medical providers are unable to view dental records, posing a challenge for whole-person care coordination.

Care coordination likewise plays a key role in Hennepin's outreach and emergency department diversion programs. It has been estimated that anywhere from 30-50% of Hennepin Health's members who are eligible through Medicaid expansion are either homeless or unstably housed, which makes it difficult to reach many patients at risk of acute episodes or those who are already high utilizers. Community outreach workers have been deployed as a way to educate members on the importance of oral health and preventive dental services and bring in vulnerable Hennepin Health members, connecting them to various other needed services. Community health workers trained in oral health are also stationed in the Hennepin County Medical Center emergency department and urgent care clinic to meet with patients presenting with dental pain. They are then able to connect patients with needed dental care in a more appropriate setting and deliver preventive oral health patient education. Because a dental clinic is co-located at HCMC, community health workers may directly escort patients to the dental service upstairs which has had the added benefit of building relationships between the medical and dental providers at HCMC. Also available are next-day appointments at NorthPoint, with the community health worker facilitating transportation for the patient. Because the four ACO partners are responsible for costs and quality of care, there is motivation to promptly address the dental needs of patients. Care coordination for Hennepin Health patients similarly happens through Delta Dental of Minnesota, which provides coordination services particularly for dental providers outside of the partner risk-bearing organizations.

#### **Lessons Learned for Massachusetts:**

- An integrated provider system that focuses on reducing the need for acute care while emphasizing patient outcomes can decrease cost and increase high-value care.
- Care coordination and patient outreach is important especially for vulnerable populations with low dental utilization rates

### One Care - Commonwealth Care Alliance

Massachusetts

Commonwealth Care Alliance (CCA) is a nonprofit, consumer-governed payer that manages a One Care plan for dual eligible (Medicare and MassHealth) beneficiaries. One Care is a state enrollment option specifically for individuals who are between the ages of 21-64 and are dually eligible for Medicare and MassHealth. The goal of One Care is to coordinate and integrate care for patients with complex needs. One Care plans offer expanded MassHealth benefits and

participating plans are required to contract with community organizations that provide additional services dependent on the needs of the beneficiary, including Independent Living Long-Term Services and Supports (LTSS), medical equipment repair, integrated behavioral health care and substance abuse services, among others.

Care coordination is at the center of One Care efforts to provide integrated care for its enrollees. An Interdisciplinary Care Team including the enrollee, their primary care provider, a care coordinator or clinical care manager, and the independent LTSS coordinator, among others that an enrollee may require on their team, develops an individualized care plan after conducting a comprehensive assessment of the enrollee's care needs. This care plan may also incorporate services from community-based organizations.

The One Care program uses global/capitated payment models negotiated with Medicaid and Medicare, with specifications for risk sharing along with incentives for meeting quality metrics. Providers are paid through various payment arrangements. Dental services through CCA are included in the capitated rate of care and benefit administration services are contracted to Scion Dental, which reimburses dentists based on a fee-for-service basis.

CCA's One Care members report the availability of dental care as a significant incentive for enrolling in the program, with 48% of voluntary enrollees describing getting better dental benefits as a primary reason for joining One Care. However, incorporating oral health into whole-person care delivery has posed significant barriers. The adequacy of the provider network is one challenge, especially ensuring sufficient availability of dental specialists able to treat complex patients, though CCA has had success in partnering with the dental schools to help address this. It is important, however, that dental providers be better trained to better work with special populations. Geographical barriers are another issue,

especially in the western, more rural part of the state where there are few dental

professionals, let alone specialists who accept public insurance.

One Care beneficiaries as a whole tend to have complex health and social needs, which pose additional obstacles to seeking and receiving dental care. One Care members are individuals with disabilities and many have multiple chronic conditions. Additionally, an estimated 70-80% of CCA's One Care members have behavioral health service needs, many of whom are also unstably housed, lending to particularly prominent challenges in providing and coordinating quality care for this population. Health plans like CCA reported that during One Care's early implementation stage, a significant amount of time was spent locating new enrollees and conducting initial assessments.

Care coordination efforts
must thoughtfully and
explicitly address oral
health, especially for
vulnerable patient
populations with other
significant health and
social needs

It is therefore understandable that CCA reports that an overall average of only 11% of patients utilize any dental services in a given year. Those who typically access dental services are often those who had limited prior dental coverage before joining One Care and those who are actively engaged or have an advocate engaging them in their overall care. Members who have not utilized dental services tend to be those with more complex needs, including those with limited mobility. Many face challenges finding dental providers able to accommodate patients who are wheelchair or stretcher-bound. While CCA strives to provide its One Care beneficiaries tailored primary care services and care coordination through multi-disciplinary, integrated clinical teams, competing interests and additional challenges for both members and

<sup>&</sup>lt;sup>1</sup> This percentage is combined for both CCA's One Care and SCO populations.

providers often leave dental care by the wayside. CCA is currently undergoing a number of pilot programs to help address this issue.

Because the One Care patient population tends to have significant oral health problems, initial dental care can be extensive and very costly. As a result, efforts to integrate medical and dental—emphasizing cost-effective preventive dentistry—will require special consideration. A series of member forums conducted in 2015 indicate that there is significant confusion among beneficiaries about how to access dental benefits and find a provider. Members of the care team, including the member and providers, must be made aware of the importance of oral health and prevention in improving overall health and quality of life.

#### **Lessons Learned for Massachusetts:**

- Patient and provider education around oral health is necessary to ensure that oral health needs are adequately addressed.
- Care coordination is essential for patients with complex and extensive needs.
- Ensuring that the needs of members are fully met requires meaningful systematic engagement in planning for care.

### **Holyoke Health Center**

Holyoke, MA

Holyoke Health Center (HHC) is a Patient-Centered Medical Home (PCMH)-certified, Federally-Qualified Health Center that offers a full range of family health services. Seeing over 24 thousand individuals annually, it serves a diverse patient population with a large proportion of Spanish speakers. Located in Western Massachusetts, their overall patient population is also predominately living at or below the federal poverty line. At HHC, medical and dental services are colocated at two comprehensive health center sites; HHC also has one freestanding dental center and three community-based dental clinics offering a full range of specialty dental services, unique among safety net dental clinics.

Another distinctive aspect of HHC is its hosting of a pediatric dental residency, where dental residents serve as consultants for the emergency department, conduct epidemiologic assessments and other continuous quality improvement activities, and deliver oral health trainings to the rest of the primary care team. Pediatric dental residents spend a week at Baystate Medical Center working in a hospital setting, and starting late 2016, HHC will be collaborating with Baystate Medical Center to host pediatric medical residents at the health center's pediatric dental clinics. In addition to providing more integrated care, HHC is helping train the next generation of health professionals to practice in an integrated setting. HHC has attributed many of their innovations in care to this dual service and educational mission of their dental clinic.

A concerted integration effort between HHC's medical and dental clinics began three years ago with a grant they received to pilot medical and dental integration. The health center, however, already had a deep history and culture of inter-professional collaboration, driven largely by clinic leadership. The medical department had long recognized the need for diabetic patients to receive oral care and had already established a system of referrals to the dental department. With the grant, HHC also began integrating care for the pediatric population and aimed to establish dental homes for all pediatric patients.

Because health information
technology systems are valuable
facilitators of integrated care,
EHR vendors should be
incentivized to work toward
bidirectional functionality
between medical and dental

Care team education is a vital part of HHC's overall integration strategy, and oral health curriculum has been incorporated into various clinical team members' training. Nurses and medical assistants receive training on dental diagnoses from the department of public health, and primary care staff receives training on pediatric oral health from quarterly presentations delivered by the pediatric dental residents. With these efforts, care team members are better able to practice at the top of their license and offer superior integrated care. There are standing orders for medical assistants to deliver fluoride varnish application during primary care visits and primary care team members are involved in risk assessments, oral screenings, and

preventive interventions, while reinforcing the need for dental follow-up in patient communications.

Recognizing the key importance of communication among providers, Holyoke Health Center invested in a health information technology system that facilitated data sharing between the medical and dental teams. The vendor, NextGen® Electronic Health Record (EHR) system, is significantly interoperable with both medical and dental components. On the medical side, the EHR automatically generates dental referrals to all patients due for a dental appointment. The EHR also facilitates comprehensive risk assessments by enabling the identification of comorbidities that may put patients at higher risk of dental disease. The primary care team and dental team are each able to access important patient information from the record such as visit information, the problem list, medications, and allergies, supporting continuity of care. The primary care team can thus incorporate dental diagnoses and past treatments into the patient exam while the dental team can consider additional patient health information when developing treatment plans. The EHR also allows for a quick structured referral process, and patients in need of immediate care can then be transferred to either medical or dental services.

In an effort to foster appropriate care delivery, dental providers at HHC are salaried with additional performance incentives as a part of compensation. Though there are production targets for dental providers, the incentive is small and providers do not often meet those targets. A more significant incentive for providers is in meeting quality improvement goals, many of which help create opportunities for care integration with the medical team, with a percentage of the total fees generated returned to the provider contingent on meeting quality metrics and his or her performance on monthly peer assessments of dental charts. This system of paying providers, however, does not easily align with how the clinic is reimbursed for services delivered, especially since quality improvement activities are not compensated and certain necessary services are not covered, posing a significant barrier to continued integration efforts to support whole-patient health.

#### **Lessons Learned for Massachusetts:**

- Continuous oral health training for care team members can foster a culture of integrated care.
- Investments in bidirectional health information technology systems can greatly enhance providers' ability to coordinate care across medical and dental services, and HIT vendors should be incentivized to further interoperability.
- Residency programs provide an opportunity to engage in coordinated care efforts across the community while training the next generation of providers to practice integrated care.
- Reimbursement systems need to properly incentivize integration efforts to support whole-patient health.

### Early Childhood Caries Collaborative - Boston Children's Hospital

Boston, MA; Providence, RI; nationwide

The Early Childhood Caries (ECC) Collaborative began as an initiative at Boston Children's Hospital and St. Joseph Hospital for Children in Providence, RI to address the high rates of early childhood caries in their patients. ECC is a chronic yet preventable and controllable disease, which in advanced stages may negatively impact children's learning, speech, and overall development. Many children with ECC receive surgical treatment, which is both costly and ineffective on its own to address the root cause of the disease. The goals of the ECC Collaborative are to reduce the rate of new decay in patients, reduce the number of patients needing treatment in the operating room, and reduce the number of patients complaining of dental pain.

Adopted from the concept of chronic disease management, such as of asthma and diabetes, the initiative set out to target the root causes of early childhood tooth decay by addressing risk factors for caries. Using an evidence-based disease management clinical protocol, each child is assessed for their caries risk from a clinical examination and an interview with the parent. The parent is engaged in order to enhance his or her understanding the disease process and is provided with coaching and support to make lifestyle changes to reduce their child's caries risk. The parent is also offered risk-based preventive and restorative treatment if indicated and desired by the parent, and is recommended to follow

Existing reimbursement systems reward volume over value. To move toward value, there should be fair reimbursement for evidence-based approaches to preventing and managing disease

up on an interval based on their child's caries risk level. Children and their caregivers are provided with education and coaching to improve oral hygiene and dietary habits – in other words, establishing disease self-management skills. The care that is delivered is therefore not only tailored to each individual child and their family but at the same time is a more efficient allocation of limited resources.

The project's disease management protocol has been highly effective in reducing caries rates in children, with significant reductions in operating room utilization, new cavitation, and pain compared to a historical control group. Since 2011, the Initiative has expanded its reach as a Collaborative of Federally Qualified Health Centers and hospital-based dental clinics, and has concluded its third phase of implementation with 32 sites nationwide.

At Boston Children's Hospital, use of the disease management protocol has also been adopted for integration in the primary care setting. Working with a nurse champion, Boston Children Hospital's Primary Care Clinic has been conducting regular oral screenings and assesses the caries risk of children who come in for well-child visits, provides education to promote oral health strategies and prevent oral disease, and connects patients with dental care either at Boston Children's Hospital or through community referrals. Using a "knee to knee" approach with caregivers, nurses are able to perform oral screening children and deliver preventive fluoride varnish.

The success of the Early Childhood Caries Collaborative demonstrates that a risk-based approach to dentistry can prevent and arrest ECC. However, there are barriers that limit full implementation of the disease management protocol. Assessing caries risk and providing coaching to patients on preventing and managing disease are activities that are not reimbursable by insurance, with most plans largely structured on a fee for service system that provides one-size-fit-all coverage without regard to individual risk for disease. Consequently, patients and providers alike continue to be incentivized to give and receive surgical treatment of caries, instead of approaches that promote prevention and wellness.

To better support care innovations such as those tested in the ECC Collaborative which promote and improve the health and outcomes of patients, insurance reimbursement needs to shift from rewarding volume to rewarding value. This will also require a shift in the way dental care is delivered and oral health outcomes are measured. There is currently not widespread use of diagnostic coding therefore making tracking patient oral disease risk and outcomes difficult. Components of a pay-for-performance reimbursement system would provide incentives to promote and improve the health and outcomes of patients instead of receiving reimbursement solely on the basis of the procedures performed.

#### **Lessons Learned for Massachusetts:**

- A risk-based disease management approach to ECC can be implemented into clinical dental practice
- A risk-based disease management approach has the potential to prevent and arrest caries in children, and has the potential to be effective for the adult population
- Quality improvement methods can help facilitate and expedite the implementation of new evidence-based approaches, such as risk-based disease prevention and management of ECC
- Payment systems need to adequately support a risk-based prevention and treatment approach and other evidence-based care delivery reforms
- An integrated model of oral health promotion/disease prevention can be successfully implemented in a hospital setting using quality improvement approaches

### Conclusion

These case studies highlighted a number of interesting examples of oral health integration across Massachusetts that have demonstrated success in increasing the value of health care. Most of these efforts, however, have been grantfunded pilot projects that, in order to realize long-term sustainability, require fundamental change in the payment system.

It is clear that oral health is a vital part of overall health. It is also abundantly clear that changes need to be made to support patient-centered innovations in dental care and its integration with the rest of health care. Using lessons drawn from both on-the-ground and more system-level redesign and integration efforts, these changes must include:

- Payment system reforms that prioritize value and not volume, including incentives for preventive, risk-based dental care and the development and use of quality metrics in dentistry
- Consumer-centered care coordination efforts to bridge the gap between medical and dental services
- Adequate investments in health information technologies that facilitate data sharing and improved care coordination, and
- Training for new and existing providers to better operate in an improved and integrated system of care delivery

We urge the state to invest the resources necessary to develop thoughtful strategies to include this essential health care benefit within the state's broader attempts at health system improvement. Current reform efforts present an extraordinary opportunity to shape the future of integrated health care in Massachusetts, a vision of whole-person care that cannot be truly realized without also including oral health.