Grantmakers In Health convened a group of funders, researchers, and practitioners on April 17, 2012, for the Issue Dialogue Returning the Mouth to the Body: Integrating Oral Health and Primary Care to discuss the benefits, challenges, and approaches to integrating oral health and primary care.

Dental disease is one of the great preventable public health challenges of the 21st century. Labeled a “silent epidemic” by the U.S. Surgeon General, dental disease ranks high in prevalence among chronic health conditions (HHS 2000). It is universally prevalent, but a number of subpopulations are particularly vulnerable, including seniors, children and adolescents, low-income people, minority groups, and people with special health care needs (IOM 2011).

While dental disease is itself a discrete health concern, like many other chronic diseases it has broader health impacts. Poor oral health has been linked to increased risk for cardiovascular disease, diabetes, and other chronic conditions. Among adults who have lost their natural teeth, studies have shown that there is a significant impact on nutritional intake, resulting in the consumption of little or no fresh fruit and vegetables. Poor oral health also exacerbates other underlying chronic diseases. For example, diabetic patients with periodontitis are six times more at risk for worsening glycemic control and are at increased risk for other diabetic health complications (Mealey and Rose 2008).

Dental disease has a number of broader implications. Poor oral health in children has been shown to result in decreased academic performance and can adversely affect behavioral and social development. Over 51 million school hours are lost each year due to dental problems (Pew Center on the States 2011a). Poor oral health is even a national security concern. According to a study conducted by the U.S. Department of Defense, 52 percent of new recruits were in need of urgent dental treatment that would delay their deployment (Leiendecker et al. 2008).

THE CASE FOR INTEGRATION

Integrating primary care and oral health makes logical sense for a number of reasons. By sharing information, providing basic diagnostic services, and consulting one another in a systematic and sustained manner, dental and medical professionals in integrated practice arrangements would have a far better chance of identifying disease precursors and underlying conditions in keeping with a patient-centered model of care. Integration can also raise patients’ awareness of the importance of oral health, potentially aiding them in
taking advantage of dental services sooner rather than later.

Integration could also:

- increase the effectiveness and efficiency of both dental and medical professionals in preventing disease, thereby reducing the large number of preventable dental conditions, which are far too often treated in emergency rooms (Pew Center on the States 2012);
- improve chronic disease management and prevention;
- address significant oral health care access issues by expanding entry points into the dental care system, especially for at-risk and underserved populations (IOM 2011; IOM and NRC 2011);
- facilitate the use of interdisciplinary techniques to overcome patient-specific barriers to accessing services, such as patient apprehension and anxiety about visiting the dentist (Munger 2012); and
- provide significant cost savings to the health care system by controlling for and reducing risk factors common to dental disease and various chronic diseases, like diabetes (Ide et al. 2007; Cigna 2010, 2011).

**AREAS FOR GRANTMAKER INVESTMENT AND ACTION**

Although the benefits of integrating oral health and primary care are evident, there are a number of barriers and practical challenges to achieving this goal. They include conflicting practice models, workforce needs, gaps in stakeholder education, and financial issues. Promising approaches for addressing these challenges are being implemented at state and local levels, many with philanthropic support, and leading areas of activity are summarized below. Some of the approaches in each area are supported by empirical evidence, while others are untested and have been identified by health funders as logical next steps worth exploring. More evaluation and assessment of all integration efforts will give the field a better sense of what works best in different communities and care settings.

**Implementation of Integration Models** – The most obvious area where grantmakers can invest is in supporting the implementation of an integrated model. There are several models for integrating oral health and primary care that differ in scope and intensity (Munger 2012; National Maternal and Child Oral Health Policy Center 2011b). There are four general models: full integration, colocation, primary care provider service focus, and collaboration. Integration can occur along a continuum and through a variety of models, all of which share the goal of increasing patient access to dental and oral health services through the primary care system. No one approach should be considered the “gold standard.”

There are a number of populations and locales where implementing an integrative model would be relatively easy and potentially effective, such as school-based health centers and nursing homes. The patient-centered medical home movement is another opportunity for philanthropic support of integration. Given oral health’s links to larger patient outcomes, integration of care is a natural fit for this and similar quality improvement efforts. Investment in developing integrated electronic health record systems is another area for grantmakers to consider. It can be a positive step toward integrating oral health and primary care, if these systems can be adopted by multiple providers regardless of practice model.

**Workforce Development** – Despite common historical roots, dental and medical services have traditionally been delivered separately via differentiated delivery systems (Maas 2012). Typically there is little to no communication between dental and medical silos, which has led to the mouth being treated as a separate entity from the rest of the body by medical and dental practitioners. Physicians and other medical personnel receive little or no training in oral health procedures or practices (Krol 2004; Ferullo et al. 2011). Dentists and other dental personnel conversely have little or no training working together, let alone in interfacing with the medical community or in operating in a multidisciplinary team (Okwuje et al. 2009).

There is a significant opportunity for health philanthropy to engage medical and dental professional associations and training institutions in implementing revised and enhanced curricula. Several funders have supported the Smiles for Life curriculum as a method for training primary care clinicians of all types and levels of experience in preventive oral health techniques. Funders can also consider grants to enable the development, evaluation, and implementation of curricula to train dental practitioners, especially dental school faculty, and students to work in team-based and group practice settings. Grants to support the development and implementation of interdisciplinary education programs are another way to help integrate oral health, as is working with schools and accreditation boards to remove accreditation standards that are barriers to implementing new curricula.

Leadership development is another important element of workforce development. There is evidence that medical-
dental providers feel strong leadership from professional associations and states, including mandates supporting integrative approaches, can support increased integration of oral health and primary care (Traver and Kislak 2011). These programs can create a cadre of provider leaders to be vocal and credible advocates for policy change that supports system improvement, including within their own professional associations.

**Stakeholder Education** – Limited public awareness of the need for dental care and dental disease prevention is a serious barrier that is especially prevalent among populations that could benefit most from integrated oral health and primary care. The public often views dental care as secondary and generally has a poor understanding of oral health. If communities do not realize the necessity and benefits of accessing dental services and preventive care, integration into primary care faces an uphill battle. Therefore, raising awareness of oral health’s importance to overall health and educating the public on attaining and maintaining good oral health are critical tasks. Grants to support this work can help improve prevention efforts and can also serve as a catalyst for generating community support for an integrated approach.

Educat ing primary care providers and important stakeholders operating within the system, such as insurers, is as important as educating the public because health practitioners are not always aware of the importance of oral health. Likewise, building support within administrative and clinical leadership can be critical to the success of integrative approaches (Traver and Kislak 2011). The policy community is another important stakeholder. Philanthropy can play an important role in calling policymakers’ attention to oral health issues and services by serving as an information resource on the importance of oral health and its connection to overall health, including potential health care cost savings. Foundations can also work with policymakers to ensure that oral health is included when health care delivery and financing systems are being redesigned or reformed in the states. For example, funders can work with policymakers to include oral health in Medicaid managed care requests for proposals and in medical home legislation. As part of any policymaker and provider education effort, philanthropy can also be a critical player in mobilizing communities to engage with policymakers once they have identified oral health as a problem. The communities most at risk and most in need of oral health services are those least likely to be heard. Philanthropy can play a critical role in making their concerns heard and ensuring that their voices are valued.

**Integration as Part of Increasing Dental Provider Access** – Integration of oral health and primary care in many cases requires access to dental providers, and there are many places that lack dental providers and lack providers willing to treat the underinsured, uninsured, and patients covered by public dental insurance. Research has shown that only 44 percent (12.9 million out of 29 million) of Medicaid-enrolled children receive dental care, and inability to access a dental provider is cited as a major contributing factor (Pew Center on the States 2011a). In all, about 20 percent of practicing dentists provide care to Medicaid beneficiaries, with fewer still who devote significant portions of their practices to treating these patients (HRSA 2012a).

The debate over how best to increase access to oral health and dental services provides a strategic window of opportunity to introduce the integration of oral health and primary care as part of the solution. While a number of different strategies have been discussed, such as creating new and expanding existing dental schools, a central issue in the debate concerns the extent to which alternative dental providers, or midlevel dental providers, can or should also be used to expand access to care. Alternative dental providers have a skill set between those of traditional dentists and dental hygienists. Because their training and typical scope of practice allow them to practice in satellite clinics that can be attached to or integrated with federally qualified health centers and other primary care systems, proponents suggest that alternative providers could both compensate for the serious shortage of dental providers in geographically isolated and low-income areas and also facilitate the integration of oral health and primary care. For example, some medical-dental providers suggest that these providers could be used to triage dental problems like medical nurses triage medical problems, coordinate care and on-call schedules between medical and dental providers, and assess the severity of patient dental conditions (Traver and Kislak 2011).

The topic remains controversial. While there is evidence suggesting that alternative providers are safe, effective, and can increase dental practice profitability and productivity, opponents have expressed concerns, among other things, about patient safety and quality of care (Wetterhall et al. 2010; Nash et al. 2012; Pew Center on the States 2010; NDA 2010). This is similar to the reactions seen over the years by medical professionals to the introduction of midlevel health care providers and definitions of their scope of practice.

**Reform Financing of Oral Health** – The current financing system for dental care represents a serious
barrier to integration because of the divide between medical and dental insurance realms. The resulting separation of billing creates barriers to formal relationships and coordination of services between medical and dental providers. The divide also impedes performance assessments by separating related procedures into two claims silos, creates separate sets of claims and diagnostic codes and terminologies, feeds a general perception of dental care as an “optional” service, and impedes medical professionals from performing basic dental services.

Given that the current system for financing and paying for dental and oral health services leaves many people without a means to pay for oral health services and actually hinders efforts to integrate oral health and primary care, there is interest among some funders in reforming the system. These grantmakers have worked with policymakers, dental and primary care providers, and insurers to develop reimbursement policies for oral health services provided by primary care clinicians. Opportunities also exist to support providers who are experimenting with and adopting accountable care organization models that focus on population health outcomes. Given that an integrated model of care can play a significant role in disease prevention for both dental and other chronic diseases, some funders have considered a focus on creating provider incentives for preventive oral health services.

Research and Pilot Projects – There is a lack of documented research and experience on the subject of integrating oral health and primary care. The research base for the various models and approaches to integrating oral health and primary care is extremely limited; thus, there is a need for solid process and outcomes data. Not only is more evidence needed to validate different approaches to integrating oral health and primary care, but there is also a need to determine how best to implement different models. While there have been some state and local efforts to facilitate integration, there has not been much research on best practices and strategies. Some extrapolation from research on integrating behavioral health into primary care has yielded a starting point for researchers and practitioners, but focused research into oral health integration remains a critical gap.

Pilot projects related to the integration of oral health and primary care, using a chronic disease case management approach, have drawn funder interest. In particular, projects centered on diseases with cofactors, like diabetes or prenatal and perinatal health, where there is a strong research base linking the oral health of mothers and the health of infants, have drawn funder interest as viable areas for investment. Another area for potential investigation is clinical interventions commonly used in other fields, such as behavioral health, that can effectively integrate oral health and primary care.

Setting an Example: Integrating Oral Health and Philanthropy – Health funders have an opportunity to lead by example and raise awareness of oral health’s importance by integrating oral health into their own work. For example, a request for proposals for a project to address community health disparities could include language giving priority to projects that incorporate oral health. Similarly, funders could consider including dentists or others with oral health expertise on their boards or advisory committees to act as a resource and champion for oral health within the organization.

Foundations can also share successes and failures of their integration efforts with one another. Nationally and locally, they can also consider including oral health in broader discussions and grantmaking related to integration of health services. Other fields, like behavioral health, have been working to integrate with primary care, although not in concert with oral health funders. Bringing everyone to the table in current and future high-level discussions of care integration could be a role of funders.

Philanthropy can make a significant contribution by taking on any number of roles: convener, researcher, educator, benefactor, and advocate. There is no gold standard approach to integration: each model has its own benefits and limitations that will require thoughtful assessment by all stakeholders. Grantmakers can play a leadership role in this effort and be powerful agents in reversing a century-and-a-half-long schism between the mouth and the body.