

Oral Health Integration in Oregon

Environmental Scan & Recommendations

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List of Abbreviations

Abbreviation	Definition
ACO	Accountable Care Organization
APM	Alternative Payment Model
CAC	Community Advisory Council
CCHS	Choptank Community Health System
CCM	Coordinated Care Model
CCO	Coordinated Care Organizations
CHA	Community Health Assessments
CHC	Community Health Centers
CHCS	Center for Health Care Strategies
CHIP	Community Health Improvement Plan
CME	Continuing Medical Education
CMS	Centers for Medicare and Medicaid Services
DCO	Dental Care Organization
DWP	Dental Wellness Plan
ED	Emergency Department
EHR	Electronic Health Record
EPDH	Expended Practice Hygienists
FFS	Free For Service
FOHPG	Funders Oral Health Policy Group
FQHCS	Federally Qualified Health Clinics
GME	Graduate Medical Education
HERC	Health Evidence Review Commission
HHS	Health and Human Services
HMA	Health Management Associates
HRSA	Health Resources and Services Administration
HSD	Health Systems Division
KFHP	Kaiser Foundation Health Plans
MAC	Medicaid Advisory Committee
NNOHA	National Network for Oral Health Access
ODA	Oregon Dental Association
OHA	Oregon Health Authority
OHP	Oregon Health Plan
OHPB	Oregon Health Policy Board
OPCA	Oregon Primary Care Association
PCPCH	Patient Centered Primary Care Homes
PDA	Permanente Dental Associates
PHD	Public Health Division
QHOC	Quality Health Outcomes Committee
RCTS	Randomized Controlled Trials
SCHIP	State Children’s Health Insurance Program
SHIP	State Health Improvement Plan
SPMI	Severe and Persistent Mental Illness
WIC	Women, Infants and Children

Executive summary

Oregon is a leader in health system transformation, particularly for the Medicaid and State Children's Health Insurance Program (SCHIP) populations. Oral health is a key component of the state's coordinated care model (CCM), and it is looked to as a national model for integration. Health Management Associates (HMA) was contracted to undertake an environmental scan of both local and national efforts towards oral health integration and conduct extensive interviews with state officials and their key state partners for transformation efforts. Key findings and recommendations are summarized below.

Key findings

The oral health status of Oregonians is improving, but further work remains. While the state has made strides towards improving the oral health status of Oregonians, some important areas for further work remain. To that end, oral health integration can be one effective and important tool. While the state's performance is good with respect to providing sealants, and lowering rates of decay in young children, there is still room to improve. For example, Oregon's neighboring states have improved access to preventive dental care in children below 18 years of age. In addition, a unique feature of Oregon's environment for oral health care is the lack of access to fluoridated water. Lastly, adolescents and seniors are populations whose health needs are not adequately addressed.

A limited oral health workforce continues to be a challenge. Oregon is experiencing a decline in the number of dentists that practice general dentistry, some increases in private group practices compared to solo practices, and some increases in dentists practicing in community health centers. Only eight other states have better dentist-to-population ratios but, as in most other states, only a limited number of dentists accept Medicaid patients. Innovative new approaches to the workforce are emerging, such as mobile dentistry, expanded practice hygienists, and new dental pilot approaches. The one dental school in the state is starting to emphasize community and population health in training programs and is promoting general dentistry while serving as a safety net provider of oral health services.

Local oral health integration efforts are ahead of other states, but there is more to do including consensus on the definition of integration. Oregon is an early leader in oral health integration because of the health system transformation that is underway in the state and, particularly, because of Medicaid coordinated care organizations' (CCOs) experiences. Many innovative activities are underway across the state, many of which are models for the rest of the country. Both the Oregon Health Authority (OHA), and the Medicaid CCOs, with their contracted dental care organization (DCO) partners are engaged in multiple initiatives and programs. However, applying the federal Health Resources and Services Administration (HRSA) Oral Health Integration Framework, we find that most CCOs are not working on oral health integration based on the Framework. Those that are working on integration appear to be focusing primarily on dental access, risk assessment, and making inroads toward inter-professional collaborative practice. The environmental scan and interviews conducted in Oregon did not uncover a clear consensus on what defines oral health integration which could impede progress.

Some national models of oral health integration and local efforts for behavioral health integration can be applied. Enhancements and additional activities underway in other parts of the country could be applied in Oregon to further oral health integration. An extensive review of information gained from an

environmental scan of both local and national efforts and from over 30 interviews shows that oral health integration is starting and that there is increasing appreciation for the need to focus on it - but efforts underway in Oregon are just the beginning of all that could be undertaken. Local efforts to integrate behavioral health have been underway and can provide examples and learnings that can further oral health integration efforts in Oregon.

Potential innovative payment models could further oral health integration. A few states, with Oregon being one of the early leaders, have incorporated oral health into their delivery system reforms. Overall, there are few national innovative payment models for oral health integration. Oregon's CCOs and DCOs have started to try new approaches to incentivize improved quality of care, mirroring efforts that the state has undertaken in holding the CCOs accountable for quality and rewarding performance. More work is needed to apply the lessons learned from the integration efforts underway in the medical and behavioral health payment models.

Recommendations to further oral health integration

Oregon has made strides in improving the oral health of its population over the years. The state has had a long history of separating out oral health services in the Oregon Health Plan (OHP), with DCOs delivering services to the Medicaid population for two decades. The vision for Oregon's health system transformation includes an intention to integrate oral health, physical health, and behavioral health across the delivery system, with efforts currently and primarily underway for the Medicaid populations. Most of the DCOs, while included as part of the CCO policy development, were not initially involved in the formative efforts of the regional CCOs, but their networks currently deliver oral health services for most of the CCO enrollees across the state. It has been a period of transition over the last two years since the oral health funding stream has become the responsibility of the new CCOs, with full integration not yet achieved.

Based on the environmental scan of both local and national efforts and on the discussions with both internal state and external stakeholders, HMA recommends these next steps to further oral health integration in Oregon:

Increase state and local leaders' communication about the value of oral health and oral health integration. While it has been an integral component of the design of health system transformation, messaging of the importance and value of oral health has lagged efforts underway in physical and behavioral health integration. Stakeholders noted the importance of the state's communications in driving attention and focus to key issues. The lack of communication regarding oral health has led some to assume it is not a high priority for the state. Planned, clear and collaborative communication amidst OHA, its divisions, key state partners, stakeholders and providers is needed to ensure the same message is shared at all levels of the agency, with partner organizations and across all regions of the state. Work should be considered to ensure a common definition of oral health integration and that integration of oral health is as vital as integration of behavioral health. The communication needs to clearly outline how oral health and integration efforts can improve overall health and reduce costs.

Improve alignment and maximize the impact and use of limited resources through enhanced coordination. The state Dental Director, in partnership with the Chief Medical Officer of OHA, should work across the agency and with the key state partners to support and assess oral health integration efforts. Clear alignment and coordination across the agency and organizations such as the CCOs and the

DCOs is critical to avoid gaps, duplications and lost opportunities for synergy. Sharing of evidence-based approaches and best practices that improve health outcomes, coupled with technical assistance resources to reach all providers across their siloed systems, can enhance learning and promote innovation. Patient navigational tools and other approaches to reduce the administrative barriers due to the complexity of the multiple DCO and CCO arrangements would improve access to the use of oral health benefits.

Increase CCOs, health plans, and provider attention on oral health integration. Applying value-based payments to the integration of oral health with physical and behavioral health would increase the attention on oral health. Other approaches include integrating oral health into the performance incentive metrics, adding oral health integration to transformation plans, as well as including into the requirements for community health improvement planning. Patient-Centered Primary Care Home (PCPCH) and other model certification standards could drive further integration efforts by including oral health integration expectations. Continuing education credits and learning collaboratives can motivate providers and staff and increase sharing of best practices and coordination across whole-person care. Addressing access to oral health care will require broader integration efforts across all payers and providers in the delivery system to achieve full transformation towards better health, better care, and lower costs.

Reduce barriers to integration and enhance administrative simplification through streamlining and standardizing processes. Standardizing common requirements and documentation for CCO and DCO administrative processes could reduce barriers and incent further integration. Person-focused cross-coordination in care management operations needs to include oral health and would enhance care delivery for physical and behavioral health.

Enhance data collection, analytics, and surveillance efforts to incorporate oral health. Maximizing the analytical use of both utilization and surveillance data for CCOs and state partners will allow them to target their efforts to areas and populations of higher need. Improving health equities will require enhanced data collection to include race, ethnicity and language. Solid evaluation components for investments in integration activities and dental pilots will inform effectiveness.

Recommendations for oral health integration metrics

Add an oral health component to existing metrics to encourage integration. Asked to examine potential metrics for oral health integration, HMA reviewed the multiple metrics under examination both nationally and locally that can be used to enhance oral health care and its integration with medical and behavioral health care. Adding an oral health component to existing metrics would enhance oral health integration by incenting the medical, behavioral, and oral health providers to collaborate across the CCO networks. The focus should be on chronic illness such as diabetes, pregnant women (where efforts can impact the health of the mother and their children), and moving care out of the Emergency Room for non-traumatic health conditions.

Focus metrics on high needs populations. Because high needs for oral health exist among those with severe behavioral health issues, consideration of a measure that ensures that individuals with Severe and Persistent Mental Illness (SPMI) receive an oral health assessment is critical and would encourage working across the dental and behavioral health communities. The data for two of the current metrics, follow-up after hospitalization for mental illness and the depression screening with follow-up planning,

could be correlated with utilization of dental services if an oral health assessment or referral expectation was added to the follow-up visits

Move to measure oral health integration efforts along the continuum. To encourage and incentivize even more integration, it is recommended that future metrics be considered that measure movement along the continuum of integration from coordination between oral health providers and primary care providers to co-location of these providers and to true, full integration. These measures could borrow heavily from metrics developed to measure integration of behavioral health and physical health.

Summary

Oral health integration is just beginning. It lags behind efforts on behavioral health integration in Oregon, but more and more activities are underway, and relationships are developing and evolving across the delivery system. The state has been an early leader and is poised to build on impressive first steps. Achieving further success will require a common message, aligned leadership, smoothing processes, and overcoming barriers. It will require being armed with solid data analysis and evaluation to continuously improve its approaches. Oral health matters and focusing on oral health integration is critical to attaining better health, better care, and lower costs.

Introduction

Oregon has made strides in improving the oral health of its population over the years. The state has had a long history of providing oral health services through OHP, with DCOs managing and delivering services to the Medicaid population for the last two decades. The vision for Oregon's health system transformation includes an intention to integrate oral health, physical, and behavioral health across the delivery system, with efforts underway currently primarily for the Medicaid populations. The Medicaid CCOs were implemented in 2012, but oral health services funding streams did not transition to the CCOs from state contracts with the existing dental care organizations until 2014.

The start of Oregon's efforts to transform the health care delivery system has thus far achieved meaningful results, but more work remains. Most of the DCOs, while included as part of the CCO policy development, were not initially involved in the formation efforts of the regional CCOs, but their networks currently deliver oral health services for most the CCO enrollees across the state. It has been a period of transition over the last two years since the oral health funding stream have become the responsibility of the new CCOs, with full integration not yet achieved. Key to these efforts is the continued push to better integrate and improve coordination for all aspects of care. Although behavioral health integration has been a more prominent focus to date, there is growing recognition that oral health integration and improvements in oral health quality and outcomes are also critical to achieving the triple aim of better health, better care, and lower costs.

OHA and the state's CCOs are already undertaking several activities related to the integration of oral health, and nationally, the state is identified as a leader. However, as evidenced in many oral health status measures, Oregon remains behind in achieving improved oral health in its citizens. OHA, the CCOs, and community stakeholders have many opportunities to work collaboratively to further oral health integration efforts, which can lead to improved oral health outcomes.

This white paper is an assessment of the status of oral health integration in Oregon. It provides a set of recommendations for strategic approaches to further integration. To conduct an environmental scan of oral health integration in Oregon and assess best practices locally and nationally, HMA reviewed an extensive list of existing documents, data analytical reports, and studies produced by the state and by its key stakeholder partners. The HMA team also examined the literature on oral health integration nationally. We interviewed internal state staff across the divisions inside OHA and interviewed over twenty external stakeholders and/or community groups to gain their perspective on current efforts towards oral health integration. The HMA team analyzed the available information and identified the major themes across the interviews to develop the strategic approaches to further integration that are included in the recommendations.

Description of problems and issues that oral health integration addresses

Integrating the healthcare disciplines can support the Triple Aim of better health, better care, and lower costs. Integration can increase communication and collaboration, improve quality to produce better health outcomes and greater patient satisfaction, and reduce the costs of healthcare. Many efforts are underway across Oregon as well in some other areas of the country as part of health system transformation efforts to integrate physical and behavioral health. But the inclusion of oral health is not as far along.

History of oral health integration policy development

Oral health care and its integration into the delivery of healthcare services has been a challenging issue in health care for decades. The Surgeon General highlighted the scope of the problem of access to quality oral health care in 2000. In 2003, the Surgeon General released a *National Call to Action to Promote Oral Health*. As further efforts emerged to address the gaps in access, the concept of integration of oral health into medical and behavioral health started to take hold. In 2009, the Institute of Medicine (IOM) was asked by the federal Department of Health and Human Services (HHS) to recommend actions to improve the state of oral health in America. In its 2011 report, *Advancing Oral Health Care in America*, the IOM recommended several approaches for HHS to consider, including seven specific recommendations that focused on integrating oral health into all aspects of the activities that HHS oversees or directs.

A subsequent 2011 report by the IOM, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations*, produced in conjunction with the National Research Council, found that vulnerable and underserved groups continue to face persistent, systematic barriers to accessing oral health care, which contribute to “profound and enduring” oral health disparities. One of the six categories of recommendations included integrating oral health care into overall health care. The expert committee found that one important barrier to access was that oral health is often viewed as a separate entity from overall health care instead of as an important component of it.

The IOM report highlights several problems: dental coverage is primarily provided and paid for separately from general health insurance, dentists are trained separately from physicians, and policymakers often fail to incorporate oral health into health care policy decisions. These are problems because there is increasing evidence of linkages between oral health and overall health of patients. The report notes that “a healthy mouth is more than just healthy teeth.” Oral health can mirror health or disease that may be present in the rest of the body. In addition, oral health complications can worsen general health conditions such as diabetes, cardiovascular disease, and adverse pregnancy outcomes. The report documents that the impacts of poor oral health can contribute to chronic pain, loss of days from school, and inappropriate use of emergency departments. Evidence noted in the report identifies that early childhood caries can impact a multitude of aspects of a child’s and their family’s lives, and lead to poor quality of life and increased costs.

Dental problems represent one of the top most common reasons that adults visit the emergency room, and that is most notable in Medicaid beneficiaries and the uninsured. There is a high rate of repeat visits for the same problem; such visits account for millions of dollars in hospital costs. Not unlike many

medical and behavioral health issues, most oral health issues could be handled in ambulatory settings and avoid use of the emergency room and the hospital.

Defining oral health integration

Over the past several years, the Funders Oral Health Policy Group (FOHPG)¹ and many others have identified several promising strategies to better meet the oral health needs of the underserved population. The members of the group have identified several key drivers, resources, and emerging models that motivated them to explore options supporting a more optimal, integrated medical-dental care framework. The FOHPG commissioned the Qualis Group to study options to further oral health integration and to produce a white paper² of case studies of clinical settings where steps have been taken to put medical and dental delivery systems to work more closely together and to incorporate oral health in quality improvement processes. The vision or “ideal state” underlying the examination is an example of a definition of oral health integration based on desired health outcomes. It is described in the white paper as follows:

Where both medical and dental providers would address oral health needs of patients so that:

- Young children would receive oral health preventive services as a part of routine well-child care;
- Pregnant women would have dental treatment needs addressed prior to delivery;
- Patients with oral disease resulting from, influenced or exacerbated by chronic diseases would receive dental treatment as part of their comprehensive care plan;
- All providers would possess a basic understanding of the oral disease process, known causes, prevention and effective interventions;
- Interventions including risk assessment, counseling on diet and hygiene, consultation with and referral to dental care for treatment would be part of the standard of comprehensive care provided to all patients; and
- Quality improvement processes would test for the optimum design for the delivery of these services, either in a medical or a dental setting, ensuring that patients receive the right service, at the right time, in the right context.

The environmental scan and interviews conducted in Oregon did not uncover a clear consensus on what defines oral health integration. The question was asked in all the interviews with both internal and external stakeholders. The responses varied depending on the role or organization queried, with clinical definitions ranging from co-location to creating relationships between providers across a medical-dental

¹ The Funders Oral Health Policy Group is a network of over 23 foundations who share an interest in improving oral health by influencing policy. The group was brought together by the DentaQuest Foundation to increase learning about opportunities for collective impact on oral health in the communities they serve.

² “Oral Health Integration in the Patient-Centered Medical Home Environment (PCMH): Case Studies from Community Health Centers- September 10, 2012” accessed October 2016 at <http://dentaquestfoundation.org/sites/default/files/resources/Oral%20Health%20Integration%20in%20the%20Patient-Centered%20Medical%20Home,%202012.pdf>

neighborhood. Those engaged in the administrative or operational areas of delivery system transformation efforts focused on intra-agency integration or integration between CCOs and DCOs. The majority felt integration was in its early stages.

Emerging best practices and evidence-based guidelines conclude that integration of oral health into primary care practice is essential to promoting and maintaining overall health and the well-being of patients. Oregon's CCM recognized the importance of integrating oral health with physical and behavioral health. CCM implementation in Medicaid by the CCOs has started to address some of the barriers to integration for the state's vulnerable populations. Examples of oral health activities underway across the state are outlined in this paper in subsequent sections.

Further efforts to implement the CCM for the state's public employee and school district employees are not yet fully underway. They currently operate under separate medical and dental services contracted plans, like the overall commercial and qualified health plan marketplace. Addressing access to oral health care will require broader integration efforts across all payers and providers in the delivery system to achieve full transformation towards better health, better care, and lower costs.

Overcoming some of the real and perceived barriers to integration

Drawing on experience from medical-dental integration, as well as medical-behavioral health integration efforts, several recent articles have identified common barriers to integration and ways in which they may be overcome. While this is not an exhaustive list, a few key barriers to integration are addressed below along with a brief example of approaches to overcome them. See subsequent sections on local and national oral health integration models for further examples.

Co-location. An enabling characteristic of successful integration is the co-location of a dental practice and primary care practice. However, in the absence of co-location, dental-medical partnerships can be formed. However, co-location is not the only avenue to achieve the benefits of integration. Primary care teams can be trained to conduct basic assessments, preventive care, referral and follow-up. In the absence of a co-located dentist, a dental hygienist or dental coordinator may be hired for the primary care practice to enhance the provision of integrated care.

Staff Training. With appropriate training, primary care providers can reliably screen for oral health problems. Other primary care team members can provide meaningful prevention education and interventions. High quality resources—such as the nationally recognized, on-line curriculum, *Smiles for Life*, which offers free continuing education credit—can support the development of oral health clinical knowledge in primary care.

Electronic Health Record (HER) Interoperability. A shared medical-dental record or interoperability allows for access to timely clinical data for medical and dental providers; the absence of such a system can hinder the integration of referrals and appointment tracking.³⁴ While interoperability is another

³ "Improving Access to Health Care for Vulnerable and Underserved Populations". Prepared by Institute of Medicine and the National Research Council. Accessed at: <http://www.hrsa.gov/publichealth/clinical/oralhealth/improvingaccess.pdf>

⁴ Oral Health and the Patient-Centered Health Home 2012 Action Guide. Prepared by the National Network for Oral Health Access. Accessed at:

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwipmLrYqobOAhVS3mMKHaFOD6kQFgg_eMAA&url=http%3A%2F%2Fwww.nnoha.org%2Fnnoha-

enabling characteristic for full integration, practices can have success with integration without EHR interoperability.

Funding. All payers should assess the adequacy of their payment for covered oral health preventive services, such as fluoride varnish, and consider expanding coverage options where appropriate. While there are ways to incorporate some components of integration within existing payment structures, payers should consider incentivizing primary care-based risk assessment, screening, and care coordination with dentists by offering reimbursement for these activities. CCOs are beginning to use alternative payment methodologies, such as capitation and payment tied to quality measures (*see Section V on payment models*).

Time. Finding adequate time during a clinical visit is a common obstacle to integration; however, there are several activities that can be accomplished by the primary care team with efficient workflows, with little additional time. In a recent QualisHealth paper on oral health and primary care, the Primary Care Medical Director at Marshfield Clinic, the second largest private group medical practice in Wisconsin, with over 700 physicians, 50 locations, and 380,000 patients, demonstrated that an oral health risk assessment and screening could be conducted in about 12 seconds by primary care providers. Also, noted in the paper, the Practice Manager at Confluence Health Wenatchee Pediatric Clinic indicated that his team had fine-tuned a workflow that takes only two to three minutes to add preventive oral health care to the typical well-child care visit.⁵ In the long run, taking the time to also activate and support patients and their families is crucial to successful oral integration and education.

[content%2Fuploads%2F2013%2F09%2FPCHHActionGuide02.12_final.pdf&usg=AFQjCNGiMFkZouCFYKDSx3NBIVsG3Xnkcg&sig2=wgcSkbi5Q-BP6rpc70DJEA](#)

⁵ “Oral Health: An Essential Component of Primary Care” white paper by Qualis Health, June 2015. Accessed at: <http://www.safetynetmedicalhome.org/sites/default/files/White-Paper-Oral-Health-Primary-Care.pdf>

Environmental scan of oral health integration in Oregon

HMA examined multiple aspects of Oregon’s efforts to improve oral health and integrate it into the state’s health system transformation. The sections that follow not only examines the current health status of Oregonians, but also looks at the various activities underway and infrastructures in place to support efforts that are targeted to improve oral health.

Background on oral health status and the dental workforce in Oregon

The importance of improving oral health services, prevention, and education is gaining more attention in Oregon and is now one of seven priority areas in Oregon’s State Health Improvement Plan. With this increased attention, data collection and reporting, there can be a greater understanding of the status of the oral health of Oregonians. As in many other states, there is a more intense focus on the oral health of children, but some data is becoming available regarding the oral health of adults. Some of the following information was recently presented to the Oregon Legislature by the state’s Dental Director.⁶

Tables summarizing oral health status can be found in Tables 1A, 1B, & 1C of the Appendix.

Oregon children and teen-agers’ oral health status

Tables 1A and 1B in the Appendix compare oral health data for children in Oregon using national data and Healthy People 2020 objectives. The data show that Oregon has a good sealant program for young children (as measured in six to nine-year-olds) with better sealant coverage than the national sealant rate. Young children in Oregon also have a lower rate of tooth decay experience than the national average and the percent of young children with untreated dental decay is lower as well. While younger children are faring better than the national average and have exceeded the Healthy People 2020 objectives for two of the three measures, overall decay in young children remains slightly higher than the Healthy People 2020 objective. Given that only 22.6% of water in Oregon is fluoridated, this likely has some role in overall decay. Older children (13 to 15 years old) however, have significantly higher levels of decay than the national average and a level of decay nearly 50% higher than the Healthy People 2020 objective.

We also looked at the oral health status of children overall (0 to 18 years) in Oregon versus that in neighboring states, as the conditions that affect health are similar. The percent of children who have received preventive dental care in the past year is lower than in the nation and in the State of Washington but it is higher than in California. Even though 82% of children in Oregon lack access to fluoridated water compared to much lower percentages nationally and in neighboring states, the percent of children overall whose teeth are in “excellent or very good condition” is higher than that in the nation and California, and is on par with the State of Washington.

Oregon adults’ oral health status ranking and comparison to neighboring states

2014 data demonstrates that approximately two-thirds of the Oregon adult population have visited a dentist at least once in the last year; this is comparable to the national average and neighboring states. Table 1C in the Appendix summaries the percentage of Oregonian adults who have lost teeth due to

⁶ Letter to the Oregon Legislative Assembly, March 2016.
<https://olis.leg.state.or.us/liz/201511/Downloads/CommitteeMeetingDocument/90301>

decay or gum disease in the past year, as compared to national benchmarks, and neighboring states in 2014.

Tooth loss due to decay or gum disease is a key measure of oral health in adults. 41% of Oregonians aged 20 to 64 have lost teeth; this is significantly lower than the national average (51.8%).⁷

As seen in other states and often attributed to the lack of a dental benefit in Medicare, Oregon's seniors face challenges in oral health care. Thirty-two percent of Oregonian seniors (65+) have lost six or more teeth; this is lower than the national average (37.4%). Thirteen percent of Oregonian seniors have lost all teeth (are edentulous)—again, a lower rate than the national average (14.9%).⁸ While Oregon appears to be faring well on measures of adult tooth loss compared to the national average, they are not doing as well in this measure (in the categories for which data were available [seniors]) than their neighboring states of California and the State of Washington.

A recent study in July 2016, commissioned by Oregon's Oral Health Funders Collaborative, highlights that emergency department (ED) use for non-traumatic dental care is very common in Oregon, as it is nationwide. The study demonstrated that low-income young adults were those using the ED the most, and over 500 Oregonians require hospital admission for dental problems and their complications every year.⁹

Dental workforce

The number of dentists practicing in Oregon increased nearly 10% (between 2012 and 2014) to 2,562. However, the number of dentists that practice general dentistry decreased nearly 5%, declining from 2,036 to 1,944 general dentists. Most dentists, 52%, work in private solo practices. This is a decline from 2010 when 66% of dentists were in private solo practice. However, during this same period, private group practice increased from 25% to 35%. Also, increasing during this same period were the number of dentists practicing in community or school-based health centers. These dentists now represent 3% of the dentists practicing in Oregon.¹⁰ In 2013, Oregon's dentists-to-population ratio was 1: 1,363. Only eight states have a better ratio.

While this is fairly positive news, the story for Medicaid consumers seeking dental treatment is not nearly so good. The number of dentists, by region, that accept new Medicaid patients ranges from 19.7% to 34.5%, while the percent of dentists that accept no Medicaid patients ranges from 55.17% to 70.1% from region to region. Even for those dentists that do see Medicaid patients, many have limited Medicaid caseloads that represent 1% to 24% of their practice.¹¹

⁷ Letter to the Oregon Legislative Assembly, March 2016.

<https://olis.leg.state.or.us/liz/20151/Downloads/CommitteeMeetingDocument/90301>

⁸ CDC Oral Health Data. Accessed at:

http://nccd.cdc.gov/OralHealthData/rdPage.aspx?rdReport=DOH_DATA.ExploreByTopic&isITopic=CHD&isIYear=2013%E2%80%932014&go=GO

⁹ Sun B & Chi D, "Oral Health Funders Collaborative Releases Study of Oregon Emergency Department Dental Visits", Accessed at: <http://www.prweb.com/releases/2014/05/prweb11832601.htm>

¹⁰ Oregon Board of Dentistry

¹¹ Oregon Healthcare Workforce Licensing Database

Table A. Medicaid as % of Dentist’s Caseload

REGION	NO MEDICAID (%)	MEDICAID (1%-24%)	MEDICAID (25%-49%)	MEDICAID (50%-74%)	MEDICAID (75%-100%)
Metro	70.1	15.02	5.45	3.9	5.52
Northwest	66.14	15.25	5.16	5.83	7.62
Southwest	62.15	17.42	5.38	4.3	10.75
Central	61.9	17.14	9.52	5.24	6.19
Eastern	55.17	17.24	9.2	10.34	8.05

Dental hygienists are also an important resource for dental care. The Oregon Board of Dentistry reported that between 2012 and 2014, the number of dental hygienists working in Oregon declined 10% to 2,153. The vast majority of hygienists, 89%, work in a private dental office, with only 2% practicing in a community or school-based health center setting.

Oregon Health & Sciences University (OHSU) School of Dentistry plays several critical roles in affecting Oregon’s oral health workforce. It trains 75 dental students per class and offers five specialty graduate dental programs. The dental curriculum is designed to prepare graduates for the practice of general dentistry. Emphasis is placed on the prevention of dental diseases as well as on technical, diagnostic, and treatment planning skills essential to treating patients. It just started a residency program in general dentistry in 2016.

The School of Dentistry also has served an important role as a provider of care for low-income, vulnerable populations. It has a long history of community-based dental education and plans to increase the time senior students spend in FQHCs and other clinics from 14 days to 50 days. The school has increased its emphasis on community health in its curriculum. Additionally, the Rural Campus program was started in two rural areas of the state to integrate practice education programs in partnership with local provider organizations. This increases both the availability of services and the number of graduates who practice in rural communities.

Only 40% of current graduates pursue general or specialty residency training, although such training is a desirable characteristic to enhance prospects of employment by group dental practices. Group practices can lessen the financial burden that a new dental graduate would have to bear to purchase expensive equipment. A recent case study of the Oregon dental market¹² notes that a barrier to additional slots for general dentistry is the lack of Graduate Medical Education (GME) support for resident stipends and training costs. It would require the Centers for Medicare and Medicaid Services (CMS) to change policy and allow dental schools, dental group practices, and community dental clinics access to GME funds. This mirrors similar issues for expanding primary care programs, which face similar GME restraints.

¹² Bailit, H, Plunkett M, and Schwarz, E; “The Oregon Dental Market: A Case Study” Journal of the American College of Dentists Volume 83, Number 2, Pages 14-23 (2016).

Expanding and integrating the oral health workforce

Oregon has made several notable efforts to expand the oral health workforce. Recent legislation has created dental pilots which have allowed efforts to expand the scope of practice in distinct trials to increase access to oral health services. Passed in the 2015 legislative session, HB 2024 directed OHA to adopt rules and procedures for the training and certification of the state's traditional health workers (community health workers) to provide oral disease prevention services for which they can be reimbursed. Dental hygienists that have an expanded practice permit are seen as a potential significant resource to reduce unmet care needs. The Oregon Board of Dentistry can certify a dental hygienist for an expanded practice permit to render dental hygiene services without the supervision of a dentist in certain circumstances. In 2013 there were around 200 expanded practice hygienists (EPDHs) working in Oregon; that number has increased to 633 in 2016.¹³ Because they can provide care without the supervision of a dentist in certain settings like public and nonprofit clinics or to patients in medical clinics, medical offices, or offices operated or staffed by nurse practitioners, physician assistants, or midwives, EPDHs could be central to increasing dental integration and addressing the unmet dental needs of many Oregonians.

Another unique feature of Oregon's workforce is that Kaiser Permanente, a health maintenance organization which employs providers in eight regions of the country, offers both dental and medical care in Oregon. It serves primarily private companies' employees but is also as a part of one of the Medicaid CCOs in the Portland area. This is the only region in which KP offers integrated services. Half of the dental practices are co-located within KP medical practices.

Oral health activity in Oregon

Oregon Health Authority

OHA was developed as a new agency of state government in 2009 as part of a health reform effort to consolidate health care purchasing and oversight to support health system transformation. It brings together the functions of the Medicaid program, state and school district employees benefits purchasing and oversight, mental health and substance abuse programs, and public health programs. The three divisions of OHA that have specific oral health activities are discussed below.

Health system transformation of the delivery systems in Oregon has been the state's focus for the past several years, with efforts based on Oregon's CCM. OHA is leading the transformation of health care delivery for the OHP, the state's Medicaid and State Children's Health Insurance Program (SCHIP), and the plans for state employees and school district employees. Over 90% of the one million Medicaid members are now getting care through one of 16 CCOs serving regions of the state, after two decades of more traditional Medicaid managed care arrangements. Each CCO is responsible for the delivery of physical, behavioral, and oral health services to the populations assigned to them and are at risk financially under a global budget. Currently 4% of the budget is in a quality incentive pool the CCOs can earn based on performance metrics. The state maintains a small fee-for service program for about 100,000 OHP members.

¹³ From communication with the Oregon Health Authority October 4, 2016

Unique to Oregon, Medicaid benefits across the OHP are determined using Oregon's evidence-based Prioritized List of Health Services. Oral health services are within the ranking of physical and behavioral health services that are at the lower end of the List, which are not funded by the legislature. The CCOs and the Medicaid FFS program use the List to manage benefits in a way like the way commercial insurers establish limitations and exclusions. The Oregon Legislature recently restored an adult dental benefit in the OHP after many years of no or a very reduced benefit for this optional Medicaid benefit; it was implemented in 2014, with additional benefits added in 2016. Children and pregnant women have a more robust dental benefit in both Medicaid and the CHIP programs.

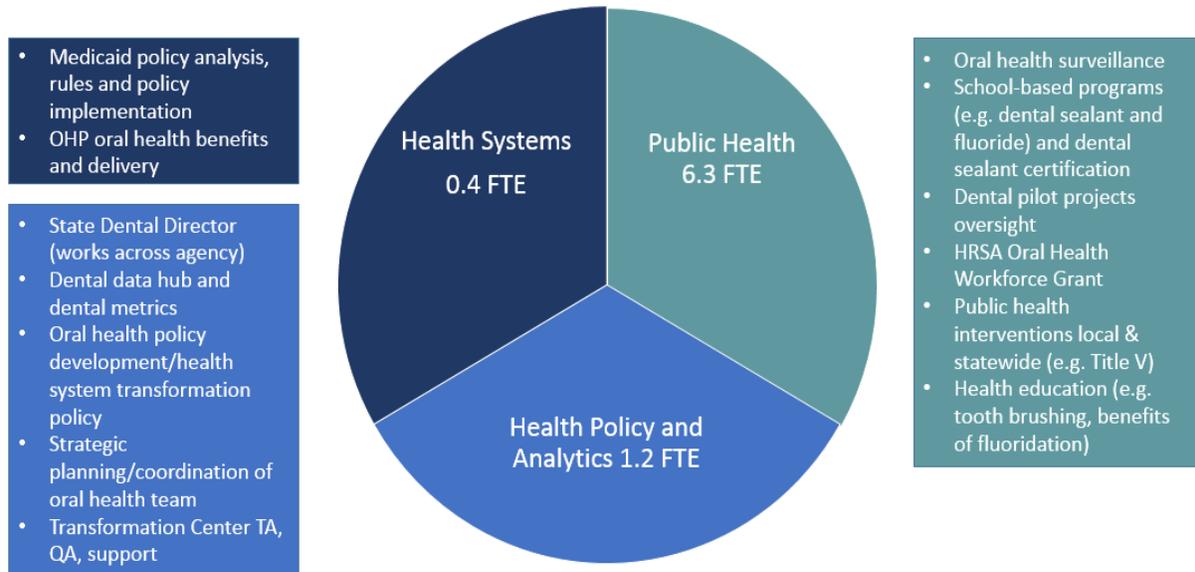
One of the agency's 2016-2017 priorities is to accelerate health system transformation and maximize the value of Oregon's investment in the delivery system. To accomplish this goal as the state is renewing its landmark Medicaid 1115 Waiver that initiated the new CCOs in 2012, OHA is creating a roadmap for Oregon's Health System Transformation 2.0. They plan to advance the CCO system, with increased focus on the social determinants of health, and to increase the pace of reform in components of Oregon's health system that have yet to produce intended outcomes. One targeted component is promoting improved oral health.

State employee and school district plans have not yet been as focused on oral health integration; they have separate contracts for oral health benefits. The Public Employees Benefit Board, staffed within OHA, recently procured a new coordinated care approach to the purchase of physical and behavioral health benefits, like the expectations the agency have for the Medicaid CCOs, with the new contracts in place in January 2015. This resulted in new choices in some regions, including a couple of the CCOs in addition to the other commercial plans; all the plans are subject to the same metrics as the CCOs except for the oral sealant measure and the metrics related to foster children. The Oregon Education Benefit Board is amid a similar CCM-based Request for Proposal (RFP) for physical and behavioral health benefits currently to start in October 2017.

Looking across the activities of OHA, there is evidence of the imperative to improve oral health integration across health system transformation. The appointment in February 2015, of a Dental Director to work across the agency's divisions as well as with the community and providers reflects an understanding that oral health is inseparable from overall health and signals a commitment to deliver better care, better health, and lower costs for Oregonians of all ages and backgrounds.

Figure 1: Overview of Oregon Health Authority Activities and Staffing as of October 2016

Key Oral Health Activities & Dedicated Staffing



Health Policy and Analytics Division

The Health Policy and Analytics Division is involved in many activities related to policy development, research and evaluation of policy impacts, data collection, metrics, and analytics. It supports the staffing of several public bodies, including the state’s Oregon Health Policy Board, which sets strategic direction for the health transformation efforts; the Policy Board’s Workforce Committee; the Health Evidence Review Commission (HERC), which maintains and updates the Prioritized List of Health Services for OHP and evidence-based clinical guidance; and the Medicaid Advisory Committee (MAC). The Behavioral Health Director and the behavioral health policy team are housed in this division, as is the Medicaid Director. The agency’s Chief Medical Officer and the new state Dental Director are also part of this division, as is Oregon’s Transformation Center which was created to support the CCOs to achieve health system transformation through technical assistance, offering learning collaboratives, and by facilitating the sharing of best practices.

As part of the division, the office of Health Analytics maintains several databases and studies including the state’s All-Payer All-Claims database, the workforce database based on licensing, and the workforce survey. It does analysis on the OHP claims for the CCO metrics with coordination across OHA, particularly the public health division as well as with the state’s Department of Human Services and the state’s Insurance Division. The office of Health Analytics also staffs the state’s Metrics and Scoring Committee which sets the quality incentive pool metrics for the CCOs.

Due to the varied activities including the staffing of several state committees that develop or advise policy such as MAC, HERC and the Metrics and Scoring Committee, this division touches oral health in several ways. Specific oral health-focused activities of the Health Policy and Analytics Division currently underway are summarized in Table 2 of the Appendix.

Health Systems Division

The Health Systems Division (HSD) is responsible for operations and oversight of OHP, Oregon's Medicaid and SCHIP programs. One of the main functions of the HSD is to develop policies and write program rules. Dental rules that expanded covered services for adults became effective in July 2016. The division is also responsible for CCO oversight, and it runs the fee-for-service (FFS) program. The division, in partnership with the Health Policy and Analytics division, meets regularly with the CCOs' key leaders, including operational-focused meetings with the CEOs, COOs and CFOs of the organizations, as well as the medical, behavioral, and oral health clinical leaders through the monthly Quality Health Outcomes Committee (QHOC). The division has had one dedicated staff focused on oral health policy and works with the OHP Medical Director on appeals, grievances, and benefits issues.

Specific oral health-focused activities currently underway by the HSD are listed in Table 2 of the Appendix.

Public Health Division

OHA's Public Health Division (PHD) provides programs, statistics, policy development, and other services to build healthy communities, prevent and manage chronic diseases, and promote prevention and wellness across Oregon. The division is actively involved in population health surveillance, school-based health programs, workforce development, and policy. It works closely with the state's counties and their public health efforts. PHD has an oral health section that is currently housed in the Maternal and Child Health portion of the division. Most of the oral health activities are focused on surveillance and some targeted grant programs. Additionally, the division operates a statewide dental sealant program and has oversight of the local school sealant programs. Work has been underway to align efforts on sealants with the new CCOs that now must report on dental sealants through their quality incentive program. Most recently, the legislature authorized dental pilots to enhance the dental workforce. The division is responsible for the rules and oversight of the pilot program.

Specific oral health-focused activities currently underway by the PHD are listed in Table 2 of the Appendix.

Looking across OHA, while there is significant activity among the three divisions, the activities are not necessarily all aligned or coordinated, which can lead to gaps, duplications, and lost opportunities for synergy. In 2015, the state hired a new Dental Director, a position which was created to enhance alignment both across the agency's divisions and with external stakeholders and community organizations. The agency is in a strategic planning effort focused on oral health, which will be completed by the end of 2016. Its aim is to focus on actionable goals across the agency's oral health activities in collaboration with external stakeholders and community efforts to maximize limited resources and increase effectiveness.

Key state partners for oral health in Oregon

There are many state partners working to improve the oral health status of Oregonians. Those that are key to delivery system transformation are CCOs and DCOs. The CCOs are networks of all types of health care providers who have agreed to work together in their local communities to serve Medicaid members. They emerged from Oregon's previous Medicaid managed care entities, in partnership with communities and the state's delivery systems. As of July 1, 2014, two years after their establishment,

CCOs began managing the dental benefit that had previously been carved out and delivered by nine DCOs. DCOs are dental organizations that were created in the early days of OHP to manage and provide dental care services to Medicaid members.

Today the CCOs manage the dental benefit primarily by contracting with all the DCOs operating in their region. This was initiated by a statutory requirement that all CCOs must have contracting arrangements with the DCOs by 2014. There are instances in which a CCO is contracting with all nine DCOs and a DCO is contracting with all CCOs. Mostly, the CCOs have contracts with multiple DCOs. Table B on page 22 identifies each CCO, the number of its members, and the DCOs with which it is affiliated.

Governance requirements for CCOs stipulate that governing boards include all of the following: representatives of the major components of the health care delivery system; all of the entities or organizations that share in the financial risk of the CCO; community representatives and a member of the CCO's Community Advisory Council; and at least two health care providers in active practice, defined as a primary care physician or nurse practitioner and a mental health or chemical dependency treatment provider. There is no requirement that oral health be represented on a CCO governing board, which may prevent oral health from receiving the focus it needs from CCO leadership. That said, despite it not being a requirement, at least five CCOs do list a dental provider or DCO representative on their board.

As part of their contracts with the state, all CCOs are required to develop and regularly update Transformation Plans with strategies to improve health outcomes, increase member satisfaction, and reduce overall cost. Oral health integration is not currently a required component of the Transformation Plans. However, eight of the 16 CCOs have specific oral health strategies in their 2015-2017 Transformation Plans. Details of the activities are described in a later section. The eight plans represent 40% of the covered lives (381,558 people.) This leaves 60% (567,163 people) in plans without a stated oral health strategy. The CCOs identified in bold in Table C (Page 27) have a dental strategy as part of their Transformation Plan. An assessment of the CCOs' progress on the execution of their transformation plans, as well as any updates to the plans, was released in October 2016.¹⁴

Other key stakeholders and oral health efforts underway in Oregon

CCO Oregon is an association that includes most of the CCOs as its members, along with health systems and provider organizations. CCO Oregon members have agreed that the successful performance of CCOs, including the integration of benefits delivered via delegated entities and operating within their global budgets, requires collaboration and programmatic actions to increase efficacy and reduce inefficiency and redundancy in administration. They recently, through a dental workgroup, created a bank of quality metrics to align measures across service level agreements between CCOs and DCOs. Additionally, the CCO Oregon members agree to support the First Tooth program by encouraging all types of providers to undergo training and education to increase oral health preventative services for the pediatric population.

The **Oregon Oral Health Coalition** is a non-profit group that advocates for improved oral health for Oregonians. It has a diverse set of stakeholders and provides support and leadership to professional and advocacy groups, local and state government agencies and other organizations focused on oral health.

¹⁴ Oregon's Health System Transformation Quarterly Legislative Report - First quarter 2016 available at: https://www.oregon.gov/oha/analytics/Documents/LegislativeReport_Q1_2016.pdf

Some of its activities include trainings and educational materials with three specific curricula including First Tooth,¹⁵ Maternity: Teeth for Two¹⁶ and Oral health & Chronic Diseases¹⁷. The Coalition has partnered with several stakeholders, including the Oral Health Funders Collaborative (described below) on a statewide strategic plan for oral health in Oregon (presented later in this section).

The **Oral Health Funders Collaborative of Oregon and SW Washington** is a partnership of 13 regional grant makers coordinating their efforts to identify, advocate, and invest in oral health solutions. In partnership with the Oregon Oral Health Coalition, the collaborative developed the statewide strategic plan for oral health in Oregon OHA and participated along with multiple dental experts and community members. The plan identified three priority areas: infrastructure, prevention, and systems of care. One recommendation, hiring a state Dental Director, has already been enacted. The Oral Health Funders Collaborative also recently released a study of emergency room department visits related to oral health issues.

The state has eleven regional oral health coalitions scattered across the state. The **Southern Oregon Oral Health Coalition**, the local coalition for the southern region of the state, is collaborating with three CCOs to help inform the community about recent legislation that requires an oral health examination for children entering school for the first time. The campaign will also remind the community that oral health benefits are available to Medicaid members.

The **Oregon Community Foundation**, a statewide grant-making foundation that manages \$1.5 billion through nearly 2,000 charitable funds, launched the Children's Dental Health Initiative in 2014. As part of the initiative, 15 school-based prevention programs were awarded funding in 2015 to either (1) expand services to additional schools or grade levels and become more sustainable or (2) develop plans for a new comprehensive school-based dental health promotion program.

The **Northwest Indian Health Board, Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians** and the **Coquille Indian Tribe** were approved by OHA earlier this year to conduct a pilot project to train and employ Dental Health Aide Therapists at tribal health and dental clinics, under the newly passed legislation for dental health pilots. Their efforts are modeled to be like those undertaken in Alaska to expand access to oral health services.

Oregon Dental Association (ODA), represents the interests of practicing dentists, with most members in private solo practice, although there is some participation by public-sector and group practice dentists. The ODA provides continuing education, advocacy, and other services for dentists as well as public information to promote good dental health. ODA is comprised of 16 local dental societies throughout Oregon that provide continuing education and service programs in their local communities.

Oregon Primary Care Association (OPCA), is a non-profit membership association that represents all 33 of Oregon's Federally Qualified Health Clinics (FQHCs). The clinics have over 200 delivery sites providing

¹⁵ **First Tooth** is a program focused on children 0-5 that helps to educate professionals, caregivers and parents about early childhood caries and explains prevention approaches.

¹⁶ **Maternity: Teeth for Two** is a program for healthcare providers, WIC (Women, Infants and Children) staff, community health workers, and anyone else who works to provide education and care for expectant mothers.

¹⁷ **Oral Health and Chronic Diseases** helps those who work with adults and seniors understand the systemic correlation between oral health and chronic diseases, with the curriculum currently focused on diabetes.

integrated medical and behavioral health services, and many also include dental health services. Nearly 400,000 Oregonians receive their care at a community health center, including one in four people on OHP. The association provides policy and technical assistance, with a dedicated focus on oral health and integration. OPCA is partnering with the DentaQuest Foundation on a three-year initiative, *Strengthening the Oral Health Safety Net*, which assists the community health centers (CHCs) develop oral health leadership and adopt programs that encourage oral health and inter-professional activities across dental and medical programs. Also under the initiative, OPCA educates policymakers about safety net oral health needs and provides participating CHCs with individualized technical assistance from the DentaQuest Institute's Safety Net Solutions program.

Table B: Coordinating Care Organization, CCO Members, and Affiliated DCOs

		Number of CCO Members	Dental Care Organizations (DCOs)								
			Access Dental Plan	AdvantageDental Services	Capitol Dental Care	CareOregon Dental	Family Dental Care	Managed Dental Care of Oregon	ODS Community Health	Willamette Dental Group	Kaiser
1	AllCare CCO	50,658		X	X				X	X	
2	Cascade Health Alliance	18,063		X	X						
3	Columbia Pacific CO	27,100		X	X				X	X	
4	Eastern Oregon CCO	48,072		X	X				X		
5	FamilyCare, Inc	128,436	X	X	X	X	X	X	X	X	
6	Health Share of Oregon	238,266	X	X	X	X	X	X	X	X	X
7	Intercommunity Health Network CCO	57,553		X	X				X	X	
8	Jackson Care Connect	31,447		X	X				X	X	
9	Pacific Source Community Solutions CCO Central Oregon Region	52,271		X					X		
10	Pacific Source Community Solutions CCO, Columbia Gorge Region	12,935		X	X				X		
11	PrimaryHealth of Josephine County, LLC	11,910		X	X				X	X	
12	Trillium Community Health Plan	96,330		X	X				X	X	
13	Umpqua Health Alliance	26,430		X						X	
14	Western Oregon Advanced Health, LLC	21,158		X							
15	Willamette Valley Community Health, LLC.	103,295		X	X				X	X	
16	Yamhill Community Care Organization	24,797		X	X				X		

Oral health strategic planning and intervention efforts in Oregon

There have been several strategic planning efforts in Oregon focused on oral health that are designed to align efforts towards common goals and measures. As noted in the previous section, *A Strategic Plan for Oral Health in Oregon* was developed in 2014 in a partnership among the Oregon Oral Health Coalition, OHA, and the Oral Health Funders Collaborative. It was intended to bring consensus on the most effective use of Oregon's limited resources towards improving oral health. Oregon also recently completed and is currently implementing the *State Health Improvement Plan* that is intended to improve the health of people in Oregon by 2020. Improvement of oral health is one of its seven health priorities. Both plans are summarized in this section. In addition, OHA is amid a strategic planning process to develop a roadmap for oral health work across the agency. The OHA oral health strategic plan will build on the 2014 Strategic Plan for Oral Health in Oregon and the 2015 State Health Improvement Plan. Both plans and their objectives are described below.

2014 Strategic Plan for Oral Health in Oregon. The strategic plan developed by the Oregon Oral Health Coalition, OHA, and the Oral Health Funders Collaborative targeted three priority areas: infrastructure, prevention and systems of care, and workforce capacity. Its recommendations were developed to align with the broader public health initiatives, including Healthy People 2020, Health System transformation efforts in the state, and the Association of State and Territorial Dental Directors' best practices for state oral health programs. It drew on expertise from across the state and nationally. Table 3 in the Appendix summarizes the priorities areas, objectives, and selected measures for each priority area. One key recommendation identifying the need for a state Dental Director has already been fulfilled. There is a workgroup of state and community partners, sponsored by the Oregon Community Foundation, just completing a review of this plan and released a progress report November of 2016.

2015 State Health Improvement Plan (SHIP). Development of the State Health Improvement Plan was led by the Public Health Division of OHA and one of the seven priority areas is oral health. The plan concludes that to achieve continued improvements in oral health, collaborative efforts by public health, dental and medical providers, schools, and the community at large will be needed. Key strategies identified in the plan are outlined below. The State is proceeding with implementation of these strategies and has developed metrics to measure progress towards the SHIP's oral health objectives.

Population and health equity interventions

- Increase the number of fluoridated public water districts
- Provide dental sealants in schools that serve students at high risk of tooth decay
- Enhance oral health services through community clinics, including school-based health centers
- Ensure Oregon has an adequate number of oral health professionals
- Reduce the number of dental-related visits to emergency departments

Health system interventions

- Create incentives for private and public health plans and health care providers to improve oral health
- Increase early preventive care for children
- Include oral health in chronic disease prevention and management models
- Ensure dental benefit packages cover care and treatment to ensure optimal oral health maintenance

More detailed information about the SHIP is available on the OHA website at:

<https://public.health.oregon.gov/About/Pages/ship-oral-health.aspx>

The full Oral Health section is available at:

<https://public.health.oregon.gov/About/Documents/ship/ship-oral-health-priority.pdf>

The CCOs' oral health activities

As required by contract, the CCO transformation plans establish the foundation for OHA's partnership with CCOs to achieve Oregon's health system goals. Plans also encourage continuous quality improvement, recognizing that transformation is a continuous process and that a CCO's transformation plan will and should evolve over time. As part of the contract process, each CCO is required to develop a transformation plan geared specifically to the needs of the community it serves. Plans demonstrate how the organization will work to improve health outcomes, increase member satisfaction, and reduce overall costs. While it is not required that each CCO have a dental initiative in their plan, eight CCOs have included dental health as one of their priorities in the most recent transformation plans submitted to OHA.

There are eight possible areas of transformation: integration of care; patient centered primary care home (PCPCH); alternative payment methodologies; community health assessment and community health improvement plan; electronic health record, health information, and meaningful use; communications, outreach, and member engagement; meeting the culturally diverse needs of members; and eliminating racial, ethnic, and linguistic disparities.

The eight CCOs that chose to include dental initiatives in their transformation plans focused on four of the eight areas with integration of care being the most popular followed by eliminating racial, ethnic, and linguistic disparities. Alternative payment methodologies and community health assessment and community health improvement plan each had one dental transformation initiative. Below are the dental initiatives by transformation area and CCO.

Integration of care

Six CCOs have identified dental strategies under the Integration of Care Initiative.

- Columbia Pacific CCO is developing a reporting mechanism for identifying and determining the dental screening status of CPCCO members with co-morbid SPMI and diabetes. They are also implementing First Tooth in two clinics in 2015 and adding at least one more in 2017.
- In 2016 InterCommunity Health Network CCO is identifying diabetic patients in participating Patient Centered Primary Care Homes (PCPCHs), establishing mechanisms for screening and care coordination between the PCPCH and the Primary Dental Care Provider, and establishing a data collection plan. In 2017 they plan to use the pilot data to demonstrate improved health care and oral health of diabetics through the following changes in metrics:
 - Increase from baseline of dental care utilization originating from the PCPCH
 - Lower A1C levels in identified diabetic patients receiving prophylactic or periodontics treatment as result of PCPCH referral
 - Increase referrals from medical providers to dental providers from baseline, and vice versa

- Achieve greater than 50% of identified diabetic patients visiting a participating PCPCH for an appointment receiving an oral health screen and follow up instructions.
- Evaluate expansion of dental integration through (1) newly identified target populations, (2) increasing newly participating PCPCH clinics, and/or (3) other innovative strategies
- Jackson Care Connect has identified a need to establish effective policies and workflows with the four DCOs to coordinate care for their members. In 2016 they are developing policies to work effectively with the DCOs and a strategic plan to prioritize identified issues. In 2017 three pilot projects with the DCOs will be implemented to enhance access and/or improve quality.
- PacificSource Community Solutions-Central Oregon has identified care coordination between dental, behavioral health, and physical health providers for high-needs patients as a priority. In 2016 they are creating a baseline assessment of need related to dental care for three patient populations: children/adolescents, SPMI, and pregnant women. In 2017 they plan to implement the dental care coordination model in the targeted population and increase the number of individuals receiving coordinated dental screenings and referrals by at least 30% from baseline.
- PacificSource Columbia Gorge CCO plans to achieve OHA's QIM 90% benchmark for children in DHS custody and ensure they receive physical, dental, and mental health assessments within 60 days of notification. They also plan to build an infrastructure to achieve the OAR standard of physical and dental assessments within 30 days. In 2017 the continued workflow changes will enable them to achieve the 90% benchmark for dental and physical assessments within 30 days.
- Western Oregon Advanced Health plans to improve the rate of annual dental exams for patients with SPMI who have been served by Coos County Mental Health and Curry Community Health. Advantage Dental is on site at Coos Health and Wellness and has developed work flows that permit mental health case managers to assist SPMI patients in accessing on-site oral health screenings. Western Oregon Advanced Health hopes that 70% of the identified population receive an exam in 2016 and 80% in 2017.

Alternative payment methodologies

- FamilyCare Health is the only CCO that has identified Alternative Payment Methodologies as the area for their dental transformation. It is described as efforts to implement a “knowledge-based” reimbursement methodology for dental providers. Dental providers are paid on a capitated basis. All contracts have 2% of their capitation payment tied to quality metrics.

Community Health Assessment and Community Health Improvement Plan

- PacificSource Columbia Gorge is the only CCO that has identified their Community Health Assessment and Community Health Improvement Plan (CHIP) in their dental transformation plan (further description of CHIP follows in the next section). PacificSource is staffing a new Dental Coalition in the Gorge. Multiple dental providers and DCOs have committed to being members of the Coalition and are working to formalize the Coalition charter.

Eliminating racial, ethnic, and linguistic disparities

Three CCOs have identified dental strategies under eliminating racial, ethnic, and linguistic disparities.

- AllCare CCO plans to increase the percentage of members receiving a dental service, stratified by age and ethnicity, within a contracted DCO by 5% over the 2014 baseline in 2016 and by 10%

over the 2014 baseline in 2017. To achieve these improvements, they are working with Josephine County Public Health to place an advanced dental hygienist in their public health facility. Their dental coordinator is also working with Siskiyou Community Health to add 16 dental chairs for Josephine County.

- InterCommunity Health Network CCO, as part of their school neighborhood navigator pilot, is working closely with the Lion's Club and the school nurses to ensure that follow up is conducted on dental referrals.
- PacificSource Columbia Gorge CCO plans to reduce disparities in access to dental preventive care. In 2016 they are establishing a baseline of access to dental care and will identify one or more populations experiencing disparities and set a target to reduce the disparities. In 2017 they plan to achieve the target and find at least one additional population experiencing disparities so that they too can be addressed.

Table C on the following page summarizes the transformation areas that the eight CCOs chose for their dental initiatives. Two of the eight CCOs have dental strategies in multiple transformation areas.

Table C. CCO oral health initiatives by area of their Transformation Plan

	Area of Transformation Plan							
	#1 Integration of Care	#2 Patient Centered Primary Care Home	#3 Alternative Payment Methodologies	#4 Community Health Assessment and Community Health Improvement Plan	#5 EHR, HIE, and Meaningful Use	#6 Communications, Outreach, and Member Engagement	#7 Meeting the Culturally Diverse Needs of Members	#8 Eliminating Racial, Ethnic, and Linguistic Disparities
CCOs that included oral health into their Transformation Plans								
Allcare CCO								X
Columbia Pacific CCO	X							
FamilyCare Health			X					
InterCommunity Health Network CCO	X							X
Jackson Care Connect	X							
PacificSource Community Solutions-Central Oregon	X							
PacificSource Columbia Gorge CCO	X			X				X
Western Oregon Advanced Health	X							

CCO Community Health Improvement Plans with oral health components

CCOs are required to conduct Community Health Assessments (CHA) and subsequently develop and implement CHIPs. Each CCO's Community Advisory Council (CAC) is required to lead the CHA and CHIP development. Nine of the 16 CCOs have included an oral health component in their CHIP.

- **AllCare** included the need to identify opportunities for its CAC to engage in expanding dental access in Curry County. This plan is included in the health equity strategy of the CHIP.
- **Eastern Oregon CCO** selected oral health as a priority area in its CHIP, with a goal of improving oral health for children under 10 years of age. EOCCO's strategies include implementing the First Tooth program; coordinating local dental screenings in schools for grades one to three for kids ages six to nine; and increasing the number of schools using the fluoride supplement program.
- **InterCommunity Health Network CCO** includes oral health as a component of their maternal health focus in their CHIP, with a goal of increasing the percentage of women who receive preventive dental care postpartum.
- **Jackson Care Connect** identified oral health as a primary focus area and developed a subcommittee, which will partner with the CCO's Clinical Advisory Panel to identify three oral health issues from a member perspective and develop a work plan to improve access, increase utilization, and enhance members' experience of care. Access to dental care is also included as a component of the health equity focus area.
- **PacificSource Central Oregon CCO** selected oral health selected as a primary focus area with the objective of developing a comprehensive oral health strategy that includes detailed clinical and prevention goals to be achieved by 2019. These goals are to: (1) increase the percent of prenatal and postnatal women who had a dental visit; (2) increase the percent of children 6 to 14 years of age who received a dental sealant; (3) decrease the percent of first and second graders with untreated dental decay in schools that participate in the School Dental Sealant Program; (4) decrease the percent of eight graders who missed one or more hours of school due to a dental visit that was needed because of tooth or mouth pain; and (5) increase the number of children five years old or younger who received a dental service within the reporting year to 40%. Objectives of the oral health strategy are to improve oral health for pre-and post-natal women and to keep children cavity-free. Strong partnership with DCOs for the region is a key part of the overall strategy.
- **PacificSource Columbia Gorge CCO** selected oral health as a focus area. Dental health access is a priority because of the combination of OHP expansion in the region, limited number of dental providers serving OHP, and addition of preventive services for adults beginning in January 2014. A committee is developing the improvement plan and objectives for this focus area.
- **Trillium CCO** includes dental care in its focus area related to increasing access to care. Measurable goals include a reduction in the incidence of dental cavities and a decrease in the number of dental-related emergency room visits.
- **Western Oregon CCO** includes dental health as a focus area. The goals are to: (1) prevent caries by reducing the proportion of dental caries experience in primary or permanent teeth; (2)

reduce the proportion of untreated dental decay; (3) increase the proportion of adults who receive preventive interventions in dental offices; (4) increase opportunities for Medicare-eligible patients to receive dental care; (5) increase the proportion of children, adolescents and adults who used the oral health system in the past year; (6) increase the proportion of oral health programs at Coos County Public Health and Waterfall Clinic; and (7) improve oral health education through school-based education, as well as oral health literacy and marketing campaign efforts.

- **Yamhill County CCO** also selected oral health as a key focus area for its CHIP. Their explicit primary goal is to integrate oral health with physical and behavioral health. The objectives in the CHIP for this area are to (1) establish a system to integrate expanded practice dental hygienists with maternal medical homes and preschool expansion programs; (2) incentivize pediatric medical providers to provide early childhood caries-prevention services into the well-child visit; (3) expand sealant program for children to all eligible Title 1 schools; (4) increase preventative and periodontal services for Yamhill CCO patients; (5) increase tobacco- and other drug-cessation counseling in dental homes; and (6) increase how frequently community health workers, paramedicine staff, and Project ABLE peer-support specialists discuss oral health need referrals with members.

CCO summary of dental integration approaches

Measuring oral health integration with physical and behavioral health is a challenge. There are no commonly accepted or tested metrics to apply to monitor the progress of integration. HRSA developed an Integration of Oral Health and Primary Care Practice Initiative which includes an Inter-Professional Oral Health Clinical Domains Framework. This is a nationally accepted framework for dental integration practices that was designed to organize activities. The domains are as follows:

- **Risk Assessment:** Identifies factors that impact oral health and overall health.
- **Oral Health Evaluation:** Integrates subjective and objective findings based on completion of a focused oral health history, risk assessment, and performance of clinical oral screening.
- **Preventive Intervention:** Recognizes options and strategies to address oral health needs identified by a comprehensive risk assessment and health evaluation.
- **Communication and Education:** Targets individuals and groups regarding the relationship between oral and systemic health, risk factors for oral health disorders, effect of nutrition on oral health, and preventive measures appropriate to mitigate risk on both individual and population levels.
- **Inter-professional Collaborative Practice:** Shares responsibility and collaboration among health care professionals in the care of patients and populations with, or at risk of, oral disorders to assure optimal health outcomes.¹⁸

The domains can be applied to the activities underway in Oregon by the CCOs. Since some of the CCOs are working to improve access as a basic building block, HMA modified the HRSA framework to include access to dental health services. Table 4 in the Appendix presents a summary of all CCOs' current oral

¹⁸ U.S. Department of Health and Human Services Health Resources and Services Administration. Integration of Oral Health and Primary Care Practice. February 2014.

health integration practices within the modified HRSA framework, based on a review of transformation plans and progress reports.

When looking at all the activities underway across the CCOs, it is evident that most of the CCOs are not working on oral health integration domains as defined by the HRSA framework. Those that are working on some of the domains of integration appear to be focused primarily on dental access, risk assessment, and making inroads toward inter-professional collaborative practice.

National best practices relevant to Oregon CCOs: promising practices in oral health integration

The importance of oral health and its role in overall health and well-being is gaining more widespread acceptance across the nation. This section provides organizational characteristics for successful integration and promising practices of dental health integration relevant to CCOs. The analysis is framed around the domains of the HRSA oral health integration framework.

Accountable Care Organizations (ACOs) and ACO-like organizations

Several case studies of dental health integration in Accountable Care Organizations (ACOs) or ACO-Like Organizations were featured in a recent article by Leavitt Partners. They found that ACOs were motivated to offer and integrate oral health care because they realized they could not be held accountable for the overall health of their members if they did not address oral health.

Payment arrangements were another motivation for three of the four entities with arrangements. The incentives include bonuses for meeting quality metrics (Delta Dental of Iowa) and capitated payment arrangements and shared savings (Hennepin County ACO and Permanente Dental Associates of Oregon and Washington.) Some ACOs reported positive patient outcomes for the system which included using dentists to help close patient care gaps. The Hennepin County ACO also reported that they achieved large reductions in emergency department utilization by targeting high ED utilizers. Partners for Kids Pediatric ACO used other methods for identifying high-risk patients, and they conducted outreach to engage families in disease management interventions.

The integration of dental care into ACOs may present challenges, including overcoming cultural differences in dental and primary care practice and interfacing electronic record systems. However, some of the organizations overcame these challenges and others managed them. The experience of four of the organizations is explored further in the following pages.¹⁹

Example 1: Delta Dental of Iowa, Dental Wellness Plan

Program goals of the Dental Wellness Plan (DWP) include enhancing member access to high-quality dental services, population health management, assuming accountability for population outcome measures, and engaging members in preventive service and treatment compliance through incentives.

Incentive payments for providers and members

- **Incentive compensation for DWP provider network.** In addition to set fees, which are comparable to commercial PPO rates, general and specialist providers can earn bonuses that are distributed annually. Requirements for general dentists include completion of an online risk assessment with each new member exam, proactive outreach to patients to encourage recall visits, and care maintenance. Specialist dentists' bonuses are based on willingness to accept DWP referrals and scheduling accommodations.
- **Incentive compensation for DWP members.** Members start with a narrow set of core benefits and can earn increased dental benefits after establishing a dental home and regular

¹⁹ Leavitt Partners, Dental Care in Accountable Care Organizations: Insights from 5 Case Studies. Undated. Accessed at http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0615_1.pdf?la=en

preventive visits. If beneficiaries complete a periodic exam within a year of their first visit, they are eligible to receive Enhanced Benefits, which includes core benefits plus restorations, root canals, non-surgical gum treatment, and some types of oral surgery. Members can earn Enhanced Plus Benefits, which includes additional benefits such as crowns, tooth replacements, and gum surgery. To retain these Enhanced Benefits, patients must continue to use preventive care.

Risk assessment tools

Dentists are required to complete an oral health-risk primary assessment for each Dental Wellness Plan patient. The on-line tool is completed during the first patient visit, recorded through secure web portal, and sent to Delta Dental to inform stratification and care planning. Primary care providers also complete a health risk assessment. DWP plans to combine the two risk assessments into one patient-centered, comprehensive assessment.

Outreach

Given that many of their members do not know they have dental benefits, Delta Dental puts outreach workers in emergency departments to increase member and provider education.

Example 2: Hennepin County ACO, Minnesota

The Hennepin County ACO serves Medicaid expansion beneficiaries in Hennepin County, Minnesota. The ACO is comprised of a Medical Center, social service organization, FQHC, and health plan.

Payment arrangements

The ACO contracts to share full financial risk – global capitation -- for the county’s newly enrolled Medicaid beneficiaries. A percentage of revenue is withheld, with its return being dependent on improvements related to state quality measures, e.g., annual dental visit rate. Hennepin Health tracks usage, cost, and health outcomes monthly using an internal 12-page scorecard.

Outreach and in-reach to members

Hennepin’s Emergency Department In-Reach initiative targets hospital high-utilizers, redirects patients presenting dental problem to an on-site hospital-based dental clinic with extended hours, or, to a next day appointment at Hennepin’s FQHC partner’s dental clinic. It arranges transportation if needed.

Many members are unaware that they have dental benefits. Hennepin is conducting a pilot project in underserved areas of Minneapolis where community outreach staff will educate and encourage members to understand the importance of oral health and bring those members in to receive dental services and primary care services.

Health information technology

Currently, dental providers can view patients’ medical records, but physicians cannot view dental records. The ACO is working to create an interface for shared planning.

Example 3: Partners for Kids, Pediatric ACO, OH

Partners for Kids (PFK), an ACO created by Nationwide Children’s Hospital, serves pediatric Medicaid members in Ohio. It is the nation’s largest pediatric ACO. PFK is a fully-capitated model, assuming full-risk on dental care. The ACO was awarded a federal (CMMI) grant to focus on children with complex

needs, premature births, and the growing behavioral health needs of the pediatric population. Important for the long-term well-being of their patients, these areas also represent the highest potential for short-term savings, which can be reinvested into improving other aspects of care, including dental care.

Prevention and disease management for oral health in primary care offices

PFK has trained pediatricians and family physicians to perform fluoride varnish applications, particularly in rural areas, where well water is often not fluoridated.

Nationwide Children’s Hospital, the parent company to PFK, implemented an evidence-based disease management approach to reduce and manage cavities in children under five. The program employs risk-assessment practices and principles to enable providers to identify high-risk patients and to engage families in self-management, including by prescribing topical fluoride treatments and explaining how to apply them. These patients are scheduled for follow-up visits. In addition, the patients who return for restorative treatment receive a disease-management intervention at the visit. Results across seven sites demonstrated a 69% decrease in new cavitation, a 55% decrease in operating room use, and a 50% decrease in the number of patients presenting with pain at their most recent visit. PFK benefited from the reductions in costs.

Example 4: Permanente Dental Associates, OR and WA

Permanente Dental Associates, P.C., (PDA) is a for-profit professional corporation that provides dental services to the Kaiser Foundation Health Plan members in parts of Oregon and Washington. While not a full ACO, PDA shares some characteristics of an ACO (capitated payments and emphasis on care coordination and outcomes). The Kaiser Permanente Dental Program has been among the earliest adopters of an integrated approach to care delivery and specifically to integrating dental care into overall care. The integrated model of care, begun in 1974, has been engrained in the culture of both medical and dental providers.

Closing gaps in care

PDA views the integration of dental care into a coordinated health programs as critical to member health. One of the main benefits of integration is that it provides additional patient engagements and intervention opportunities to close gaps in care. All of PDA’s dental providers routinely use the KFHP’s Patient Support Tool – a platform that contains a member’s provider information and the care plan. This means that the dentist can see the name of the primary care provider (PCP) and any tests, treatments, or interventions that the PCP recommended during their last visit. If the patient has not followed up, the outstanding recommendations for care are identified as “care gaps.” PDA works to close care gaps by encouraging patients to schedule these follow-up appointments with their PCP or specialty provider. Likewise, PDA expects that the PCPs are viewing dental care gaps in their patients and work to close them. The strategy is proving effective: the dental department ranks first out of 37 Kaiser Permanente medical departments in care gap opportunities, and it is the second highest ranked in closing care gaps. In November of 2014, dental department closed 32,893 care gaps, a 44.8% closure rate.

Federally qualified health centers

As introduced earlier, HRSA – the federal agency that administers the Federally Qualified Health Center (FQHC) program – created an Integration of Oral Health and Primary Care Practice Initiative. As part of

the initiative, they developed a framework for Inter-Professional Oral Health Clinical Domains and Competencies. Many FQHCs are using this framework to organize their oral health integration efforts and to prepare their clinical teams for implementation.

The National Association of Community Health Centers (NACHC) used this framework to organize a study on oral health integration in FQHCs. A monograph resulting from the study highlights five diverse health centers that have successfully integrated oral health with primary care.²⁰

Looking across the five sites, three integration models emerged during the study.

The Bluegrass Community Health Center (BCHC) in Lexington, Kentucky, and Holyoke Health Center (HHC) in Holyoke, Massachusetts, both trained existing primary care team members to provide preventive interventions and oral healthcare during the primary care appointment. The BCHC model is driven more by physician leadership and a commitment to holistic care. The HHC model is more administration-driven: the executive leadership committed to supporting and facilitating integration by instituting an interoperable electronic health record for both medical and dental care.

Salina Family Health Center (Salina) in Salina, Kansas, and Salud Family Health Center (Salud) in Fort Lupton, Colorado, have taken similar approaches. Their integration model features an embedded dental hygienist on the primary care team to provide oral health care and to serve as liaison between their respective dental clinics and primary care clinics.

The fifth model, *Yakima Valley Farm Workers Clinic*, currently operating in Washington State and the Oregon market, is unique in that it features a dental outreach coordinator who leverages the integrated EHR to coordinate and make dental appointments for primary care patients. Appointments are made in co-located or nearby dental clinics immediately following a patient's primary care visit or shortly thereafter.

Each of the health centers uses the HRSA framework to ensure a comprehensive program of oral health integration. The following summary highlights each of the five health centers and their activities in each of the HRSA integration domains.

Example 1: Bluegrass Community Health Center, Lexington, Kentucky

Risk assessment

BCHC conducts a population level risk assessment, which has identified disparities in oral health and access to dental care. Target populations include low-income children, migrant farmworker families that present for primary care appointments, and individuals with diabetes. As part of the primary care appointment, a nurse conducts a risk assessment through reviewing medical and social history and by using direct inquiry.

²⁰ National Association of Community Health Centers. Integration of Oral Health with Primary Care in Health Centers: Profiles of Five Innovative Models. Accessed at <http://nachc.org/wp-content/uploads/2015/06/Integration-of-Oral-Health-with-Primary-Care-in-Health-Centers.pdf>

Oral health evaluation

A clinical assistant and the PCP conduct an oral screening for all patients from the target populations. An oral health care plan is developed by the PCP.

Prevention intervention

Standing orders are in place for a nurse or clinical assistant to provide fluoride varnish for individuals from the target populations.

Communication and education

Clinical assistants provide oral health education, emphasizing ways to mitigate oral health risks.

Inter-professional collaborative practice

The primary care team collaborates with community dentists and uses its EHR to identify patients requiring dental services. The primary care team initiates referrals and provides dental vouchers. BCHC tracks the number of referrals and dental vouchers paid and follows-up with patients to monitor success of the collaborative practice.

Example 2: Holyoke Health Center, Holyoke, Massachusetts

Risk assessment

Holyoke Health Center (HHC) conducts a population-level risk-assessment, which has identified several populations with barriers to oral healthcare access and oral health such as: low-income children, persons with HIV, veterans and people with intellectual/developmental disabilities. HHC has developed strategies to reach these populations. HHC also conducts a patient-level risk-assessment.

Oral health evaluation

Clinical and oral health screenings provided by a medical assistant or nurse are performed as part of the primary care appointment. The PCP develops an oral health care plan for the patient.

Prevention intervention

Standing orders guide the medical assistant to apply fluoride varnish, which is billed as part of the primary care visit.

Communication and education

Patient education is provided by the primary care team on the importance of maintaining good oral health. The EHR auto-generates dental referrals for all patients due for a dental appointment.

Inter-professional collaborative practice

The health center has bi-directional referrals between primary care and dental services with communication and collaborative practice supported by the interoperable medical and dental EHR system.

Example 3: Salina Family Healthcare Center, Salina, Kansas

Risk assessment

The Salina Family Healthcare Center In-reach program focuses on reaching primary care patients within the clinic who need preventive oral health services and on then connecting them with the dental clinic for care. The In-reach team is comprised of two dental hygienists.

Oral health evaluation

Patient-specific oral health history is obtained from electronic health and dental records and findings from the clinical exam. Patients are screened by the In-reach team members with an oral healthcare plan developed by the In-reach team in collaboration with the PCP.

Prevention intervention

Dental hygienists apply fluoride varnish. (Medicaid reimbursements for dental encounters and billing for fluoride varnish cover the salaries of the dental hygienists.)

Communication and education

Individualized patient education considers the patient's risk factors, comorbidities, and clinical presentation.

Inter-professional collaborative practice

In-reach team (dental hygienists) work closely with primary care providers and dentists to integrate oral healthcare into primary care patient visits. Health Center staff are trained using the Smiles for Life curriculum.

Example 4: Salud Family Health Center, Fort Lupton, CO

Risk assessment

The health center conducts risk assessment at the population level to identify sub-populations at risk: low-income children, prenatal women, and patients with chronic health conditions that experience barriers to oral health care or are at increased risk for dental disease. An inter-professional care team (PCP, nurse, other medical staff, and a dental hygienist) conducts individual risk assessments during the primary care visit.

Oral health evaluation

Oral health evaluation screening is performed by a dental hygienist as part of the primary care team. Findings are used to develop oral healthcare strategies. Co-located dental clinics and an "open door policy" allow a PCP to walk down the hall and ask a dental provider for a consult during the primary care appointment.

Prevention intervention

Fluoride varnish is performed by the dental hygienist during the primary care visit.

Communication and education

Standard messaging to primary care patients includes factors that increase risk for dental disease. Patients seen by the dental hygienists during primary care visit receive more extensive oral health education such as oral hygiene instruction and targeted nutrition education.

Inter-professional collaborative practice

Responsibility for oral health care is shared across the collective (primary care and dental) care team. The culture values inter-collaborative practice, which is supported by co-location of dental and primary care clinics with an interoperable EHR.

Example 5: Yakima Valley Farm Workers Clinic, Yakima, Oregon and Washington

Risk assessment

The clinic adopts a comprehensive approach to identify oral health risk factors at the population level and then targets those populations through primary care, community outreach, and WIC (Women Infants and Children) services. For example, WIC Certifiers perform risk assessments as part of routine services. Auto-generation of referral for patients at risk is part of the program.

Oral health evaluation

The evaluation encompasses risk assessment findings with patient-specific oral health history and clinical screenings conducted by a clinical assistant and primary care provider in the clinic or by a dental assistant in their mobile health clinic unit. An oral health plan is developed by the PCP.

Prevention intervention

Many of the medical and dental clinics are co-located in this FQHC, and referrals are generated through an integrated EHR and are coordinated by the Dental Outreach Coordinator. The Coordinator communicates directly with patients and dental clinics to arrange same-day appointments, especially for WIC patients, and for dental care following primary care visits.

Communication and education

Care teams provide oral health education to patients to highlight the role of oral health in systemic health, the effect of nutrition on oral health, risk factors for dental disease, and preventive measures to mitigate risk.

Inter-professional collaborative practice

Elements include co-located medical and dental clinics, an interoperable EHR system, and a Dental Outreach Coordinator that serves as intermediary between the clinics and acts as a liaison with the patient for this health center's inter-professional collaborative practice. Dental care referrals are automatically generated for patients who have not received dental care in six months. They may also be manually generated by care team members based on risk assessment and oral health screening and evaluation.

Other innovative integration practices

The National Network for Oral Health Access (NNOHA) has developed program resources in Clinical Excellence in Integrated Care. They have also highlighted practices that can be implemented in dental practice that go beyond what is typical of oral health integration efforts. Some of these practices are described in the ACO and FQHC case studies in the previous section.²¹ The following are some examples of promising practices.

²¹The National Network for Oral Health Access. <http://www.nnoha.org/resources/clinical-excellence/integrate-care/>

Example 1: Choptank Community Health System (CCHS), Federalsburg, Maryland

Establishing dental treatment guidelines for adult patients with uncontrolled hypertension attending acute care (emergency departments)

Many of the adult patients that present in a dental emergency in the Choptank Community Health System (CCHS) are not regular users of primary care and may not even have a primary care provider. During the dental assessment, the patient's vital signs are taken. Some patients have uncontrolled hypertension, but there is no agreement among the system's dentists about how patients in this condition should be managed. To solve this problem, the system established dental treatment guidelines for these patients so that the providers could be assured that the care they provide is safe and they have enhanced collaboration with their medical program. If the dental patient is an existing CCHS medical user, the dentist communicates directly with the patient's primary care provider. The blood pressure reading determines whether the patient should return in a specified amount of time for a blood pressure recheck or whether a nurse visit or an urgent assessment by a medical provider is indicated. If the patient is not an existing CCHS medical user, the dentists will contact the patient's PCP. If the patient does not have a PCP, they refer the patient to the Health Center's medical program. If the patient is in hypertensive crisis, they will render first aid, including activation of the 911 system, regardless of whether the patient has a PCP.

Example 2: Columbia University College of Dental Medicine

At the Columbia University College of Dental Medicine, located in New York City, students begin their course of study alongside medical students, taking four biomedical foundation courses taught primarily by medical school faculty. Dental correlations to medical issues are provided through small group sessions and case-based and team-based learning approaches. Students take courses covering behavioral science, wellness counseling, nutritional assessment, and counseling for addictive behavior. The school has a Population Oral Health section that conducts research with a multi-disciplinary faculty that focuses on reducing oral health disparities and promoting oral health across the lifespan. In addition, they have initiated the following effort towards integration of care.

Example 3: Oral HIV testing in the dental chair

An estimated one third of the approximate 1 million people infected with HIV in the United States do not know they are HIV positive. Dentists can play an important role in diagnosing and limiting the spread of the virus. With an estimated 58% to 75% of the US population seeing a dentist annually, practicing dentists may be the only provider to see an asymptomatic HIV-infected person in any given year.²² By targeting dental patients, a provider can offer HIV testing to individuals who may not initiate testing on their own, whether out of fear or embarrassment. The advantage to offering this service at a routine dental visit is that the patient is already in the test setting. The results are available within 20 minutes, so the patient can be immediately educated on how to follow-up if the test comes back positive.

Experience with this approach shows that patients desire to know about their HIV status but are often too scared or embarrassed to initiate the process. Initiating a dental visit can open a door for discussion and pave the way to having the patient agree to testing. To be effective, the dentist must remain open,

²² Pollack HA, Metsch LR, Abel S. Dental examinations as an untapped opportunity to provide HIV testing for high-risk individuals. *Am J Public Health.* 2010;100(1):88-89

informative, and nonjudgmental. Guidelines are available with extensive efforts underway in New York state.²³

Example 4: Tobacco cessation in the dental home educational materials

The National Network for Oral Health Access (NNOHA) and the Association of Clinicians for the Underserved (ACU) collaborated to produce a webinar for oral health providers to help them assist their patients to stop smoking. Strategies and tools are featured that address smoking cessation and incorporate culturally and linguistically appropriate patient education.

²³ More information regarding New York State's efforts and guidelines for HIV testing in the dental chair available at: <http://www.nynjaetc.org/Testing.html>

Innovative payment models to further oral health integration

A key step in initiating and sustaining delivery system transformation is reform of provider payment systems. Efforts to reform payment approaches are still in early stages across the delivery system, but especially with respect to behavioral health and, to an even greater degree, for oral health. A recent Center for Health Care Strategies (CHCS) review of oral health integration in statewide delivery system and payment reform assessed activity in several states, especially in the SIM grantee states (including Oregon) that aimed to include oral health in their delivery system reforms.²⁴ CHCS examined the multiple levels at which states can create incentives for integrating oral health, including benefit design approaches, practice level reforms, and overall statewide delivery reform models. The brief also included some examples of payment reform efforts. A scan of the literature for innovative payment models identified a few notable examples of ACOs' efforts and work done with FQHCs, as noted earlier in this paper. Oregon is identified as an early leader in payment reform with its CCM efforts, particularly in Medicaid, which results from the work of the CCOs. Several approaches that have been implemented or may be considered are outlined below.

Stratify risk and enhance or shift payment rates

This approach requires identifying plan members at highest risk of oral disease, those who are high-utilizers of the ED for dental needs, and those who incur high oral health costs. Like the approach used to deal with high-risk and high-utilizing patients in the physical and behavioral health systems, this approach focuses on prevention to mitigate the need to provide high cost care later and on providing care in less expensive settings.

Incentives for providers to contain costs can be enhanced by paying more for high-value services or by using capitated payments or global budgets rather than paying on a fee-for-service basis, as Oregon is doing with its CCOs. To decrease caries, bundled payments could be implemented with the reimbursement tied to the episode of care delivered during early childhood. Creating incentives to contain costs by tying payments to achieving quality outcomes has been actively discussed both locally and nationally. One example is an approach used in Maine, which adopted Medicaid policies that allow providers to bill Medicaid for oral health evaluations in PCP offices. This resulted in an increase from 11% to 49% in documentation of oral health risk assessments for children under age four.²⁵ This approach is also used in Oregon for children under the age of six.

Payment for quality performance and potential shared savings

There are a few variations of paying for quality described below, with several of them already underway in Oregon:

- **AllCare**, an Oregon CCO that serves around 50,000 OHP members in Jackson County, Josephine County, and parts of Curry and Douglas Counties, has created an alternative payment model (APM) for providers serving 36,000 members in Jackson and Josephine Counties. AllCare

²⁴ Center for Health Care Strategies (May 2016) *Oral Health Integration in Statewide Delivery System Reform* available at <http://www.chcs.org/resource/oral-health-integration-statewide-delivery-system-payment-reform/>

²⁵ University of Maine, Muskie School of Public Service (May 2015). *First Steps Phase III Initiative: Improving Oral Health and Healthy Weight in Children – Final Evaluation Report*. Available at: http://www.maine.gov/dhhs/oms/pdfs_doc/ihoc/First%20STEPS_Phase%20III%20report%20final.pdf.

initiated the APM with primary care providers first, but, starting in July 2015 they rolled it out to their specialty, behavioral health, and dental plans as well. Working with five dental care entities, including four DCOs and one FQHC with a dental clinic, AllCare established a system that allows these entities to earn points based on a three-tiered performance scale for seven dental quality measures. The payment is added to their normal compensation, which also includes incentives for meeting utilization and access standards. Currently, dental providers have access to 7% of the CCO's overall APM Pool.

- **Advantage Dental**, one of Oregon's DCOs, withholds a portion of payments to providers in its network, so that providers are at risk for a portion of final costs. That is, the amount that is returned to providers depends on costs. General dentists are paid a capitation amount, and specialty dentists are paid on a discounted fee-for-service basis. The dentists all share in savings with the payout amount focused on utilization and access. Advantage Dental is the focus of a study, funded by the Robert Wood Johnson Foundation, to better understand the effectiveness of new delivery and payment systems for improving dental care and oral health. The University of Washington is conducting the study, which is focused on pregnant women and children. It measures the performance of Advantage's providers in 14 rural regions under a pay-for-performance payment system coupled with allied dental personnel providing screening and preventive services in community settings and case managers serving as patient navigators to arrange referrals for children who need dentist services in the intervention group. Incentive payments are based on the teams meeting performance benchmarks. The performance of the providers in the experimental group is being compared to the performance of the control group, that is, the providers in other regions of Advantage's network. Final results are pending.

Payment for services or supporting new models of care

As noted in CHCS's review of oral health integration efforts, there is funding to cover costs of having hygienists deliver preventive services in primary care settings, as seen in school-based clinics in Oregon. Some of the case studies of safety net clinics describe examples of FQHCs contracting with private dentists at an enhanced rate to improve access for Medicaid patients. The summary of the dental pilot described earlier that is administered by the Northwest Indian Health Board and local tribes noted that, because local private dentists will not accept Medicaid, tribes have had to pay enhanced rates to gain access to care for patients whose needs go beyond the scope of the services that expanded-practice dental hygienists can provide.

Payment for care coordination and referral delivery

Offering payment incentives to providers for getting patients to return for subsequent dental office visits is another payment approach. Examples include:

- **New Jersey** offers a "care management" incentive payment to PCPs for making a pediatric dental referral. The size of the payment is based on how quickly the visit occurs (maximum payment if the patients returns within 30 days, reduced payment for within 60 days, and no payment for a visit after 60 days). The state is also pursuing increased reimbursement for oral health care providers' delivery of diagnostic and preventive services for children under the age of three, with additional quality incentives for reductions in ED visits for non-traumatic oral health visits and operating room use related to oral health.

- **Connecticut** reimburses PCPs for providing fluoride varnish application in children under age three when the service is done in conjunction with an oral health assessment and a referral to a dental home²⁶

A concern about the efficacy of these approaches is that payments may not be sufficient to offset the additional workload and expectations imposed on primary care providers. The interviews with providers and provider associations in Oregon made it clear that primary care providers are already challenged by expectations related to behavioral health integration. The addition of oral health integration would be perceived as imposing an additional burden, given existing capacity and the short amount of time available to conduct well child and other visits. However, when there is a team or other supportive infrastructure to make the task of providing oral health services less burdensome, integration efforts have been welcomed because they allow providers to assist patients and their families in additional ways while making the providers' jobs easier. Many of the articles reviewed, along with input from the interviews, shows that it is possible to identify successful best practices and make it clear that there is much to be gained by sharing the lessons about promising approaches among medical, behavioral health, and dental providers so that each understands the best ways to address oral health issues without contributing to provider burn-out.

International examples of payment models and their impact

A systematic review of two randomized controlled trials (RCTs) conducted in the U.K.²⁷ explored the effects of fee for service (FFS), capitation, salary, or a combination of these payment mechanisms on primary care dentist behavior and patient outcomes. One of the RCTs evaluated the impact of FFS payments and an educational intervention on the placement of fissure sealants in permanent molar teeth. The second study compared the impact of capitation with FFS payments on primary care dentists' clinical activity and level of dental decay.

The first study found that dentists paid through FFS had a significant increase in clinical activity compared with the control group (9.8% greater percent of fissure sealants for second permanent molars). The second RCT reported similar results:

- Clinical activity was lower in the capitation groups than in the FFS groups as measured by mean number of filled teeth and mean percent of having one or more teeth extracted.
- Utilization, measured by mean number of visits, was also lower in the capitation group than in the FFS group.
- Patients with dentists in the capitation group were more likely to receive active preventive advice than patients in the FFS group.

²⁶ Connecticut reimbursement is \$25 for the oral health evaluation (Code D0145) and \$20 for the fluoride varnish application (Code D1206) though they have started in 2015 to cover CPT code 99188 – application of topical fluoride by a physician or other qualified health care professional.

²⁷ Brocklehurst, P., Price, J., Glenny, A.M., Tickle, M., Birch, S., Mertz, E., et al. (2013). The effect of different methods of remuneration on the behavior of primary care dentists. *Cochrane Database of Systematic Reviews*, (11).

- Regarding health care costs, the capitation group reported higher mean expenditures and higher rates of referral to the Community Dental Service than the FFS group.
- For patient outcomes, dentists in the capitation group restored carious teeth at a later stage than patients in the FFS group.

Table 5 of the Appendix summarizes additional studies describing international efforts for oral health integration.

Recommendations to further oral health integration

Oregon has made strides in improving the oral health of its population over the years. The vision for Oregon's health system transformation includes intentionally integrating oral health, physical, and behavioral health across the delivery system, with efforts currently and primarily underway for the Medicaid populations. Most DCOs, while included as part of the CCO policy development, were not initially involved in the formation efforts of the regional CCOs, but their networks currently deliver oral health services for most the CCO enrollees across the state. It has been a period of transition over the last two years since the oral health funding streams have become the responsibility of the new CCOs, with full integration not yet achieved.

Currently, despite the blending of budget dollars, there continue to be silos of service delivery. The DCOs remain as subcontractors to the CCOs and have maintained their original service areas, which results in multiple DCOs serving a CCO, and DCOs working with multiple CCOs. The CCOs are still working to improve the integration of physical and behavioral health in their regions, but have less experience with managing oral health services. Medical and dental providers have traditionally been educated and trained separately and have practiced and delivered services separately. Dental and behavioral health providers have had even less history of interaction. The commercial insurance marketplace still separates these services so that there is very little impetus to integrate, with the recent exception that the Essential Health Benefit framework for the Exchange Marketplaces includes oral health benefits for children. Medicare does not provide an oral health benefit for seniors.

However, many of the CCOs are making oral health an integral part of the care they provide for the high-need, vulnerable population they serve. Half of the CCOs have incorporated oral health into their Transformation Plans, and seven have it included it in the Community Health Improvement Plans. Many activities are underway across the state as outlined earlier in this paper. OHA has multiple activities underway as well, in addition to surveillance, data analytics, and policy support for these efforts. Coordination across and among the multiple activities is not currently happening, despite some strategic planning efforts.

Many of the best practices identified to date across the state and the nation are innovative, but it is too early to determine their full impact. CCOs and DCOs are still working through multiple administrative issues of their partnerships, while also trying to align and integrate across their medical, behavioral, and oral health provider networks. Precise measurement tools and data collection—which would assist the monitoring of these efforts and be a source to use for value-based incentive funding—still lag behind what is needed. The national study that reviewed some of the ACOs that are starting to integrate oral health found that ACOs undertook these efforts because they realized they could not be accountable for the overall health of their members without addressing members' oral health needs. The same perspective is starting to emerge among Oregon's CCOs.

Based on HMA's environmental scan, a review of national best practices, and interviews with multiple internal and external stakeholders, the following recommendations are offered to the state as ways to further oral health integration.

Increase state and local leaders' communication about oral health and oral health integration

Oral health access is a focus of many activities and is frequently raised as a critical issue for the Oregon's low-income, vulnerable populations. Despite this, the role and potential benefits of oral health integration are less well-known, and efforts to provide such integration are less frequent or are not being actively pursued across the delivery systems. One of the more common themes among interviewees was the lack of communication on and incorporation of oral health into thinking about the care of populations at all levels. Like the earlier efforts to demonstrate that the integration of behavioral and physical health is critical to improving overall health outcomes and value in healthcare, attention to integrating oral health should be incorporated into all aspects of policy development, implementation, care delivery, data measurement, and analysis as Oregon continues to transform its delivery systems. Aligned messaging needs to be directed to documenting the health benefits and the return on investment (ROI) that result from oral health integration. The evidence should be provided to all levels of organizations involved in transformation, including leadership and staff inside the state agencies, state policymakers and leaders, the leadership and staffs of the CCOs and DCOs and their provider networks for physical, behavioral and oral health providers, as well as to patients and their families.

Perform communication planning to increase awareness and importance to overall health.

The first step would be to develop a communication plan that demonstrates that oral health integration is a priority. It should be developed and shared with OHA, its divisions, and the key state partners and stakeholders. The plan should outline distinct next steps that build on the current efforts of the Statewide Strategic Plan and the State Health Improvement Plan. Clear roles of the state and the partners should be defined, and a timeline and distinct deliverables should be developed. Although each organization will have its own communication strategy, efforts need to be made to coordinate and align strategies so that the same message is shared at all levels and across all regions of the state.

The state would need to work across the divisions. This messaging would be a key component of their current strategic planning. The CCOs and their DCO partners' communication plans should not only inform staff across operations and clinical systems but also extend the message to their provider networks, which should in turn communicate with their members. Leaders of primary care and other medical, behavioral health, and oral health entities would need to extend the message to members of their own organizations. This is also the case for coalitions and other community groups across the state that are working on oral health issues. The efforts should go beyond just creating public awareness, (which is critical). They also need to send a signal to CCOs, providers, and local communities that oral health is an increasing priority for health systems transformation and that everyone is aligned in the efforts.

Facilitate and coordinate across oral health activities and develop learning supports that will improve alignment and maximize the impact and use of limited resources

A lot of activities by a variety of entities are underway in Oregon. Because of tightening state budgets and increasing oral health needs across an expanded population in Medicaid, it is critical to maximize and align the use of existing resources and successful efforts. The focus needs to be on areas of the greatest needs, with the state, stakeholders and community partners coming together to identify synergies that can move efforts forward. The strategic planning efforts are a start, but it is essential to

ensure that there is broad consensus on common actionable goals and clear roles if there is to be progress in moving beyond the present multiple efforts that are not aligned. It is crucial to establish common evaluation measures to determine effectiveness of investments and to share best practices and evidence-based models to improve quality and achieve sustainability.

The interviews highlighted the need to resolve confusion about accessing oral health benefits, especially the new adult benefit. Complexity created by the myriad of oral health systems partnering with the CCOs was a common theme; the administrative complexity imposes barriers to care unrelated to provider network capacity issues. If primary care providers or schools are being asked to ensure that oral health needs are assessed, it is critical that they have ready, up-to-date information and assistance to guide patients to oral health service providers. And if oral health providers are identifying diabetes and other general health issues during dental screenings, then close relationships with the patient's primary care home is necessary to ensure coordination of care.

A framework such as the HRSA domains for oral health integration outlined earlier in this paper can be used to assess the strengths and gaps in current efforts to target what is needed. Visible leadership and clear collaboration roles can avoid redundancies, prevent gaps, and ensure that efforts are not isolated. Sharing of evidence-based approaches and best practices that improve health outcomes, coupled with technical assistance resources to reach all providers across their siloed systems, can enhance learning and promote innovation.

Establish clear leadership across all organizations—as well as with staff, stakeholders, and other partners—across the state and communicate the importance of oral health integration

- Ensure clear and visible leadership to align and integrate efforts across OHA and between the external state partners and the Authority. This effort needs to occur at all levels of organizations engaged in health system transformation.
- The leadership at the state agency, the CCOs, the DCOs, and their clinical network partners' clinics and organizations should include oral health in their priorities, performance monitoring, and strategic planning efforts.
- The state Dental Director, in partnership with the Chief Medical Officer of the Authority, should be active in supporting and assessing oral health integration efforts both across the Authority and across state partners, with the Director being accountable for clear communication, ensuring active collaboration, and regularly advising leadership on the progress of oral health integration.

Support education and tools to assist oral health integration

- Educate the physical, behavioral, and oral health workforces as to the importance of oral health integration. This could be accomplished by having associations such as the ODA, OAFP, OPS, and ACP collaborate to hold CME-type meetings and discussions for medical, behavioral, and oral health providers. These could be done statewide or in other venues in partnership with local regional collaborative efforts, and learning collaboratives.
- Collaboratively create common navigational tools or other approaches to support efforts to reduce the barriers for CCO patients in understanding and accessing oral health services.
- Assist oral health providers in connecting with CCO enrollees' patient-centered primary care home providers to collaborate on care needs.

Create enhanced coordination and alignment of oral health integration efforts

- Integrate oral health education and awareness into the activities of public health nurses and peer wellness and community health workers to broaden the assistance they provide so that it goes beyond educating about just physical and behavioral health.
- Align the efforts in the state’s sealant program more closely with the efforts by the CCOs and DCOs on sealants, to avoid duplication of effort and maximize reaching populations.

Increase CCOs, health plans, and provider attention on oral health integration

Folding or “integrating” oral health into current transformational incentives could move integration forward efficiently. Oregon’s CCOs have found that tying provider payments to quality performance has produced significant improvements in care, including enhancing initial efforts at integrating behavioral and physical health care. Analysis of the two oral-health-focused metrics—sealants and including oral health assessment for foster children—shows an increase in delivery of these services. The work on transformation and community health improvement plans, directed by contract arrangements and statutory direction, has led to innovative approaches and collaborative regional efforts not seen in the pre-CCO era. The early look at ACOs efforts to address oral health issues demonstrated that they are aware that to be held accountable for the overall health of the patient population, they must incorporate all aspects of care.²⁸ Removing barriers to care by integration and collaboration across physical, behavioral, and oral health providers is important to maximizing patient well-being. And breaking away from the traditional fee-for-service approach to value-based payments can inspire transformation, improve quality, and reduce costs.

Develop incentives through contracting and certification expectations

- Create incentives by adding oral health integration as a component in contractual requirements and other expectations. This would require some rule changes and/or contractual language changes. Two initial areas to consider for the addition are:
 - CCO Transformation Plans
 - CCO Community Health Improvement Plans

While the Transformation Plan guidelines include discussion of integration, to focus the efforts, a specific oral health integration section of the CCO Transformation Plan could be added to define key components, such as the nationally recognized HRSA state oral health integration domains. This would encourage a comprehensive approach to oral health integration planning. Similarly, the CHIPs could use a similar framework to assess how efforts impact the six domains of the framework. This would align with many of the FQHC clinics’ approaches in the CCOs’ regions.

Other areas of expectations for CCOs, DCOs and health plans should also be reviewed to ensure that oral health integration is considered along with physical and behavioral health integration.

- Incorporation of oral health integration efforts to earn credit towards certification as a PCPCH, similar to the acceptance of behavioral health integration activities. This new standard could be included in the next PCPCH Standard update. To inform the next update, the PCPCH program

²⁸ Leavitt Partners, Dental Care in Accountable Care Organizations: Insights from 5 Case Studies. Undated. Accessed at http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0615_1.pdf?la=en

with the Patient Centered Primary Care Institute could monitor existing applicants/renewals for examples of best practices underway in oral health integration.

- Develop continuing medical, behavioral health, and dental continuing medical education (CMEs and CEs) for providers to motivate primary care providers and their staff to complete curricula that include Smiles for Life²⁹ and other key curriculum that focus on integrating oral, primary, and behavioral health. Collaborative CME/CE events could be developed with the provider associations, OHSU, and others at a statewide or regional level to increase interactions and sharing of coordination approaches and best practices.

Move to value-based payment incentives

- Integrate oral health measures into the existing CCO quality incentive pool measures (see Section VII) to incentivize integration efforts.
- Care management payments to primary care and behavioral care providers should include an expectation of oral health integration into those care management services.
- Expect value-based payments to be used in networks of CCOs and their partnering DCOs. Incorporate oral health focused value-based payment contract expectations to set milestones and benchmarks for moving CCOs' networks to value-based payments; this would include the DCO networks as part of the CCO overall networks.
- Explore options in Public Employees Benefit Board (PEBB) & Oregon Educators Benefit Board (OEBB) using coordinated-care-model-like contracts with current dental benefits contractors and the medical and behavioral health contractors to address integration of oral health. This could include contractual expectations of value-based incentive payments and integrated oral health performance metrics
- Value-based payments to oral health providers (who are not part of a staff model dental care organization) could be moved to a payment with a care coordination component with incentive metrics. This could initially be applied to the higher-need populations such as persons with intellectual /developmentally delays or persons with severely persistent mental illness (SPMI).

Reduce barriers to integration and enhance administrative simplification through streamlining and standardizing processes

The CCOs' and the DCOs' relationships are still fairly young. Many of the CCOs' staff are not very familiar with oral health delivery of services and are all new to oral health integration, so there is a need for education as noted in an earlier recommendation. However, it is important to examine the processes and administrative burdens of the CCOs management of multiple contracted DCOs. Since the DCOs work with many more than one CCO, some commonality of required documentation and processes, where possible, could streamline efforts on the part of both the CCOs and DCOs. A theme heard through HMA's interviews was that there is much frustration on both sides about the administrative side of integration under a CCO. Some of this is likely due to continued transitions to the new model, but delays in care and reduced integration can result from some of these operational challenges.

²⁹ On-line curriculum which provides continuing education credits; more information at:
<http://www.smilesforlifeoralhealth.org/buildcontent.aspx?tut=555&pagekey=62948&cbreceipt=0>

Some next steps:

- Work with the CCOs and their DCOs to standardize common requirements and documentation such as credentialing, delegation of responsibility, and other similar administrative processes.
- Enhance care coordination efforts to align oral health needs at the CCO level and reduce care management silos so that there is a common “hub” that physical, behavioral, and oral health providers can work through to ensure that care is coordinated. (For example, if a provider is requesting approval for anesthesia to perform an oral health procedure on a patient that also requires anesthesia to conduct a PAP smear screening or other procedure, the care manager is working with all the providers caring for that patient).

Enhance data collection, analytics, and surveillance efforts to incorporate oral health

A key aspect of health system transformation is looking across populations as well as looking across physical, behavioral, and oral health needs of that population. Prevention is key, and the public health surveillance systems start to provide a population-wide look at a state’s overall oral health status. Addressing health equity requires some expansion of data that is currently collected in many of the surveillance, claims and survey data sets. This additional data is critical for understanding the needs of minority populations and the social determinants that may be impeding their overall health. Alignment between the surveillance data and the claims data can be used, as has been done in other areas such as work with patients with HIV to identify gaps in care or high areas of need.³⁰ Data is critical to measuring performance as the system moves towards new models of payment to sustain the transformation efforts.

Some next steps:

- Ensure CCO-level assessment of oral health utilization and surveillance data across their populations. This will enhance the CCOs’ ability to integrate and align efforts to improve the delivery of dental care services with their primary care and behavioral health efforts across their populations.
- Expand data collection to include race, ethnicity, and language to better assess efforts to improve health equity.
- Expand the use of tools for geo-mapping and “hot-spotting” oral health to compare the need for services to use of services, tools which are used by medical care models to target approaches for chronic disease and high utilizers. The researchers at the ADA Health Policy Institute have, with foundational support, developed some prototypes that might be useful to test in Oregon.
- Ensure that pilots and investments in oral health integration activities have solid evaluation components to determine effectiveness toward achieving better health, better care, and lowering costs.

³⁰ The Louisiana Public Health Information Exchange, or LaPHIE, implemented in 2009 in partnership with LSU Health Care Services Division and the Louisiana Public Health Institute, is a bi-directional, electronic information exchange between the OPH’s HIV surveillance systems and participating health care providers that allows providers to monitor the treatment of their HIV patients. For example, when a patient comes to a participating clinic, hospital or emergency department and registers for whatever care they may need, the patient’s information is confidentially and securely linked to existing OPH HIV surveillance data real-time through multiple firewalls to determine their HIV status and whether they have been in care based on laboratory results. If they are identified as out-of-care, an electronic message is sent to the provider immediately with instructions to refer the patient to HIV specialty care and to receive follow-up and care coordination services

Recommendations for oral health integration measures

As noted earlier, identifying and employing measures for analyzing integration efforts is a challenge even for the current efforts to integrate behavioral health and physical health services. With no validated measurement tools, efforts to assess integration progress have focused on looking at process and outcomes measures for the population served by integration models at both the clinical level and the organizational or system level, particularly when looking at behavioral health integration. There have been many efforts to identify key performance measures and other data sets for some of the oral health integration efforts previously reviewed in this paper, such as efforts for safety net clinics to include oral health screenings, expanded practice dental hygienists in community settings, and others. DentaQuest Foundation and its partners through the Dental Quality Alliance have resources on their website.³¹

Oregon has added a quality metric specific to dental sealants to the list of separate physical and behavioral health measures. However, the measure related to the early assessments for foster children has folded together all three aspects of care: medical, behavioral health, and oral health assessments to be done within 60 days. This is a step towards thinking of oral health right along with the medical and behavioral health needs of foster children. Oregon's Metrics and Scoring Committee, which set the CCOs' Quality Incentive Pool metrics, has continued to examine potential oral health metrics over the past several years and is currently discussing approaches that might integrate oral health into existing or new measures, such as kindergarten readiness. The metrics and the quality incentive pool are perceived to be among the most powerful means for promoting health system transformation, and the state has seen significant improvements in quality across all the CCOs to date.

CCO Oregon dental workgroup's metrics

To have a more coordinated approach to quality metrics and performance expectations for the CCOS and DCOs, CCO Oregon's Dental Workgroup developed a "bank of metrics" to be considered by CCOs as they develop their dental quality strategies and contract with their multiple DCOs. The goal was to have greater uniformity so that DCOs that contract with multiple different CCO could have less administrative burden and a greater focus on a common set of metrics. The list of metrics derived from national measures could be applied to claims data analysis. The Workgroup consisted of dental professionals and CCO administrators, and had the backing of CCO Oregon member organizations, which included most of the CCOs.

The Workgroup's metrics include the four types of quality measures recognized by the Dental Quality Alliance of access, process, experience and outcomes, but it does not address integration specifically.

³¹ Dental Quality Alliance website is available at: <http://www.ada.org/en/science-research/dental-quality-alliance/dqa-measure-activities/measures-medicaid-and-dental-plan-assessments>. Also, another resource from the American Dental Association is available at: http://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA_2016_Quality_Measurement_in_Dentistry_Guidebook.pdf?la=en

Monitoring ED use by children and adults for oral health services intersects with the medical delivery system, as well as the measures of dental health for those with chronic diseases and pregnant women. One aspect the group considered in determining the set of measures is how they could be aligned with the contracted service level agreements expectations between the CCO and the DCO to streamline administrative efforts and lower costs as well. The set is built on national efforts.³²

Integration metrics discussed by the MAC oral health access work group

The Medicaid Advisory Committee (MAC) was asked by OHA to develop a framework for assessing access to oral health services in OHP that could be applied to both the CCO and the FFS populations. The committee addressed the key factors that influence access to oral health and the key data or information that could be used to assess access to oral health services. Their Oral Health Work Group, made up of oral health experts and key stakeholders, developed a shared vision of oral health access and prepared a guide for OHA to carry out its oral health access monitoring efforts. An Oral Health Access Monitoring Measures Dashboard was created with a priority listing of measures OHA could use to monitor six key factors of access for OHP members. One aspect of their list includes integration of oral health.³³

Findings and recommendations:

Measures of progress toward integration of oral health can take many forms, and should be considered in terms of both short term and longer term metrics that reflect integration along a continuum and at multiple levels of integration.

Add an oral health component to existing metrics to encourage integration efforts. For the short term, it may be most useful to incorporate an oral health component into some existing metrics, which would allow for relatively quick and easy measurements of practice change, and incorporation of metrics that support the use of incentives. For example, the following metrics that specifically target high needs could have an oral health component added that would enhance oral health integration by providing incentives for the medical, behavioral, and oral health providers to collaborate across the CCO networks:

- Diabetes HgbA1c poor control — include number of diabetics receiving dental services.
- Timeliness of prenatal care for pregnant women — include oral health assessment as part of the prenatal care expectations; track number of pregnant women receiving dental services.
- Emergency Room visits for non-traumatic oral health conditions —include follow-up after ED use for oral health conditions.

Multiple stakeholders noted that continuing to think of oral health in a separate silo will not serve further integration efforts. Oregon's Quality Incentive Pool already has 18 metrics, so an expansion with separate oral health metrics would increase administrative reporting burdens and diffuse focused

³² More information re the CCO Oregon's dental workgroup and the measure set is available at:

<http://www.ccooregon.org/media/uploads/CCODCOMetricSetFinal.pdf>

³³ Full report is available at: https://www.oregon.gov/oha/OHPR/MAC/Documents/Oral-health-access-framework-report_FINAL.pdf

efforts. Evidence has been discussed recently by the Metrics and Scoring Committee, and further discussion is underway about adding an oral health assessment visit as a component to the metrics for diabetic care and pregnant women's prenatal care. These were also the two areas most commonly suggested during the interviews.

Focus on high needs populations. Additionally, because high needs for oral health exist among those with severe behavioral health issues, consideration of a measure that ensures that individuals with Severe and Persistent Mental Illness (SPMI) receive an oral health assessment is critical, and would encourage working across the dental and behavioral health communities. This population faces many barriers: not only do they frequently not have ready access to oral health services, but their behavioral issues pose challenges to providers in delivering services. The data for two of the current metrics, follow-up after hospitalization for mental illness and the depression screening with follow-up planning, could be correlated with utilization of dental services if an oral health assessment or referral expectation was added to the follow up visits. Alternatively, targeted oral health outreach or provision of on-site services would enhance access to those services for the CCO's SPMI populations if conducted through their medical or behavioral health home.

Move to measure integration efforts along the continuum over the long term. For the longer term, it is recommended that measures of integration move beyond the provision of specific evaluations, assessments, and services for high need populations and into measures of the integration of providers, practices, and work flows. These could include the incorporation of measures of the degree to which primary care practices are integrating oral health into their day to day practice, such as the percent of patients for whom an oral health risk assessment and evaluation was conducted, and the percentage of patients who received appropriate oral health prevention and intervention within a primary care practice.

To encourage and incentivize even more integration, it is recommended that metrics be considered that measure movement along the continuum of integration from coordination between oral health providers and primary care providers to co-location of these providers, to true, full integration. These measures could borrow heavily from metrics developed to measure integration of behavioral health and physical health.

Specific metrics for practices moving toward integration might include the implementation of universal screening for oral health needs and the percent of patients who receive an assessment/screening and an oral exam if indicated. Metrics could include measures of the percentage of patients who receive oral health interventions that can be performed in a primary care practice, including counseling, training, and education, and/or administration of fluoride therapies. Other metrics could be used to measure how robust the practice's referral processes are, including the presence of a referral process and the number of referral agreements in place; implementation of a process and staff responsibility for assisting patients with logistics (i.e., making appointments for oral health referrals); and a communication feedback loop that allows for tracking of referrals.

Metrics for practices that are further along the integration continuum could include the degree to which oral health and primary care providers share data systems/EHRs, share physical space, have processes to ensure shared communication and, ultimately, provide team-based care that is fully integrated. Incentives that support care coordination and integration may both allow primary care providers to take these steps and encourage them to do so.

Conclusion

Oregon is an early leader in oral health integration because of its health system transformation activities, particularly those of the Medicaid CCOs. However, the oral health status of Oregonians is not what it should be and the problem needs to be addressed. Oral health integration can be one important tool for improving oral health status. Many innovative activities are underway across the state, many of them models for the rest of the country. There are enhancements and additional activities that are being used in other parts of the country that could be utilized in Oregon to further oral health integration. An extensive environmental scan of both local and national efforts and information from over 30 interviews make it clear that oral health integration is starting and that there is increasing appreciation for its importance. But there is much more to do.

The oral health status of Oregonians is improving, but further work remains. Oregon has progressed on several fronts to enhance the oral health of children, particularly in sealants. Programs have been integrated into schools, Head Start, and school-based health centers. Adding sealants as a metric for the new Medicaid CCOs' Quality Incentive Pool builds on previous efforts, with evidence of continued progress. Overall lower rates of decay in young children are seen, despite Oregon's lack of significant fluoridation of public water systems. The oral health of adolescents and adults, especially seniors, is still poor, although a newly expanded adult dental benefit was just implemented in Medicaid.

A limited oral health workforce continues to be a challenge. The dental workforce in Oregon is not unlike that of other areas in the nation. The state is experiencing a decline in dentists practicing general dentistry and an increase in private group practices, as well as some increase in dentists working in community health centers. Only eight states have better dentist/population ratios, yet as in most states, Medicaid acceptance by dentists is limited. New models of care have started to emerge; 633 expanded practice hygienists have been certified with many in new dental pilots that are established to expand access and enhance oral health education efforts. Mobile dentistry is emerging, and the dental training programs are starting to emphasize community health.

Local oral health integration efforts are ahead of other states, but there is more to do including consensus on the definition of integration. Some strategic planning and collaboration has been underway in Oregon. These include a community effort to develop a Strategic Plan for Oral Health in Oregon: 2014-2020 and the state's Public Health Division development of an oral health component to its State Health Improvement Plan. There are significant transformation activities across the state, particularly by the new Medicaid CCOs, and there is increasing focus on oral health. Using a federal framework to define aspects of oral health integration, we found that most CCOs are not working on oral health integration; those that are working on integration appear to be focusing primarily on dental access, risk assessment, and making inroads toward inter-professional collaborative practice. The environmental scan and interviews conducted in Oregon did not uncover a clear consensus on what defines oral health integration which could impede progress.

Some national models of oral health integration and local efforts on behavioral health integration can be applied. Oregon's CCOs and DCOs have started to try new approaches to incentivize improved quality of care, mirroring the efforts the state has undertaken in holding the CCOs accountable for quality and rewarding performance. There are a few examples across the nation, but most efforts to implement payment reform for oral health are in very early stages. More work is needed, and efforts need to be

made to apply the lessons from the efforts underway in the medical and behavioral health payment models.

Recommendations

Based on the environmental scan of both local and national efforts, and from discussions with both internal state and external stakeholders, we recommend steps that can be taken to further oral health integration in Oregon:

Increase state and local leaders' communication about the value of oral health and oral health integration. While it has been an integral component of the design of health system transformation, messaging of the importance and value of oral health has lagged efforts underway in physical and behavioral health integration. Stakeholders noted the importance of the state's communications in driving attention and focus to key issues. The lack of communication regarding oral health has led to some to assume it is not a high priority for the state. Planned, clear and collaborative communication amidst OHA, its divisions, key state partners, stakeholders and providers is needed to ensure the same message is shared at all levels of the agency, with partner organizations and across all regions of the state. Work also should be considered to ensure a common definition of oral health integration and that integration of oral health is as vital as integration of behavioral health. The communication needs to clearly outline how oral health and integration efforts can improve overall health and reduce costs.

Improve alignment and maximize the impact and use of limited resources through enhanced coordination. The state Dental Director, in partnership with the Chief Medical Officer of OHA, should work across the agency and with the key state partners to support and assess oral health integration efforts. Clear alignment and coordination across the agency and organizations such as the CCOs and DCOs is critical to avoid gaps, duplications and lost opportunities for synergy. Sharing evidence-based approaches and best practices that improve health outcomes, coupled with technical assistance resources to reach all providers across their siloed systems, can enhance learning and promote innovation. Patient navigational tools and other approaches to reduce the administrative barriers due to the complexity of the multiple DCO and CCO arrangements would improve access to the use of oral health benefits.

Increase CCOs, health plans, and provider attention on oral health integration. Applying value-based payments to the integration of oral health with physical and behavioral health would increase the attention on oral health. Other approaches include integrating oral health into the performance incentive metrics, adding oral health integration to transformation plans as well as including into the requirements for community health improvement planning. PCPCH and other model certification standards could drive further integration efforts by including oral health integration expectations. Continuing education credits and learning collaboratives can motivate providers and staff and increase sharing of best practices and coordination across whole-person care. Addressing access to oral health care will require broader integration efforts across all payers and providers in the delivery system to achieve full transformation towards better health, better care, and lower costs.

Reduce barriers to integration and enhance administrative simplification through streamlining and standardizing processes. Standardizing common requirements and documentation for CCO and DCO administrative processes could reduce barriers and incent further integration. Person-focused cross-

coordination amidst care management operations need to include oral health and would enhance care delivery for physical and behavioral health.

Enhance data collection, analytics, and surveillance efforts to incorporate oral health. Maximizing the analytical use of both utilization and surveillance data for CCOs' and state partners so they can target their efforts to areas and populations of higher need. Improving health equities will require enhanced data collection to include race, ethnicity and language. Solid evaluation components for investments in integration activities and dental pilots will inform effectiveness.

Recommendations for metrics

There are multiple metrics under examination both nationally and locally to enhance oral health care and its integration with medical and behavioral health care. Based on the environmental scan and interviews with stakeholders, there are some considerations for measurement to fuel oral health integration.

Add an oral health component to existing metrics to encourage integration. In the short term, adding an oral health component to existing metrics would enhance oral health integration by incenting the medical, behavioral, and oral health providers to collaborate across the CCO networks. The emphasis should be on patients with diabetes, pregnant women, and their children, with the objective of moving care away from Emergency Rooms.

Focus metrics on high needs populations. Attention to the oral health needs of special needs populations, such as those with severe mental illness, along with addressing the unmet needs of seniors will benefit these populations' general health.

Move to measure oral health integration efforts along the continuum. To encourage and incentivize even more integration, it is recommended that future metrics be considered that measure movement along the continuum of integration from coordination between oral health providers and primary care providers to co-location of these providers, to true, full integration. These measures could borrow heavily from metrics developed to measure integration of behavioral health and physical health.

In summary, oral health integration is just beginning. It lags behind efforts on behavioral health integration in Oregon, but more and more activities are underway and relationships are developing and evolving across the delivery system. The state has been an early leader and is poised to build on impressive first steps. Achieving further success will require a common message, aligned leadership, smoothing of processes and overcoming barriers. It will require being armed with solid data analysis and evaluation to continuously improve its approaches. Oral health matters, and focusing on oral health is critical to attaining better health, better care, and lower costs.

Appendix



Table 1A: The Oral Health of Oregonian Children Compared to National Benchmarks and Health People 2020 Objectives, based on the 2012 Oregon Smile Survey (6-9 year olds) and the 2015 Oregon Healthy Teens Survey (13-15 year olds)

	OREGON	UNITED STATES	HEALTHY PEOPLE 2020 OBJECTIVE ³⁴
Percent of children aged 6-9 years with tooth decay experience ³⁵	51.8	57.7	49.0
Percent of children aged 6-9 with untreated dental decay	19.9	21.5	25.9
Percent of dental sealants in 6-9 year olds	38.1	37.6	28.1
Percent of adolescents aged 13 to 15 years with dental caries experience ³⁶	68.7 (Grade 8); 75.1 (Grade 11)	53.4	48.3

Table 1B: The Oral Health of Oregonian Children Compared to National Benchmarks and Neighboring States, based on CDC Oral Health Data³⁷

	OREGON	CALIFORNIA	WASHINGTON	UNITED STATES
Percent of children (0-18) who have received preventive dental care in the past year ³⁸	77.0	75.0	86.0	82.0
Percent of children (0-18) whose teeth are in excellent or very good condition	70.0	64.0	70.0	68.0
Percent of children (0-18) who lack access to fluoridated water	82.0	41.0	46.0	36.2

³⁴ These national health objectives are designed to guide national health promotion and disease prevention efforts to improve the health of all people in the United States. The section on oral health contains 17 objectives, each with defined metrics and identified data sources and a 10-year target for meeting each objective.

³⁵ Oregon Health Authority Public Health Division's most recent Smile Survey (2012)

³⁶ Oregon Healthy Teens Survey 2015

<https://public.health.oregon.gov/BirthDeathCertificates/Surveys/OregonHealthyTeens/Pages/index.aspx>

³⁷ CDC Oral Health Data. Accessed at:

http://nccd.cdc.gov/OralHealthData/rdPage.aspx?rdReport=DOH_DATA.ExploreByTopic&isITopic=CHD&isIYear=2013%E2%80%9C2014&go=GO

³⁸ Ibid.

Table 1C: The percentage (%) of Oregonian adults who have lost teeth due to decay or gum disease in the past year, as compared to national benchmarks, and neighboring states, 2014³⁹

	OREGON	CALIFORNIA	WASHINGTON	UNITED STATES
Percent of adults (18+ years) who have visited a dentist or dental clinic in the past year	65.7	65.1	66.9	64.4
Percent of adults (20-64) who have lost any teeth	41	N/A*	NA*	51.8
Percent of adults (65+ years) who have lost six or more teeth	32.1	30.0	30.8	37.4
Percent of adults aged (65+ years) who have lost all their natural teeth	12.9	8.70	11.1	14.9

N/A* = Data unavailable

³⁹Ibid

Table 2. Summary of Oral Health-focused Activities & Workgroups in 2016

Summary of Oral Health-focused Activities & Workgroups in 2016		
DIVISION I: Health Policy and Analytics		
1	Oral Health Learning Collaborative	The Transformation Center is currently planning to convene a learning collaborative for CCOs focused on oral health. This work is expected to take place in 2017.
2	Oral Health Work Group of the Medicaid Advisory Committee	<p>Oregon’s Medicaid Advisory Committee initially provided the Oregon Health Plan with oral health recommendations in March of 2009.⁴⁰ More recently, OHA has asked the MAC to recommend a framework for defining and assessing oral health access for OHP members by addressing two foundational questions:</p> <ul style="list-style-type: none"> • What are the key factors that influence access to oral health care for OHP members? • What key data could be used to assess access to oral health services for OHP members? <p>The Workgroup completed its work in the Fall of 2016.</p>
3	Oregon Health Professional Profiles	A periodic health care workforce report is created by OHA to analyze health care workforce data from health profession licensing boards, including demographics, education, employment status, work setting, specialty, practice location(s), anticipated changes in practice and language(s) spoken.
4	Oregon Physician Workforce Survey	The Oregon Physician Workforce Survey is a joint project of a public-private partnership between the Oregon Health Authority's Health Systems Division, the Office of Health Analytics, the Oregon Medical Association, the Oregon Medical Board, and the Oregon Healthcare Workforce Institute. Currently only oral surgeons are included.
5	Oregon Consumer Assessment of Health Plans Survey	An assessment of consumer experience with CCOs is published annually. There are two dental questions as of 2016.
6	The Oregon Health Insurance Survey	Completed annually, this survey is an important source of information about health care coverage in the state. The survey provides detailed

⁴⁰ Medicaid Advisory Committee “Oral Health and the Oregon Health Plan” (2009) accessed at <file:///dhs.sdc.pvt/HSB/OHPR/MAC/Website/Oral%20Health%20Recommendations%202009.pdf>

Summary of Oral Health-focused Activities & Workgroups in 2016

DIVISION I: Health Policy and Analytics

		information about the impacts of the health system reform efforts on health care coverage, access to care, and utilization. The survey includes dental questions. A dental fact sheet has been completed.
7	Oral Health Integration Evaluation (SIM)	The goal of this evaluation, funded through Oregon's State Improvement Model (SIM) Round 1 Test grant, is a one-time opportunity to provide information about the extent to which dental integration in Oregon's Medicaid program has changed access to and utilization of dental and related services for Oregon's Medicaid population. The Center for Health Systems Effectiveness (CHSE), located at the Oregon Health and Sciences University (OHSU), defined the analytical questions in consultation with OHA staff and is in the process of conducting claims-based data analyses. A report will be complete by January 2017 on the impact of dental integration in Oregon's Medicaid program.
8	Metrics and Scoring Committee	Required by statute to set the metrics for the quality incentive pool for the Medicaid coordinated care organizations (CCOs), the Metrics and Scoring Committee adopted two incentive pool quality metrics as of 2015. The metrics apply to the pool performance payouts for calendar year 2016. They are: <ul style="list-style-type: none"> • Dental sealant metric – dental sealants on permanent molars for children (ages 6-14) • Access metric – dental assessment within 60 days for children in the Department of Human Services custody (e.g., foster care) was added to the physical and behavioral health assessment metrics for this population
9	Oral Health Advisory Panel to the Health Evidence Review Commission	This advisory group of oral health experts, primarily dentists, periodically advises the Commission on the evidence reviews and technical aspects of the oral health diagnoses and treatment lines for updating the Prioritized List of Health Services for the Oregon Health Plan.

DIVISION II: Health Systems

1	Improving Oral Health Access for Pregnant Women	For this activity, the division is developing rules and other strategies to improve oral health access for pregnant women.
2	OHP Network Adequacy Standards for Oral Health	Work underway to revise network adequacy requirements in OHP per new CMS requirements and included time and distance standards for pediatric dental services.

DIVISION II: Health Systems		
3	Tele-dentistry Rules	HSD is responsible for the rules process, including forming a Rules Advisory Committee, to produce tele-dentistry billing regulations for the Oregon Health Plan.
4	Fee for Service (FFS) Access Monitoring Plan	To meet new federal program rules, HSD is drafting a FFS access monitoring plan that includes oral health care for children and adults.
5	CCO Quality Health Outcomes Committee	The Transformation Center, which is staffed in the Health Policy and Analytics section of OHA, works collaboratively with the HSD to provide technical assistance and sharing of best practices with the medical, behavioral health, and oral health directors through the monthly CCO Quality Health Outcomes Committee. This forum was used to discuss the dental sealant metrics and sharing of best practices.
DIVISION III: Public Health		
1	Oregon Oral Health Surveillance System	<p>Activities of the Surveillance System entail:</p> <ul style="list-style-type: none"> • Annually updating a compilation of over 65 separate indicators of the oral health status of Oregonians of all ages. • Drawing together data from many sources including the Behavioral Risk Factor Surveillance System (BRFSS), Oregon Healthy Teens Survey, and Pregnancy Risk Assessment Monitoring System (PRAMS), Smile Survey, Oregon Health Plan and Centers for Medicare & Medicaid Services (CMS) Medicaid, Water Fluoridation Reporting System (WFRS), Oregon Board of Dentistry, and others.
2	Smile Survey & Healthy Growth Survey	<ul style="list-style-type: none"> • The purpose of this activity is to conduct a statewide oral health needs assessment and a body mass index assessment on Oregon elementary school children (Grades 1, 2, and 3) every five years. The survey collects data on the burden of oral disease related to tooth decay among six- to nine-year-olds from a representative sample of schools around the state. • The next Smile Survey & Healthy Growth Survey is scheduled for 2017.
3	School Dental Sealant Program	<ul style="list-style-type: none"> • This program provides screening and dental services in approximately 86 schools. • During the 2014-15 school year, over 16,000 dental sealants were placed. • The program provides technical assistance to local school dental sealant programs. Currently, 80.6% (577) of eligible schools are being served statewide.
4	Certification Program for Local	<ul style="list-style-type: none"> • This program requires every local school dental sealant program to be certified before dental sealants can be provided in a school setting. Certification requires that the program provide training

DIVISION III: Public Health		
	School Dental Sealant Programs	and collect aggregate data. Regular site-visit verifications are conducted to maintain or renew certification.
5	Mandatory certification	<ul style="list-style-type: none"> School Fluoride Programs require mandatory certification as of the 2016-17 school year. Fluoride tablets and/or rinse are provided to approximately 48 schools, serving 9,206 students in Grades K-6.
1	Dental Pilot Project Program	<ul style="list-style-type: none"> The Dental Pilot Project Program, created through legislation in 2015, encourages the development of innovative practices in oral health care delivery systems with a focus on providing evidence-based care to populations with the highest disease rates and least access to dental care. Activities include accepting applications, staffing the Staff Technical Advisory Board and Evaluation Committees for each project, conducting site visits, and reporting on the overall progress and evaluation of the projects. As of May 2016, approved projects include: <ul style="list-style-type: none"> Oregon Tribes Dental Health Aide Therapist Pilot Project Training Dental Hygienists to Place Interim Therapeutic Restorations
2	HRSA Oral Health Workforce Grant 2015-2018	<ul style="list-style-type: none"> The division manages the HRSA oral health workforce grant and subcontracts with OHSU. Goals of the grant are to: <ul style="list-style-type: none"> Increase the number of dentists and dental hygienists serving low-income and underserved populations in community-based settings (i.e., schools, FQHCs), especially in rural areas. Expand the number of schools and children receiving services through school-based dental sealant programs in rural locations.
3	Title V Maternal & Child Health Block Grant	<ul style="list-style-type: none"> The grant for this activity provides technical assistance to seven counties and two tribes that are focusing on oral health as part of their Title V funding. Goals of the grant are to increase the number of dental visits for pregnant women and children; integrate oral health into MCH and chronic disease systems; and focus on gestational diabetes, prediabetes and diabetes.
4	Modernization of Public Health	<ul style="list-style-type: none"> The division collaborates with county public health departments to implement foundational capabilities and programs. Oral health has been identified as a core system function of prevention and health promotion programs.

Table 3: 2014 Strategic Plan for Oral Health – Summary of Priority Areas 1-3, Objectives, & Outcomes
 Priority area 1: infrastructure (pages 12-13 of the strategic plan)

OBJECTIVE 1	OBJECTIVE 2	SELECTED OUTCOME
<p>Oregon’s oral health infrastructure delivers better care, better health and lower costs.</p> <ul style="list-style-type: none"> • The Oregon Health Authority prioritizes oral health and provides leadership in state-level policy, funding and regulatory discussions and decisions. • OHA and its community partners expand and improve Oregon’s oral health surveillance system. • Local and county oral health infrastructure facilitates equitable and timely access to oral health prevention, education. 	<p>Oregon’s oral health infrastructure reflects and supports health system transformation priorities.</p> <ul style="list-style-type: none"> • Coordinated care organizations (CCOs) comprehensively integrate oral health. • Dental benefit packages align with preventive goals and provide adequate care to ensure optimal oral health maintenance and equitable outcomes across the lifespan. • Payment practices for dental services align with current billing and reimbursement models and with the Oregon Dental Practice. 	<ul style="list-style-type: none"> • Oregon has an appropriately staffed, funded, and empowered dental director (2015). • Oregon Health Authority develops a strategic plan to expand Oregon’s oral health surveillance system (2015). • Oregon has a reporting database that tracks hospital emergency visits for non-traumatic dental problems (2017). • Health information systems include detailed data on race, ethnicity, language, and other characteristics necessary to monitor oral health equity, as required by state law (2017). • All school-based health centers and federally qualified health centers integrate oral health care into their activities (2018).

Priority area 2: prevention and systems of care (pages 16-17 of the strategic plan)

OBJECTIVE 1	OBJECTIVE 2	SELECTED OUTCOME
<p>Evidence-based prevention strategies are implemented across every Oregonian’s lifespan.</p> <ul style="list-style-type: none"> • Maintain or establish optimally fluoridated community water systems. • Include oral disease prevention in prenatal and pediatric programs. • Expand access to screenings, fluoride treatments and care for high-risk children. 	<p>Oregonians achieve oral health literacy and understand that oral health is inseparable from overall health.</p> <ul style="list-style-type: none"> • Develop a communications plan to educate all Oregonians on oral health. • Integrate oral health education into general health education for all ages. 	<ul style="list-style-type: none"> • Pregnant women who had their teeth cleaned within the previous year: 58 percent. Most recent data: 53 percent, 2011. • Children 0 to 5 with a dental visit in the previous year: 27 percent. Most recent data: 24 percent, 2011. • Children ages 6 to 9 with dental sealants on one or more permanent molars: 42 percent. Most recent data:

OBJECTIVE 1	OBJECTIVE 2	SELECTED OUTCOME
<ul style="list-style-type: none"> Expand evidence-based, best-practice oral health programs in schools. Provide community-based prevention, outreach, education, and intervention to underserved adults and seniors. Integrate oral health with chronic disease prevention and management. 		<p>38.1 percent, 2012.</p> <ul style="list-style-type: none"> Adults 18 and older with a dental visit in the previous year: 70 percent. Most recent data: 64 percent, 2011. ED utilizations for non-traumatic dental problems: 1.8 percent. Most recent data: 2.0 percent, 2014.

Priority area 3: workforce capacity (pages 20-21 of the strategic plan)

OBJECTIVE 1	OBJECTIVE 2	SELECTED OUTCOME
<p>Oregon has an adequate and equitable distribution of oral health professionals.</p> <ul style="list-style-type: none"> Encourage oral health professionals to work at the top of their license. Train traditional health workers and related professionals to provide basic preventive care and to connect community members with oral health providers. Incentivize providers to work in rural and underserved areas. Support pilot workforce projects made possible by Senate Bill 738. 5. Encourage retired professionals to return to practice as insured volunteers. 	<p>Oregon’s oral health workforce meets the lifelong oral health needs of all Oregonians, including underserved and vulnerable populations.</p> <ul style="list-style-type: none"> Foster a culturally competent oral health workforce. Equip providers with education and technology to enable them to reach underserved patients. Emphasize public health philosophy and practice in dental health professional curricula. Integrate oral health education into the curricula for all health care providers. 	<ul style="list-style-type: none"> Number of expanded practice dental hygienists (EPDHs) practicing in Oregon communities. Source: ODHA membership surveys. Number of dental and dental hygiene students completing a 30-day rural rotation. Source: OHSU records. Proportion of underrepresented minority students admitted to dental and dental hygiene programs. Source: School admission records. Number of oral health care providers who completed cultural competency training as mandated by the Oregon Board of Dentistry. Source: OBD.

Table 4: CCO Oral Health Integration Approaches within a Modified HRSA Framework, 2016

	Access	Risk Assessment	Oral Health Evaluation	Prevention & Education	Communication & Education	Interprofessional Collaborative Practice
AllCare CCO	X					X
Cascade Health Alliance						
Columbia Pacific CCO		X		X		
Eastern Oregon CCO						
FamilyCare, Inc						
Health Share of Oregon						
Intercommunity Health Network CCO	X	X				X
Jackson Care Connect	X					
Pacific Source Community Solutions CCO Central Oregon Region	X	X				X
Pacific Source Community Solutions CCO, Columbia Gorge Region	X					
PrimaryHealth of Josephine County, LLC						
Trillium Community Health Plan						
Umpqua Health Alliance						
Western Oregon Advanced Health, LLC	X	X				X
Willamette Valley Community Health, LLC.						
Yamhill Community Care Organization						

Table 5. Resources for International Oral Health Efforts

No.	Citation	NOTES
1	<p>Glick, M., Monteiro da Silva, O., Seeberger, G. K., Xu, T., Pucca, G., Williams, D. M., Kess, S., Eiselé, J.-L. and Séverin, T. (2012), FDI Vision 2020: shaping the future of oral health. <i>Int Dent J</i>, 62: 278–291. doi:10.1111/idj.12009</p>	<p>The FDI Data Hub is an online database collating oral health data from various international sources including World Health Organization (WHO), Niigata University, Malma University, World Bank and Globocan</p> <ul style="list-style-type: none"> • It will make global oral health data easily accessible in one place to a wide audience including dentists, orthodontists, health professionals, policy makers, media, industry bodies and the general public • It presents maps and tables of available oral health data which can be searched by indicators based on country, geographical region and year. Users can retrieve the oral health data visualized in maps and tables and this information is downloadable • The Data Hub indicates where gaps in data exist and addresses the need to remedy the situation <p>Link to the Data Hub - http://www.fdiworldental.org/data-hub/atlas.aspx</p>
3	<p>Kossioni, A. E. (2012), Is Europe prepared to meet the oral health needs of older people?. <i>Gerodontology</i>, 29: e1230–e1240. doi:10.1111/j.1741-2358.2010.00445.x</p>	<p>Accessed at: http://onlinelibrary.wiley.com/doi/10.1111/j.1741-2358.2010.00445.x/full</p> <ul style="list-style-type: none"> • May be outdated since it's from 2012 • There is a section on 'Models for oral health care in Europe'
4	<p>Yevlahova, D. and Satur, J. (2009), Models for individual oral health promotion and their effectiveness: a systematic review. <i>Australian Dental Journal</i>, 54: 190–197. doi:10.1111/j.1834-7819.2009.01118.x</p>	<p>Accessed at: http://onlinelibrary.wiley.com/doi/10.1111/j.1834-7819.2009.01118.x/full</p> <ul style="list-style-type: none"> • Older article from 2009 • “The aim of this study was to systematically review the literature to identify models for health behaviour change and evaluate evidence for their effectiveness. This work will inform the development of a model for oral health promotion in the clinical encounter” (from the Abstract)
5	<p>Petersen, Poul Erik, Bourgeois, Denis, Bratthall, Douglas, & Ogawa, Hiroshi. (2005). Oral health information systems -</p>	<p>Accessed at: http://www.scielosp.org/scielo.php?pid=S0042-96862005000900014&script=sci_arttext</p>

No.	Citation	NOTES
	<p>towards measuring progress in oral health promotion and disease prevention. Bulletin of the World Health Organization, 83(9), 686-693. https://dx.doi.org/10.1590/S0042-96862005000900014</p>	<p>Standard methodology for the collection of epidemiological data on oral health has been designed by WHO and used by countries worldwide for the surveillance of oral disease and health. Global, regional and national oral health databanks have highlighted the changing patterns of oral disease which primarily reflect changing risk profiles and the implementation of oral health programmes oriented towards disease prevention and health promotion. The WHO Oral Health Country/Area Profile Programme (CAPP) provides data on oral health from countries, as well as programme experiences and ideas targeted to oral health professionals, policy-makers, health planners, researchers and the general public.</p>
6	<p>The Platform for Better Oral Health in Europe (Organization)</p>	<p>Website: http://www.oralhealthplatform.eu/</p> <ul style="list-style-type: none"> • ‘Best Practices in Oral Health Promotion and Prevention from Across Europe’ (http://www.oralhealthplatform.eu/news/oral-health-platform-is-collecting-best-practices/) <ul style="list-style-type: none"> ○ The collection presented by the Platform includes 28 examples of oral health promotion and preventive programs gathered from across Europe, which the Platform sees as possible solutions to Europe’s oral health problems. • The European Oral Health Report Card (http://www.oralhealthplatform.eu/wp-content/uploads/2015/09/European-Oral-Health-Report-Card.pdf)

Table 6. Interviewees for the Environmental Scan
Internal Oregon Health Authority (OHA) Employees

Name	Title
Lynne Saxton	Director
Leslie Clement	Chief of Policy
Jim Rickards	Chief Medical Officer
Bruce Austin	State Dental Director
Karen Wheeler	Director of Integrated Health Programs, Health Systems Division
Rhonda Busek	Provider Services Director, Health Systems Division
Lilian Shirley	Director, Public Health Division
Chris DeMars	Director, Oregon Transformation Center, Health Policy and Analytics Division
Cate Wilcox	Manager, Maternal and Child Health Section, Public Health Division
Amy Umphlett	Grant Coordinator & Public Health Educator, Maternal and Child Health Section
Sarah Kowalski	Dental Pilot Project Manager, Policy Analyst Oral Health Program, Public Health Division
Laurie Johnson	School Oral Health Programs Coordinator, Public Health Division,
David Simnitt	Director, Office of Health Policy, Health Policy and Analytics
Don Ross	Manager, Policy and Planning, Health Systems Division
Leanne Johnson	Director, Office of Equity and Inclusion
Sarah Bartelmann	Metrics Manager, Office of Health Analytics, Health Policy and Analytics Division
Lisa Bui	Quality Improvement Director, Health Policy and Analytics Division
Chris Carrera	Director of Innovation and Implementation/Patient Centered Primary Care Home Program, Transformation Center, Health Policy and Analytics Division
Ellen Pinney	Ombudsperson, Director's Office/External relations Division

Table 6. HMA Interviewees continued

External Stakeholders

Name	Title
Tony Finch	Executive Director, Oregon Health Coalition
Eli Schwarz	Professor & Chair, Department of Community Health, Oregon Health and Science University (OHSU)
Marko Vujicic	Chief Economist & Vice President, Health Policy Institute, American Dental Association
Mike Plunkett	Associate Director for Strategy and Business Development at Permanente Dental Associates and Assistant Professor at OHSU
Sarah Dryfoos	Program Manager, Safety Net Oral Health Initiative, Oregon Primary Care Association
Melissa Freeman	Oregon Community Foundation
Mike Shirtcliff	Director of Strategic Projects, Advantage Dental
Susan Kirchoff	Chief Operating Officer, HealthShare
Sheli Wipf	Cow Creek Tribe Band of Umpqua Indians
Jim Tyack	Private practice dentist, Tyack Dental
Sean Jessup	Director, Medicaid programs, Moda Health
Gary Allen	Dental Director, Advantage Dental
Debra Loy	CEO, Capitol Dental
Ken Yates	Executive Director, Oregon Dental Association
Alyssa Franzen	Dental Director, CareOregon
Christina Peters	Oral Health Project Director, NW Portland Area Indian Health Board
Pam Johnson	Oral Health Project Specialist, NW Portland Area Indian Health Board

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About Health Management Associates

HMA is a consulting firm with deep expertise across all domains of publicly funded health care. Nationally, the HMA team includes over 165 professional health care leaders, managers and analysts with up to 30 years of experience in the health and human services fields, including former state Medicaid and other health care program directors, federal officials, and managed care organization administrators, along with practicing clinicians, behavioral health experts, senior staff with extensive experience in clinical and administrative leadership of hospitals and health systems, and information technology experts.

HMA brings a strong interdisciplinary expertise to both its public and private sector clients across the country, including local, state, and federal governments, private sector providers, health plans, foundations, and major safety net health systems. The firm has extensive experience and expertise in the design, implementation and evaluation of health programs, particularly with respect to delivery system change, managed care, long-term services and supports, and behavioral health care. HMA has decades of unique experience integrating approaches between government bodies that oversee health care for vulnerable populations, health plans that pay for it and providers who deliver it.