

ORAL HEALTH INTEGRATION

A manual from the Colorado Community Health Network

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COLORADO
COMMUNITY**HEALTH**NETWORK
Access for All Colorado

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ABOUT CCHN

The Colorado Community Health Network (CCHN) is the unified voice for Colorado's 19 Community Health Centers (CHCs) and their patients. CHCs provide a health care home for more than 650,000 of their community members – more than one in eight people in Colorado - from 61 of the state's 64 counties. Without CHCs, hundreds of thousands of Colorado's low-income families and individuals would have no regular source of health care. CCHN's mission is to increase access to high quality health care for people in need in Colorado. For more information about CCHN, please visit www.cchn.org.

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EXECUTIVE SUMMARY

This manual provides information about successful methodologies for integration utilized in Colorado Community Health Centers (CHCs), including barriers and solutions, and challenges and successes. Due to the innumerable variables involved in each clinic setting, there is not one prescriptive method of successfully integrating oral health into all aspects of the CHC. The information presented here is intended to offer perspective and insight into options that may not have previously been explored and to provide resources for additional research into oral health integration within a CHC locale.

This manual provides a framework for oral health integration that is largely based on the patient-centered medical home (PCMH) standards for integration of care, due to the proven efficacy of these concepts and methodologies. The PCMH model has been shown to decrease the cost of care, reduce unnecessary visits to the emergency room, improve population health indicators through preventive services, increase access to care, and enhance patient satisfaction.¹⁹

Through the implementation of the Safety Net Medical Home Initiative from 2008 to 2013, a framework for PCMH transformation was developed. It consists of eight change concepts: engaged leadership, developing a quality improvement strategy that reflects the goals of transformation, empaneling patients, fostering continuous and team-based healing relationships, employing evidence-based care, placing the patient at the center of all interactions, enhancing access, and coordinating care.¹⁴ All of these concepts can be applied to the integration of oral health into the medical setting. This manual will attempt to outline the most relevant concepts for Colorado CHCs.

Each portion of this manual has been broken down into a series of six manageable sections entitled *Blueprints for Integrative Transformation Embodiment*, or *BITEs*. Each BITE draws upon existing research and subjective experience to present the most relevant strategies towards oral health integration as they pertain to Colorado CHCs. Each BITE includes an introduction, a definition, state and national examples, recommendations and highlights, in the form of peer pointers, from Colorado CHCs, and a conclusion.

BITE NUMBER ONE—THE ROLE OF LEADERSHIP

The first BITE, and perhaps the most important, emphasizes the role of leadership in practice transformation. Supportive, collaborative, communicative leaders serve as the champions of any major health center change, without which integration does not occur. In this section, “leadership” is typically defined as the Board of Directors, C-suite executives, and clinic managers.¹⁶ These individuals hold the responsibility of incorporating oral health integration principles into the business, operations, management, billing, communications, and clinical sides of the health center. They are

also charged with ensuring that everyone understands both the business case and the staff/patient benefits of oral health integration.¹⁶ Many of the strategies and tactics presented in this section are derived from those listed in the Safety Net Medical Home PCMH Implementation Guide.

BITE NUMBER TWO—TEAM-BASED CARE

Building off of the aforementioned information, the second BITE, subtitled *Team-Based Care*, provides an explanation of the manner in which oral health integration is then enacted by medical professionals. Care team structures are largely dependent on Full Time Equivalent (FTE) availability, established workflow, and patient population needs. Building an effective care team involves not only a balance of these components, but also a structured communication process, defined roles and responsibilities for each member, and appropriate training that supports each members' role within the care team. Furthermore, this BITE provides examples of successful care team structures in Colorado CHCs.

BITE NUMBER THREE—PATIENT CENTEREDNESS

The third BITE, *Patient Centeredness*, outlines strategies for the care team to provide patient-centered care. These methods include empanelment, patient engagement (.e.g., patient advisory councils, patient experience surveys, patients as Board Members), self-management plans, cultural sensitivity training, and communication trainings. Incorporated in this section are examples of how to best utilize each method and examples from the field.

BITE NUMBER FOUR—DATA

There must be data in order to make processes more efficient and effective, from work flow to improved patient health outcomes, continuity of care provided by dedicated care teams, enhanced with patient-centered agendas, and supported by committed leadership. Without a baseline knowledge of the effectiveness of a procedure in the form of measurable statistics, there exists no measure of improvement. The fourth BITE in the series outlines suggested oral health metrics that are most applicable for Colorado CHCs given current research and existing limitations. In support of these measures, this section includes methodologies for collecting appropriate data, suggests actions to be taken in response to data analyses, and explains the importance of providing evidence-based care. In order to effectively collect and analyze data, Health Information Technology (HIT), i.e., Electronic Medical Records (EMRs), is absolutely necessary throughout the process. HIT directs the future of transformative delivery as it is a platform off of which to offer enhanced access, continuity of care through bidirectional provider communication, and patient direction in their own health care.

BITE NUMBER FIVE—TRANSFORMATIVE DELIVERY

A deeper explanation of transformative delivery, taking into consideration the current status of dental policy, is provided in the fifth BITE. This section also covers the topics of increased access and enhanced patient communication.

BITE NUMBER SIX—COMMUNITY RESOURCES AND PARTNERSHIPS

Finally, the sixth BITE delves further into the importance of care coordination, co-location as it pertains to integration, implementation of relevant oral health quality measures, referrals and tracking, school-based health centers, and chronic condition screening. This section also outlines

pertinent and up-to-date guidelines regarding pediatric and maternal oral health and recognizing abuse and neglect. Additionally, community, state and national partnership roles (e.g., the Primary Care Association (PCA), state partners, other oral health organizations) are defined.

While each BITE presents different information, the key concepts of clinic transformation are inherently embedded within each step, requiring one to accomplish another. A readiness assessment has been included in this manual to determine the steps, or BITEs, that have already taken place at your CHC and to provide guidance for establishing the next steps needed in order to achieve successful oral health integration.

BACKGROUND

In 2000, the Surgeon General produced a report entitled *Oral Health in America*, emphasizing the importance of integrating oral health into overall health, rather than recognizing each as separate entities.¹ During this same year, the Colorado Commission on Children's Dental Health investigated the status of childhood oral health throughout the state, prompting the development of several legislative initiatives: the Dental Loan Repayment Program for providers; the recognition of Dental Hygienists as Medicaid providers; inclusion of dental providers working with under-served populations to the State Health Professional Tax Credit Program; development of the Child Health Plus dental benefit (CHP+); and infrastructure grants allowing Safety Net dental providers to increase capacity.³ The state received funding allowing implementation of these initiatives from the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) in 2002.²

Following the convening of several state partners in 2004, the *Smart Mouths, Healthy Bodies: An Action Plan to Improve the Oral Health of Coloradans* was developed, leading to the attainment of several oral health milestones in Colorado. These achievements included incorporation of oral health in the Blue Ribbon Commission on Health Care, establishment of the Cavity Free at Three Program, increased support for in-school oral health programs from the Delta Dental of Colorado Foundation, and development and dissemination of oral health standards for healthy communities. Review of the original oral health plan led to the release of an updated action plan in 2012. (*Please refer to the "Additional Resources" section for access to the plan in its entirety.*)

The impact of oral health disparities on vulnerable and at-risk populations affects individuals of all ages. However, dental caries is the most common chronic disease encountered by children in the United States.⁶ Oral disease has the potential to seriously impact quality of life in the areas of academic performance, speech development, nutrition, self-esteem, and sleep.⁵ Approximately 60 percent of Colorado kindergartners have been affected by tooth decay with greater than 25 percent of those children lacking treatment, despite having coverage through programs such as Medicaid and CHP+.⁵ This can be attributed to a combination of reasons including, but not limited to: underutilized proven preventive public health strategies, limited access to oral health care (particularly for young children and pregnant women), and inadequate education for children and families.⁵ Fortunately, dental caries (along with other oral diseases) have been shown to be easily

preventable through the application of dental sealants and fluoride. Implementation of the Cavity Free at Three program provides a platform off of which dental hygienists are able to provide a combination of basic preventive and educational services for children and parents during medical office visits, decreasing the gap for incongruence in education and access. Further supporting these efforts, Colorado Governor John Hickenlooper designated children's oral health as a high priority Winnable Battle for the state with measurable goals being:

- 1) 75 percent or more of the population served by community water systems receiving optimally fluoridated water;
- 2) increasing to 4.6 the percentage of Colorado infants who get a dental checkup by age 1 year; and
- 3) increasing to 39 the percentage of Colorado third-graders who have dental sealants on permanent molars.⁴

While the state has made great strides in reducing barriers to access, improving education efforts, and implementing effective preventive strategies, there remains improvement to be made in the overall oral health of Colorado's children. Public health strategies in community water fluoridation and school-based sealant programs should be explored and implemented.⁵ Additionally, continued expansion of dental and health care workforces should take place as health care providers consider integrating oral health care into their practice.⁵

PUBLIC HEALTH EFFORTS IN COLORADO

In 2009, the CDC reported 37.1 percent of third grade students having had one or more sealants on their permanent first molar teeth, 57.2 percent with caries experience (either treated or untreated tooth decay), and 24.5 percent with entirely untreated tooth decay.⁷ These statistics shifted when measured again in 2011-2012 to 45 percent, 55 percent, and 14 percent respectively.¹⁰ Implementing school-based sealant programs is a public health approach proven to be effective in enhancing these measures in pediatric oral health, especially in settings where 50 percent or more of families participate in the federal free and reduced-price school meal program (FRL).⁵ Furthermore, these positive changes in data suggest that Colorado has made improvements in the overall oral health of its children.

Many safety-net dental providers, including those at Federally Qualified Health Centers (FQHCs), also known as Community Health Centers (CHCs), and community-funded safety-net clinics, have been integral in the implementation of school-based sealant programs. The public health initiative of placing Dental Hygienists in school settings is an example of co-location as part of oral health integration in CHCs. Yet, despite these efforts, Colorado still lacks appropriate programs in at least 50 percent of high-risk, or eligible, schools.⁹ Furthermore, deleterious oral health (e.g., increased caries prevalence, increased rates for untreated decay, decreased sealant placement rates) is directly associated with lower income settings.

Colorado children who live in low-income families suffer higher rates of caries experience and untreated decay than children who are ineligible, or whose families have a higher income.¹⁰ The national percentage of children between ages 2 and 5 with cavities has increased by 15 percent over the past 10 years, with lower income children enduring the most.¹¹ With approximately 66 percent of the Colorado FQHC patient population living at or below 100 percent of the Federal Poverty Level (FPL),²⁰ dental professionals are faced with the unique opportunity to provide effective preventive services to low-income pediatric patients that may not otherwise receive dental services. Children who undergo caries experience at younger ages are more at risk of suffering from oral disease later in life.¹⁷ Therefore, incorporating a dental hygienist into the primary care setting and into the care team meets the needs of pediatric patients who may be otherwise deprived of appropriate dental services. In conjunction with the new guideline of conducting a risk assessment during the first well child check, preventive education and oral health services have now been targeted towards prenatal patients also, in an effort to reduce injurious bacterial transmission from mother to child.¹² Directing preventive services at families with children between these ages in the form of education, lifestyle changes, and early intervention reduces future demand for dental services and health care system costs.¹¹

The causes of oral disease are varied and manifold, with solutions being no less limited. Three main areas of concentration in addressing these causes are to increase access, provide education for children and families, and employ public health strategies.⁵ The first two areas of focus can be directly addressed by oral health integration through placement of a dental professional on the care team in low-income settings. The third approach involves concerted efforts to increase access to fluoridated water in areas where this is absent. Approximately 25 percent of Coloradans continue to remain without access to fluoridated water.⁷ State-level research suggests that areas lacking appropriate access to optimally fluoridated water have associated increases in Medicaid expenditures.⁸ Because low-income populations are most affected by lack of access to water fluoridation, the need for oral health integration into the medical setting is that much more crucial in addressing disparities in oral health.

ORAL HEALTH INTEGRATION

The American Academy of Pediatric Dentists (AAPD) recommends that every child be part of an established dental home by the age of 12 months.¹³ As oral disease in adulthood largely stems from lack of appropriate and quality services early in life, prenatal, maternal, and childhood oral health are of considerable concern for the state and the nation. The concept of a dental home is similar to that of a patient-centered medical home: it provides a model of care that is patient-oriented, continuous, and comprehensive. According to the AAPD, a dental home should provide a number of services including, but not limited to:

- Accurate risk assessment for dental diseases and conditions
- Individualized preventive dental health programs based on the risk assessment
- Anticipatory guidance about growth and development issues

- Plans for both acute and emergency dental trauma
- Information about the proper care of children's teeth and gingival tissue (prevention, diagnosis, and treatment of disease in these areas)
- Dietary counseling
- Referrals to dental specialists when care cannot be directly provided within the dental home

Additionally, a dental home should provide patients with culturally sensitive oral health care, foster relationship development between the patient/family and provider, and offer support for community prevention measures.¹² However, the terms “dental home” and “oral health integration” are not synonymous. The provision of a dental home is only a portion of oral health integration, for which there exist many approaches in the CHC setting. As outlined by the Substance Abuse and Mental Health Services Administration and the Health Resources and Services Administration, integration usually occurs within the following structure:¹⁵

COORDINATED CARE

- *Level 1: Minimal Collaboration.* Care professionals work in separate facilities, have isolated systems, and rarely communicate about patients.
- *Level 2: Basic Collaboration at a Distance.* Care professionals work in separate facilities, have isolated systems, but communicate more regularly about shared patients.

CO-LOCATED CARE

- *Level 3: Basic Collaboration On-site.* Care professionals have isolated systems, but share facilities to foster increased in-person communication.
- *Level 4: Close Collaboration in a Partly Integrated System.* Health care professionals share the same sites and share aspects of their systems (e.g., scheduling, charting); have regular, in-person meetings between providers and coordinated treatment plans for high risk, complex or chronic care patients; and hold a basic understanding of one another's roles and responsibilities.

INTEGRATED CARE

- *Level 5: Close Collaboration in a Fully Integrated System.* Health care providers share the same sites, vision and systems; all providers collaborate on the same care team and have more than a basic understanding of each other's roles and culture.



- *Level 6: Full Collaboration in a Transformed/Merged Practice.* Fulllest level of integration and involves the greatest amount of practice change; comprehensive collaboration allows for the merging of systems into a single health system that address the needs of the whole person.

The National Network for Oral Health Access (NNOHA) is an extremely important advocate for oral health integration into the medical setting and lists the following as justification for practice transformation in this direction:²¹

- Oral diseases are the most prevalent;
- Oral disease affects overall general health;
- Oral diseases lead to morbidity;
- Preventive care is effective and early detection can lead to the discovery of other adverse health conditions;
- Patient self-management efforts should include oral health, and;
- Dental providers are not currently meeting many of the oral health needs of the patient population.

Oral health integration into the clinic has the potential to increase the effectiveness and efficiency of health center professionals by:

- Reducing the amount of emergency department visits that result in untreated oral disease;
- Decreasing overall health care costs;
- Contributing to enhanced chronic disease management; and
- Overcoming patient-specific barriers to accessing services by reducing anxiety and increasing education around oral health.¹⁸

Through the sharing of information, consistent communication and consultation, and the provision of diagnostic services, health care professionals working in an integrated system will be able to better identify disease precursors and discover existing underlying conditions while adhering to the PCMH model of care.¹⁸





BITE ONE:

THE ROLE OF LEADERSHIP

INTRODUCTION

The need for engaged, responsive, and supportive leadership is a crucial component in the implementation of a new model of care. Integrating oral health into a predominantly medical culture and vice versa can pose unexpected challenges. Obtaining a foundation of unhampered support from a leadership team that firmly believes in the need for oral health integration is the first step in transforming the model of care.

Effecting a systemic change evokes not only a shift of the organization's policies and procedures, but also a shift in culture as the very model of care itself is reformed to incorporate health care professionals and concepts from disciplines that have been historically segregated. Therefore, oral health integration cannot be realized without the promotion of collaborative and cooperative leaders who embed oral health integration principles into the business and operations of the organization through strategic planning, goal setting and developing measures to achieve those goals, data collection, communications, and quality improvement initiatives.¹ Similar to adopting the patient-centered medical home (PCMH) model of care, leadership must develop and convey the business case to clinic staff as well as communicate the value of integrating oral health into the medical setting for both patients and staff in the form of improved experience, health outcomes, for patients, and staff recruitment, retention and satisfaction.¹

“Effecting a systemic change evokes not only a shift of the organization’s policies and procedures, but also a shift in culture as the very model of care itself is reformed to incorporate health care professionals and concepts from disciplines that have been historically segregated.”

LEADERSHIP DEFINED

Community Health Center (CHC) leaders consist of the Board of Directors, C-suite executives, and clinic managers.¹ Perhaps the most influential position behind efforts towards attaining oral health integration is the executive director, or chief executive officer, of the CHC.² This individual ensures that the vision of oral health integration is shared throughout the organization and understood by all staff, helps to identify changes to test, and fosters motivation within the clinic to integrate oral health.¹ Embedding oral health integration values into the operations, work flow, and business aspects of the clinic are crucial in order for practice transformation to take place.¹

In addition to this leader, there must also exist leadership roles throughout varying departments in the clinic. The Dental Director will be the champion of

oral health integration by providing required tools and resources, identifying and addressing barriers, and motivating dental staff.¹ There must also be supporting champions of oral health integration within the medical, administration, operations, and billing departments. Though all staff should understand the value of clinic transformation, there will be one or more individuals responsible for implementing and maintaining oral health integration; all of which must be supportive and consistently engaged throughout the process.

The Safety Net Medical Home Initiative (SNMHI) has determined “engaged leadership” as the most important factor in transformation, based on findings indicating that lack of leadership has a detrimental effect on practice transformation.¹ So what does “engaged leadership” really mean? This can be achieved through several components, all of which must be acted upon by leaders.

- Provision of tangible, continuous leadership to implement culture shift.
- Identification of specific strategies to improve quality and support change.
- Establishment of and participation in a quality improvement team, if one does not already exist, that meets on a regular basis and drives the oral health integration effort.
- Allowance of time commitment within provider schedules dedicated to the effort, beyond direct patient care.
- Incorporation of oral health integration ideals into hiring and training agendas.

THE ROLE OF LEADERSHIP

According to the Institute for Healthcare Improvement (IHI), there are three major components comprising practice transformation: will, ideas, and execution.¹ An important role for leaders is to

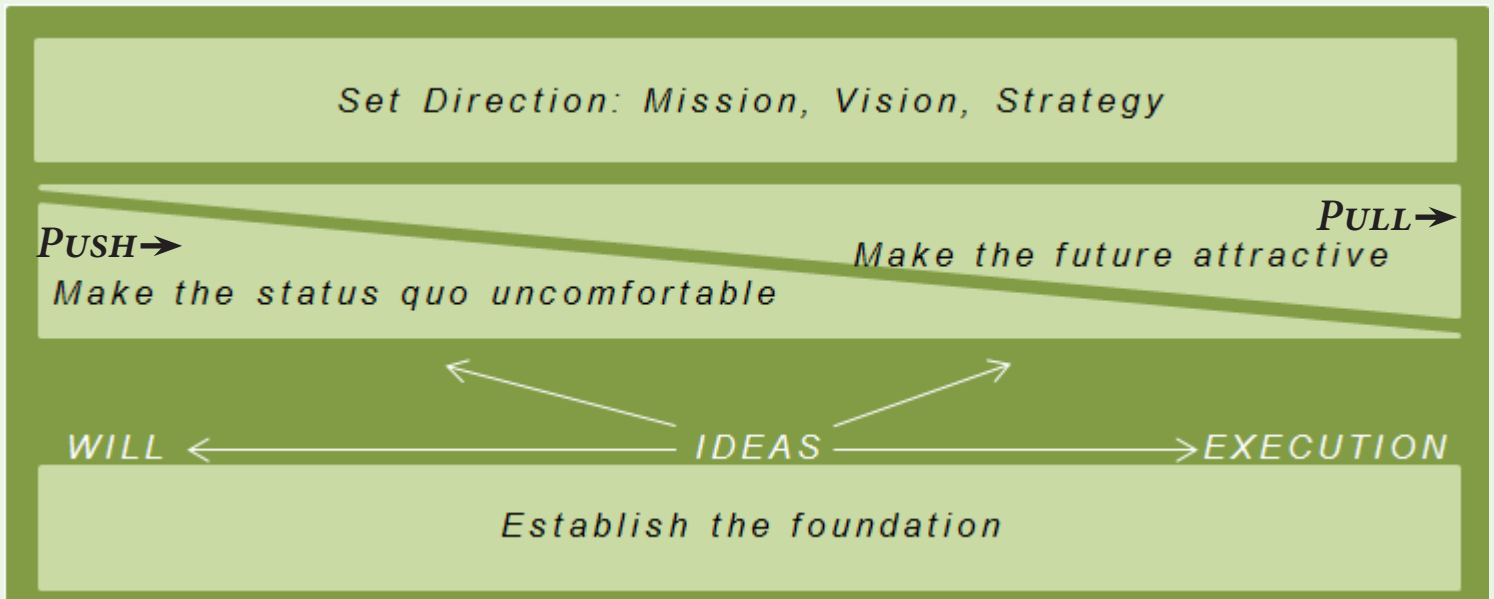
create and maintain the will, or drive, to change. In order to build will, the vision of the organization must incorporate oral health integration as part of the mission and leaders must be at the forefront of this statement. If this has not yet taken place, leaders are responsible for organizing staff meetings to address the vision as well as ensure it is embedded into strategic and business processes.¹ For pertinent questions to consider regarding readiness for leadership in practice transformation, please refer to Stephen Weeg’s *Keeping a Singular Vision*.¹

To maintain the drive for change, leaders must define and communicate roles for each staff member throughout transformation. This includes identifying and guiding oral health integration champions. Champions should be well-respected individuals in the clinic and should be selected across disciplines. Therefore, staff members who are part of medical, dental, and administration should all be considered when identifying oral health integration champions. Because these individuals will be working closely throughout the transformation process and because they originate from different backgrounds, an effective and efficient communication process must be established to foster continuity and understanding.¹ This includes, but is not limited to, establishing regular meetings with champions, incorporating recommendations from all participants, and sharing data and progress with all members as transformation progresses.

The leader(s) is responsible for creating a culture of transparent data collection and sharing, which may require additional resources, such as increased staffing support and investment in different technologies.

A more in-depth explanation of these concepts, created by IHI, is the Seven Leadership Leverage Points guide. This is based on a combination of the Complex Systems Theory, observed leader and health systems performance, collective experience, and ongoing research into management theories

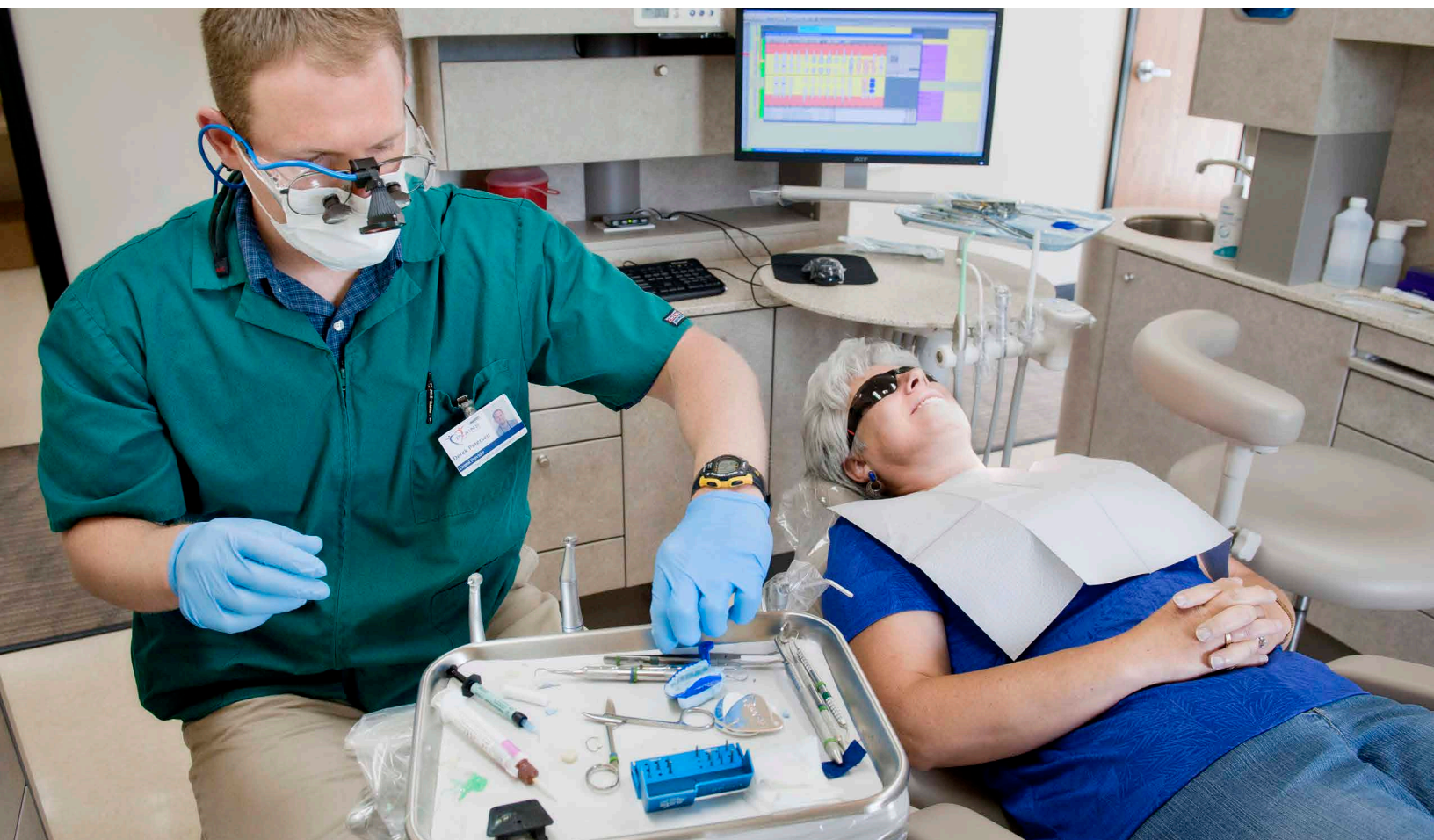
IHI'S FRAMEWORK FOR LEADERSHIP FOR IMPROVEMENT



© Institute for Healthcare Improvement

SOURCE: Reinertsen JL, Bisognano M, Pugh MD. *Seven Leadership Leverage Points for Organization-Level Improvement in Health Care (Second Edition)*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2008. (Available on www.IHI.org)

and methods.³ The Seven Leverage Points outline specific action items for leaders to implement in practice that allow for effective engagement and transformation. Below is an abbreviated definition of each leverage point. Please see the *Additional Resources* section for more information about the Seven Leadership Leverage Points.



IHI'S SEVEN LEADERSHIP LEVERAGE POINTS³

Leverage Point One	Establish and Oversee Specific System-Level Measures and Goals	<ul style="list-style-type: none"> • Establish performance measures and track them regularly. • Develop specific steps towards achieving these measures. • Hold accountability in guiding these steps. • Hold responsibility for communicating these measures and actions required to achieve associated goals to all staff. • Encourage commitment at all levels.
Leverage Point Two	Pave the Way in Integration Efforts	<ul style="list-style-type: none"> • Establish innovative goals towards improved safety and quality. • Develop an executable plan with defined roles and responsibilities of all involved parties. <ul style="list-style-type: none"> • Each portion of integration must have an engaged leader. • All actions must be driven by data that is collected and analyzed regularly.
Leverage Point Three	Dedicate Positive Attention to Clinic Transformation	<ul style="list-style-type: none"> • Personal Leadership <ul style="list-style-type: none"> • Leaders lead by example in prioritizing time to support integration efforts and emanate positivity. • Leadership Systems <ul style="list-style-type: none"> • Performance measures must be important to leaders to foster a successful system. • Performance measures that are prioritized by leadership also tend to be of larger focus to staff. • Transparency <ul style="list-style-type: none"> • Applies to the entire organization; including staff members, patients, and families.
Leverage Point Four	Include Patients and Families on the Improvement Team	<p>Leaders must include not only all staff in practice transformation efforts, but patients and families as well.</p> <ul style="list-style-type: none"> • Gather patient experience and opinion through: <ul style="list-style-type: none"> • Surveys • Patient Advisory Councils • Subjective anecdotal evidence

Leverage Point Five	Make the Chief Financial Officer (CFO) a Quality Champion	The CFO determines the fiscal feasibility of practice transformation, therefore the overall feasibility of system-wide changes. This individual should: <ul style="list-style-type: none"> • Be dedicated to the same vision. • Be involved in Quality Improvement activities. • Have a defined role and responsibility within integration initiatives.
Leverage Point Six	Engage Providers	All staff should be engaged in integration efforts. However, providers who are resistant to these changes can inhibit advancements. <i>(Please refer to the Additional Resources section for IHI's white paper entitled Engaging Physicians in a Shared Quality Agenda for more guidance in this area.)</i>
Leverage Point Seven	Build Improvement Capability	Senior leaders must elect individual leaders for each area of the integration effort to ensure sustainability. Capable leaders are defined by a comprehensive understanding of the following: <ul style="list-style-type: none"> • The Model for Improvement • A coherent improvement strategy • Concepts and practices of high-reliability organizations • Sophisticated practices in flow management • Concepts and practices of scale-up and spread of improvements

SOURCE: Adapted from the Institute for Healthcare Improvement's "Seven Leadership Leverage Points."

[Reinertsen JL, Bisognano M, Pugh MD. Seven Leadership Leverage Points for Organization-Level Improvement in Health Care (Second Edition). IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2008. (Available on www.IHI.org)]

MAKING THE BUSINESS CASE FOR ORAL HEALTH INTEGRATION

Leaders are responsible for creating and disseminating the business case for oral health integration as a system-wide priority. The business case includes answers to the questions of why, what, how, and who. Why integrate oral health services into the clinic? What does oral health integration look like in your clinic? How will the clinic achieve oral health integration? Who will be responsible for each action item and how are the roles defined? Developing an effective business case includes thoroughly assessing the resources necessary to execute an effective integration strategy, including a business

objective, weighing benefits and potential barriers, and presenting the plan for improvement. The National Network for Oral Health Access (NNOHA) states that often used reasons for integrating oral health into the clinic as presented to clinic staff tend to be categorized in one of two different ways: 1) proposed changes achieve improved patient health outcomes and higher quality of care, 2) the clinic is able to provide access to certain patient populations that may not have been able to access dental services otherwise, therefore generating additional forms of revenue and maintain financial sustainability.²

Additionally, payment reform is projected to progress in such a manner that rewards value over volume in terms of care provided and accessibility.¹ Integration of oral health services contributes to existing PCMH efforts by enhancing coordination and continuity of care. The inclusion of all staff members in practice transformation encourages accountability and, therefore, improved staff recruitment, satisfaction and retention in the clinic.¹

Moreover, increasing access to oral health services allows for improved quality of care as well as better cost efficiencies for payers and communities and, therefore, contributes to improved patient satisfaction as well.¹ The impact of oral disease on individuals involves poor general health, pain and discomfort, oral infection, difficulty eating/poor diet, low self-esteem and decreased quality of life.⁴ These issues lead to increased health system costs from high costs of treatment for oral disease, which then contributes to decreased productivity in society, days lost at work and school, and an increased burden on the community.⁴ Therefore, successful integration of oral health services into the health home improves overall health outcomes for patients, increases access, and enhances quality of care.

LEADERSHIP IN QUALITY IMPROVEMENT

In order to foster motivation, implement and measure changes, and disseminate the business case for oral health integration, leaders should be comfortable with data.¹ Oral health performance measures should be incorporated into integration efforts through the use of system-level dashboards. Dashboards should be short and focused, actively utilized for operations management, and developed and implemented by board quality committees.¹ An effective dashboard prompts leaders to inquire as to how their clinical quality compares to others and should use it to track achievements in quality aims.¹ Leaders must develop appropriate measures for quality improvement by considering the impact that oral health integration will have on outcomes. To predict the most pertinent strategic theory, the IHI suggests that leaders ask the following questions:

- What are your key strategic aims for oral health integration?



- How well must we be performing and what is an appropriate time frame to accomplish this?
- What are the system-level measures of those aims?
- What needs to be changed to achieve these goals?
- What is being tracked to know whether these drivers are changing?
- What set of projects, or key change efforts, will move the drivers effectively and accurately to achieve the aims?
- How will we know which projects are being implemented?

Recommended steps for developing whole system measures include:

- Develop core strategies with enough specificity so they can be understood by staff, management, board members, and clinicians.
- Outline the organization's tactics, or implementation plans that are projected to allow the core strategies to occur.
- Determine the strategic aims at the system level to assure that the organization is meeting its own strategic aims.
- Limit the number of system-level measures to twelve or less. Format reports as run charts to demonstrate change over time.
- Include the data-reporting individual in the process to ensure that strategic aims are measurable.
- Continue to reinforce continuity in data display and review of goals in order to reinforce the message of what needs to be accomplished by the organization to integrate care. Use data-sharing formats that are appropriate for different target audiences, e.g., executives vs. front-line staff.

All of these items can be accomplished if regular team meetings are organized. Senior leadership should meet with improvement staff at least every six weeks to promote accountability on both sides.¹ At each meeting, leaders should include a reiteration of the aim statement, review data, focus on evaluating and overcoming barriers, instill confidence in the team and the mission, acknowledge the importance of oral health integration as a priority and challenges associated with the work, assess team confidence, and provide specific and directed feedback.¹ Using these tactics helps to ensure productivity and direction throughout the oral health integration process.

CONCLUSION

There is no one prescriptive method of instituting practice transformation. The information presented here has been collected and compiled in an effort to provide guidance to CHCs who have yet to begin integrating oral health into their practice. Engaged, proactive leadership has been proven to be of utmost importance when initiating and implementing a system change, thus making it the first BITE in this series. Leadership should be able to successfully utilize IHI's Seven Leverage Points to assist in the implementation process only if they have proactively embedded oral health integration into the vision of the practice and have made it a priority for both the clinical and business side of the organization. Furthermore, leaders must instill and maintain confidence in their team members to sustain the drive required to achieve oral health integration.¹ Leaders are responsible for providing the resources necessary, assessing and addressing barriers, as well as implementing practices that allow transformation to occur.¹ Additional tools regarding leadership roles in practice transformation can be found in the *Additional Resources* section at the end of this manual.

PEER POINTERS

MEDIUM-LARGE CHC

- There must be more than one champion, or owner, of the oral health integration vision; all of whom must have solid partnerships.
- The CEO must make oral health integration a priority.
- The dental leaders must have time to be on the executive team, participate in strategic planning, and take time away from the chair.
- Frequent leadership meetings and communication should take place.
- Be sure to get everyone in the same room to provide a thorough explanation of oral health integration as a culture shift.

LARGE CHC

- Make the business case for medical providers. Incorporating hygienists into the medical side of the clinic increase quantity of encounters and improves solvency of workflow.
 - Include billing managers in the oral health integration team.
 - Challenges faced include pushback from the billing department because of the extra workload due to entering procedure codes rather than diagnostic codes. Billing Managers must have flexibility and consistent communication to properly function.
-

ADDITIONAL RESOURCES

Oral Health Colorado. (2012). Colorado Oral Health Plan. <http://www.oralhealthcolorado.org/wp-content/uploads/2012/10/OralHealthPlanWeb.pdf>.

BITE TWO:

TEAM-BASED CARE

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

- Grant Makers in Health

INTRODUCTION

The Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources and Services Administration (HRSA) have designated three ascending levels of integration to be coordinated care, co-located care, and integrated care.³ Coordinated care involves utilizing existing community resources and programs, establishing relationships with dental professionals outside the clinic, and referring patients to those dental professionals. Co-located care is the most prevalent form of oral health integration in Colorado CHCs and will be the topic of focus in this BITE. However, it is important to outline all levels of integration, as it manifests differently across settings, as well as note that most Community Health Centers (CHCs) hold the ultimate goal of being fully integrated. According to the Oral Health Commission Safety Net Workgroup:

“Full Integration...involves dental care providers who offer comprehensive preventive and restorative care who become

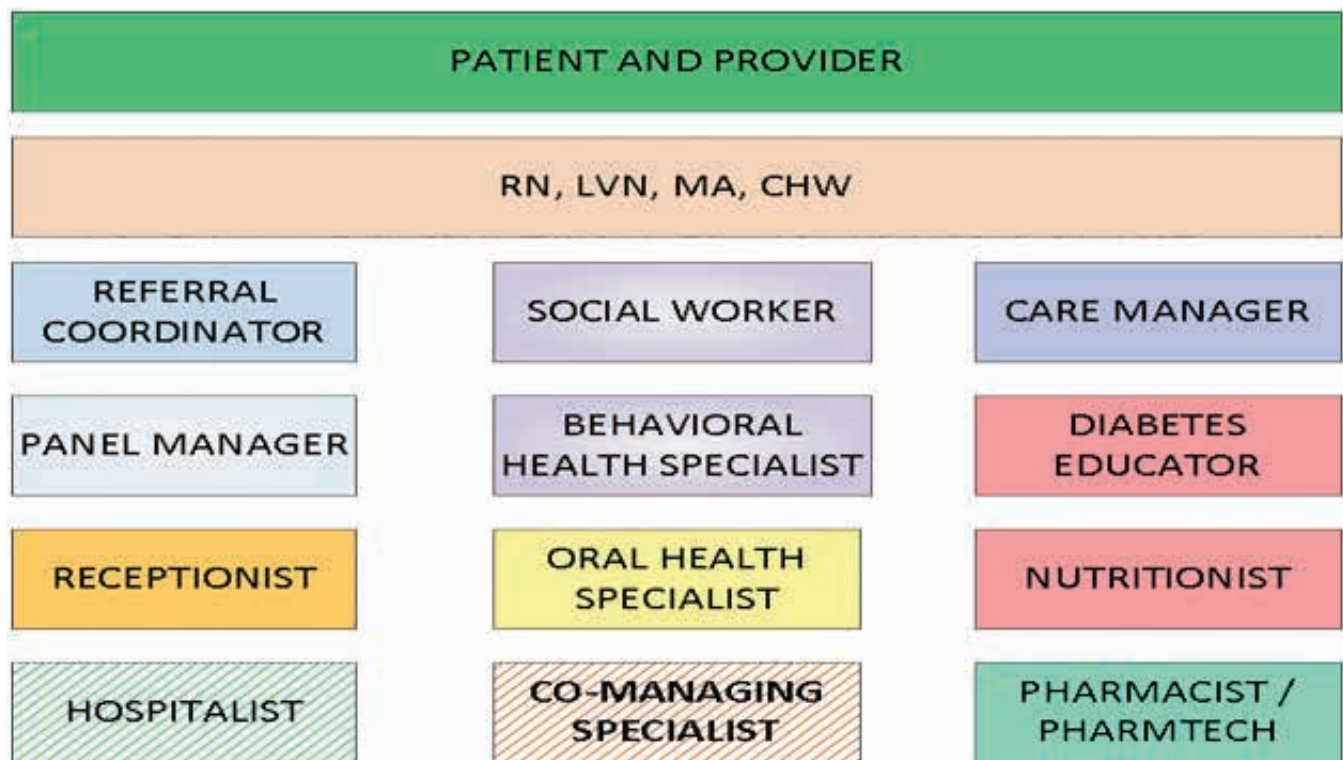
full members of inter-professional group practices that provide a single location for patients to receive comprehensive primary and specialty care. Dental professionals actively contribute to care teams; provide primary dental services to children; deliver specialty-level dental care to children with special or advanced needs; and involve primary care physicians in oral health promotion, screening, and prevention.”²

Care teams are essential to providing continuity of care and are critical in the Patient-Centered Medical Home (PCMH) model. All of Colorado’s Federally Qualified Health Centers (FQHCs), also known as Community Health Centers (CHCs), have made significant practice transformations to provide this type of comprehensive care for patients; therefore, the “care team” is not a novel concept to the CHC community.

However, oral health integration into the clinic poses a new challenge to designing effective, collaborative, and communicative care teams. This is

partly due to the fact that dental and medical providers have historically been segregated in their respective health care practices. Forming a functional care team that accounts for the multidisciplinary nature of combining two fields of medicine is certainly a difficult undertaking.

This section provides suggestions for developing care teams, explores existing Colorado CHC care team structures that include dental professionals, and provides an overview of care team member roles and responsibilities. Members of the care team can include the following:⁵



Courtesy of: Bonni Brownlee

CARE TEAM DEVELOPMENT

The patient should always be at the center of the care team as they will be making the most important decisions about their own care. In addition, there will always be a provider and at least one supporting professional. Regardless of care team composition, designated care team members should always be professionals who can accommodate nearly all of the health needs of their patients.⁴ Without some level of oral health integration, care teams are lacking a crucial component of providing comprehensive care to patients. The model of full integration is an ideal transformation for FQHCs because it would require that all dental professionals be integrated into care teams, including empaneling the same subset of patients, arranging co-management agreements, and having access to a robust, assimilated Electronic Health Record (EHR) system. EHRs can include medical and dental records as a combined entity. However, this is not necessarily the only manner of integrating oral health, nor is it the most practical for many clinics due to cost, staff availability, and barriers in linking Electronic Medical Records (EMR) and Electronic Dental Records (EDR) systems. There are several models of oral health integration that may be more feasible for many of Colorado's CHCs.

One method that has been widely utilized in Colorado CHCs incorporates dental hygienists into the medical setting. This system can be considered either co-location or approaching full integration, and is dependent upon the dental hygienist's involvement in the care team. There exists comprehensive guidance on how to construct care teams in the medical setting, but there is little information on how to successfully implement a fully integrated care team that incorporates a dentist. Therefore, the major focus of this section will be around the development of a generalized care team as well as the integration of a dental hygienist into an existing medical care team, as this is generally the case for the majority of Colorado's CHCs.

However, simply placing a dental hygienist on the care team does not indicate full integration. There must be constant, consistent communication between oral health integration leaders, re-assessment of workflow, and collaboration on oral health initiatives from both the medical and dental perspective.

Alternative methods of integration employed by Colorado CHCs outside of co-location:

School-based services

- Dental hygienist employs the Cavity Free at Three curriculum (conducts caries-risk assessments, applies fluoride varnish and educates children and families on preventive oral health care) in the school setting.

Cross-training medical providers

- Medical providers are proficient in Cavity Free at Three services and are able to recognize basic indicators of oral disease through looking at the mouth.
- Make referrals to dental with all appropriate clinical information.

- Addresses the financial barrier of incorporating a dental hygienist on each care team.

Cross-training dental providers

- Dental providers are trained in recognizing medical conditions that are identifiable via the mouth.
- Dental providers refer to medical with all appropriate clinical information.

If selecting the route of integrating a dental hygienist into the primary care team, there are several care team foundations to establish in order for it to be successful. Before care teams are developed, patient empanelment must occur.⁴ Empanelment is usually a formulaic procedure that takes into account

“Colorado CHC care team structures vary, but those with integrated services have incorporated a dental hygienist who performs basic services and refers patients who need additional care to the co-located dental office.”

the unique needs of the patient population, the available full-time equivalent (FTE) providers, and the expertise of staff members. For example, a dental provider in a clinic with a patient population

prone to chronic conditions, such as diabetes and hypertension, will empanel their patients differently than a dental provider in a family clinic with the majority of patients being pediatric. The first provider will need to consider the amount of time it takes to provide care in one visit with diabetic versus non-diabetic patients, how frequently those patients require oral health care, and the extent of services needed. The second provider will also take these things into account. However, their pediatric patients will require less time for each visit, will likely need more frequent visits than adults, and will receive very different services than adults. In general, established care teams are likely to already have a designated panel of patients based on these criteria, the formulaic method selected by the clinic, and the complexities of the patient population. After the process of empanelment has taken place, care teams should establish regular team meetings, or “huddles.” These meetings are intended to be



an opportunity for care team members to review the patients for the day, identify patient needs, plan care activities, and adjust schedules.⁴ Once solid care teams have been established and regular team meetings are occurring, job descriptions and processes should be revised to reflect the change in workflow. After these changes have taken place, quality assessment and improvement planning must always occur. The Safety Net Medical Home Initiative lists several steps in redesigning care team roles:⁴

- Ensure leadership is committed to reshaping staff roles.
- Support the existing quality improvement team in leading the redesign efforts.
- Address staff concerns.
- Incorporate scope of practice regulations into care team role definitions.
- Foster a culture of open communication and honesty to solve core issues.
- Constantly reevaluate the effectiveness of care team workflow.

- Be open to change.
- Develop a plan for longevity from the beginning.
- Educate patients about care team structure and how it affects them.
- Celebrate successes.

These may seem like generalized concepts, but their application will vary by CHC. Care team members should also be trained in providing patient-centered care that maximizes their scope of work, discussed more extensively in *BITE Three—Patient Centeredness*. The peer pointers on the following page are some examples of care team structures that exist in Colorado CHCs with co-located oral health integration.

Colorado CHC care team structures vary, but those with integrated services have incorporated a dental hygienist who performs basic services and refers patients who need additional care to the co-located dental office. Please see the Additional Resources section for more information on care team implementation.

CONCLUSION

There is not one prescriptive method or equation for a successful care team. However, the concepts outlined in this BITE are intended to assist in selecting the appropriate care team members and have been shown to be effective in pilot demonstrations. Regardless of the determined structure, the CHC should always ensure that care team roles and responsibilities are well-defined, a decision-making leader exists, open communication occurs, conflict resolution has a defined process, and that there are opportunities for member recognition and gratitude.⁶

PEER POINTERS

MEDIUM-LARGE CHC

- Hygienists are incorporated directly into the primary care team, but dentists are not.
- Hygienists are encouraged to sit in the medical pods with their assigned care teams when they are scheduled on the medical side.
- The dental team always closes the loop for the medical care team by communicating directly after visits.

MEDIUM-LARGE CHC

- Dental and Medical are in the process of becoming co-located services with the remodeling of an existing medical facility into a dental clinic.
- Currently, the hygienist conducts school-based educational, screening, and preventive services. The hygienist refers patients that need additional dental attention to the dental office and refers more complex patients to the medical office.

LARGE CHC

- Care team structure does not incorporate a dental professional, but hygienists perform educational and screening services for patients while they are visiting their primary care team.
- Hygienist implements the Cavity Free at Three curriculum, applies fluoride varnish, and completes oral health screening.
- Hygienists do not currently “huddle” with the primary care team, therefore are not fully incorporated.
- Occasionally, the primary care provider will do medical evaluations while the patient is in for a dental visit.
- There exists shared communication via the Electronic Dental Record (EDR) and the Electronic Medical Record (EMR).

ADDITIONAL RESOURCES

Safety Net Medical Home Initiative. Coleman, K., Reid, R. (2013). *Continuous and Team-Based Healing Relationships: Improving Patient Care Through Teams*. In: Phillips KE, Weir V, eds. **Safety Net Medical Home Initiative Implementation Guide Series**. 2nd ed. Seattle, WA: Qualis Health and The McColl Center for Health Care Innovation at the Group Health Research Institute.



BITE THREE:

PATIENT CENTEREDNESS

INTRODUCTION

Patient centeredness is a foundational concept for Colorado's Community Health Centers (CHCs) and is the overarching principle of the Patient-Centered Medical Home (PCMH) model. The majority of Colorado's CHCs currently employ the PCMH model of care. This framework does not exist within one area of the clinic's scope, but rather saturates all forms of interaction with the patient. Patient centeredness manifests itself through the inclusion of patients in the CHC's Board of Directors, in Patient Advisory Councils, and the involvement of patients in the practice's quality assessment and improvement plans. Additionally, care teams provide patients with comprehensive, continuous care while including them in the development of their own self-management or care plans using evidence-based guidelines. All team members should be trained in accordance with their patient population needs, including but not limited to cultural and linguistic competency, motivational interviewing, and self-management support.

When integrating oral health into a CHC, it is important to consider the PCMH model as it contributes to ensuring the highest quality of care for patients. Incorporating dental health professionals into the care team contributes to enhanced patient-centered care because it increases continuity and comprehensiveness. The depth and breadth of patient-centered initiatives will vary by clinic and setting, but the underlying ideal should be present throughout oral health integration efforts.

PROVIDER PANELS

Empanelment is the most integral step in working towards patient-centered care; as other transformational changes, such as care team development, augmented access, and care coordination depend on this.¹ As explained in *BITE Two—Care Teams*, empanelment is usually a formulaic procedure that considers the unique needs of the patient population, the available full-time equivalent (FTE) providers, and the expertise of staff members.

The Safety Net Medical Home Initiative lists two generalized items to consider when empaneling patients:

- “Determine and understand which patients should be empanelled...and which require temporary, supplemental, or additional services.
- Use panel data and registries to proactively contact, educate, and track patients by disease status, risk status, self-management status, community and family need.”¹

In regards to oral health integration, empanelment will vary in form depending on a multitude of factors. Because empanelment is traditionally based on provider, the formation of patient panels relies heavily on the structure of the care team and its scope of work. Please see the *Peer Pointers* section for examples of empanelment with the inclusion of a dental professional on the care team.

As mentioned in *BITE 2—Care Teams*, there is little current evidence of effective care teams that involve both a medical and a dental provider (versus a dental hygienist). Regardless of the construction of a care team, a health care provider must “assure that oral health needs are being addressed by a trained dental professional” in order to ensure comprehensive care.² Therefore, the inclusion of a dental professional on the care team with its own panel of patients is a crucial component of providing comprehensive, coordinated, and fully integrated patient-centered care. Please see the *Additional Resources* section for more tools around empanelment.

PATIENT ENGAGEMENT

INTRODUCTION

In 2011, the Commonwealth Fund conducted a study to determine the effects of patient engagement on an international scale. “Patient engagement” was categorized into three formative factors: communication with the PCP, shared-decision making, and self-management support.⁴ The authors of the study reported three positive outcomes from patient engagement: increased quality of care, fewer errors, and improved perceptions of the health care system.⁴ Building off of the three factors, the Institute of Medicine delves further into the definition of patient engagement by including “patient experience, clinical microsystems, [and] organizational and environmental” components.³

Regardless of the methodology, patient engagement involves the assignment of responsibility and accountability to both the provider and the patient with an implicit agreement to collaborate on efforts to improve health outcomes, enhance satisfaction, and increase efficiency in the clinic. This can be achieved in several ways, depending on the structure of your CHC. Following are recommended topics for consideration to assist in improving patient engagement.

EDUCATION

A 2011 survey of Rhode Island CHCs showed that “the most frequently identified challenge was changing the mindset of patients to think of dental care as integral to their overall health.”¹⁰ Offering integrated services within the primary care setting may well be a novelty for patients and providers alike. Thus, education for both parties regarding the availability and benefit of these services is essential.³ Leaders and champions of oral health integration are responsible for ensuring that their peers understand workflow, operations, and system changes in order to better educate patients about available services and how they can benefit from them, as discussed in more detail in *BITE One—The Role of Leadership*. Following are lessons learned from Colorado CHCs regarding staff education and involvement:

- Emphasize the involvement of billing staff in all oral health integration initiatives as this area of the clinic will be greatly affected logistically.
- Incorporate all staff members in discussions and meetings around oral health integration efforts to ensure informed and empowered participants.
- Approach educational opportunities from both a business and a personal perspective.
- Provide information about integrated services as part of the new patient orientation curriculum.

When staff members are informed of practice changes, they are better equipped to educate patients. Transparency of information leads to open communication amongst staff members and patients. Education for patients is not limited to one isolated area of the clinic. Rather, information is disseminated at all levels and reinforced in different areas of care. It can occur in the form of educational materials, e.g., brochures, patient handbooks, during office visits, etc. The same 2011 survey indicated that “to facilitate self-management of health,



the health centers focus[ed] on patient literacy and having appropriate educational materials. There is cross-pollination with dental education brochures provided for medical clinic waiting rooms, and materials on topics such as diabetes and obesity available in the dental waiting room.”⁹

Offering transparent, integrated educational materials allows for informed, shared decision-making, incorporating the patient into the care team as a valued contributor of their own health care.³ This prompts the patient to set their own health goals, decide which treatments are most feasible for their lifestyle—rather than being delegated a treatment plan—and to present providers with their input. Please refer to the *Additional Resources* section for patient education materials.

SELF-MANAGEMENT SUPPORT

“Patients with chronic illness have been shown to have better adherence and outcomes when they are engaged in their care and have the support of a multidisciplinary team for self-management.”⁴ Self-management, as an element of communication, is an expansion of the shared decision-making component. Full integration includes the utilization

of comprehensive self-management planning and goal-setting that incorporates evidence-based guidelines for oral health, contributing to improved overall health.

Traditionally, self-management planning applies to individuals who live with chronic conditions and would benefit from this type of support. However, the majority of self-management tools available for oral health are geared towards children below the age of five and pre-natal women, because the early years are the most formative regarding development of oral disease in adulthood. The Health Resources and Services Administration (HRSA), through its Oral Health Disparities and the Planned Care Collaborative Model, lists several oral health measures for both pre-natal women and children.⁵

The focus on these sub-populations is largely based upon the fact that “poor periodontal health is associated with chronic conditions such as diabetes, cardiovascular disease and some respiratory diseases,”⁶ as well as the fact that exposure to oral disease and untreated caries in early childhood causes elevated predisposition to chronic diseases in adulthood. “Improving the oral health of pregnant women

Prenatal Women	Children
<i>Core</i>	<i>Core</i>
<ul style="list-style-type: none"> Comprehensive oral exam and treatment plan Dental treatment completed Self-management goals established 	<ul style="list-style-type: none"> Dental exam <ul style="list-style-type: none"> By 12 months 12 - 60 months Treatment plan completed Self-management goals established
<i>Optional</i>	<i>Optional</i>
<ul style="list-style-type: none"> Perinatal referral by medical Dental counseling by medical care team Periodontal treatment completed during pregnancy 	<ul style="list-style-type: none"> Dental Counseling by medical care team Fluoride varnish application Dental home Fluoride needs assessment Fluoride prescribed Child referral from Medical

prevents complications of dental diseases during pregnancy (e.g., abscessed teeth, toothache), and has the potential to subsequently decrease early childhood caries (ECC) in their children.”⁶

A common tool used in Colorado CHCs to inform self-management efforts is the caries-risk assessment. The American Academy of Pediatric Dentistry (AAPD) states that “even though caries-risk data in dentistry still are not sufficient to quantitate the models, the process of determining risk should be a component in the clinical decision-making process.”¹¹ Within the same publication, the AAPD lists the requirements of a risk assessment:

- Focuses on treating the process of the disease rather than the outcome.
- Provides pointed information about disease factors for individual patients and offers preventive education for those individuals.
- Customizes and helps to determine the frequency of preventive and restorative treatment for an individual patient.
- Anticipates changes in the status of caries.¹¹

Understanding the existing evidence-based guidelines, in conjunction with the application of the

Five A’s of Behavior Change, as defined by Glasgow, et al., allows for development and/or effective utilization of self-management planning.

THE FIVE A’S OF BEHAVIOR CHANGE

- 1) Assess beliefs, behavior and knowledge.
- 2) Advise by providing specific Information about health risks and benefits of change.
- 3) Agree to collaboratively set goals based on the patient’s interest and confidence in their ability to change the behavior.
- 4) Assist through Identifying personal barriers, strategies, problem-solving techniques and social/environmental support.
- 5) Arrange and specify plans for follow-up.⁸

In applying these mechanisms to develop a self-management plan, it is also essential to incorporate motivational interviewing and to maintain a high level of cultural competency. Please refer to the *Additional Resources* section for prenatal and children’s oral health self-management templates.

MOTIVATIONAL INTERVIEWING

“Motivational interviewing is a form of collaborative conversation for strengthening a person’s own motivation and commitment to change. It is a person-centered counseling style for addressing the common problem of ambivalence about change by paying particular attention to the language of change. It is designed to strengthen an individual’s motivation for and movement toward a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion.”¹²

Patient engagement through goal-setting cannot be achieved unless providers ask questions, actively listen, and incorporate individuals’ personal needs into the care plan. As a result of motivational interviewing, care team members should have an enhanced understanding of the patient’s lifestyle, behavioral choices, available resources, barriers to self-care, and cultural norms. With this information, more appropriate treatment can be discussed and implemented. An application of this concept is the Fisher-Owens, et al.’s “Conceptualization of Influences on Children’s Oral Health,” focusing on the interplay of microflora, host/teeth, substrate, or diet,⁷ and fluoride exposure.¹¹ Gathering information about the patient’s environment, including community-, family- and individual-level influences, provides a framework for developing an effective and appropriate care plan. Tools for motivational interviewing can be found in the *Additional Resources* section.

CULTURAL COMPETENCE

To provide the highest quality of care to each patient, there must be a significant level of cultural awareness among staff members. According to the US Alliance for Oral Health:

“Disparities exist in health literacy across population groups. The risk of making assumptions about a patient poses significant potential problems. How you speak can be as challenging as what you say. Consider approaches to measure and assess the cultural competence of providers and their ability to promote oral health literacy.”¹³

An organizational definition of cultural competence is “the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services; thereby producing better outcomes.”¹⁴ Patient populations in Colorado CHCs are diverse; staff members are exposed to various cultural differences on a regular basis. In order to provide culturally competent care, the clinic must understand their patient population and be able to stratify the data they collect by vulnerability, language needs, social history, etc. This provides the care team with a baseline assessment of the patient population and better equips them to assess and address barriers to care and improve the quality of care. As part of this process, measuring health literacy is absolutely necessary in order to ensure that the patient understands their health status. An example of a health literacy assessment can be found in the *Additional Resources* section.

“Motivational interviewing is a form of collaborative conversation for strengthening a person’s own motivation and commitment to change. It is a person-centered counseling style for addressing the common problem of ambivalence about change by paying particular attention to the language of change. It is designed to strengthen an individual’s motivation for and movement toward a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion.”



PATIENT ADVISORY COUNCILS AND BOARD COMPOSITION

Perhaps the most effective method of patient engagement is including patients in the Board of Directors (BOD). Of the 19 Key Requirements to which Federally Qualified Health Centers (FQHCs) must adhere, the 18th mandates that each CHC is required to host a BOD in which at least 51 percent is comprised of patients from the clinic. The BOD develops and/or approves appropriate metrics for quality improvement, including health outcomes, patient satisfaction, and clinic operations, among others. The methodologies for selecting appropriate metrics are discussed in *BITE Four—Data*. This is an effective way to not only inform clinic patients of the assessments being conducted, but to incorporate them in the pivotal discussions and decision-making processes that ultimately lead to the advancement of the CHC. This method of patient engagement, in regards to oral health integration, can only be effective if the BOD discussions fully incorporate oral health metrics and objectives. The inclusion of dental initiatives in the overall CHC improvement processes is discussed in *BITE One—The Role of Leadership*.

Another method in which CHCs might bolster the patient voice is through the implementation of a patient advisory council. A patient advisory council is an organized group consisting of elected representatives from the patient population. These individuals convene on a regular basis, with varying frequency, and provide qualitative feedback, recommendations for improvements, and general commentary as facilitated by a member of the clinic staff. Providing the patient with the power to directly initiate change in their CHC ensures accountability and investment. This allows the patient population to take part in the decision-making, operations, and quality assessment and improvement plans for the organization. Doing so creates a platform for patients to voice their opinions in a productive

manner and serves as a qualitative assessment of the clinic operations from an external perspective. Patient advisory council meetings should be held on a regular basis and should have consistent facilitation to foster trust and open communication. In regards to oral health integration, a patient advisory council serves as an additional resource for CHC staff to make decisions about appropriate quality improvement metrics and to gather information about the intended, or unintended, effects of practice transformation on patients. In-depth information about developing a patient advisory council can be found in CCHN's *Patient Engagement Toolkit*.

In addition to incorporating patients into the BOD and/or developing a patient advisory council, an alternative, and equally effective, method by which patient engagement can be achieved is through patient experience surveys. Colorado CHCs primarily utilized the Consumer Assessment of Health Care Providers and Systems (CAHPS) and the Patient Activation Measure (PAM) surveys when conducting data collection in this manner. The purpose of the CAHPS survey is to measure patient experience, rather than satisfaction, on a both a quantitative level—with the use of scales and ranking systems—and a qualitative level—with open-ended, subjective questions.¹⁵ The PAM survey aims to determine the level of health activation for patients.¹⁶ A level one score suggests that the patient is “disengaged” or “overwhelmed” by their healthcare, level two indicates that the patient is still acclimating to their healthcare environment, level three shows that the patient is beginning to take action, and a level four score denotes that the patient is capable of sustaining existing behaviors of improvement.¹⁶

PEER POINTERS

COOPERATION AND COLLABORATION

MEDIUM-LARGE CHC

- Dentists empanel separately from primary care providers (PCP). Panel formations vary depending on the office.
- The CHC is empaneling patients based on needs, i.e., diabetic, pregnant, and pediatric patients.
- A dental hygienist from the clinic performs outreach through the school-based program (which includes screening and fluoride varnish application in the school setting).
 - Potential patients are referred to the dental clinic for further provision of education and services.
- The CHC is remodeling an existing medical facility into a dental clinic to provide co-located services.

Co-Location

LARGE CHC

- Patient panels are calculated based on [medical] PCP.
- Dental hygienists are not currently paired with a care team.
 - Dental hygienists conduct Cavity Free at Three screenings and fluoride varnish application when patients are in-clinic to see their PCP.
- Patients seen by the dental hygienist depend on the pediatric PCP's schedule for the day.

MEDIUM-LARGE CHC

- All patients are empaneled twice; once for medical and once for dental.
 - The panels are calculated based on patient age, average number of visits per year (e.g., younger ages require fewer visits).
 - Though dentists maintain separate panels than PCPs, medical care teams include a dental hygienist that shares the same panel of patients as the PCP.
 - The Dental Hygienists are located in the same area as their assigned care team when they are scheduled to be on the medical side of the clinic, but are expected to remain on the dental side when scheduled to see patients exclusively for dental visits.
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CONCLUSION

Though patient engagement may vary based on clinic structure across Colorado, the concept has already been deeply embedded into CHC operations as patient-centered care has become the standard of care. The tools included in this BITE do not outline the beginning steps towards patient engagement, but rather offer practical strategies and important considerations. Colorado CHCs are already providing advanced levels of patient-centered care through the incorporation of patient engagement strategies. Understanding the individual patient on a micro level allows the care team to provide pointed care and support. Understanding the patient population on a macro level allows the clinic to implement quality improvement plans to achieve the Triple Aim of augmenting the patient experience, improving the health of populations and of reducing health care costs. However, this cannot be accomplished without data—discussed more thoroughly in *BITE Four—Data*.

ADDITIONAL RESOURCES

Truesdell, N. (April 2012) *Patient Engagement: Practical Strategies to Engage Patients in Integrated Health Care*. John Snow, Inc.

Patient Empanelment Tools. <http://www.safetynetmedicalhome.org/change-concepts/empanelment>.

Smiles for Life Curriculum (for non-dental providers). <http://www.smilesforlifeoralhealth.org/buildcontent.aspx?pagekey=62989&lastpagekey=62948&userkey=11766329&sessionkey=2472516&tut=555&customerkey=84&custsitegroupkey=0>.

Children's Self-Management Template. <https://www2.aap.org/oralhealth/docs/GoalSheetEnglish.pdf>.

Patient Education. <http://www.cda.org/public-resources/patient-fact-sheets>.

Motivational Interviewing. <http://www.motivationalinterviewing.org/>.

Motivational Interviewing. http://www.nova.edu/gsc/forms/mi_rationale_techniques.pdf.

Motivational Interviewing Training—Consortium for Older Adult Wellness. <http://coaw.org/home.aspx>.

Health Literacy Assessment. <http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy/index.html>.

Cultural Competence. The Community Tool Box.

CCHN Patient Engagement Toolkit. <http://www.cchn.org/>.



BITE FOUR:

DATA FOR THE PURPOSE OF QUALITY IMPROVEMENT

INTRODUCTION

Data is the driving factor in all process change. Without baseline information gathered through data collection, there is no way to know which processes work, which ones don't, and the direction in which to move toward improvement. Colorado Community Health Centers (CHCs) currently collect and report data for multiple organizations to meet federal requirements. However, the current health care landscape demands much more than just the collection of raw data. It requires in-depth analyses, application to system processes, and measurable improvement in areas where gaps exist. The other facets to practice transformation, or more specifically to oral health integration, do not occur without an established method for collecting, analyzing, reporting, and distributing statistics. Data collection will vary depending on content (e.g., patient satisfaction surveys versus percentage of patients with untreated caries), but it provides tangible supporting evidence in enlisting system-wide transformation support from leadership and staff. Electronic Health Record (EHR) systems can be used to stratify data by different characteristics, thus allowing for robust insight about: the quality of care, barriers to access, vulnerable populations, and the progress of quality improvement objectives.

The following information includes lessons learned at the Colorado CHC level, current metrics, and evidence of the importance of data in clinical quality improvement.

DATA-DRIVEN QUALITY IMPROVEMENT

“Quality can be evaluated based on structure, process, and outcomes where structural quality evaluates health system capacities, process quality assesses interactions between clinicians and patients, and outcomes offer evidence about changes in patients' health status.”¹ Additionally, “the best process measures are those where there is evidence that the process under consideration leads to better outcomes. And the best outcome measures are those where there is evidence that the outcome can be improved by the health care system.”¹ The value of data is more than just its collection—it is found in its aggregation, analyses, and induced actions, or quality improvement.

Rather than focusing on a singular, non-cyclical

“Knowing that we had to rely on data as the driver for improvement, we adopted a metric called ‘Treatment Plan Completion Rate.’ Simply stated, the treatment plan completion rate is a measure of the percentage of patients who have completed their treatment plan, created at either a comprehensive or periodic exam, within six months of its creation.”⁷

actionable item, continuous quality improvement should be emphasized. The Plan Do Study Act (PDSA) Cycle, developed by Dr. W. Edwards Deming, describes the appropriate steps to be taken in effecting continuous quality improvement.¹ First, data must be collected, then analyzed. Based off of these analyses, goals are set, actions are taken towards reaching those goals, and results are reassessed to inform revised goals. The underlying foundation for this process should incorporate the Institute of Medicine's (IOM) six aims of quality improvement:²

- 1) Safe—eliminating unnecessary injuries to patients.
- 2) Effective—providing care informed by scientific, evidence-based guidelines.
- 3) Patient-Centered—providing respectful, responsive care tailored to individual patients' needs and ensuring that the patient's values are incorporated into clinical decisions.
- 4) Timely—reducing wait times to avoid delaying necessary care to patients.
- 5) Efficient—avoiding waste of all kinds.
- 6) Equitable—providing consistent quality of care regardless of patient's characteristics (e.g., gender, socioeconomic status).

Additionally, the Triple Aim of improved patient experience, decreased cost, and improved health outcomes, as defined by the US Department of Health and Human Services (HHS),¹ should always be supported by CHC efforts towards improvement. More information about both the PDSA Cycle and the IOM's *Crossing the Quality Chasm* can be found in the *Additional Resources* section.

In order to implement change for the better, the barriers to achieving the Triple Aim must also be understood. According to the Pacific Center for Special Care, quality improvement in oral health is driven by these four factors:¹

- Growing cost of oral health care.
- Increasing comprehension of the unnecessary inconsistencies within the oral health care system.
- Evidence of the overwhelming health disparities that still exist despite improvements in care.
- Increasing awareness of these discrepancies within the patient population.

Some of these factors can be addressed on an individual level, while solutions to others depend entirely on collaboration across systems. For example, the first factor has been addressed, at least partially, through the addition of the Colorado Adult Dental Benefit under Medicaid coverage and through the pediatric dental option required of most insurance companies by the Affordable Care Act (ACA).⁴ However, results from the Colorado Health Access Survey (CHAS) show that nearly 20 percent of Coloradans still opt out of dental care due to the associated costs.⁴ The solution to this issue resides in the actions of both political figures; to support payment reform, and with dentists and/or CHCs; to decrease the financial barriers to access, e.g., appropriate sliding fee scales. It also requires patient education around oral health and affordable services. In addressing just this first factor, several others are consequentially confronted as they are co-dependent. Understanding the factors for improvement in oral health alone, however, does not provide the comprehensive groundwork necessary to implement change through oral health integration. There must be some level of baseline data from which improvement may be measured and the effectiveness of actions may be determined. This can be accomplished through the establishment of oral health metrics.

DEFINED ORAL HEALTH METRICS

The recognition of oral health as an important indicator of overall health has paved the way for the development and measurement of viable metrics in quality improvement. A significant force in developing objectives around oral health improvement has been part of the Healthy People 2020 goals. This national initiative includes metrics stratified by children and adolescents, adults, access to preventive services, oral health interventions, monitoring and surveillance systems, and the public health infrastructure.⁵ Many initiatives, from state-level to individual, have stemmed from the development of these goals. For example, the Pew Center on the States conducts annual assessments of performance in the following core areas of oral health for every state:⁶

- Sealants and Fluoridation
- Medicaid Improvements
- Innovative Workforce Models
- Data Collection and Reporting

While these are not all necessarily metrics for improved oral health, they are relevant measurements of how well a state is performing within a given area that has been proven to contribute to improved oral health. Each of these four core policy areas can be broken down into several sub-topics as indicators of the effectiveness of a state's oral health policies.

On a national level, all of Colorado's CHCs currently collect data under several requirements and, thus, are able to inform and implement appropriate quality improvement plans within individual clinics. One of the most common forms of data

requirements is the Uniform Data System (UDS) maintained by the Bureau of Primary Health Care (BPHC). While the system requirements include a comprehensive gamut of reporting metrics, it was not until 2015 that BPHC considered incorporating a clinical quality metric for oral health. This metric requires that CHCs report on the percentage of children between the ages of six and nine at elevated caries risk receiving sealants to first molars for the year 2015.⁹ However, for grant applications, CHCs have to choose clinical quality measures, including mental and dental health, to set goals that reflect their patient population for grant applications. As with any practice transformation effort, oral health integration initiatives must be incorporated into the overall quality improvement plan and discussed on the executive level. The scope of these metrics will, however, be determined on an individual level. Following are several examples of oral health metrics set by Colorado CHCs.

EVIDENCE-BASED GUIDELINES

There are evidence-based guidelines for nearly every piece of care; therefore this section will focus only on those geared towards women and children, as that is the patient population most affected by oral health integration in Colorado CHCs. Individuals and populations who face barriers to access in any manner should be a focus of integration efforts

“Individuals and populations who face barriers to access in any manner should be a focus of integration efforts as they are also the most positively affected by these efforts.”

as they are also the most positively affected by these efforts. It is important to address the concerns around providing dental services to pregnant women,

as this is what deters many dental professionals from providing prenatal treatment to patients. Two important points to keep in mind are 1) pregnant women who go without proper dental treatment may seek out medications to accommodate any pain

associated with untreated caries or oral disease, and 2) untreated caries in pregnant mothers increase the risk of caries in their children.¹⁰ It is best to provide preventive services early in the pregnancy in order to stem the amount of acute services needed.¹⁰ Further information about evidence-based guidelines outside of this subpopulation can be found in the *Additional Resources* section.

Evidence-based guidelines allow for dental professionals to provide appropriate, effective care based on scientific evidence. These are ever-evolving, and therefore it is the provider's responsibility to consistently update their practice in order to remain abreast of current key findings. Because evidence-based guidelines exist for nearly every facet of care, this section is dedicated to resources based on the priorities of the Healthy People 2020 goals: oral health in children and adolescents; oral health in adults; access to preventive services; and oral health interventions (other goals include public health infrastructure and monitoring/surveillance systems—information about both can be found in

the *Additional Resources* section). An additional forum for access to evidence-based guidelines is Colorado Community Health Network's (CCHN) Triannual meetings.

Metrics may be as simple as patient visit cycle time, level of access (third next available appointment), no-show rate, and encounter rate by provider. These types of quantitative measures can be used to assess improvement at the clinic. However, what may appear to be improving in the clinic from the provider's perspective may not be the case from the patient's standpoint. Therefore, it is also necessary to incorporate qualitative data collection, such as patient satisfaction surveys.⁸ Due to variation in patient population and current CHC performance levels, oral health quality improvement metrics will certainly vary across clinics. However, the national Healthy People 2020 goals provide a basis off of which to develop appropriate and guided metrics for each CHC. Regardless of the metrics selected, measurement guidelines should include plotting data over time, focusing on those metrics that fulfill

PEER POINTERS

MEDIUM-LARGE CHC

"Knowing that we had to rely on data as the driver for improvement, we adopted a metric called 'Treatment Plan Completion Rate.' Simply stated, the treatment plan completion rate is a measure of the percentage of patients who have completed their treatment plan, created at either a comprehensive or periodic exam, within six months of its creation."⁷

MEDIUM CHC

One of our clinical quality measures has a focus on the number of preventive dental procedures conducted in relation to the total number of dental procedures.

MEDIUM-LARGE CHC

The percentage of patients who have received a caries-risk assessment, the percentage of fluoride varnish applications for high risk patients, and the percentage of sealants placed on high to moderate risk patients are all tracked.

COMMENTARY ON THE USE OF DATA IN A COLORADO CHC

“[The process of quality improvement] brought to light four keys that we can use to drive future successes involving change:

- 1) Data is an essential part of how we improve quality and outcomes. However, having data is not enough; the use of data must be well planned.
- 2) Data and measurement drive behavior. By engaging the entire dental team in the process, the team learned the value of data and is now asking for more and more.
- 3) Using effective quality improvement tools, in this case PDSA cycles, can make the daunting task of identifying how to implement a change process more approachable.
- 4) Focus on fixing the problem rather than playing the blame game. Take the time to understand what is happening, and ultimately, take the time to celebrate successes.”⁷

—An Nguyen, Vice President of Dental Services, Clinica

the aim of the CHC, using the registry to inform each metric, and integrating these metrics into routine processes.⁸

HEALTH INFORMATION TECHNOLOGY (HIT)

The types of instruments utilized in data collection vary based upon the information of interest. A major advancement in data collection is the EHR system, employed by nearly all Colorado CHCs. The National Partnership for Women and Families recommends that “policies and programs ... consider the different preferences, needs, experiences and barriers of diverse people and communities, and should design and build Health Information Technology (HIT) to embrace that diversity...”¹¹ HIT creates convenience on the part of the provid-

er and the patient, enhances care planning, creates an accessible platform off of which to collaborate with other providers and patients, ensures privacy, and fosters trust.¹⁰ In regards to oral health integration, this technology allows for stratification of data to identify populations that would benefit from practice transformation, such as children below the age of five, older adults, patients with diabetes or HIV, and pregnant women.⁴ Utilizing an EHR to understand the patient population is necessary for providing appropriate, patient-centered care and engaging patients.

While Colorado CHC staff is familiar with EHRs, the use of HIT will vary by clinic depending on the level of oral health integration present. This is due to the fact that most Colorado CHCs do not have an interoperable Electronic Dental Records (EDR) system and Electronic Medical Records (EMR) system. The use of diagnostic codes versus treatment codes poses difficulty in continuity and

translatability of data input. This poses a major barrier to collaborative care and, even in clinics whose systems are interoperable, there may exist technical issues and/or obstacles around methods of use. In order for comprehensive integration to occur, the medical and dental provider must have access to “collaborative data entry” in both the EDR and EMR.⁸ Please refer to the Peer Pointers section for examples of EHR interoperability within Colorado CHCs.

CHC-SPECIFIC DATA-DRIVEN QUALITY INITIATIVES

In addition to national metrics and federal requirements, it is important for CHCs to identify quality measures that specifically address their patient population and operational deficits.

In 2014, CCHN initiated a data project to promote an enhanced understanding of utilizing data for quality. CHCs submit quarterly data sets, including clinical, patient experience, and oral health metrics, to CCHN for analysis. Per direction from CHC dental directors, CHCs submit two oral health measures stratified by age group, children and adults. These measures examine the percentage of preventative dental procedures performed at each CHC and the percentage of patients receiving one or more dental procedures at each dental visit. CCHN has defined preventative dental procedures in accordance with Code on Dental Procedures and Nomenclature (CDT) codes D1000-1999, and

per the American Dental Association. To assure comparative validity, data collected is based upon a one-year measurement period.

These data sets are further analyzed utilizing a calculation for the statewide mean, and then plotted against current data for each CHC, thereby allowing CHCs to compare their own data against other CHCs within the state and against the statewide mean. When further data points are collected, a statewide trend report is generated, in addition to a site-specific trend report. These reports are shared with leadership and also staff in order to generate discussions on areas for improvement. While it is pertinent to collect data, it is even more important to use the data to drive quality improvement. The dissemination of these data reports amongst CHC staff members facilitates conversations for on-going and sustainable quality improvement. Specifically, CCHN has invited high-performing CHCs to share their strategy in performing preventive dental procedures for adult dental patients. These reports have also prompted CHCs to examine and evaluate their systems closely to ensure that both the coding and EHR document patient care appropriately.

Though many barriers remain in creating a fully interoperable platform for health information, there must remain a concerted effort on the part of Colorado CHCs to move in the direction of technological collaboration. Sharing electronic health information is a critical component to collaborative care and is supported through multiple federal policies and initiatives, such as Meaningful Use and the State Innovation Model Grant released by the Centers for Medicaid and Medicare Services (CMS).



CONCLUSION

The Health Resources and Services Administration (HRSA), through their *Integration of Oral Health and Primary Care Practice* manual, make the following recommendations regarding HIT:

“Develop infrastructure that is *interoperable*, accessible across clinical settings, and enhances adoption of the oral health core clinical competencies. The defined, essential elements of the oral health core clinical competencies should be used to inform decision-making and measure health outcomes. Health care systems should:

- Establish technological infrastructure to support and facilitate referrals, knowledge exchange, and a follow-up with clinicians to improve health outcomes.
- Identify and support executive level champions to enhance communications and prioritize incorporation of the oral health core clinical competencies into primary care practice.
- Engage and educate consumers about oral health in primary care as an expected standard of interprofessional practice.
- Evaluate effectiveness of the application of the oral health core clinical competencies by assessing patient satisfaction and health outcomes.
- Use common language, interoperable electronic health records, and interprofessional collaboration in patient-centered medical and health homes to facilitate high quality accessible oral health care.”⁸

To implement and sustain complete integration, every component of data—collection, analyses, metrics, measures, tools, EHR systems, etc.—should be incorporated into staff and patient education. Leadership must be willing to incorporate oral health metrics and data conversations into both executive and all-staff meetings, as well as report results both internally and externally. As discussed in *BITE One—The Role of Leadership* and *BITE Three—Patient Centeredness*, both the staff and patients must be included in the data discussion because it fosters accountability for results and creates transparency and trust. Success in oral health integration is greatly supported by an interoperable system and can be largely inhibited by its absence. Thus, moving towards comprehensive electronic collaboration allows for greater ability to coordinate care effectively and continuously across multiple settings.



EVIDENCE-BASED GUIDELINES RESOURCES

PREGNANT WOMEN AND EARLY CHILDHOOD DENTAL PROFESSIONALS

California Dental Association Foundation. (February 2010) *Oral Health During Pregnancy and Early Childhood—Evidence-Based Guidelines for Health Professionals. Perinatal Oral Health Practice Guidelines.*

Cavity Free at Three. (2015) <http://www.cavityfreeatthree.org/>. **Colorado Department of Public Health and Environment.**

Infant Oral Care Guidelines. http://www.cavityfreeatthree.org/sites/default/files/infant_oral_care_guidelines.pdf.

TOOLS: RISK ASSESSMENTS

Pediatric Oral Health Screening. http://www.cavityfreeatthree.org/sites/default/files/risk_assessment_form_dental.pdf.

Caries Risk Assessment Appropriate for the Age 1 Visit. http://www.cavityfreeatthree.org/sites/default/files/caries_management_by_risk_assessment_cambra_age_1_visit.pdf.

PRIMARY CARE PROVIDERS

Infant Oral Care Guidelines for Primary Care Medical Providers. http://www.cavityfreeatthree.org/sites/default/files/infant_oral_care_guidelines_-_medical.pdf.

Fluoride Varnish Use in Primary Care: What Do Providers Think? <http://www.cavityfreeatthree.org/sites/default/files/fluorideuseinprimarycare.pdf>.

TOOLS: RISK ASSESSMENTS

Pediatric Oral Health Screening (Medical Office). http://www.cavityfreeatthree.org/sites/default/files/risk_assessment_form_medical.pdf.

Colorado Children's Healthcare Access Program Best Practice Implementation Guide. http://www.cavityfreeatthree.org/sites/default/files/cchap_best_practices_implementation_guide.pdf.

TOOLS: SELF-MANAGEMENT

Self-Management Goals. http://www.cavityfreeatthree.org/sites/default/files/cchap_best_practices_implementation_guide.pdf.

KEY FINDINGS IN CHILDREN'S ORAL HEALTH

Calanan, R., Juhl, A., and Mauritsen, K. (October 2012). *The Basic Screening Survey: Children's Oral Health Screening Colorado, 2011-2012.* **Colorado Department of Public Health and Environment.**

ADULTS

ADA Center for Evidence-Based Dentistry. (November 2013) *ADA Clinical Practice Guidelines Handbook.* **The American Dental Association.**

The Health Resources and Services Administration's Health Disparities Collaboratives. (2012) *Oral Health Disparities Collaborative Implementation Manual.*

PEER POINTERS

MEDIUM-LARGE CHC

Current systems used are QSI (EDR) and Next Gen (EMR), but these are not interoperable. To accommodate this, the Dental Tool Care Planner template has been built into the EDR, allowing dentists to pull information about high risk and complex patients from the EMR. Though the systems are not collaborative, dental and medical providers have nonexclusive access to both the EDR and the EMR. The CHC is in the process of incorporating dental alerts into the EMR reminding providers to refer appropriate patients to dental. A major barrier faced is the current billing strategy.

MEDIUM CHC

Current systems used are VisDental (EDR) and GE Centricity (EMR), both are interoperable. Clinical summaries can be edited by both the medical and dental provider through the progress note, and the dental hygienist has access to relevant health information on a more frequent basis (e.g., blood pressure, barriers to medication adherence). Co-management agreements are included in both records. A major barrier faced is lack of education around Medicaid caps and ensuring that the billing department understands how to code the encounter of the hygienist in the primary care team.

SMALL CHC

Current systems used are MediaDent (EDR) and SuccessEHS (EMR), which are interoperable, but do not function well due to technological issues with information transfer between systems. Quicker updates occur when information transfers originate in the SuccessEHS system, but not reciprocally. This poses a major barrier because, oftentimes, providers must chart in two places, rather than one, and information gets lost in transfer.

ADDITIONAL RESOURCES

IHI PDSA Worksheet. <http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx>

Crossing the Quality Chasm. Institute of Medicine. (2011) *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: The National Academies Press.

Healthy People 2020. Oral Health. <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health/objectives>. Accessed on 2/27/15.

Oral Health Integration Manual. The Health Resources and Services Administration's Health Disparities Collaboratives. (2012) *Oral Health Disparities Collaborative Implementation Manual*.



BITE FIVE:

TRANSFORMATIVE ACCESS

INTRODUCTION

Oral health integration in Colorado Community Health Centers (CHCs) facilitates practice transformation, greatly contributing to the fulfillment of the Triple Aim by:

- 1) Enhancing patient experience through involving patients throughout the practice transformation process.
- 2) Improving the health of populations by increasing physical access to oral health services in a primary care setting.
- 3) Reducing health care costs by providing preventive and educational services and emphasizing that oral health to be indicative of overall health.

Outlined in this BITE are several integral components to consider when providing transformative care. However, it is important to note that these mechanisms alone do not support oral health integration and are not the sole pieces of transformative care as it also greatly relies upon the interconnected pieces of engaged leadership, patient centeredness, care teams, data, and community partnerships. Regardless, the following points are the most pertinent to delivery of transformative care in reference to oral health integration.

“In working towards integration, it is absolutely crucial to address social determinants of health in the patient population.”

ACCESS AND SOCIAL DETERMINANTS OF HEALTH

The US Department of Health and Human Services (HHS) states that “access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone.”¹ Increased access to care has been deemed a Healthy People 2020 goal, underneath which it is broken into three components:

- “Gaining entry into the health care system
- Accessing a health care location where needed services are provided
- Finding a health care provider with whom the patient can communicate and trust”¹

This level of access can be determined using “structural measures of the presence or absence of specific resources that facilitate health care, such as having health insurance or a usual source of care, ... assessments by patients of how easily they can gain access to health care” and, “utilization measures of the ultimate outcome of good access to care (i.e., the successful receipt of needed services).”² “Access” is an all-encompassing term regarding the breakdown of barriers to care. According to the Office of Disease Prevention and Health Promotion, the factors that contribute to barriers in access, or the social determinants of health, are defined by:

- “Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to health care services
- Quality of education and job training
- Availability of community-based resources in support of community living and opportunities for recreational and leisure-time activities
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community)
- Socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it)
- Residential segregation
- Language/Literacy
- Access to mass media and emerging technologies (e.g., cell phones, the Internet, and social media)
- Culture”³

Furthermore, determinants of health can be defined by physical barriers:

- “Natural environment, such as green space (e.g., trees and grass) or weather (e.g., climate change)
- Built environment, such as buildings, sidewalks, bike lanes, and roads
- Worksites, schools, and recreational settings
- Housing and community design
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements (e.g., good lighting, trees, and benches)”³

Colorado’s CHCs are already familiar with the importance of enhancing access to quality care for their patient population. In working towards integration, it is absolutely crucial to address social determinants of health in the patient population. With respect to oral health integration, a topic of great interest is oral health literacy. In the past decade, the concept of health literacy, its measurement, and its effect on access has become a significant topic of research and attention.⁴ Studies have shown that “the prevalence of limited health literacy and the relationship of limited health literacy with patients’ knowledge, health behaviors, health outcomes, and medical cost”⁴ “In addition, endemic low levels of oral health literacy among the public and many in the health care professions may limit their ability to understand the importance of good oral health to overall health status. ...Low oral health literacy creates additional obstacles to recognizing risk for oral diseases as well as seeking and receiving needed oral health care.”⁴

An effective health literacy survey should not only assess the patient’s understanding of commonly used medical and/or health terms, but also reveal potential linguistic barriers and cultural beliefs. Understanding the patient ensures the provider may provide appropriate services and addresses barriers on an individualized plane, further contributing to enhanced trust on the part of the patient. Assessing a patient’s health literacy opens the door to understanding additional barriers to care. If a provider is able to discern that a patient’s linguistic needs are not being met, they may seek methods of addressing these needs. This is particularly important in oral health integration as the concept of integrated care can be novel to many patients, and providing education in a linguistically and culturally appropriate manner increases patient satisfaction as well

as garners support for practice transformation. Please see the *Additional Resources* section for health literacy assessment tools.

Along with accessing a clinic where necessary services are available and selecting a provider with which the patient is comfortable communicating, the patient's ability to gain access to the health care system is a crucial measurement of access. Gaining access to the health system includes physical access to the clinic as well as to health insurance, or financially feasible services. Many of Colorado's CHCs are already providing increased access to the clinic via extended office hours, either over the weekend or outside of regular business hours, and through same day appointments. Methodologies for developing same day appointment schedules can be found in the *Additional Resources* section.

Dependent upon the level of oral health integration, various barriers to care are intrinsically addressed. On a collaborative level, open communication between private practice dentists and primary care providers allows for pertinent clinical information to be shared, thus reducing known linguistic, cultural, and conditional barriers to care through increased awareness. This includes incorporating both primary care and dental providers in huddles where appropriate, contributing to shared decision-making processes, and exchange of clinical information for shared patients. "Co-location of medical, dental and other services at the same site allows staff from any Health Center department to both bring a client directly to [the] dental department to make an appointment, and also allows medical providers to ask dentists for quick consults."⁵ Co-located services address nearly all of the aforementioned barriers to care, but still lack some level of continuity of care due to system differences, and thus may pose difficulty in maintaining patient-provider trust as communication between medical and dental providers could be lacking. Full integration, when effective, addresses nearly all barriers to care. Additional information

about levels of integration can be found in *BITE Two—Care Teams*.

PATIENT COMMUNICATION

Open, transparent communication from provider to patient and vice versa has already been established as an important factor in patient engagement. It is also necessary to increase access. Finding a provider with whom the patient can communicate and trust has been deemed a necessary step in the Healthy People 2020 goal of augmenting access to health care. Various methods of patient communication and engagement have been discussed in previous BITEs, e.g., patient advisory councils, board of directors involvement, quantitative patient experience data via patient experience survey tool. In order to increase forms of access alternative to direct physical contact, providers should offer patients the opportunity to have access to clinical advice both when the office is open and closed. This can be accomplished through two methods: telephone and electronic access. The first may serve as a triage service to patients, and is absolutely necessary to ensure that patients are not unnecessarily self-admitting to emergency or urgent care services based on inaccessibility of the primary care clinic, thus decreasing overall health care costs. The second method can be achieved via a patient portal. This is a platform off of which to promote patient engagement and communication electronically, while allowing the patient the ability to retrieve their health information, transmit it to a third party, review up-to-date clinical summaries, send secure messages to providers and/or the clinic, refill prescriptions, schedule appointments, and review test results.⁶

There are several Colorado CHCs who have implemented the use of a patient portal. Currently, the most challenging aspect of utilizing this type of technology is promoting patient participation,

as many individuals are either not familiar with the necessary technology and/or the internet, or simply do not have access to either. This is particularly the case in rural areas where the culture of communication is largely influenced by geographic location. Furthermore, patient portals can be costly and time consuming to implement. With this being said, there are several barriers to access that can be addressed through the employment of an electronic patient portal, e.g., transportation issues and communication barriers. Utilizing a patient portal in regards to oral health integration would afford the patient access to a comprehensive clinical summary in which information about their oral health status, testing and/or imaging results, and updates on self-management goals would be included. This ensures consistency of communication, transparency of information, and re-emphasizes accountability on both the part of the patient and of the provider.

Another component of communication is patient follow-up. This can occur in the form of a phone

call, mailed letter, or secure email through the patient portal, after relevant visits for patients who are vulnerable, complex, or high risk and/or have chronic conditions or multiple co-morbidities. For example, patients requiring appropriate follow-up after a relevant oral health care visit might include perinatal women who attend a dental appointment before birth, are at higher caries-risk, and give birth before their next appointment. In this situation, follow-up should remind the patient to either return for a post-natal appointment with their child to ensure proper preventive measures are being taken and to assess the caries-risk for the infant. Another example of providing appropriate follow-up actions is to query the EHR for patients who have either not recently been seen by the provider or have missed important appointments, and calling, mailing letters, or sending messages through a secure electronic portal (patient portal) to remind the patient of overdue care.⁶ This should occur in a standardized manner with roles and responsibilities outlined for designated clinic staff to ensure consistency.



“Federal recognition of oral health as an important indicator of overall health has been achieved via the implementation of the Affordable Care Act (ACA), which incorporates pediatric dental services as a requirement under health plan coverage, further building off of the advancements achieved by Medicaid and the Children’s Health Insurance Program (CHIP) in Colorado.”

POLICY

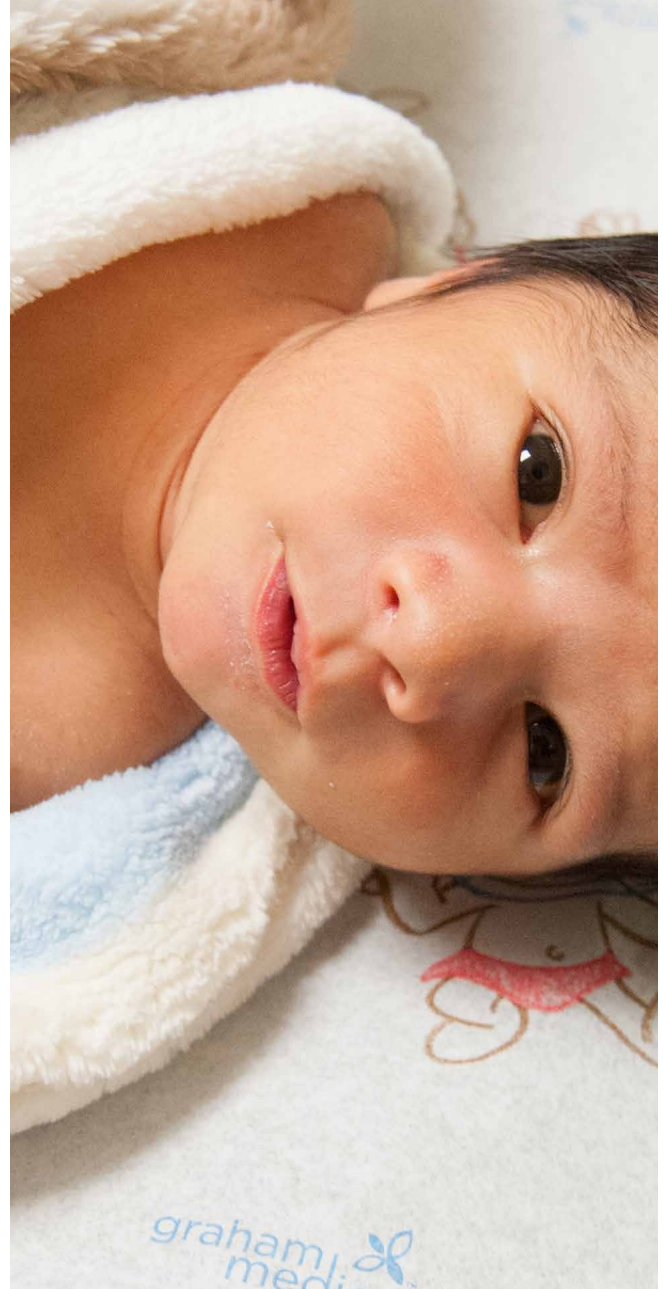
Transformative care is realized on multiple levels of governance: federal, state, regional, and individual. Federal recognition of oral health as an important indicator of overall health has been achieved via the implementation of the Affordable Care Act (ACA), which incorporates pediatric dental services as a requirement under health plan coverage, further building off of the advancements achieved by Medicaid and the Children’s Health Insurance Program (CHIP) in Colorado.⁷ While this requirement addressed the oral health care needs of pediatric patients, adults were still not receiving the support needed to access dental care. This issue, however, was recently resolved—at least in part—by the Colorado Adult Dental Benefit, implemented in 2014. While clinic staff are experiencing various issues with the enactment of these policies (e.g., appropriate billing codes, encounter rates, classification of services), it is imperative to recognize that these federal policies have shifted oral health to the forefront of overall health on a national level, and have paved the way for systematic integration efforts. Colorado CHC dental providers hold the responsibility of educating their patients on the nuances of these policies, including benefits, restrictions, and defining roles and responsibilities of both the clinic staff and the patient in adhering to these nuances. One important fact to keep in mind is that even those adults who are ineligible for Medicaid based on income, but can feasibly afford coverage, are still much less likely to obtain dental insurance than they are to have medical insurance.⁷ Once again, patient education around the importance of oral health care to overall health must be emphasized throughout oral health integration.

The development of required dental services for pediatric patients through Medicaid and CHIP have been driven by “[increasing] payment rates to dentists, contracting with specialized dental benefit administrators, providing targeted outreach to families, and focusing on better integration of medical and dental care.”⁷ Those children in families with income too high to qualify for Medicaid, but who cannot afford private insurance, are eligible for CHIP, which currently requires coverage of dental services. In providing oral health care to pediatric patients, particularly to those enrolled in CHIP, Colorado CHCs that integrate oral health into the clinic are poised to offer similar adaptive services to these patients, such as sliding fee scale services. In one Colorado CHC (medium-large) access to oral health care services is greatly facilitated by a dental hygienist who provides school-based preventive, educational, and screening services to children who may not otherwise interact with the dental clinic. The dental hygienist then refers high-risk patients to the clinic for acute care. This level of integration will become an important model for reaching children in need of oral health services, but may not have the financial means to purchase coverage, i.e., those who will become unenrolled in CHIP. Though the majority of Americans are required to attain dental coverage for their children through the Children’s Dental Benefit under the ACA, the HHS has yet to clarify the details around this policy.⁸

These programs and policies pose both challenges and innovations for oral health integration efforts. Regardless, the significance of oral health has risen to the attention of the nation, which provides the basis for state- and individual-level changes to take place.

CONCLUSION

Transformative delivery encompasses not only access, patient communication, and policy, but all components discussed in the BITEs of this manual. Complete collaboration on the part of leadership, medical peers, dental peers, and clinic staff must always occur to fulfill the goals of the Triple Aim and to achieve true oral health integration. Providing access to care enables all of the other pieces to fall into place and, yet, cannot be accomplished without also simultaneously incorporating other aspects of practice transformation.



ADDITIONAL RESOURCES

Health Literacy Assessment. <http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy/index.html#short>.

Same Day Appointments. <http://www.aafp.org/fpm/2000/0900/p45.html>.

ACA. Snyder, A., Kanchinadam, K., Hess, C., and Dolan, R. (2014) *Improving Integration of Dental Health Benefits in Health Insurance Marketplaces*. Washington, D.C.: National Academy for State Health Policy.

BITE SIX:

COMMUNITY RESOURCES AND PARTNERSHIPS

INTRODUCTION

While practice transformation and, more specifically, oral health integration, will vary in progression from setting to setting, it does not have to be an independent undertaking. In fact, through its development, there should be a large emphasis on identifying viable community resources and opportunities for partnerships. These relationships can be found in many places and built in multiple manners, all of which should contribute to coordinated, comprehensive patient care. There are multiple opportunities for developing relationships with specialists, hospitals, emergency departments, behavioral/mental health services, and state and national organizations in order to enhance care coordination.

CARE COORDINATION

This topic has been touched upon in previous BITEs, as it depends on consistent and open communication between providers and care team members. In terms of co-located services, it has been determined that “...consistently closing the loop with the medical provider...increase[s] communication and coordination of care. This communication could take the form of a written provider update form detailing the procedures performed, additional treatment needed, date of the next appointment, and contact information of the provider.”¹ Though the BITEs have approached

each topic through the lens of co-located care, care coordination is much more robust than simply the communication of co-located providers and care teams. It involves collaboration between not only dental and medical providers, care team members and patients, but also communication between specialists, hospitals, and private providers. Care coordination is best facilitated by designated care coordinators (e.g., patient navigators, community health workers, dental or medical assistants, front desk staff) and should be supported by the primary care team. CHC staff members charged with this particular role are responsible for referring patients to resources outside of the CHC, tracking these referrals, and ensuring follow-up.² Providers who refer patients to external specialists are responsible for confirming that they receive the results in a timely manner and communicating those results to the patient. In order to do so, the primary care team must establish trusting relationships with any external person or entity through which the patient is receiving care or services affecting health outcomes. Care coordination with or without co-location requires that the primary care team and/or primary dental provider establish agreements between specialists, hospitals, emergency departments, and other entities to ensure exchange of pertinent clinical information and co-management of patients that require self-management support. Without these types of agreements, whether formal or informal, incongruities in care are bound to occur, possibly with severe detriment to the patient.

Community resources that may be part of the care coordination loop are those that provide education-

al, preventive behavioral/mental health services, among others. For example, a patient who lives in a community that does not have access to healthy food and easy access to transportation may not be able to adhere to the self-management health goals of eating healthier by consuming more vegetables, thus their overall health may decline. In a practice where there are systems in place for care coordination, a patient divulges their barrier in accessing healthy food to the provider and a referral is made to the team's care coordinator who refers the patient to a food share program. It is important for the care coordinator to follow-up with the patient after a defined period of time, in order to reassess the applicability of this resource to the patient population. Regardless of the method by which follow-up is conducted with patients post-referral, there should exist a standard operating procedure that is understood by all clinic staff. The process should also be facilitated by the clinic's Electronic Health Records (EHR) system through alerts and reminders.

Other aspects of care coordination specifically regarding oral health are screening and referral opportunities for both dental and medical providers. "The mouth may show signs of nutritional deficiencies and serve as an early warning system for diseases such as HIV infection and other immune system problems. The mouth can also show signs of general infection and stress."³ Dental providers can screen for diabetes, STDs, and HIV while medical providers can screen for oral disease and caries. Dental providers should also employ the Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.) program to identify potential abuse or neglect cases in patients. Should any concerns arise on either part, a referral can then be made, the reason for the referral communicated, and per-

tinent clinical information shared between providers. This type of collaborative screening is the basis from which the Cavity Free at Three program was developed. Through this program, medical providers are trained to assess caries risk in pediatric patients, apply fluoride varnish, and provide educational and preventive services to parents.⁴ With these basic services, medical providers can contribute to the goal of decreasing the amount of early childhood caries (ECC) through treatment (using fluoride varnish) and education. Any notable oral disease or presence of caries triggers the medical provider

to refer the patient to a dental provider. Please see the *Additional Resources* section for resources on screening for diabetes, STDs, HIV, and educational materials.

"Seeking, developing and maintaining relationships with external partners, on local, state, and national levels, allows for access to important resources when considering, initiating, and/or implementing oral health integration."

to refer the patient to a dental provider. Please see the *Additional Resources* section for resources on screening for diabetes, STDs, HIV, and educational materials.

EXTERNAL PARTNERS

Seeking, developing and maintaining relationships with external partners, on local, state, and national levels, allows for access to important resources when considering, initiating, and/or implementing oral health integration.

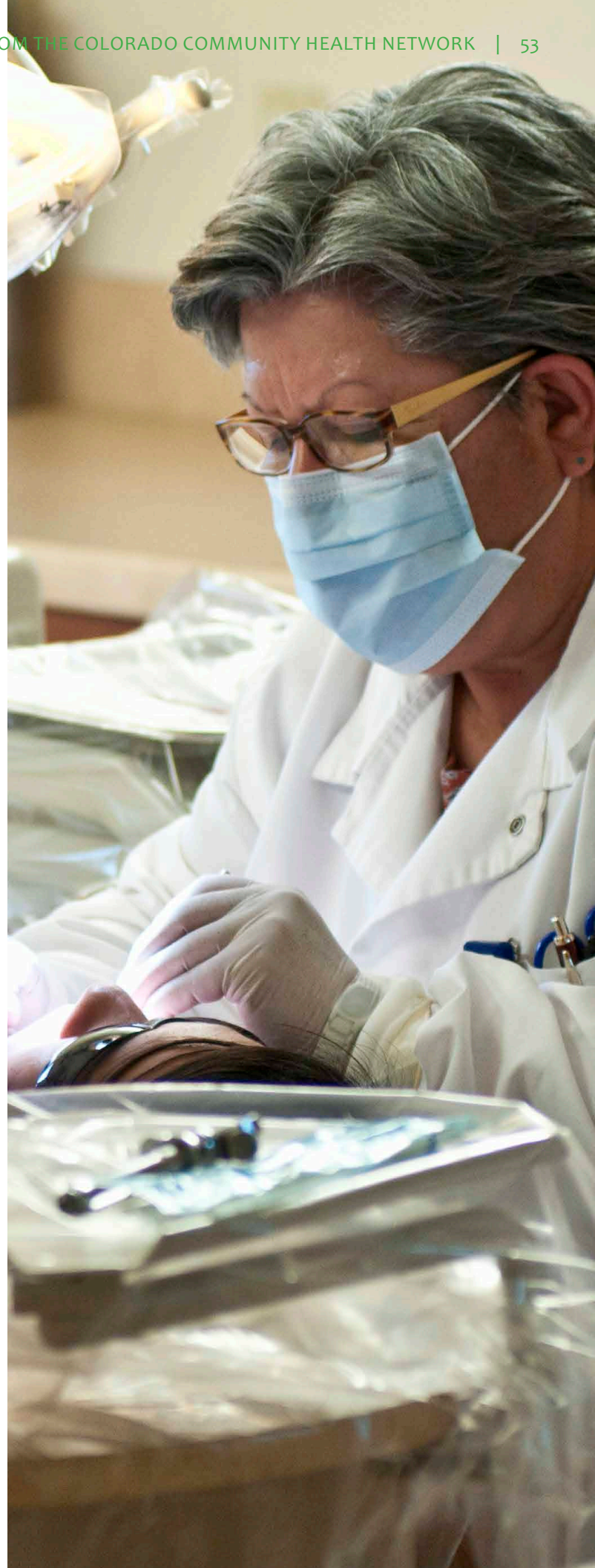
Data is a driving factor for nearly all quality assessment and improvement activities in CHCs; it is important to develop the most appropriate metrics and measurements, as well as understand the scope of oral health as it pertains to Colorado's population as a whole. The Health Services and Resources Administration (HRSA) requires that Federally Qualified Health Centers (FQHCs) report on several Uniform Data System (UDS) measures, including one for sealants to first molars on children between the ages of six and nine.⁵ HRSA also serves

as a useful resource for informing individualized performance metrics for quality improvement purposes. The Colorado Department of Public Health and Environment (CDPHE) publishes Colorado Health and Environmental Data (CHED) under a series of platforms, one of which is the Oral Health Surveillance System.⁶ This system is a method for monitoring “the oral disease burden, dental care access and utilization and preventive systems and behaviors among Coloradans.”⁶ The dashboard for these data include information such as the percentage of the population with dental insurance, preventive dental visits, diagnostic dental visits, caries experience, untreated decay, and others.⁶

Additionally, the Colorado Health Institute (CHI) is a health policy research organization dedicated to investigating health care topics, compiling and analyzing data, and producing reports for the general public.⁷ CHI is another resource for data as it pertains to the safety net, coverage and the uninsured population, innovative health care models, healthcare workforce, community health, and legislation and policy as they pertain to healthcare.⁷

Other national partners include, but are not limited to:

- The American Dental Association (ADA):
 - Continuing education opportunities
 - Licensure requirements
 - Careers in dentistry
 - National Board Dental Examinations (NBDE)
 - Dental Admission Test (DAT)
 - Advanced Dental Admission Test (ADAT)⁸
- Delta Dental Foundation:
 - Opportunity for grant funding for innovative, quality projects
 - Opportunity to network with other dental professionals⁹



- The National Network for Oral Health Access (NNOHA):
 - Dental program management resources
 - Access resources
 - Advocacy opportunities¹⁰
- The American Academy of Pediatric Dentistry:
 - Comprehensive dental health resources
 - Oral health resources for parents
 - Dental practice management
 - Resources for new dentists¹¹

The role of Colorado Community Health Network (CCHN), as the Colorado Primary Care Association (PCA), is multifaceted. With several divisions,

CCHN is able to provide technical assistance and training on multiple levels.

Policy Division:

- Promotes policies that will support CHCs in their role as the largest, proven primary health care system in Colorado
- Coordinates statewide network of citizen activists
- Includes Colorado Covering Kids and Families—a project working to ensure that eligible children and adults are enrolled in public health insurance programs

Health Center Operations Division:

- Provides technical assistance, training, data analysis and other resources for:

PEER POINTERS

MEDIUM-LARGE CHC

Though not an official care team member, the dental hygienist coordinates with the medical care team to provide Cavity Free at Three services to pediatric patients scheduled for their Well Child Checks. After the patient and family have been roomed and are waiting for the primary care provider, the dental hygienist performs a caries risk assessment, applies fluoride varnish, and provides educational materials to the parent. “This takes only a few minutes and most medical providers do not even realize the dental hygienist has been in the room. Furthermore, the patient and families are entertained while they wait and the services performed are able to be billed,”

- CHC dental professional.

More information on how to implement Cavity Free at Three, P.A.N.D.A. Guidelines, and implementation guides for care coordination can be found in the Additional Resources section. Another method of care coordination with respect to oral health integration, addressed in BITE Five—Transformative Access, is to provide school-based dental services.

MEDIUM CHC

The dental hygienist provides school-based preventive, educational, and screening services to children who may not otherwise interact with the dental clinic. The dental hygienist then refers high-risk patients to the clinic for more comprehensive care and follows up with the dental provider to which the patient was referred.

- Health center operational and financial systems
- Health center workforce development activities
- Health center community development activities

Quality Initiatives Division:

- Assists CHCs in improving their care delivery through ongoing coaching and training in quality improvement, including the topics of:
 - Patient-Centered Medical Home
 - Clinical interventions to improve population health' clinical networks for health professionals
 - Patient engagement
 - Oral health and behavioral health integration
 - Patient safety
 - Health center emergency preparedness¹²

In addition to other clinic staff, CCHN arranges for CHC dental directors to meet on a triannual basis in an effort to share best practices, discuss policy changes in federal and state requirements, and discuss their individualized practice challenges. Access to technical assistance and training conducted by CCHN's Oral Health Specialist is also available.

CONCLUSION

Throughout oral health integration efforts, leaders should strive to build relationships with external partners to contribute to the achievement of the Triple Aim: enhance patient satisfaction (through increased provider awareness), decrease health care costs (through avoiding unnecessary hospitalizations), and improve population health (through facilitated comprehension of every facet of a patient's health status). Investigating and referring patients to appropriate and trusted community resources for services that are not offered in the clinic and, furthermore, tracking the utilization of those referrals provides CHC staff with a more comprehensive understanding of the patient population, allowing care teams to provide patient-centered, effective, efficient, and appropriate care to all patients.

ADDITIONAL RESOURCES

Cavity Free at Three. <http://www.cavityfreeatthree.org/care-kids>.

Contact the CDPHE Oral Health Division for more information about P.A.N.D.A. Guidelines.

CDPHE. <http://www.cdphe.state.co.us/>.

Aids Education and Training Center. <http://aidsetc.org/resources>.

Care Coordination Implementation. <http://www.safetynetmedicalhome.org/change-concepts/care-coordination>.

CCHN. <http://www.cchn.org>.

ADA. <http://www.ada.org/en/>.

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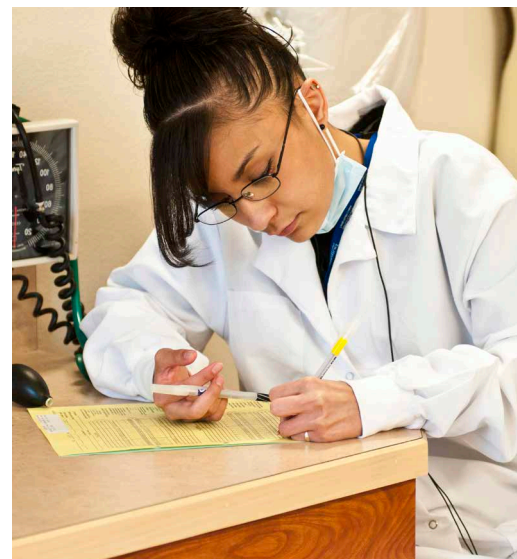
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