SECTION 3

The Oral Health Delivery Framework

Introduction

Three things are required for integrating oral health into primary care:

1. A clear definition of the actions primary care teams can take to protect and promote oral health in the primary care setting.
2. A streamlined process for fitting oral health into the primary care workflow. This process must be clear, with enough detail that teams have a dependable blueprint to follow, yet it must be flexible enough to be adapted to different team configurations, diverse populations, and varying organizational priorities.
3. A practical model for close collaboration between medicine and dentistry.

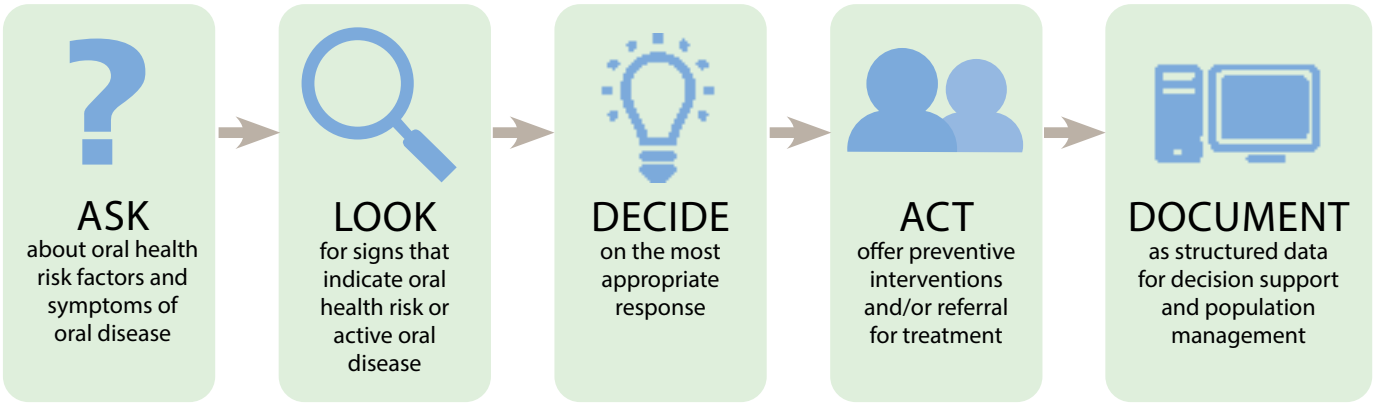
A fourth component is also important:

4. The ability to make a business case to support oral health integration, based on each unique practice environment and state.

"We live in a rural area and it is a drought, not only for primary care but especially for dental. Learning more about oral health integration and what we can do to make a difference in the oral health of our patients was a perfect fit. We don't have fluoridated water here, and haven't for the last 40 years. Our entire pediatric population has tooth decay in some form, and most of our adult patient population does too. Being able to offer oral health services is such a benefit to our patients."

—Keri Scott, Director of Quality, Rinehart Clinic

Figure 3.1: The Oral Health Delivery Framework



Source: Hummel J, Phillips KE, Holt B, Hayes C. Oral Health: An Essential Component of Primary Care. Seattle, WA: Qualis Health; June 2015. Reprinted with permission.

The Oral Health Delivery Framework (the Framework), shown in Figure 3.1, directly addresses the first of these requirements by providing a structure for defining the operational components of oral health integration. This section describes the Framework and its development in detail. Section 5: Staffing Options and Workflow provides detailed information on workflow optimization strategies that a practice can use to achieve the second requirement. The third requirement is addressed in Section 6: Structuring Referrals to Dentistry. Financing is addressed in Section 8: Leveraging Success: Spreading and Sustaining, although variability in reimbursement and financing across the country precludes recommending a single business model for oral health integration that applies to all primary care practices.

Oral Health Delivery Framework Development

The Framework was developed in partnership with a panel of experts, including primary care and dental care clinicians; leaders from medical, dental, and nursing associations; payers and policymakers; a patient and family partnership expert; and oral health and public health advocates. Additionally, it has been endorsed by a broad array of primary care and dental organizations. The Framework builds upon the 2014 Health Resources and Services Administration (HRSA) recommendations published in Integration of Oral Health and Primary Care Practice, confirming that primary care clinicians are well positioned to incorporate five interprofessional core clinical competencies for oral health preventive care, which align with the five components of the Framework.[24] The Framework also aligns with similar efforts focused on oral health integration, such as the Head, Eyes, Ears, Nose, Oral Cavity, Throat (HEENOT) model focused on educational and clinical innovation.[25]

Originally designed as a conceptual framework, the Framework was successfully tested by 19 diverse primary care practices between 2014 and 2016. These sites included urban, suburban, and rural practices in five states around the country. Collectively, they focused on four unique target populations for their initial pilots and utilized five different electronic health records (EHRs). The sites varied in size, and included both private practices (hospital-based, independent, and part of a large integrated delivery system) and community health centers (most of which are federally qualified health centers). For examples of practices' implementation approaches and successes, refer to case vignettes throughout this guide. Impact data, summary results, and in-depth case examples are available in Section 9: Field-Testing Results and Case Examples.

Alignment of the Framework with clinical thinking

The Framework is modeled on the way clinicians organize their clinical documentation using a "SOAP" (Subjective, Objective, Assessment, and Plan) note. ASK corresponds to the "Subjective" portion of the chart note, and LOOK to the "Objective" portion. DECIDE overlaps with "Assessment," and ACT may be considered the equivalent of "Plan."

Responsibilities of Primary Care and Dental Care Teams

Defining what primary care can do

It is important to clearly define the responsibilities of the primary care team and the responsibilities of the dental team. The approach to oral health, as presented in the Framework, entails a scope of work that is very similar to the preventive care that primary care teams already provide and is, in fact, closely aligned with the core competencies of primary care. Oral healthcare is not an extra service that needs to be tacked on to existing services. Rather, it is a currently unmet need that offers opportunities to create efficiencies for comprehensive care and to manage chronic health conditions more effectively.

Primary care team responsibility

- Understanding the pathophysiology: Care teams can become familiar with the anatomy of teeth and periodontal tissue. Clinicians extend their understanding of how the immune system, neuroglandular function, and bacterial infection, etc., interact to affect the health of these structures. The primary care team does not need an in-depth understanding of the oral anatomy and pathophysiology. Rather, the goal is to understand at a high level the processes that maintain the balance of oral health, how that balance is disrupted, and to learn to distinguish normal from abnormal when looking at the teeth, gums, and oral soft tissue.
- Case finding: Care teams do not have to diagnose oral disease in order to recognize it; rather, their goal will be to distinguish abnormal from normal, and refer patients with suspicious patterns to a dentist for diagnosis and treatment.
- Risk reduction: Primary care teams will want to focus their limited resources on identifying modifiable risk factors such as inadequate oral hygiene, poor dietary habits, cariogenic bacterial exposure, acid reflux, and oral dryness* that can be addressed in primary care with practical interventions like fluoride varnish, antacids, education, and behavior change. This approach is similar to the way risk factors for other conditions, such as heart disease, are addressed in the primary care setting by treating high blood pressure and encouraging weight loss through diet and exercise.
- Individualized medical therapy: Primary care clinicians can learn to recognize dry mouth as a symptom that indicates a likely medication side effect with a potentially serious negative impact on the teeth.
- Care coordination: Care teams will be well served by establishing and maintaining relationships with dental colleagues just as they do with medical/surgical specialists. These relationships appear to function best when based on referral agreements and formal referrals to dentistry that include referral tracking and follow-up to ensure referrals are completed and the loop is closed.
- Clinical quality improvement: Primary care teams need to be able to measure the impact of their efforts so they can modify their interventions as needed to reach their goal (applying a quality improvement methodology, described in more detail in the Quality Improvement Implementation Guides Part 1 and Part 2).

* Oral dryness is a clinical term that describes objective and visible dryness of the oral mucosa. "Dry mouth," a term used later in this document, is a subjective term describing a patient experience. This feeling can occur without the presence of clinical oral dryness. The Framework recommends that primary care teams ASK about dry mouth and LOOK for oral dryness to determine the appropriate preventive action to take.

"Frankly, integrating oral health is one of the easiest things a primary care clinician can do. It takes about one extra minute to do an oral assessment using the HEENOT approach and the Oral Health Delivery Framework. When you're taking a history you should be thinking about oral health, and when you're asking other questions you're already asking—about medical conditions, health behaviors, family history—think about oral health. It needs to become a standard part of a primary care visit."

—Madeleine Lloyd, PhD, FNP-BC, MHNP-BC, Clinical Director, Nursing Faculty Practice, New York University

Dental care team responsibility

- Accepting referred patients: It is the dental team's responsibility to see patients referred by primary care teams according to established referral agreements. For most practices, this will mean accepting a mix of patients, including those with Medicaid and those with and without private dental insurance.
- Diagnosis and treatment: Dentists will diagnose and treat patients referred to them.
- Patient identification and reporting: Dental practices that collaborate with primary care, by accepting referrals, will need to develop a process for identifying patients who have been referred to them by a primary care referral partner so they can send a consultation note back to the referring clinician. The consult note should describe what was found, what was done, and the care plan. More information on this step is provided in Section 6: Structuring Referrals to Dentistry.

To download and use a referral template for communicating primary care referrals to dentistry, click here.

"At Light Dental Studios, we accept patients with or without insurance. For some insurances, we might get a lower reimbursement, but the benefit is that we get a more committed patient population, patients who are committed to the practice. All new patients have value to any dental practice. If they have a good experience with our company, then they speak highly of us to friends and family, and that is how our company has continued to grow." —Angie Dunn, DDS, Light Dental Studios

Oral Health Interventions in Primary Care

The Framework defines what can be done in primary care to protect and promote oral health. It is designed to fit into an office visit workflow, and offers care teams considerable flexibility in when and how to execute the individual components (see Section 5: Staffing Options and Workflow). It may not be feasible for a primary care team to implement all of the components of the Framework at the same time, or as robustly as they are described below. This should not prevent a care team from choosing a part of the Framework to begin implementing, as doing something to address oral health is better than doing nothing. Suggestions for ways to "start small" are offered at the end of the Framework component descriptions.

Once the care team has determined that a patient is due for an oral health assessment, the ASK, LOOK, DECIDE, ACT, and DOCUMENT sequence can be performed without distracting from other critical preventive and chronic care tasks. The ASK and LOOK components of the Framework are tools for performing a quick scan for information that defines a limited number of clinical conditions, each of which has a corresponding set of interventions that can be performed appropriately in primary care. A protocol defining these conditions and their interventions is shown in Figure 3.2. The questions and actions described in Table 3.1 are not an exhaustive list of everything a primary care team could ask about oral health risk factors, or all preventive actions they could administer.

ASK

The small set of recommended questions in Table 3.1 focus on gathering information to identify risk factors for clinical conditions (tooth decay or gum inflammation). Primary care teams may choose to ask additional questions, such as "Have you seen a dentist in the past year?", or "Does your child fall asleep or take naps with a bottle containing juice or milk?" in order to assess the specific risk factors for their patient population. The questions in the Framework should not be confused with risk assessment tools that are appropriate for dentistry, like the Caries Management by Risk Assessment (CAMBRA) tool or American Dental Association (ADA) Caries Risk Assessment forms. Those are tools designed for use in a dental office as detailed questionnaires to identify patients at high risk for caries. Primary care teams have a short amount of time available, multiple competing clinical issues for which they are also screening, and only a limited set of oral health interventions appropriate for the primary care setting.



Table 3.1: Data entry fields with wording to prompt care team on which questions to ask

Risk Factor	Data Entry Template
Oral hygiene (adolescents and adults)	On average, how many days per week do you brush your teeth for at least two minutes, twice daily, using fluoride toothpaste and floss at least once daily? [0, 1, 2, 3, 4, 5, 6, 7]
Oral hygiene (children under age 12)	On average, how many days per week do you clean/brush your child's teeth, or supervise/monitor your child in brushing their teeth? [0, 1, 2, 3, 4, 5, 6, 7]
Diet (adolescents and adults)	On average, how many times daily do you consume starch or sugar (sugary snacks or sugary drinks) between meals? [≤ 1, 2–3, 4–5, ≥ 6]
Diet (children under age 12)	On average, how many times daily does your child consume starch or sugar (sugary snacks or sugary drinks) between meals? [≤ 1, 2–3, 4–5, ≥ 6]
Exposure to cariogenic bacteria (all)	Has anyone in the immediate family (including caregiver) had tooth decay or lost a tooth from decay, in the past year? [Y/N]
Dry mouth (adolescents and adults)	Do you commonly experience dry mouth (i.e., requiring swallowing water to eat crackers)? [Y/N]
Acid reflux (adolescents and adults)	Do you experience stomach acid in your throat after eating or when lying down on a daily or almost daily basis? [Y/N]
Screening assessment for symptoms of oral disease (adolescents and adults)	Do you experience tooth pain or bleeding gums when you eat or brush your teeth? [Y/N]
Screening assessment for symptoms of oral disease (children under age 12)	Does your child complain of tooth pain or have signs of bleeding gums when they eat or brush their teeth? [Y/N]

"A lot of our patients come into our office due to tooth pain. We counsel our patients with diabetes about nutrition, but some don't have many teeth left so they have a hard time eating healthy food—they eat food that is easy to chew, such as bread. The importance of the mouth comes up as a vehicle for getting proper nutrition to help control diabetes." —Allie Nicholson, Operations Manager, Heartland Community Health Center

These questions do not include questions that primary care teams should already be asking and documenting in other places (e.g., drug use, tobacco use). Responses to those questions may also point to oral health risk factors or identify issues requiring clinical judgment.

The first three modifiable risk factors for adolescents and adults pertain to the drivers of chronic infection in the mouth. The last two are individual factors that undermine the natural defenses against chronic infection in the mouth:

- Poor oral hygiene.
- Excessive exposure to starch and sugar.
- Cariogenic bacterial exposure.
- Acid reflux.
- Oral dryness.

Recommended wording of the questions is shown in Table 3.1, and can be downloaded as a handout: Recommended Oral Health Screening Questions.

LOOK

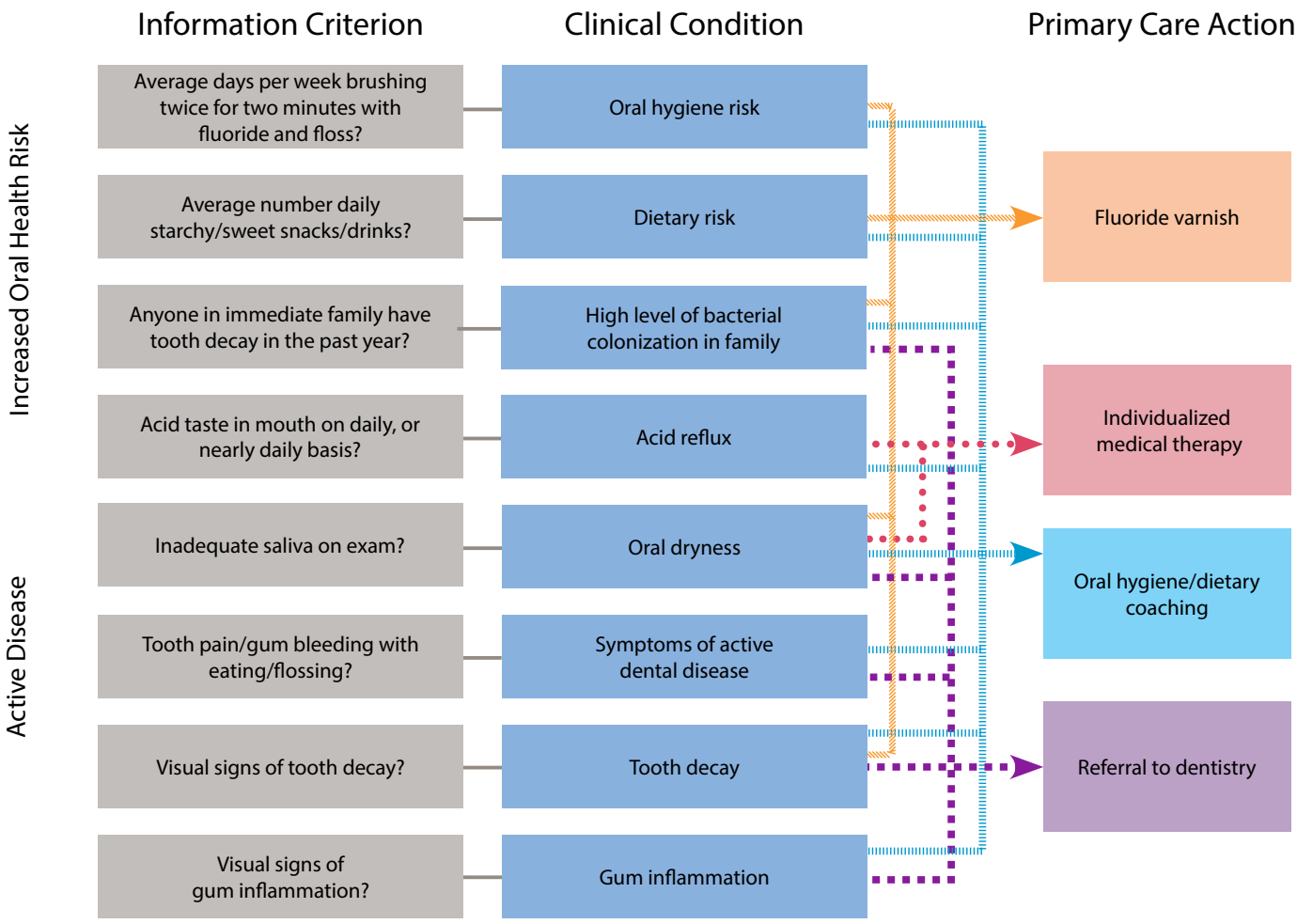
The second part of the information-gathering portion of the Framework requires looking in the patient's mouth. The primary care team is not expected to make a diagnosis of caries or periodontal disease; however, team members can recognize signs of oral dryness, tooth decay, and gum inflammation. For each finding, there is a corresponding set of interventions. Some of the findings, such as oral dryness, are unlikely to be found in very young children and can be removed if desired.

Smiles for Life: A National Oral Health Curriculum (a self-paced, online education program that is certified as continuing education for both clinicians and non-clinician care team members) is an excellent resource to see visual examples of what primary care physicians should look for in the mouth.

DECIDE

Clinical decisions involve pattern recognition on the part of clinicians and their care teams, and they take place in the context of sharing information with patients. Decisions are easier when key information is organized in a way that drives a correct decision. The algorithm in Figure 3.2 helps guide the care team in deciding whether the patient's teeth and gums are normal or abnormal, and should drive a shared decision-making process about the appropriate actions to take.

Figure 3.2: Information is gathered to identify specific clinical conditions, each with a limited set of corresponding primary care interventions



There are additional reasons, not included in the algorithm, that a practice may choose to order one of the oral health actions available to them on the basis of clinical judgment:

- A patient asks for a referral to dentistry.
- A patient is under age six and is due for fluoride varnish per the United States Preventive Services Task Force (USPSTF) guidelines released in 2014. The guidelines provide a grade B recommendation to the administration of fluoride varnish and fluoride supplementation by medical clinicians, meaning it is a recommended service, and the Affordable Care Act (ACA) requires insurers to provide the benefit.[26]
- A patient hasn't seen a dentist in over a year.

The protocol laid out in Table 3.1 and Figure 3.2 is a basic one, focused specifically on a limited set of clinical conditions that primary care can address.

ACT

There are four basic actions the primary care team can take, and they are used in various combinations for each of the oral health abnormalities that can be found using the Framework. The principle of starting small and expanding can be applied to each of these interventions.

1. Individualized medical therapy: Clinicians frequently add, change, and discontinue medications in the course of medical management. This type of intervention is indicated for:
    - Medication side effects impairing salivary function.
    - Acid reflux.
    - Medication to assist smoking cessation.

The details of the most appropriate medical therapy action for these conditions will depend on the context of the complaint, clinical judgment, and patient preference.

2. Coaching: There are many tools available to practices for patient education, including written information, one-on-one coaching, frequent positive messaging, motivational interviewing, teach-back, and others. The content of the oral health coaching that patients need includes:
    - Age-appropriate oral hygiene goals.
    - Consequences of exposing the teeth and gums to starch/sugar and strategies for reducing exposure.
    - Additional coaching tailored to the individual, such as behavioral approaches to acid reflux.
    - Referral for smoking cessation or substance use counseling and treatment.

Coaching in some form is appropriate for every positive oral health finding in the Framework.

Download clinician tools

Summary of Primary Care Clinical Interventions outlines oral health education messages and coaching methods. Refer to the Summary of Patient Education Resources for many other oral health education brochures, posters, flyers, videos, and messages for clinicians to share with patients.

Starting small: A practice might start by putting up oral health education posters in the waiting room and giving each patient a handout on how to brush and floss properly, and then build up to providing active oral hygiene training over time. A recurrent concept in oral health integration is to start small and expand the scale of things that work well. Start with ideas for patient education about which the team is passionate and expand as they gain confidence.

in the ER due to oral pain before starting this integration work. We had patients saying they'd been trying to get in to see a dentist and weren't able to. When we called the dental clinicians, we would hear from the staff that they couldn't see the patients until after the baby was delivered. We realized we needed to educate both the patients and the dental clinicians."

—Leondra Weiss, RN, Harborview Medical Center–Women's Clinic

3. Apply fluoride varnish: All children under the age of five should receive fluoride varnish.[26] Fluoride can be delivered several ways (prescription-strength toothpaste, a mouth rinse). Fluoride varnish is safe, easy to administer, and is appropriate for patients of all ages with signs of active tooth decay, root exposure due to gum recession, or modifiable risk factors for caries including:
   - Inadequate oral hygiene.
   - Excess exposure to sugar/starch.
   - Familial exposure to cariogenic bacteria.
   - Oral dryness.

Starting small: A practice may choose to start by ensuring all children under age six receive fluoride varnish twice yearly, then extend to include patients with major risk factors for tooth decay including poor oral hygiene, oral dryness, or active caries. The American Academy of Pediatrics (AAP) maintains a list of fluoride varnish suppliers here. The Minnesota Oral Health Coalition has created a brief fluoride varnish application training video, available here.

4. Referral to dentistry: For suspected oral disease discovered by the Framework, diagnosis and treatment of caries and periodontal disease fall within the clinical domain of dentistry. Referral to dentistry is indicated for:
   - Pain and bleeding associated with brushing, flossing, or eating.
   - Signs of tooth decay.
   - Signs of gum inflammation.
   - Presence of tooth decay in the immediate family.
   - Signs of oral dryness.

Patients may be referred to dentistry for any number of reasons that are not listed on the protocol, such as wanting to establish care with a dentist. Likewise, an oral health integration program targeting pregnant women may entail ensuring that all women receive a dental exam during their first trimester.

Starting small: A practice may choose to begin by establishing a referral relationship for patients who have no dentist with one or two nearby dental offices to work out the details of referral expectations and information exchange. Over time they may expand by creating formal referral orders for all patients who are referred to a dentist. Referrals are covered in more detail in Section 6: Structuring Referrals to Dentistry.

"We chose to start small [with two clinicians] in case the need and volume was significant, but now that we've seen that it's very manageable, we're ready to spread to other clinicians."

—Deborah Nalty, MD,
Providence Medical Group–Monroe Clinic

Refer to a clinician tool: Rapid Oral Health Screening and Risk Assessment provides an at-a-glance summary of the Framework, including notes indicating where information should be entered into the EHR. This is a PDF one-page clinician reference tool.

Expanding actions

Just as there are more reasons to refer to dentistry than those covered in the Framework, there is also more to oral health than caries and periodontal disease. These conditions were chosen as the centerpiece of the Framework because they are common and they develop and worsen slowly over time, during which time preventive interventions can be effective. Primary care clinicians should maintain their vigilance in screening for suspicious lesions in the oral mucosa. Likewise, patients without teeth who wear dentures could be evaluated yearly to look for suspicious mucosal lesions, and to identify candida infections, commonly found under dentures, which are easily recognized and treated.

Similarly, there are more actions than the four described above that a primary care practice might choose to offer patients (such as prescribing a higher-concentration fluoride toothpaste, or providing a chlorhexidine rinse). The four actions described above were chosen for inclusion in this guide because they were the actions selected by the majority of the sites field-testing the Framework. Interested practices can investigate other actions to offer, depending on the needs of their patient population and capacity of their care teams. For example, practices in communities lacking public water fluoridation could ensure that pregnant women and young children with developing teeth are offered fluoride oral supplementation at the correct dose.

Health Information Technology Document—the Role of Health Information Technology

The list of things that can be done in primary care to protect and promote oral health is focused on a small number of modifiable risk factors for oral disease, offering preventive interventions such as oral health education, and identifying patients with signs of active disease so that they can be properly treated by a dentist. The challenge for primary care teams is balancing this work with the vast array of other things that require attention and the high-volume flow of patients through a clinic. The role of health information technology (HIT) is to serve as an interactive checklist to remind care teams:

- Which patients need to have their oral health assessed using the Framework.
- The questions to ask (ASK).
- What to look for (LOOK).
- Whether or not there is an abnormality that requires action (DECIDE).
- The orders to consider (ACT).

The optimal way to do this will depend on details of the workflow and the features available within a particular EHR.

Decision to conduct an oral health assessment

The primary care team needs to be able to quickly decide whether a patient on the schedule is due for oral health screening. This means that the date of the last oral health assessment needs to be visible when reviewing the chart. Options include:

- A flow sheet.
- A health maintenance dashboard.

ASK

Charting templates serve not only as a place to document information as structured data, they also serve as reminders to ask a question and should suggest wording that is easily understandable to the patient. This provides structure and consistency for the care team as they inquire about specific risk factors.

There are other questions that a clinic or delivery system may wish to include, for example, to elicit information that payers like state Medicaid programs require for reimbursement purposes. Those questions may not require that the answers be entered as structured data for reporting purposes, but it is still important to include them in the charting template as a reminder for the care team to ask, and as a place for billers to find documentation required for reimbursement.

LOOK

The Framework is designed to ensure that when looking in the mouth, the care team specifically looks for three things: signs of inadequate salivary flow, active tooth decay, and active gum inflammation. As shown in Table 3.3, there are other findings, particularly in adolescents and adults, that the care team may find and need to respond to, such as oral piercings or mucosal lesions. The most common of these are listed below, not because they need to be entered as structured data for reporting, but because it is easier for the care team to document their presence by clicking on the item in the list than by typing it under "other." It is important to have a place for the care team member looking in the patient's mouth to be able to document that a finding is under active care of a dentist. The appropriate response to finding active disease is to ensure the patient receives dental care. This means a referral to the patient's established dentist if they have one, or to a dentist in the referral network. The exception to this rule is that if the patient is already receiving appropriate care, a new referral is unnecessary. The role this information plays in quality reporting is discussed in Section 7: Using Data for Quality Improvement.

Figure 3.3: Example of a data entry field preference list for primary care team members to capture findings on teeth, gums, and saliva

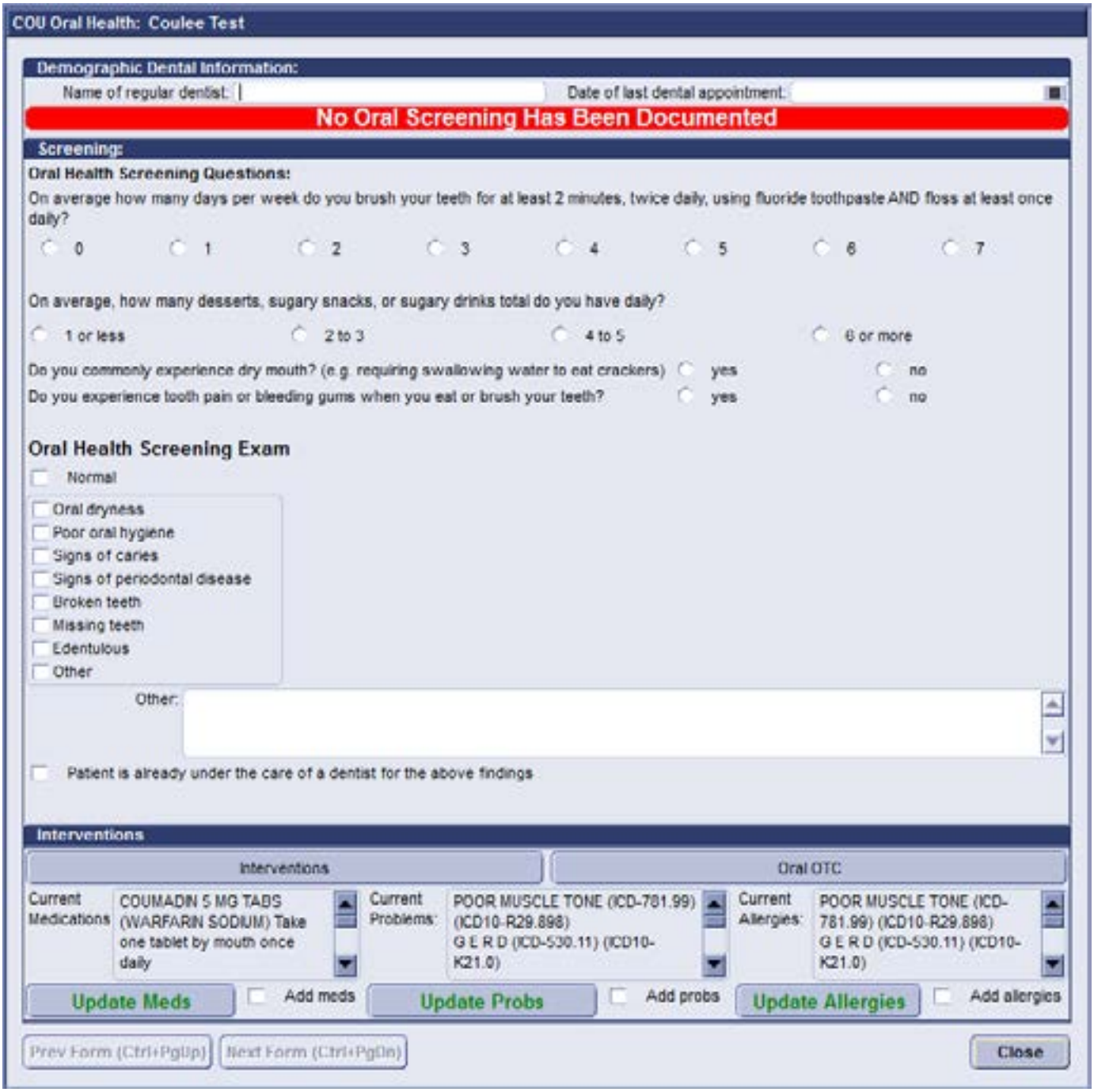
Preference List

- Normal
- Oral dryness
- Plaque
- Signs of tooth decay, including white spots
- Inflamed gums
- Broken teeth
- Missing teeth
- Edentulous (lacking all teeth, toothless)
- Other: _____

Patient is under active treatment by a dentist for the above finding(s) Y/N

Some electronic health record (EHR) systems may have an oral cavity template that can be modified to include the above information. Others may require creating a new or separate template. An example of a specific oral health template that was created with one of the field-testing sites is shown in Figure 3.4.

Figure 3.4: Grand Coulee Medical Center Oral Health Template



DECIDE

The act of deciding whether a patient has a modifiable risk factor or active dental disease takes place in the mind of the clinician and has no HIT component. Each abnormality the care team is looking for is reflected in the answer to a question on the ASK template or an item on the LOOK preference list. Those one-to-one relationships are shown in Figure 3.2.

The questions about diet and oral hygiene have answers corresponding to a numeric scale, indicating increasing risk. A practice may decide to focus on all patients at risk or on those patients at greatest risk, for example, those who brush and floss on fewer than half the days, or who consume sweet snacks and drinks many times daily.

ACT

As shown in Figure 3.2, there are four specific things we recommend primary care teams consider to protect and promote oral health:

- Make individualized medical therapy decisions. Often this includes changing, adding, or discontinuing medications or altering a medication dose. It may also include diet change, weight loss, or smoking cessation, or a work-up for another medical condition such as acid reflux. For a list of types of medications most likely to cause dry mouth, click here.
- Coach the patient about oral hygiene and diet.
- Apply fluoride varnish.
- Refer to dentistry if indicated.

While there are too many potential medical therapy options depending on clinical context and patient preference to predict the most appropriate action, the other actions (fluoride varnish, coaching, and referral) should be grouped together in an order set so that the person placing orders for oral health is prompted to consider all of the possible choices.

DOCUMENT

The documentation of information as structured data makes it possible to create reports that measure the impact of the care team's work on their target population. As shown in Section 7: Using Data for Quality Improvement, these reports allow the care team to see the percentage of their target population they have screened and what they found on screening. They also make it possible to record the actions that were taken to protect patients found to have modifiable risk factors and to ensure those patients with active disease received appropriate diagnosis and treatment from a dental professional.

Supporting Materials, Section 3

Summary of Patient Education Resources: This PDF tool contains links to a variety of patient education materials including handouts, posters, flyers, videos, and websites. The resources are organized by topic, and when available in other languages, the languages are listed.

Rapid Oral Health Screening and Risk Assessment: This PDF tool is a handout intended for members of the clinical care team. It succinctly summarizes the Framework components, and notes where information can and should be entered into the EHR.

Summary of Primary Care Clinical Interventions: This PDF tool is designed for members of the clinical care team. It details the oral health interventions that can be offered in the primary care setting, and provides supporting evidence and references. Links are provided for additional resources that describe coaching techniques that can be applied to oral health topics such as dietary and oral hygiene risk reduction.

Recommended Oral Health Screening Questions: This PDF handout summarizes the recommended questions a practice can select from to use as the oral health screening and risk assessment questions. Four questions are provided for pediatrics, and six questions are provided for adults and adolescents. A practice may want to use all of the questions, or they may select a smaller set, depending on their target population and workflow.