Oral Health Toolkit

A Guide to Promoting Oral Health in Community Health Centers and Achieving Medical-Dental Integration

Arizona Association of Community Health Centers
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Introduction

For decades, the mouth has been removed from the body and the direct correlation between oral health and overall health has been placed in the back of health care professionals’ minds. Since the Surgeon General’s report on oral health in America in the year 2000, however, there has been a stronger emphasis on the importance of oral health among health care organizations nationwide, and activities promoting oral health continue to increase. Health care professionals of all disciplines are beginning to realize the extent to which oral health can affect overall health and that oral health means much more than healthy teeth.

In numerous studies dental diseases have been linked with other health problems such as diabetes, cardiovascular disease, stroke, failure to thrive and premature/low-birth weight babies, supporting oral health as a crucial element of general health. The mouth is finally being seen as what it really is - a filter for the rest of the body. If we do not keep the filter clean, the unit will not run properly.

Where do Community Health Centers (CHCs) come in? CHCs are treating patients who have extremely high levels of disease, and that includes dental disease. Tooth decay is a chronic, infectious disease that cannot be cured, only alleviated, and early tooth decay is a predictor of a lifetime of oral disease. The good news is dental decay is almost 100 percent preventable. CHCs can play a crucial role in preventing dental disease in their communities.

Purpose

This toolkit was developed by the Arizona Association of Community Health Centers to create awareness among Community Health Center medical providers and ancillary staff of the impact of oral health on systemic health and to serve as a resource for CHCs as they examine how to achieve medical-dental integration and a patient-centered health home. Most of the content in this toolkit is geared toward CHCs with dental programs. If your CHC does not have a dental department, we encourage you to develop a strong partnership with a dentist in your area.

How to Use This Toolkit

The five sections that make up this toolkit are:

• Oral Health in Children
• Oral Health in Adults
• Oral Health in the Elderly
• Special Populations & Opportunities for Medical-Dental Integration
• Appendix

The first three sections contain oral health information related to specific populations. The goal for these sections is to educate medical staff on different oral health issues among priority populations in order to instill confidence within those staff members to recognize a patient with oral health problems and educate that patient on proper dental care. The fourth section, which is the most important section for Community Health Centers, explores specific opportunities for medical-dental integration. All of the techniques suggested are simply ideas to help you think about how your CHC can begin focusing more attention on integration. The appendix provides sample documents related to ideas discussed in the toolkit.
Oral Health Statistics

National Data\textsuperscript{1,2,3,4,5,6}
• Tooth decay is the single most common chronic childhood disease - 5 times more common than asthma, 4 times more common than early childhood obesity, and 20 times more common than diabetes
• Approximately one-half of Americans do not have dental benefits and pay for dental care out-of-pocket
• For every child without medical insurance, there are at least 2.6 children without dental insurance
• For every adult 19 years or older without medical insurance, there are 3 without dental insurance
• Children and adolescents living in poverty suffer twice as much tooth decay as their more affluent peers, and their disease is more likely to go untreated
• Over 40 percent of poor adults (20 years and older) have at least one untreated decayed tooth compared to 16 percent of non-poor adults
• 92 percent of adults 20 to 64 have had dental caries in their permanent teeth
• 23 percent of adults 20 to 64 have untreated decay
• 1 out of 20 middle-aged adults are missing all of their teeth
• About 23 percent of 65 to 74-year-olds have severe periodontal disease

Arizona Data\textsuperscript{7,8}
• 50 percent of children 0-4 have never visited a dentist
• 52 percent of children age 4 experience tooth decay
• 30 percent of children ages 2-4 have untreated tooth decay
• 4 out of 10 four-year-olds have early or urgent treatment needs
• 75 percent of Arizona 3rd graders have experienced tooth decay
• In a 2009 study, the number one reason given for a child not visiting the dentist was “child doesn’t need to see a dentist”
• By the time Arizona children are 11 to 13 years of age, 65 percent have experienced tooth decay
• While 24 percent of Arizonans lack medical insurance, over 44 percent of Arizona adults and 38 percent of children lack dental insurance
• Arizona’s ratio of dentist-to-population is lower than the US average (Arizona has one dentist for every 2,250 people; the national average is one dentist to every 1,740 people, a difference of 510 people per dentist)

References
\textsuperscript{1}http://www.aapd.org/assets/2/7/ECCstats.pdf
\textsuperscript{2}http://www.cdc.gov/OralHealth/publications/factsheets/adult.htm
\textsuperscript{3}http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/sgr/execsum.htm
\textsuperscript{4}http://www.nidcr.nih.gov/DataStatistics/FindDataByTopic/DentalCaries/DentalCariesAdults20to64.htm
\textsuperscript{5}http://www.cdc.gov/OralHealth/publications/factsheets/adult_older.htm
\textsuperscript{6}http://www.sanders.senate.gov/imo/media/doc/DENTALCRISIS.REPORT.pdf
\textsuperscript{8}http://www.azda.org/Public/media/Oral_Health_Statistics/
Part 1: Early Childhood Caries

Early Childhood Caries (ECC) is a transmissible infectious disease that can begin as early as the teeth begin to emerge (6 months old). ECC destroys tooth structure and causes the loss of chewing function, pain and infection in children up to five years of age.

What Causes Dental Caries

Caries is a multi-step process that results in destruction of the tooth structure. Oral bacteria (streptococci mutans) mix with sugars to form acids (the sugars come from food/drink remnants left behind on teeth if not brushed off). The acids that form then demineralize the tooth enamel. If the cycle of acid production and demineralization continues, the enamel will become weakened and break down, forming a cavity. The outer protective enamel is much thinner in baby teeth, making them more susceptible to decay.

Signs & Symptoms - What to look for

1) Chalky White Spots: Early Stages of ECC

White spot lesions appear as white bands on the tooth enamel and begin along the gingival margin (gum line) of the upper front teeth. If the teeth are not treated at this stage of disease, the lesions will progress and the demineralized enamel will cavitate. White spot lesions, however, may be reversible with treatment. Dietary and oral hygiene education should be provided and topical fluoride varnish can be used to reverse lesions and remineralize the tooth. Refer child to the dentist and encourage parent/caregiver to establish a dental home for the child.

2) Brown Cavitations

If white spot lesions are not addressed, they will progress into cavities. The lesions are initially pale yellow but become darker over time. At this stage, teeth may be sensitive to cold, hot, sweet and/or sour foods and drinks. Child should immediately be referred to your CHC’s dental department to establish a dental home, and oral hygiene and dietary education should be provided. Fluoride varnish may be applied to teeth that do not require restoration but are still in the early stage of disease.

3) Advanced ECC

If brown cavitations are left untreated, they will progress into larger and deeper carious lesions that will destroy the tooth. These dark cavities (black) will primarily be present on the upper teeth and the child will be in pain. If the decay has progressed enough, extensive dental treatment under sedation may be needed. This will require an urgent dental referral. Fluoride varnish can be applied to the teeth that are not at this stage of disease to prevent future lesions. In addition, oral hygiene and dietary education should be provided.
Part 2: Prevention

Dental caries is the most common childhood chronic disease, and often one of the number one reasons children miss school, but it is almost 100 percent preventable. According to one study, every dollar spent on prevention saves eight to fifty dollars in restorative and emergency procedures. Here are a few prevention methods that can be implemented in your health center:

1) **Fluoride** - Fluoride prevents and slows the progression of tooth decay and can even reverse early tooth decay. Sources of fluoride include drinking water, topical fluoride varnish, toothpastes, mouth rinses and supplements. Children should be referred to the dental department for fluoride varnish application. Medical providers can be trained on fluoride varnish application, but no reimbursement is provided in the state of Arizona at this time.

2) **Sealants** - Dental sealants act as a barrier, protecting the teeth against decay-causing bacteria. Sealants are usually applied to the chewing surfaces of the back teeth (premolars and molars) where decay occurs most often. Caregivers should be educated on sealants by their medical provider and referred to the CHC’s dental department for sealants to be placed on their childrens’ teeth.

3) **Transmissibility of Dental Disease** - Dental disease is transmissible from the mother or primary caregiver to the child. Evidence suggests that most young children acquire bacteria that cause tooth decay primarily from their mothers. Reducing the transmission of bacteria from mother to child will greatly improve the likelihood of better oral health for the child. Parents and caregivers should be told to avoid sharing utensils, food and drinks with their child.

4) **Education and Anticipatory Guidance** - One of the main reasons primary caregivers do not bring their child to the dentist is because they are not educated on the importance of oral health. Parents and caregivers must be given anticipatory guidance on topics such as:
   - The causes and prevention of tooth decay, including how to recognize early signs of tooth decay
   - Appropriate fluoride intake for a child
   - Bottle feeding
   - Good oral hygiene techniques (i.e. toothbrushing)
   - Nutrition habits
   - Dental visit by age 1

Parents should be discouraged from putting children to sleep with a bottle of juice or milk or allowing toddlers to walk around with a sippy cup or bottle of anything other than water without brushing afterwards. Having children drink fluoridated water and brush with fluoridated toothpaste should also be encouraged (see page 5 for resources containing additional information on the use of fluoride).

Medical providers can play a role in giving parents the tools they need to help prevent dental disease in their child. Parents and caregivers need to be educated on prevention methods and encouraged to take prevention seriously. If parents begin taking action early on, they will save their child from pain and other health issues. Prevention will also save them time and money when it comes to dental treatment down the road.
Part 3: Resources

**Smiles for Life: A National Oral Health Curriculum**

**Sesame Street**

**American Academy of Pediatric Dentistry**
Get it Done in Year One. http://www.aapd.org/assets/2/7/GetItDoneInYearOne.pdf

**Center for Disease Control and Prevention**

**American Academy of Pediatrics - Children's Oral Health**

**Cavity Free at Three**

**CDA Journal**
Caries Risk Assessment Appropriate for the Age 1 Visit (Infants and Toddlers). http://www.cda.org/library/pdfs/caries_risk_age_1.pdf
Section 2: Oral Health in Adults

What makes the adult population different from children is that adults, for the most part, have the ability to seek dental treatment once they see it as necessary. The challenge is the lack of dental insurance benefits for adults, especially adults with low income, which results in their inability to pay for services. Community Health Centers will continue to play a crucial role in treating these patients.

As is the case with children, adults also need to be educated on the importance of oral health. Poor oral health has been linked to diabetes, cardiovascular disease and stroke; patients should therefore be informed that improving their oral health can have a positive impact on their overall health. Medical providers should be referring adults to the dental department in their CHC for regular dental exams. If adults recognize how important oral health is, they will be more likely to pay for dental services out of pocket if necessary.

Part 1: Adult Caries

In addition to high bacterial counts, consistent eating of sugary foods and inadequate exposure to fluoride, adults are working against additional factors that contribute to dental disease. Some of those factors include the aging process, decreased salivary flow, the effects of certain medications, and extremely progressed dental disease. The oral health complications associated with adults can be enormously complex. This toolkit will focus on the following priority areas related to oral health in adults: Root caries, Gingivitis, Periodontitis, Oral Cancer and the Effects of alcohol, tobacco and drug use.

Part 2: Root Caries

Because adults may have advanced gingival and periodontal disease (see parts 3 and 4), they are extremely susceptible to root caries. Root caries occur when gums recede and the tooth root becomes increasingly exposed. Tooth roots do not have the same hard enamel to protect the tooth and therefore decay happens 3 times faster than it would in other areas of the tooth. Small lesions can be arrested with dental treatment, but advanced lesions will be in need of restoration or extraction.

Part 3: Gingivitis

Gingivitis is characterized by inflammation of the gingiva (gums) without destruction of the bone, which distinguishes it from periodontitis. Therefore gingivitis, unlike periodontitis, is reversible. Symptoms include mild swelling, tenderness and bleeding when brushing. Since most cases of gingivitis are caused by the buildup of plaque, treatments include frequent brushing and flossing, and regular oral hygiene exams. Pregnancy and diabetes can also contribute to gingivitis, so pregnant patients and patients who have been diagnosed with diabetes should be encouraged to see a dentist regularly.
Part 4: Periodontitis
Periodontitis is the inflammation of the periodontal tissue due to chronic exposure to bacterial plaque. Chronic inflammation leads to irreversible destruction of the periodontal ligament, loss of supporting bone, tooth loosening, and eventual tooth loss. Periodontitis is the leading cause of tooth loss in adults. In addition to poor oral hygiene, the following can also contribute to the development of periodontitis: pregnancy, diabetes, HIV, and smoking. Patients with any of these conditions should be referred to the dental department to prevent the development or progression of periodontal disease. Treatment includes good oral hygiene, deep cleaning (root planing and scaling), frequent dental visits, avoidance of tobacco and other irritants, and the use of oral antibiotics.

Part 5: Oral Cancer
Although there are several types of oral cancer, the most common is squamous cell carcinomas. The majority of squamous cell growths begin on the floor or side of the mouth, the tongue, or the lower lip. The cancer may appear as a white or red patch of tissue in the mouth, or a small hardened ulcer which looks like a common canker sore but does not heal. Other symptoms include pain or difficulty in swallowing, speaking or chewing, tongue pain, persistent hoarseness, and/or any numbness in the oral/facial region. Patients who drink and/or use tobacco are at an increased risk of developing oral cancer. According to the Oral Cancer Foundation, the death rate for oral cancer is higher than that of cancers which we hear about routinely such as cervical cancer, Hodgkin’s lymphoma, laryngeal cancer, cancer of the testes, and endocrine system cancers such as thyroid or skin cancer (malignant melanoma). Unfortunately, early stages of oral cancer often go unnoticed. For that reason, it is extremely important for medical providers to do a basic oral health exam and ask the patient if they have noticed any mouth sores that have lasted more than 14 days.

Part 6: The Effects of Alcohol, Tobacco and Drug Use on Oral Health
The effects of alcohol, tobacco and recreational drug use on the mouth include: tooth loss and gum disease, dry mouth, tooth decay and erosion, staining and bad breath, cracked and broken teeth, and oral cancer. If a patient is consuming a large amount of alcohol, and/or using tobacco or recreational drugs, immediately refer them to the dental department for an oral health exam. In Arizona providers should refer all tobacco users to ASHLine (Arizona Smoker’s Helpline) and inform patients of other community programs that assist with substance abuse.
Part 7: Resources

Smiles for Life: A National Oral Health Curriculum

Center for Disease Control

Delta Dental

National Institute of Dental and Craniofacial Research

California Dental Association

American Academy of Periodontology
Section 3: Oral Health in Older Adults

Part 1: Oral Health Complications in Older Adults

70 percent of elders lack dental insurance, 80 percent have one or more chronic diseases, 14 percent live in poverty, and 38 percent of adults over the age of 65 are disabled. All of these factors result in complex dental needs among the elderly population.¹

According to the CDC, about 25 percent of adults 60 years old and older have lost all of their natural teeth. Having no teeth greatly affects nutrition, which affects a person’s overall status of health. Older individuals who do have teeth experience higher rates of new tooth decay than children. The aging process includes recessing gums and increased wear of the protective enamel, resulting in increased risk of crown cavities and cavities on the tooth root. Severity of periodontal disease also increases with age. About 23 percent of 65- to 74-year-olds have severe disease. In addition, the majority of oral cancer is diagnosed in the elderly population.²

One of the contributing factors to oral health problems among older Americans is the increased frequency of prescription and over-the-counter drug use. Over 400 commonly used medications cause dry mouth, which reduces salivary flow. This negatively affects oral health because saliva is what helps rebuild tooth enamel after it has been attacked by bacteria and acids.³ The elderly population that lives in nursing homes, which numbers about 1.3 million,⁴ is at an increased disadvantage. Therefore, it is crucial for medical providers to check an elderly patient’s mouth and refer them to the dentist for an oral health exam.⁵

Part 2: Resources

Smiles for Life: A National Oral Health Curriculum

Center for Disease Control

Delta Dental

Department of Health & Human Services - Administration on Aging
Section 4: Special Populations & Opportunities for Integration

Part 1: Special Populations
Because there is such a strong connection between oral health and systemic health, there are certain populations that require extra attention when it comes to oral health care. Those populations include (but are not limited to) children, pregnant women, diabetics, patients with cardiovascular conditions and patients with HIV/AIDS.

1) Pregnant women (see page 8 for link to Prenatal Oral Health Guidelines)
Pregnancy causes hormonal changes that increase the risk of developing gum disease and pyogenic granulomas (pregnancy tumors). Pregnancy tumors usually appear during the first trimester and heal spontaneously after pregnancy or breast feeding. Gum disease during pregnancy can affect the health of the mother and the health of the child. Premature or low birth weight babies have been linked to dental disease. Pregnant women should be given anticipatory guidance on nutrition, oral hygiene and dental treatment including:

- Avoid sugary foods and drinks
- Brush with fluoridated toothpaste twice a day and drink tap water (if tap water is fluoridated)
- Floss regularly
- See a dentist while pregnant, especially if experiencing tenderness, swelling and/or bleeding in gums

Pregnant women also need to be educated on the transmissibility of dental disease. All mothers will benefit from knowing that the bacteria that causes dental disease can be transferred to a child by saliva. Therefore, if she does not pay attention to her oral health, the bacteria in her mouth will be passed on to the child once he or she is born.

2) Children (Please refer to Section 1 on page 3 for additional information on children’s oral health)
Because dental disease is preventable, caregivers must make seeing a dentist a priority for their children. In fact, it is recommended that children establish a dental home by age 1. Once a dental home has been established and preventative measures have been taken (i.e. fluoride varnish, sealants, etc.), the risk of dental decay is decreased tremendously.

3) Diabetics
Diabetics are more susceptible to bacterial infections and have a decreased ability to fight off bacteria, including bacteria in the mouth. Therefore, diabetic patients are at an increased risk for gum disease. Furthermore, once the gum disease is present, it may contribute to the progression of diabetes. Like all infections, gum disease can be a factor in causing blood sugar to rise, making diabetes harder to control and overall health more difficult to maintain. Diabetic patients should be encouraged to brush with fluoridated toothpaste twice a day and to floss daily. Seeing a dentist every six months is also very important for patients with diabetes. If periodontitis is present in a diabetic patient, however, the patient should see a dentist more frequently.

4) Patients with Cardiovascular Conditions
Research shows that periodontal disease can increase the risk for heart disease and stroke. Although the connection between heart disease and periodontitis is conclusive, the causal relationship is multi-factorial. Several studies have shown that people with periodontal disease may be more likely to have coronary artery disease than people with good oral health. One reason for that is the bacteria that cause periodontal disease can release toxins into the bloodstream and help to form fatty plaques in the arteries. These plaque deposits can lead to serious problems, such as...
blood clots, which can block blood flow. The bacterial species that live in the mouth with perio patients is also the same bacterial species that can live in and destroy prosthetic implants and deteriorate heart structures in heart disease patients. In addition, these bacteria in the mouth cause the liver to make high levels of certain proteins, which inflame the blood vessels. Inflammation could eventually lead to a heart attack or stroke. Patients who have cardiovascular conditions, especially patients with heart disease, should see a dentist every 6 months in order to maintain good oral health. The dentist must be updated on the patient’s heart condition and medications in order to provide safe, high quality dental care to that patient.

5) Patients with HIV/AIDS
Oral lesions are among the early signs of HIV infection and can predict its progression to acquired immunodeficiency syndrome (AIDS). Medical staff need to be aware of what these oral manifestations look like in order for HIV-infected patients to be recognized early. Furthermore, patients who have already been diagnosed with HIV often experience oral problems associated with the disease. A common side effect of HIV/AIDS is dry mouth, usually caused by medications. Dry mouth increases the risk of tooth decay because it decreases the flow of saliva, which protects teeth against bacteria. More than one-third of people living with HIV/AIDS have oral health conditions related to weakened immune systems. Inadequate oral health care can undermine HIV treatment regimens and diminish quality of life. Encourage patients with HIV/AIDS to see a dentist regularly.

Part 2: Opportunities for Medical-Dental Integration
Because dental disease is largely preventable, the most important area for increased medical-dental integration is within pediatrics. Integration, however, should begin before the child is even born. All pregnant moms should be educated on the importance of oral health for both themselves and their children. WIC programs are an excellent platform for this education to take place. Consider having one of the dentists and/or dental hygienists in your CHC do a group oral health session for pregnant moms in the WIC program.

Once the baby is born and reaches the age of 1, a dental home should be established for the child. The idea of a baby seeing a dentist will most likely be uncomfortable for parents. Ensure those parents who are uncomfortable with the idea that their child seeing a dentist as soon as possible is very important to the healthy development of their child. Children can get cavities as early as age 1, and cavities in baby teeth can lead to pain and prevent children from being able to eat, speak, sleep and learn properly. Inform parents that a simple knee-to-knee or lap exam will take place at the dentist appointment in order to make sure the child’s teeth are coming in correctly and the mouth looks healthy. Fluoride varnish may also be applied to teeth that have already erupted in order to prevent tooth decay.

Warm hand off - The warm hand off technique requires medical and dental departments to be housed at the same location. It involves staff from one department physically walking a patient over to the other department. For example, after a pregnant woman finishes her OB appointment, a medical assistant could walk her over to the dental department to make an appointment. This can also be done with children, diabetics and other special populations. Similarly, if a diabetic patient comes in for a dental appointment and the dentist becomes aware that the patient is having trouble maintaining a healthy blood glucose level, the dental assistant has the opportunity to walk that patient over to the medical department. See Part 4 on page 13 for additional medical-dental integration techniques.
Part 3: Internal Referral Options

Internal referrals between medical and dental departments in CHCs are critical to both the overall health of patients and the success of dental programs. There are several options for internal referral processes: 1) Verbal referrals, 2) Paper referrals, and 3) Electronic referrals.

1) Verbal referrals
Implementing a standardized referral process that involves verbal referrals can work a number of ways. Below are some tips to help make this referral process successful at your health center.

For medical providers:
• Include questions related to oral health on new patient intake forms (i.e. Does patient have a dental home? When was the last time patient saw a dentist?)
• Include check boxes for providers on new patient intake forms that require action steps (i.e. oral health assessment performed, patient given dental referral, patient given anticipatory guidance on oral health care)
• Develop a protocol for providers that requires a dental referral for every patient who answers “no” to the dental home question
• Create postcards or flyers for each medical exam room that has the dental clinic information (i.e. address, phone number, hours of operation, services provided, etc.)
• Instruct medical staff to give the handout to each patient that is given a dental referral

For dental providers:
• Include questions related to primary care and regular health checks on new patient intake forms (i.e. Does patient have a primary care doctor? When was the last time a patient went in for a routine health check?)
• After reviewing and signing off on a patient’s medical history, if the patient has answered no to having a primary care doctor and/or has indicated not being seen for a regular health check in the last year, provide that patient with a referral to the medical department
• Create postcards or flyers for each dental operatory that has the medical clinic information (i.e. address, phone number, hours of operation, etc.)
• Instruct dental staff to give the handout to each patient that is given a medical referral

2) Paper referrals
A standardized referral process involving paper referrals requires a greater amount of time and effort on both your medical and dental staff. As with the verbal referral system, new patient intake forms should include questions mentioned above and check boxes for providers that require action steps. The difference with a paper referral system is that the responsibility no longer lies with the patient but with the staff. This system also requires additional paperwork. Instead of providing the patient with the clinic’s contact information, a paper referral will be sent over to the medical or dental department, or scanned into the EHR system and flagged for the providers to see (see appendix for sample referral forms). Once the department receives the referral efforts should be made by the staff for an appointment to be scheduled for that patient. The referring provider should be notified once the patient has been seen, if the patient did not want to make an appointment, or if the staff member was unable to reach the patient to schedule the appointment. At least two efforts to schedule the appointment should be made.
2) Electronic referrals

The utilization of electronic health records (EHR) is also an option when creating an internal referral system. Templates can be built into EHR systems that allow for the documentation and tracking of internal referrals (see appendix for sample EHR templates). The referrals will appear as a pop-up window in the EHR system allowing the department receiving the referral to follow-up with that patient. This system may require additional training for your staff.

Part 4: Additional Medical-Dental Integration Techniques

*All of these suggestions are to be applied in situations where the patient does not already have a dental home.*

- Include an oral health assessment and/or dental appointment for pregnant women as part of your OB program. Include this in the intake form so every new patient undergoes a quick oral health assessment and is given a dental referral (see page 8 for link to Perinatal Oral Health Guidelines).
- Set up a booth in the lobby of your pediatric medical department and have a dental hygienist apply fluoride varnish to children waiting in the lobby. Hand out pamphlets on oral health and make follow-up appointments for children to see the dentist after the varnish is applied.
- Establish a protocol that all children scheduled for well-child visits will also be scheduled in the dental department on that same day as part of the well-child appointment. This saves parents time and the hassle of returning for a separate dental appointment for their child.
- Have your medical providers do quick oral health risk assessments on children and provide referrals to the dental department (see appendix for oral health risk assessment tools). Make this part of the patient intake form so every new patient undergoes this assessment.
- Have your medical providers do quick oral health assessments on all patients, especially special populations (i.e. patients with diabetes, cardiovascular disease, HIV/AIDS), and provide referrals to the dental department. Make this part of the patient intake form so every new patient undergoes this assessment.
- If your CHC hosts group education classes for the community, especially geared toward special populations like diabetics, include a session on oral health.
- Develop partnerships with Head Start and WIC programs in your area to provide oral health education and oral health screenings. Host WIC oral health days or Head Start field trip days at your center blocking off appointments for Head Start clients only. Organizing health fairs for clients involved in the WIC program and/or Head Start clients also serves as an opportunity to provide oral health services to children and possibly gain new clients for your dental department.
- Work with Arizona Smokers’ Helpline (ASHLine) to provide training for your medical and dental staff on tobacco cessation. Develop a protocol where all patients who use tobacco are given a referral to the dental department. Again, include this on the medical intake form so every patient that answers yes to using tobacco is also asked whether or not they have a dental home and is given a dental referral.
- Work with local nursing homes and RV parks to provide dental screenings and other dental services to elderly patients (might require grant funding). *Especially good for CHCs with mobile dental units.
- Work with local schools to provide dental screenings to children on school property (might require grant funding). *Especially good for CHCs with mobile dental units.
References - Section 1:

References - Section 2:

References - Section 3:

References - Section 4:
### 1) EMR/EDR Levels of Integration - How “integrated” is my Health Center?

<table>
<thead>
<tr>
<th>Type</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Integration</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| All Paper | • None | • Inefficient  
• Costly storage and retrieval  
• Information not readily available  
• Discrepancies between charts  
• Cannot report off information (unstructured data) |
| Electronic Medical Record Only | • Part of patient’s medical record exists in electronic format for easy accessibility  
• Advanced clinical decision support mechanisms can be implemented in EMR | • Paper workflows are inefficient and costly to maintain  
• No single patient record  
• Need for process improvement and efficiency of paper record “unstructured content” integration into an EMR |
| Electronic Dental Record Only | • EDI vendors are adding EMR functionality and planning to obtain ONC certification for Stage 2  
• EDR integrated with electronic imaging provides a single view of patient record | • Paper workflows are inefficient and costly to maintain  
• No single source of patient information for demographics, meds, problems, allergies, etc.  
• Need for process improvement and efficiency of paper record “unstructured content” integration into an EMR |
| Separate Electronic Medical and Dental Records | • Dental can see medical  
• Sets the stage for tighter integration between the two systems | • Requires license to both programs  
• Must toggle between and log in/out of 2 distinct systems  
• No single sign on  
• Dual data entry  
• Any non-integrated EMR-EDR costly to maintain |
| Electronic Medical Record Only with Dental Templates | • Do not have to interface between systems; single database  
• All patient information is stored in a single chart  
• Ability to leverage embedded clinical decision support and interaction checking  
• Less cost | • Products vary in their ability to support film and image needs of dentists  
• Development of dental specific templates may be required  
• One size fits all approach  
• Duplicate information |
| Home Grown Electronic Medical & Dental Records | • Control over systems development lifecycle  
• Ability to customize to the specific needs of the clinic and providers | • High startup costs and time investment  
• Reinventing the wheel  
• Limited features and functionality  
• May not meet ONC certification criteria to qualify for MU initiatives |
| Interfaced Electronic Medical & Dental Records | • EDR dental specific  
• HL7 messaging is an accepted interoperability standard  
• Opportunity to obtain Meaningful Use incentive payments if EMR-EDR solution is ONC certified | • Limited information sharing  
• Duplicate information between two systems  
• Generally there is an extra cost for HL7 interface set up and any future upgrades |
| Fully Integrated Electronic Medical & Dental Record (one database) | • EDR dental specific  
• Streamlined and tightly integrated patient record and functions  
• Single sign on  
• Increased patient safety  
• Medication reconciliation  
• Single clinical view of patient record  
• Immediate access to patient records within the Health Center | • Generally the combined cost can be more  
• Internal IT and clinical staff need to maintain and service both applications if Health Center is not a member of a Health Center Controlled Network |
| Electronic Medical & Dental Record + Electronic Health Record (one database) | • Multiple users can view a chart simultaneously  
• Lab and x-ray results returned automatically  
• Drug to drug/ allergy interaction checking  
• Quality of Care  
• Increased efficiency and improved workflow  
• Improved patient communications and services  
• Reduced medical records transportation costs | • Upgrade problems, including lack of internal or external IT or support resources  
• Inadequate EHR Templates that are difficult to use or update  
• Hidden or unexpected EHR expenses |

**Created By:** National Network for Oral Health Access
2) Patient Intake Form - EMR Version (see pages 12-13 for more information)

<table>
<thead>
<tr>
<th>Birth to &lt;1 Year</th>
<th>1 - 4 Years</th>
<th>5 - 10 Years</th>
<th>11 - 17 Years</th>
<th>18 - 21 Years</th>
<th>Last detailed doc date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0 Years</td>
<td></td>
<td></td>
<td></td>
<td>24/07/2001</td>
</tr>
<tr>
<td>Weight</td>
<td>kg</td>
<td>lb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language spoken at home</td>
<td>English</td>
<td></td>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental Care</td>
<td>Last visit</td>
<td>7/1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elimination</td>
<td>Bladder</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Physical activity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Family &amp; Relationships</td>
<td>Language spoken at home</td>
<td>English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent(s) / Guardian(s)</td>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>State</td>
<td>Country</td>
<td>Exposure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Courtesy of: Sunset Community Health Center
### Request for Dental Consultation

<table>
<thead>
<tr>
<th>Name of Patient</th>
<th>Date of Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Referral</td>
<td>Record #</td>
</tr>
<tr>
<td>Patient’s Phone Number</td>
<td></td>
</tr>
</tbody>
</table>

**Reason for Dental Referral:**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

**Significant Medical Conditions:**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Referring Physician ________________________________

Signature__________________________________________

---

**Date Referral was Received**________________________

**Action Taken by Dental Staff (check all that apply):**

- [ ] Attempted to Make Appointment  Date __________
- [ ] Appointment Made  Date __________
- [ ] Patient Seen  Date __________

Notes:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Dentist or Dental Staff Signature______________________________________________

---
Request for Medical Consultation

Name of Patient_______________________________       Date of Birth____________________
Date of Referral _______________________________       Record #_______________________
Patient’s Phone Number__________________________________________________________

Reason for Medical Referral:
______________________________________________________________________________
______________________________________________________________________________

Significant Medical Conditions:
______________________________________________________________________________
______________________________________________________________________________

Planned Dental Treatment:
______________________________________________________________________________
______________________________________________________________________________

Referring Dentist________________________________________________________________
Signature______________________________________________________________________

Date Referral was Received________________________________________________________

Action Taken by Medical Staff (check all that apply):

☐ Attempted to Make Appointment       Date______________
☐ Appointment Made                     Date______________
☐ Patient Seen                        Date______________
☐ Patient Stable for Dental Treatment Date______________ Through___________

Notes:
______________________________________________________________________________

Medical Provider_______________________________________________________________
Signature______________________________________________________________________
5) EHR Referral Template/EHR Referral Tracking (see page 13 for more information)

Managers can order dental referrals for a patient using the system. The order form includes fields for the patient's information, provider, and reason for referral. GYN notes are noted separately. A list of SCHC In House Referrals between March 01, 2012, and April 16, 2012, is also displayed.

Courtesy of: Shasta Community Health Center
## Oral Health Risk Assessment Tool

The American Academy of Pediatrics (AAP) has developed this tool to aid in the implementation of oral health risk assessment during health supervision visits.

### Instructions for Use

This tool is intended for documenting caries risk of the child, however, two risk factors are based on the mother or primary caregiver’s oral health. All other factors and findings should be documented based on the child.

The child is at an absolute high risk for caries if any risk factors or clinical findings, marked with a ▲ sign, are documented yes. In the absence of ▲ risk factors or clinical findings, the clinician may determine the child is at high risk of caries based on one or more positive responses to other risk factors or clinical findings. Answering yes to protective factors should be taken into account with risk factors/clinical findings in determining low versus high risk.

### Visit:
- 6 month, □ 9 month, □ 12 month, □ 15 month, □ 18 month, □ 24 month, □ 30 month, □ 3 years, □ 4 years, □ 5 years, □ 6 years, □ other

### RISK FACTORS

| ▲ Mother or primary caregiver had active decay in the past 12 months Yes □ No □ |
| □ Mother or primary caregiver does not have a dentist Yes □ No □ |
| □ Continual bottle/sippy cup use with fluid other than water Yes □ No □ |
| □ Frequent snacking Yes □ No □ |
| □ Special health care needs Yes □ No □ |
| □ Medicaid eligible Yes □ No □ |

### PROTECTIVE FACTORS

| □ Existing dental home Yes □ No □ |
| □ Drinks fluoridated water or takes fluoride supplements Yes □ No □ |
| □ Fluoride varnish in the last 6 months Yes □ No □ |
| □ Has teeth brushed daily Yes □ No □ |

### CLINICAL FINDINGS

| ▲ White spots or visible decalcifications in the past 12 months Yes □ No □ |
| ▲ Obvious decay Yes □ No □ |
| ▲ Restorations (fillings) present Yes □ No □ |
| □ Visible plaque accumulation Yes □ No □ |
| □ Gingivitis (swollen/bleeding gums) Yes □ No □ |
| □ Teeth present Yes □ No □ |
| □ Healthy teeth Yes □ No □ |

### Caries Risk:
- □ Low
- □ High

### Completed:
- □ Anticipatory Guidance
- □ Fluoride Varnish
- □ Dental Referral

### Treatment of High Risk Children

If appropriate, high-risk children should receive professionally applied fluoride varnish and have their teeth brushed daily with an age-appropriate amount of fluoridated toothpaste. Referral to a pediatric dentist or a dentist comfortable caring for children should be made with follow-up to ensure that the child is being cared for in the dental home.

Supported in part by

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The recommendations in this publication do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate. Copyright © 2011 American Academy of Pediatrics. All Rights Reserved. The American Academy of Pediatrics does not review or endorse any modifications made to this document and in no event shall the AAP be liable for any such changes.
### CAMBRA Form for Medical Providers (0-5 year patients), Assessment Tool

(Adapted from UCSF/San Francisco General Hospital Department of Family and Community Medicine.)

<table>
<thead>
<tr>
<th>Name</th>
<th>DOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Health Network</td>
<td>San Francisco General Hospital Medical Center</td>
</tr>
<tr>
<td>Family Health Center</td>
<td>MRN</td>
</tr>
<tr>
<td>Pediatric Oral Health Screening</td>
<td>PCP</td>
</tr>
<tr>
<td>Progress Notes</td>
<td>Patient ID/Addressograph</td>
</tr>
</tbody>
</table>

#### MEDICAL CAMBRA RISK ASSESSMENT FORM 0 TO 5 INFANTS & TODDLERS

<table>
<thead>
<tr>
<th>Chief complaint or reason for referral</th>
<th>Initial</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Caries risk indicators — based on parent interview

- (a) Mother/primary caregiver has had active dental decay in past 12 months
- (b) Older siblings with history of dental decay
- (c) Continual use of bottle containing beverages other than water/milk. Bottle use > 24 months old.
- (d) Child sleeps with a bottle or nurses on demand
- (e) Frequent (greater 3x/day total) candy, carbohydrate snacks (junk food), soda, sugared beverages (including processed juice)
- (f) Medical Issues
  1. Saliva-reducing meds (asthma, seizure, hyperactivity etc.)
  2. Developmental problems etc.
  3. H/O anemia or Fe+ Rx

#### Protective factors — based on parent interview

- (a) Child lives in fluoridated community AND drinks tap water daily
- (b) Teeth cleaned with fluoride toothpaste (pea-size) daily
- (c) Fluoride varnish applied to child’s teeth in last 6 months

#### Oral examination

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Obvious white spots (decalcifications), or obvious decay present on the child’s teeth: NOTE ON DIAGRAM

#### ECC (Early Childhood Caries) Diagnosis:

- (a) No visible Early Childhood Caries (ECC)
- (b) Non-cavitated ECC
- (c) Cavitated ECC

#### Assessment: Child’s caries risk status

(cavities in the mother/caregiver, white spots or cavities in the child indicate high caries risk. The balance between the checked shaded areas (risk indicators) and the checked un-shaded areas (protective factors) provides the risk status as high or low):

- LOW
- HIGH

#### Plan

- (a) Health education handouts
- (b) Dispense fluoride toothpaste and toothbrush
- (c) Prophylaxis and fluoride varnish
- (d) FHC Oral Health Clinic follow-up appointment (high risk) _______ months
- (e) Urgent outside dental referral (high risk, needs tracking)
- (f) Routine dental referral for dental home (all others)

| Signature of Rendering Provider: ___________________________ | Name: ___________________________ | CHN #: ___________________________ |
| Supervising Attending: ___________________________ | CHN #: ___________________________ | Date of Service: ___________________________ |
“You’re not healthy without good oral health!”

~C. Everett Koop, Former Surgeon General

This toolkit is part of the Advancing Optimal Oral Health in Arizona Project, funded by the DentaQuest Foundation and the Delta Dental of Arizona Foundation.