Dental Emergency Department Diversion Project

Report to North Dakota Department of Health

December 2020

Quality Health Associates *of* North Dakota

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DENTAL EMERGENCY DEPARTMENT DIVERSION PROJECT

Quality Health Associates of North Dakota

The North Dakota Department of Health (NDDoH) Oral Health Program (OHP) desires to better understand emergency department (ED) utilization for dental pain. Quality Health Associates of North Dakota (QHA) was retained to develop an environmental scan data collection tool in collaboration with the NDDoH Oral Health Program. Using the environmental scan data collection tool, QHA conducted environmental scans in the Minot and Williston communities which included interviews with EDs, dental practices and patients.

I. Background

Despite major improvements in oral health for the population, a significant level of untreated oral disease persists in the US for adults as well as for children. In ND, tooth pain-related visits to the ED increased 79.8% from 2015 through 2018 (North Dakota Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE), 2019). Of the 2,526 cases in 2018, the highest rates were all among those of working age with those 17 or under and greater than 65 showing much lower rates. Among those, 76.4% were white followed by American Indian or Alaskan Native at 9.5%, African American at 6% and all other races at 8.1%. The counties with the highest numbers of ED visits for tooth pain included Ward, Williams, Rolette and Sioux county areas.

2018 Tooth Pain Events by Age Group in North Dakota	
25-34	36.3%
35-44	20.0%
45-54	12.5%
18-24	11.8%
55-64	7.8%
0-17	6.3%
65 and older	5.3%

Many factors contribute to why patients use EDs for non-traumatic dental conditions (NTDC). Access to dentists due to geographic locations, financial hardship, and poor oral health literacy are common barriers for patients seeking dental care.[1] Even for those with dental insurance, out-of-pocket expenses result in financial hardship. Many lack having any dental insurance at all. For those on Medicare, dental care is not covered except in situations involving specific medical conditions.

The Association for State and Territorial Dental Director's policy statement describes the use of EDs for NTDC as a poor use of resources. The average cost of a visit to the ED for dental problems is three times as much as a visit to a dentist.[1] EDs may lack having

diagnostic equipment or staff with dental training to properly identify, diagnose and treat dental conditions. Often patients going to EDs with these dental conditions are treated temporarily with antibiotics and/or pain medications. When the underlying condition is not addressed, patients may return to EDs for the same dental issues. An analysis of claims in Oregon suggests that of those who visit the ED for dental pain, 39 percent will return once the medications run out, and that 21 percent of those who had one ED dental visit in a year will return two-four more times.[1] This same study found that ED physicians and midlevel providers are nearly three times as likely to prescribe an opioid for acute dental issues than are dentists.

For these reasons, the NDDoH Oral Health Program subcontracted with QHA to conduct interviews with targeted ED staff, dental offices and patients to better understand the reasons behind seeking help for tooth pain in the ED and to explore opportunities to improve access to dental care through educational messaging, improved protocol and referrals, and ED/Dentist partnerships.

II. Approach

To prepare this report, QHA staff:

- Developed an environmental scan data collection tool in collaboration with the NDDoH OHP to include the following:
  - International Classification of Diseases (ICD)-10 codes for ED visits of tooth pain and oral health
  - ED-related questions to assess treatment and referral practices for individual with tooth pain to include but limited to prescribing, referrals, use of patient navigators, OneRX and/or other opioid misuse or overdoses risk screenings, and follow-up
  - Dental office-related questions to assess current treatment practices and the potential drivers contributing to individuals using EDs for oral/dental health concerns and options for treating acute dental pain
  - Patient-related questions of potential drivers contributing to their use of EDs for their oral/dental health concerns
  - Additional community level data
- Conducted environmental scans in the Minot and Williston communities using the data collection tool

III. Results of ICD-10 Codes

The NDDoH OHP provided a summary of tooth pain data compiled from ND ESSENCE, an electronic surveillance system that consists of emergency department, urgent care and walk-in clinic visit information from 2015-2018. The International Classification of Diseases, ninth revision, Clinical Modifications (ICD-9-CM) and International Classification of Diseases, tenth revision, Clinical Modifications (ICD-10-CM) codes used for the analysis was 525.9, K08.8, K08.9, and K08.89. The following table provides the ICD-9 and ICD-10 code descriptions used for the NDDoH analysis and identifies additional ICD-10 codes relating to tooth pain and oral health. Code descriptions were obtained through QHA's subscription to OPTUM360® online coding tools and code books.

Codes Used in NDDoH ND ESSENCE Report		
ICD-10 Code	**Code Description**	**Lay Description**
525.9 (ICD-9)	Unspecified disorder of the teeth and supporting structures	Mapping to ICD-10 = K08.9
K08.8	Other specified disorders of teeth and supporting structures	**Range K08.8** This residual subcategory contains disorders not found elsewhere but that still relate to teeth and their supporting structures. Specific conditions captured in this subcategory include unspecified enlargement of alveolar ridge, irregular alveolar process, and toothache not otherwise specified (NOS).
K08.9	Disorder of teeth and supporting structures, unspecified	**Range K08** This category covers an assortment of disorders including exfoliation or premature loss of teeth. These conditions may result from a systemic disease that affects the immune system or connective tissue such as neutropenia, Human Immunodeficiency Virus (HIV), or diabetes among many others. This category also contains codes for loss of teeth, jaw atrophy, complications of tooth restoration, and retained dental root.
K08.89	Other specified disorders of teeth and supporting structures ・ Enlargement of alveolar ridge NOS ・ Insufficient anatomic crown height ・ Insufficient clinical crown length ・ Irregular alveolar process ・ Toothache NOS	**Range K08.8** This residual subcategory contains disorders not found elsewhere but that still relate to teeth and their supporting structures. Specific conditions captured in this subcategory include unspecified enlargement of alveolar ridge, irregular alveolar process, and toothache NOS.
Additional ICD-10 Codes Relating to Tooth Pain and Oral Health		
ICD-10 Code	**Code Description**	**Lay Description**

Z01.21	Encounter for dental examination and cleaning with abnormal findings	**Range Z01** During a general examination, most or all of the body systems may be checked to look at the overall health of the patient. In some cases, only a specific body system needs to be investigated, per the request of the patient or the practitioner. Codes in this category are used to capture these encounters. Exams identified here range from routine gynecological exams to dental, vision, or hearing exams to blood typing and allergy testing. Similar to general examinations, these routine exams may turn up abnormal findings, which can be coded in addition to the encounter code.
K00	Disorders of tooth development and eruption	**Range K00** This category includes disorders of tooth development and eruption in all patients regardless of age. It is one of the few categories in ICD-10-CM that classifies congenital anomalies and hereditary disturbances outside of Chapter 17 Congenital Malformations, Deformations, and Chromosomal Abnormalities.
K01	Embedded and impacted teeth	**Section K00 - K95** This chapter classifies diseases and disorders of the organs comprising the alimentary (digestive) tract, the long, muscular tube that begins at the mouth and ends at the anus. The major digestive organs include the pharynx, esophagus, stomach, and intestines. Supporting structures include the salivary and parotid glands, jaw, teeth, tongue, biliary tract, and peritoneum. Accessory organs or structures that support the digestive process from outside this continuous tube are also included in this chapter: gallbladder, pancreas, and liver. These organs provide secretions that are critical to food absorption and use of nutrients by the body. The digestive system is a group of organs that

		breaks down and changes food chemically for absorption as simple, soluble substances by blood, lymph systems, and body tissues. Digestion involves mechanical and chemical processes. Mechanical actions include chewing in the mouth, churning action in the stomach, and intestinal peristaltic action. These mechanical forces move the food through the digestive tract and mix it with secretions containing enzymes, which accomplish three chemical reactions: the conversion of carbohydrates to simple sugars, the breakdown of proteins into amino acids, and the conversion of fats into fatty acids and glycerol. The stomach churns and mixes the food with hydrochloric acid and enzymes and gradually releases materials into the upper small intestine (the duodenum) through the pyloric sphincter. The majority of the digestive process occurs in the small intestine where most foods are hydrolyzed and absorbed. The products of digestion are actively or passively transported through the wall of the small intestine and assimilated into the body. The stomach and the large intestine (colon) can also absorb water, alcohol, certain salts and crystalloids, and some drugs. Water-soluble digestive products (minerals, amino acids, and carbohydrates) are transferred into the blood system and transported to the liver. Many fats, resynthesized in the intestinal wall, are picked up by the lymphatic system and enter the blood stream through the vena caval system, bypassing the liver. Remaining undigested matter is passed into the large intestine (the colon) where water is extracted. This solid mass (the stool) is propelled into the rectum, where it is held until excreted through the anus. Diseases and disorders that interfere with this function, called functional disorders, are

		classified here, along with diseases and disorders that affect the organs of the digestive tract even when the condition has no direct effect on digestion. For example, dental caries have a direct effect on digestion because they interfere with mastication, the mechanical breakdown of food by chewing. Portal hypertension does not directly affect digestion but is included in this chapter because it represents a disease of a digestive system organ. Portal hypertension would have no discernible effect on the digestive process until the disease has progressed to the point that the liver can no longer perform its function as a digestive organ.
K02	Dental caries Includes: Caries of dentine Dental cavities Early childhood caries Pre-eruptive caries Recurrent caries Tooth decay	**Range K02** Dental caries are a demineralization of the tooth enamel caused by acids produced by bacteria, particularly *Streptococcus mutans*. The bacteria that cause caries are microflora and are present not only in the oral cavity but also in the gastrointestinal tract and other parts of the body. Variations in intraoral mechanical forces, such as chewing or grinding of the teeth, affect formation of bacteria and plaque on the teeth that can lead to dental caries. Other causes are related to feeding behaviors, such as baby bottle tooth decay in infants. Craniofacial problems, neurologic abnormalities, or impaired cognitive abilities can interfere with proper dental care and also result in dental caries. Primary prevention measures include fluoride therapy, fissure-sealant therapy, dietary counseling, and oral-hygiene measures. Dental caries are classified by the surface type or by site and by the depth of the decay.
K03	Other diseases of hard tissues of teeth	**Range K03** Enamel, dentin, and cementum comprise the three hard tissues of the teeth. Enamel is the hardest and outermost surface and is formed by ameloblasts. It allows the tooth to withstand chewing pressure and temperature changes. Once formed, enamel cannot regrow

		or repair; however, it can regain minerals and halt decay or dental caries. The second layer and largest portion is the dentin, which is made from odontoblasts; although softer than enamel, it is still harder than bone. It contains tubules of dentinal fibers that can transfer not only pain, but nutrition throughout the tooth. Finally, the last hard tissue is the cementum, which covers the root of the tooth and is also harder than bone but not as hard as enamel or dentin. The codes in this category affect these hard surfaces.
K04	Diseases of pulp and periapical tissues	**Range K04** The center of the tooth and its soft tissues are known as the pulp. The pulp extends from the bottom of the crown to the bottom of the root and is made up of blood vessels that carry oxygen and nutrients back and forth from the heart. Nerves lining the pulp respond to heat, cold, and pressure.
K04.5	Chronic apical periodontitis Apical or periapical granuloma Apical periodontitis NOS	**Range K04** The center of the tooth and its soft tissues are known as the pulp. The pulp extends from the bottom of the crown to the bottom of the root and is made up of blood vessels that carry oxygen and nutrients back and forth from the heart. Nerves lining the pulp respond to heat, cold, and pressure.
K04.7	Periapical abscess without sinus Dental abscess without sinus Dentoalveolar abscess without sinus	The center of the tooth and its soft tissues are known as the pulp. The pulp extends from the bottom of the crown to the bottom of the root and is made up of blood vessels that carry oxygen and nutrients back and forth from the heart. Nerves lining the pulp respond to heat, cold, and pressure.
K05	Gingivitis and periodontal diseases	**Range K05** Gingival and periodontal diseases include acute and chronic gingivitis and acute and chronic periodontitis. There may be no symptoms in the early stages of gingivitis. Signs and symptoms of advanced gingivitis and periodontitis include blood on the tooth brush when brushing the teeth, swollen and red gums, tenderness when the gums are touched,

		pus around the teeth, bad taste in the mouth, and visible deposits of tartar or calculus on the teeth.
K05.20	Aggressive periodontitis, unspecified Acute pericoronitis	**Range K05.2** The soft tissue lining the mouth and surrounding the teeth is known as the gingiva or gums. Healthy gums protect the portion of the tooth that lies below the gum line. When proper oral hygiene is not practiced, plaque and bacteria can accumulate below the gums, leading to gingival and/or periodontal disease. Periodontitis is an advanced stage of gingival inflammation that can lead to bone loss, periodontal pockets, tooth migration, and eventually tooth loss. The aggressive form of periodontitis is characterized by an early age at onset, often at or before puberty, although it has been seen in older adults. The disease progresses rapidly, involving multiple teeth, and periodontal tissue loss out of proportion to the amount of plaque observed. There are two forms of the disease: localized and generalized. Localized is defined as less than 30 percent tooth involvement and generalized as greater than or equal to 30 percent tooth involvement. Both are frequently associated with the periodontal pathogen Actinobacillus actinomycetemcomitans. Severity is also a part of the classification and is determined by the amount of clinical attachment loss (CAL), which is designated as slight (1 to 2 mm CAL), moderate (3 to 4 CAL), or severe (>5 mm CAL).
K05.30	Chronic periodontitis, unspecified Chronic pericoronitis Complex periodontitis Periodontitis NOS Simplex periodontitis	**Range K05.3** The term chronic periodontitis signifies the progression of the inflammatory disease of the body and ligamentous supporting tissues of the teeth over time as a result of failure to treat the disease in the acute stage. This does not mean that the disease is untreatable, but patients with severe and widespread chronic periodontitis have a high risk for tooth loss. The chronic condition typically progresses slowly, although there may be spurts of destruction. The disease progression rate is

		also influenced by local factors, systemic diseases, and extrinsic factors such as smoking. Chronic periodontitis is further classified as localized or generalized depending on the extent of the disease, which is based on the percentage of sites involved, with localized defined as less than 30 percent involvement and generalized as greater than or equal to 30 percent. Severity is determined by the amount of clinical attachment loss (CAL) and is designated as slight (1 to 2 mm CAL), moderate (3 to 4 mm CAL), or severe (>5 mm CAL).
K05.6	Periodontal disease, unspecified	**Range K05** Gingival and periodontal diseases include acute and chronic gingivitis and acute and chronic periodontitis. There may be no symptoms in the early stages of gingivitis. Signs and symptoms of advanced gingivitis and periodontitis include blood on the tooth brush when brushing the teeth, swollen and red gums, tenderness when the gums are touched, pus around the teeth, bad taste in the mouth, and visible deposits of tartar or calculus on the teeth.

IV. Evaluation of Community Data

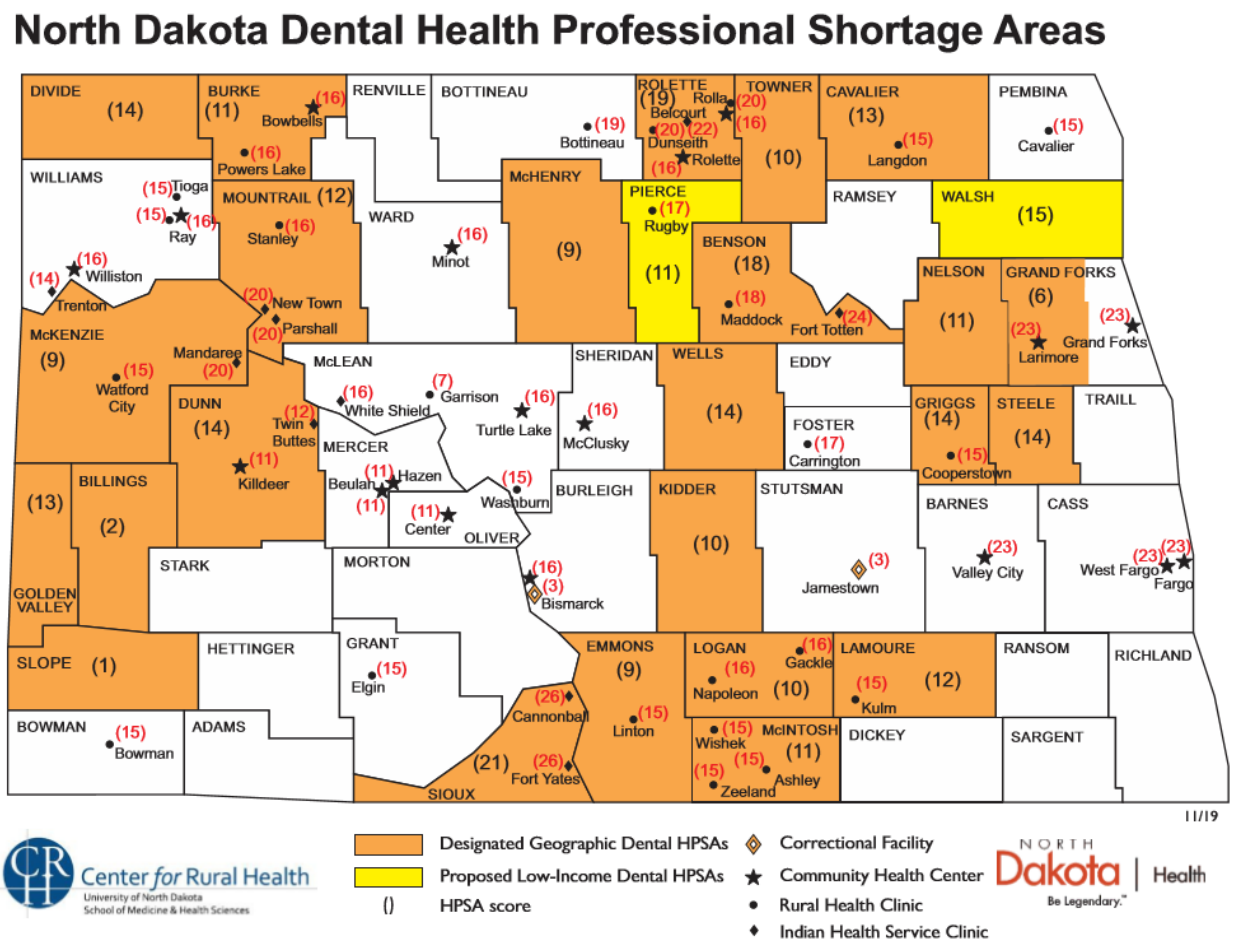
The table below summarizes general demographic data for Ward and Williams Counties.

	Ward County	Williams County	North Dakota
Population estimates (2019)	67,641	37,589	762,062
Age < 18	23.60%	28.70%	23.50%
Age 65+	12.80%	9.60%	15.30%
African American	4.70%	4.60%	3.40%
American Indian	2.50%	4.30%	5.50%
Asian	1.80%	1.00%	1.80%
Hispanic	6.30%	7.90%	3.90%
Median Household Income (in 2018 dollars), 2014-2018	$67,753	$86,575	$63,473
Persons without health insurance, under 65	7.50%	8.40%	8.40%
High school graduate or higher, percent of persons age 25 years+	93.40%	92.10%	92.50%

Bachelor's degree or higher, percent of persons age 25 years+	28.30%	24.80%	29.50%
Percent of persons in poverty	10.80%	6.50%	10.70%

Source: United States Census QuickFacts, https://www.census.gov/quickfacts/fact/table/US/PST045219

The map below displays designated low-income and designated facility dental health professional shortages areas with scores. Health Professional Shortage Areas (HPSAs) indicate health care provider shortages. Scores for dental health range from 1 to 26, with higher scores indicating greater the priority or need for dental services.



Source: Center for Rural Health (November 2019): https://ruralhealth.und.edu/assets/2783-12674/nd-dental-hpsa-scores.pdf

V. Key Findings from Community Health Needs Assessments

Trinity Hospital Community Health Needs Assessment (2019)[3]

- Under Access to Care, community participants voiced concerns over several access issues. A fourth of these responses was "dental care access is a real challenge for low-income and Medicaid individuals. Many employers in the area do not offer dental insurance, and a large volume or providers are unwilling to accept Medicaid for coverage of services."

Community Health Needs Assessment for Williston Service Area (2019)[4]

- For clinical care health factors relating to the ratio of patients to dentists, Williams county ranks below US top 10% and above ND state average. (Williams County: 1,600:1; US top 10%: 1,320:1; ND: 1,630:1)
- Of the 283 community members responding to questions about their health insurance status, 3% reported having no health insurance or being under-insured, 2% responded having Medicaid and 88% responded having insurance through their employer. These responses reflect having health insurance which may or may not include dental insurance.
- Of the 286 community members responding to questions about availability/delivery of health services concerns, only 2% selected availability of dental care as a health care concern.

VI. Results of Environmental Scan Interviews

Between August 13 and October 9, 2020, QHA completed a qualitative assessment among dental providers, EDs and patients in western North Dakota to determine interest and need for a dental ED diversion project. QHA had the intention of interviewing several patients but only gained access to one. Interviews and focus groups were held with five dental offices in western North Dakota and two major health systems.

Dental clinics and EDs in western North Dakota did not identify a strong concern with how the ED has been utilized for dental care. EDs specified that those who are visiting the ED for dental care are typically doing so for treatment of an infection and/or are seeking care outside of traditional hours. Both dental teams and EDs agreed that individuals utilize the ED for treatment of dental pain for the following reasons:

- Inability to pay, in full and at the time of care, for dental treatment in a dental office.
- Perception, real or imagined, that treatment for dental pain is less costly in an ED than in a dental office.
- Inability to find a dental office willing to accept the patient because:
  - They are not a patient of record at any dental office.
  - They cannot afford to pay the full cost of care at the time of service in the dental clinic.
  - They cannot afford the care and do not qualify for Care Credit.
  - They cannot find an office willing to accept individuals (adults especially) who are covered under Medicaid.
  - Dental pain presents outside of traditional business hours (Monday through Friday), or the wait for a dental appointment is too long and the patient is requiring immediate relief of pain.

For patients who cannot afford dental care (regardless of prevention or treatment), the only option for dental services outside of the ED includes care provided at a Federally Qualified Health Center (FQHC). However, western North Dakota only has one FQHC that is able to provide oral health services, and they have indicated they have been looking for a dentist in the Ray area for four years, Minot could use 1.5 additional dentists, and Turtle Lake could use one more full-time dentist. There is also interest in recruiting an additional dentist in the Bismarck office, but there are no dentists available. There was not a consensus regarding a need to increase the number of dental offices in western North Dakota in order to prevent the use of the ED for dental emergencies. Instead, there was a need to increase dentists who serve a specific population—those who cannot afford traditional dental services, and those who are covered by Medicaid.

The single patient interview of a female between the ages of 25-29, who held private health insurance through her employer including vision and dental, reflected similar findings learned from the ED and dental clinic interviews:

- Even those with insurance struggle to find affordable dental treatment (and affordable preventive care) locally.
- Patients utilize the ED when they have exhausted efforts to receive care in a dental clinic and are in pain.
- EDs typically provide an antibiotic and something for pain relief and leave it to the patient to schedule any follow-up dental care.
- The two greatest contributions to individuals accessing the ED for oral health concerns include the out-of-pocket, same-day cost of dental care, and timely access to dental services.

A complete analysis of the interviews can be found in Appendix A. The facilitation guides for the interviews follow in Appendix B, C and D.

Neither the EDs nor the dental offices truly saw the use of the ED for dental pain as a priority issue. Though both EDs acknowledged it was a nearly everyday occurrence, they did not see it as inappropriate. Dental offices were asked if they would be willing to hold a shared-use agreement with the local ED to treat patients with acute dental needs. While they all indicated they would be interested in learning more, they were quick to note the expense, both personal and monetary, of keeping their offices open longer hours, the impact that it would have on their staff, and that expansion of hours and call had both been tried in the past unsuccessfully. EDs were asked if they believe there is an issue with dental access. Only one responded to the question noting it is not about having enough dentists, but whether they can get in immediately when in pain.

Dental offices were asked about the process in place to receive information from the ED or physician when receiving a referral from the ED. Four responded there is no communication from the ED, no phone call, and no paperwork exchanged. One stated they receive an occasional phone call from an ED physician. They were asked if they utilize any of the tools available for information such as the Prescription Drug Monitoring Program (PDMP) or the North Dakota Health Information Network (NDHIN). Only one dentist expressed interest in using the PDMP and would like more information about the NDHIN. The other four had very little knowledge of what the NDHIN could provide.

All groups were asked if they would be willing to participate in a coalition to address finding solutions to dental issues in their community. Both EDs stated they would be interested in participating but were hesitant to specify who may be involved from their organizations as the

COVID-19 pandemic is high priority. One dental office stated that they would participate, with two more likely to participate, and two were very hesitant. The one patient who was interviewed stated that she would be happy to share her story in a coalition environment and participate in developing solutions.

VII. Summary

The organization of this project began in April of 2020 with a request for the development of an environmental scan data collection tool in collaboration with the NDDoH OHP and the subsequent conduction of the tool with emergency departments in Williston and Minot hospitals, multiple dental offices and with patients.

Early on as the tool was being developed, it was recognized this type of data collection through interviews required Internal Review Board (IRB) approval of the survey tools. Concurrently, the SARS-CoV-2 or COVID-19 pandemic was just beginning its spread into ND. The NDDoH OHP and all healthcare facilities across the state were focused on the outbreak and declining to participate in non-COVID activities. Dental offices were canceling appointments and closing for several weeks in attempt to help flatten the curve, to preserve personal protective equipment (PPE) for essential use, and to contribute to the new social distancing requirements. One of the many effects of the COVID-19 pandemic early on was that the IRB committee members at the NDDoH were pulled to work on pandemic preparation, and therefore, all IRB review and approval suspended. As it became apparent that the pandemic was going to continue throughout the summer, QHA was unable to make a connection with the Centers for Rural Health and seek approval through the University of ND IRB committee. Before QHA could submit an application for approval, however, all investigators had to complete IRB Collaborative IRB Training Initiative (CITI) coursework through UND. This process took several months and delayed the start of the actual interviews significantly from QHA's original plan. QHA received IRB approval on July 28, 2020.

A canvasing of the internet and health directories for dental offices in the Minot and Williston communities was completed to gather contact information. The dental offices were prioritized if they provided general or family dentistry with cosmetic dentistry lower on the list. QHA staff began attempting to schedule dental practices immediately but were met with some challenges. There were some preconceived ideas specifically among dental practices that these meetings were being conducted in an effort to require dental practices to expand hours and/or to be on call to their corresponding EDs in an effort to expand access to care. It was necessary to have multiple calls with each dental office to assure the staff and dentists that we were only asking questions and convince them QHA was a safe entity to vent their frustrations and to share their perspectives. QHA was ultimately able to schedule five dental offices: three in Minot and two in Williston. Though the initial plan was to conduct the interview's face-to-face, three of the five interviews were done through a virtual platform or phone per the preference of the dental office.

The EDs were also difficult to schedule as they prioritized COVID-19 care. QHA was able to set up virtual meetings with each of the EDs with provider, nursing, and administration represented. During those meetings, a very brief permission form was provided and requested they ask patients who presented to the ED for dental care if they would participate in the project. Both EDs agreed to assist with this, but only one permission form was returned to QHA. While the patient interview completed was rich in information, additional patient interviews would have provided a more broad patient perspective. Formal gatherings such as convening a focus group was precluded by pandemic restrictions.

While the initial goal of this project was to divert patients away from the ED to more comprehensive dental care, it has been found that the EDs, dental offices and patients confirm the ED is being used appropriately for dental pain in these two communities. However, there are many opportunities to improve access to dental care through educational messaging regarding the importance of preventive oral health care; improved referral relationships; improved Medicaid processes for accreditation and claims; expansion of dental care access for low income and Medicaid patients; and health information exchange. Grover (2017) offers a couple of models for referral processes and relationships between the ED and dental offices that could be excellent examples to start the conversations between these two groups.

References:

1. Association of State and Territorial Dental Directors (ASTDD). (2020). *Policy Statement: Reducing Emergency Department Utilization for Non-Traumatic Dental Conditions*. https://www.astdd.org/docs/reducing-emergency-department-utilization-for-non-traumatic-dental-conditions-january-2020.pdf
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Emergency Department Diversion for Dental Pain: Interviews with Dental Clinics, Emergency Departments, and Patients in Western North Dakota

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BACKGROUND

Under funding from the Centers for Disease Control and Prevention, the North Dakota Department of Health Oral Health Program implemented a program to better understand the opioid prescribing practices of dentists and to assess use of the emergency department (ED) for oral health care. Read the fact sheet, Dental Pain Management in Dental Clinics, Emergency Rooms, and Primary Care Settings in North Dakota for more information.[a] The Oral Health Program has funded the University of North Dakota Center for Rural Health[b] to conduct research and evaluation activities related to this project. Quality Health Associates (QHA) of North Dakota[b] has been contracted to complete the environmental scan in two Western North Dakota communities in an effort to design and implement an ED diversion program.

METHOD

Between August 13 and October 9, 2020, QHA of North Dakota completed a qualitative assessment among dental providers, emergency rooms, and patients in western North Dakota to determine interest and need for a dental ED diversion project. QHA had the intention of interviewing several patients, but only gained access to one. Interviews and focus groups were held with five dental offices in western North Dakota, and two major health systems. See Table 1 for details.

Table 1. Data Collection: Dental Clinics and Emergency Departments in Western North Dakota

	Participants	Data Collection Method
Health System One	▪ Quality improvement and Risk Management ▪ Emergency Department Nursing Director ▪ Family Nurse Practitioner	Virtual Interview via Amazon Chime
Health System Two	▪ Assistant Unit Manager ▪ Educator (Registered Nurse) ▪ Vice President of Nursing	Virtual Interview via Amazon Chime
Dental Clinic One: Private Practice	Dentist (owner)	Phone Interview
Dental Clinic Two: Federally Qualified Health Center	▪ Dentist ▪ Chief Executive Officer ▪ Front Desk ▪ Dental Assistant ▪ Dental Hygienist	Virtual Interview via Amazon Chime
Dental Clinic Three: Private Practice	Dentist (owner)	Face-to-Face Interview
Dental Clinic Four: Private Practice	Office manager compiled responses from dental providers	Phone interview with office manager
Dental Clinic Five: Private Practice	Dentist (owner)	Face-to-Face interview

ANALYSIS

Two staff with QHA conducted the key informant interviews and focus groups. These processes and interview protocols were approved by the University of North Dakota Institutional Review Board.[d] See Appendix A-C for a copy of the questions posed to the emergency departments (EDs), dental clinics, and one ED patient presenting with dental pain.

The interview notes were added into an Excel document, were reviewed by QHA, and were then analyzed by a third-party evaluator within the University of North Dakota Center for Rural Health.

Analysis of ED interviews/focus groups:

- Coding all data for ED interviews
- Interviews with QHA on their perceived codes and themes related to the ED
- Development of themes based on coded data
- Review of data again in relation to the developed themes and categorization of all responses
- Review of the analysis by QHA
- Summary notes and recommendations as they relate to the ED

Analysis of dental clinic interviews/focus groups:

- Coding all data for dental clinic interviews
- Interviews with QHA on their perceived codes and themes related to the ED
- Development of themes based on coded data
- Review of data again in relation to the developed themes and categorization of all responses
- Review of the analysis by QHA
- Summary notes and recommendations as they relate to the participating dental clinics

RESULTS

Perspectives among Emergency Departments in Western North Dakota

The focus group questions focused on understanding how EDs in western North Dakota are addressing dental pain, and what, if anything, should be done to reduce use of the ED for dental concerns. Among the two health systems that participated in focus groups interviews with the QHA, there were three general themes centering around: (1) reasons patients utilize the ED for oral health concerns; (2) the role of ED in providing care for patients presenting with oral health concerns; and, (3) recommendations for the state. The focus group responses were categorized into six codes, which were then organized into the three themes. See Table 2 for a complete list of themes and a sample of responses to illustrate each.

Table 2. Addressing Dental Pain in Emergency Departments in Western North Dakota: Thematic Analysis of Two Focus Groups, 2020

THEME	CODE	DESCRIPTION	SAMPLE OF ED TEAM MEMBER STATEMENTS
Reasons Patients Utilize the ED for Oral Health Concerns	Cost of dental care	Statements that related to the use of the ED for dental care because of the cost of dental clinic services. This includes statements related to insurance, out-of-pocket expenses, and the barrier to accessing dental care for both prevention and treatment because of the cost to the individual.	• Most of the patients seen in the ED for dental care are there for dental pain or abscess; state they cannot afford to see their dentist. • Community members use the ED for dental care because there are several patients without insurance. • To reduce ED utilization for dental care that there needs to be more dentists that accept Medicaid. • Many patients that come to the ED cannot access a dental office because the dental office requires payment upfront and the ED does not.
	Access to traditional dental care	Those participating in focus groups from the ED believed that the greatest reason individuals present to the ED for dental treatment, outside of cost of traditional dental care, was because of barriers related to access to both preventive and treatment services.	• It is a lot easier to walk into the ED and get relief from pain than it is to wait for a dental appointment. • Dentists are hard to find. Many practices are closed to new patients. Few in the area take new patients. • Dentists do not take Medicaid or uninsured patients. • Patients want immediate results; the ED is right now and the dental office requires an appointment. • When the prescription runs out they come back to the ED because of convenience. • Need to be proactive with dental care access.
Role of ED in Providing Care for Patients Presenting with Oral Health Concerns	Common ED treatment for oral health concerns	Individuals presenting to the ED for dental care are presenting because of pain and infection. The most common treatment is an antibiotic and something for dental pain (generally a dental block and very rarely an opioid). There is expectation that the patient seeks follow-up dental treatment at a dental clinic.	• Most common requests are for antibiotics and pain medication or a dental block. • Patients present because of convenience. It is a lot easier to walk into the ED and get relief from pain than it is to wait a month for a dental appointment. • Prescribe for pain but very rarely is it an opioid. If it is an opioid, it is only 2-3 days. The expectation is that the opioid is only intended to help the patient as they then schedule a follow-up dental appointment for needed treatment.

THEME	CODE	DESCRIPTION	SAMPLE OF ED TEAM MEMBER STATEMENTS
	Patient follow-up	EDs rely on patients to set their own dental appointments following an ED visit for an oral health concern. There are no formal, nor informal, dental referral agreements. The EDs do not follow-up with patients. EDs provide a list of local dentists for the patient.	• It is expected that the patient will follow-up with a dentist. • We show them the list and try to make the call with/for them. If it is after hours, we get them a copy of the list. • The health system does not follow-up with the patient. • Health systems are not responsible for the referral to a dental provider. • No formal referral process.
Recommendations	Need for patient and provider oral health education	There needs to be a community education campaign to educate patients on the importance of preventive oral health and when to, and not to, visit the ED for an oral health concern. There is also an opportunity to train EDs on proper oral health screens and dental providers on how to prevent the need for patients to seek care in the ED.	• Need education on effects of street drugs, poor dental care, or need to see a dentist. • Public education would be huge, a lot of patients that do come have the expectation that antibiotics and pain meds will be prescribed. Public needs to have the perception that it won't. • Tried to get education out regarding appropriate use of ED, using stop light tool, used Facebook, but not sure if it really helped or not. • Providers open to education on prescribing/treating and learning about techniques to assess for oral health/tooth pain. Multiple methods would need to be offered. The shorter, quicker, most convenient way possible that doesn't take a lot of time.
	Appropriate use of ED for dental pain	A majority of the care that does present to the ED is not necessarily "avoidable" ED care. It is "avoidable" only in regard to the notion that regular, preventive dental care and cleanings could have reduced the risk of the emergent dental care. However, visiting the ED may have been the appropriate care seeking behavior for infection or abscess.	• Most of the time there is no other option. • Usually pain meds, antibiotics, on a rare occasion a dental block, perhaps x-rays. • Most of the patients are for dental pain for abscess.

Summary from Focus Groups in Western North Dakota EDs

Patients present to the ED for oral health concerns because of the cost of dental clinic services. There are barriers to traditional dental care for patients who are on Medicaid, for those uninsured, and for

those who cannot pay the cost of dental care “up-front.” Those participating in focus groups from the ED believed that the greatest reason individuals present to the ED for oral health concerns, outside of cost of traditional dental care, was because of barriers related to access to both preventive and treatment services.

Individuals presenting to the ED for dental care are presenting because of pain and infection. The most common treatment is an antibiotic and something for dental pain (generally a dental block and very rarely an opioid). There is expectation among the health system that the patient will seek follow-up dental treatment at a dental clinic. EDs rely on patients to set their own dental appointments following an ED visit for an oral health concern. There are no formal, nor informal, dental referral agreements. The EDs do not follow-up with patients. EDs only provide a list of local dentists for the patient, but not necessarily which are accepting new patients or patients on Medicaid.

The EDs recommend a community education campaign to educate patients on the importance of preventive oral health care and when to, and not to, visit the ED for an oral health concern. There is also an opportunity to train EDs on proper oral health screens, and to train dental providers on how to prevent the need for patients to seek care in the ED.

A majority of the care that does present to the ED is not necessarily “avoidable” ED care. It is “avoidable” only in the sense that regular, preventive dental care and cleanings could have reduced the risk of the need for emergent dental care. However, visiting the ED may have been the appropriate care-seeking behavior for the given infection or abscess.

Perspectives among Dental Clinics in Western North Dakota

Among the five dental clinics that participated in focus groups or key informant interviews, four of the five were private practice dental clinics, and one was a federally qualified health center (FQHC). Views ranged from those in positions of leadership to those who provided direct patient care or administrative services. Table 3 presents the general themes of the focus groups and key informant interviews and the applied codes.

Table 3. Providing, and Need for, Emergent Dental Care in Western North Dakota: Thematic Analysis of Five Dental Clinic Focus Groups, 2020

THEME	CODE	DESCRIPTION	SAMPLE OF DENTAL CLINIC STAFF STATEMENTS
Reasons Patients Utilize the ED for Oral Health Concerns	Cost of dental care	Dental teams state that they require payment at the time of service and that patients that are seen after hours accrue an additional expense at upward of $250. Typically the dental clinics do not accept new Medicaid patients because of the poor reimbursement. Dental clinics will stop treatment if the patient cannot afford the care. Dental teams mentioned a third-party "Care Credit" card for medical expenses.	• We do let people know what the treatment plan is and how much it is going to cost. If they say they can pay, we will go on and treat, but if they can't, we stop. We expect payment at time of service • Medicaid for dentistry - I lose more money seeing the patient than if I didn't see one. • If you had never been seen here before, the cost would be different than an established patient. A regular exam is $77, after hours is $129. • We do not offer a payment plan. Quite a while ago we did, but we stopped because people don't pay. • Care Credit – Gives 12 months to pay and then if not paid off, interest rate can get very high.
	Access to traditional dental care	Dental teams indicated they do not accept adults who are on Medicaid and limit the number of other patients on Medicaid (children). Shared that extended hours were not cost-effective nor an option. Some dentists do offer their personal cell number, but when that is the case, they are only available for emergent care for established patients.	• If you call [a dental clinic] as a non-established patient, they may turn you away. • A first-time patient referred to our dental clinic from the ED, we probably wouldn't accept them. • Feel like taking additional MA [medical assistance] patients would be an injustice to established patients. • At this point we do not want to do any after hours or weekend type care . . . we are not willing to do any after-hours care. • Going to the ED may seem easier – It's kind of an open door. May feel that there is more of a barrier with getting into a dental office. • Dental offices aren't staffed like an ED where patients can come anytime. We don't have room for ED patients.

Role of ED in Providing Care for Patients Presenting with Oral Health Concerns	Dental clinics expectations for ED care and referral related to oral health	No dental clinic had a formal referral agreement with local EDs, but they also do not appear to have an interest nor need for it. Only the FQHC stated they frequently receive patients by ED referral. It is the patient that is responsible for arranging the care, not the referring health system. The ED is viewed as appropriate after-hours care and necessary for pain management and antibiotics. For Medicaid patients or patients unable to pay at the time of care, it may be the only option during regular business hours as well.	• I think the ED does have a list of dentists in town, and when they get a patient, they go to that list and can call, but we have never gotten a call from the ED to see if we can see a patient. • No formal or even informal referral agreement or process with local EDs. • Generally feel that the patient gets what they want from the ED and then they never call the dentist. At one time in the 1990s, dentists were on call in the one ED – it was abused and therefore stopped around 2005. It overburdened dentists at the time. • Through the FQHC, there is an after-hours triage call which directs the patient to the ED for pain control, and then they help them make an appointment for the next day. This is a live person through a contract agency.
Recommendations	Need to reach patients before the care required is emergent	Patients presenting for emergent care may not be a dental clinic patient of record, may have forgone preventive dental care, and do not necessarily prioritize dental care, which leads to emergent need. Need patients to utilize preventive dental care during regular business hours.	• People are not able to take time off work when dental services are available, and it gets to be an emergent situation . • Patients say they don't have a dentist here yet – a population of nomads. They do not establish with a dentist and tend to just go when they have a need. • We need to get people over their fear of dentistry. They wait until it is swollen and have a fever, and then it is at a bad time. • Important to stress good oral hygiene and six-month checkups and follow-up on treatment they need instead of putting it off.
	Patient education	There is a need to educate patients on the importance of preventive dental care, regular visits, and where to turn if/when there is an emergent need. Need to also address the lack of education around true cost of dental versus ED out-of-pocket expenses for oral health services.	• There is a lack of education where their first point of contact should be. • Perception of cost is that the dental office costs more, even though it is the opposite. People perceive that their medical insurance may pay if they go to the emergency room. • Dental IQ is low. They are smart people; they just don't know about dental. • No dental insurance is the response if they go to ED. Or they think dental insurance isn't going to cover it. It would be much less expensive if they had an x-ray and exam in a dental office rather than the ED. • Education - When they sign up for MA, the case worker needs to explain how to seek care with this insurance specifically for dental care.

Summary from Focus Groups in Western North Dakota Dental Clinics

Typically the dental clinics do not accept new Medicaid patients because of the poor reimbursement. One additional clinic indicated that beyond low reimbursement rates, another reason for not accepting more Medicaid patients was because of the complexity of submitting for reimbursement. Credentialing with medical assistance (Medicaid) is also very difficult. The paperwork is complicated and requires many attachments. “If it were an easier process there may be more dentists who would be willing to credential. It took 6-7 hours of my time to do that paperwork for West Hills.” Prior to submitting this paperwork, she was already credentialed with another dental clinic.

Dental teams state that they require payment at the time of service and that patients that are seen after hours accrue an additional expense at upward of $250. This does not include the actual cost of any provided treatment. Type of insurance or being uninsured did not play a role in the dental care provision, and instead, the focus was on the ability to pay.

This is true for both prevention and treatment services. Dental clinics will stop treatment if the patient cannot afford the care specified. Dental teams did mention a third-party “Care Credit” card for medical expenses. This allows a patient to pay back the care in increments, but after 12 months, there is an interest rate. Additionally, not all patients have a credit score that will allow them to apply for the Care Credit.

Dental teams indicated they do not accept adults who are on Medicaid and limit the number of other patients on Medicaid (children). The clinics shared that extended hours were not cost-effective nor an option. Some dentists do offer their personal cell number, but when that is the case, they are only available for emergent care for established patients.

There is a clear need to find dental care access for patients who cannot afford to pay for dental care at the time of service, and a need to identify an access point for adults who are covered by Medicaid. There is one identified FQHC in this region that does provide care to patients who cannot afford dental care, in its entirety, at the time of service. The FQHC provides care, regardless of ability to pay, and charges patients on a sliding-fee-scale. However, this FQHC has been looking to expand and hire additional dental team members upwards of four years at some locations, which limits the availability of dental care in the region.

No dental clinic had a formal referral agreement with local EDs, but they also do not appear to have an interest or need for it. Only the FQHC stated they frequently receive patients by ED referral. It is the patient that is responsible for arranging the care, not the referring health system. The ED is viewed as appropriate after-hours care and necessary for pain management and antibiotics. For Medicaid patients or patients unable to pay at the time of dental care, it may be the only option during regular business hours as well.

Patients presenting for emergent care may not be a dental clinic patient of record, may have forgone preventive dental care, and do not necessarily prioritize dental care, which leads to emergent need. Dental clinics see a need to encourage patients to utilize preventive dental care during regular business hours. Regular, preventive dental care is the primary solution to reducing use of the ED for emergent dental services. However, there was no discussion on how to overcome issues of access and cost for those who are covered by Medicaid or cannot afford the cost of preventive dental care, in full, at the time of service.

There is a need to educate patients on the importance of preventive dental care, regular visits, and where to turn if/when there is an emergent need. There is also a need to address the lack of education

around true cost of dental care compared to the out-of-pocket expenses for oral health services received in the ED.

SUMMARY AND RECOMENDATIONS

Dental clinics and EDs in western North Dakota did not identify a strong concern with how the ED has been utilized for dental care. EDs specified that those who are visiting the ED for dental care are typically doing so for treatment of an infection, and/or are seeking care outside of traditional hours. Both dental teams and EDs agreed that individuals utilize the ED for treatment of dental pain for the following reasons:

- Inability to pay, in full and at the time of care, for dental treatment in a dental office.
- Perception, real or imagined, that treatment for dental pain is less costly in an ED than in a dental office.
- Inability to find a dental office willing to accept the patient because:
  - They are not a patient of record at any dental office.
  - They cannot afford to pay the full cost of care at the time of service in the dental clinic.
  - They cannot afford the care and do not qualify for Care Credit.
  - They cannot find an office willing to accept individuals (adults especially) who are covered under Medicaid.
- Dental pain presents outside of traditional business hours (Monday through Friday), or the wait for a dental appointment is too long and the patient is requiring immediate relief of pain.

For patients who cannot afford dental care (regardless of prevention or treatment), the only option for dental services outside of the ED includes care provided at the FQHC. However, western North Dakota only has one FQHC in North Dakota that is able to provide oral health services, and they have shared that they have been looking for a dentist in the Ray area for four years; Minot could use 1.5 additional dentists; and Turtle Lake could use one more full-time dentist. There is also interest in recruiting an additional dentist in the Bismarck office, but there are no dentists available. There was not a consensus that there is a need to increase the number of dental offices in western North Dakota in order to prevent the use of the ED for dental emergencies. Instead, there was a need to increase dentists who serve a specific population: those who cannot afford traditional dental services and those who are covered by Medicaid.

CASE PRESENTATION

Presented here is a single case presentation of an actual patient who utilized the ED for treatment of dental pain in western North Dakota. The patient's real name will not be used, and instead, we will present the case of Jane Doe.

The patient presents as female, White, and between the ages of 25-34. She held private health insurance through her employer and also carried additional vision and dental.

Prior to visiting the ED, Jane identified local dental offices within her network when she first began to experience discomfort. There was only one dental clinic in her area that accepted her private insurance. She scheduled and went to her dental appointment in early September. At the dental office, they did an x-ray, completed an oral health assessment, and they identified an extensive treatment plan. This included the estimate, and what it would cost out-of-pocket at the time of service. Jane could not afford the care laid out in the treatment plan. Instead, Jane took antibiotics prescribed by dentist, and went home. Within a month, the tooth flared up again. This time, Jane went to ED. She presented to the ED

with dental pain at noon on a Thursday in October of 2020. They identified that she needed the tooth to be pulled immediately. She contacted the original dental clinic to schedule an appointment, but she could not be seen that week. The medical doctor informed her that she could not wait until the date of that appointment to have the tooth removed. After calling around, she had an appointment scheduled for the next day. The tooth was pulled by a different dental clinic than she had visited prior, and she had to pay for the care up front. She has submitted this expense to her insurance but does not know how long that will take or if it will be covered.

While in the ED, they placed her on an IV antibiotic, completed a CT of the face, and determined she had cellulitis that was nearly reaching her eye. When asked why she went to the ED for dental care, she shared that she had called her dental office where she was a patient of record, but she could not get in for the urgent care needed. She was worried. Her face continued to swell "and the pain was out of control. I wasn't getting any relief from the antibiotic" previously prescribed by the dental office. "I was scared the infection was going to go to my brain . . . I didn't know what else to do."

This scenario illustrates what the dental clinics and EDs had also identified:

- Even those with insurance struggle to find affordable dental treatment (and affordable preventive care) locally.
- Patients utilize the ED when they have exhausted efforts to receive care in a dental clinic and are in pain.
- EDs typically provide an antibiotic and something for pain relief and leave it to the patient to schedule any follow-up dental care.
- The two greatest contributions to individuals accessing the ED for oral health concerns include the out-of-pocket, same day cost of dental care, and timely access to dental services.

CITATIONS

a. https://ruralhealth.und.edu/assets/3718-15505/nd-dental-pain-management.pdf
b. https://ruralhealth.und.edu/what-we-do/oral-health
c. https://www.qualityhealthnd.org/
d. https://und.edu/research/resources/human-subjects/

APPENDIX B: Dental ER Diversion Project | ED Facilitation Guide

Scheduling Meeting/Attendance Recommendations

- Suggest including physicians, NPs, nurses, CNAs, front desk, triage staff, patient navigators (if appropriate)
- Ask the health system who they want to attend meeting
- Schedule meeting for ___ hours
- Explain purpose of meeting – Use intro script

Day of Meeting

- Introductions – Use intro script attachment
- Provide ND data and reason for meeting
- This meeting will be recorded
- Explain meeting format/questions
  - Have designated facilitator
  - Have designated note taker

Questions

1. What are the reasons community members are using the ED for oral health care?
2. Is there a referral process in your health system for those patients using the ED for "tooth pain?"
   a. If so, what is the process? If not, is the health system open to incorporating a system by working with local dental offices?
   b. Is the health system using patient navigators for those coming to the ED for tooth pain?
      i. If using patient navigators, what process is used for following through with referrals?
      ii. How do patient navigators or coordinators get notification of these patients?
3. Does the health system follow-up with patients coming to them for tooth pain? Why/why not?
   a. What is the process for following through with referrals?
4. How are individuals triaged when they arrive in the ED for oral/dental injuries? Is a standardized criteria used?
5. Describe most common prescribing/treatment practices of providers for patients with tooth pain?
   a. Do they prescribe antibiotics?
   b. Do they prescribe pain medication? If they prescribe a pain medication:
      i. Is it an opioid?
      ii. How many days prescribed?
      iii. Are you calculating the number of MME (Morphine Milligram Equivalents)? Is there a limit or protocol that reflects a limit for MME?
      iv. Is an opioid misuse or overdose risk screening tool (such as OneRx) used? If yes, describe how used and follow-up.
   c. Are there any other options for prescribing (e.g., refer to a dentist to prescribe and treat)?
   d. Does anyone in the ED perform any dental procedures? If so, what procedures?

6. Do you have a protocol for dental procedures?

   a. Do you have any dentists on call in the ED? Do you have a protocol for utilizing them?

   b. Are there physicians who have standing orders for tooth pain? Are you willing to share that?

7. What do you feel is your role and scope of practice for diagnosing and treating dental pain?

   a. What is included in the treatment of patients?
   b. Do they always have to prescribe a medication, or could alternative services be recommended?
   c. What are your suggestions to reduce ED utilization for dental pain? (Provide examples if needed)

8. What is the rate of patients returning to the ED for the same chief complaint?
   a. Do patients return to the ED after being seen for tooth pain? If so why?
   b. Do you track this type of data and are you willing to share?

9. How are individuals coded (ICD-10) when they arrive in the ED for non-traumatic dental conditions?
   a. Who does the coding?
   b. Are patients coming in for other reasons AND tooth pain (e.g., headache and tooth pain)?

10. Are providers open to education on prescribing/treating and learning about techniques to assess for oral health/tooth pain?
    a. If yes, what method for training (face-to-face vs. virtual)?

11. Would the hospital be open to a shared-use agreement to have the dental professionals use in those communities that do not have an FQHC or a Bridging the Dental Gap?
    a. Explain what shared-used agreement may look like.
    b. Does the hospital system have a dentist on staff?
    c. Would the hospital be willing to partner within the community to support a shared space to provide dental care?
    d. What other ideas do you have for individuals who do not have a dental home?

12. What would be the ROI for your health system if ED visits for tooth pain are reduced?
    a. How often do you admit patients with tooth pain into the hospital on antibiotics?
    b. Do you track ED utilization for tooth pain?
    c. Do you track ED reimbursement for tooth pain?

13. We are interested in interviewing patients who have used EDs for tooth pain? Would you be able to identify and provide us with contact information for us to interview?
[Diversity of patients is ideal in terms of age, gender, race, insurance coverage]

Conclusion

- Thank them for their participation
- Summarize why this was important – Use post-interview script
- Ask if they would be willing to participate in bringing others (dental providers, stakeholders, patients) from the community together to further address this problem

APPENDIX C: Dental ER Diversion Project | Dental Office Facilitation Guide

Scheduling Meeting/Attendance Recommendations
▪ Suggest including dentists and other staff ▪ Ask the dental office who they want to attend meeting ▪ Schedule meeting for ___ hours ▪ Explain purpose of meeting – Use intro script

Day of Meeting
▪ Introductions – Use intro script attachment ▪ Provide ND data and reason for meeting ▪ This meeting will be recorded ▪ Explain meeting format/questions • Have designated facilitator • Have designated note taker

Questions
1. What are the reasons community members are using the ED for oral health care (from perspective of dentist)?
2. Are patients aware of how to access emergency dental care?
3. Do you have a process in place to receive referrals from the ED? a. Are appointments available for patients with emergent dental pain/needs? b. Is there a certain treatment protocol you would want providers in ED to use for treating patients with dental pain? c. Is there a process for you to receive information from the ED/physician when receiving a referral from the ED? d. Is there a process to provide a report back to ED/physician once patient is received and treated? (NDHIN?)
4. Does your office have staff on call to treat patients outside of normal office hours in the case of an emergency? a. Is there any additional cost for patients to be seen emergent or after normal hours for dental pain? If so, what is the average cost?
5. Is there a program for payment assistance for emergent dental pain treatment? a. Do you know the insurance status of patients referred for follow-up after being seen in ED for dental pain? b. What is your policy on receiving referrals from ED for dental pain that don't have insurance? c. What is your policy on receiving referrals from the ED with Medicaid? d. Does your office serve Medicaid clients? If no, why?
6. What are your suggestions to reduce ED utilization for dental pain?
7. Would you be willing/able to hold a shared-use agreement with the local ED to treat patients with acute dental needs?

Conclusion
▪ Thank them for their participation ▪ Summarize why this was important – Use post interview script ▪ Ask if they would be willing to participate in bringing others (ED providers, stakeholders, patients) from the community together to further address this problem

Dental ED Diversion Project

ED Request for Patient Participation:

The ND DOH is seeking to improve access to dental care in ND and is looking for input from patients who have previously accessed the ED for dental pain.

Would you be willing to be interviewed by an associate about your experience regarding your recent visit to the ED for tooth pain sometime between July 15 and September 15? If Yes:

Name:

_____

Preferred Number: _____ Cell Phone: _____

An associate will be in contact with you to set up a time for a short interview.

Scheduling Interview

- Receive patient names from ED interview
  - Script for ED request of patients:
    The North Dakota Department of Health is seeking to improve access to dental care in North Dakota and is looking for input from patients. Would you be willing to be interviewed by an associate about your experience regarding your recent visit to the Emergency Department for tooth pain? [Collect contact information: Name, cell phone number, gender, DOB]. An associate will be in contact with you to set up a time for a short interview.
- Contact and set up time for phone call
- Explain purpose of meeting

Day of Interview

- Greeting/Introduction of self
  - *Thank you for agreeing to be interviewed about your (self/child) recent visit to the Emergency Department for tooth pain. This interview should take about 20 minutes, is now a good time?*
    If no: request to reschedule the call.
  - *As it may have been stated before, the North Dakota Department of Health is interested in improving access to dental care in North Dakota, and therefore has contracted me (us) to assist with exploring the current issues. Our interview with you today will help us better understand the current issues with dental access from the patient's perspective. Any answers you provide for this survey will remain confidential, and your name will never be used in reporting or connected to quotes or comments in published reports. Your participation is entirely voluntary, and refusal to participate will involve no penalty. You are free to discontinue the interview at any time, and free to select the questions you want to answer. The information collected may be used to aid in the development of appropriate strategies to*

address access to dental care in ND. Do you have any questions or concerns about the confidentiality of this interview?

- *Do you have any questions before we begin?*

▪ Proceed with questions.

Questions

1. Basic Demographics:

   Gender: ☐ Male ☐ Female ☐ Genderqueer/Non-Binary
   ☐ Other_____ ☐ Prefer not to answer

   Age Group: ☐ 0-17 ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65-74 ☐ 75+

   Race: ☐ White ☐ AI/AN ☐ African American ☐ Asian
   (Select all that apply) ☐ Native Hawaiian/Pacific Islander ☐ Other

   Health Insurance: ☐ Private ☐ Medicare ☐ Medicaid ☐ IHS ☐ Other ☐ None

   Dental Insurance: ☐ Yes ☐ No
   Month of ED Visit for tooth pain: _____
   Day of the week: _____
   Approximate time of day: _____

2. How did you decide where to seek treatment for dental pain?
   (No emergency dental care available, distance, acuity, cost, fearful of dentists)

3. Do you have a dentist that you see on a regular basis?
   - If no, why not? (cost, lack of accessible office hours)
   - If yes, was there an attempt made to access this dentist?
     - If no, why not?

4. Do you have dental insurance?
   - If yes, what type?
   - If yes with Medicaid, do you use it for dental care?
   - If no, why not?

5. Was the ED able to resolve the issue, or did you need to see a dentist following that visit?
   a. Did you receive a referral to a dentist from the ED?

6. What treatment did the ED provide?

7. If this were to happen again, where would you seek care? Why?

Conclusion
▪ Thank them for their participation ▪ Summarize why this is important ▪ Ask them if they have anything more to share ▪ Ask if they would be willing to participate in bringing others (ED providers, dental providers, patients) from the community together to further address this problem