



## Opportunities for MassHealth ACOs to Improve Oral Health and Reduce Cost through Emergency Department Diversion

### POLICY BRIEF

Prepared for:



Authors:

**Rachel Gershon, JD, MPH**

**Enid Velez, MPH**

**Donna C. Jones, DMD, MPH**

**Tami Ohler, PhD**

**Hilary Deignan, JD, MEd**

Commonwealth Medicine,  
UMass Medical School

**David Polakoff, MD, MSc**

UMass Medical School

July 2019

## **Acknowledgments**

This report was produced with funding and the support of the Southern New England Practice Transformation Network (SNE-PTN) through the Transforming Clinical Practice Initiative (TCPI), an initiative of the Centers for Medicare and Medicaid Services. The authors would also like to thank Joseph Burgess, Jessica Calabrese, Karen Clements, Tracy Chase Gilman, Bonnie Greenwood, Helen M. Hendrickson, Kim Lenz, Cheryl Niamath, Edward Sayer, Robert Seifert, Neetu Singh, and Rakesh “Kishi” Talati for their assistance.

## Executive Summary

---

MassHealth, Massachusetts' combined Medicaid and Children's Health Insurance Programs, is a key to dental access in Massachusetts. Dental pain can strike suddenly and severely, announcing the existence of a problem that needs urgent dental attention. But for many MassHealth members, the emergency department (ED), not the dental office, is where they seek dental care. In 2017, over 13,000 dental ED visits occurred for MassHealth members, totaling \$2.44 million in MassHealth claims.

A dental ED visit will likely relieve pain and guard against increased infection; standard procedure for a dental ED visit is an exam without diagnostic dental X-rays. Painkillers and antibiotics are prescribed (in 2017, antibiotic prescriptions were filled after 41% of MassHealth dental ED visits, and opioid prescriptions were filled after 15% of MassHealth dental ED visits). Without definitive dental care, the infection and pain can return, spurring additional ED visits and more medication.

Access to dental care is usually needed to provide resolution to dental pain and other dental conditions. Properly addressing dental problems can improve health conditions like heart disease, diabetes, and pregnancy outcomes. Connecting patients to dental care reduces dental pain, addresses dental conditions, improves health, reduces the prescribing of opioid painkillers and antibiotics, and reduces health care expenditures.

For MassHealth Accountable Care Organizations (ACOs), connecting patients with dental care offers an opportunity to improve care and reduce costs. Dental offices offer definitive treatment for the causes of non-traumatic dental conditions, unlike EDs. And dental offices are less expensive than EDs. For example, the cost of an ED visit with a diagnosis of dental caries (tooth decay) is more than two-and-a-half times the cost of a dental office visit that includes restorative services to address dental caries, with an average difference of \$149 per visit. After those ED visits for dental caries, a dental office visit would still be needed. MassHealth ACOs who successfully prevent dental ED visits will see savings tied directly to ED costs, because they are not financially responsible for dental office expenditures. A capitated MassHealth ACO (referred to as an Accountable Care Partnership Plan) will save an average of \$244 per dental ED visit for restorative services. The amount another type of MassHealth ACO would save depends on the portion of savings the ACO agreed to share; it would range from an average of \$49 to \$244 per dental ED visit for restorative services averted.

Several new developments make it easier to connect MassHealth patients with dental care. The MassHealth Dental program, one of sixteen extensive benefit programs, offers one of the most comprehensive Medicaid dental coverages in the country. In the Spring of 2019, it added non-surgical periodontal services to adult coverage. The new MassHealth ACO program, launched in March 2018, rewards providers for reducing unnecessary care at costly sites such as emergency departments. Advice for ACOs around improving dental care is available from the MassHealth dental program and through MassHealth technical assistance for ACOs. Lastly, new models of dental care delivery are showing innovative ways how ACOs can improve access to dental care. For example, a financially successful dental urgent care dental clinic, managed by the Community Health Center of Franklin County and embedded in Baystate Medical Center, shows "proof of concept" in western Massachusetts. MassHealth ACOs can take advantage of these developments to improve health care for their members and reduce their total cost of care.

## Introduction

---

Most dental care is more effective and less expensive at dental offices<sup>1</sup> than in the ED, but many MassHealth members opt for an ED visit instead. MassHealth ACOs have an opportunity to connect members to dental care sooner, improve care, and reduce costs.

This policy brief provides a broad outline of the issue; introduces new data regarding the scope of the issue and cost savings available; and suggests specific actions that MassHealth ACOs can take, including member education, interprofessional provider engagement, and development of urgent dental care capacity. This policy brief relies on analysis of MassHealth claims data and interviews with medical providers, dental providers, the MassHealth third party administrator (TPA), and advocates.<sup>2</sup>

## Background

---

The MassHealth dental program offers one of the most comprehensive Medicaid dental coverages in the country, with dental service coverage varying by age and coverage type. Children (under age 21) are generally covered by MassHealth for a full slate of medically necessary and Early and Periodic Screening, Diagnostic, and Treatment dental services, including orthodontics and orthognathic services. MassHealth's medically necessary coverage for adults includes evaluations, diagnostic radiographs, preventative services, restorations, endodontics, oral surgery, removable and fixed prosthodontic services, and orthognathic services; periodontal services were added in Spring 2019.<sup>3</sup> If a service is not covered by MassHealth, it might be covered at a community health centers or hospital licensed clinic through another MassHealth state program called the Health Safety Net (HSN).<sup>4</sup>

The MassHealth Medicaid dental benefit and HSN programs are administered by the same TPA (currently DentaQuest). MassHealth Managed Care Organizations (MCOs) and ACOs do not administer the dental benefit. The MassHealth dental benefit is also not part of an MCO's or ACO's payment; rather, the dental program remains a fee for service program. Though many dental services are covered by MassHealth and many MassHealth members do seek dental care in dental offices, previous analyses have found that a significant number of MassHealth members use the ED, rather than a dental office or community health center, to access dental care. The Massachusetts Health Policy Commission found, for instance, that MassHealth paid for over 17,000 preventable dental ED visits in 2014.<sup>5</sup> These findings have led to calls for more care integration and dental access.

## MassHealth Dental Emergency Department Visits

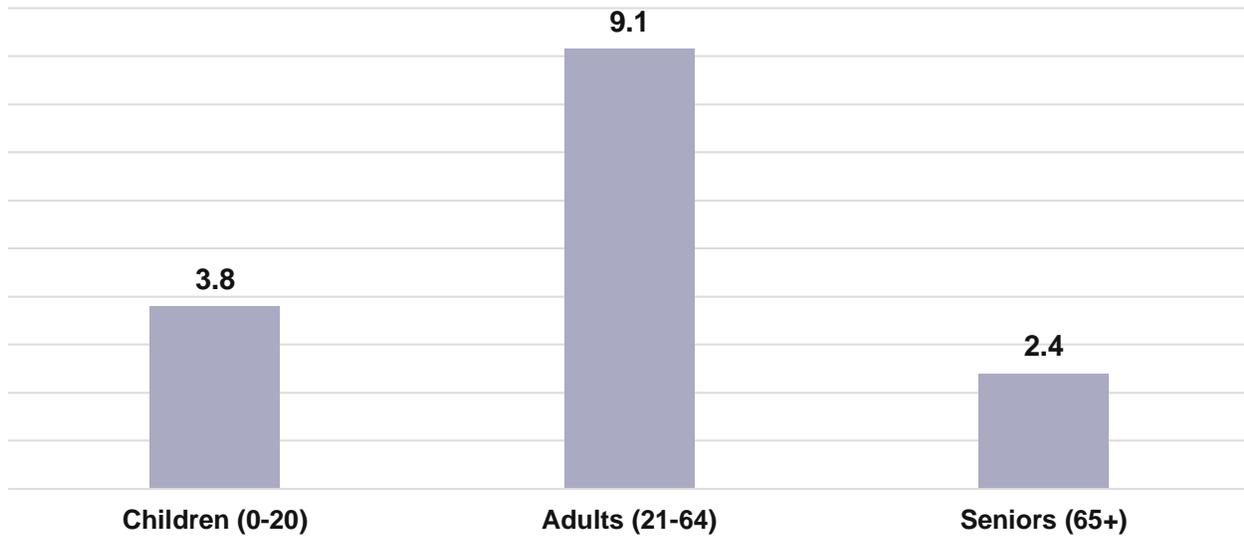
---

We analyzed MassHealth paid claims data to examine MassHealth dental ED visits in calendar year 2017. For the purposes of this policy brief, we define a dental ED visit as a visit whose diagnosis codes indicate it likely could have been addressed in a dental office.<sup>6</sup>

In calendar year 2017, there were 13,164 total dental ED visits by MassHealth members, totaling \$2.44 million in MassHealth claims.<sup>7</sup> Approximately 11,896 MassHealth members had a dental ED visit in 2017, representing 6.5 per 1,000 MassHealth members.<sup>8</sup> Adults age 21 years old to age 64 years old were more likely to experience a

dental ED visits than children (see Chart 1). The most common dental diagnosis was dental caries. About half of all dental ED visits were for dental caries (See Charts 2 and 3).

**Chart 1: Number of MassHealth members per thousand with at least one dental ED visits in 2017, by age**



Source: MassHealth paid claims data and MassHealth snapshot data. Notes: MassHealth membership calculated as average member months for 2017 using MassHealth snapshot data.

**Chart 2: Top ten ICD-10 diagnoses associated with a MassHealth member with a dental ED visit in 2017**

Diagnosis	Percent of MassHealth members with dental ED visits in 2017
Unspecified Dental Caries (K02.9)	47%
Other Lesions of Oral Mucosa (K13.79)	15%
Cellulitis and Abscess of Mouth (K12.2)	7%
Other Forms of Stomatitis (K12.1)	6%
Recurrent Oral Aphthae (K12.0)	6%
Diseases of Lips (K13.0)	6%
Cracked Tooth (K03.81)	5%
Unspecified Lesions of Oral Mucosa (K13.70)	3%
Impacted Teeth (K01.1)	2%
Dental Root Caries (K02.7)	<1%

Source: MassHealth paid claims data. Chart note: Members can have multiple diagnoses through the year.

**Chart 3: Service category associated with MassHealth members with a dental ED visit in 2017**

Service category	MassHealth members with dental ED visits in 2017	MassHealth members with dental office visits in 2017
<b>Oral and maxillofacial surgery</b> (e.g. tooth extraction)	6,512 (55%)	157,144 (40%)
<b>Restorative</b> (e.g. treatment of caries)	5,713 (48%)	297,002 (75%)
<b>Endodontics</b> (e.g. root canals)	70 (<1%)	15,363 (4%)
<b>Periodontics</b> (e.g. treatment of periodontal disease)	31 (<1%)	8,110 (2%)
<b>Total number of members</b>	<b>11,896 (100%)</b>	<b>393,789 (100%)</b>

Source: MassHealth paid claims data. Notes: Members can be in multiple service categories. ED services are categorized by service that would be provided by in a dental office to treat the diagnosed condition, not by the service provided in the ED. Services in the ED are mostly limited to an evaluation without diagnostic X-rays or appropriate equipment, medication, and a discharge note to follow up with a dentist. Dental services are categorized by service delivered for the member at some point during the year in a dental office. The oral and maxillofacial surgery service category is linked to CDT codes D7000-7999 and ICD-10 codes K01, K03, K08, K09, K11, K12, K13, K14, M26.0, and M26.9. The restorative service category is linked to CDT codes D2000-D2999 and ICD-10 code K02. The endodontics service category is linked to CDT codes 3000-3999 and ICD-10 codes K04 and K06 (excluding K06.1). The periodontics service category is linked to CDT codes D4000-D4999 and ICD-10 codes K05 and K06.1.

## Multiple Dental ED Visits

According to our analysis, 998 MassHealth members had multiple dental ED visits in 2017, representing 8% of all MassHealth members with a dental ED visit. Of those members with multiple dental ED visits in 2017, more than half (58%) were for unspecified dental caries (K02.9). Our findings for repeat visits were much lower than a 2012 Massachusetts Center for Health Information and Analysis report, which found that 30% of Massachusetts dental ED visits were repeat visits in 2011.<sup>9</sup> Our analysis puts Massachusetts more on par with other states; an analysis of California’s dental ED visits found 8% repeat visits.<sup>10</sup>

## Dental Emergency Department Visits Increase Costs for MassHealth and ACOs

Dental ED visits were associated with \$2.44 million in 2017 MassHealth ED expenditures for MassHealth members.<sup>11</sup> When MassHealth ACO members use an ED for a dental condition, those ACOs are financially responsible for the ED visit. We took two different approaches to get a better sense of potential ACO cost savings through oral health ED diversion.

### *Approach #1: Comparing ED visits with dental office visits*

First, we looked at the average cost of visits, broken into broad categories: oral and maxillofacial surgery, restorative, endodontics, and periodontics.

**Chart 4: Average claims paid in ED and dental office, by diagnostic or service category, 2017**

Presenting diagnosis (ED) or service provided (dental office)	Average (mean) paid amount – ED claim	Average (mean) paid amount – office visit claim	Difference (absolute)	Difference (ratio)
Oral and maxillofacial surgery	\$181	\$133	\$48	1.4
Restorative	\$244	\$95	\$149	2.6
Endodontics	\$254	\$312	-\$58	0.8
Periodontics	\$164	\$144	\$20	1.1

Source: MassHealth paid claims data. Notes: See chart notes for chart 3. Some claims had multiple service types; they were counted in each service type.

As Chart 4 shows, for most types of oral health problems, just performing the diagnostic workup in the ED costs more than performing definitive treatment in a dental office. For example, the cost of an ED visit for dental caries (tooth decay, categorized as restorative in Chart 4) is more than two-and-a-half times the cost of a dental office visit that includes restorative services to address dental caries, with an average difference of \$149 per visit. And after an ED visit for dental caries, a dental office visit is still needed.

MassHealth ACOs that successfully prevent dental ED visits will see savings tied directly to ED costs, because they are not financially responsible for dental office expenditures. A capitated MassHealth ACO (referred to as an Accountable Care Partnership Plan) will save an average of \$244 per dental ED visit for restorative services averted.<sup>12</sup> The amount another type of MassHealth ACO would save depends on the portion of savings the ACO agreed to share; it would range from an average of \$49 to \$244 per dental ED visit for restorative services averted.<sup>13</sup>

The vast majority of dental ED claims were for oral and maxillofacial surgery and restorative services (see Chart 3). For those types of services, we found:

- An ED visit for conditions needing oral or maxillofacial surgery has paid claims that are 1.4 times more than a dental visit for oral or maxillofacial surgery.
- An ED visit for dental caries has paid claims that are 2.6 times more than a dental visit for restorative services.

Much less common are endodontic or periodontal services (each associated with diagnoses given in less than one percent of dental ED visits). Given the small number of ED visits associated with these services, caution should be used when interpreting these numbers:

- An ED visit for conditions needing endodontic interventions has paid claims that are 19 per cent *less* than a dental visit for endodontic services.
- An ED visit for conditions needing periodontal interventions has paid claims that are 1.1 times more than a dental visit for periodontal services.

The comparisons drawn with this approach should be considered with the caveat that it looks at slightly different input data – comparing ED visits according to *diagnoses* with dental visits according to *services*.<sup>14</sup> This analysis could also be affected by differences between members who seek dental care in the ED versus members who seek care in the dental office, such as differences in dental condition severity or need.

## **Approach #2: Expenditures associated with MassHealth members who had a dental ED visit in 2017**

Second, we also looked at the average dental cost per member, depending on whether the member visited the ED or not during the year.

**Chart 5: Average claims for dental visits in the ED and dental office, 2017**

Types of visits in 2017	Number of members	ER paid claims per member in 2017	Dental office paid claims per member in 2017	Total ED and dental office paid claims per member in 2017
Members with dental ED visits and dental office visits	4,277	\$225	\$487	<b>\$712</b>
Members with dental ED visits only	7,619	\$225	0	<b>\$225</b>
Members with dental office visits only	389,512	0	\$373	<b>\$373</b>

As Chart 5 shows, the average ED paid claim for dental ED visits is \$225 per member per year, representing potential savings for ACOs. Members who have both a dental ED visit and a dental office visit have higher dental office expenditures than members without dental ED visits. This could mean that the ER visit increased the member cost; it could also mean that patients who access the ED may require more extensive dental work. The expected cost difference between the average dental ED visit and the average dental office visit seen in Approach #1 may need to be adjusted for these differences.

## **Health Effects Result from Unresolved Dental Conditions**

### **Unresolved dental issues**

EDs generally cannot definitively address dental conditions.<sup>15</sup> For example, dental x-ray machines are generally not available to diagnose the scope of dental disease. Dr. Rakesh “Kishi” Talati, medical director of Baystate Franklin County, agrees. “I cannot think of a dental [tooth] pain patient who comes to our emergency department who wouldn’t be better served by a dentist.”

As a result, patients often leave after the ED visit without getting the help they need to solve their dental issue.<sup>16</sup> We can see this in part by looking at repeat visits. As noted above, we found that 8% of MassHealth dental ED patients had multiple dental ED visits during 2017.

We also see unresolved dental issues in patients who did not visit a dental office for follow up. In 2017, 64% of dental ED patients did not have a follow up dental office visit. A portion of these patients live with chronic infection. As Jessica Calabrese, Chief Operations Officer of Community Health Center of Franklin County, noted, “if [a patient goes to the ED] for tooth infection, and gets antibiotics, the infection will always re-occur because the tooth is still there.”

## Associated health effects

Untreated dental disease can have serious consequences on oral health. Lack of dental treatment can lead to numerous other health issues, including heart disease, lung disease, osteoporosis, low birth weight, and diabetes.<sup>17</sup> Periodontal disease is particularly connected with systemic health problems.<sup>18</sup>

MassHealth ACOs are paid in part according to the quality of their member’s health care, measured with utilization, clinical quality, and patient experience quality measures. Taking steps to divert patients from the ED to the dental chair offers opportunities to improve health quality scores.

**Chart 6: Select MassHealth ACO quality measures potentially affected by better dental care**

ACO Measure <sup>19</sup>	Description	Connection to dental care
Controlling High Blood Pressure	Percentage of members 18 to 64 years of age with hypertension and whose blood pressure was adequately controlled	Periodontal disease is associated with hypertension and high blood pressure. <sup>20</sup>
Comprehensive Diabetes Care: A1c Poor Control	Percentage of members 18 to 64 years of age with diabetes whose most recent HbA1c level demonstrated poor control (> 9.0%)	There is evidence that untreated periodontal inflammation contributes to glycemic control for patients with diabetes. <sup>21</sup>
Acute Unplanned Admissions for individuals with Diabetes	This measure will assess the case-mix adjusted rate of acute unplanned hospital admissions for individuals 18 to 64 years of age with diabetes.	
Hospital Readmissions (Adult)	Case-mix adjusted rate of acute unplanned hospital readmissions within 30 days of discharge for members 18 to 64 years of age	Presence of dental infection may increase risk of hospital admission for pneumonia <sup>22</sup> , rheumatoid arthritis, and other conditions. <sup>23</sup> Oral health is related to heart disease, lung disease, osteoporosis, and diabetes. <sup>24</sup>
Pediatric oral health evaluation	Percentage of members under age 21 years who received a comprehensive or periodic oral evaluation during the year	This is a process measure for pediatric connection to dental care.

## Dental ED Visits and Opioid Prescriptions

Massachusetts is in the midst of an opioid overdose epidemic. Opioid prescriptions, particularly those of high strength or long duration, are associated with later opioid addiction and overdose.<sup>25</sup> Massachusetts has succeeded in reducing the number of opioid prescriptions, but there is still room for improvement.<sup>26</sup>

ED providers sometimes prescribe opioid medication in response to dental pain. In MassHealth dental ED visits in calendar year 2017, opioid prescriptions were filled after 15% (1,916) of MassHealth dental ED visits in 2017.<sup>27</sup> The average daily dose was 19.8 morphine equivalent units, and the average duration was three days.<sup>28</sup> These

averages are in line with relatively low doses and durations; however, any unnecessary prescribing (due to an unnecessary ED visit) increases the risk of opioid addiction.<sup>29</sup>

The American Society of Interventional Pain Physicians recommends that providers obtain accurate physical diagnosis and imaging.<sup>30</sup> In EDs, without access to dental x-rays, this can be difficult. Dr. Talati noted that dental pain is hard to distinguish from drug-seeking behavior in the ED, particularly because he does not have the equipment to diagnose the diseased tooth.

Connecting members to dental care can help reduce the number of days an opioid is prescribed. As multiple interviewees described, if an ED provider knows that the patient can access a dental office within a day (because there is a dental urgent care center), the opioid prescription could be limited to a one-day supply.<sup>31</sup> With access to diagnostic X-Rays, dental equipment and dental providers, dental offices can prescribe more appropriate medications and treat the disease. And with access to dental procedures to fix the dental problem, repeat visits for pain will reduce.

## Dental ED Visits and Antibiotic Prescriptions

---

Antibiotics are key tools in fighting bacterial infection. They are not, however, without risk. Patients may experience adverse effects.<sup>32</sup> Antibiotic-resistant bacteria are on the rise, leading to calls for reductions in antibiotic prescriptions where possible.<sup>33</sup> ED providers often prescribe antibiotics in response to dental pain.<sup>34</sup> Antibiotic prescriptions were filled after 41% (5,417) of Masshealth dental ED visits in calendar year 2017.<sup>35</sup> A couple interviewees described the benefits of having a dentist co-located in the ED; dentists help providers understand if antibiotics would be appropriate in a situation, and what type of antibiotic to use.<sup>36</sup> When patients had access to a dentist, repeat visits (that might have led to additional antibiotic prescriptions) were reduced.

## Reasons Behind Dental ED Visits

---

Why are MassHealth members opting for the ED when they have a dental issue? Data gleaned from the Massachusetts Health Reform Survey, Massachusetts Department of Public Health (DPH) surveys, and interviews conducted for this policy brief show barriers related to cost, dentist availability, and transportation.

### Dental costs and coverage

A key theme around access to dental care is affordability and comprehensiveness of dental coverage. The Massachusetts Health Reform Survey showed that almost one in five (19.3%) of Massachusetts adults with health insurance who are in the MassHealth income bracket (under 138% federal poverty level, or FPL) went without needed dental care in 2018; 11.6% didn't get needed dental care due to cost.<sup>37</sup> The DPH survey also found that cost was a barrier to dental access.<sup>38</sup>

Following cuts to the optional adult dental benefit during the recession of 2010, MassHealth has incrementally restored dental services.<sup>39</sup> For this reason, Massachusetts may see improvements in access to dental care for

low-income adults going forward. Progress may be dampened, however, by a limited access to dental care in the past and knowledge gaps among patients.<sup>40</sup>

**Chart 7: Simplified illustration of MassHealth dental benefit changes for adults, 2010-2018<sup>41</sup>**

<b>2010</b>	MassHealth adult dental benefits included cleanings, extractions, and oral surgery
<b>2013</b>	Fillings (Composite Restorations) for front teeth restored
<b>2014</b>	Fillings (Restorations) for all teeth restored
<b>2015</b>	Dentures restored without prior authorization limitations
<b>2019</b>	Periodontal services restored

Comprehensive coverage is available for members under age 21 and adult members with intellectual or developmental disabilities.

### Availability of dental providers

Though comprehensive dental insurance coverage is key to dental access, it is only one part of ensuring access. Using a broad view, access to dentists is fairly good – 95.1% of MassHealth members live within five miles of at least two dentists that accept MassHealth.<sup>42</sup> Some members report, however, that access outside of regular office hours is an issue.<sup>43</sup> MassHealth members may also have trouble getting an appointment in time to address an acute issue. When a tooth is causing intense pain, limited access to same-day appointments can drive patients to the ED. Once at the ED, interviewees noted, a temporary resolution of symptoms may limit the incentive to find a dentist before the pain comes back again, fueling repeat ED visits.<sup>44</sup>

## Lessons Learned from a Dental Urgent Care Center in Western Massachusetts

In October 2016, the Community Health Center of Franklin County (with the support of a grant from the Health Resources and Services Administration, or HRSA) set up a dental urgent care clinic within Baystate Franklin Medical Center in Greenfield, Massachusetts, across the hall from the ED. The clinic is open Sundays through Thursdays, with walk-in availability. The clinic is equipped with two chairs, a dedicated dental team consisting of a dentist, dental assistant and a case worker, and serves about 120 patients a month. The clinic also accepts walk ins and referrals; in 2017 the ED referred about 22 patients per month and the Community Health Center referred about 71 patients per month.<sup>45</sup>

### Addressing dental needs

With the onsite dental urgent care center open, patients can now have access to same-day or next-day appointments, Sunday through Thursday. Located across the hall from the ED, patients can now be walked over to the dental clinic. Because the clinic is open without an appointment necessary, it makes it easier for larger groups of patients (from shelters and substance use disorder treatment providers) to receive care. Before the urgent dental clinic opened, Dr. Talati noted, it was standard practice to give patients a list of about 10 dentists and suggest they call and find availability. “Then, they get better after two or three days on antibiotics and pain medications. Like any of us, they forget about it, and maybe they even stop antibiotics. A week and a half later, they come back in the same pain again. And now, we are giving them a definitive follow up option.” Edward

Sayer, CEO of Community Health Center of Franklin County noted that “after visiting the urgent care clinic, patients are referred into the community health center’s regular dental stream, where they get a more comprehensive evaluation and a plan.”

## **Reducing opioid prescribing**

Dr. Talati reports that his staff can now cut down the duration of opioids prescribed – provider’s “favorites” in the ED have been updated to one day, rather than 3-4 days, for dental pain. “It’s changed our management of dental pain. When you know they can see a dentist the next day, you know you can start [the patient] on an antibiotic and give them a one-day prescription for pain medication.” Because the staff was able to reduce the duration of opioid prescriptions for dental pain, Dr. Talati noted the hospital ED has become less attractive for patients engaged in drug-seeking. And it has improved morale – Dr. Talati notes that “knowing that someone will follow up rather quickly and assess what is the right plan – that makes us feel good.”

## **Improving antibiotic prescribing**

As Jessica Calabrese noted, dentists prescribe antibiotics differently than ED medical providers. “We prescribe antibiotics for tooth infections, but generally not for gum infections. If there is a periodontal issue, then a course of antibiotics is not the right treatment there.” Having a dental urgent care center across the hallway from the ED has allowed for some education among staff about when to prescribe antibiotics for dental conditions, and which antibiotics to prescribe.

## **Providing a sustainable model**

After using a federal HRSA grant for start-up, the dental urgent care center became sustainable quickly, due to the steady demand from the ED, walk-ins, and referrals from the community health center.

## **Barriers and challenges**

The clinic has also faced barriers. During set up, staff had to negotiate several processes stemming from state and federal regulations, including processes to obtain licenses and permits. Those issues have generally been resolved.

A key issue is that the clinic, though likely to reduce *repeat* ED visits, has not been as successful at preventing *initial* dental ED visits. Even though the clinic is across the hall, the ED is obligated to provide a minimum set of services to every patient who presents at the ED, in accordance with federal law (Emergency Medical Treatment and Labor Act, commonly referred to as EMTALA). Most interviewees pointed out that focusing the locus of coordination at the primary care provider or ACO level, rather than at the ED, would do more to connect patients earlier and reduce MassHealth expenditure.

## Next Steps

ACOs and other entities that wish to engage in oral health ED diversion activities can:

- Contact MassHealth customer service at 1-800-207-5019 and request a call back from the contract manager for the MassHealth Dental Program;
- Contact MassHealth’s dental TPA, which is currently DentaQuest (Tracy Chase Gilman, Massachusetts regional director at DentaQuest, at [tracy.chase@dentaquest.com](mailto:tracy.chase@dentaquest.com)); AND/OR
- Contact oral health advocacy organizations, such as Health Care for All and Community Catalyst

## How ACOs Can Reduce Dental ED Visits

---

With their orientation toward the health of their cohort population, ACOs can engage in a range of interventions to help patients connect with dental care.

### Educate patients

ACOs can educate members about the importance of dental care, and the available dental benefits available to them. ACOs can also connect members and increase their awareness of how to use the state’s dental program’s webportal (available at <https://www.masshealth-dental.net/Members>). Once registered and connected, members can access important information and forms; speak with a live agent to address questions they might have; use the “Find a Dentist tool ” to locate dentists in their city or town; and find oral health education brochures and the benefit booklet guide to answer questions about available dental services in English and Spanish.

### Assist patients with overcoming barriers to dental access

Mere knowledge of their dental benefits and a list of providers is not enough for all patients to connect to a dentist. As Helen Hendrickson, Senior State Advocacy Manager of Community Catalyst’s Dental Access Project, noted, “To really solve the problem, you need to make sure that patients are connected to a dental home. It’s about supporting patients around the barriers they face, including transportation, child care, and the office hours that dentist keep.”

ACOs can help with care coordination for issues like securing non-emergency medical transportation to dental offices and using the “Find a Dentist” feature on the MassHealth webportal. ACOs interested in strengthening referral pathways to dentists can reach out to MassHealth’s TPA, DentaQuest. They can contact Tracy Chase Gilman, Massachusetts regional director at DentaQuest, at [tracy.chase@dentaquest.com](mailto:tracy.chase@dentaquest.com); or ACOs can contact customer service and request a call back from the contract manager for the MassHealth Dental Program at 1-800-207-5019.

## Engage with primary care providers

A consistent theme throughout the interviews was the potential for primary care to connect patients with a dental office before an ED visit is necessary. Currently, primary care providers tend to respond to dental inquiries by directing patients to a dental office. However, more could be done. Primary care providers could be educated to work with ACOs to find an available dental office and transportation to that office. Primary care providers could prescribe pain medications and antibiotics to tide a patient over while they wait for their appointment. By diverting patients from the ED in the first place, intervention at the primary care level could be particularly effective at reducing overall costs associated with dental ED visits. ACOs can work with MassHealth's dental program to further explore this option. In addition, ACOs technical assistance around this type of intervention is available through the MassHealth Delivery System Reform Incentive Payment (DSRIP) program.<sup>46</sup>

## Engage with emergency departments

Since 2017, MassHealth's dental program ED services intervention (administered by the TPA) trains emergency department staff to use an electronic encounter form on the webportal to connect MassHealth members to a dental office. One aspect of the program is webportal technology for EDs to connect with MassHealth for MassHealth members with dental coverage and help them find dental treatment in the community with a MassHealth provider. More information can be found on MassHealth Dental Program's Emergency Room and Urgent Care Services webpage tab, available at <http://www.masshealth-dental.net/ER-Services>. This MassHealth ED diversion resource aims to help ED and other providers with education, referrals, tools, member follow up, and reporting, with the ultimate goal of connecting members to network providers and reducing oral ED visits.

## Help develop dental urgent care capacity

One way to address the dental provider availability issue, especially after office hours access, is to help dental offices develop urgent care capacity. When this capacity is in place, it can take pressure off ED staff – allowing for a steady stream of warm referrals along with reduced opioid prescribing.

## Conclusion

---

The MassHealth ACO program rewards the reduction of unnecessary care in expensive sites such as EDs. Connecting members to dental care that can provide preventative and emergency dental treatment will likely decrease dental ED visits, along with their associated costs, opioid prescriptions, and antibiotic prescriptions. Helping members access dental care in the proper setting will provide MassHealth ACOs the opportunity to improve care while reducing medical costs.

Strategies for ED diversion include improved member and provider education, engaging primary care and ED providers in helping members identify a dental home, and increasing capacity for urgent dental care. There are a number of resources available to MassHealth ACOs including the MassHealth dental program (which administers member dental benefits through the TPA DentaQuest) and MassHealth ACO technical assistance.

## References

---

- <sup>1</sup> We define dental offices as standalone dental offices or dental services provided in community health centers.
- <sup>2</sup> We interviewed Edward Sayer, CEO of Community Health Center of Franklin County; Jessica Calabrese, BS RDH Chief Operations Officer at the Community Health Center of Franklin County; Dr. Rakesh “Kishi” Talati, medical director of Baystate Franklin Medical Center’s emergency department; Tracy Chase Gilman, CDA MSM, Massachusetts regional director at DentaQuest; Helen M. Hendrickson, MPA, Senior State Advocacy Manager, Community Catalyst Dental Access Project; and Dr. Neetu Singh, DMD MPH, Director of Health Care for All’s Oral Health Program.
- <sup>3</sup> MassHealth Transmittal Letter DEN-102 (April 2019), accessed at [https://www.mass.gov/files/documents/2019/04/22/tl-den-102\\_0.pdf](https://www.mass.gov/files/documents/2019/04/22/tl-den-102_0.pdf)
- <sup>4</sup> 130 C.M.R. § 420; MassHealth Dental Member Handbook, accessed at [https://www.masshealth-dental.net/MassHealth/media/Docs/MassHealth-Dental-Member-HandBook\\_1.pdf](https://www.masshealth-dental.net/MassHealth/media/Docs/MassHealth-Dental-Member-HandBook_1.pdf)
- <sup>5</sup> Massachusetts Health Policy Commission. Oral Health Care Access and Emergency Department Utilization for Avoidable Oral Health Conditions in Massachusetts (August 1, 2016). Accessed at <https://www.mass.gov/files/documents/2016/08/xm/oral-health-policy-brief.pdf>
- <sup>6</sup> We used the following ICD-10 diagnoses to identify non-traumatic dental conditions: K01; K02; K03; K04; K05; K06; K08; K09; K11; K12; K13; K14; M26.0; M26.9; M27.5; and A690; and excluded visits that resulted in a hospital admission. In a national study of dental ED visits, a similar list of diagnoses were associated with ED visits that end in discharge and thus were likely best handled in the dental office. Veerasathpurush Allareddy, Sankeerth Rampa, Min Kyeong Lee, Veerajalandhar Allareddy, Romesh P. Nalliah. Hospital-Based Emergency Department Visits Involving Dental Conditions. JADA 145: 4, pp 331–337 (April 2014). Accessed at [https://jada.ada.org/article/S0002-8177\(14\)60010-6/abstract](https://jada.ada.org/article/S0002-8177(14)60010-6/abstract)
- <sup>7</sup> Additionally, MassHealth members had \$237,000 in Health Safety Net claims for dental ED visits in 2017.
- <sup>8</sup> Average member months for 2017 calculated using MassHealth snapshot data (December 2018).
- <sup>9</sup> Massachusetts Center for Health Information and Analysis. Massachusetts’ Emergency Departments and Preventable Adult Oral Health Conditions: Utilization, Impact and Missed Opportunities (2008-2011) (December 2012). Accessed at <https://archives.lib.state.ma.us/bitstream/handle/2452/202193/ocn827628131.pdf?sequence=1>
- <sup>10</sup> California Healthcare Foundation. Snapshot: Emergency Department Visits for Preventable Dental Conditions in California (2009), p. 18.
- <sup>11</sup> Compare to earlier cost estimates by the Massachusetts Health Policy Commission (HPC). The HPC estimates there were 36,060 preventable oral health ED visits in Massachusetts, costing the health care system between \$14.8 and \$36 million in 2014. Massachusetts Health Policy Commission. Oral Health Care Access and Emergency Department Utilization for Avoidable Oral Health Conditions in Massachusetts (August 1, 2016).
- <sup>12</sup> Other factors, including quality scores, savings caps, and minimum saving requirements may affect the amount of MassHealth ACO savings.
- <sup>13</sup> Primary Care ACOs choose their risk tracks, with shared savings ranging from 25% to 100%. Primary Care ACO Model Contract Section 4.3 (Shared Savings and Shared Losses), accessed at <https://www.mass.gov/files/documents/2017/11/17/primary-care-aco-model-contract.pdf>. MCO-Administered ACOs and their contracted MCOs choose risk tracks, with a range of savings starting at 20%. MCO-Administered ACO Model Contract Section 2.7, accessed at <https://www.mass.gov/files/documents/2017/11/17/mco-administered-aco-model-contract.pdf>
- <sup>14</sup> We used this approach for two reasons: (1) dental ED visits do not feature dental services; and (2) dental offices claim based on services, not diagnoses.
- <sup>15</sup> Elizabeth E. Davis, Amos S. Deinard, and Eugenie Wh. H. Maiga. Doctor, My Tooth Hurts: The Costs of Incomplete Dental Care in the Emergency Room. Journal of Public Health Dentistry 70:3 (September 13, 2010). Accessed at <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1752-7325.2010.00166.x>
- <sup>16</sup> Veerasathpurush Allareddy et. al. Hospital-Based Emergency Department Visits Involving Dental Conditions. JADA 145: 4, pp 331–337 (April 2014).
- <sup>17</sup> Massachusetts Health Policy Commission. ED Utilization for Preventable Oral Health Care Conditions in MA (PowerPoint presentation) (April 6, 2016). Accessed at <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/public-meetings/committee-meetings/20160401-public-presentation-dental-findings.pdf>
- <sup>18</sup> Interview with Dr. Neetu Singh; Massachusetts Health Policy Commission. ED Utilization for Preventable Oral Health Care Conditions in MA (PowerPoint presentation) (April 6, 2016). Accessed at <http://www.mass.gov/anf/budget-taxes-and->

---

[procurement/oversight-agencies/health-policy-commission/public-meetings/committee-meetings/20160401-public-presentation-dental-findings.pdf](https://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/public-meetings/committee-meetings/20160401-public-presentation-dental-findings.pdf)

<sup>19</sup> ACO quality measures were found in the MassHealth 1115 Waiver Standard Terms and Condition's DSRIP Protocol attachment (10/31/2018), p. 107, accessed at <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ma/MassHealth/ma-masshealth-cms-apprvd-dsrip-protocol-10312018.pdf>

<sup>20</sup> Costas Tsioufis, Alexandros Kasiakogias, Costas Thomopoulos, and Christodoulos Stefanadis. Periodontitis and Blood Pressure: The Concept of Dental Hypertension. *Atherosclerosis* 219:1 (November 2011), p. 1-9. Accessed at <https://www.sciencedirect.com/science/article/pii/S0021915011003765>; Rodrigo Martin-Cabezas, Narendra Seelam, Catherine Petit, Kévimy Agossa, Sébastien Gaertner, Henri Tenenbaum, Jean-Luc Davideau, and Olivier Huck. Association Between Periodontitis and Arterial Hypertension: A Systematic Review and Meta-Analysis. *American Heart Journal* 180 (October 2016), pp. 98-112. Accessed at <https://www.sciencedirect.com/science/article/pii/S0002870316301521>; Anders Holmlund, Gunnar Holm, and Lars Lind. Severity of Periodontal Disease and Number of Remaining Teeth Are Related to the Prevalence of Myocardial Infarction and Hypertension in a Study Based on 4,254 Subjects. *Journal of Periodontology* 77:7 (July 1, 2006). Accessed at <https://onlinelibrary.wiley.com/doi/full/10.1902/jop.2006.050233>

<sup>21</sup> Joan Otomo-Corgel, Jeffery J. Pucher, Michael P. Rethman, and Mark A. Reynolds. State of the Science: Chronic Periodontitis and Systemic Health. *Journal of Evidence Based Dental Practice* 12:3 Supplement, pp. s20-28 (September 2012). Accessed at <https://www.sciencedirect.com/science/article/pii/S1532338212700064?via%3Dihub>. Mary P. Cullinan and Gregory J. Seymour, Periodontal Disease and Systemic Illness: Will the Evidence Ever be Enough? *Periodontology* 62:1 (2000). Accessed at <https://onlinelibrary.wiley.com/doi/full/10.1111/prd.12007>

<sup>22</sup> Brian Laurence, Nee-Kofi Mould-Milman, Frank A. Scannapieco, and Armin Abron. Hospital Admissions for Pneumonia More Likely with Concomitant Dental Infections. *Clinical Oral Investigations* 19:6, pp. 1267-1268 (July 2015). Accessed at <https://link.springer.com/article/10.1007/s00784-014-1342-y>

<sup>23</sup> Marjorie K. Jeffcoat, Robert L. Jeffcoat, Patricia A. Gladowski, James B. Bramson, Jerome J. Blum. Impact of Periodontal Therapy on General Health: Evidence From Insurance Data for Five Systemic Conditions. *American Journal of Preventive Medicine* (August 2014) 47:2, pp. 166-74. Accessed at <https://www.sciencedirect.com/science/article/pii/S0749379714001536>

<sup>24</sup> Massachusetts Health Policy Commission. ED Utilization for Preventable Oral Health Care Conditions in MA (PowerPoint presentation) (April 6, 2016). Accessed at <http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/health-policy-commission/public-meetings/committee-meetings/20160401-public-presentation-dental-findings.pdf>

<sup>25</sup> Amy S. Bohnert, Marcia Valenstein, and Matthew J. Bair. Association Between Opioid Prescribing Patterns and Opioid Overdose-Related Deaths. *JAMA* (2011) 305(13): 1315-1321. Accessed at <https://jamanetwork.com/journals/jama/fullarticle/896182> ("The risk of overdose death was directly related to the maximum prescribed daily dose of opioid medication.")

<sup>26</sup> Massachusetts Department of Public Health. An Assessment of Fatal and Nonfatal Opioid Overdoses in Massachusetts (2011-2015) (August 2017). Accessed at <https://www.mass.gov/files/documents/2017/08/31/legislative-report-chapter-55-aug-2017.pdf>

<sup>27</sup> Opioid prescriptions were filled by 1,738 MassHealth members within three days of a dental ED visit in 2017.

<sup>28</sup> Morphine equivalent units are used to measure opioid strength across different medications.

<sup>29</sup> See, e.g., U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Calculating Total Daily Dose of Opioids for Safer Dosage; Colorado ACEP. 2017 Opioid Prescribing and Treatment Guidelines.

<sup>30</sup> American Society of Interventional Pain Physicians. Responsible, Safe, and Effective Prescription of Opioids for Chronic Non-Cancer Pain: American Society of Interventional Pain Physician (ASIPP) Guidelines <https://www.mdlabs.com/articles/ASIPP.pdf>

<sup>31</sup> Interview with Dr. Talati

<sup>32</sup> Centers for Disease Control. Be Antibiotics Aware: Smart Use, Better Care. Accessed at <https://www.cdc.gov/features/antibioticuse/index.html>

<sup>33</sup> American Dental Association. Antibiotic Stewardship. Accessed at <https://www.ada.org/en/member-center/oral-health-topics/antibiotic-stewardship>

<sup>34</sup> Christopher Okunseri, Elaye Okunseri, Joshua M. Thorpe, Qun Xiang, and Aniko Szabo. Medications Prescribed in Emergency Departments for Nontraumatic Dental Condition Visits in the United States. *Medical Care* 50(6): 508-512 (June 2012).

<sup>35</sup> Antibiotic prescriptions were filled by 5,011 MassHealth members within three days of a dental ED visit in 2017.

<sup>36</sup> Interviews with Dr. Talati and Jessica Calabrese.

---

<sup>37</sup> These individuals had health insurance for the full year. Sharon K. Long and Joshua Aarons. Health Insurance Coverage and Health Care Access and Affordability in Massachusetts: 2018 Update, Detailed Tables (Exhibits III.7 and III.10) (December 2018) <https://bluecrossmafoundation.org/publication/2018-massachusetts-health-reform-survey>

<sup>38</sup> Abiola A. Animashaun and Carol Gyurina. Oral Health Community Profile: Holyoke (Prepared at the request of Massachusetts Department of Public Health, Office of Health Equity) (August 2016). Accessed at <https://www.mass.gov/files/documents/2017/04/zq/oral-health-community-profile-holyoke.pdf>

<sup>39</sup> National Academy of State Health Policy. Medicaid Adult Dental Benefits: Massachusetts Case Study (2015) <https://nashp.org/wp-content/uploads/2015/07/Massachusetts-Case-Study-Adult-Dental-Benefits-in-Medicaid-Recent-Experiences-from-Seven-States.pdf>; interview with Dr. Neetu Singh.

<sup>40</sup> Abiola A. Animashaun and Carol Gyurina. Oral Health Community Profile: Holyoke (Prepared at the request of Massachusetts Department of Public Health, Office of Health Equity) (August 2016). Accessed at <https://www.mass.gov/files/documents/2017/04/zq/oral-health-community-profile-holyoke.pdf> (“...it was also noted that some families may not be aware that their MassHealth plan insurance covers preventive dental services; thus, they have perception that oral health care is unaffordable for them and their children.”); Interviews with Dr. Neetu Singh and Jessica Calabrese.

<sup>41</sup> National Academy of State Health Policy (2015). Medicaid Adult Dental Benefits: Massachusetts Case Study <https://nashp.org/wp-content/uploads/2015/07/Massachusetts-Case-Study-Adult-Dental-Benefits-in-Medicaid-Recent-Experiences-from-Seven-States.pdf>

<sup>42</sup> MassHealth and DentaQuest (2019). MassHealth Yankee Dental Presentation.

<sup>43</sup> Interviews with Helen Hendrickson and Tracy Chase Gilman.

<sup>44</sup> Interviews with Dr. Talati and Jessica Calabrese.

<sup>45</sup> Using data from the first nine months of the year.

<sup>46</sup> Interview with Dr. Neetu Singh, noting Community Catalyst’s particular expertise in dental ED diversion.