MASSACHUSETTS HEALTH POLICY COMMISSION

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HPC DATAPOINTS

Oral Health Access and Equity in the Commonwealth

Updated research on preventable oral health emergency department (ED) visits

INTRODUCTION

Access to high quality and affordable oral health care continues to be a challenge for many Massachusetts residents, in part due to inadequate insurance coverage, affordability of out-of-pocket costs, and a shortage of dental professionals caring for Medicaid patients.[1] When individuals lack access to oral health care, they may turn to the emergency department (ED) for care that could have been prevented or treated in a dental office. However, ED settings are not well-equipped to address dental conditions. For instance, most visits to the ED for oral health conditions result in pain and symptom management, rather than definitive treatment (e.g., tooth extractions or root canals) that is provided in a dental office setting. In addition, the frequency of nonspecific dental discharge diagnoses from the ED suggests provider uncertainty in managing oral health problems.[2]

The Massachusetts Health Policy Commission (HPC) has identified avoidable ED utilization as an area of persistent policy interest over the years. In 2016, the HPC reported that a substantial number of ED visits in Massachusetts are for preventable oral health conditions. Subsequent research identified 33,467 ED visits for preventable oral health conditions in 2015, with variation by region, age, and income. Updating the HPC's previous research, this 20th DataPoints issue dives deeper into ED use for non-traumatic dental conditions (NTDCs), measuring variation by race, age, income, region, and payer type in Massachusetts between 2017 and 2019.

This is a printable version of DataPoints. The online version features interactive graphics that show additional information, and is available on the HPC's website at www.mass.gov/service-details/hpc-datapoints-series.

BACKGROUND

Lack of access to dental care can have wide-ranging ramifications for individuals and **impacts on health care spending.**

While the 2010 Patient Protection and Affordable Care Act (ACA) established benefit requirements for health plans and extended health care coverage to millions of U.S. residents, dental care was largely excluded from coverage mandates. As of 2017, 23% of U.S. residents lack dental insurance,[3] including one in four adults in Massachusetts who are otherwise covered by health insurance. Nationwide, 45.1% of dental care costs are paid out-of-pocket, the largest share of any health care service. In Massachusetts, 16.6% of all residents reported an unmet need for dental care due to cost in 2019.

As part of the Fiscal Year 2021 state budget, in January 2021 dental benefits were fully restored to adults on MassHealth, expanding coverage for root canals and crowns, which were previously uncovered by the program. Despite having better coverage for oral health care than Medicaid residents in most other states, residents with MassHealth have unique challenges in accessing dental care. While there are 78 dentists per 100,000 population in Massachusetts, higher than the national average,[4] only 44.8% of Massachusetts dentists report that they accept patients covered by MassHealth. In order to improve access to dental care for individuals covered by MassHealth, the Baker-Polito Administration announced a 65% rate increase in MassHealth payments for dental services provided at Federally

Qualified Community Health Centers (FQHCs), effective January 1, 2022. For Medicare beneficiaries, most dental services are not covered under Original Medicare (Parts A and B), although some Medicare Advantage (Part C) plans may include dental care coverage as an added benefit.

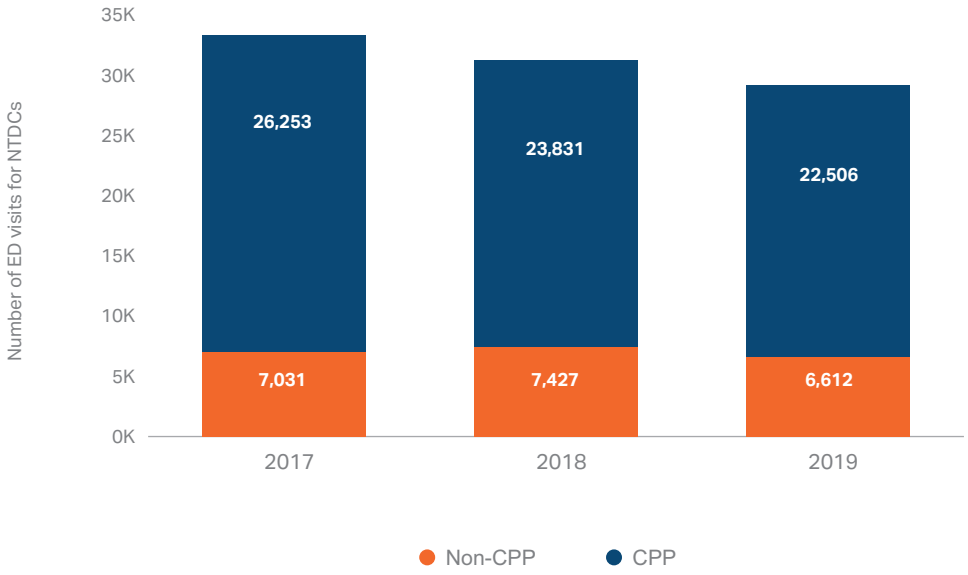
Lack of access to dental care can have wide-ranging ramifications for individuals and impacts on health care spending. For example, poor dental health can affect an individual's self-esteem, ability to eat and chew, mouth pain, and participation in social activities.[5] The majority of ED visits for oral health problems could be diverted to a local dental office, with expected savings of up to $1.7 billion per year in the United States.

PREVALENCE OF ED VISITS FOR NON-TRAUMATIC DENTAL CONDITIONS IN THE COMMONWEALTH

Prior HPC work identified oral health ED visits in the Massachusetts Acute Hospital Case Mix Emergency Department Database (EDD) using Billings' ambulatory care sensitive (ACS) conditions code set.[6] More recently, the Association of State and Territorial Dental Directors (ASTDD) has published a resource specifically to characterize dental ED visits. This ASTDD resource, compiled by oral health experts, identifies ED visits due to an oral condition, categorized by non-traumatic dental conditions (NTDCs) and all others. The ASTDD resource further subcategorizes NTDCs visits into visits for dental caries (decay or crumbling of a tooth or bone), periodontal disease, or associated preventive procedures (CPP) which are routinely provided in a primary general dental clinic setting.

Of 52,843 ED visits due to an oral condition identified in the 2019 ED visit data, the HPC identified 29,118 ED visits for NTDCs (comprising 55.1% of ED visits due to an oral condition) for Massachusetts residents, a 12.5% decrease from 2017.[7] This is a larger decrease than the overall decline in all ED visits between 2017 and 2019 of 1.4%. Seventy-seven percent of these ED visits for NTDCs were related to CPP. Such ED visits may indicate lack of access to preventive care or treatment for dental conditions that could be addressed by a dental provider. While ED visits for NTDCs that are not for CPP may not indicate lack of access, such conditions are nonetheless best treated by a dental provider rather than in the ED.

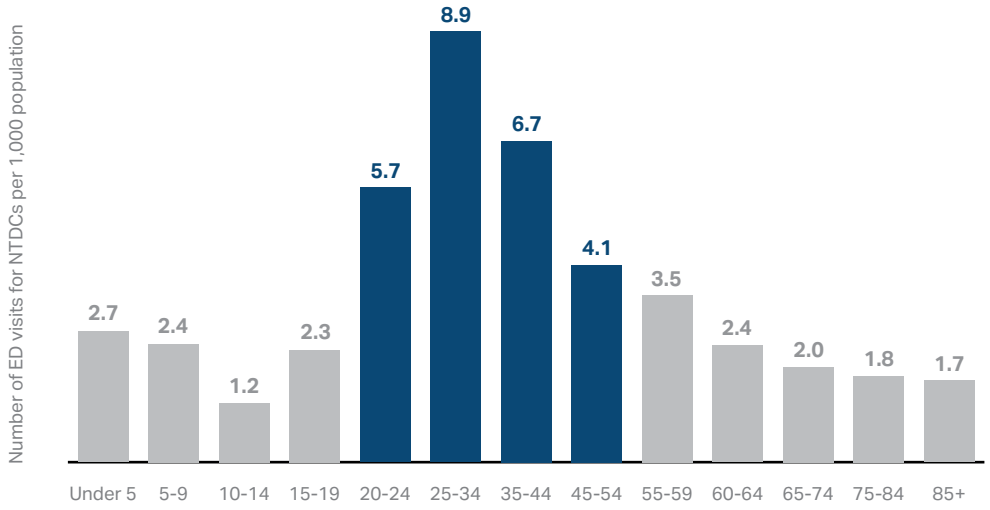
Number of ED visits for NTDCs by type, 2017-2019



ED visits for NTDCs by age

Of the 29,188 ED visits for NTDCs in 2019, 72% were for residents between 20 and 55 years of age. Residents between 25 and 34 years of age had the highest rate of ED visits for NTDCs, experiencing 8.9 ED visits for NTDCs per 1,000 population in 2019. Eighty-six percent of these ED visits for NTDCs among residents aged 25 to 34 were CPP-related. Between 2017 and 2019, the number of ED visits for NTDCs declined for all age groups except among those between 65 and 74 years of age (data not shown). For this age group, the number of ED visits for NTDCs increased 8.9% between 2017 and 2019.

Number of ED visits for NTDCs per 1,000 population by age, 2019

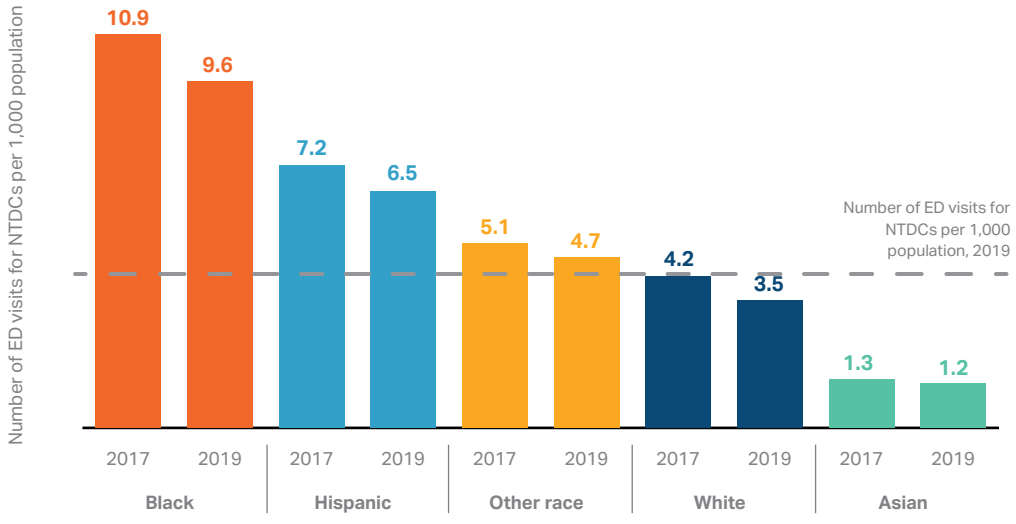


ED visits for NTDCs by race and ethnicity

In 2019, **Black Massachusetts** residents had the highest rate of ED visits for NTDCs per 1,000 population (9.6), followed by **Hispanic/Latino** residents (6.5), **White** residents (3.5) and **Asian** residents (1.2).

In 2019, Black Massachusetts residents had the highest rate of ED visits for NTDCs per 1,000 population (9.6), followed by Hispanic/Latino residents (6.5), White residents (3.5) and Asian residents (1.2). In addition, a greater percentage of all ED visits by Black residents (1.6%) were for NTDCs, compared to 1.2% for Hispanic/Latino residents, 1% for Asian residents, and 1.2% for White residents.

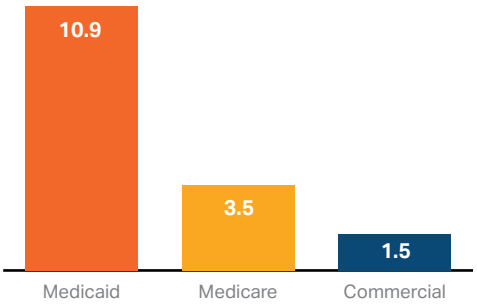
Number of ED visits for NTDCs per 1,000 population by race/ethnicity, 2017 and 2019



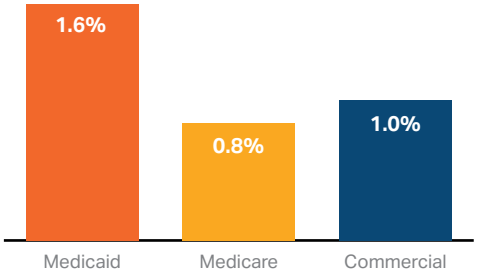
ED visits for NTDCs by payer

MassHealth was the most common payer for Massachusetts residents with ED visits for NTDCs in 2019, accounting for 45% of ED visits for NTDCs that year. Residents covered by MassHealth had the highest rate of ED visits for NTDCs, at 10.9 ED visits for NTDCs per 1,000 population. Residents covered by Medicare had 3.5 ED visits for NTDCs per 1,000 population, and commercially-insured residents had 1.5 ED visits for NTDCs per 1,000 population. In addition, a greater proportion of overall ED visits by residents covered by Medicaid were for NTDCs (1.6%), compared to those by covered by Medicare (0.8%) and commercially-insured residents (1%). More ED visits for NTDCs by residents covered by Medicaid were for CPP (80%), compared to those covered by Medicare (71.2%) and commercially-insured residents (70%).

Number of ED visits for NTDCs per 1,000 population by payer, 2019



Percent of all ED visits that were for NTDCs by payer, 2019



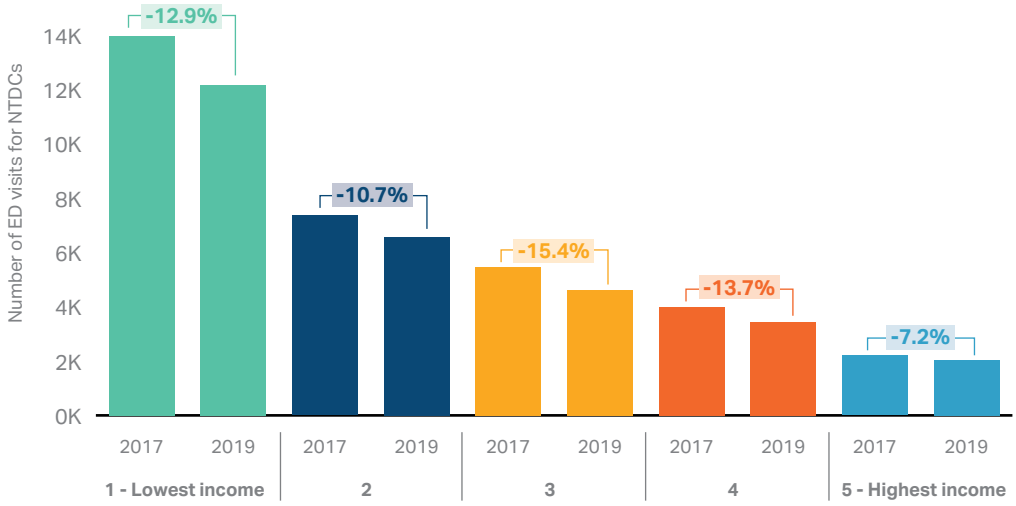
NOTES: For purposes of this exhibit, the payer represents the medical benefit that was used to cover the ED visits. Dental insurance status is not known for the patients with commercial insurance and Medicare. A dental benefit is available for adults and children on MassHealth Standard, MassHealth CommonHealth, MassHealth Family Assistance, CarePlus, MassHealth Limited, and the Children's Medical Security Plan.[8]

ED visits for NTDCs by income quintile

In 2019, 65% of ED visits for NTDCs were by Massachusetts residents in the lowest two community income quintiles. Between 2017 and 2019, the number of ED visits for NTDCs for residents in each of the community income quintiles declined. However, the number of ED visits for NTDCs for those in the lowest community income quintile in 2019 (12,173) remained far above those by residents in other income quintiles. In addition, a greater proportion (81%) of ED visits for NTDCs by residents in the lowest community income quintile were CPP-related compared to those in the highest income quintile (69%).

The number of ED visits for NTDCs for those in the **lowest community income quintile** in 2019 (12,173) remained **far above** those by residents in other income quintiles.

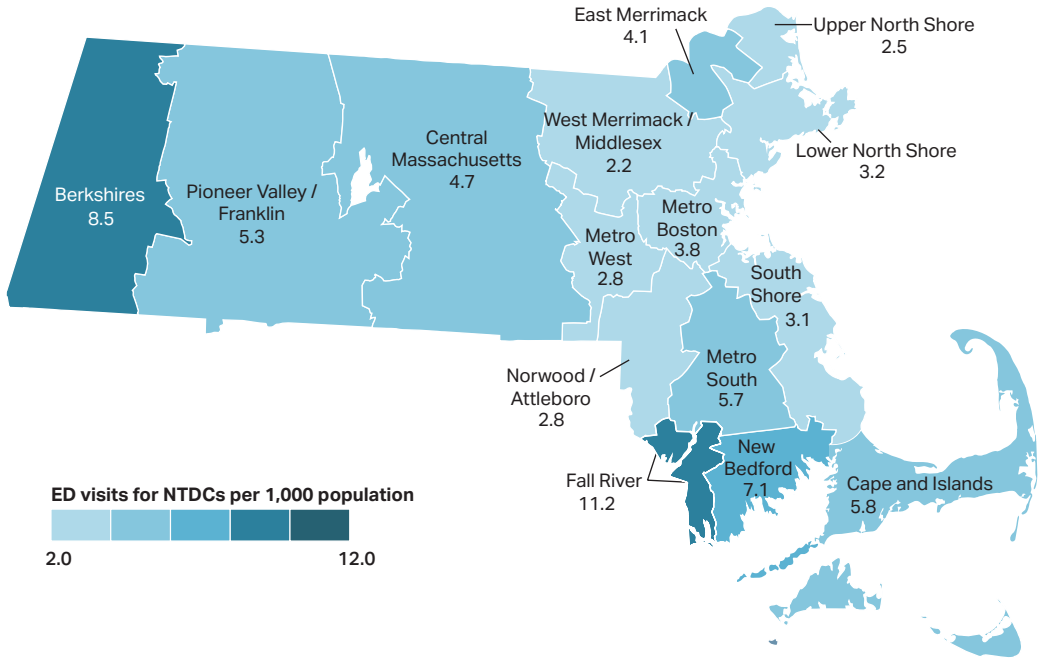
ED visits for NTDCs by zip code median income, 2017 and 2019



ED visits for NTDCs by geographic region

In 2019, the Fall River region had the highest rate of ED visits for NTDCs per 1,000 population (11.2), followed by the Berkshires (8.5). The West Merrimack region had the lowest rate of ED visits for NTDCs, at 2.2 ED visits for NTDCs per 1,000 population. The same pattern is shown in rate of CPP-related ED visits for NTDCs, with Fall River having the highest rate of ED visits for CPP in 2019 (9.6), followed by the Berkshires (7.2) and West Merrimack (1.6). This geographic pattern likely reflects differences between characteristics of the residents in the regions and may also be associated with differences in access to dental providers in the regions.

Rate of ED visits for NTDCs per 1,000 population by HPC region, 2019



ED visits for NTDCs and secondary conditions

In 2019, the three most common secondary diagnoses documented during ED visits for NTDCs included nicotine dependence (cigarette-related), long term drug therapy, and primary hypertension. 20.0% of ED visits for NTDCs included at least one tobacco-related secondary diagnosis, compared to 10.7% of all ED visits. Relatedly, the Centers for Disease Control has found that untreated tooth decay is higher among people who smoke cigarettes, and tobacco use is known to cause gum disease, oral cancer, and other oral health problems.[9,10]

Outside research also indicates that people with disabilities are more likely to have problems with oral health than people without disabilities, due to "complex physical, behavioral, or multidimensional barriers" to accessing dental care services.[11] Additional research into ED visits for NTDCs by individuals with disability-related secondary conditions is warranted.

Avoidance of routine dental care due to lack of coverage, access, and/or affordability can have **long-term health consequences,** both mental and physical. The HPC continues to recommend that the Legislature take action to establish a **new level of dental practitioner** known as dental therapists as an **equity-centered** intervention to expand oral health care access.

CONCLUSION

The HPC's research shows that ED visits for NTDCs vary by race and ethnicity, age, income, region, and payer type, suggesting disparities in access to preventive care and treatment for dental conditions. Avoidance of routine dental care due to lack of coverage, access, and/or affordability can have long-term health consequences, both mental and physical. During the COVID-19 pandemic, use of dental services nationally fell 75% in March 2020 and 79% in April 2020 compared to the same months the year before, which may result in higher than usual downstream dental consequences in the immediate term.[12]

The Massachusetts Health Policy Commission (HPC) is an independent state agency that develops policy to reduce health care cost growth and improve the quality of patient care. The HPC's mission is to advance a more transparent, accountable, and equitable health care system through its independent policy leadership and innovative investment programs.

HPC DataPoints is a series of online briefs that spotlight new research and data findings relevant to the HPC's mission to drive down the cost of health care. It showcases brief overviews and interactive graphics on relevant health policy topics. The analysis underlying these briefs is conducted by HPC staff. To view all HPC DataPoints, visit our website.

Source: HPC analysis of Center for Health Information and Analysis Emergency Department Database, 2017 – 2019

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Massachusetts has engaged in steps to try to increase access to preventive dental services, especially for children. The state licenses public health dental hygienists to treat patients with MassHealth in a public health setting without dentist supervision, has implemented a fluoride varnish training program which allows non-dental practitioners (pediatricians, nurses, etc.) to apply fluoride to children with MassHealth coverage during a normal well-visit at their office, and runs a portable "school-based sealant program" (SEALs) that provides screenings, education, dental sealants, and fluoride to children regardless of their insurance status.

Other policies designed to improve access to oral health care for adults are under consideration. Currently, legislation is pending in the Massachusetts General Court to authorize mid-level dental therapists to practice in the state, with a focus on reducing socioeconomic barriers to oral health care. The HPC continues to recommend that the Commonwealth establish this new level of dental practitioner as an equity-centered intervention to expand oral health care access.[13] Such providers perform routine surgical dental treatments that a dentist would normally provide, including fillings, simple extractions, and crowns, at a lower cost. Advocates assert these mid-level providers would help expand access to dental care, particularly for residents who are elderly, have low incomes, and live in rural areas, due to increased supply and the ability to work in community locations like schools and nursing homes.

Dental therapists are currently licensed to work in Arizona, Connecticut, Maine, Michigan, Minnesota, Nevada, New Mexico, and Vermont, as well as tribal lands in Alaska, Idaho, Montana, Oregon, and Washington. Alaska's tribal communities were the first in the U.S. to license dental therapists; as such, more than 40,000 Native Alaskans living in rural communities have gained access to oral health care since 2004, and providers report seeing fewer patients with caries. In addition to expanding the dental workforce, additional policy opportunities in Massachusetts include ED referral programs that link patients from the ED to dental providers, as well as teledentistry innovations.

Endnotes

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