

2021 Mid-Coast Oral Health Profile

December 2021



MCD
Public Health
Insight Innovation Impact

Courtney E. Vannah, IPDH, MS, MPH
cvannah@mcd.org

Funding for this report has been provided by:



Partnership for
Children's
Oral Health

A network to ensure that all children in Maine
can grow up free from preventable dental disease

www.mainepeoh.org

The Partnership for Children's Oral Health Network (PCOH Network) is a network of organizations and individuals united by a common vision: ensuring that all Maine children can grow up free from preventable dental disease. Creating a Maine where no child experiences dental disease will demand bold solutions, collaborative action, and system changes on many levels. The goal of the PCOH Network is to catalyze collaboration and innovation in order to expand Maine's capacity to ensure that effective prevention, education, and treatment tools reach all children in Maine.

Table of Contents

Introduction4

Mid-Coast Public Health District Demographics.....5

Access to Care6

Access Points 8

Schools 15

HeadStart 17

Primary Care 18

Utilization..... 19

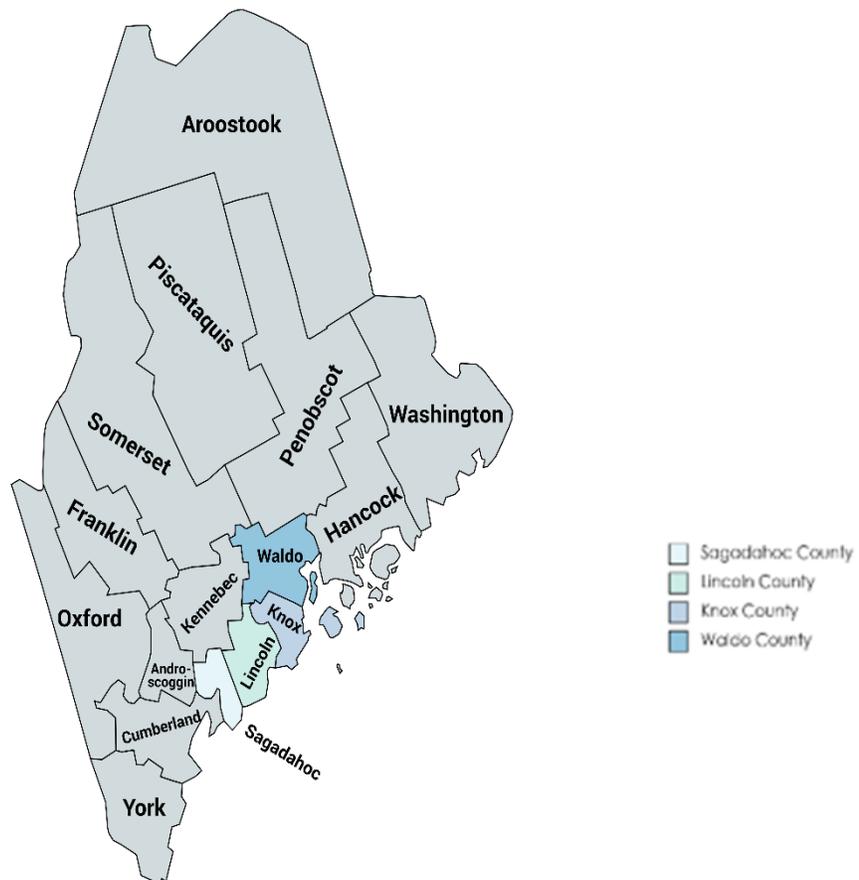
Workforce.....22

Methods.....24

References 25

Introduction

Oral health has long been an area of concern in the four counties in the Mid-Coast public health district, and was raised as an important need again by participants in the 2021 Mid-Coast area Community Health Needs Assessment (CHNA) forums. Reports from all four counties note the importance of oral health as it correlates with other community issues, namely substance abuse. The Lincoln and Knox County CHNA reports specifically cite access to dental care as a concern as well.⁶ As discussions began to address inequities in this region, it became increasingly clear that not enough information was available on the status of oral health services in the Mid-Coast region of Maine. In order to inform efforts to improve the oral health of this region, there was a need for an in-depth analysis of the status of oral health and access to care in the Mid-Coast. The results of this oral health profile will guide the development of initiatives aimed at increasing access to preventive oral healthcare for children and reducing the burden of dental disease on the community.



Created with mapchart.net

Mid-Coast Public Health District Counties: Knox, Lincoln, Sagadahoc, Waldo

The four counties of the Mid-Coast Region are home to roughly 150,000 Mainers with an average household income of \$57,729.¹ Just over 27,000 children reside in the Mid-Coast², 16% of whom live in poverty.¹

With the 6th highest population density in the State, Knox County is less rural than many Maine counties.³ However, even with more urbanized towns like Rockland, most residents live in rural areas of the county.³

Lincoln County has the smallest population of the Mid-Coast region including the smallest population of children. Lincoln County is the only Mid-Coast County in which 100% of residents live in rural areas.³

Sagadahoc County comprises the smallest geographic region in the Mid-Coast but also the greatest population density. Its proximity to Portland classifies this County as urban, but 61.3% of residents live in rural areas. Also of note is that 50% of the County's population lives in 2 of its 10 towns: Bath and Topsham.³

Waldo County is geographically the largest Mid-Coast County. With almost 7,000 residents living in Belfast, it is not an entirely rural county, but 91.3% of residents live in rural sections.³

Table 1. Demographic indicators of the Mid-Coast Region

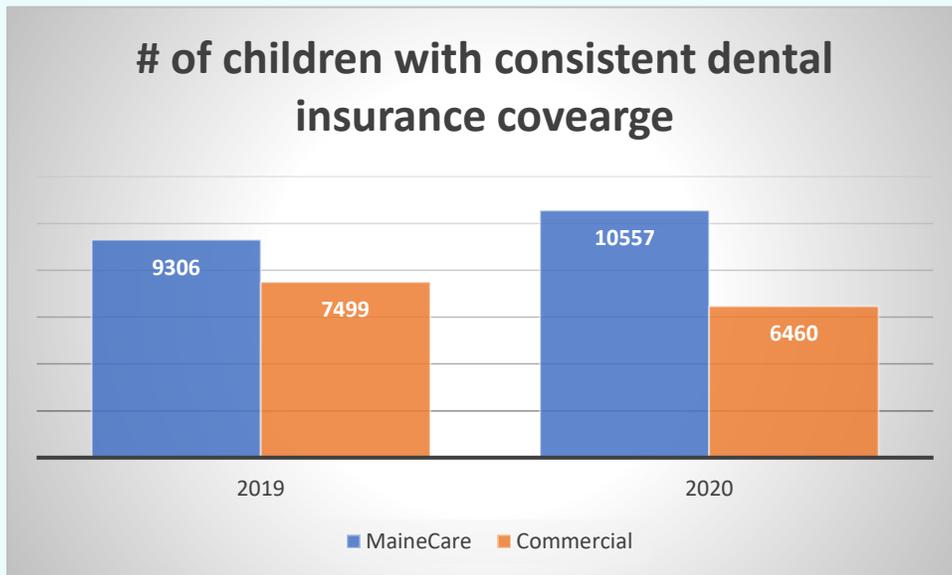
Demographic indicator	Knox	Lincoln	Waldo	Sagadahoc
Total population ¹	39,759	34,201	39,539	35,453
Children under age 5, 2018 ²	1,768	1436	1767	1780
Children ages 5 -17, 2018 ²	5,272	4316	5590	5037
Square miles of the County ⁴	374	457	724	250
Population density per sq. mile ³	106.3	74.8	54.6	141.8
% living in rural areas ³	67.9%	100%	91.3%	61.3%
Average annual household income ¹	\$57,571	\$57,720	\$51,931	\$63,694
% children in poverty 2019 ¹	17.5%	16.4%	18.6%	11.4%

Note: The Mid-Coast Public Health District also covers the towns of Brunswick and Harpswell, neither of which are represented in this county level data.

Access to Care

From 2019 to 2020, dental claims data⁷ shows a shift in insurance coverage in the Mid-Coast Region with a significant number of children moving from commercial coverage to the State's Medicaid Program, MaineCare. During both years, roughly 17,000 children had consistent dental coverage, i.e. either MaineCare or commercial dental insurance for 11 months or more out of the year. However, in 2020 there were more children enrolled in MaineCare and less with commercial dental insurance than in 2019. In both years, it is estimated that around 10,000 children were left with either intermittent coverage or no dental insurance coverage at all.

Figure 1. Number of Mid-Coast children with dental insurance coverage, by type, for at least 11 months out of the year.



There is an average population: dentist ratio of 4,321 people per dentist in the Mid-Coast counties, with some areas nearly triple the state average.¹ Based on claims data⁷, 41% of children insured at least 11 months out of the year had zero preventive dental claims in 2019 and 37% of children had no dental claims at all.¹ Children in this region are less insured overall, have a higher rate of MaineCare coverage, and access care less than the State averages.

Additionally, both adults and children in this region disproportionately rely on the emergency room for dental needs. From 2016-2018, the rate of emergency room care for dental needs in children was 22 per 100,000 population, and 176 in adults, both well above the State average.¹

Table 2. Dental care access indicators in the Mid-Coast Region¹

Access indicator	Knox	Lincoln	Waldo	Sagadahoc	Public Health District	State average
Rate (n population : 1 dentist)	1729	7747	5751	2055	4321	2700
% <21 covered by dental insurance	55.3%	57.2%	54.7%	49.5%	54%	55.7%
% of children in 2020 enrolled in MaineCare (ages 0-19)	45.6%	46.6%	50.3%	35.3%	44%	43.8%
% of insured children with at least one dental claim in 2019	64.8%	61.1%	61.5%	65.4%	63%	66.5%
% of insured <21 with at least 1 preventive dental visit in 2019	60.6%	57.2%	57.5%	61.9%	59%	62.6%
2016-2018 dental emergency department rates for children per 10,000 population	24.1	29.6	23.3	10.3	22	17.9
2016-2018 dental emergency department rates for adults per 10,000 population	184.8	202.8	195.6	121.8	176	136.6

Access Points

There are [42 access points](#) in the Mid-Coast counties for restorative and preventive dental care. These access points include:

- 1 independent practice dental hygiene (IPDH) office
- 1 Federally Qualified Health Center (FQHC)
- [4 other non-profit dental clinics](#)
- 36 private practice dental offices

It is of note that the only FQHC dental clinic in the region is located on an island. While this improves access for island residents, it does not necessarily ease access for mainland residents because they must coordinate appointments around the ferry schedule. One of the non-profit dental clinics limits access to only residents of Lincoln County; 1 limits access to only Knox County and the towns of Waldoboro and Lincolnville; and several have income restrictions. The non-profit dental clinics generally report having limited capacity due to lack of full-time staffing and some rely on volunteers.

Of the 42 access points, 32 report accepting [new patients](#). 14 practices accept [MaineCare](#), but only 8 of those practices are open to new MaineCare [pediatric](#) patients and 3 of those sites accept new [adult](#) MaineCare patients. 38 practices accept patients with [private insurance](#), but 14 are [not in network](#) with any insurance plans, and 13 more are only in network with [Delta Dental](#).

The minimum age accepted across the sites ranges from 6 months to 20 years with an average of 3.2 years and a most common minimum of 2-3 years of age. Most practices in the Mid-Coast accept patients with special needs but many note that they treat these patients on a case-by-case basis and refer them out as needed, most commonly for sedation needs. The average number of active patients of record is just over 3000 per practice.

The region has 1 denturist, 1 oral surgeon, and 5 orthodontic practices, none of which are included in the site data above. Also of note is that this data includes responses from only 41 sites as one declined to respond.

For information about the timing and process for collecting this data, please see the methods section at the end of this document.

Figure 2. Density of access points by region of the counties.

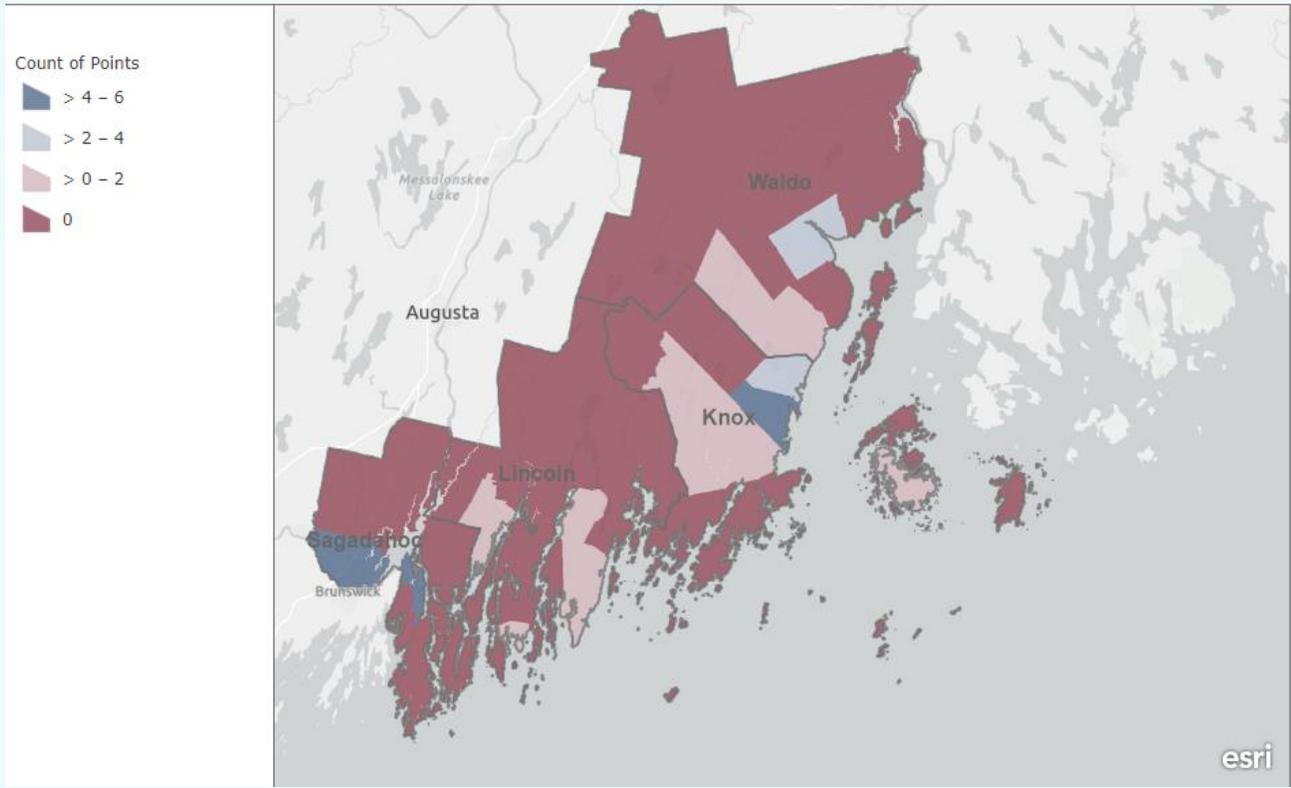


Figure 3. Locations of access points.

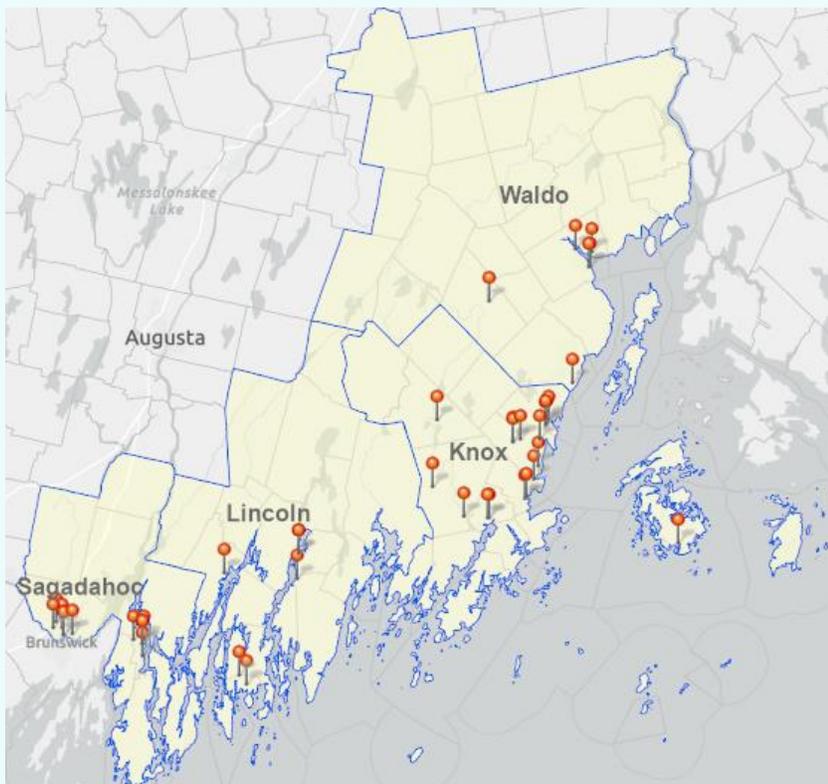


Figure 4. Location of access points accepting new patients.

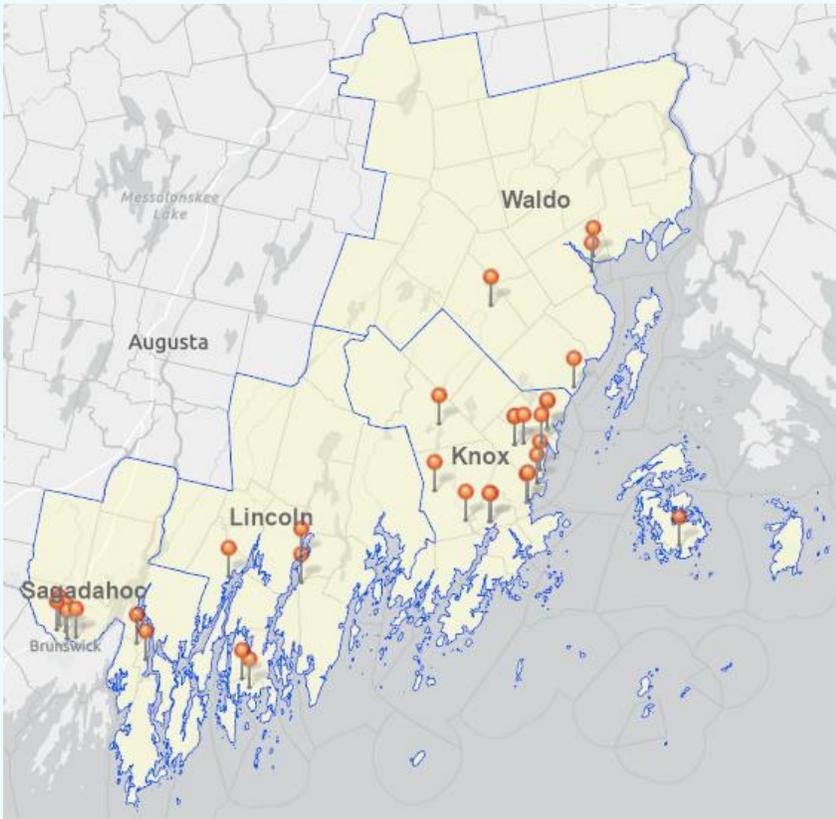


Figure 5. Location of access points that accept MaineCare.

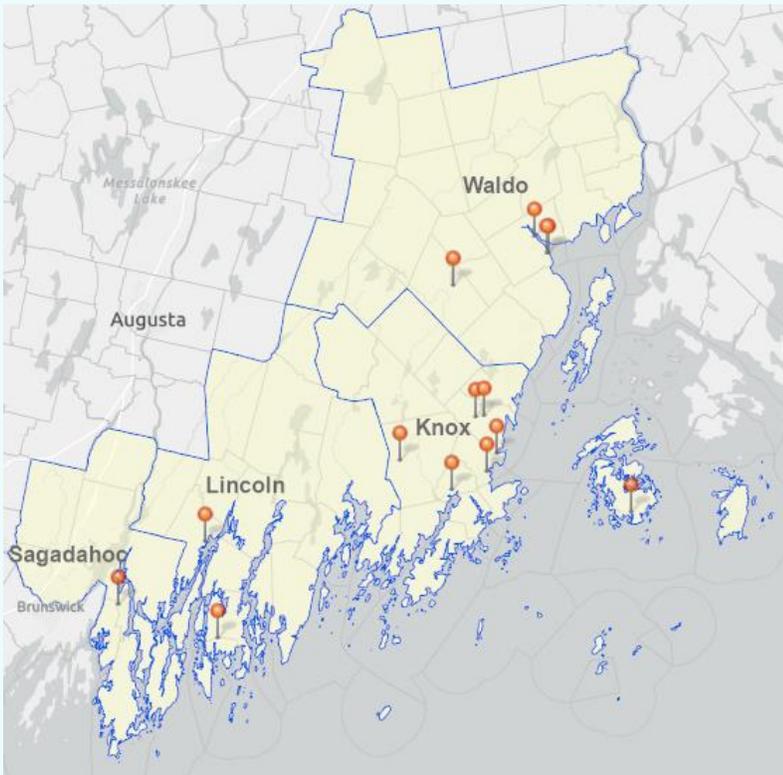


Figure 6. Location of access points that are accepting new MaineCare child patients.

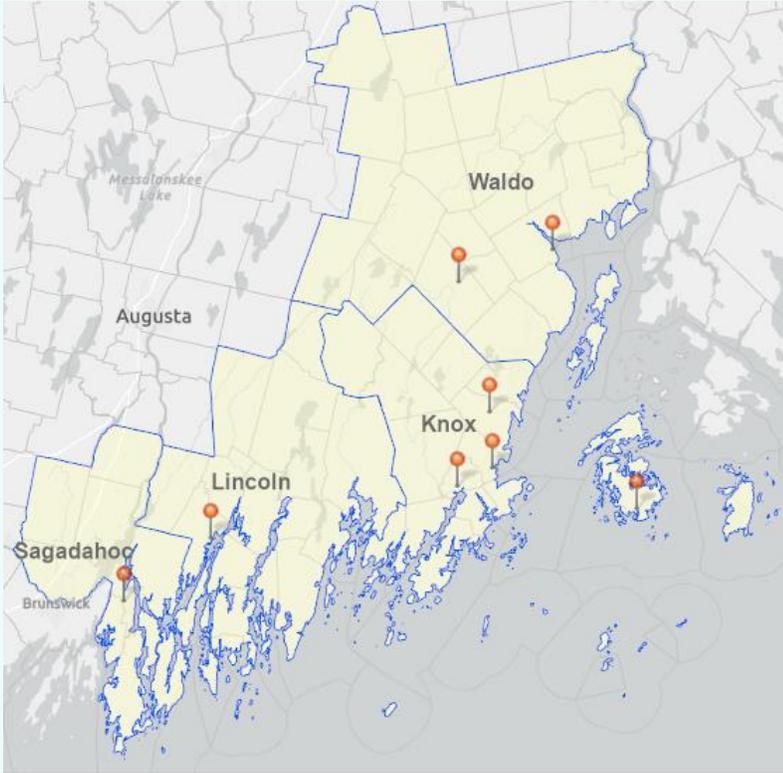


Figure 7. Location of access points that accept new MaineCare adult patients.

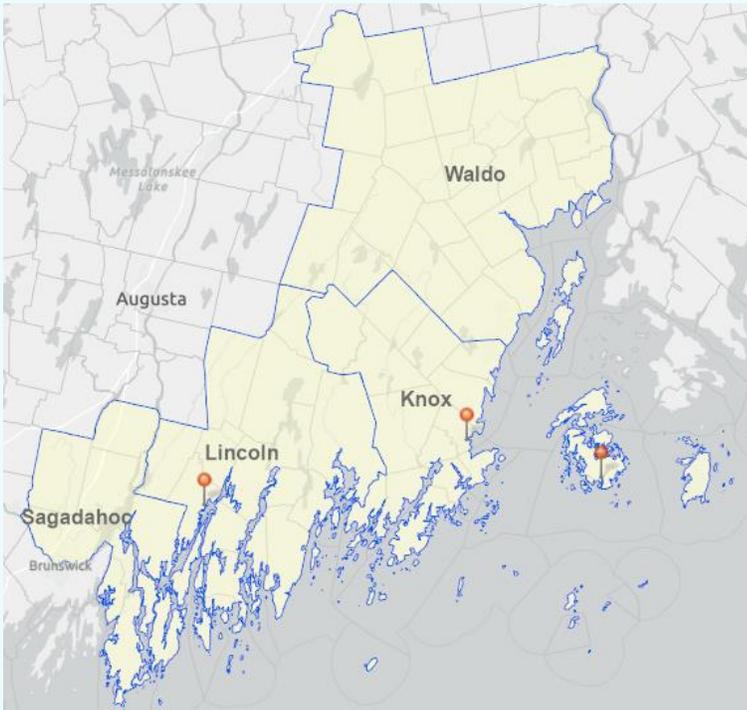


Figure 8. Location of access points that accept at least one private insurance.

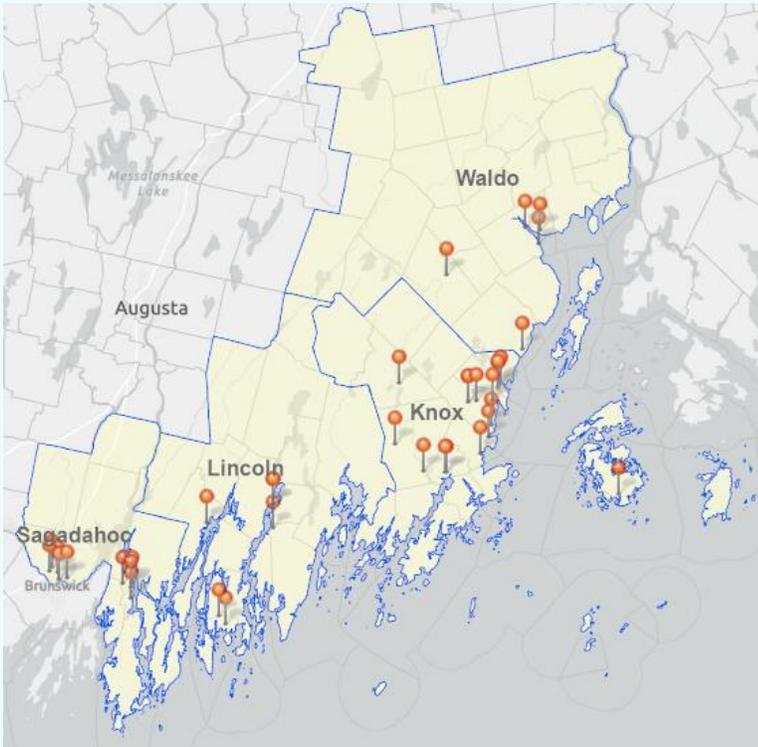


Figure 9. Location of access points that are in network with multiple private insurances.

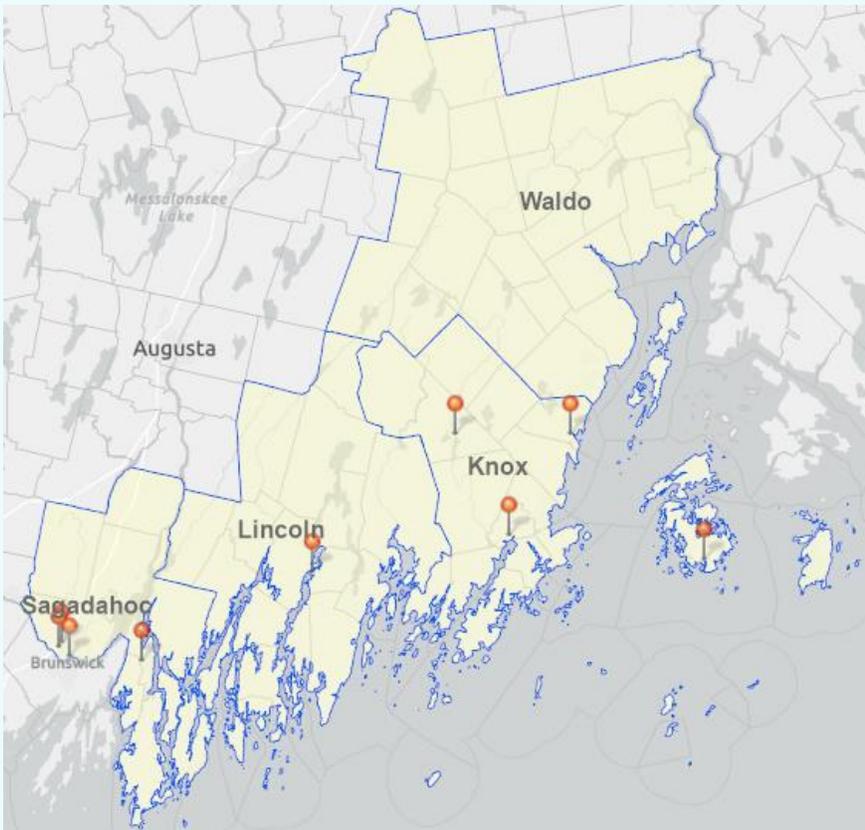


Figure 10. Location of access points that are in network only with Delta Dental.

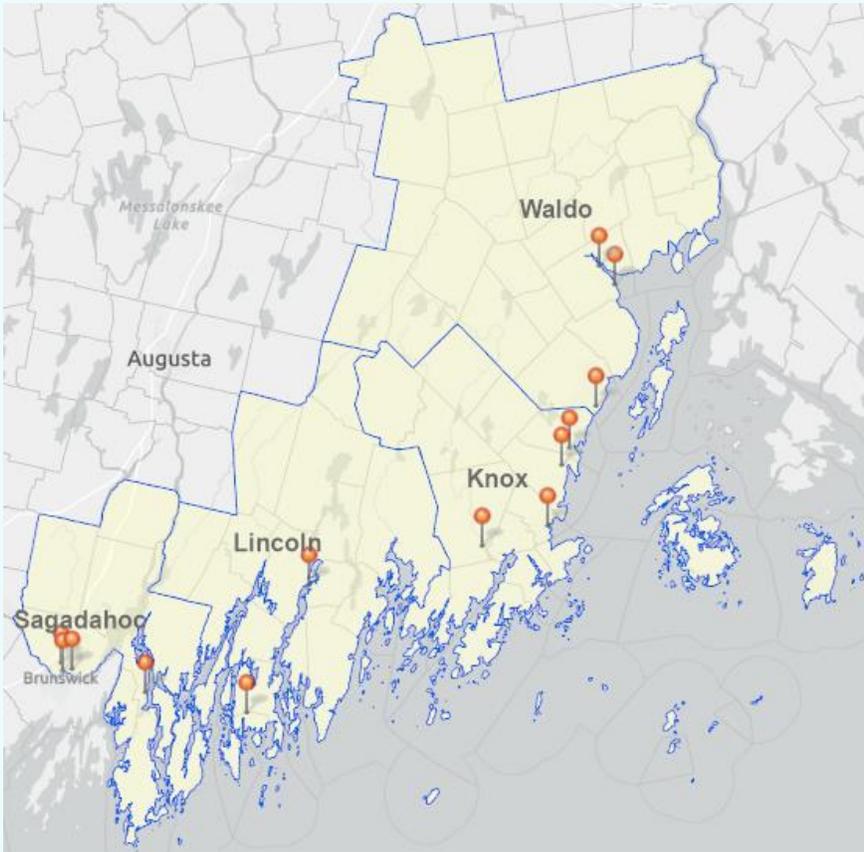


Figure 11. Location of access points that are not in network with any private insurances.

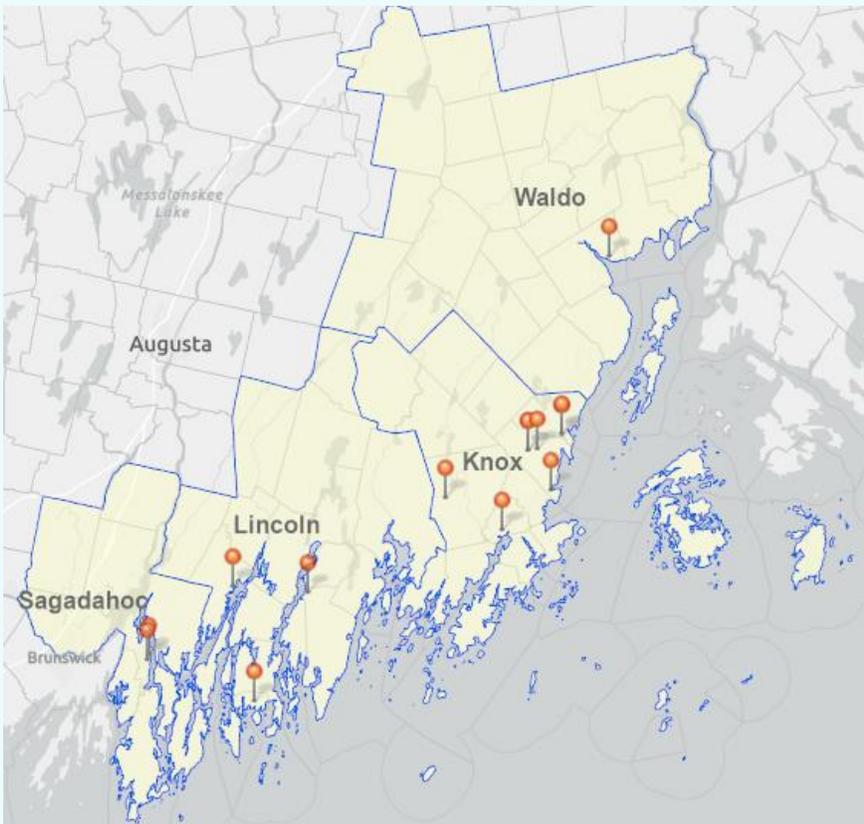
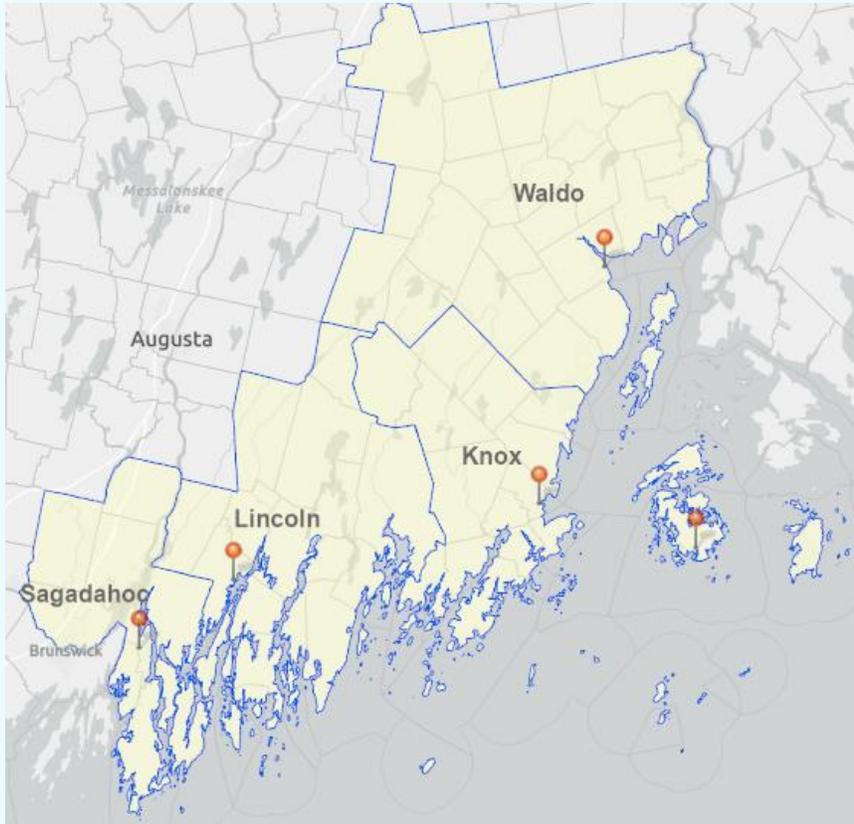


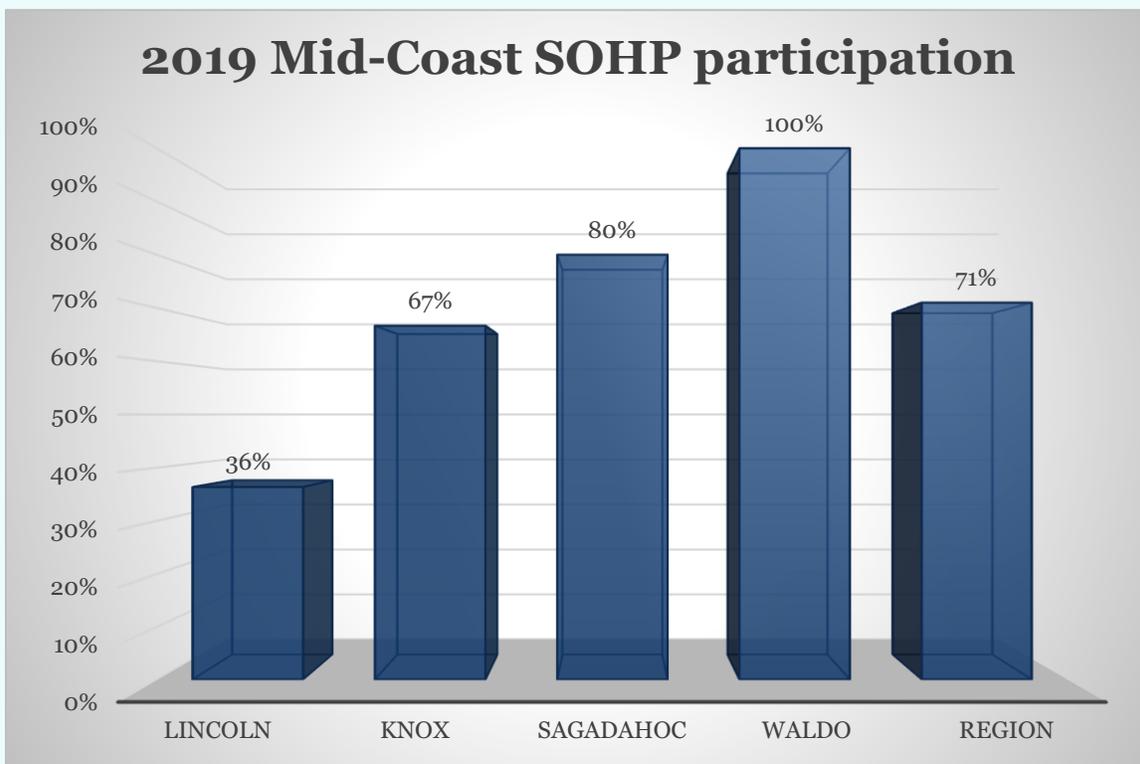
Figure 12. Locations of non-profit dental clinics.



Schools

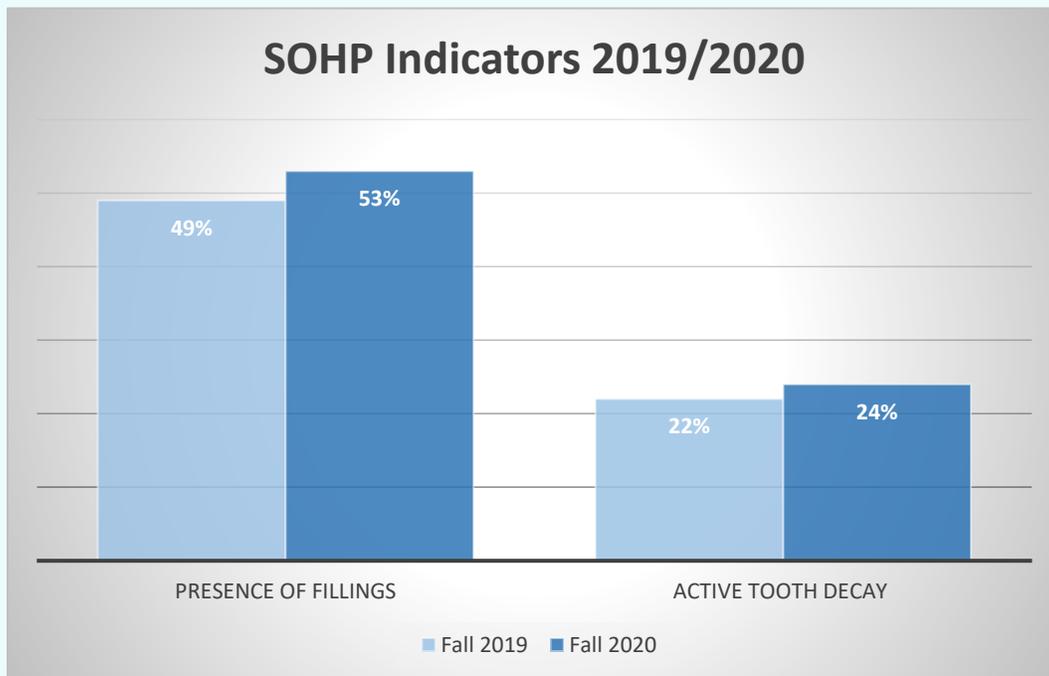
There are 89 schools in the Mid-Coast Counties: 41 elementary schools, 22 combined elementary and middle schools, 9 middle schools, 1 combined middle and high school, 13 high schools, and 3 schools that serve all grades. In the Fall of 2019 (pre-COVID), the Maine CDC's School Oral Health Program (SOHP) provided services in 28 schools in the Mid-Coast Counties. Dental hygienists contracted by the SOHP conduct oral health screenings, apply fluoride varnish, and provide education and referrals for follow-up care as needed. The SOHP primarily serves elementary schools and to be eligible to participate a school must have greater than 40% of its students eligible for free/reduced lunch. In 2019, 71% of eligible Mid-Coast elementary schools participated in the SOHP.

Figure 13. 2019 participation of eligible elementary schools in the SOHP by county.



In the fall of 2019, data collected by the SOHP showed 49% of children screened in the Mid-Coast Counties had a history of tooth decay and nearly one in four had active untreated tooth decay. Due to changes brought on by the pandemic, the program serviced only 9 schools in the Mid-Coast in the Fall of 2020, but the numbers were similar with exception to the percentage of children having experienced tooth decay and with active untreated decay had increased.

Figure 14 . School Oral Health Program Indicators for Fall 2019 and Fall 2020.



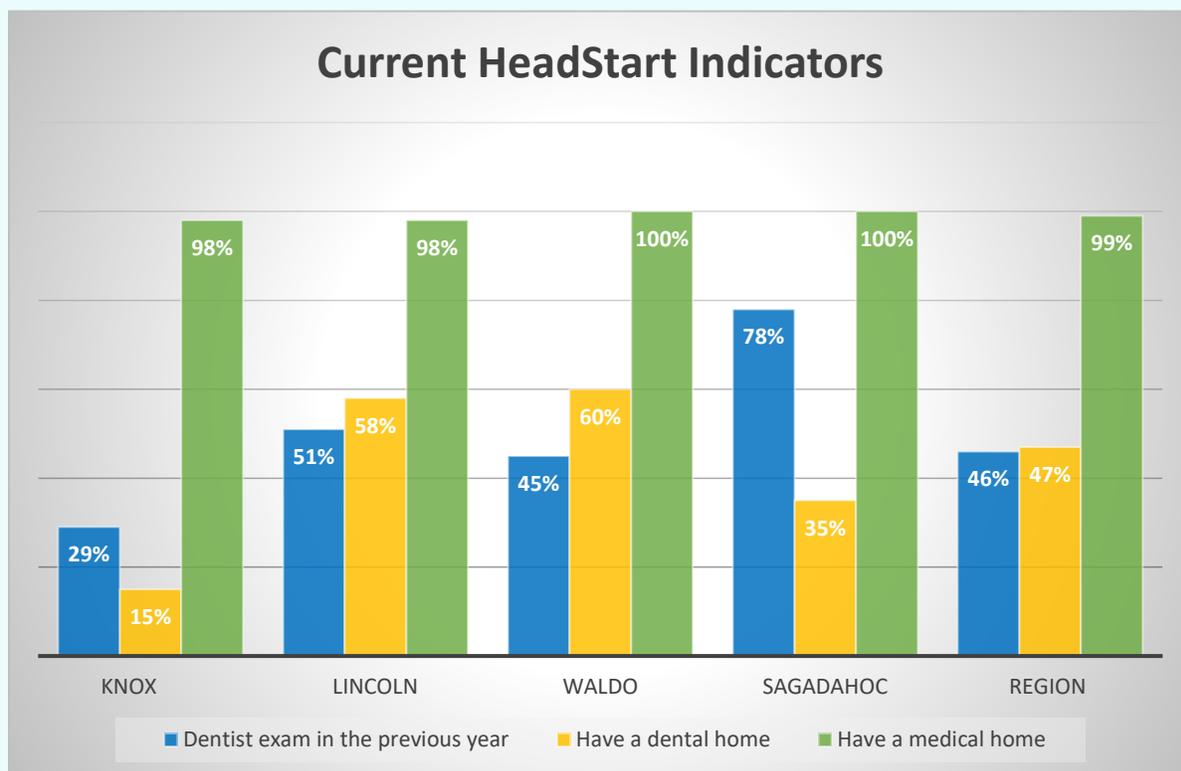
Of the 89 schools in the Mid-Coast region, 20 of them contract with 3 Public Health/Independent Practice Dental Hygienists to provide more comprehensive preventive dental hygiene services to students. These schools include 1 high school, 2 middle schools, and 17 elementary schools. The services provided include a wide range of preventive services such as cleanings, radiographs, caries arrest treatments, and temporary fillings, along with education and referrals for follow-up care as needed. There is no aggregate data available on the number of children served by these programs.

HeadStart

In the 2021-2022 academic year, there are 239 children enrolled in in-person learning HeadStart Programs in the Mid-Coast counties with more students enrolled in virtual programs due to the pandemic. Overall enrollments are down due the ongoing pandemic. Of those enrolled in in-person programs, 121 children currently lack a dental home while nearly 100% have a medical home. Only 46% of these children had a dental exam in the previous year, in spite of a federal mandate requiring that all HeadStart Programs ensure that all children establish a dental home and receive a dental exam within 90 days of enrolling in the program. It is worth noting that the sites with the highest rate of meeting this requirement were those participating in a new virtual dental home pilot program.

Table 3. HeadStart Enrollments					
HeadStart Enrollment	Knox	Lincoln	Waldo	Sagadahoc	Region
In-person HeadStart Programs	49	23	144	23	239

Figure 15. Current region HeadStart indicators for children enrolled in in-person programs: % of children with a dentist exam in the previous year; % of children who have a dental home; % of children who have a medical home.



Primary Care

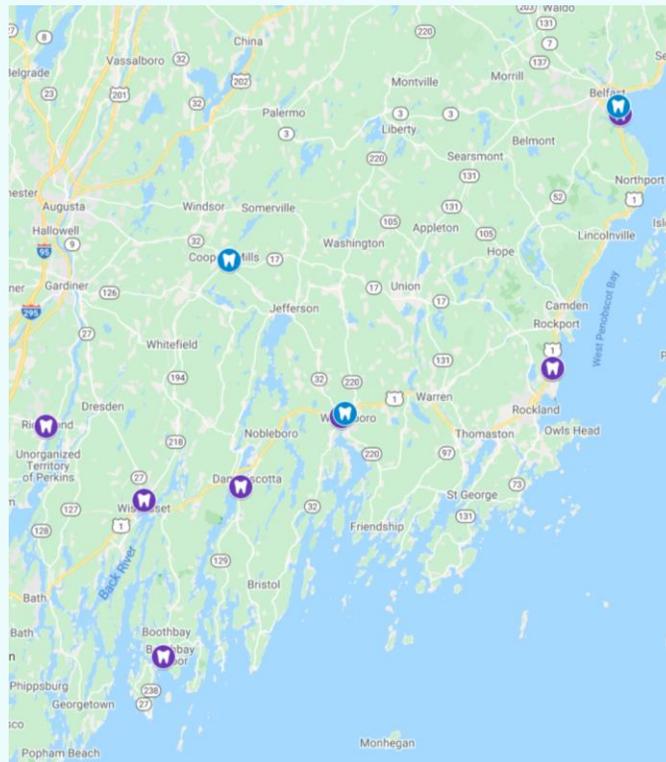
Knox County contains 14 primary care practices, one of which is located on the island of Vinalhaven.³ Lincoln County also has 14 primary care practices including one FQHC. Waldo County has 7 primary care sites including 2 FQHCs. Lincoln, Knox, and Waldo counties all have one pediatric primary care practice. Sagadahoc County contains only 7 primary care sites including one FQHC. However, due to the proximity to other areas of dense healthcare opportunity (Brunswick and Portland), this does not necessarily indicate a lack of access to primary care.

Table 4. Primary Care Indicators

Primary care indicator ³	Knox	Lincoln	Waldo	Sagadahoc
Primary Care Practices	14	14	17	7
Sites per 10,000 population	3.5	4.1	4.4	2

[From the First Tooth](#) (FTFT) is an existing preventive oral health program integrated into many Maine primary care practices. The program focuses on prevention of pediatric oral disease by incorporating oral health risk assessment and application of fluoride varnish into well-child visits from 6 months through 5 years of age.⁵ There are 32 primary care practices in the Mid-Coast region that treat pediatric patients. Of these, 19 have received training with the FTFT Program. Twelve have partially or fully implemented the program into their practice. Only one primary care practice offers any dental services beyond the FTFT program- there is a co-located dental clinic in the island FQHC.

Figure 16. FTFT fully (purple) or partially (blue) implemented sites in the Mid-Coast Region.



Utilization

Dental claims data⁷ shows that utilization of preventive services is down across the State following the start of the COVID-19 pandemic; however, the impact on MaineCare patients has been disproportionate. From 2019 to 2020, claims data shows preventive claims in children with commercial insurance dropped by 13% but the drop in MaineCare children was 30%. Larger drops in preventive claims are seen across all [age groups](#) in MaineCare children when compared to those with commercial insurance and across all four [Mid-Coast counties](#).

Source for Figures 17-20: Maine Health Data Organization, All-Payer Claims Database. Analysis by USM Cutler Institute for the Partnership for Children's Oral Health "Insured children" includes children under age 21 who are residents of Maine/the identified county and who were enrolled in either MaineCare or a commercial dental plan for at least 11 months of the identified year.

Figure 17. % of Maine insured children with at least one preventive dental claim by insurance type.⁷

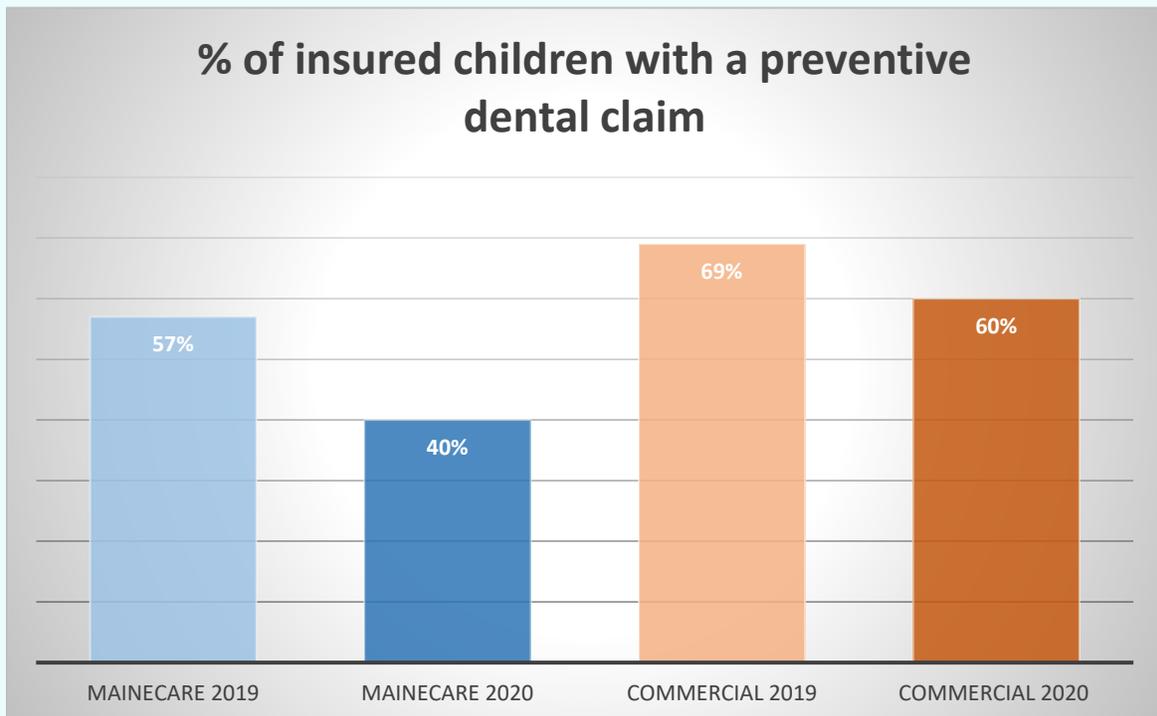


Figure 18. % Maine of insured children with at least one preventive dental claim by age group and insurance type.⁷

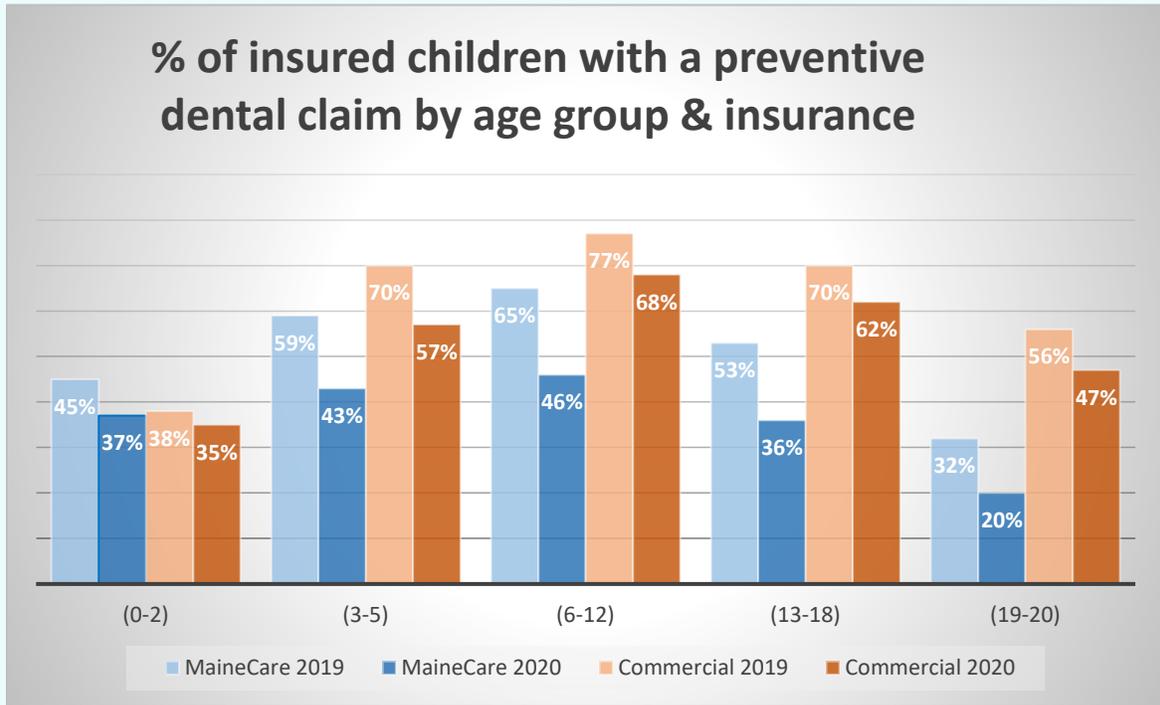


Figure 19. % of Mid-Coast insured children with at least one preventive dental claim by county and insurance type.⁷

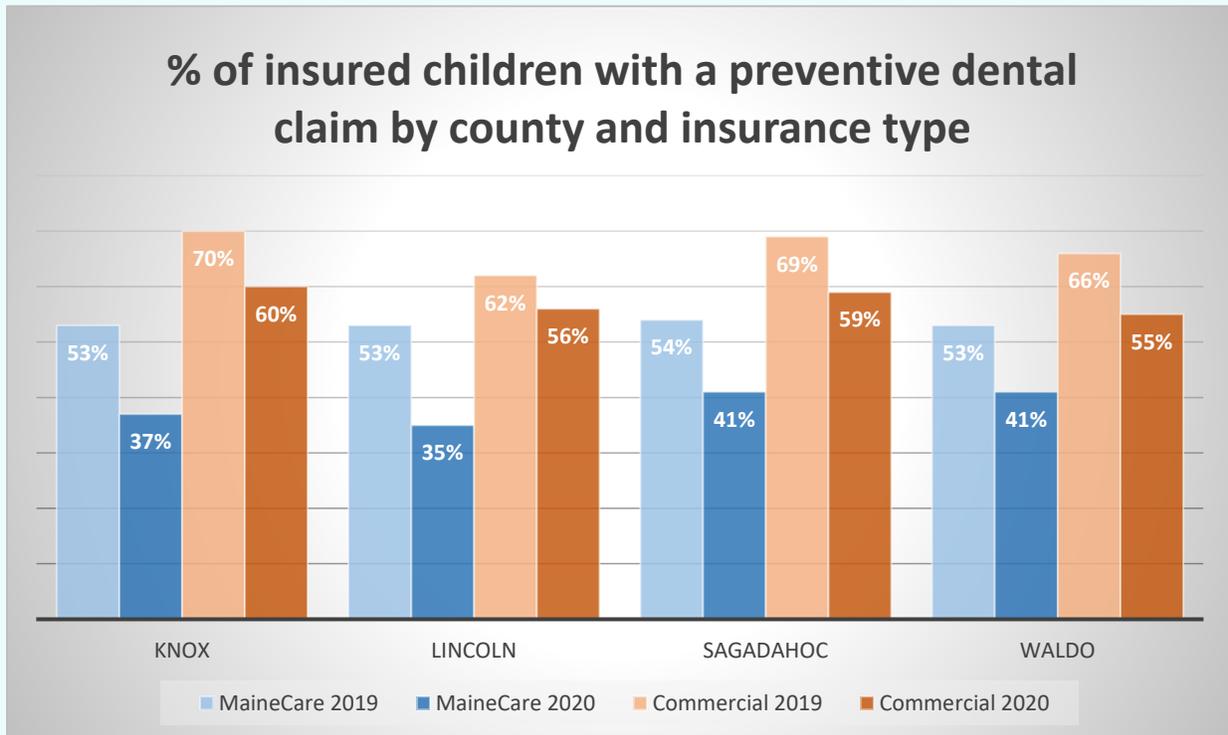
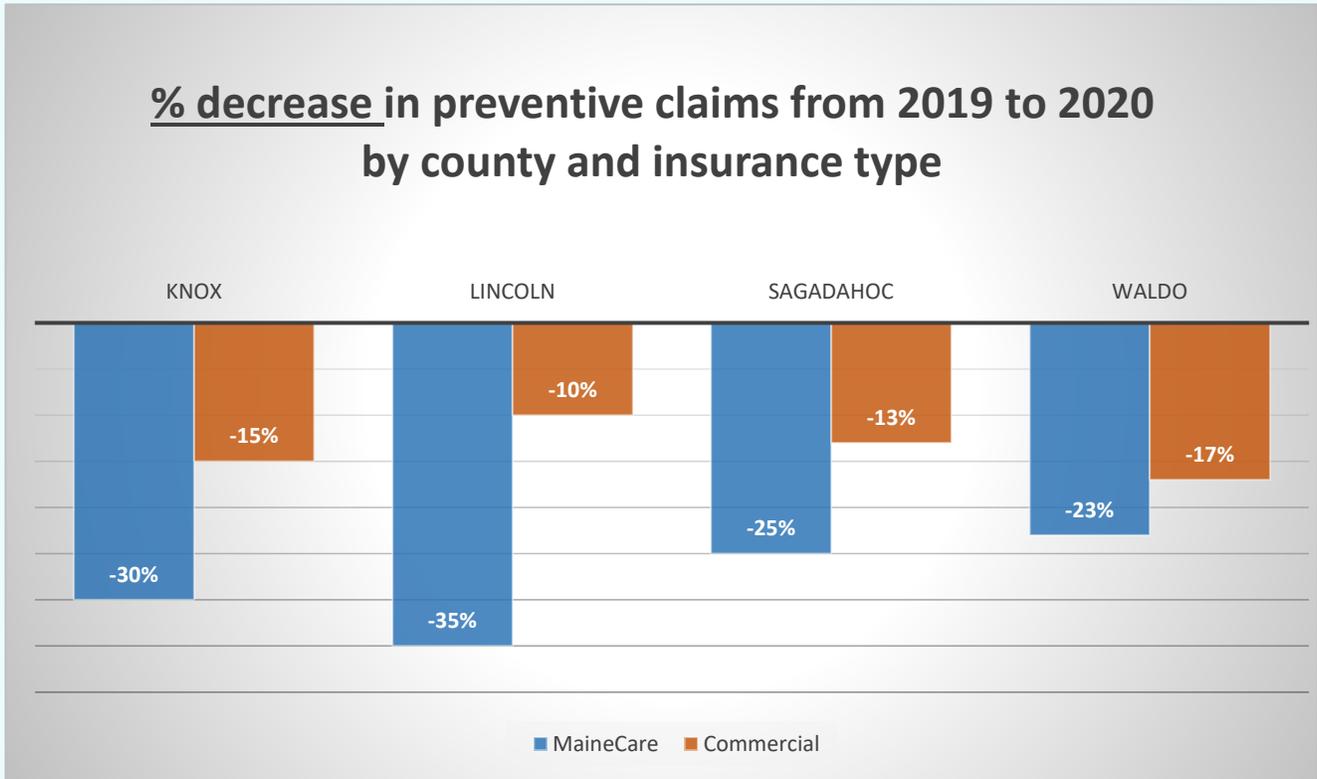


Figure 20. % decrease in preventive dental claims from 2019 to 2020 by county and insurance type.⁷



The bars represent the percent decrease in the number of preventive dental claims for insured children (who were enrolled with either MaineCare or a commercial dental plan for at least 11 months of the identified year)

Workforce

There are currently 52 dentists and 85 hygienists treating patients in dental practices in the Mid-Coast Counties. One dental hygienist treats patients in an Independent Practice Dental Hygiene office. In addition, as of October, 2021, there are 40 [vacant positions](#) within dental practices in this region (2 dentists, 13 dental hygienists, 17 dental assistants, and 8 administrative staff).

Table 5. Workforce				
Workforce indicator	Knox	Lincoln	Waldo	Sagadahoc
Practicing dentists	24	7	6	15
Practicing hygienists	38	14	11	23
Total vacant staff positions	18	3	6	13
Vacant positions: dentist	0	0	1	1
Vacant positions: dental hygienist	3	1	4	5
Vacant positions: dental assistant	11	1	1	4
Vacant positions: administrative staff	4	1	0	3

Figure 21. Existing workforce numbers by location.

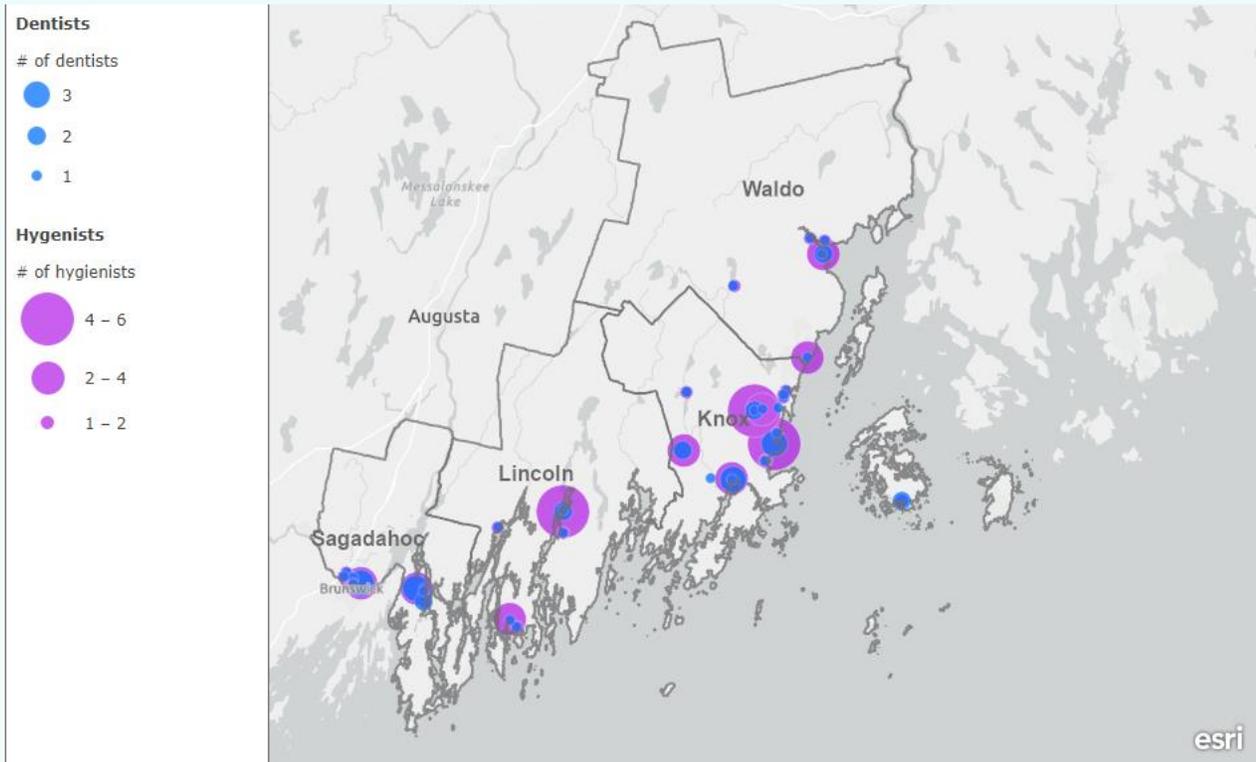
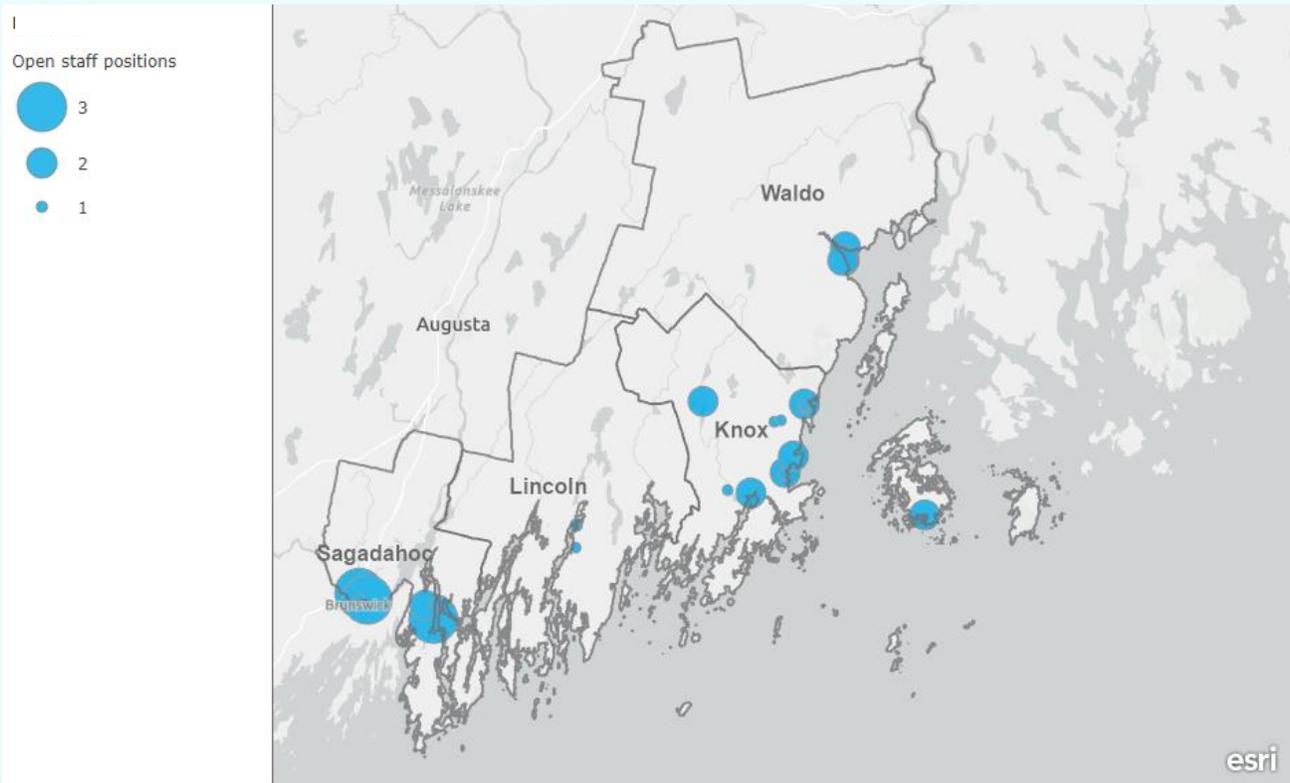


Figure 22. Open staff positions by town (including dentists, hygienists, assistants and administrative staff).





Methods

Methods of data collection for this descriptive report included review of existing reports (see reference list) and telephone/email communication with primary care practices, schools, and dental providers.

Researchers contacted dental practices, schools, HeadStart agencies, and primary care locations in the Fall of 2021. Researchers collected workforce data during phone calls/emails with dental practices. The School Oral Health Program and the From the First Tooth Program provided current county level data from their respective programs in October 2021. 2019 eligibility for the School Oral Health Program was retrieved from the State Nutrition Reports Database. Utilization data was obtained from an analysis of data from the Maine Health Data Organization's All-Payer Claims Database by the USM Cutler Institute for the Partnership for Children's Oral Health.

References:

1. Maine CDC. Health Profiles. Maine Shared Community Needs Assessment. 2021. <https://www.maine.gov/dhhs/mecdc/phdata/MaineCHNA/health-profiles.shtml>
2. Maine Children’s Alliance. 2020 County Data Profiles. 2020. <https://www.mekids.org/maine-county-profiles-2020/>
3. Kahn-Troster S, Burgess A, Coburn A, et al. Maine Rural Health Profiles. Portland, ME: University of Southern Maine, Muskie School, Maine Rural Health Research Center; September, 2016. https://mehaf.org/learning_resource/maine-rural-health-profiles
4. Info for ME. Maine Counties. 2019. <https://www.maine.gov/sos/kids/government/counties>
5. From the First Tooth. <https://www.fromthefirsttooth.org/>
6. Maine CDC. Maine Shared Community Health Needs Assessment. Final CHNA Reports. <https://www.maine.gov/dhhs/mecdc/phdata/MaineCHNA/final-CHNA-reports.shtml>
7. Maine Health Data Organization, All-Payer Claims Database. Analysis by USM Cutler Institute for the Partnership for Children’s Oral Health.

MEDICAL CARE DEVELOPMENT, INC. (MCD)

Improving the health and wellbeing of people

