2023-2027 State Oral Health Plan: Assessment of Ohio's oral health strengths and challenges

December 2022

Oral Health Ohio is a coalition of statewide partners who educate and advocate to improve the state's oral and overall health. Oral Health Ohio received funding from the CareQuest Institute for Oral Health to support the development of the 2023-2027 State Oral Health Plan. Oral Health Ohio contracted with the Health Policy Institute of Ohio (HPIO) to facilitate and create the State Plan and this Assessment.

Introduction

Oral health is a critical part of overall health. Many factors shape oral health, and obstacles to optimal oral health can also negatively affect physical and mental health and overall well-being.

> The World Health Organization defines oral health as "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infections and sores, periodontal disease (gum disease), dental caries (tooth decay), tooth loss, and other diseases or disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and social well-being."[1]

This Assessment examines Ohio's strengths and challenges related to oral health. It includes the following sections:

- Assessment key findings
- Quantitative data on the factors that shape oral and overall health, dental care, and oral health outcomes
- Data limitations
- Findings from healthcare provider focus groups
- Findings from oral healthcare consumer focus groups

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Assessment key findings

The following key themes emerged from this Assessment, including findings from quantitative data and healthcare provider and consumer focus groups:

Oral health strengths

1. **Most Ohioans are served by a fluoridated water source**. In 2018, 92.5% of Ohioans were served by a fluoridated water source, which is much higher than the overall U.S. rate.[2] Water fluoridation can prevent tooth loss and decay and reduce cavities.

2. **Ohio has dental care access strengths to build upon.** School-based health care and Ohio's safety net infrastructure were among the top oral health strengths noted by both consumer and healthcare provider focus group participants, as they increase access to care for underserved populations. Providers also noted comprehensive dental benefits for adults within Medicaid as a strength for Ohio, and many consumer participants mentioned positive patient-provider interactions.

3. **Ohioans are recognizing the link between oral health and the health of the rest of the body.** Participants in both the provider and consumer focus groups talked about the connections between oral and overall health, indicating progress in knowledge and understanding.

Oral health challenges

4. **Ohioans are more likely to have many permanent teeth removed than people in other states**. In 2020, over 9% of Ohio adults reported having had six or more permanent teeth removed, which is slightly more than the U.S. overall. This was twice as likely among older adults, ages 65 and older.[3]

5. **Less than half of Ohio women receive preventive dental cleanings during pregnancy.** Despite increased risk for gum disease and cavities during pregnancy, only 40.7% of pregnant women reported having their teeth cleaned in 2020, with considerably lower rates among women of color, especially Hispanic mothers (27.5%), and those with incomes of $32,000 or less (27%).[4]

6. **Communities of color and people with low incomes experience barriers to oral health.** These populations experience worse dental care and oral health outcomes on all Assessment metrics when compared to Ohioans overall. Poverty, limited access to healthy food, and barriers to accessing regular dental care are only a few reasons for these disparities.

7. **Ohioans with special healthcare needs, especially those with intellectual and developmental disabilities, have limited opportunities for good oral health.** This population was one of the most commonly underserved groups identified by providers. Because of complex medical issues, additional care-taking demands, and the fact that dental students receive little training to care for patients with special healthcare needs, few providers are comfortable caring for this population.*

* The Ohio Disability and Health Partnership's 2022 Statewide Needs Assessment of Ohio Adults with Disabilities explores the differences in health between Ohio adults with disabilities and Ohio adults without disabilities.

8. **Ohio has higher rates of child and adult poverty than the overall U.S.** Nearly one in five Ohio children (18.4%) and 12.4% of Ohio adults live in poverty.[5] Ohioans of color, especially Black, are particularly likely to live in poverty. People living in poverty face many barriers to good oral health, such as transportation challenges that keep people from receiving regular dental care and limited access to healthy foods and oral hygiene products.

9. **Ohio continues to have one of the highest smoking rates in the nation**. Nearly one in five Ohio adults (19.3%) smokes cigarettes.[6] Smoking is more prevalent among people with low incomes and those who were exposed to adversity in childhood. Smoking is associated with a higher risk of oral cancer, gum disease, and tooth loss.

10. **There are considerable geographic gaps in dental care access across Ohio.** Rural and Appalachian counties are particularly underserved by dental professionals, especially in the southern and southeastern regions of Ohio.

11. **Low Medicaid reimbursement rates are a barrier to dental care access.** Ohio Medicaid reimbursement rates for child and adult dental services were 44% and 50.1%, respectively, of private insurance rates in 2020, both below the national averages.[7] Generally, Ohio Medicaid rates have not changed in over 20 years. Providers explained that even though many dentists would like to accept more Medicaid-covered patients, these reimbursement rates are not financially sustainable.

12. **There are too few Ohio dentists accepting Medicaid to meet the need.** In 2021, 22.2% of Ohio adults, ages 18-64, and 47.7% of Ohio children ages 0-17, had Medicaid coverage.[8] Yet a 2017 analysis found that only 14% of Ohio dentists saw more than 100 Medicaid patients over a year.[9] This was a common barrier mentioned by consumer and provider focus group participants.

13. **Traditional Medicare does not include dental benefits, leaving many older Ohioans without dental insurance.** In 2020, 20.4% of Ohioans had Medicare. Of these enrollees, 53.7% had traditional Medicare[10] (i.e., did not have a Medicare Advantage plan), meaning they had no dental coverage. Additionally, some older Ohioans' Medicare Advantage plans may not include dental benefits. Older adults in Ohio were the most common group identified in healthcare provider focus groups as having limited opportunities for good oral health.

14. **Ohio's current teledentistry laws and the Oral Health Access Supervision Program (OHASP) can be better designed to improve access to care.** Providers noted that synchronous teledentistry is underutilized, as it is not an efficient use of a dentist's time and is difficult to schedule. Additionally, only 38 out of 7,156 licensed Ohio dentists and 97 out of 8,401 licensed Ohio dental hygienists had OHASP permits in 2022[11], despite the program being created over a decade earlier.

15. **In addition to affordability challenges, prior traumatic events and experiences of discrimination in healthcare settings keep many consumers from accessing dental care.** Consumer focus group participants mentioned experiencing discrimination in their dental office based on their race, age, and/or insurance plan. Participants recommended additional cultural competency training among providers to improve interactions with patients from different backgrounds.

Data profiles

The following sections present quantitative data for Ohio and the overall U.S. when possible. Metrics are divided into five focus areas:

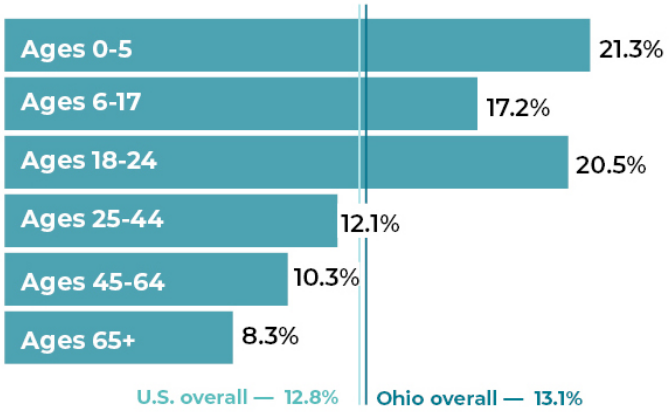
- Community conditions
- Health behaviors
- Access to quality care
- Dental care outcomes
- Oral health outcomes

Data for many of these metrics are disaggregated by population groups. Across metrics, Ohioans of color and Ohioans with low incomes experience consistently worse outcomes compared to Ohioans overall.

Community conditions

Aspects of a person's social and economic environments, or the conditions in which a person lives, can affect oral health. For example, people with incomes below the federal poverty level (FPL) face many significant barriers, such as transportation challenges and limited access to healthy foods and oral hygiene products.

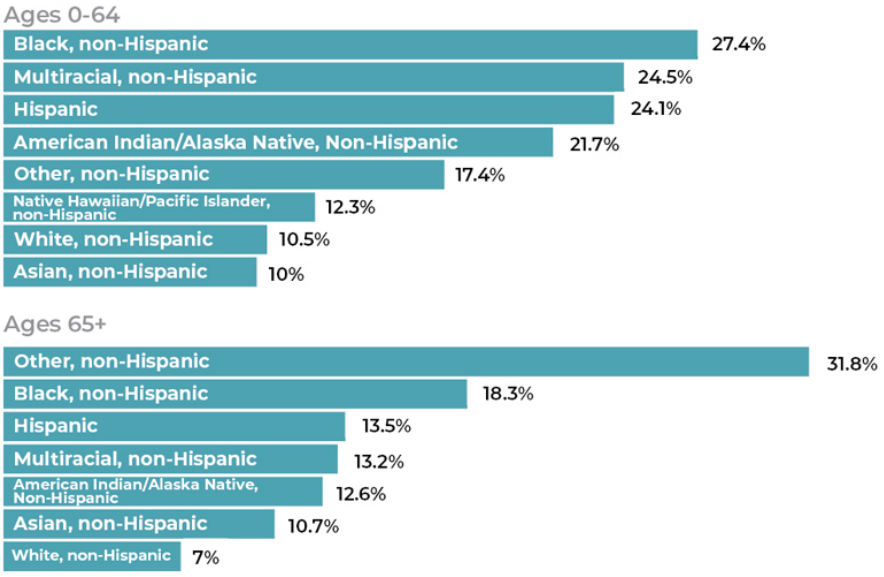
Figure 1. **Percent of people in households with incomes below the federal poverty level, by age, Ohio, 2019**



Source: American Community Survey, 2019

Ohio has higher rates of child and adult poverty than the U.S. overall. Nearly one in five Ohio children (18.4%) and 12.4% of Ohio adults live in poverty. Infants and young children (ages 0-5) are more likely to live in poverty than any other age group. Ohioans of color, especially Black Ohioans, are also more likely to live in poverty, as shown in Figure 2.

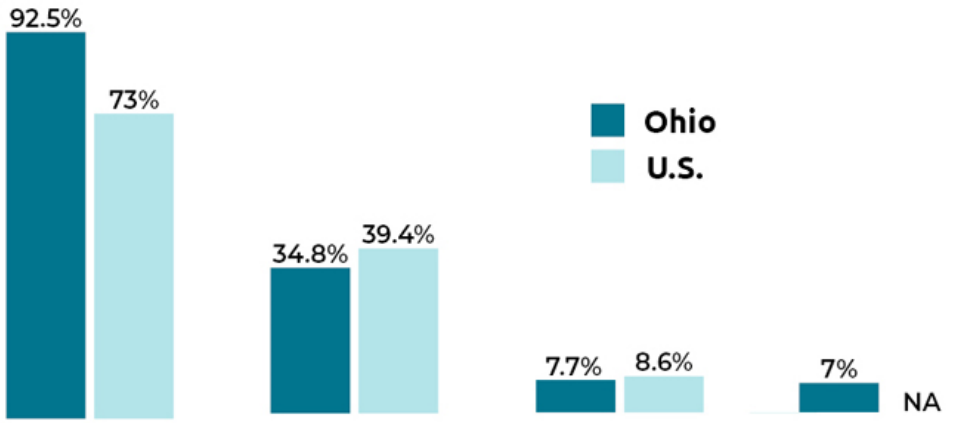
Figure 2. **Percent of people in households with incomes below the federal poverty level, by age and race, Ohio, 2019**



Source: American Community Survey, 2019

Rent burden, the percent of rent-paying households who spend 35% of their income or more on housing, is displayed in figure 3. Ohio is doing better than the overall U.S., with 34.8% of households considered to be rent burdened, compared to 39.4% nationwide.

Figure 3. **Community conditions**



Water fluoridation
Percent of population served by a community water source, receiving fluoridated water

Source: CDC, 2018

Rent burden
Percent of rent-paying households who spend 35% or more of their income on housing

Source: American Community Survey, 2019

Zero-vehicle households
Percent of households with no access to a personal vehicle

Source: American Community Survey, 2019

Healthy food access
Percent of population with limited access to healthy food

Source: County Health Rankings, 2019

Transportation access can be a significant barrier to receiving healthcare.[12] Figure 3 shows that a slightly smaller percentage of Ohio households (7.7%) have no access to a personal vehicle, when compared to the overall U.S. (8.6%).

Figure 3 also indicates that 7% of the Ohio population live far from a grocery store and have limited access to healthy foods which can support strong oral and overall health.

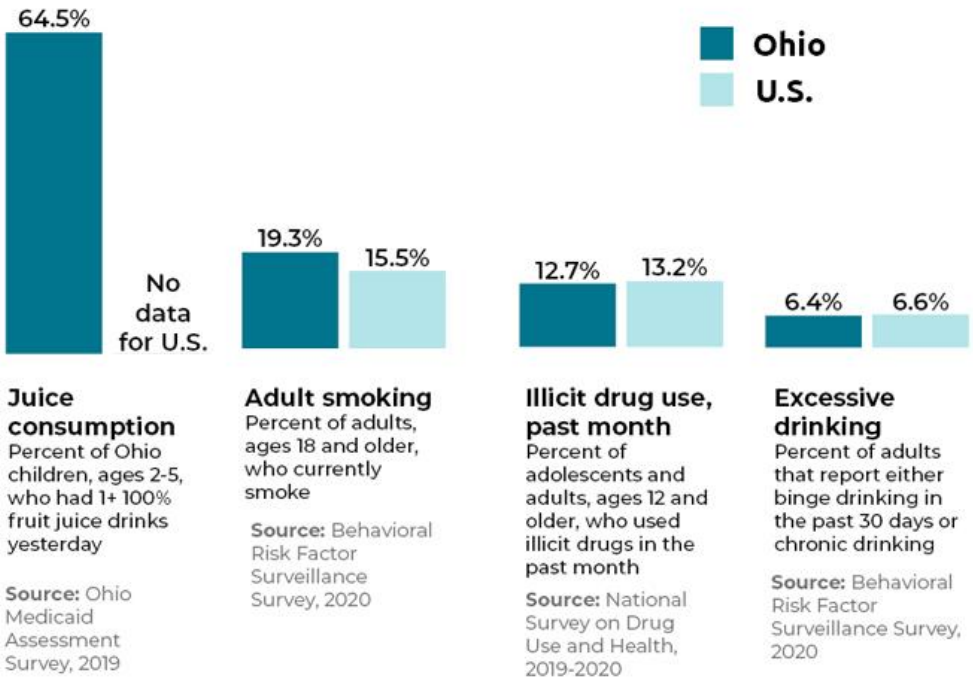
Finally, water fluoridation is a valuable public health tool that can prevent tooth loss and decay and reduce cavities. Ohio's rate of water fluoridation is much higher than that of the overall U.S., with 92.5% of the state's population served by a fluoridated water source.

Health behaviors

Some behaviors are particularly harmful to oral health; several examples are displayed in figure 4. For example, sugary beverages like juice and soda erode tooth enamel and are especially harmful for children's oral health. The Ohio Medicaid Assessment Survey found that 64.5% of Ohio children ages 2-5 had at least one glass of 100% fruit juice the day prior to the survey.

Ohio continues to have one of the highest smoking rates in the nation, with nearly one in five Ohio adults currently smoking. People who smoke are at a higher risk for oral cancer, gum disease, and tooth loss. Smoking rates are higher among Ohioans with low incomes.

Figure 4. **Health behaviors**



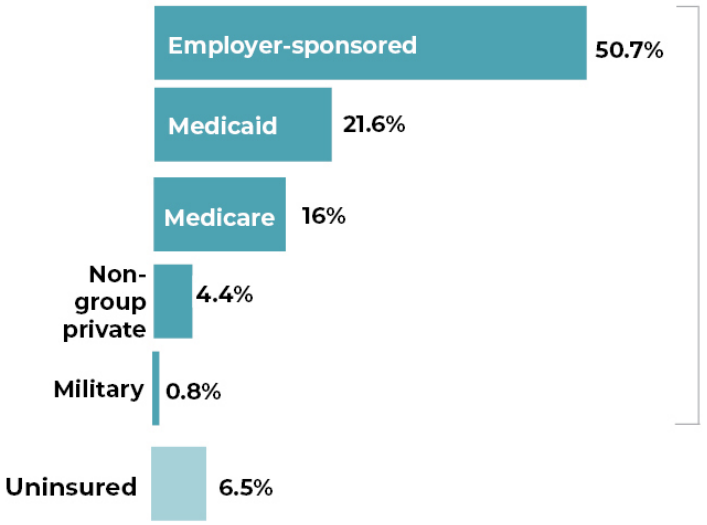
Illicit drug use (especially methamphetamine use) can have detrimental effects on oral health. Additionally, opioid prescriptions for dental pain may require careful management for someone with opioid use disorder. As shown in figure 4, 12.7% of Ohioans ages 12 and older reported recent illicit drug use.

Excessive levels of alcohol consumption can also negatively affect both overall health and oral health. Alcoholic beverages such as wine, beer, cider, and mixed drinks can be high in sugar and very acidic, eroding tooth enamel and increasing risk for dental cavities. Excessive levels of alcohol use are also related to oral cancer. Ohio's rate of excessive drinking is similar to that of the U.S. overall, 6.4% and 6.6%, respectively.

Access to care

There are considerable gaps in dental care access across Ohio, both in terms of the ability to afford dental care and in geographic distribution of oral health providers. General health insurance coverage types among Ohio adults are displayed in figure 5. Of all Ohioans, 6.5% had no health insurance in 2021, and 21.6% had Medicaid coverage.

Figure 5. **Percent of population, all ages, with health insurance (by payor), Ohio, 2021**



Note: Medicare-Medicaid dual eligible are included under Medicaid; Medicare includes individuals with Medicare Advantage plans
Source: Kaiser Family Foundation State Health Facts

Health insurance can reduce costs of care and protect against large, unexpected expenses. While only 6.5% of Ohio adults were completely uninsured in 2021, the picture for dental insurance coverage is more complex.

In 2021, 6.3 million Ohioans (55.1%) had private health insurance (i.e., employer-sponsored or non-group private). Private health insurance generally does not cover dental care, and there are some people who have health insurance but do not have dental insurance. A survey conducted by the CareQuest Institute for Oral Health found that 13% of Americans with private medical insurance lacked dental insurance in 2021.[13]

The Medicaid program is a partnership between the state and federal governments that pays for healthcare services for Ohioans with low incomes. There are federally mandated benefits which states are required to provide, but states can also opt to provide additional benefits in their Medicaid programs. Ohio has opted to cover dental

services for adults. In 2021, nearly 2.5 million Ohioans (21.6%) had Medicaid coverage.[14] Even though dental services are covered in Ohio's Medicaid program, accessing services is still a challenge (as described in detail later in this Assessment).

Medicare is a federal health insurance program. There are three distinct parts, each of which covers a different set of services or supplies: Part A (hospital insurance), Part B (medical provider services), and Part D (prescription drugs). Some people with disabilities (of any age) and nearly all older adults ages 65 and older qualify for Medicare coverage. Most enrollees do not pay premiums for Part A due to having paid enough taxes into the system. All beneficiaries must pay Part B premiums. People can purchase a Medicare Advantage plan through a private company, which provides additional benefits to fill gaps in traditional Medicare coverage.

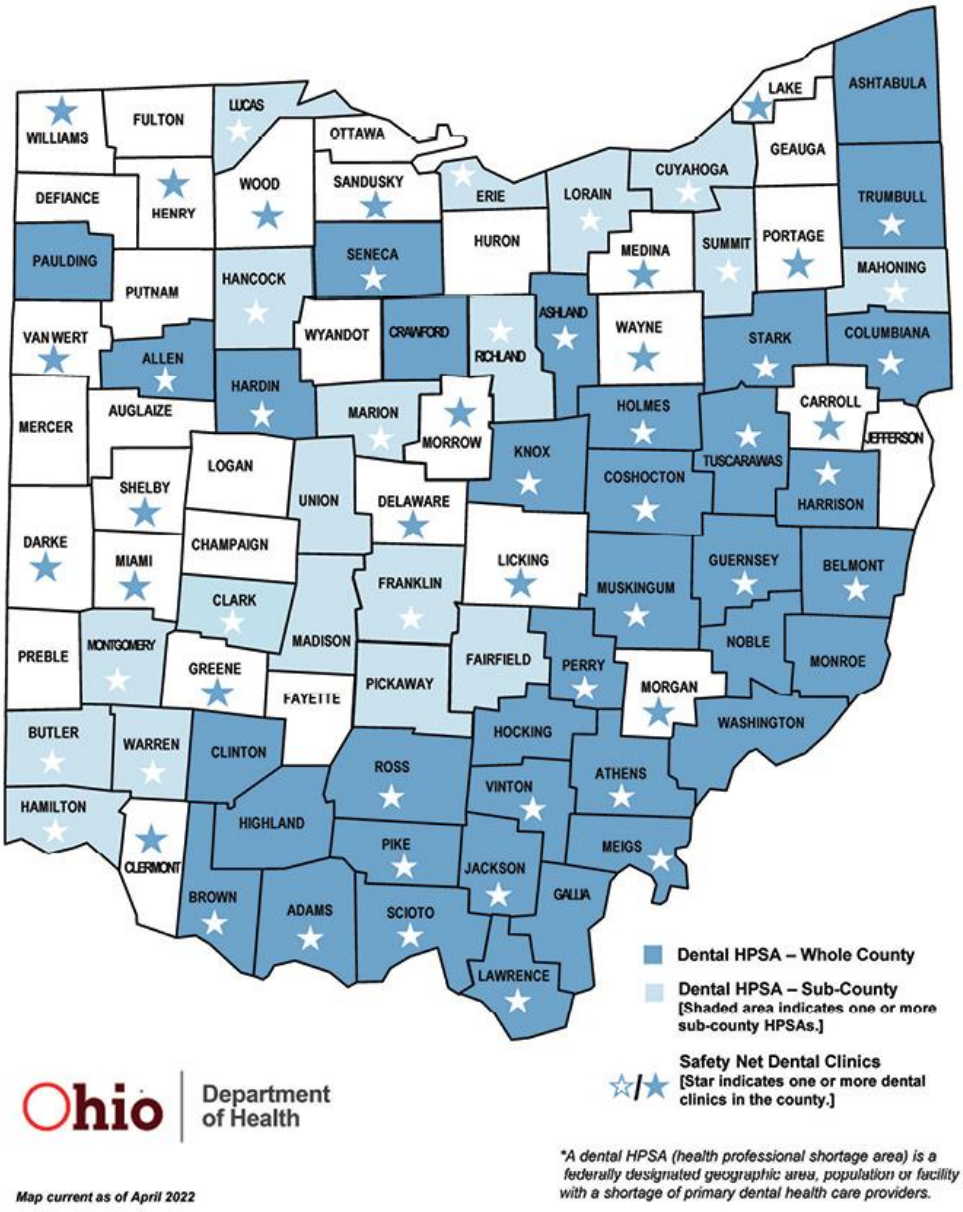
Traditional Medicare does not cover dental care, except in very specific situations (e.g., tooth extractions to prepare the jaw for radiation treatment of neoplastic disease).[15] Even when a dental exam is required before a medically-necessary procedure, people with traditional Medicare must pay for it out-of-pocket. Medicare Advantage plans vary in their extent of coverage, and dental benefits are quite limited or not included in many plans. In 2020, 53.7% of Ohio Medicare enrollees had traditional Medicare, which means they had no dental coverage.[16] Some of those with Medicare Advantage plans also have no dental coverage.

When older adults meet the income and asset eligibility restrictions, they can also enroll in Medicaid. Since Ohio Medicaid does include dental benefits, this group of dual-eligible enrollees does have dental coverage. There were 260,827 dual-eligible enrollees in Ohio in Oct. 2022.[17]

Even when an older adult with a low income does not qualify for full Medicaid benefits, they may qualify for the Medicare Premium Assistance Program (MPAP), in which Medicaid pays for Medicare premiums, deductibles, and/or coinsurance on behalf of the beneficiary. However, even though Medicaid pays for the Medicare cost sharing responsibilities of the individual, they do not receive Medicaid benefits, as Medicare is the payer for any healthcare services. This means that the person does not have dental coverage. As of October 2022, approximately 138,500 Ohioans were enrolled in an MPAP and are referred to as Qualified Medicare Beneficiaries (QMB), Specified Low-Income Medicare Beneficiaries (SLMB), Qualified Individuals -1 (QI-1), or Qualified Disabled Working Individuals (QDWI).[18]

In addition to affordability challenges, many Ohioans struggle with physical access to dental providers. Dental health professional shortage areas (HPSAs) in the state are shown in the Ohio Department of Health map in figure 6. HPSAs are geographic areas or populations that lack enough healthcare providers to meet the healthcare needs of that population. Stars on the map indicate safety net dental clinics, which accept Medicaid insurance and provide reduced-cost or free care to people with low incomes and no dental insurance. Appalachian counties in the southern and southeastern regions of Ohio are particularly underserved by dental professionals. Additionally, several of the counties with the highest need do not have a safety net dental clinic.

Figure 6. **Safety net dental clinics and dental HPSAs in Ohio**



Despite Medicaid's dental benefits, there are significant gaps in access to care for people with Medicaid. The map in figure 7 (below) shows the number of dentists practicing in each county that billed Ohio Medicaid for at least 100 oral health services in 2021. Altogether, there were 1,396 such dentists represented in this map.
There are seven counties in Ohio (Coshocton, Fulton, Hardin, Huron, Monroe, Morrow, and Preble) without a single dentist that billed Medicaid for at least 100 services in 2021. There are nine counties with only one such Medicaid dentist, and seven with two dentists.

Figure 7. **Dentists who billed at least 100 services to Medicaid in 2021, by county**

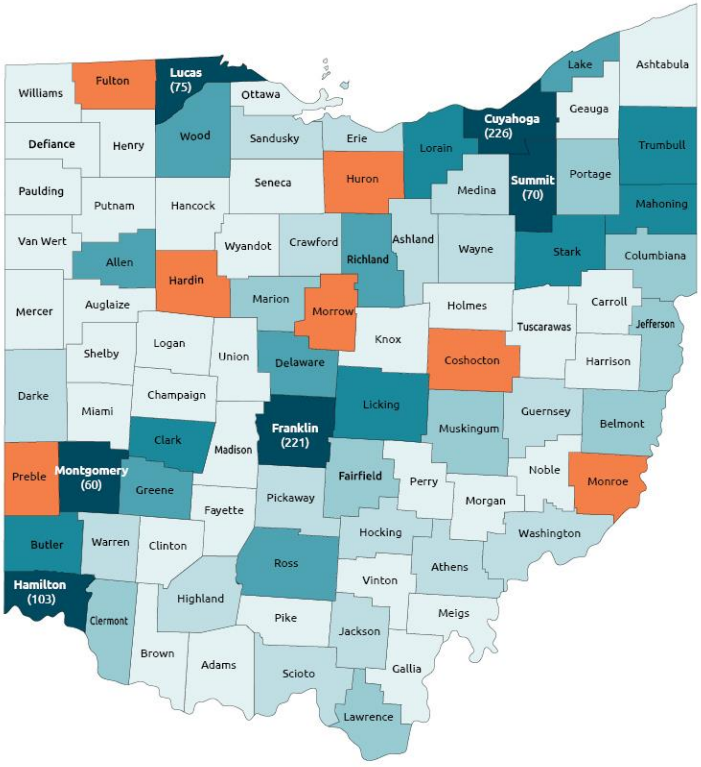


Figure 8. **Dentists and pediatric primary care providers who billed at least 100 services to Medicaid in 2021, by county**

Notes:
1. It is common for a patient to receive multiple services in one dental (or medical) visit.
2. The dentists data includes specialists, which may give a false impression of access to primary dental care.
3. Depending on how they bill Medicaid, some "providers" in this data are groups of providers. Of the 1,396 dentists represented in the top map, 11 are dental group practices; service counts for groups will likely be higher than that of an individual dentist. The dental group practices are in the following counties: Clark, Cuyahoga, Franklin (2), Hamilton, Lake, Lawrence, Lucas (2), Stark and Trumbull.
4. There are 3,303 pediatric primary care providers represented in this data, including 6 clinical nurse specialists, 631 nurse practitioners and 2768 physicians/ osteopaths.
5. There were 26 out-of-state dentists and 102 out-of-state primary care providers with at least 100 dental services billed to Medicaid in 2021. They are not represented in these maps.
6. Service numbers in 2021 may have been lower than usual due to COVID.

Source: Ohio Department of Medicaid

As displayed in figure 8, pediatricians provide some preventive dental services to children, filling an important gap in parts of the state. For example, while there are no Medicaid dentists in Coshocton County, there were 2 pediatricians who billed Medicaid for at least 100 oral health services in 2021. However, in five counties (Fulton, Hardin, Monroe, Morrow, and Preble), there were no dentists and no pediatricians that billed Medicaid for at least 100 services that year. In Carroll, Noble, and Wyandot Counties, there was only 1 Medicaid dentist and no such pediatricians.[19]

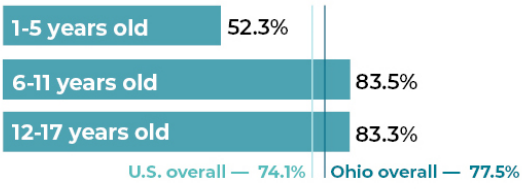
Dental care outcomes

Access to regular preventive dental care and treatment when needed is essential for good oral health. Of all Ohio adults, 65.3% reported visiting a dentist within the past year for any reason. Figure 9 shows disparities by race and income. For example, only 46.5% of adults with incomes below $15,000 reported visiting a dentist in the past year.

Figure 9. **Percent of adults in Ohio, ages 18 and older, who have visited a dentist, dental clinic or dental specialist within the past year, 2020**

Source: Behavioral Risk Factor Surveillance Survey, 2020

Figure 10. **Percent of children in Ohio, ages 1-17, who have seen a dentist or other oral health care provider for preventive dental care, such as check-ups, dental cleanings, dental sealants or fluoride treatments in the past year, by age, 2019-2020**

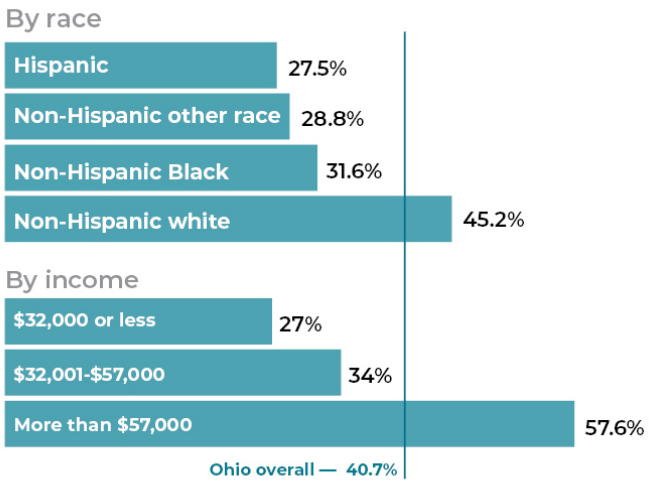


Source: National Survey of Children's Health, 2019-2020

Early intervention and prevention are important for longevity of oral health across the lifespan. A higher percentage of Ohio children had seen a dentist in the past year (77.5%), when compared to the U.S. overall (74.1%). However, the percentage for children ages 1-5 with a past-year dental visit was only 52.3%, as displayed in figure 10.

Women are more prone to periodontal disease and cavities during pregnancy, so regular dental care during pregnancy is important. Only 40.7% of Ohio women reported having their teeth cleaned during pregnancy. Percentages were considerably lower among Ohio women of color, especially Hispanic mothers (27.5%), and those with incomes of $32,000 or less (27%).

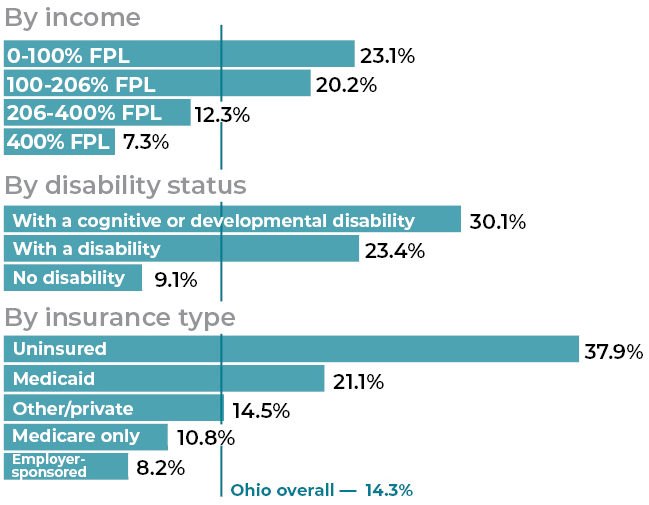
Figure 11. **Percent of Ohio women with a live birth during the past year who had their teeth cleaned during pregnancy, 2020**



Source: Ohio Pregnancy Assessment Survey, 2020

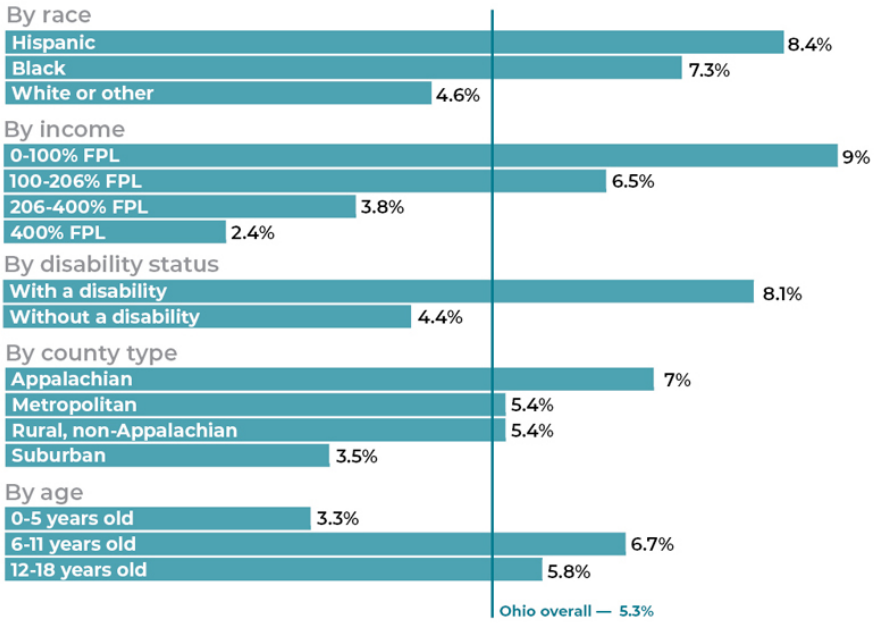
In 2019, 14.3% of Ohio adults and 5.3% of Ohio children had an unmet need for dental care. Clear disparities among both adults and children by income and disability status are shown in figures 12 and 13. For example, adults living with a cognitive or developmental disability were more than twice as likely to have an unmet need for dental care. Hispanic and Black children, and children living in Appalachian counties were also more likely to have unmet dental care needs.

Figure 12. **Percent of Ohio adults, ages 19 and older, with unmet dental care needs, 2019**



Source: Ohio Medicaid Assessment Survey, 2019

Figure 13. **Percent of Ohio children, ages 0-17, with unmet dental care needs, 2019**

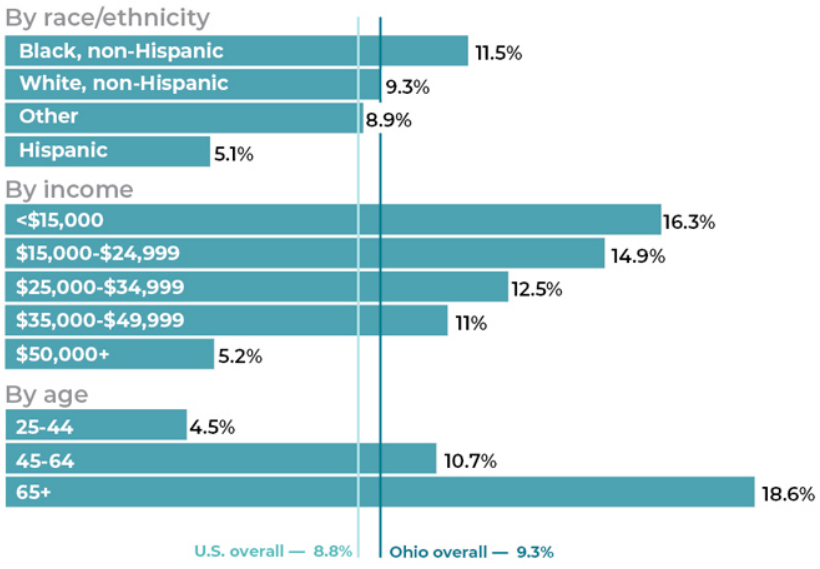


Source: Ohio Medicaid Assessment Survey, 2019

Oral health outcomes

When barriers related to community conditions, health behaviors, and/or access to care exist, and when regular preventive care and dental treatment do not occur, people often experience negative oral health outcomes.

Figure 14. **Percent of adults in Ohio, ages 18 and older, who had 6 or more but not all permanent teeth removed, 2020**

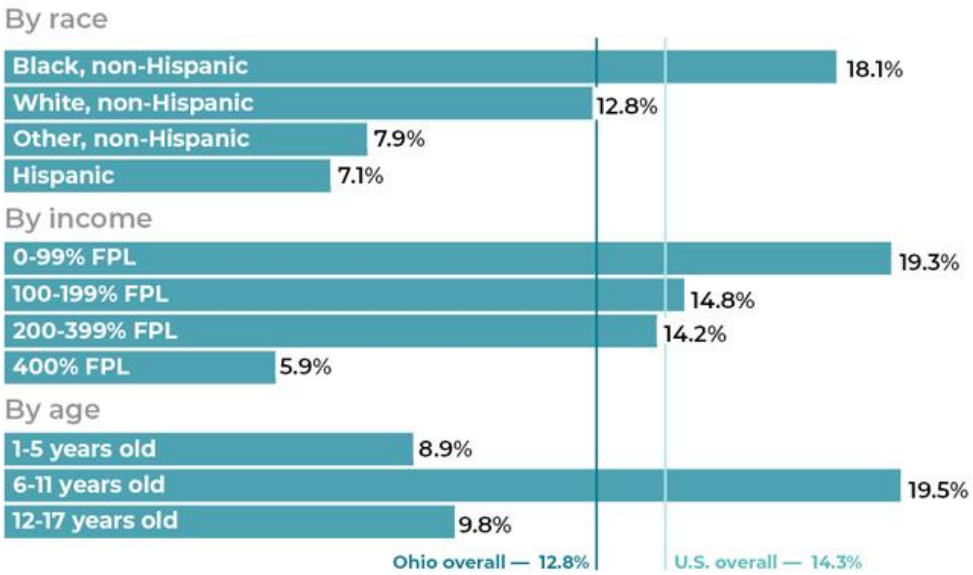


Source: Behavioral Risk Factor Surveillance Survey, 2020

Untreated tooth decay or periodontal (gum) disease often leads to tooth loss or removal. Over 9% of Ohio adults have six or more permanent teeth removed, slightly more than the U.S. overall. This is twice as likely among older adults, ages 65 and older. Black Ohioans and Ohioans with low incomes are also more likely to have six or more teeth removed.

In a 2019-2020 survey, 12.8% of Ohio parents reported that their child had experienced oral health problems within the past year, such as a toothache, bleeding gums, or decayed teeth or cavities. Although this percentage is lower than that of the overall U.S., certain groups experienced these problems at much higher rates than others. Black children, children in families living below the poverty level, and children ages 6-11 were much more likely than Ohio children overall to have experienced oral health problems.

Figure 15. **Percent of children, ages 1-17 years old, who experienced oral health problems such as toothaches, bleeding gums or decayed teeth or cavities within the past year, 2019-2020**



Source: National Survey of Children's Health, 2019-2020

Tooth decay is the most common chronic condition in childhood.[20] Poor oral health can negatively impact school attendance, interfering with a child's ability to be successful academically.[21]

Furthermore, as the mouth is a prominent part of personal appearance, people with visible signs of poor oral health are often negatively judged and socially stigmatized. This affects mental health and can have other impacts on well-being, such as employment outcomes and social relationships.

Also important, cancer can originate on the lips; the roof, sides, or floor of the mouth; the tongue; the tonsils; or in the back of the throat. In 2019, the rate of deaths from oral cavity and pharynx (i.e., throat) cancers in Ohio was 3 per 100,000 Ohioans (age-adjusted), equal to that of the U.S. overall.[22] From 2015 to 2019, only 30.8% of these cancers were detected in an early stage.[23]

Data limitations

This Assessment includes data from a variety of publicly available sources. Publicly available data sources, such as government surveys and vital statistics records, often lag by one to three years. Data disaggregated by race and ethnicity, educational attainment, income level, county, and disability status are not consistently reported across national- and state-level data sources. There is also a lack of data to identify other groups that experience disparities and inequities, and small sample sizes for some groups may lead to data suppression. The statistical significance of differences between populations were not determined in this Assessment. A 10% difference or more in estimates was set as a threshold for determining disparities between groups. Finally, data from the Ohio Medicaid Assessment Survey online dashboard reports race and income categories that are not mutually exclusive.

Provider focus groups

The Health Policy Institute (HPIO) and Oral Health Ohio hosted five virtual focus groups with healthcare providers from June 7-11, 2022. Given the connections between oral and overall health, invitations were sent to all types of healthcare providers, not just oral health providers. The informational flyer was also posted on the HPIO and Oral Health Ohio websites. The informational flyer, a list of organizations that received it, and a list of focus group participants is provided in Appendix A.

Provider focus group participants

A total of 52 healthcare providers participated in one of the five focus groups. Providers were asked to answer several questions about themselves when registering. In terms of provider types, dentists and dental hygienists had the highest representation. A list of participant provider types is provided in figure 16.

Figure 16. **Focus group participant provider types**

Dentist	20 (13 general, 4 pediatrics, 1 public health, 2 no response)
Dental hygienist	15
Physican	5 (4 pediatricians, 1 family medicine)
Nurse (BSN, RN, LPN)	4
Advanced Practice Registered Nurse	1
Other	7
Total	**52**

Source: Provider focus groups

The geographic distribution of the provider participants is displayed in figure 17. Reflecting population centers in the state, northeast, central, and southwest Ohio had the strongest representation, with lower representation from northwest and southeast Ohio.

Figure 17. **Geographic distribution of provider participants**

Note: One participant selected "Multiple counties" and is not included in these counts. Region boundaries are from the Association of Ohio Health Commissioners
Source: Provider focus groups

Figure 18 displays the county types of provider participants. Three-fourths of participants represented urban counties. The next most common county type was Appalachian, with eight participants. A map of county types is included in Appendix A.

Figure 18. **County types of provider participants**

County type	Number of participants	Percentage
Appalachian	8	14.3%
Rural, non Appalachian	1	1.8%
Suburban	5	8.9%
Urban	42	75%

Source: Provider focus groups

The dentists and dental hygienists participating in these focus groups were more likely than the overall population of Ohio dental providers to:

- Work in a health center, such as a federally qualified health center (FQHC)
- Accept Medicaid insurance
- Treat patients with special healthcare needs

More details about participants are provided in Appendix A.

Provider focus group findings

Throughout the focus group conversations, participants frequently talked about low Medicaid reimbursement rates, access challenges for certain populations, the need for an expanded workforce (e.g., expanded scope of practice for dental hygienists, allowing dental therapists in Ohio), and changes that should be made to existing regulations (e.g., Ohio's Oral Health Access Supervision Program and teledentistry laws). The participants also stressed the need to prioritize prevention and oral health education and a need for more medical-dental integration.

Facilitators asked open-ended questions, and HPIO analyzed responses for common themes to each question. Discussion questions and the most common responses are described below.

What are Ohio's greatest strengths related to oral health?

As shown in figure 19, the most common strengths mentioned were related to Ohio Medicaid, primarily the dental benefits that are available to both children and adults under Ohio Medicaid and Ohio's decision to expand Medicaid eligibility to cover more working-age adults in 2014. Ohio is one of 25 states and the District of Columbia that have extensive adult dental benefits in Medicaid.[24] A few participants made positive comments about Ohio Medicaid processing claims quickly and paying for fluoride varnish in primary care settings.

There were numerous positive comments about school-based health centers, mobile units, and portable programs providing dental services around the state. The Ohio School-Based Health Alliance conducted a survey in 2021, and of the 64 school-based health center sites that responded, 47% provided preventive dental services and 39% provided restorative dental care.[25]

Figure 19. **Top responses for, "What are Ohio's greatest strengths related to oral health?"**

Rank	Response category	Number of participants who mentioned
1	Ohio Medicaid	12
2 (tie)	School-based health centers and mobile units	5
2 (tie)	School-based sealant programs	5
4 (tie)	Water flouridation	4
4 (tie)	**Ohio's safety net infrastructure** (including federally qualified health centers and safety-net dental clinics)	4

Source: Provider focus groups

Another commonly noted strength was Ohio's school-based dental sealant programs. Since 1987, the Ohio Department of Health has provided grant funding for such programs, mostly in areas with a high percentage of students living in poverty and having limited access to dental care. In 2022, there were 12 programs serving 33 counties.[26]

Other strengths commonly mentioned included Ohio's high rate of water fluoridation and Ohio's network of FQHCs and safety net dental programs.

What are Ohio's greatest challenges related to oral health?

The most common challenges identified by provider participants are displayed in figure 20 and described below.

Figure 20. **Top responses for, "What do you consider Ohio's greatest challenges related to oral health?"**

Rank	Response category	Number of participants who mentioned
1	Ohio Medicaid provider reimbursement rates and administrative burden	17
2	Access challenges for the Medicaid population and people with low-incomes and no dental insurance	12
3	Policy barriers (including changes needed to Ohio laws and regulations, such as teledentistry and the Oral Health Access Supervision Program)	10
4	Access challenges for children	6
5	Access challenges for older adults	5

Source: Provider focus groups

Ohio Medicaid provider reimbursement rates and administrative burden

While participants described some strengths of Ohio Medicaid, they also elevated some challenges related to the program– mainly the reimbursement rates and administrative burden. Participants stated that these challenges keep many dentists from treating patients with Medicaid. Multiple providers expressed that the reimbursement rates were the root cause of access challenges for the Medicaid population.

Ohio Medicaid's dental reimbursement rates have not changed in over 20 years, except for modest increases for several specific services in 2016 and a 5% increase for all dental procedures in 52 rural counties.[27]

One provider noted that while one of Ohio's strengths is that there are providers willing to treat patients despite these hurdles, it is not a sustainable business model. Low reimbursement rates make it difficult to treat patients with Medicaid.

> "Willing providers are a strength…[Your] heart wants to treat [these patients], but the administrative web and Medicaid reimbursement rates make it difficult. It's not a business model that is sustainable…We have people who want to do the right thing but run into challenges that disincentivize."
>
> -Provider focus group participant

According to the American Dental Association Health Policy Institute, Ohio Medicaid rates for child dental services were 44% of private insurance rates in 2020. There were only 8 states with lower percentages, and Ohio was below the national average (61.4%). Ohio's percentage for adult dental services was a bit higher, at 50.1% of private insurance rates, but this was still below the national average of 53.5%.[28]

Access challenges for Ohioans with Medicaid or with low incomes and no dental insurance

Focus group participants also commonly discussed the lack of access to dental care for individuals with Medicaid and Ohioans with low incomes and no dental insurance. For example, providers discussed:

- Concerns about there being too few dentists who accept Medicaid or provide care on a sliding fee schedule
- The need for more funding for safety net dental clinics
- Long wait times for a dental appointment

There were several comments about providers having negative stereotypes of these groups, including perceptions that patients with Medicaid often do not show up for appointments. This theme around stereotypes also emerged in the consumer focus groups.

A dental hygienist focus group participant reported that her organization often receives calls from Ohioans asking for suggestions of where to get dental care. She said, "Some live in areas without a safety net dental clinic in their county and can't drive to get oral health care. We don't know where to send these people – people in pain and desperate for care."

An analysis of 2017 Medicaid claims data by the American Dental Association Health Policy Institute reported that 71% of Ohio dentists were not enrolled with Medicaid, and only 14% of Ohio dentists saw more than 100 Medicaid patients over a year.[29] A separate analysis by HPIO identified 1,396 dentists around Ohio who billed Medicaid for at least 100 dental services in 2021. This analysis, displayed in the map on page10, indicates considerable geographic gaps in provider availability.

Policy barriers

Several providers discussed policy barriers when asked about the state's greatest challenges. They most often mentioned Ohio's teledentistry laws and Ohio's Oral Health Access Supervision Program (OHASP).

Under current Ohio law, teledentistry services must be "synchronous." This means that the dentist must be available live and in real-time when a patient is examined using interactive technology such as video, webcam, or intraoral camera. Focus group participants stated that this format is not an efficient use of a dentist's time and is difficult to schedule. Thus, teledentistry is underutilized in Ohio.

OHASP was created in 2010 to allow dental hygienists with additional required education to practice under relaxed supervision in traditionally underserved locations, such as nursing homes. Several focus group participants with an OHASP permit reported barriers to implementing the program, such as an inability to find a dentist to supervise them, burdensome documentation, and the requirement for a patient to see a dentist before receiving subsequent services from a dental hygienist. As a result of these and other challenges, there are currently few dentists and dental hygienists using OHASP

permits. As of 2022, 38 out of 7,156 licensed Ohio dentists and 97 out of 8,401 licensed Ohio dental hygienists had OHASP permits.[30]

> "The OHASP and teledentistry models are not efficient processes. If I were a solo practitioner trying to stay afloat, I would be losing money every day due to these protocols."
>
> -Provider focus group participant

Access challenges for children

Several provider focus group participants who work with children discussed access gaps for young Ohioans. Participants noted widespread challenges with obtaining parent or caregiver authorization for children to engage in school-based dental sealant programs, and that when school dental programs identify oral health problems that need treatment, there are many instances where treatment is not provided. They mentioned that this could be due to transportation barriers, a lack of available providers, and/or caregivers not valuing or understanding the need for oral healthcare. Providers also mentioned a lack of access for very young children (ages 3 and under), due to a lack of dental providers willing to treat this population.

Access challenges for older adults

Another frequent challenge participants discussed was that of access to dental care for older Ohioans. Participants often cited that traditional Medicare does not cover dental benefits, except in several very specific circumstances, as the main cause of this gap in care. Medicare Advantage plans fill this gap for some older adults, but these plans vary in their extent of dental coverage and are not affordable for all Ohioans. Comments about a lack of coverage for dentures/removable devices were common, which are frequently needed by older adults.

Which groups of Ohioans have limited opportunities for good oral health?

Figure 21 lists the groups of Ohioans identified by the provider focus group participants as having the most limited opportunities for good oral health. Older Ohioans without a Medicare Advantage plan that includes sufficient dental benefits were the most frequently cited group. People with special healthcare needs, especially those with intellectual and developmental disabilities (I/DD), were tied with the Medicaid population for the second most frequently identified group.

Several participants noted that dental students receive little training on how to care for individuals with I/DD.

Figure 21. **Top responses for, "From your experience and expertise, which groups of Ohioans have limited opportunities for good oral health?"**

Rank	Response category	Number of participants who mentioned
1	Older adults without a Medicare Advantage plan with dental benefits (not including seniors living in nursing homes or assisted living facilities)	8
2 (tie)	Medicaid population	7
2 (tie)	People with special healthcare needs/intellectual and developmental disabilities	7
4	People with low incomes and no dental insurance (without Medicaid)	6
5 (tie)	Children in families with low incomes (including children with Medicaid)	5
5 (tie)	People living in rural or Appalachian counties or any of the dental professional shortage areas	5

Source: Provider focus groups

"Many students are uncomfortable serving [patients with I/DD], because they literally have no education or experience with it."

"[Access challenges for] this [group] have been entirely ignored since the beginning of time."

-Provider focus group participants

Another population noted as having limited opportunities for good oral health was people living in rural and Appalachian counties.

"In rural Ohio, some people need to drive an hour to see a dentist. Some ERs are even seeing patients with nowhere to refer them. Counties that I work with don't have fluoridated water. Add lack of prevention with lack of access and it's a disaster. Rural counties tend to not have access to residency programs, they don't have FQHCs, and don't have large systems in place. It just looks different, and they have different resources."

-Provider focus group participant

What are the biggest barriers faced by Ohioans with limited opportunities for good oral health?

When asked to identify the biggest barriers that these groups face, by far, the most common responses were related to poverty and the social drivers of health. For example, transportation was mentioned often. Participants also described dental clinic hours of operation as a barrier because some people cannot afford to take off work during clinic hours. A list of the common barriers faced by Ohioans with limited opportunities for good oral health is in figure 22.

Providers provided several comments around challenges facing providers that impact patient care, including comments about how their limitations result in barriers for patients, such as scope of practice limitations or not having enough education and experience treating patients with I/DD.

Figure 22. **Top responses for, "What are the biggest barriers faced by Ohioans with limited opportunities for good oral health?"**

Rank	Response category	Number of participants who mentioned
1	Barriers related to the social drivers of health (including transportation, childcare, operating hours of clinics, difficulty finding employment)	17
2	Financial barriers and lack of insurance that covers dental (including Medicare)	9
3	Challenges facing providers that impact patient care (No experience or education serving patients with disabilities, scope of practice limitations, workforce challenges, Medicaid reimbursement)	8
4 (tie)	Finding a provider (access challenges)	7
4 (tie)	Barriers related to communication and/or lack of education/knowledge surrounding oral health	7

Source: Provider focus groups

Barriers related to communication and/or lack of education or knowledge surrounding oral health (i.e., oral health literacy) were another common response. Providers spoke of language barriers – not having a provider available who speaks the same language

as patients and not having translation services available. Several participants noted that dental educational materials often exceed reading comprehension levels of many patients. Participants also stressed the need for more education surrounding oral health, including topics like juice and sugar-sweetened beverage consumption.

What are the most important challenges to prioritize in the State Oral Health Plan?

The most common response when asked about the most important challenges to prioritize in the State Oral Health Plan was a need to prioritize prevention and education. Participants emphasized a need to educate parents, caregivers, and pregnant women so the knowledge can be passed down to their children. Figure 23 lists the most common responses to this question.

Figure 23. **Top responses for, "What are the most important challenges that should be prioritized in the State Oral Health Plan?"**

Rank	Response category	Number of participants who mentioned
1	Need to prioritize prevention/education	9
2 (tie)	Workforce shortages, including law/regulation changes that can address these challenges (including scope of practice restrictions)	8
2 (tie)	Access challenges	8
4	Medicaid reimbursement rates	7
5	Need for more medical-dental integration	4

Source: Provider focus groups

> "We are not going to drill our way out of this. The answer is prevention."
>
> "We must get preventive oral health care for parents if we want to improve outcomes for children."
>
> -Provider focus group participants

Workforce shortages were also commonly mentioned. Many participants expressed a need to expand use of dental hygienists and Expanded Function Dental Auxiliaries (EFDAs). Scope of practice for Ohio dental hygienists is more limited than in other states. Participants also mentioned a need for dental therapists, which are a type of dental professional that provide preventive and routine restorative care, including filling cavities, placing temporary crowns, and extracting badly diseased or loose teeth. As of Oct. 2022, 13 states allowed dental therapists to practice in at least some settings.[31]

> "Dental therapists are great, but the reality is that there's not an education infrastructure that has been built for this profession. This won't be impactful for 20 years, but dental hygienists are here now."
>
> -Provider focus group participant

Other challenges that participants recommended for prioritization included access challenges, Medicaid provider reimbursement rates, and medical-dental integration. In this last category, provider participants recommended coordinating with prenatal care, primary care, and pediatricians and about the importance of integrating oral health care with chronic disease management. There were also comments about integrating electronic medical records (EMRs) between medical and dental providers.

> "[We need to] keep working on integration and keep educating the public on the importance of oral health and connection between oral health and overall health. [We need to] build systems that include that integration, to infuse oral health into those discussions."
>
> -Provider focus group participant

What strategies or policy recommendations should be included to address Ohio's oral health challenges

As shown in figure 24, the most common recommendation was to increase Ohio's Medicaid reimbursement rates. Second was to expand the use of fluoride varnish and silver diamine fluoride (SDF). Participants wanted fluoride varnish available to more populations, including older adults. Participants explained that SDF has a great return on investment, and that it can "buy time", meaning it can stop tooth decay from developing or growing, which can be especially helpful in rural or remote areas.

Figure 24. **Top responses for, "What strategies or policy recommendations should be included to address these challenges?"**

Rank	Response category	Number of participants who mentioned
1	Increase Medicaid reimbursement rates	12
2 (tie)	Expand use of fluoride varnish and Silver Diamine Fluoride	11
3	Scope of practice changes or new provider types (including dental therapists, less restrictions and more autonomy for dental hygienists, EFTAs)	10
4	Medical-dental integration	8
5 (tie)	Expansion or continued funding of programs that increase access for underserved populations (including the Ohio Project, Give Kids a Smile, post-doctoral residency programs, Dental OPTIONS program)	7
5 (tie)	School-based health centers with dental services (including removing existing policy barriers and having an identifier for SBHCs in billing)	7

Source: Provider focus groups

Expansion or continued funding for programs that increase access for underserved populations were also recommended by several participants. For example, the Oral Health Improvement through Outreach (OHIO) project, created by The Ohio State University, was mentioned several times. This project assigns fourth year dental students to spend 50 days providing care in community clinics throughout Ohio under the supervision of associate faculty. Participants also mentioned that additional postdoctoral residency programs could be useful, since residents do not need direct supervision.

Finally, several participants recommended expanding and allocating additional funding for school-based health centers that include dental services and removing policy barriers that currently exist for those programs, such as the OHASP challenges

previously mentioned. One participant said, "We know this [school-based healthcare] model works."

What is your role in promoting oral health?

Finally, figure 25 includes the most common responses when provider participants were asked about what they viewed as their role in improving oral health and/or promoting the State Oral Health Plan. The three most common responses included educating/increasing knowledge of oral health, advocating for oral health improvements, and enhancing medical-dental integration.

Figure 25. **Top responses for, "What do you see as your role in promoting oral health and/or the State Oral Health Plan?"**

Rank	Response category	Number of participants who mentioned
1	Education/increasing awareness surrounding oral health among patients, parents, the public, including encouraging people to get dental care	7
2 (tie)	Advocacy for oral health improvements	6
2 (tie)	Advancing medical-dental integration, including increasing oral health awareness and knowledge among medical providers	6
4	Sharing the State Oral Health Plan with other providers, including other dentists	4
5	Continue providing high-quality dental care (including to a specific population)	3

Source: Provider focus groups

Consumer focus groups

Consumer focus group participants

HPIO and Oral Health Ohio hosted five in-person oral healthcare consumer focus groups from June 21, 2022 through July 1, 2022. There were 120 participants from five cities in Ohio, ranging in age from 18 to 85. Figure 26 describes the demographics of the participants.

Figure 26. **Consumer focus group participants, by city, race, and ethnicity**

	Columbus	Toledo	Athens	Cleveland	Cincinnati
Black	23	18	0	29	19
Latino(a)	2	0	0	0	4
White	1	10	14	0	0
Total	**26**	**28**	**14**	**29**	**23**

Note: All race/ethnicity information was collected and reported by host administrators at each focus group location.
Source: Consumer focus groups

Consumer focus group findings

Throughout the focus groups, community members frequently talked about challenges with accessing care, mainly in terms of convenient locations, affordability of care, and acceptance of Medicaid. Participants also described instances where they felt disrespected by dental providers and dental offices, and a need for oral health education and school-based programs to start kids early on preventive care.

Below is a summary of the consumer focus group conversations based on a set of questions developed by HPIO and Oral Health Ohio.

How does oral health fit into a healthy community?

Participants noted that access to oral health care and oral health education are important to a healthy community. Figure 27 lists the most common responses.

Access

Participants most often stated that everyone in a healthy community has access to affordable oral health care. Access also included physical access or proximity to a facility in their neighborhood. They also expressed that their insurance providers do not cover dental care and it is very expensive to pay out-of-pocket for dental care. Often, especially for consumers who live in poverty, participants noted that oral health is not a priority because of challenges to obtain the bare necessities for survival, such as housing, food, and a clean and safe environment.

Figure 27. **Top responses for, "How does oral health fit into a healthy community?"**

Rank	Response category	Number of participants who mentioned
1	Access (including insurance and affordability, Medicaid issues, and number of providers/ waitlists)	35
2	Education about how it affects overall health	16
3	Oral health affects your ability to have a job or people are embarrassed by their oral health/ stigma	13
4	Culturally and linguistically competent care	7
5 (tie)	Address fear and concern	6
5 (tie)	Start young/oral health in schools	6

Source: Consumer focus groups

> "Who has the time and money to deal with oral health when there are so many competing needs?"
>
> -Consumer focus group participant

Participants noted that it was hard to know which providers accepted Medicaid. And indeed, as displayed in figures 7 and 8 on page 10, there are significant gaps in access to Medicaid providers across the state.

Participants expressed that children have better access to oral health care. Similar to the provider focus groups, the availability of school-based clinics was regularly mentioned as a strength in Ohio's oral health policy. Participants said that in a healthy community, adults would be able to access the same level of care that is available to children in school-based clinics. They emphasized that demonstrating proper oral

hygiene, including going to the dentist regularly, is difficult because adults cannot afford to go to a provider.

Aside from concerns about access due to cost, physical barriers like location, dental office hours of operation, availability of appointments, and transportation to and from oral health care appointments were often a challenge.

Some participants said that a mobile dental clinic would be part of how oral health could fit into a healthy community and that there was a need for more free or reduced-price dental clinics that could provide routine preventive care in their community. In 2022, there were 160 safety net dental programs throughout Ohio. These centers and programs accept Medicaid insurance and provide reduced-cost or free care to people with low incomes and no dental insurance.[32] However, as shown in figure 6 on page 9, there are geographic areas of the state that lack a safety net dental clinic.

> "We need to have more dentists available. [They are] so booked up, [you] need to schedule a year in advance."
>
> -Consumer focus group participant

Education on the impact of oral health on overall health

Participants highlighted the need for oral health education, especially for children, to emphasize the importance of oral health. Many participants explained how important oral health is to overall health, specifically mentioning heart and gut health, while also stating that others do not understand these connections. Participants said that oral health is not always valued and often overlooked.

> "A lot of people don't see the immediate value [in dental care]."
>
> -Consumer focus group participant

Participants noted that in a healthy community, people understand the value of oral health and its impact on the body and that children learn that importance through both informal instruction at home and formal instruction at school. Ohio has not adopted K-12 health education standards, so there is no statewide requirement for schools to teach about oral health and its connections with overall health. Some participants noted that dental services used to be provided in their community's schools and now, the services are no longer offered.

Stigma and fear

When asked about how oral health fits into a healthy community, many participants said that stigma and dental fear often keep them from achieving optimal oral health. Participants commented that poor oral health can contribute to a lack of confidence in job interviews or hesitancy to smile. Participants also explained that children are often bullied for poor oral health, and this can affect their performance in school and mental health. For example, silver crowns are stigmatizing for young children and can cause them to be teased or singled-out insistently by their peers.

"Teeth affect confidence in kids."

-Consumer focus group participant

Additionally, participants mentioned fear of the dentist due to past traumatic experiences which kept them from returning for regular appointments. This included historical experiences that provoked fear and the perception that they received poor quality of care or mistreatment. A common example of poor quality of care or mistreatment was having teeth pulled without enough anesthesia or being told one tooth would be pulled and waking up with multiple teeth pulled. These historical experiences/traumas have created generational fear of visiting a dentist.

Tell us about a time when you were treated with dignity and respect

When asked about ideal patient-provider interactions and when participants have been treated well by a provider, most responded with stories about kind, compassionate providers who went out of their way to provide quality care. However, as often as examples of positive patient-provider interactions were given, responses about disrespectful and discriminatory treatment were also shared. The most common responses about interaction with providers are displayed in figure 28.

Figure 28. **Top responses for, "Tell us about a time when you were treated with dignity and respect."**

Rank	Response category	Number of participants who mentioned
1	Being treated with care and compassion	23
2	Lack of cultural competency and discrimination*	22
3	Unnecessary treatment and medical errors*	18
4	Open and respectful communication between provider and patient	14
5 (tie)	Building a trusting relationship between patient and provider	12
5 (tie)	Providing comprehensive, patient-centered, quality care	12
5 (tie)	Provider indifference and lack of empathy*	12
5 (tie)	Poor Communication*	12

*When asked this question, responses included ways in which participants were not treated with dignity and respect

Source: Consumer focus groups

Positive comments

Many participants said that oral health providers and their staff made them feel calm and comfortable, even though they were scared to go to the dentist. This sentiment was also expressed about other medical professionals.

"I love my doctor because they take the time to follow up and care about my well-being."

"I went in… the dentist opened the chart and noticed that I had a note that said I need music to keep me calm. He asked me if I needed it that day. It made me feel good."

-Consumer focus group participants

One participant told a story about how they were scared to get a tooth pulled, but the dental hygienist took extra time with her and was able to get the patient's mom on the phone for support. Additionally, participants often noted the importance of open and respectful communication between provider and patient, and how building trust is an

important part of providing quality care. Acknowledging and addressing dental fear was also noted as helpful in getting needed care.

Negative comments

However, participants also noted many instances where they felt that they were not treated with dignity and respect in healthcare settings. These comments were specifically focused on a lack of cultural competency and experiences of discrimination based on income, Medicaid status, race, and/or age. Broader research has found that experiences of discrimination in healthcare settings are not uncommon, and these interactions tend to make patients more reluctant to seek care in the future.[33]

Participants often pointed to a lack of provider training on how to interact with patients from different backgrounds. In Ohio, while the Dental Board offers opportunities for cultural competency training, there are currently no requirements for this topic as part of continuing education credits.[34]

Participants who felt they were not treated with dignity and respect reported feeling that their care was rushed or that a treatment plan was not discussed with them, and some questioned whether billing insurance was the only motivation for care and treatment.

> "I kind of felt more like a number – like get her in and get her out. I didn't have a good feeling going into the office – it was a cold and not personable type feeling. [My provider was] not concerned about me, my dental health, and what I might be facing. The approach was like here it is: you either do it or you don't, and you're out."
>
> -Consumer focus group participant

What is going well in your community related to oral health?

Participants commonly described increased access to dental care, positive relationships with providers, and school-based clinics when asked to reflect on what was going well in their communities related to oral health. The most common responses are in figure 29.

Many participants cited an improvement in access to oral health care including general resources, availability of dentists and emergency care, and the flexibility with which care is offered.

Figure 29. **Top responses for, "What is going well in your community related to oral health?"**

Rank	Response category	Number of participants who mentioned
1	Increased access to dental care (insurance, dentists, resources, etc.)	15
2	Positive interpersonal relationships with providers	14
3	School-based clinics	13
4 (tie)	Free dental clinics	9
4 (tie)	High-quality and affordable oral health	9

Source: Consumer focus groups

For many participants, the quality of their interpersonal relationships with their providers was a strength. Participants valued being

treated with kindness and respect. They also noted that school-based clinics are a strength of their communities, especially regarding the importance of starting dental care early. Free dental clinics were another frequently mentioned community strength. Participants explained that these clinics often offer high-quality and affordable oral health care, which were listed as priorities for many participants.

> "Clinics save the teeth instead of pulling them."
>
> "When I go to my doctor and dentist, they are helpful, attentive and explain things well to me."
>
> -Consumer focus group participants

What are the barriers, or what keeps you, your family, and others in your community from having good oral health?

While many improvements have been made to oral health care, there are still many patients experiencing barriers. Overall, participants found that unaffordable care, lack of oral health education, and challenges related to trauma and adverse experiences receiving dental care were barriers to good oral health. The most common responses are listed in figure 30.

The barrier most often reported by participants across focus groups was that oral health care in Ohio is not affordable. Participants noted that affordability includes a lack of insurance coverage or payment plans available. Many reported that they have foregone care due to the cost. Related to affordability, it was also common for participants to cite a lack of providers who see Medicaid patients or provide discounted care.

Figure 30. **Top responses for, "What are the barriers, or what keeps you, your family and others in your community from having good oral health?"**

Rank	Response category	Number of participants who mentioned
1	**Care is not affordable** (including services not covered by insurance, challenges surrounding payment plans, surprise billing, going without care because of cost)	38
2	**Lack of education surrounding oral health**	24
3	**Challenges related to trauma, ACEs or past traumatic dental experiences, including comments about dental fear**	21
4	**Patients not being treated respectfully in dental clinics** (Including not being presented with treatment options)	18
5	**Lack of providers who see patients with Medicaid or that provide discounted care** (including comments about Medicaid reimbursement rates being too low; comments about finding a dentist that takes "my insurance")	15

Source: Consumer focus groups

> "[I] went back to [my birth country] to get the care [I needed] because it's more affordable. It cost less to fly there, get the care, and fly back than to get it here."
>
> -Consumer focus group participant

Participants who reported poor or disrespectful treatment (such as socioeconomic, disability, racial, or age discrimination) in dental clinics said that this was a deterrent to them seeking care. Another common barrier mentioned by many participants was a

lack of education about the importance or impact of oral health, and how to take care of teeth for longevity.

> "People don't know oral health problems can lead to other health problems."
>
> "Education begins at home."
>
> "People don't have educational resources that reach them 'where they're at.'"
>
> -Consumer focus group participants

Participants frequently discussed how past oral health related trauma was a barrier to future care. Many reported that these past traumatic experiences included drilling or extractions with too little numbing or pain-relieving medication and general dental fear or anxiety. Participants also expressed that the trauma becomes generational—when one generation experiences dental trauma, they share their experiences with their children who are then also fearful.

Of the barriers identified in the last question, which are the most important?

When asked to prioritize the most important barriers that they think should be elevated in the State Oral Health Plan, participants commonly stated that Ohio should improve insurance access and affordability of oral care for people with lower or limited incomes. Figure 31 lists the top responses participants identified when asked about priorities for the State Plan.

> "Insurance is the biggest thing... I don't have money for it [dental care]. I have to worry about the electric bill, gas for the car...it's just not a priority to worry about my teeth."
>
> -Consumer focus group participant

Figure 31. **Top responses for, "Of the barriers identified in the last question, which are the most important?"**

Rank	Response category	Number of participants who mentioned
1	Insurance, access and affordability	19
2	Education and health literacy	14
3	Quality of care	7
4	Need for resources, services and supports for underserved community members	6
5	Transportation	3

Source: Consumer focus groups

Education and health literacy was the second most prioritized barrier by focus group participants, including responses about parent/caregiver buy-in for children's oral health and prioritizing oral health education in schools. Quality of care was also

important to participants, including respect and relationship-building on the part of providers, reduced wait times, and clean, updated facilities.

> "Respect is important. My daughter had to wait hours with many others to be able to receive care. That can discourage people from accessing care."
>
> "If [you] miss an appointment... [you] have to wait a year to see the dentist again."
>
> -Consumer focus group participants

Participants explained that appointment books can be so full that missing an appointment due to having to work or transportation or childcare issues can take up to a year to reschedule. Additionally, while access to resources, services, and support was elevated in the strengths question, it remains a need in underserved communities and was elevated as a priority barrier for many participants. Participants also prioritized addressing transportation challenges. Challenging and inconvenient bus schedules, a lack of reliable transportation for families with kids, and dental offices not being in their neighborhoods were commonly cited barriers for participants.

> "Sometimes it takes at least an hour to get there [dental office] because you have to take multiple buses. Sometimes you might be waiting at the bus stop for like 45 minutes because the buses don't come on time."
>
> -Consumer focus group participant

If you could be president for a day (or if you could wave a magic wand), what would you do to improve oral health?

Finally, participants were asked to elaborate on solutions to the biggest barriers they described. Participants commonly stated that they would make oral health care covered under all insurances or totally free of charge. This was closely related to many participants saying that they would require dentists to take Medicaid, or that they would increase the reimbursement amounts so that more dentists would be incentivized to care for patients with Medicaid.

Figure 32. **Top responses for, "If you could be president for a day (or if you could wave a magic wand), what would you do to improve oral health?"**

Rank	Response category	Number of participants who mentioned
1	Accept all insurances/free oral health care for all	19
2	Increase access	16
3	Programs in schools (educate and treat at a young age)	9
4	Require dentists to take Medicaid, better reimbursement	8
5	General education about oral health care	7

Source: Consumer focus groups

Many participants simply said that they would increase access to oral health care, which included things like getting connected to resources, more flexible oral healthcare provider hours, shorter waitlists, and mobile clinics brought directly to their neighborhood.

Finally, participants said that they would expand both educational and treatment programs in schools, as well as education about oral health for the public. For example, one participant recommended getting dental services into all elementary schools.

What does a healthy community look like?

Overall, participants noted that a healthy community is a place that is safe, where neighbors are connected, and where resources are available to support healthy activities. The top five most common responses are displayed in figure 33.

Healthy communities have strong social connections

Figure 33. **Top responses for, "What does a healthy community look like?"**

Rank	Response category	Number of participants who mentioned
1	Strong social connections	33
2	Safety	23
3	Resources	16
4	Enough for youth to do	14
5	Clean	12

Source: Consumer focus groups

The most common response was that a healthy community has strong social connections. Participants talked about how people in a healthy community would help each other if they were in need. A healthy community involves charity, mutual respect, and communication with neighbors. Participants said that people in a healthy community are actively involved with their neighbors and watch out for each other and each other's kids. They care about others and put time and effort into getting to know their neighbors.

> "(In a healthy community), everybody comes together, takes interest in children being healthy. Healthy environments and relationships - your neighbors are there for you."
> -Consumer focus group participant

Streets are safe from violence

Participants frequently said that a healthy community is a safe community where kids can play, businesses can thrive, and people can walk around safely. Participants noted that people often move out of their communities because of the violence and sex trafficking they witness, and many shared personal experiences of how their lives have been impacted by these crimes. Substance use and unaddressed mental health issues were mentioned as contributors to the violence in their neighborhoods. Participants emphasized that violence and substance misuse are absent in healthy communities.

Resources are available and abundant

Participants defined resources, which may vary from community to community, as a staple of a health community. They discussed that resources should not only be available, but people must know that they exist and how to access them. Resources include programs like Meals on Wheels, crisis hotlines, and community health centers, as well as bike paths, parks, gyms, grocery stores, banks, pharmacies, and other aspects of

the built environment. Participants also discussed that religious centers, like churches, and other spiritual resources contribute to a healthy community.

> "A healthy community must have their basic needs met to be able to take care of the whole person."
>
> -Consumer focus group participant

Youth have productive activities

Participants often said that education and productive activities were key parts of a healthy community. Healthy communities have playgrounds in the neighborhoods, well-functioning schools, and kid-friendly environments where children can play outside without fear of violence. Getting families engaged in community activities with their kids and having activities for kids to participate in that will keep them out of trouble were also mentioned.

> "Our kids are our future. Set them up for success."
>
> "Kids are growing up too fast because they are constantly exposed to violence, crime, and adult conversations and activities."
>
> -Consumer focus group participants

Healthy communities are clean and cared for

Many participants talked about how a healthy community is clean; where people will pick up trash and pick up after themselves because they take responsibility for, ownership of, and pride in their public spaces.

Some participants also explained that better outdoor air quality was part of a healthy community, mentioning chemicals in their area, and that it was not safe for kids to play outside.

Appendices

A. Healthcare provider focus group participants and additional information

1. Informational flyer (made available in English, Spanish and Nepalese)
2. List of organizations that received the informational flyer for the healthcare provider focus groups
3. Ohio county type designations
4. Additional information about provider focus group participants
5. Healthcare provider focus group participants

B. Consumer focus group participants and recruitment details

1. Consumer focus group recruitment, by city
2. Consumer focus group participants

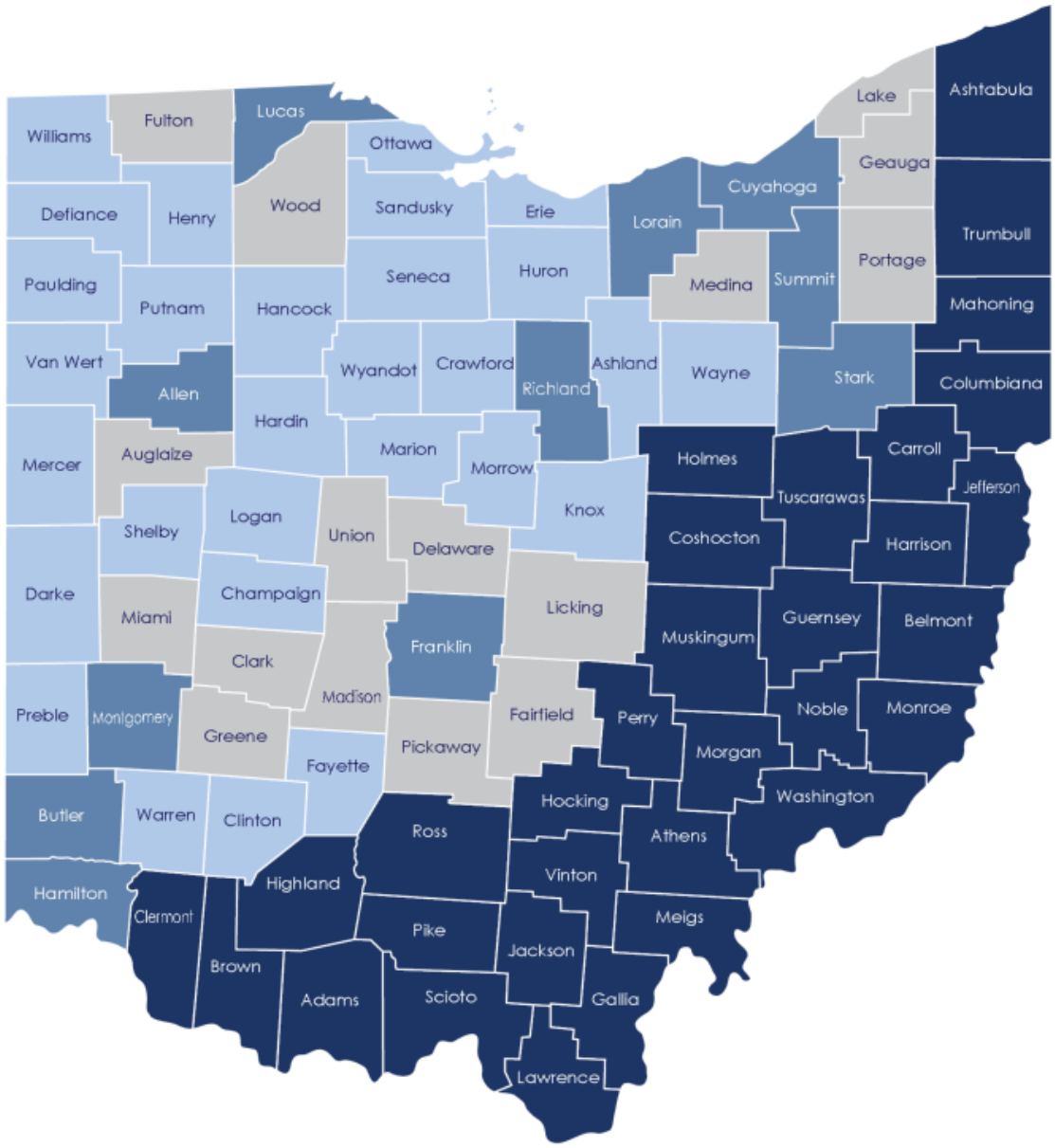
Appendix A. Healthcare provider focus group participants and information

1. Informational flyer

2. List of organizations that received the healthcare provider focus groups informational flyer

- Association of Ohio Health Commissioners, Inc.
- Cincinnati Children's Hospital Association
- Leading Age Ohio
- Mental Health & Addiction Advocacy Coalition
- National Association of Social Workers, Ohio Chapter
- Ohio Academy of Family Physicians
- Ohio Academy of Pediatric Dentistry
- Ohio Association of Community Health Centers (OACHC)
- Ohio Association of Health Plans
- Ohio Association of Physician Assistants
- Ohio Association of School Nurses
- Ohio Association of School Nurses
- Ohio Chapter, American Academy of Pediatrics
- Ohio Children's Hospital Association
- Ohio Dental Association
- Ohio Dental Hygienists' Association
- Ohio Department of Health, Oral Health Program
- Ohio Department of Health, Rural Health Program
- Ohio Department of Health, School Nurse Program
- Ohio Healthcare Association
- Ohio Hospital Association
- Ohio Medical Association
- Ohio Nurses Association
- Partners for Kids Network
- The Academy of Senior Health Sciences
- The Ohio Council of Behavioral Health & Family Services Providers
- University of Toledo Medical College

3. Ohio county type designations



Number of provider focus group participants, by county type

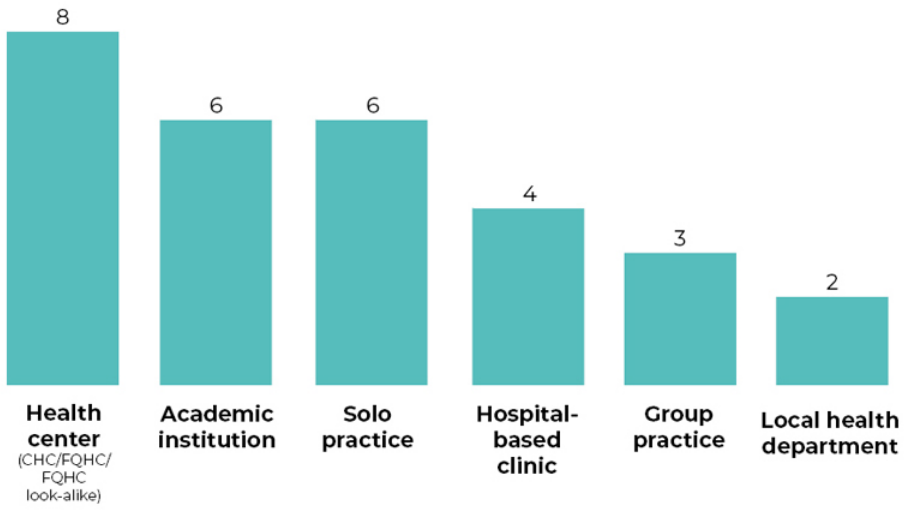
- Appalachian: 8
- Urban: 42
- Suburban: 5
- Rural, non-Appalachian: 1

Note: One participant selected "Multiple counties" and is not included in these counts.
County types defined by the Ohio Medicaid Assessment Survey

4. Additional information about provider focus group participants

The types of settings in which practicing dentists and dental hygienists reported spending the most time are displayed in figure 34. There was an overrepresentation of providers from federally qualified health centers (FQHCs) participating in the focus groups.

Figure 34. **Type of setting where provider participants reported spending the most time**



Source: Provider focus groups

When asked about the types of insurance their practice accepted, 20 of the 29 practicing dentists and dental hygienists (69%) accepted both Medicaid and non-Medicaid insurance, five only accepted non-Medicaid (17.2%), and four (13.8%) were from practices that only accepted Medicaid. When this information was presented to the State Oral Health Plan advisory committee, members explained that a much lower percentage of the overall population of Ohio dentists accept Medicaid than the 83% of provider focus group participants that reported accepting Medicaid. This feedback is consistent with an analysis of 2017 Medicaid claims data by the American Dental Association Health Policy Institute, which reported that 71% of Ohio dentists were not enrolled with Medicaid, and only 14% of Ohio dentists billed for more than 100 Medicaid patients over a year.[35]

Finally, the vast majority of the practicing oral health provider focus group participants (27 of the 29) reported that their practice did treat patients with special healthcare needs. This is also likely inconsistent with the overall Ohio oral health provider population, as demonstrated in the focus group findings.

5. Healthcare provider focus group participants

Focus group participants who granted permission for their names to be included are listed below.

First Name	Last Name	Organization
Homa	Amini	Ohio State University/Nationwide Children's
Steven	Barket	Medina County Health Department
Frank	Beck	Mercy Health
Marcy	Borofsky	SMILE AMERICA PARTNERS
Sandy	Brado	Ohio Department of Health
Stephani	Brown	Washington County Health Department
Barbara	Carnahan	Ohio Department of Health
Daniel	Collins	Columbus State Community College
Sandra	Cornett	Ohio State University College of Nursing retd. nurse educator
Deani	Deskins-Knebel	PrimaryOne Health/ Columbus Public Health
Tina	Fulks	Ohio Department of Health
Kim	Hammersmith	Nationwide Children's Hospital
Jennifer	Hardie	CCHC
Chris	Harmison	Ohio Dental Hygienists Association
Abby	Harper	MVHC
Gregory	Heintschel	Metrohealth
David	Hoag	Third Street Family Health Services
Hal	Jeter	Hal S. Jeter, DDS, Inc.
Ruchika	Khetarpal	Ohio dental association
Kelly	Kirtland	University Hospitals - Rainbow Babies & Children's
Julya	Lonsway	James B. Haggerty, DDS
Chuck	Madden	Good Samaritan Free Health Center
Beau	Meyer	The Ohio State University College of Dentistry
Annie	Myatt	Cuyahoga Community College Dental Hygiene Program
Anna	Novais	Cincinnati Health Department
Colleen	Palay	University Hospitals of Cleveland
Ruth	Palich	Youngstown State University Dental Hygiene Program
Jaime	Parsons	Viola Startzman Clinic
Thomas	Paumier	Ohio Dental Association
Mary	Poremba	Cuyahoga County Board of Health
Kimberly	Radominski	CareSource
Star	Sawicki	Ohio Department of Health
Marybeth	Shaffer	Community Action Agency of Columbiana County
Stephanie	Silk	Miami County Dental Clinic
Donna	Skoda	Summit County Public Health
Katrina	Tamimi	Columbus Public Health Department
Mona	Taylor	Ohio Department of Health
Beth	Tronolone	Toledo DHA/ Owens Community College
Sarah	Williams	Community Action Committee of Pike County Inc, dba Valley View
Ted	Wymyslo	OACHC
Yuqing	Zhang	College of Nursing University of Cincinnati

Appendix B. Consumer focus group participants and recruitment details

Oral Health Ohio and HPIO are grateful to Ron Browder, Executive Director, Federation for Health Equity & Social Justice and Yvonka Hall, Executive Director, Northeast Ohio Black Health Coalition for recruiting the focus group partner sites and leaders.

1. Consumer focus group recruitment, by city

Athens: Athens Community Center

- Local partner: Randy Leite, Executive Director, Appalachian Children's Coalition
- Athens participants were recruited from the Appalachian Children's Coalition network and flyers were distributed in English

Toledo: Senior Centers, Inc.

- Local partners: Shelly McCoy Grisham, Executive Director, Senior Centers, Inc., and Richard Meeker, Manager, Community Engagement & Development, University of Toledo Medical Center
- Toledo participants were recruited through their programs at the senior center, and flyers were distributed in English.

Cleveland: Rainbow Terrace Apartments

- Local partner: Fayelice Verdin, Learning Center Assistant
- Cleveland participants were recruited through their programs at Rainbow Terrace Apartments; flyers were distributed in English.

Columbus: Genessee Church of Christ (Foundation for Families)

- Local partner: Marsha Rose Wickliffe, Director of Daily Operations
- Columbus participants were recruited through local grassroots organizations. Flyers were distributed in English, Spanish, and Nepali.

Cincinnati: Fifth Third Convening Center at United Way

- Local partner: Rev. Dr. Camisha Chambers, Community Advocate
- Cincinnati participants were recruited through grassroots organizations and the personal network of Rev. Dr. Camisha Chambers. Flyers were distributed in English and Spanish.

2. Consumer focus group participants

Focus group participants who granted permission for their names to be included are listed below.

First Name	Last Name	Focus group location
Jamila	Belaid	Athens
Lydia	Dippre	Athens
LeeAnn	Johnson	Athens
Samantha	Jones	Athens
Melissa	Kimmel	Athens
Loni	Maughan	Athens
Britani	Merritt	Athens
Jack	Pepper	Athens
Dick	Wittberg	Athens
Tomeka	Ewing	Cleveland
Danine	Harvell	Cleveland
Cynthia	Thomas	Cleveland
Fayelice	Virden	Cleveland
Samuel	Camacho	Columbus
Saraai	Wickliffe	Columbus
Mark	Corbin	Cincinnati
Samantha	Diawara	Cincinnati
Jason	Miller	Cincinnati
Dianne	Solomon	Cincinnati
Thomas	Bell	Toledo
Esther	Bradley	Toledo
Robert	Bringe	Toledo
Carol	Burroughs	Toledo
Jacquelyn	Cook	Toledo
Carol	Hanley	Toledo
Stephen	Gilts	Toledo
Connie	Gulley	Toledo
LaKeisha	Henry	Toledo
Aimee	Leazier	Toledo
Vanessa	Seymore	Toledo
Iris	Smith	Toledo
Frederick	Symph	Toledo
Ruby	Whitlow	Toledo

Notes:

[1] American Public Health Association. "Improving Access to Dental Care for Pregnant Women through Education, Integration of Health Services, Insurance Coverage, an Appropriate Dental Workforce, and Research." Policy Statement No. 20203. Oct. 24 2020. https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2021/01/12/improving-access-to-dental-care-for-pregnant-women

[2] America's Health Rankings. "Water fluoridation." Accessed Nov. 10, 2022. https://www.americashealthrankings.org/explore/annual/measure/water_fluoridation/state/OH

[3] Data from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance Survey, Web Enabled Analysis Tool, 2020. "6 or more teeth removed." Accessed Nov. 30, 2022. https://nccd.cdc.gov/weat/#/crossTabulation/selectYear

[4] Data from the Ohio Pregnancy Assessment Survey as compiled by the Ohio Department of Health, 2020. "Teeth cleaned during pregnancy." Received July 7, 2022.

[5] Data from the United States Census Bureau, American Community Survey, 2019 single-year estimates. "Poverty status in the last 12 months, below 100% of the Federal Poverty Level, Ohio." Accessed Nov. 30, 2022. https://data.census.gov/table?q=poverty&tid=ACSST1Y2021.S1701

[6] Data from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance Survey, Web Enabled Analysis Tool, 2020. "Percent of adults who currently smoke." Accessed Nov. 30, 2022.

[7] American Dental Association Health Policy Institute. "Reimbursement rates for child and adult dental services in Medicaid by State." Oct. 2021. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/hpigraphic_1021_1.pdf?rev=1be8e91fb2df4c75ba2228870fd4fbc6&hash=931BF94DEC50012CC056B123BF99E884

[8] Ohio Department of Medicaid. "Actual vs. Estimated Medicaid Eligibles – SFY 2023." Accessed Oct. 13. 2022. https://medicaid.ohio.gov/wps/wcm/connect/gov/0fdffd21-becc-4e8b-bc74-5f157bdd7450/Caseload_SFY23_SEP.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-0fdffd21-becc-4e8b-bc74-5f157bdd7450-ofcV6uE

[9] Vujicic Marko, Kamyar Nasseh and Chelsea Fosse. "Dentist Participation in Medicaid: How Should It be Measured? Does It Matter? American Dental Association." Health Policy Institute Research Brief. October 2021. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/hpibrief_1021_1.pdf

[10] Kaiser Family Foundation. "Total number of Medicare beneficiaries by type of coverage 2020." Accessed Oct. 13, 2022. https://www.kff.org/medicare/state-indicator/total-medicare-beneficiaries/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[11] Data on licensed dentists and dental hygienists provided by the Ohio State Dental Board on Oct. 13, 2022. OHASP data was accessed via the Ohio State Dental Board website on Oct. 13, 2022. https://dental.ohio.gov/licensing-and-renewal/009-directory-of-permit-holders

[12] Heaps, Wendy, Erin Abramsohn, and Elizabeth Skillen. "Public Transportation In The US: A Driver of Health and Equity." *Health Affairs*. Health Policy Brief July 2021. Doi: 10.1377/hpb20210630.810356. See also Syed, Samina T., Ben S. Garber, and Lisa K. Sharp. "Traveling Toward Disease: Transportation Barriers to Health Care Access. Journal of Community Health 38, no. 5 (2013): 976-993. Doi:10.1007/s10900-013-9681-1.

[13] CareQuest Institute for Oral Health. "New Report: 77 Million Adults Do Not Have Dental Insurance." 2022.

[14] Medicaid enrollment increased at the beginning of the COVID-19 pandemic.

[15] Medicare Part A will pay for certain dental services that a patient gets while in a hospital. It can also pay for hospital stays if a patient needs to have emergency or complicated dental procedures, even though it doesn't cover dental care. Finally, Medicare Part A will cover oral examinations at inpatient/hospitals before a kidney transplant if performed by a dentist on the hospital's staff. Medicare Part B will cover extractions of teeth to prepare the jaw for radiation treatment of neoplastic disease; oral examinations at a hospital before a kidney transplant if performed by a physician; and oral examinations at a Rural Health Clinic or Federally Qualified Health Center before a heart valve replacement. Part B will also cover secondary services performed at the same time as a covered primary service that is necessary to treat a non-dental condition (e.g. tumor removal), as long as it is performed by the same provider. (Source: CMS)

[16] Kaiser Family Foundation. "Total number of Medicare beneficiaries by type of coverage 2020." Accessed Oct. 13, 2022. https://www.kff.org/medicare/state-indicator/total-medicare-

beneficiaries/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[16] Ohio Department of Medicaid. "Actual vs. Estimated Medicaid Eligibles – SFY 2023." Accessed Dec. 7, 2022. https://medicaid.ohio.gov/wps/wcm/connect/gov/66d2c5b0-1637-41da-9f62-02a2a96ed207/Caseload_SFY23_OCT.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_K9I401S01H7F40QBNJU3SO1F56-66d2c5b0-1637-41da-9f62-02a2a96ed207-ohyFJLR

[18] Ibid.

[19] There were 19 counties without any pediatric primary care providers that billed Medicaid for at least 100 services in 2021. They were Carroll, Fulton, Hardin, Harrison, Henry, Hocking, Holmes, Meigs, Monroe, Morgan, Morrow, Noble, Ottawa, Paulding, Perry, Preble, Putnam, Vinton, and Wyandot.

[20] Jackson, Stephanie L. et. al. "Impact of poor oral health on children's school attendance and performance." *American Journal of Public Health.* 101, no. 10. (Oct. 2011): 1900-1906. doi: 10.2105/AJPH.2010.200915

[21] Ibid.

[22] Data from the Centers for Disease Control United States Cancer Statistics: Data Visualizations. "Cancer Statistics at a Glance". Accessed Dec. 1st, 2022. https://gis.cdc.gov/cancer/USCS/#/AtAGlance/

[23] Data provided by the Ohio Department of Health via email. Aug. 4, 2022.

[24] National Academy for State Health Policy. "State Medicaid Coverage of Dental Services for General Adult and Pregnant Populations." Accessed Nov.10, 2022. https://www.nashp.org/state-medicaid-coverage-of-dental-services-for-general-adult-and-pregnant-populations/

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[26] Ohio Department of Health. School-based dental sealant programs at-a-glance. 2022. https://odh.ohio.gov/wps/wcm/connect/gov/cff2c1ad-386d-482c-8d5e-f64ab45c4133/SchoolBasedDentalSealant_FINAL.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-cff2c1ad-386d-482c-8d5e-f64ab45c4133-nWmWR3.

[27] Ohio's State Oral Health Plan 2021-2022. Oral Health Ohio. Accessed Oct. 6, 2022. https://841b66b4-b240-4ed0-a941-b1f7535e1d57.filesusr.com/ugd/a395ee_18a083bd69f948af831f358d613b4c6b.pdf

[28] American Dental Association Health Policy Institute. "Reimbursement rates for child and adult dental services in Medicaid by State." Oct. 2021. https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/hpigraphic_1021_1.pdf?rev=1be8e91fb2df4c75ba2228870fd4fbc6&hash=931BF94DEC50012CC056B123BF99E884

[29] Vujicic Marko, Kamyar Nasseh, and Chelsea Fosse. "Dentist Participation in Medicaid: How Should It be Measured? Does It Matter? American Dental Association." Health Policy Institute Research Brief. October 2021. https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1021_1.pdf.

[30] Data on licensed dentists and dental hygienists provided by the Ohio State Dental Board on Oct. 13, 2022. OHASP data was accessed via the Ohio State Dental Board website on Oct. 13, 2022. https://dental.ohio.gov/licensing-and-renewal/009-directory-of-permit-holders

[31] National Partnership for Dental Therapy. "About Dental Therapy." Accessed Oct. 13, 2022. https://www.dentaltherapy.org/about/about-dental-therapy#:~:text=Dental%20therapists%20are%20authorized%20in,exploring%20authorization%20of%20dental%20therapists.

[32] Ohio Department of Health. Safety Net Dental Care Programs in Ohio. 2022. https://odh.ohio.gov/wps/wcm/connect/gov/48de5f59-ba30-4074-8c14-ac4b9ea96f0f/SN+Brochure+8_31_2021+final.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-48de5f59-ba30-4074-8c14-ac4b9ea96f0f-nLgRTjt

[33] Shavers, Vickie L. and Brenda S. Shavers. "Racism and Health Inequity among Americans." Journal of the National Medical Association 98, no. 3 (2006): 386-396. See also Sokoto, Kalo C., et. al. "Racism in oral healthcare settings: Implications for dental care-related fear/anxiety and utilization among Black/African American women in Appalachia. Journal of Public Health Dentistry 82, suppl. 1 (2022): 28-35. DOI: 10.1111/jphd.12523

[34] Continuing Education Requirements for the Ohio Dental Board. Access 12/19/2022. https://dental.ohio.gov/continuing-education

[35] Vujicic Marko, Kamyar Nasseh and Chelsea Fosse. Dentist Participation in Medicaid: How Should It be Measured? Does It Matter? American Dental Association. Health Policy Institute Research Brief. October 2021.
https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1021_1.pdf.