



State of Illinois  
Illinois Department of Public Health

# Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health (2021-2025)*





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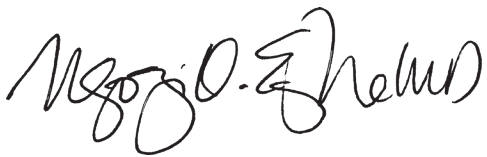
## Letter from the Director

Thank you for your interest in the Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health* (IOHP IV) covering the years 2021 to 2025. The process of updating the IOHP IV represents the culmination of a deliberative process in which communities were engaged and stakeholders committed to bringing their ideas and expertise to the table to improve the health of all Illinois residents. I appreciate and am proud of the work that went into the creation of the Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health*; it was a truly energetic and collaborative process. IOHP IV details the approaches and strategies that can lead to health improvement in our priority areas: timely access to care, expansion of health promotion and primary prevention, and improving health knowledge for action by the Illinois population.

Health is everything - it allows us to work, commune with our families, and build our communities. Poor health has many overt as well as covert costs to society and, therefore, any plans that seek to improve population health should be evidence-based, committed to by all stakeholders, regularly surveyed, and properly evaluated. It is with these intentions that we embarked on the fourth IOHP focused on eliminating inequities. IOHP IV brings together state and national initiatives that improve the health of our population, with a special focus on oral health. The Illinois Department of Public Health (IDPH) recognizes the need to adequately assess the health status of Illinois residents, establish a health improvement plan inclusive of targeted strategies, and offer a diverse selection of measures that track progress.

IOHP IV was made possible through the work and effort of many individuals, organizations, and oral health visionary leaders across the state. Members of the IOHP IV Steering and Advisory Committee and IDPH Division of Oral Health guided this process using their experience, access, and statewide perspective. I'm grateful for their work and commitment. Members of smaller teams worked specifically on the IOHP IV health improvement strategies, providing leadership and direction.

To move forward with this plan, we will continue to count on your partnership and commitment to this process. We will hold each other accountable, keep an open communication, and meet the objectives stated in the IOHP IV. We look forward to continuing this important health improvement work with you.



Director Ngozi O. Ezike, MD  
Illinois Department of Public Health

## Acknowledgments

In May 2000, the U.S. Surgeon General’s report, *Oral Health in America*, described both the “marked improvement in the nation’s oral health in the past 50 years” and the simultaneous “silent epidemic of oral disease affecting our most vulnerable citizens.” In response, the Illinois Department of Public Health, in collaboration with other engaged stakeholders, has convened and formulated three state oral health plans, each spanning five years of strategic activities designed to improve the oral health status of Illinoisans. The first of these oral health plans was published in April 2002. Each oral health plan was developed in partnership with health stakeholders, bringing together ideas and innovations that, when implemented, would result in the best community oral health outcomes.

The long history of engagement and public health planning has led to incremental improvements in the oral health care delivery system and the oral health status of the Illinois population. Yet, oral health status remains less than ideal for many, with preventable diseases still highly prevalent among the population and an unequal burden of disease experienced among sub-population groups. In the Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health*, we again engage with our visionary and frontline partners to update strategies and opportunities to focus our work and carry us forward to many successes by the year 2025.

Reading through Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health*, you will recognize that the development of this plan was intentional and aligns with Healthy Illinois 2021, the state’s health improvement plan. The process sought out inputs from a wide variety of health and non-health sectors. As in previous oral health plans, we also aimed for robust participation and direct input from community members and cross-sector partners, both traditional and nontraditional.

An effort was made to align this fourth IOHP with national initiatives, such as Healthy People 2030 (HP 2030), and federal agencies, such as the U.S. Department of Health and Human Services (DHSS) and the Health Resources and Services Administration (HRSA). These alignments will increase the IDPH’s access to services, activities, initiatives, and resources that will improve the oral health conditions of our population.

The goal is to create a “living document” – not one that sits on the shelf to be revisited every five years, but one that provides an opportunity for continuous evaluation and input. This plan offers diverse supporters’ ideas and pathways to improve oral health status and systems. Many of the stated objectives will enable us to measure progress, to evaluate success, and to implement reporting mechanisms. There are many groups and organizations with varying degrees of knowledge about oral health and the social determinants that shape overall health. This plan has been developed to provide a place for all of us to “jump in” regardless of background or place in the health care system.

The IOHP IV started with identifying challenge statements from which a focused goal was formulated, and several supporting objectives and strategies were developed. Looking closely at the objectives and strategies, one can see they are intertwined: improvement or decline of one can produce positive or negative synergies. That interdependence typifies the complexity in attempting to improve health status and the human condition.

I know that, like me, you stand for health. We hope that IOHP IV: *Eliminating Inequities in Oral Health*, focuses our attention and grows the number of people who experience improved health through better oral health. We go into this effort committed and optimistic that — together and guided by the IOHP IV — we will enhance the lives of Illinoisans by improving an important piece of their health: oral health.



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The Illinois Department of Public Health would like to thank the following: the IFLOSS Coalition; and the Statewide Steering and Advisory Committee members, Kuliva Wilburn, Ahmed El-Maghraby, and Kathleen Harrigan. Their early support in the project was essential. Their interest and commitment to improving oral health care for all Illinois residents led to the creation of this ambitious five-year plan for oral health care in Illinois.

A very special thank you to Hannah Bonecutter (MPHc) for her energy and determination in this effort. The expert insight and facilitation provided by Rachel Sacks and Lauren Knap at Leading Healthy Futures were crucial in the final stages and to the publication of Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health*.



## Executive Summary

Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health* represents a coordinated approach to lead oral health improvement, tackle barriers to health care, and begin to use a social determinants of health approach. With a five-year timeline, the success of the overall initiative can be realized by increasing the health knowledge of the public, expanding health promotion, strengthening primary prevention efforts, and improving access to timely professional services. It is equally important that local, county, and state stakeholders have regular updates of emerging concerns and disease burden to act quickly in mitigating health issues.

The framework used for the development of the IOHP IV was based on an iterative process with several rounds of input from key stakeholders. IDPH's Division of Oral Health (DOH) initiated this effort with a review of the three previous IOHPs, national reports and documents, analysis of qualitative and quantitative data that developed into challenge questions, and development of goals. IOHP IV established a preliminary list of challenge statements and priorities. These were refined through guidance and input from the Steering and Advisory Committee members, key informant reviews, stakeholders, eight state-wide community conversations, four interactive webinar discussions, and an open comment period. The process optimized community engagement and incorporated subject matter expertise in the health care workforce and behavioral health to formulate goals, objectives, and useful strategies.

Strategic planning is imperative for achieving goals and making progress. Within public health, it serves as a crucial step to eliminating health inequities and to improving the overall health of every citizen. Therefore, IOHP IV functions as a necessary component of IDPH's values and mission, tactfully organizing resources, carefully designing procedures, and dutifully creating measurement mechanisms to better assess, to publicize, and to improve the oral health of Illinoisans.

There are three sections to IOHP IV. Section I (*Assessment*) is a brief overview of the state's oral health assets, oral health access, and oral health status. This section is a short compilation to improve our current understanding of oral health in Illinois.

Section II (*Challenge → Opportunity*) seeks to reframe opportunities using a mental model that directly addresses social determinates that operate on health. It lists challenge statements that were articulated into goals, objectives, and a list of strategies developed through stakeholder conversations.

Section III (*Measures of Success*) represents an effort to connect identified objectives to available indicators to show progress towards improved an oral health system and status of Illinoisans. Baseline, process, and outcome data streams will be updated regularly and used to communicate success and to continued challenges in meeting IOHP IV objectives.

Many lessons were learned throughout the IOHP IV development process and it is expected that many more will evolve in the coming years. One lesson learned is that to make progress in improving health outcomes, full and committed participation of a diverse array of stakeholders within Illinois' public health system is required. This builds infrastructure and accountability.

During the IOHP IV process, the world was challenged with the COVID-19 pandemic. Fortunately, many collaborative conversations had already taken place. This hiatus allowed IDPH to focus on documenting and drafting the IOHP IV and to ready it for the time when stakeholders could again focus on completing the report. The COVID-19 pandemic reminds us to include preparedness and nimbleness in all our plans, as we know that unforeseen, urgent issues are likely to arise, reorient, or interrupt any long-range plan.

**As you read through this latest oral health improvement plan, reflect on how you as an individual and your organization can move forward with one or more of these goals. The work with individuals and communities will add up, ultimately making good oral health a reality for Illinois residents. Together, let us rely on each other, help one another, and work diligently to make this plan useful, effective, and a reality. We encourage your continued comments, input, and ideas.**



## Introduction

Oral health is a crucial part of overall health. Oral health does far more than ensuring good breath, strong teeth, healthy gums, and a bright, white smile. Good oral health and hygiene can improve your overall health, lowering your risk of complications due to several serious diseases, such as diabetes, cardiovascular disease, and preterm or low weight births. While oral health professionals know this and oral health advocates promote it, many parents, children, other adults, and even medical professionals who treat them do not understand the critical relationship between oral and general physical health. As a result, too often in Illinois and across America, good oral health habits are lost, proper oral health care is inaccessible, and many measures to prevent adverse oral health outcomes remain unknown. Consequently, oral health problems too often go untreated, thereby burdening individual lives as well as the health care system.

Oral health as a serious health issue first came into focus with the 2000 U.S. Surgeon General's landmark report, *Oral Health in America*. That seminal report documented America's oral "burden of disease" and presented evidence of a "silent epidemic" of dental and oral diseases. It also referenced reported associations between chronic oral infections and diabetes, osteoporosis, heart and lung conditions, and several adverse pregnancy outcomes.

The report's central message was that oral health is essential to general health and can be improved despite several significant barriers. The report concluded with a framework for action, calling for a national oral health plan to improve quality of life and eliminate oral health disparities and inequities. Illinois, like many states, used the Surgeon General's report as a springboard to engage partners interested in improving oral health and was one of the first states to develop a state oral health plan. Illinois' first oral health plan, *Roadmap to the Future: Oral Health in Illinois (2002)*, used the five action steps from the framework established in *Oral Health in America* as policy goals and included scores of priorities and recommendations for strategic interventions, including a series of town hall meetings and a statewide summit. With the intent of building a culture of good oral health across the state and guiding actions aimed at improving oral health status, that initial effort was used as a model for other state oral health plans throughout the nation.

Several improvements in the workforce and oral health clinic infrastructure took place, in part by focused activity and advocacy that resulted from the *Roadmap to the Future*. For example, schools of dentistry and dental hygiene have increased in number and expanded their community-based service-learning experiences, which benefits both communities and students. In addition, IDPH's Center for Rural Health (CRH) has served as the State Loan Repayment Program (SLRP) grantor in Illinois since the inception of the program in 1996. Further, philanthropic foundations and state agencies began to provide start-up and maintenance resources to help public dental clinics better address the unmet oral health needs of the Medicaid-insured population, the uninsured, and the underinsured.

*Oral Health Care in Illinois, the IOHP II (2007)* also followed the framework of the Surgeon General's report, reviewing the state's progress in addressing the original five-year plan and making recommendations for the future. Again, a series of town hall meetings and a statewide summit informed the process. *Oral Health Care in Illinois* called for greater involvement of the medical provider community to help prevent oral disease. That effort resulted in the Illinois Chapter of the American Academy of Pediatrics (ICAAP)'s Bright Smiles from Birth fluoride varnish training program, which has reached thousands of children each year. Additional improvements in oral health tied to strategies identified in the second state oral health plan included the establishment of usable transportation services for Medicaid members; multi-million dollar investments in the statewide local health department, federally qualified health center (FQHC), and non-profit clinical infrastructure through public and private funding sources; and the expansion of dental sealant grant program that focuses on uninsured children.

*Healthy People, Healthy Smiles: Assuring an Agenda for Action* was Illinois' third oral health plan (2012). It took a slightly different approach from past plans by modeling its framework after the Healthy People 2020 national oral health objectives but was still informed by the Surgeon General's 2000 Call to Action. *Healthy People, Healthy Smiles* again provided a focus for action that resulted in several improvements. Examples include more access points for low-income individuals, an increased number of persons with dental insurance (Medicaid expansion under the 2010 Patient Protection and Affordable Care Act, or ACA), and deepened collaboration between local hospitals and dental clinics.

Since the first IOHP, stakeholders have dedicated much time and effort to formulate and execute many ideas resulting in a better oral health future in Illinois. Instead of using wishful thinking to address the burden of oral diseases and enhance the oral health of Illinoisans, stakeholders leverage these thoughtfully constructed plans. The results of plan utilization include meeting many of the goals and objectives set forth. Other accomplishments spurred from these Illinois oral health plans include: (1) the emergence of strong advocates for oral health who fund clinics, programs, and research; (2) development of a stronger and expanded safety net of oral health providers in FQHCs, local health departments, and other non-profit organizations; (3) engagement of many more private practitioners in volunteerism activities, which translates to thousands of oral health care visits by low-income and uninsured persons; and (4) sizable growth in workforce and academic training programs for dentists and dental hygienists that are geographically distributed across the state.

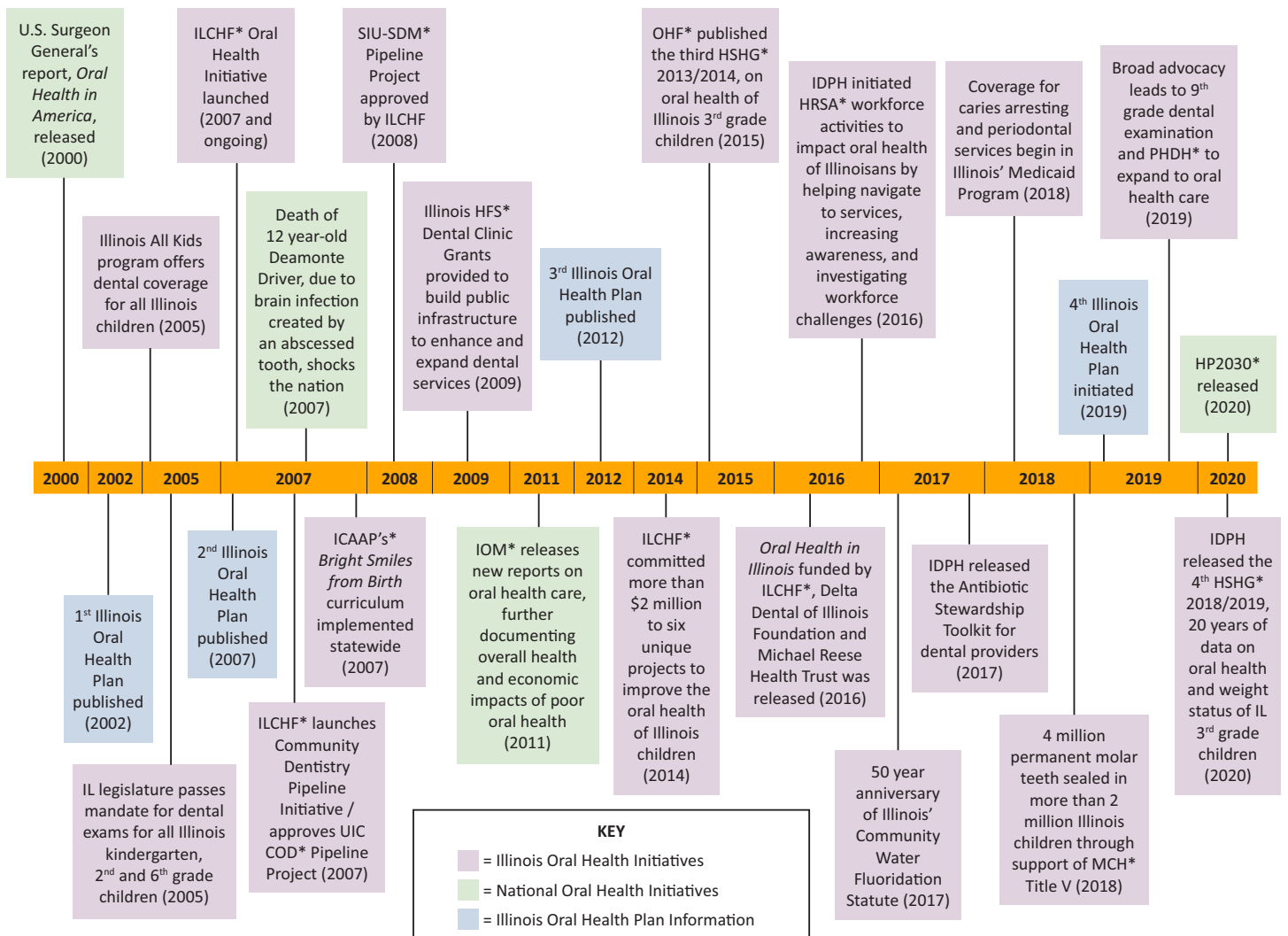


## Historical View of Oral Health Care in Illinois Since 2000

Figure 1 depicts the timeline of significant oral health care events since 2000. Understanding the recent context within which the state’s fourth oral health plan is developed is key to developing visionary goals, setting measurable objectives, and defining realistic indicators of progress and success. While several key points in oral health history and progress within Illinois and the nation are included in this timeline, there are certainly others that were omitted from this graphic due to space constraints. Much has been done towards improving oral health in the United States and Illinois, yet much more is still yet to be accomplished. Many examples of tragic consequences of the failings of the oral health system have been highlighted and the need to assure action has never been more required.

**Figure 1. Recent History of Significant Oral Health Care Events in Illinois and the Nation.**

Abbreviations: Healthy People 2030 (HP2030), Healthy Smiles Healthy Growth (HSHG), Illinois Chapter, American Academy of Pediatrics (ICAAP), Illinois Children’s Healthcare Foundation (ILCHF), Illinois Department of Healthcare and Family Services (HFS), Institute of Medicine (IOM), Maternal and Child Health (MCH), Oral Health Forum (OHF), Public Health Dental Hygienist (PHDH), Southern Illinois University School of Medicine (SIU-SDM), U.S. Health Resources and Services Administration (HRSA), and University of Illinois – Chicago College of Dentistry (UIC-COD).



As the nation’s recognition and attention towards the critical interrelationship between oral health, general health, and overall well-being grows, oral health becomes more established as an important health indicator. This is illustrated when oral health was identified as one of the 26 leading health indicators in Healthy People 2020. Healthy People 2030 maintains oral health as one of the leading health indicators and the IOHP IV incorporates many of these indicators ensuring alignment with this important national initiative.

## Developments in Oral Health Care in Illinois Since 2018

Since 2017, when planned activities under Illinois' third oral health plan, *Healthy People Healthy Smiles*, ended, many improvements to the oral health system and infrastructure have taken place. Progress has been made in several policy areas due to widespread advocacy, opportunity, and innovation in care. There have been difficulties too, the most notable obstacle was the COVID-19 pandemic.

Select recent developments are as follows:

- 1. Expanding Illinois' Adult Medicaid Program to cover Preventive and Periodontal Services.** Expanding the scope of Medicaid-covered oral health services to include preventive services for adults was first identified as a goal in *Roadmap to the Future*. It took 15 years, but the time was right in 2018 and the Illinois Department of Healthcare and Family Services (HFS) expanded prevention and periodontal services to all adults in the Medicaid program. For the first time, Illinois Medicaid adult beneficiaries will be able to access preventive and periodontal disease treatment services. This coverage is important to the entire Medicaid-enrolled adult population. Individuals can now have optimal oral health before and during pregnancy, which may result in healthier pregnancies and better post-pregnancy outcomes.
- 2. New Modalities in Dental Caries Management.** Dental caries or tooth decay is a prevalent disease. Dental caries is preventable during one's lifespan if preventive measures are practiced. Health promotion, prevention, and timely treatment of dental caries has been an objective in the previous oral health plans. Illinois advocates were able to focus on a newly available strategy to quickly provide caries control services through the application of silver diamine fluoride, or SDF, on decayed teeth. This minimally invasive, innovative approach to disease management arrests dental caries and is now a covered benefit available in many major dental insurance plans and the Illinois Medicaid program. The application of SDF on the tooth surface arrests the disease process and prevents dental caries from progressing. Applying SDF does not require special equipment or anesthesia. It is a simple and easy application process for all age groups. SDF is beneficial for young children, the elderly, persons with special health care needs, and other vulnerable groups needing preventive care measures.
- 3. Workforce Initiatives.** Several workforce initiatives have sought to help the public navigate to an appropriate dental care setting. Foundations have funded case management programs targeted at school children with urgent care needs. Age-appropriate oral health education has been provided consistently over several years in high-risk population areas that will function to institutionalize and to normalize health education activity with school staff and parents. Other workforce activities include outreach provided by community dental health coordinators; community education in plain language provided by community health workers trained in the basics of oral health and health promotion; and inclusion of public health dental hygienists, who have begun to work with collaborating dentists to provide a basic set of prevention services before the patient is examined by a licensed dentist. Their efforts are dedicated to improving access through specific settings for low-income, uninsured, or Medicaid-insured individuals.
- 4. COVID-19 Pandemic.** The impact of COVID-19 on oral health care facilities has been significant and resulted in many pivoting from direct oral health care to other ways of supporting the public during the pandemic. Dental providers and offices donated personal protective equipment to hospitals and to frontline health care workers, reinforced home and self-care practices directly to the public during a time of urgent-only oral care access, developed patient flow protocols that decreased opportunities for COVID-19 transmission, and re-fitted their offices to invite patients back for disease-treating care. Many in oral health provided COVID-19 testing, contact tracing, and volunteered at clinics or COVID-19 vaccination events. All these activities played an important role in responding to the COVID-19 pandemic in Illinois. Unfortunate consequences of the pandemic on the oral health sector included job losses, financial strain on practices, and early retirements. Impact on the public included limited availability of prevention and disease-treating services, such that disease progression occurred unabated and with increased wait times for corrective treatment appointments. These realities will challenge the ability to decrease oral disease burdens long after the pandemic is over.

## Foundational Elements of IOHP IV: *Eliminating Inequities in Oral Health*

### Social Determinants of Health

Economic stability, stable housing, access, affordability, consumption of nutritious foods, high-quality early childhood education, reading and math proficiency (ready for advanced careers, perhaps in health care), and thriving family environment and relationships all have a direct impact on good health and are integral parts of achieving and maintaining optimal oral health.

For a long time, the concept of health was confined to singular actions and behaviors an individual took throughout their life. The current understanding of health is constructed with multiple factors, with many of these being outside of an individual's control. The impact of singular action may not result in optimal health without also addressing what is often referred to as social determinants of health. Formalized by the World Health Organization, social determinants of health are defined as the "conditions in which people are born, grow, live, work, and age." Shaped by the distribution of money, power, and resources at global, national, and local levels, these conditions are largely responsible for an individual's health and the health inequities that we see commonly today. Key concepts within the social determinant of health framework are a safe environment, awareness, education, employability, sufficient income, racism, and opportunity to succeed. The roots of health inequities include these same concepts. Therefore, to help close health inequities, IOHP IV must eliminate roadblocks for people who are inequitably treated and disproportionately affected – those with less than a high-school education, those of low-income, certain racial or ethnic minorities, people living in geographically remote locations, and those with special health care needs.

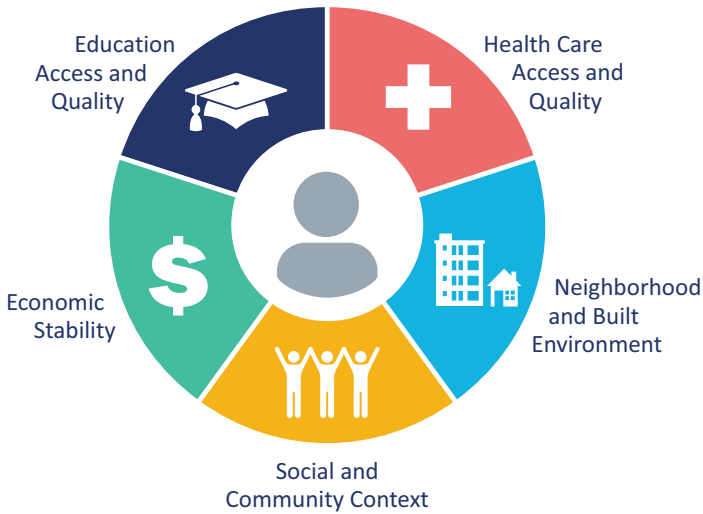
Health inequities are the human-created, unjust, avoidable differences in health status observed among various population groups distinguished by a range of characteristics. Oral health inequities and other health inequities exist in many areas, some defined by race and ethnicity, age, geography, ability level, socioeconomic status, and citizenship status. Untreated oral conditions impact overall health and quality of life.

Differences in health burdens and outcomes cannot be "solved" only by an individual's behavior change or by just promoting healthy choices or improved knowledge. As stated in Healthy People 2030, "to eliminate health disparities and inequities sectors like education, transportation, and housing need to take action to improve the conditions in people's environments." As the gap in wealth, education, and ready access to information increases, health inequities are projected to increase further. A concerted effort to eliminate health disparity and inequity requires multiple pathways that include and gently elevate groups that have been excluded. Ample research shows that access to health care services, though important, is a minor contributor to health. However, well-informed, activated, and empowered individuals working together may be able to dismantle the major contributors to poor health status that are structural and institutional-level barriers.

As depicted in Figure 2 and stated in Healthy People 2030, "Social determinants of health are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks." These are grouped into five domains, such as safe housing, access to quality education, health care, knowledge, racism, and opportunity. For example, educational achievement greatly impacts future opportunities for college or jobs. Those receiving poorer quality education have lower probabilities of being accepted into a college or attaining a job that provides a livable wage (medical and dental insurance, sick time, etc.) and vice versa, thereby creating a hierarchy based on the education system. Living conditions, such as safe housing, create hierarchies because the level of comfort, safety, and peace in people's homes significantly affects their health. Poor living conditions can limit an individual's health potential in the short term as well as throughout their life.

**Figure 2.** Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>

## Social Determinants of Health



**Figure 3.** Illinois Oral Health Plan IV Framework.

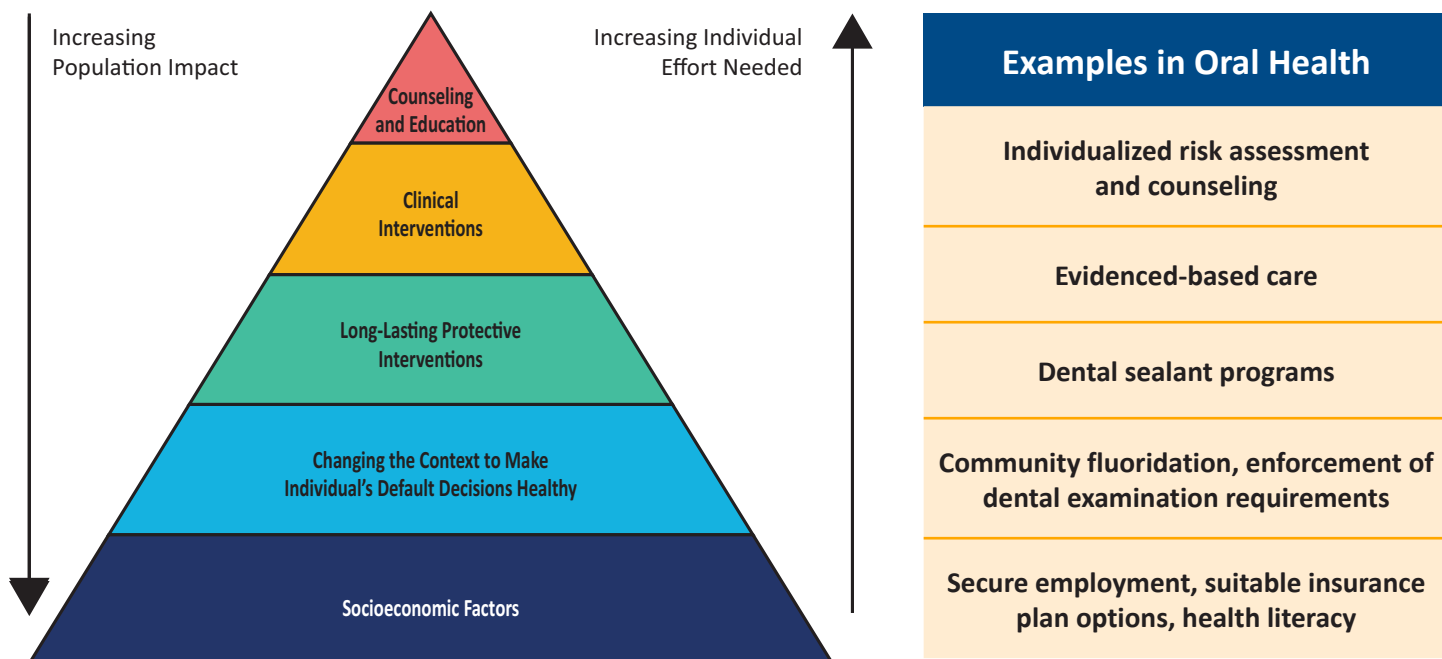


National frameworks, such as Healthy People 2030, the U.S. Department of Health and Human Services (HHS) Oral Health Strategic Framework 2014–2017, previous Illinois and local initiatives, form the basis of the IOHP IV. The interplay of these influences with the most critical element, stakeholder input, is depicted in Figure 3. Framing the IOHP IV on national commitments along with the adaption by stakeholders will yield a greater impact in addressing oral health concerns and inequities. As experienced by the previous three oral health plans, investment in this deliberate effort is returned through small and incremental changes that close gaps in the oral health safety net so that fewer people fall through.



**Figure 4. Frieden’s Health Impact Pyramid.** This pyramid highlights the need to focus public health activities that benefit populations for the long-term while balancing with the immediate and individualized need for clinical services and education.

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/>



Individual efforts are more effective when the base socioeconomic factors and decisional contexts are strengthened. Efficient use of resources in terms of people, effort, and materials empowers leaders to work on socioeconomic factors in Frieden’s Health Impact Pyramid (Figure 4). Population-based impacts proposed in IOHP IV start at the base of the pyramid with secured employment and improved health literacy. State and community level health systems impact mid-levels of the pyramid through the expansion of public health interventions, making the economical, easy choice simultaneously the healthier one (e.g., tap water vs. purchased bottled water, cost of dental sealant vs. cost of a dental filling). Working upwards to the apex of the Health Impact Pyramid policies must be in place to support early assessment, prevention, and interventions needed (e.g., timely, effective, clinical, individualized risk assessments, and anticipatory guidance) to gain and to maintain an individual’s health.

## Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health* (2021-2025)

Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health* informs, focuses, and energizes the public health system to address current challenges and opportunities. IOHP IV allows IDPH staff, key stakeholders, and vital partners guidance and direction to improve oral health in Illinois. The absence of planning runs the risk of perpetuating or even worsening oral health inequities and overall health among our residents. The aim for IOHP IV is for it to be used for state and local funding as well as resource allocation strategies to improve oral health status and decrease the disparate prevalence of oral diseases. Still framed by the Surgeon General's 2000 Call to Action, the IOHP IV highlights opportunities for oral health efforts to eliminate inequities in oral health among various population groups in Illinois while providing insight into addressing the social determinants of health that foster such inequities. A deliberate focus on the social determinants of health is part of IOHP IV. This nascent effort is aligned with Healthy People 2030, which also considers several measures that inform on the broader human experience that allow or disavow optimal health and oral health.

As previously stated, IOHP IV was informed and impacted by the many conversations with diverse stakeholders who reinforced the importance of addressing the social determinants of health. Health status has a bi-directional and complex relationship with many of the identified social determinants. When employment status is improved by adding insurance benefits, time off for health care visits, health is impacted and when health is improved, a person's employment status can stabilize and even advance. Thus, to improve oral and overall health, advocates need to work to decrease high school dropout rates, improve food security, expand associate degree programs, and establish career ladders, in addition to providing affordable, accessible treatment services for oral and other health care conditions. A strong YES was voiced about these ideas in many of the conversations concerning efforts around securing employment opportunities for Illinoisans. Another common theme in the community meetings was education and training. Education and training may not only help residents obtain well-paying jobs with usable benefits, but also may increase self-efficacy, self-reliance, and decision-making skills, thereby leading to better self-care and health. Several goals and strategies in the IOHP IV are directed to these concepts.





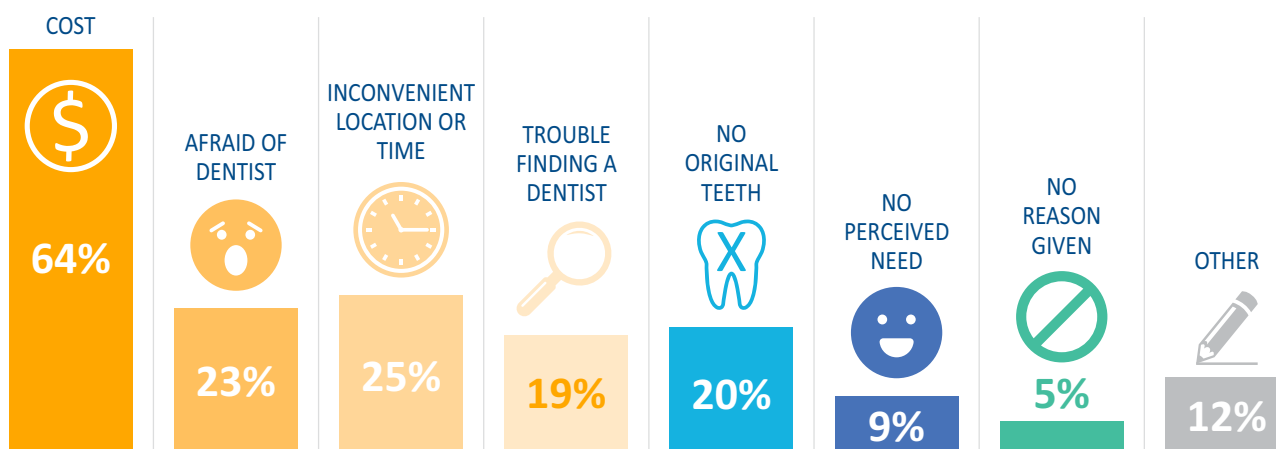
## Section I – Assessment

### Oral Health System, Infrastructure, Partners, and Oral Health Status

In 2015, the American Dental Association funded a survey to measure the knowledge, attitudes, and oral health status of people aged 18 years or older. Response options were 0 (poor oral health, frequent problems) to a score of 10 (excellent oral health, no problems). The average score was 7.9 for the nation, and interestingly Illinois adults reported a score of 8.6, the highest calculated of any state in the Oral Health Status, Knowledge, and Attitude Index. An easy and constant feedback loop about the health of one’s mouth is—am I able to smile, chew, talk, and express myself without discomfort or embarrassment? If yes, then my oral health must be excellent even though a professional assessment may indicate evidence of an asymptomatic disease process. The reported score of 8.6 is a great overall score. However, Figure 5 below illustrates that reasons for foregoing a professional assessment point to several systemic barriers. Sixty-four percent of adults who went at least 12 months without a dental visit reported that they did not go due to cost, which is closely linked to socioeconomic position: a social determinant of health outcome (more on this below).

**Figure 5. Reasons reported by Illinois adults without a dental visit in the last 12 months.** The Oral Health Care System: A State-By-State Analysis, American Dental Association, 2015.

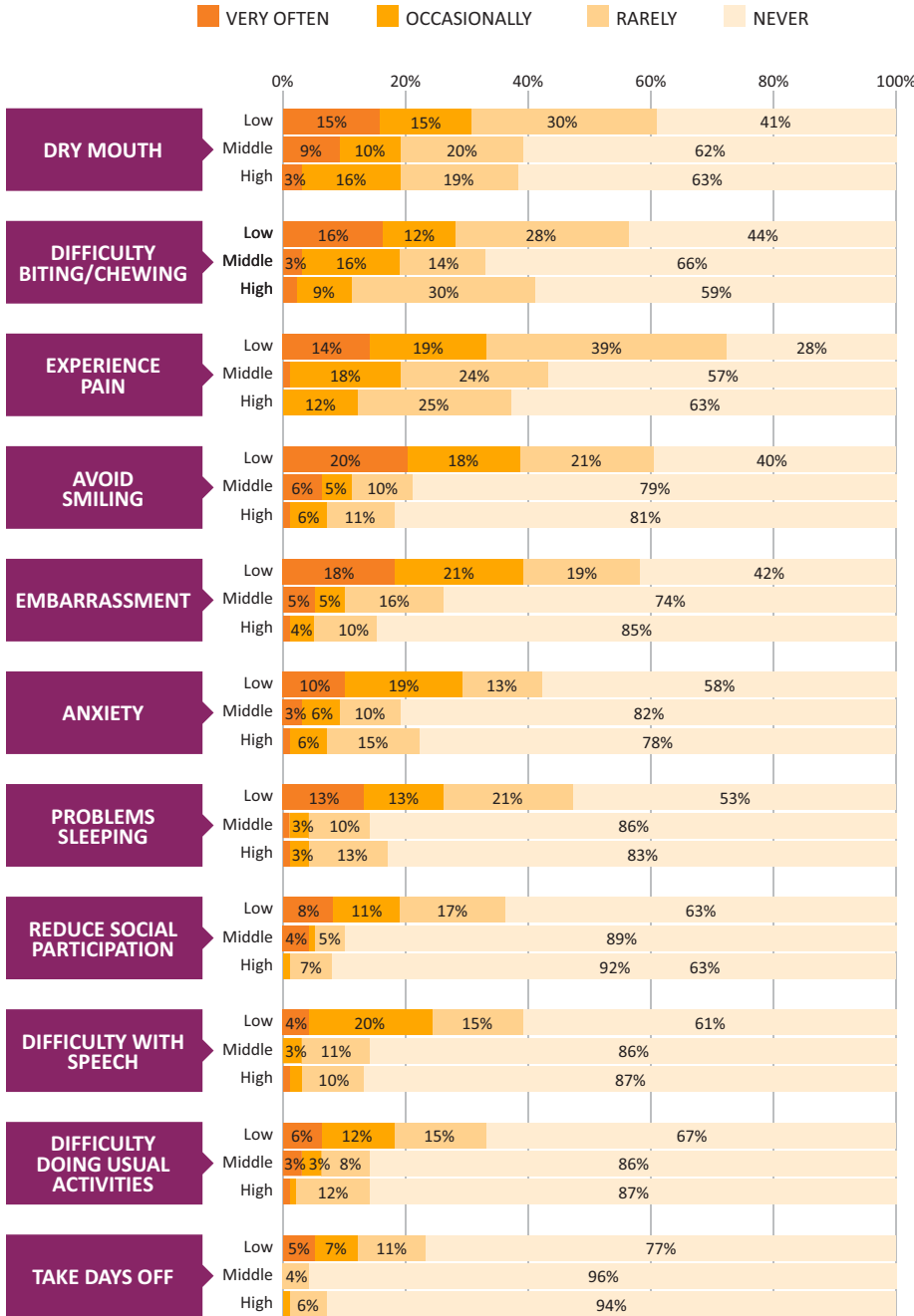
#### Reasons for Not Visiting the Dentist More Frequently Among Those Without a Visit in the Last 12 Months



As stated earlier, health status has a bi-directional and complex relationship with many of the identified social determinants. When employment status is improved, health is impacted and when health is improved, a person’s employment status can stabilize or be improved. Figure 6 below is a graphic of the percentage of reported oral-related problems among Illinoisans sorted by income level -- low, middle, or high. As observed below, most of the oral-related problems are more frequently reported among low-income Illinoisans when compared to those with middle- or high-incomes. There are many social, economic, and body health effects of poor oral health illustrated in the graphic. People with mouth problems, such as painful tooth/teeth, have difficulty with speech, eating, conducting normal daily activities such as caring for their family, or may have to take unpaid days off. All of these have social and economic impacts at the individual, family, community, and state levels.

**Figure 6. Problems due to condition of mouth as reported by Illinois adults, stratified by income.** The Oral Health Care System: A State-By-State Analysis, American Dental Association, 2015.

Problems Due to Condition of Mouth and Teeth, by Household Income



Low income adults are most likely to report having problems due to the condition of their mouth and teeth.



The top oral health problem for low income adults is **embarrassment**.



**38%** of low income adults avoid smiling due to the condition of their mouth and teeth.



**12%** of high income adults experience pain due to the condition of their mouth and teeth.



**10%** of middle income adults feel embarrassment due to the condition of their mouth and teeth.



**19%** of low income adults reduce participation in social activities due to the condition of their mouth and teeth.

Many of the oral health issues and barriers preventing the attainment of proper oral health care reported by Illinoisans are reflective of the social determinants of health that shape all health outcomes. The underlying theme depicted in Figures 5 and 6 is the concept of social determinants of health humanized to health, well-being, opportunity, and quality of life lived. The strength and energy on health issues by Illinois advocates are long-standing. Illinois has been making incremental progress in aligning the population’s health needs with programs and services that translate to timely, effective care, and positive health outcomes. Illinois is fortunate to have longstanding expert providers and advocates open to periodic infusion with new energy and ideas. There are many examples where collaborations between policy and providers translated to better health care in terms of services and outcomes. For IOHP IV, the state’s oral health system comprises many entities and institutions with a common interest to improve the oral health status of Illinois residents and to play a key role in oral health interventions.

The **IDPH Division of Oral Health (DOH)** establishes programs designed to assure that the people of Illinois have access to population-based interventions that prevent and reduce oral disease by promoting oral health as integral to health through organized community efforts. These oral health programs focus on community water fluoridation, dental sealants, early childhood caries, community needs assessment, craniofacial anomalies, oral cancer prevention, oral health surveillance, and oral health workforce initiatives to address shortage areas. These and a variety of educational programs are designed to meet the oral health needs of specific population groups. Assessment, policy development, and assurance are key public health functions of DOH programs. The goal of DOH is to drive interventions, develop partnerships, and support systems that translate to optimal oral health for all. Figure 7 is the framework for action used by the DOH to promote oral health.

**Figure 7. Ten Essential Public Health Services graphic used by the Division of Oral Health.** This figure maps oral health activities to promote, to prevent, and to mobilize collaborations that link people to timely and quality health care services.



## Key State Partners

**Illinois Primary Healthcare Association (IPHCA)** is the membership organization for federally qualified health centers (FQHCs), non-profits, and other allied entities working together to support and to elevate health care provided at community health centers.

Illinois community health centers reach into many communities across the state to provide affordable primary, mental health, and in many cases oral health services. The majority membership of the FQHCs board are center patients who can directly inform leadership on the needs and services of the community. In 2019, Illinois FQHCs provided services to more than 1.38 million patients.

**Illinois State Dental Society (ISDS)** and **Illinois Dental Hygienist Association (IDHA)** are made up of licensed oral health providers, clinical support, and dental students who work through direct service, communication, education, advocacy, and legislation to improve the health status of individuals and systems of care. Providers are members of committees, consistent advocates for oral health care support, and deliver services that bridge the gap to care for many low-income, uninsured, and Medicaid insured members.

**Illinois Chapter, American Academy of Pediatrics (ICAAP)** provides important information to pediatric providers on issues of oral health that impact children. Through training and advocacy, they teach medical providers how and when to conduct oral health assessments and offer counseling guidance on completing an oral health referral. The ICAAP program, Bright Smiles from Birth, teaches physicians and their staff to provide preventive oral health care – screening, anticipatory guidance, and fluoride varnish application – for children ages 0 to 3 and their families. Risk-based education and fluoride varnish treatments further promote pediatrician’s focus on integrating this 45- to 60-second procedure into their practices and strengthening their oral health messaging to families.

**Illinois Children’s Healthcare Foundation (ILCHF)** is the only private Illinois foundation that funds children’s health care statewide. ILCHF has focused on mental health, wellness, and oral health. It formally launched the Children’s Oral Health Initiative in 2007 and since the inception of ILCHF, has funded 184 oral health grants to 81 organizations in 79 Illinois counties totaling \$33 million. Its strategies include building and strengthening the safety net system capacity, increasing the number of oral health professionals to care for all children, and creating greater awareness of the role oral health plays on a child’s overall health. ILCHF with its partner foundations Delta Dental of Illinois Foundation (DDIL) and Michael Reese Health Trust have collaboratively supported a statewide oral health assessment, Oral Health in Illinois (2016). This report provided a comprehensive snapshot of the state of oral health across the lifespan of Illinoisans living in rural, suburban, and urban communities. ILCHF and DDIL also funded key oral health assessment activities of Illinois 3rd grade children.

**Delta Dental of Illinois Foundation’s** goal is to educate children and their caregivers as well as the dental community about the benefits of preventive care starting at an early age and continuing into adulthood. In 2020, Delta Dental funded 85 schools across the state with refillable water stations through a program called H2O On the Go. Easily available fluoridated water allows for a healthier beverage choice that can decrease the risk of tooth decay and being overweight while reducing plastic waste.

## Oral Health Coalitions

**IFLOSS Coalition** is a statewide organization with a mission to improve the oral health of all Illinois residents through advocacy and education. The coalition offers continuing education opportunities and resources developed for providers of oral health care and education. IFLOSS started in 1998 and was instrumental in all three of the previous oral health plans, conducted quarterly regional meetings, and provided a forum to share best practices. However, the IFLOSS Coalition efforts and activities have waned in the past few years. The oral health community needs a rejuvenation of a strong, statewide coalition - a coalition of activists that formally and regularly gather to advocate and focus community actions for change. Many of the gains Illinois has experienced in the past 20 years have been the result of concerted efforts using the statewide coalition model for change.

**Oral Health Forum (OHF)** was created in July 2008 to better understand and to create opportunities to improve oral health care for Chicagoans. Over the years, OHF has evolved into a forceful entity fueled by experiences gained through deep community interactions. OHF has developed expertise in conducting oral health education for school children of all ages, identifying and connecting children who need urgent oral care through person-focused case management, and a successful advocacy agenda that improves understanding of community oral health to Chicago, Cook County, and Illinois policy and program leaders.

## Professional Training Institutions in Illinois

The U.S. Bureau of Labor Statistics projects strong demand for oral health services as the population ages and research continues to link oral health to overall health. This projection was inhibited slightly due to the COVID-19 pandemic, which has caused a slowdown in the population seeking preventive and treatment services. However, the longer-term outlook for careers in direct oral health service remains strong. Illinois's training institutions are vital partners for serving residents in the timeliest and most geographically appropriate way to all oral health care services.

There are three dental schools and 12 dental hygiene programs in Illinois that provide education, training, and clinical experience for the dental workforce. These institutions are also affordable points of care sites for many Medicaid and uninsured persons. The dental schools are the **University of Illinois at Chicago College of Dentistry, Southern Illinois University School of Dental Medicine, and Midwestern University College of Dental Medicine**. The dental hygiene programs are located at **Carl Sandburg College, College of DuPage, College of Lake County, Illinois Central College, Malcolm X College, Lake Land College, Lewis and Clark Community College, Parkland College, Prairie State College, Rock Valley College, Southern Illinois University, and William Rainey Harper College**.

**Illinois Community Health Worker Association (ICHWA), University of Illinois Chicago Office of Community Engagement and Neighborhood Health Partnerships (UIC-OCEAN), and Southern Illinois University School of Medicine (SIU-SDM)** recognize that to achieve an integrated health care system that meets the needs of the public, it needs to have an active and on-going community voice. A community health worker is the perfect professional to play that role. As stated by the American Public Health Association, "A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.

A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support, and advocacy." ICHWA and UIC-OCEAN have been enthusiastic partners in IDPH's joint goals of oral health outreach, education, and navigating to health care services for disparate populations across Illinois.

## Preparedness and Response

The **Disaster Emergency Medicine Readiness Training Center (DMRT)** was established at the University of Illinois at Chicago College of Dentistry (UIC COD) in 2003 to help the state recruit, train, and retain volunteer medical responders, with a particular focus on enabling oral health professionals to have a defined role in disaster response and to participate fully as a medical volunteer on a local, state, or federal response team. The Illinois Dental Practice Act was amended and took effect in 2006 and defined the "Dental Emergency Responder (DER)," the nation's first of its kind legislation.

The DMRT Center uses the National Incident Management System and National Disaster Life Support Certificate programs as a baseline training certification standard for dentists. All major components for disaster/pandemic immunization delivery/humanitarian response and coroner training for dentists are fully integrated into the UIC COD DMD curriculum. As such, many more trained DERs will be available to support Illinois' first-responder infrastructure and to provide critical care during an emergency or disaster event.

DOH, oral health care professionals, and stakeholders will continue to play a critical role in meeting federal and state disaster response needs. As evidenced by the COVID-19 pandemic, preparedness plans need to account for crises and threats of all types, including physical, chemical, biological, and radiation hazards. DOH has a responsibility to develop a plan for maintaining operations to ensure the public’s oral health and relies heavily on emergency preparedness expertise within Illinois’ institutions, IDPH, and federal agencies. During the COVID-19 pandemic, collaborations between public health, provider communities, and academic institutions were instrumental in developing practice guidelines.

Throughout the COVID-19 pandemic, dental providers and staff contributed by donating personal protective equipment, providing urgent and routine oral and dental care consistent with state and national guidance for minimizing the risk of transmission of COVID-19, informing and providing care through telehealth visits, and volunteering as vaccinators.

## Illinois Population and Demographics

Illinois is a diverse state, often described as a microcosm of the nation. With a population of nearly 12.7 million, Illinois roughly mirrors the United States in racial and ethnic composition as of 2019 (U.S. Census Bureau), the state is comprised of 102 counties, 83 of which are considered rural, without a large city (Illinois Behavioral Risk Factor Surveillance System). The U.S. Census Bureau indicates that from 2014-2018, Illinois had a slightly higher median household income than the nation (\$63,575 vs. \$60,293), and a slightly higher poverty rate (11.5% vs. 10.5%). In 2018, 3.1 million Illinois residents were enrolled in the Medicaid program, including 1.4 million children (45% of Medicaid enrollees).

**Table 1. 2019 Illinois Population Estimates and Demographics.**

<b>Total Population: 12,671,821</b>	<b>Illinois</b>	<b>National</b>
Demographics (Percent)		
Age Group		
Persons under 5 years	5.9%	6.0%
Persons under 18 years	22.2%	22.3%
Person 18–64 years	55.8%	55.2%
Persons 65 years and over	16.1%	16.5%
Female persons	50.9%	50.8%
Race and Hispanic Origin		
White	76.8%	76.3%
Black or African American	14.6%	13.4%
American Indian or Alaska Native	0.6%	1.3%
Asian	5.9%	5.9%
Native Hawaiian and Other Pacific Islander	0.1%	0.2%
Two or More Races	2.1%	2.8%
Hispanic or Latino	17.5%	18.5%
White alone, not Hispanic or Latino	60.8%	60.1%

## Overall Oral Health Status

Data that describe the oral health status of the Illinois population and its access to care are limited. IDPH’s DOH is developing the Illinois Oral Health Surveillance System (IOHSS) using guidance documents from the Council on State and Territorial Epidemiologists (CSTE), Association of State and Territorial Dental Directors, and the U.S. Centers for Disease Control and Prevention (CDC). The goal of the surveillance system is to monitor state-specific, population-based oral disease burden and trends, measure changes in program capacity, and report community water fluoridation quality. This information is vital to assist organizations throughout the state to plan, to implement, and to evaluate appropriate interventions that will truly improve the oral health of Illinoisans. Until this project is fully implemented, the below table and subsequent recent data are provided and inform the IOHP IV.

**Table 2. Illinois oral health data compared to National Oral Health Surveillance System data with alignment where possible to Healthy People 2030 objectives.** This listing compares how the Illinois population is performing compared to U.S. national population on meeting these same oral health indicators.

Indicator	Illinois	National Measure N=states/US Territories		Relevant HP 2030 Objective
Percentage of Adults Who Have Visited a Dentist in the Last Year [BRFSS]	68.1% 2018	67.3% 2018	Median, n=53	-
Percentage of Adults Who Have Had Teeth Cleaned in the Last Year [BRFSS]	65.9% 2018	69.0% 2018	Median, n=53	-
Complete Tooth Loss Among Adults Age 65 or Older [BRFSS]	11.3% 2018	13.5% 2018	Median, n=53	Reduce the proportion of adults aged 45 years and over who have lost all their teeth [Oral Health-05].
Loss of 6 or more Teeth Among Adults Age 65 or Older [BRFSS]	Loss of 6+, But Not All 8.5% 2018	36.0% 2016	National percentage	Reduce the proportion of adults aged 45 years and over who have lost all their teeth [Oral Health-05].
Percent Served by Community Water Systems that Receive Fluoridated Water [CDC]	98.2% 2018	72.6% 2016	National percentage	Increase the proportion of people whose water systems have the recommended amount of fluoride [Oral Health-11].
Caries Experience Among Third Grade Students [HSHG]	41.6% 2018-2019	6- to 11- year-old Children 51% 2015-2016	National percentage	Reduce the proportion of children and adolescents with lifetime tooth decay [Oral Health-01].
Untreated Tooth Decay Among Third Grade Students [HSHG]	22.2% 2018-2019	6- to 11-year- old Children 15.3% 2015-2016	National percentage	Reduce the proportion of children and adolescents with active and untreated tooth decay [Oral Health-02].

Indicator	Illinois	National Measure N=states/US Territories		Relevant HP 2030 Objective
Dental Sealants Among Third Grade Students [HSHG]	53% 2018-2019	6- to 11 year-old children 42% 2011-2014	Median, n=43	Increase the proportion of children and adolescents who have dental sealants on 1 or more molars [Oral Health-10].
Cancer of the Oral Cavity and Pharynx Incidence [ISCR]	12.4 per 100,000 population 2017	12 per 100,000 population 2017	Age-adjusted incidence rate	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage [Oral Health-07].

**Table 3. Additional Illinois data aligned to relevant Healthy People 2030 Objectives.**

The aim is to use this additional statewide information defined by oral health indicators as well as other data on the oral health of Illinoisans to strategically guide DOH actions in IOHP IV to improve oral health status of Illinoisans.

Indicator	Illinois	Relevant HP2030 Objective
Medicaid-enrolled children covered by the federal Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) mandate who received any dental or oral health service.	50.1% 2018	Increase the proportion of low-income youth who have a preventive visit [Oral Health-09].
The percentage of adults (18 or older) that indicated having any kind of insurance coverage that pays for some or all routine dental care.	BRFSS	Increase the proportion of people with dental insurance [Access to Health Services-02].
Adults over the age of 18 years who reported a hospital emergency department visit for dental.	1.6% 2018 ILBRFSS	Reduce the proportion of people who can't get the dental care they need when they need it [Access to Health Services-05].
Proportion of adolescents who receive recommended doses of the human papillomavirus (HPV) vaccine	50.1% (13-15 YO)	Increase the proportion of adolescents who receive recommended doses of the HPV vaccine [Immunization and Infectious Diseases-08].
Incidence of cancer detected at earliest stage (in situ+ localized).	31.5% (2013-2017)	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage [Oral Health-07].

As shown above, Table 1 describes the diversity of Illinoisans across age groups, gender, and race/ethnicity, which matches the overall population demographics of the United States. Tables 2 and 3 show Illinois and the National Oral Health Surveillance System oral health indicators and, where possible, benchmarks these indicators to the Healthy People 2030 objectives. The table provides an overview at the state level on these important measures of oral health.

Equally important is deciphering data on prevention, access to, and use of services related to oral health to detect any present inequities structured by race/ethnicity, geography, and other social determinants of health. This next section of maps and charts attempts to highlight this critical information for consideration and strategic use throughout the IOHP IV and is particularly focused upon some of DOH's overarching goals and specific strategies.



## Pediatric Oral Health

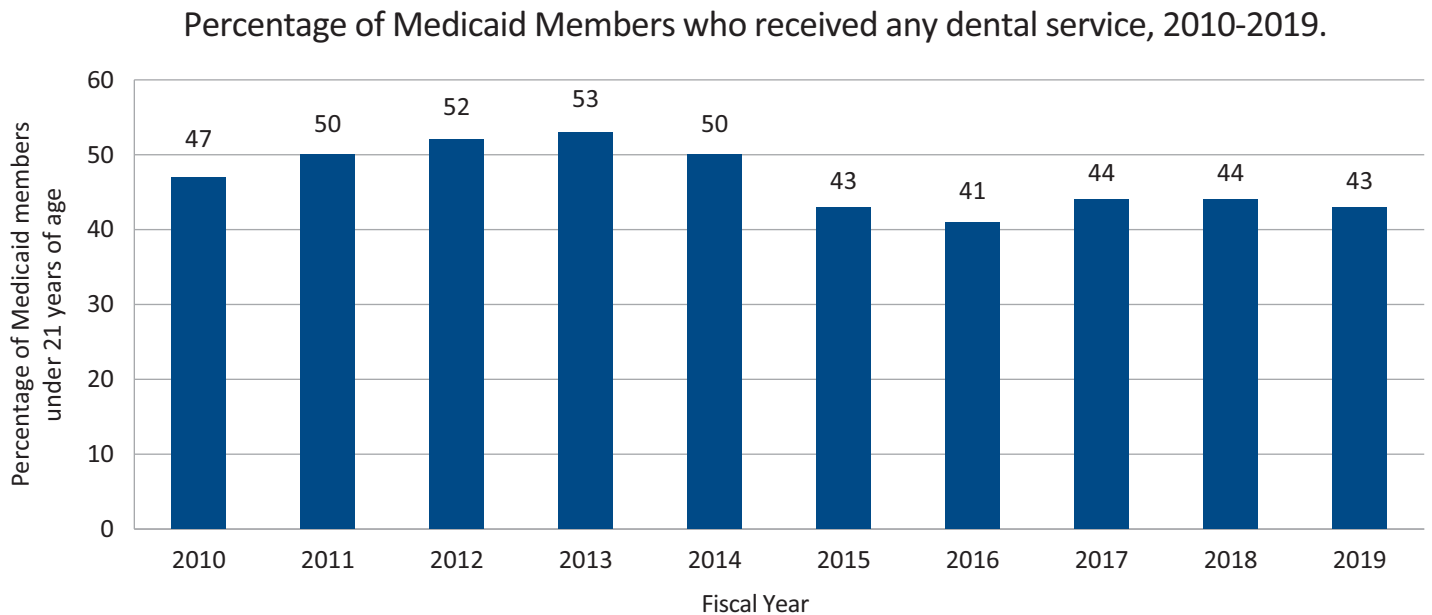
Health and well-being include all aspects and parts of the body, including the mouth. Good oral health supports life-long health and achievements in education, employment, and social relationships. Unfortunately, tooth decay or dental caries (cavities) and periodontal disease are bacterially mediated processes that infect many children, most adults, and the elderly. These two common diseases are preventable, but they remain highly prevalent. The best protection from dental caries is good oral hygiene, regular access to professional care, a healthy diet of low sugar food and beverages, mineral fluoride, and dental sealants.

**Table 4. Proportion of Medicaid members under the age of 21 who received a dental service by year from 2010 to 2019 (CMS 416).**

CMS-416	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Total CN (EPSDT + CHIP) eligible children for 90 days</b>	1,571,107	1,611,853	1,639,400	1,632,439	1,703,296	1,616,494	1,591,261	1,554,305	1,506,680	1,443,720
<b>12a. Any Dental Service</b>	47.10%	50.32%	51.86%	53.04%	49.70%	43.20%	41.09%	43.57%	43.46%	42.61%
<b>12b. Preventive Dental Service</b>	44.30%	46.98%	48.59%	50.03%	46.87%	40.23%	37.88%	40.32%	40.29%	39.85%
<b>12c. Dental Treatment Services</b>	17.85%	18.47%	19.50%	20.35%	18.68%	15.29%	14.61%	15.90%	15.42%	14.68%
<b>12d. Sealant on a Permanent Molar (ages 6-9 and 10-14)</b>	21.05%	23.54%	21.06%	19.78%	18.04%	18.51%	17.88%	18.90%	18.21%	18.21%
<b>12f. Oral Health Service by a Non-Dentist less than 6 years</b>	1.16%	2.08%	3.33%	4.24%	4.65%	5.14%	4.85%	7.07%	4.24%	4.62%

As shown in Table 4, an average of 43% of children under the age of 21 who were eligible for Medicaid in Illinois received any dental or oral health service in FY 2019. This low percentage may reflect the barriers to access to care (e.g., required out-of-pocket payments, transportation limitations, job time constraints) that many lower-income individuals’ encounter. Further, there was a substantial drop in the proportion of oral health services provided by a non-dentist for children under the age of 6 years since 2017. This decline signals a need to increase the knowledge and capacities of other medical personnel in the health care system to include basic oral health preventive measures, because less than 50% of Medicaid members use the current publicly funded system of oral health care.

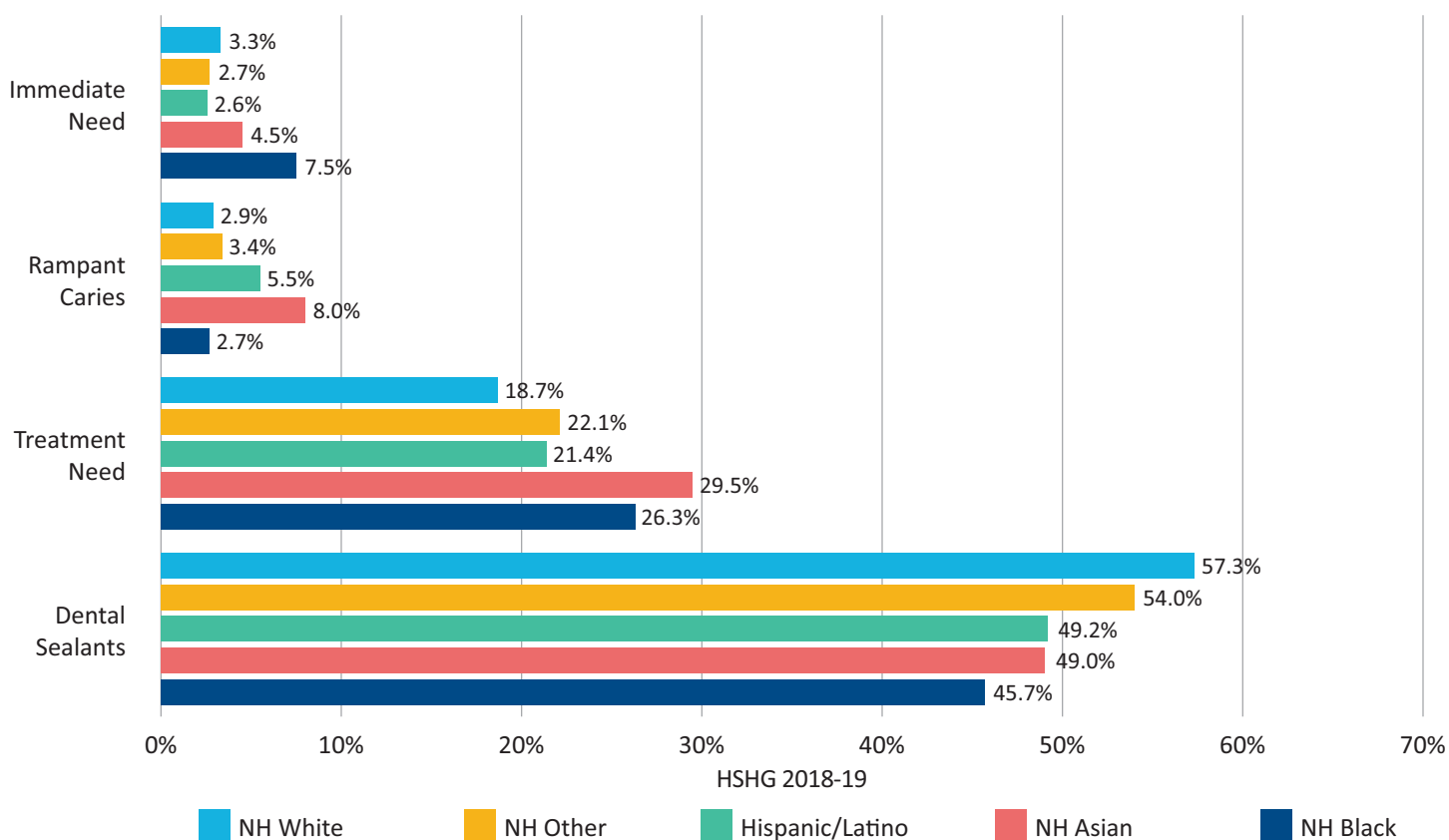
Figure 8. Percentage of Medicaid members under the age of 21 who received any dental services from 2010 – 2019 (HFS).



Across the past decade (2010-2019), the average percentage of Medicaid members under the age of 21 years receiving any dental or oral health service was 46.6%, with a peak of 53% in 2013 (Fig. 8). The number of children in this age group receiving any dental service has dropped from the peak of more than 10% since 2013. The decrease in services that began in 2014 may have resulted from the addition of large numbers of new members to Illinois’ Medicaid program (due to the ACA expansion) without increases in an additional service capacity. The decrease in the proportion of children receiving services continued into 2015 and 2016. Similarly, over this same period, there was a decline in the percentage of members under the age of 21 years who received preventative dental services, dental treatments, and sealants on permanent molars (Table 5). These low percentages may be indicative of the barriers to access to care (e.g., required out-of-pocket payments, transportation limitations, job time constraints) that many lower-income individual’s encounter.

Digging deeper into children’s health data we acquire a better understanding of the points that can be used for intervention. During the 2018-19 school year, DOH completed the Healthy Smiles Healthy Growth (HSHG) survey. This survey collects oral health and height/weight data from third-grade children across Illinois, demographic information, insurance status, and access to oral health care services. Survey teams followed the protocol of a Basic Screening Survey (BSS) from the Association of State and Territorial Dental Directors and beverage consumption over the past seven days was reported by the child’s parent or guardian through a parent survey. Almost 3,000 children from 95 public schools across Illinois participated in the survey. The use of this standard methodology allows for comparison between and among states and submission of these oral health status data into the National Oral Health Surveillance System. Fifty-three percent of Illinois third-grade children had at least one dental sealant present in a permanent molar. However, as seen in Figure 9 below, disparities exist: Non-Hispanic (NH) Black children have the lowest dental sealant rates (45.7%) followed by NH Asian children (49.0%). The overall untreated dental caries rate in 2018-19 remained unchanged from 2013-14 (22.2%) and is higher than national data reported (15.3%) for a similar age group. NH Asian children and NH Black children’s data showed significant disparities: NH Asian children had the highest rate of untreated dental caries (28.8%) followed by NH Black children (26.7%). An estimated 4% of Illinois third-grade children in 2018-19 required immediate dental treatment (due to the presence of pain, swelling, or infection) that would require prompt treatment by a dentist. Again, disparities exist, and with 7.5% of NH Black children carrying the highest-burden of immediate treatment need.

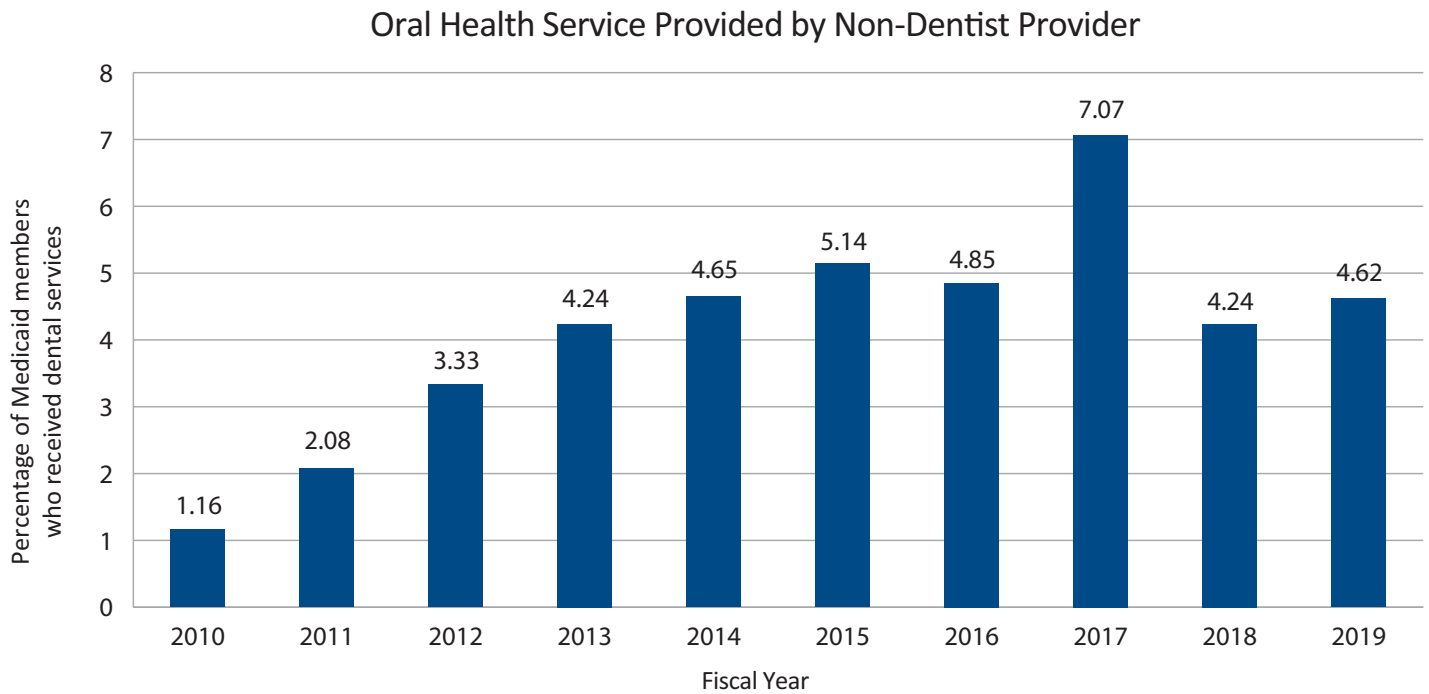
**Figure 9. Racial/Ethnic Inequities in Presence of Dental Sealants, Treatment Need, Rampant Caries (severity), and Immediacy of Need.** Compared with other racial and ethnic groups, NH Black and NH Asian children were less likely to have dental sealants and more likely to have active dental disease and immediacy in care needs.



HSHG focused on school-aged children in the third grade. The results highlight the disparity of oral health across races and ethnicity (Fig. 9). NH Asian and NH Black children were more likely to demonstrate the immediate need for oral care and NH Black children had the highest levels of rampant caries. Rampant caries describes the severity of dental disease and is coded when a child presents with seven or more teeth with untreated and or treated decay. Additionally, NH Asian, NH Black, and Hispanic/Latino children were the least likely to have the recommended dental sealants (Fig. 9).

As stated earlier, access limitations exist to prevention and dental care in the traditional care settings (dental offices). Thus, anticipatory guidance and prevention should be expanded to primary care and other settings. The Illinois Chapter, American Academy of Pediatrics, in partnership with multiple organizations, developed the Bright Smiles from Birth, an online education module. The training module provides information on children’s oral health to primary care providers and their staff. The Bright Smiles from Birth curriculum supports primary care providers in conducting oral health risk assessments and providing anticipatory guidance and the necessary tools to provide oral health education to parents and to caregivers. When indicated, the provider includes and bills Medicaid for the application of fluoride varnish into well-child visits with children up to age 3 years. This data is reported in Line 12f of Illinois’ CMS-416 (Table 5) and graphed in Figure 10 below.

**Figure 10. Percentage of Medicaid members less than 6 years of age who received oral health services provided by a non-dentist 2010-2019 (HFS).**

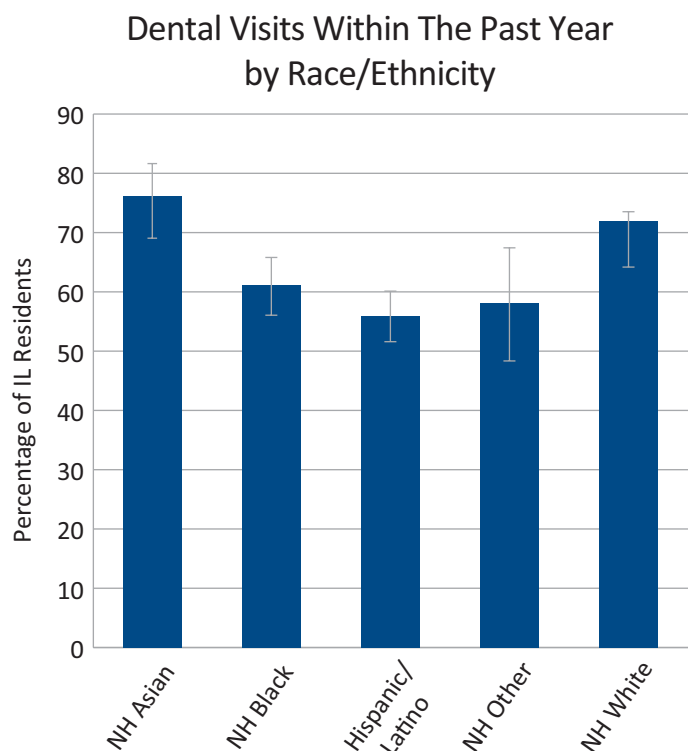


On average, only 4.1% of Medicaid members under the age of 6 years have had oral health services provided by a non-dentist from 2010 - 2019. The low percentage had climbed from 2010-2017 to 7% and experienced a substantial drop to 4.62% in 2019 (Fig. 10). This signals a need and an opportunity to take up this initiative again to increase the knowledge and capacities of other medical personnel in the health care system to provide guidance and basic oral health preventive measures. The need is especially imperative given that, on average, less than 50% of Medicaid members can use the current publicly-funded system of oral health care.

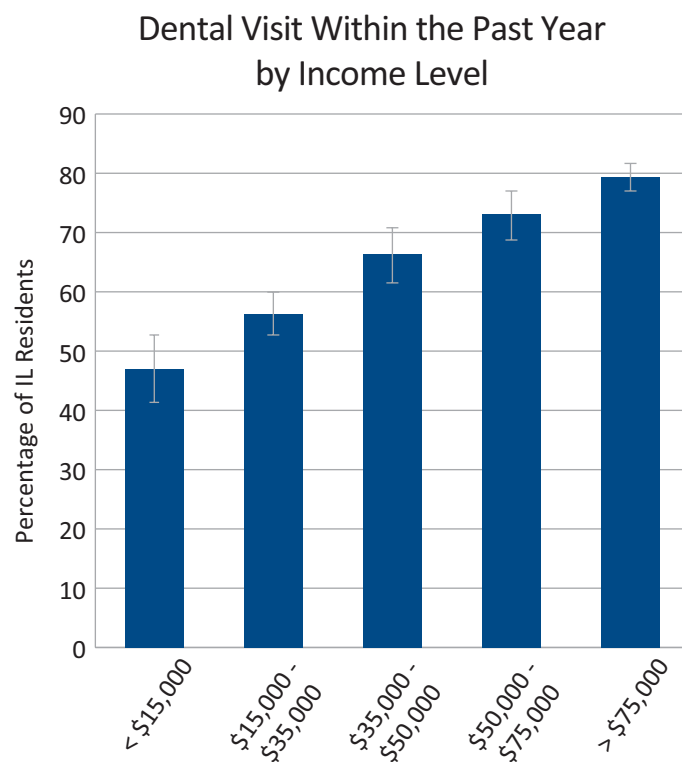
## Adult Oral Health

Good self-care, nutrition, attention to overall health and well-being, and periodic professional assessment are vital components for maintaining good health for all ages. Periodic professional assessments and guidance are important to detect disease early and, when needed, to receiving timely corrective treatment. In addition, these regular visits offer an opportunity to conduct important screenings for oral and pharyngeal cancers that, when detected at an early stage, can greatly lower morbidity and mortality. Other screenings that are beneficial to maintaining good oral health are those for elevated blood pressure, elevated blood sugar, HbA1C, and the impact of stress on the head/jaw complex. Data below are collected from the Behavioral Risk Factor Surveillance System (BRFSS), the nation’s premier system of health-related telephone surveys. BRFSS collects county-level data from residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive health and health treatment services.

**Figure 11. Estimated percentage of Illinois residents who had a dental visit within the past year stratified by race/ethnicity (BRFSS, 2018).**



**Figure 12. Estimated percentage of Illinois residents who had a dental visit within the past year stratified by income level (BRFSS, 2018).**



The most recent BRFSS (2018) emphasized disparities in race/ethnicity and income level. An estimated 68% of all adults in Illinois have had a dental visit within the past year. However, the range across races and ethnicity varies widely (Fig. 11). NH Asian and NH White populations had the highest percentage of adults reporting a dental visit within the past year, 76.1% and 71.9%, respectively. The percentages then fall more than 10% with 61.1% of NH Black adults and 56% of Hispanic/Latino adults reporting a dental visit within the past year. Further, only 58.2% of Other NH populations reported having had a dental visit in the past year.

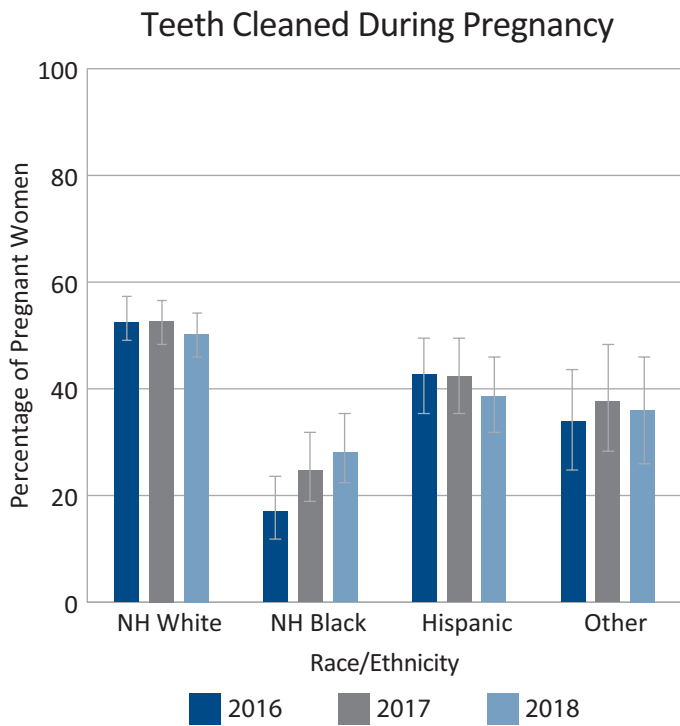
Additionally, the disparity across income levels is apparent (Fig. 12). There is a stepwise increase in the percentage of adults who report a dental visit within the past year and income level. Of adults with an income level of less than \$15,000, only 46.9% reported a dental visit within the past year. The percentage increases with each income level to 79.4% of adults with an income of greater than \$75,000 reporting a dental visit within the last year.

## Preventive Oral Health Care During Pregnancy

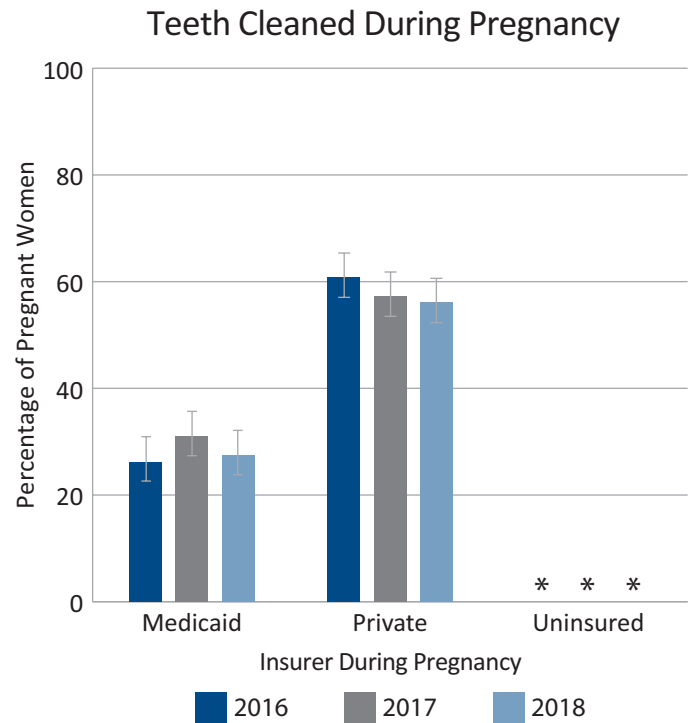
Having good oral health during pregnancy is critical for the health of the pregnant person and the baby. The American College of Obstetricians and Gynecologists (ACOG) published a Committee Opinion (August 2013, reaffirmed 2017) and describe that “[a]pproximately 40% of pregnant women have some form of periodontal disease. Periodontal disease during pregnancy is most prevalent among women who are African American, cigarette smokers, and users of public assistance programs.” Evidence shows gum disease during pregnancy increases the risk of low birth weight and premature birth. Pregnant individuals also can pass caries-causing bacteria to their infant during pregnancy, thereby affecting oral health during early childhood. Receiving oral health care and education during pregnancy is important both for the pregnant person’s health and for their children’s oral health. Most dental work (e.g., teeth cleaning, dental X-rays, filling of a decayed tooth) is safe during pregnancy, and regular teeth cleanings before and during pregnancy help protect against gum disease.

The Pregnancy Risk Assessment Monitoring System (PRAMS) collects site-specific, population-based data on maternal experiences and behaviors before, during, and shortly after pregnancy. Women are sampled for PRAMS between two and six months after having a live birth. The Illinois 2016-2018 PRAMS data show that during pregnancy, NH White women reported the highest rates of teeth cleaning during pregnancy with an average rate of 51.8% (Fig. 13). Women of Hispanic, NH Other, and NH Black reported lower rates of teeth cleaned during pregnancy at 41.2%, 35.8%, and 23.3% respectively. Additionally, as expected, insurance status impacted the report of having teeth cleaned during pregnancy. During this same period, 58.1% of privately insured and 28.2% of members of Medicaid reported having their teeth cleaned during their most recent pregnancy (Fig. 14). PRAMS data show opportunities to address disparities by reaching NH Black women and women insured by Medicaid with information and care coordination so that their oral health can be assessed, and dental caries and inflammatory conditions are treated prior to giving birth.

**Figure 13. The percentage of women who had their teeth cleaned by a dentist or dental hygienist during their most recent pregnancy stratified by race/ethnicity.** The error bars depict 95% confidence intervals. (PRAMS 2016-2018).



**Figure 14. The percentage of women who had their teeth cleaned by a dentist or dental hygienist during their most recent pregnancy stratified by insurer.** The error bars depict 95% confidence intervals. Due to low numbers, the percentage of uninsured women was suppressed. (PRAMS 2016-2018).



## Oral Cavity and Oropharyngeal Cancer

Oral and oropharyngeal cancers are most often seen in the tongue, tonsils, throat, floor of the mouth, lip, and soft tissues of the mouth. Oral cancers are much more common in men than women and increase with age. Oral cancer can interfere with or limit normal mouth function, impact the ability to breathe, and lead to mortality. Leading risk factors include the use of tobacco products, heavy alcohol use, exposure to human papillomavirus (HPV), ultraviolet light, and poor nutrition. The oral cavity is easy to examine. When detected early, treatment of oral cancer is likely to be successful.

Oral cancers are equally common in Black and White people; however, Black men die at a higher rate than their White counterparts. Much of the risk of mouth cancer is due to tobacco use (cigarettes, cigars, pipes, and smokeless tobacco) and drinking alcohol. Most people diagnosed with these cancers are age 60 years or older.

There has been an increase in cases of oropharyngeal cancer linked to HPV infection in both men and women. Since 2006, there is a safe and effective vaccine that protects against HPV infection. Boys and girls ages 9 to 26 should get immunized for HPV. The U.S. Food and Drug Administration has approved the HPV vaccine to be given to people up to age 45 years who have never been vaccinated. Most people diagnosed with HPV-related oropharyngeal cancers are around 40–50 years of age.

Table 5 shows HPV-associated cancer incidence of the oropharynx that allows intervening with specific populations: males and females living in small urban and rural communities and non-Hispanic Whites, who experience higher cancer incidence than Illinois overall. These data can be used to increase uptake of the HPV vaccine in those groups to reduce inequities in oropharyngeal cancer burden.

**Table 5. Incidence rates\* of HPV-associated oropharyngeal cancer in Illinois, by county groups, sex, and race/ethnicity.**

HPV-Associated Oropharyngeal Cancer Incidence Rates per 100,000* by ISCR County Groups, Illinois, 2013-2017						
	Male	Male	Male	Female	Female	Female
	Rate	Lower CI	Upper CI	Rate	Lower CI	Upper CI
Illinois	8.8	8.5	9.1	1.8	1.6	1.9
Urban	7.7	7.2	8.2	1.7	1.5	1.9
Suburban	8.1	7.5	8.7	1.5	1.2	1.7
Small Urban	10.3	9.6	11.2	2.1	1.8	2.5
Rural	10.6	9.9	11.4	2	1.6	2.3
HPV-Associated Oropharyngeal Cancer Incidence Rates per 100,000* by Racial Ethnic Groups, Illinois, 2013-2017						
Non-Hispanic White	10.1	9.7	10.5	2	1.8	2.1
Non-Hispanic-Black	8.1	7.2	9	1.6	1.3	2
Non-Hispanic Other	3.6	2.7	4.6	0.8	0.4	1.2
Hispanic (any race)	3.3	2.7	4.1	0.9	0.6	1.3
All races ethnicities	8.8	8.5	9.1	1.8	1.6	1.9

**Data Source:** Illinois State Cancer Registry, 2013–2017.

\* per 100,000 population, age-adjusted to the 2000 U.S. standard population. Lower confidence interval (LCI) and upper confidence interval (UCI) are 95% for rates.

## Individuals with Special Health Care Needs

Several daily routines and common home care practices to maintain good oral health can be more difficult for those with disabilities. Physical manipulation needed for good self-care can require extra help to achieve. Conditions such as limited mental capabilities, mobility problems, neuromuscular issues (e.g., rigid chewing muscles), uncontrolled body movements, cardiac disorders, gastroesophageal reflux, and visual impairments make it hard to maintain oral health daily among this population group. In some cases, these conditions can make recommended regular actions aimed at protecting and improving oral health quite arduous, such as brushing teeth or visiting the dentist for routine check-ups.

Common oral health problems encountered by individuals with special health care needs and disabilities include malocclusion, oral malformation, damaging oral habits, trauma, and injury. Added to these conditions is the difficulty in performing daily and effective tooth brushing and flossing. These challenges result in an increased prevalence of dental caries, periodontal issues, and difficulties with chewing and speaking.

DOH knows many organizations and providers are dedicated to meeting the oral health care needs of this population group. IDPH supports continued efforts to improve services and systems directed to persons with special health care needs and disabilities. IOHP IV goals include objectives and strategies for improved understanding and accessibility to oral health services for individuals with disabilities.

## Dental Caries Prevention

Even though oral health in the United States is much better today than it was decades ago, dental caries (tooth decay) remain one of the most common chronic diseases of childhood. The use of fluorides and placement of dental sealants are two effective methods to prevent dental caries. Most water contains some fluoride, but often not enough to prevent dental caries. Community water systems can assist in the fluoridation process by adding the right amount of fluoride to local drinking water to prevent tooth decay. Community water fluoridation is the most efficient and cost-effective way to deliver fluoride to everyone in a community, regardless of their age, income, or education. Drinking fluoridated water keeps teeth strong and reduces tooth decay by about 25% in children and adults. By preventing tooth decay, community water fluoridation has been shown to save money both for families and for the health care system.

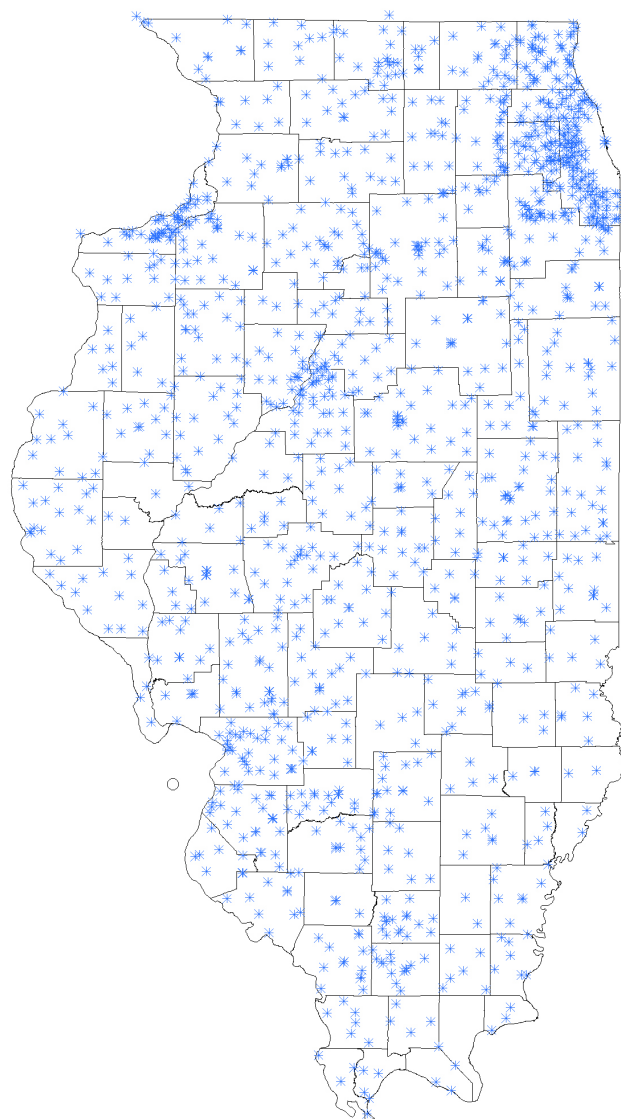




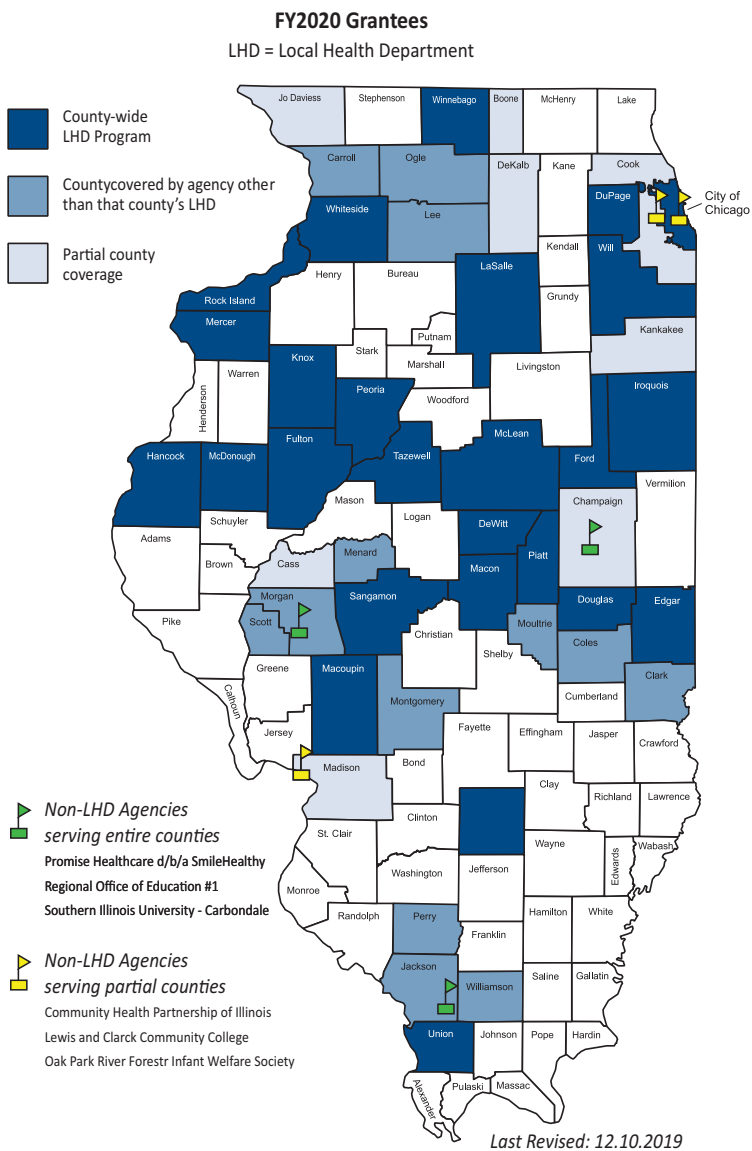
## Community Water Fluoridation

Illinois is one of only 13 states that have mandatory fluoridation laws. For more than 70 years, Illinois residents have enjoyed the oral health benefits from optimally fluoridated water. The Illinois Fluoridation Statute, enacted in 1967, requires the state’s nearly 1,800 community water systems to adjust fluoride to optimal levels. In June 2011, Gov. Pat Quinn signed Public Act 97-0043 into law, requiring the adjustment of fluoride levels in water systems to specific recommendations proposed by the DHHS. DOH works closely with the Illinois Environmental Protection Agency to monitor community water suppliers and to provide education and technical expertise for water supply operators to maintain optimal fluoride levels through community water fluoridation programs. In 2018, CDC reported that 63.4% of the U.S. population received fluoridated water. In that same year, 98.2% of Illinois’ 12.8 million residents receive fluoridated drinking water through community water systems depicted in Figure 15.

**Figure 15. Fluoridated Community Water Systems, 2009. This map of Illinois fluoridation water systems shows the widespread geographic availability of optimally fluoridated water across Illinois.**



**Figure 16. FY2020 Dental Sealant Grantees in Illinois. This map shows counties awarded a dental sealant grant for 2020. Differing shades of blue indicate how much of the county is covered by this dental sealant grant and through which entities the grant is provided.**



## Dental Sealants

Dental sealants are an important prevention tool against the development of dental caries, avoiding the need for more complex and costly treatment needs, such as dental fillings, crowns, and oral surgeries. Dental sealants function by sealing the deeply grooved chewing surfaces of molar teeth, preventing bacterial invasion and dental caries from starting. CDC reports that “sealants protect against 80% of cavities for two years and continue to protect against 50% of cavities up to four years.” Yet, for many reasons, not all children who should receive sealants do. Lack of access to this evidence-based intervention contributes to the nationwide and statewide oral health inequities observed in varied dental caries rates, early loss of teeth, and other health outcomes. These adverse oral health outcomes are mitigated by greater and equitable access to dental sealants.

To address these inequities linked to the absence of dental sealants, in 1986 the IDPH created the **Dental Sealant Grant Program (DSGP)**. This school-based/linked program provided by IDPH funding includes preventive oral health care, oral health education, and case management to dental homes. It has been the catalyst for expanding community-based oral health programs throughout the state and is an essential component to a continuum of oral health care focusing on children and their families who are at the most risk for dental disease. Since the program’s inception, the DSGP has provided services to more than 2 million Illinois children and supported the placement of more than 4 million dental sealants. The work of community practitioners, HFS’s School-based Program, and the DSGP have resulted in 53% of Illinois 3rd grade children having at least one dental sealant on a permanent molar (HSHG 2018-2019).

Figure 16 is a map of the FY2020 grantees, which are spread across the state. The 2018-2019 Healthy Smiles Healthy Growth survey of Illinois third grade children indicates sealant activity needs to increase at the southwest and southeast borders of southern Illinois and in non-Hispanic (NH) Black children and NH Asian children, who have the lowest dental sealant rates (45.7% and 49.0%, respectively).

## Oral Health Access: Workforce, Service Delivery Capacity, Shortage Areas

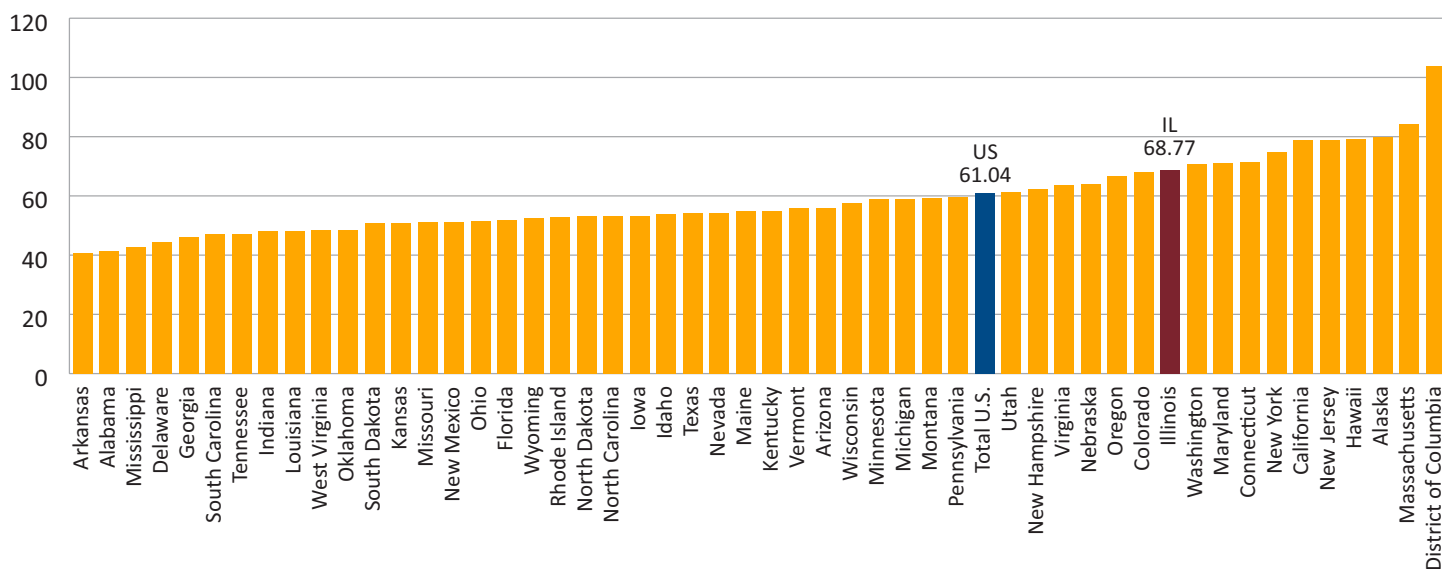
### Oral Health Workforce

The professional oral health workforce in Illinois is composed of approximately 8,800 dentists and 8,000 registered dental hygienists. There are three dental schools in Illinois, graduating on average 250 dentists per year.

As of this writing, approximately 100 dental hygienists have completed the additional training and requirements to obtaining the public health dental hygienist certification, which further expands access to prevention services. Licensed oral health providers in Illinois are supported by 12,500 dental assistants, some of whom hold certification in expanded function providing clinical services, such as dental sealants, supragingival scaling, coronal polishing, and other services. In many communities, the oral health delivery system operates outside of the traditional health care system, complicating and furthering access to care challenges. An expanded role of the community health worker in oral health can serve to bridge the clinical oral care needs of the population. The Figures and Tables below describe aspects of the clinical workforce, where data are available.

Many Illinois communities struggle with recruiting and retaining oral health and other types of health care providers, and this is especially difficult in rural areas of the state. By the numbers, Illinois is a bit above the national average for dentists per population (Figure 17), and, as expected, dentists are more apt to locate their offices in population centers that can support their practices. Thus, large parts of Illinois do not have a dental provider, let alone one that participates in Medicaid.

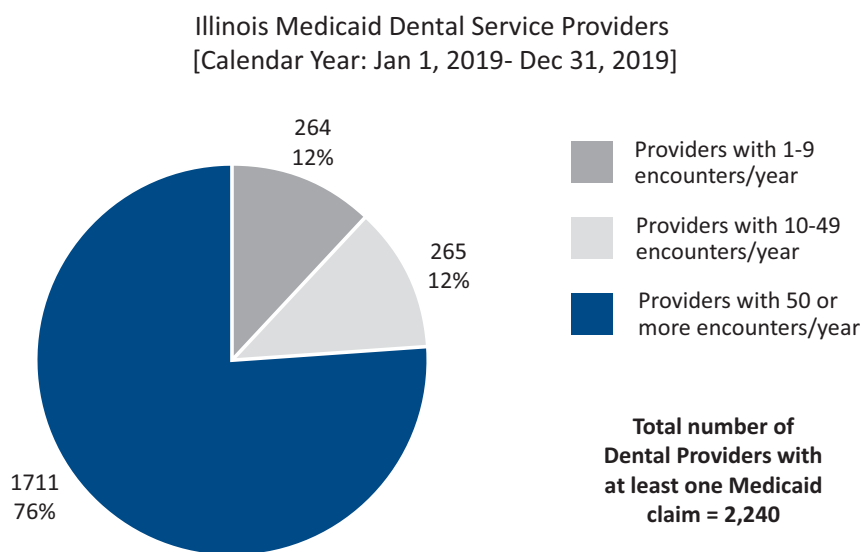
Figure 17. Number of dentists per 100,000 population by state, 2020.



Data Source: <https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists>

## Workforce Participation in Illinois' Medicaid Program

Figure 18. Total of Illinois' Medicaid enrolled dental providers and by numbers of encounters billed per year.



Data Source: Illinois Healthcare and Family Service, data request by IDPH.

Figure 18. Shows that of the approximately 8,800 Illinois licensed dentists, a total of 2,240 (25%) submitted at least one encounter claim for Medicaid reimbursable services. According to the American Dental Association, the national average for Medicaid participation by dentists is 43%.

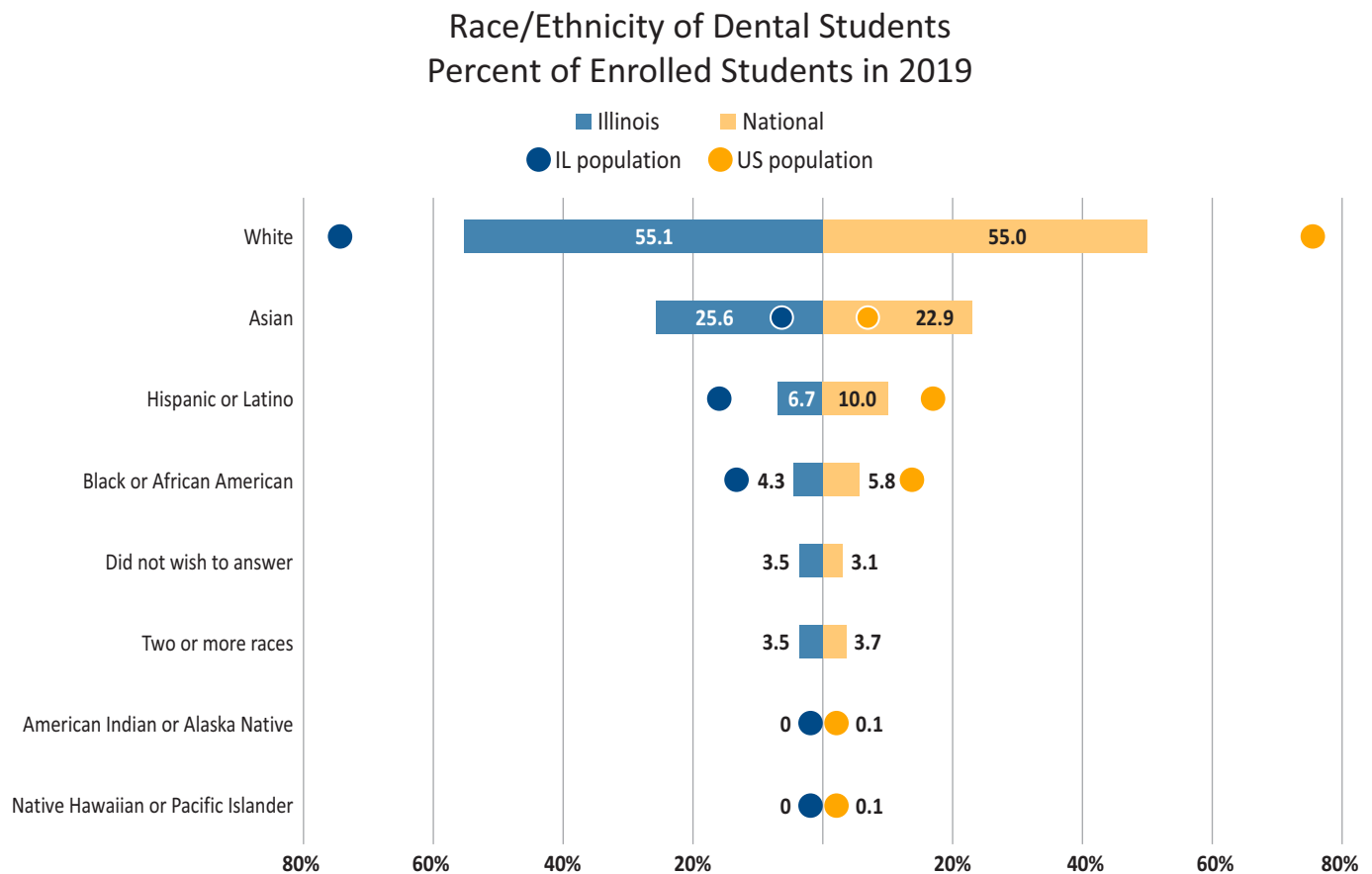
When the Medicaid participation rate is stratified by numbers of encounters, only 20% of dentists, provided 50 or more encounter claims in 2019. Calendar year utilization data from Illinois Healthcare and Family Services report that 22.9% of adults 21-64 years and 14.4% of persons 65 years and older received at least one dental service in 2019. The most recent comparable data from 2016 show that two of three privately insured children had a dental care visit, which is more than 10 percentage points higher than Medicaid enrolled child.

## Underrepresented Minorities

With a history of mistrusting the health care system among many minority populations, establishing a trusting, genuine relationship between a health care provider and a patient of a minority background has proven to be difficult. Experts know that by establishing a trusting relationship with their physicians, minorities are more likely to take an active, participatory role in obtaining and maintaining good health, leading to positive health outcomes. Health care providers can make the patient-provider relationship more equitable and establish more trusting relationships by culturally engaging with diverse groups. Research shows that African American health professionals are more likely to work with minority and medically underserved populations, which is much needed in Illinois. Consequently, several state institutions have heavily invested in providing support and resources to Illinois dental education institutions in their efforts to recruit more underrepresented minority (URM) students. The data below provides a look into URM recruitment efforts by Illinois dental schools.

Geographic settings, population demographics, and dental school accessibility vary across the nation. A comparison of Illinois and the national dental student body’s racial and ethnic compositions provides important insight into how the dentist workforce will change in the coming years. African American student enrollment trended upward in Illinois and nationally between 2017 and 2019, however, Black and Hispanic/Latino dental students remain underrepresented relative to their proportion in the population. Nationally and in Illinois, the dental student body has diversified with most of the diversity gains seen in the number of Asian providers who are now significantly over-represented.

**Figure 19. Graph of Percentage URM Illinois and national dentist predoctoral enrollment compared with Illinois and national population for 2019.**



**Data Source:** <https://www.adea.org/publications-and-data/data-analysis-and-research/applicants-enrollees-and-graduates.aspx>, <https://www.adea.org/data/students/Applicants-2019-Entering-Class/> and <https://www.census.gov/quickfacts/fact/table/US/PST045219>

Recruitment efforts by university and college administration are an integral part of increasing the racial and ethnic diversity of students in their academic programs. Key administrative directors who manage and assess annual recruitment efforts at these public education institutions were interviewed. Attempts to recruit URMs start at a young age, several of these institutions host explorative health care or dental-oriented day-long events, such as SIU's Healthcare Day with local high school students. Sometimes these events are collaborative with other local health organizations, such as UIC's Mini-Medical school program for fourth and fifth graders that they host annually in conjunction with Rush University.

In URM recruitment efforts, the administration focuses on the different avenues for getting into dental school via their diverse pipeline programs, students that have a history of volunteering and giving back to the community, and students who have done thorough homework about the profession. Throughout the recruitment process and application cycle, the administration understands many URM students must work part-time or full-time and are sometimes the first in their family to graduate from college and pursue a professional degree. Dental school admissions committees often utilize a holistic review process in which they review applicants' experiences, attributes, and academic metrics, as well as the value applicants could contribute to learning, practice, and teaching. An identified area of improvement in URM recruitment efforts at these institutions includes increasing the size of pipeline programs, such as the UIC College of Dentistry Urban Health Program (UIC COD-UHP) Post-Baccalaureate Admissions Program (PAP). Other challenges for some of these dental programs include their physical location and a lack of major scholarships they can offer their students.

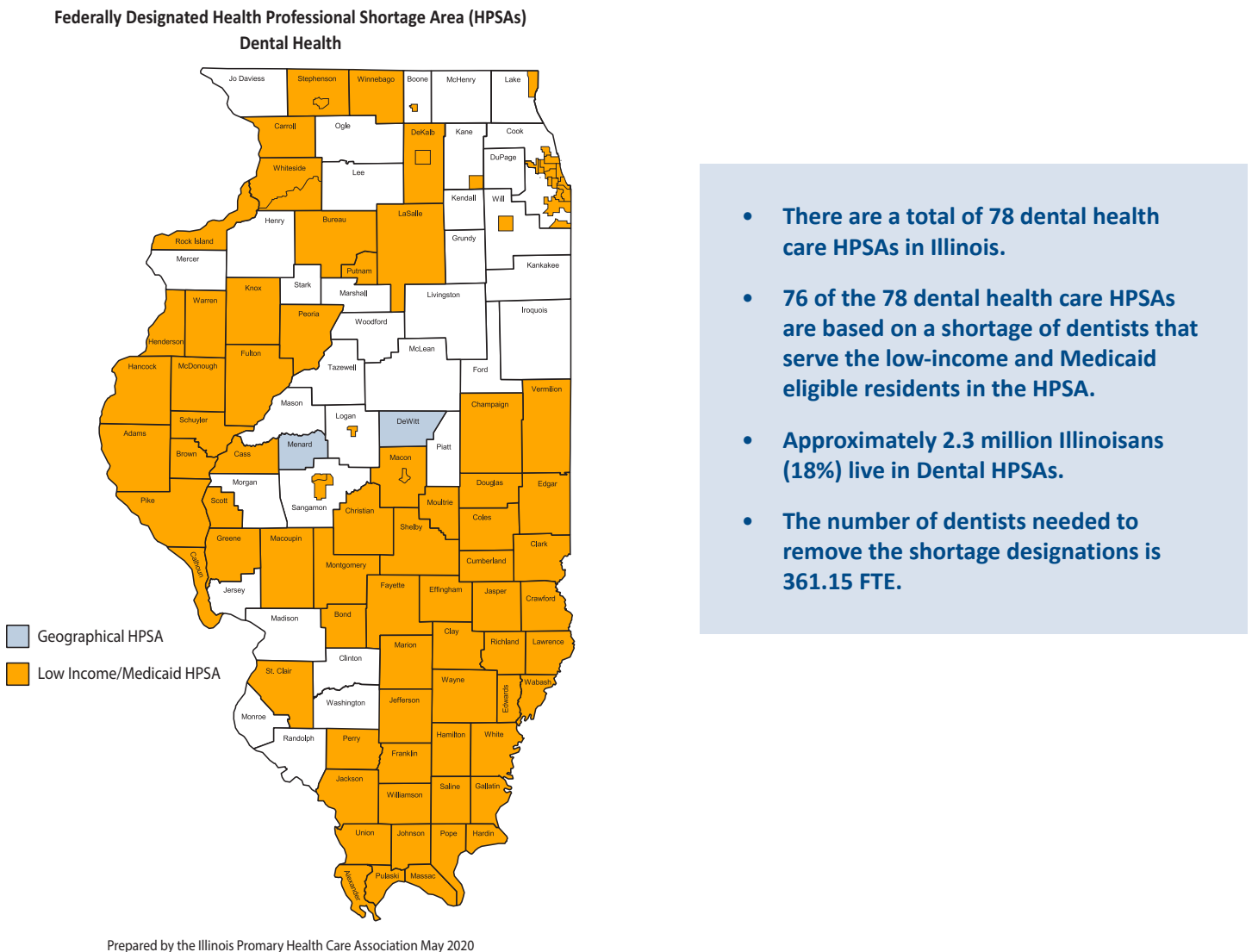
## Health Professional Shortage Areas and FQHCs

Health Professional Shortage Areas (HPSAs) are areas designated by the Health Resources and Services Administration's (HRSA) Bureau of Health Workforce (BHW) as lacking in health care services to meet the needs of the population. Dental HPSAs are specific to shortages in oral health services and signal the need for focusing resources on these areas. The three types of dental HPSAs are geographic, population, and facility.

The IDPH Office of Rural Health calculated that 75 of the 102 counties in Illinois have a federal HPSA designation and is depicted in Figure 11 below. According to the Kaiser Family Foundation, Illinois had a total of 214 dental HPSA-designated smaller areas in 2019, ranking it seventh in the nation for most HPSA designations. In total, the shortage areas are home to more than 2.2 million Illinoisans, meaning that approximately 18% of the state's population lives in dental HPSAs. To remove the HPSA designation across the state, at least 357 additional dentists would be needed to provide oral care services in shortage areas.

IDPH is working towards increasing the number of dental health professionals in these HPSAs by pursuing Illinois-specific funding for loan repayments for Illinois dental school graduates and graduates of dental hygiene training programs. Upon graduation, these individuals agree to either practice in a dental professional shortage area, a rural area, or to serve an underserved population (e.g., persons with special health care needs). Efforts on this initiative include pursuing expanded geographic capacity for oral health care through additional FQHCs or other public facility sites of care in rural settings. Illinois academic institutions have been actively working to recruit and support URM clinicians and those from HPSA communities. Illinois graduate degree programs in dentistry and dental hygiene are important partners in the effort to alleviate HPSAs across Illinois.

Figure 20. Illinois Map of Federally Designated Health Professional Shortage Areas, 2018.



**Table 6. Illinois Health Center Data of dental services provided to numbers of patients by calendar year 2017 - 2019.**

Illinois Health Center Data - Services and Workforce			
Services (% of patients)	2017	2018	2019
% Dental Patients	13.67%	13.46%	13.32%
Dental Patients	180,931	182,864	184,685
Staff Dentists	unavailable	unavailable	189
Staff Dental Hygienists	unavailable	unavailable	40
Dental Sealants for Children 6-9 Years	47.72%	58.54%	57.74%
<b>Total Patients</b>	<b>1,323,604</b>	<b>1,358,862</b>	<b>1,386,780</b>
Total Number of Reporting Program Awardees: 45			
<a href="https://data.hrsa.gov/tools/data-reporting/program-data/state/IL">https://data.hrsa.gov/tools/data-reporting/program-data/state/IL</a>			

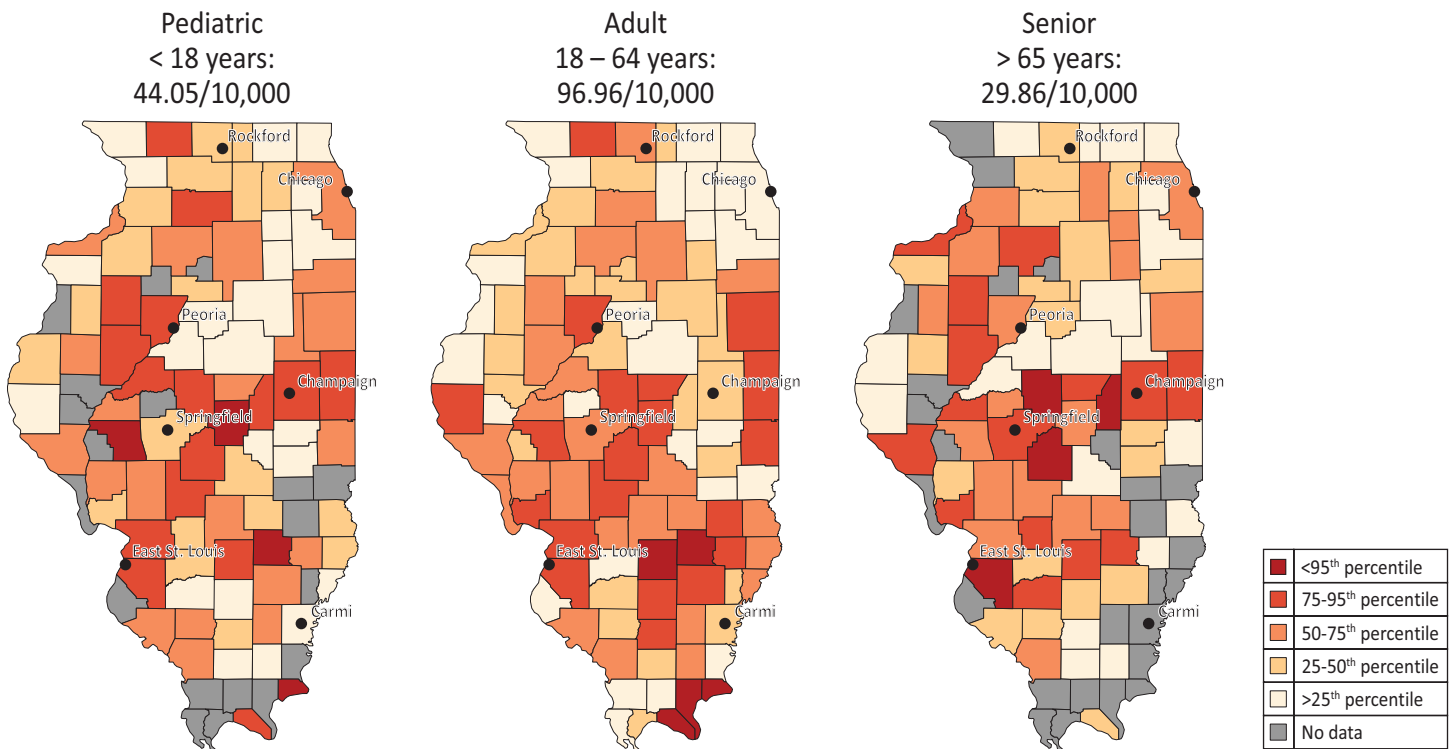
**Table 6.** shows the standardized data collection of health services and workforce reported in the annual Uniform Data System (UDS) by Illinois’ 45 HRSA Health Center Program or FQHC awardees. The subset of data shows a slight increase in the numbers of patients who received dental care at Illinois community health centers and serves to track trends in the numbers of providers (dentists and dental hygienists) who work in the community health center setting. The UDS data for Illinois show that in 2018 and 2019 over half of children 6-to-9-years of age received at least one dental sealant.

## Emergency Department Use for Dental Issues

An increase in the numbers of patients seeking care for urgent dental issues in hospital emergency department (ED) indicates that these patients have limited resources and other barriers to obtaining routine dental in their communities. Reported reasons for adults who stated that they do not intend to visit the dentist in the next 12 months were cost, not needing dental care, not being able to easily travel to a dentist, lack of time to get to a dentist, and anxiety over visiting the dentist. While some severe oral injuries or conditions can necessitate a visit to an ED, many dental-related emergency visits in Illinois and across the nation are potentially avoidable and are costly to the health care system. Dental care in the ED generally costs about 10 times as much as care provided in a dentist’s office and usually does not solve the cause of the problem. The economic health care burden of preventable dental-related ED visits is significant in Illinois.

Figure 21 shows the three-year average rate of Non-Traumatic Dental Conditions (NTDC) Emergency Department visits, expressed as an area-level rate and expressed per 10,000 population. From 2016-2018, the overall average rate of NTDC ED visits was 74.93 per 10,000 per capita. Seniors (> 65 years) had the lowest rate of NTDC ED visits across 2016-2018 with 29.86 per 10,000 per capita. Pediatric patients (< 18 years) had a higher rate of 44.05 per 10,000 per capita, and adults (18-64 years) had the highest rate of NTDC ED visits at 96.96 per 10,000 per capita. As shown, more southern Illinois counties appear to have higher NTDC emergency department visits among their populations than northern Illinois counties. This may be in part due to the limited health care access care points observed in rural areas, which are more prevalent in southern Illinois.

Figure 21. Illinois county maps depicting the rate (per 10,000) of ED visits for NTDC for pediatric, adult, and senior patients. The statewide rates for each population are listed at the top. Increasingly dark colors of each county depict increasingly higher rates of NTDC ED visits.



**Data Source:** Illinois Department of Public Health Hospital Discharge Data, 2016 – 2018.

Dental care costs and lack of dental insurance coverage are important factors in these dental-related emergency department visits. As stated earlier, approximately 4 of 5 dentists across Illinois do not accept Medicaid as a form of payment for services and the few who do, usually have long waiting lists. As a result, Medicaid and uninsured patients sometimes utilize an ED to address their oral health problems to ease their pain and suffering. Those seeking dental services from the ED need a more appropriate treatment that truly addressed the reason the individual accessed the health system. Timely and more appropriate care followed by access to routine and preventative care would prevent these costly emergency visits, which also result in the loss of capacity for treating truly emergent health care needs. A progressive action that several hospital/non-profit entities have taken on this is the facilitation of coordination between local hospitals and clinics to reduce ED visits for oral/dental health issues. Hospitals are encouraged to permanently place referrals at clinics to clear their EDs of repeat visitors for dental health problems.



## Section II (Challenge → Opportunity)

### Goals, Objectives, and Strategies of IOHP IV

The following pages represent five overarching Challenges and Goals IOHP IV seeks to address. Detailed Objectives and Strategies are listed here for stakeholders to implement in communities and their sphere of influence.

**Challenge:** Social and economic factors contribute to lifestyle and to behaviors that increase health disparities and inequities.

**Goal 1:** Improve oral health status and self-care practices by addressing social determinants of health and promoting population-based health interventions.

Objective	Strategy
<p>1.A. Increase the number of Illinoisans with comprehensive medical and dental insurance.</p>	<p>1.A.1. Contribute to community-wide efforts to increase stable employment with health care insurance.</p> <p>1.A.2. Educate employers to identify procedures that offer definitive value to their employees when purchasing dental insurance.</p> <p>1.A.3. Support efforts to expand the availability of dental insurance products with affordable co-pays to currently uninsured persons, such as older adults.</p> <p>1.A.4. Communicate the why, where, and how on purchasing dental insurance in public spaces and online.</p> <p>1.A.5. Establish a workgroup to work with industry organizations, such as Illinois Insurance Association, Independent Insurance Agents of Illinois, and others, to understand perspectives on how to best provide dental benefits and to educate Illinois residents on enrolling.</p> <p>1.A.6. Support efforts that expand dental insurance and coverage opportunities for Medicare-enrolled individuals.</p>
<p>1.B. Increase understanding of how and when to obtain appropriate and timely professional oral health care.</p>	<p>1.B.1. Increase the public’s understanding of the importance of self-care and routine oral health assessment.</p> <p>1.B.2. Continue to provide the basics of proper brushing techniques taught in many different avenues to new parents by chairside, schools printed materials, and from public and private insurance plans.</p> <p>1.B.3. Promote the importance of parents/guardians providing oral hygiene for children or those with special needs who don’t have the dexterity to effectively brush/floss.</p> <p>1.B.4. Provide plain-language information on the importance of regular professional oral health services in multiple formats and languages.</p> <p>1.B.5. Increase communication on how to use dental insurance plans that support good oral health status.</p> <p>1.B.6. Increase understanding of where to access oral health care in the community, including for Medicaid members.</p> <p>1.B.7. Promote access to affordable oral health care through services provided at Illinois dental schools and dental hygiene schools.</p> <p>1.B.8. Encourage the creation of individual/family oral health care plans.</p> <p>1.B.9. Increase access points, such as through dental residency programs within academic and hospital systems, to address the needs of adults and children who remain uninsured and under-insured.</p>

Objective	Strategy
<p>1.C. Address common risk factors for disease (e.g., nutrition, tobacco use) by sharing messaging with the diverse population of Illinois that good oral health is essential to good overall health.</p>	<p>1.C.1. Communicate that maintaining healthy baby teeth and adult teeth are ideal for overall oral and body health.</p> <p>1.C.2. Support campaigns, such as Age One dental visit, 2X2, etc., through social media, print materials, PSAs, etc.</p> <p>1.C.3. Educate the public on the impact of oral health disease on daily life activities to reduce inequities.</p> <p>1.C.4. Provide cross-disciplinary health promotion information to the public about the impact of poor oral health on other health conditions, such as pregnancy, diabetes, HIV/AIDS, heart disease, and mental/behavioral health challenges.</p> <p>1.C.5. Educate immigrant, racially diverse, low-income, and other underserved populations on adopting best practices to obtain and to maintain good oral health and its importance in overall health.</p> <p>1.C.6. Establish and strengthen oral health connections and partnerships with LGBTQ community members, persons with disabilities, and other groups whose unique needs may not be adequately addressed.</p> <p>1.C.7. Strengthen oral health connections with medical and behavioral health colleagues for increased collaboration.</p> <p>1.C.8. Seek qualitative data from population sub-groups to address disparities and inequities in meeting oral health needs.</p> <p>1.C.9. Develop and disseminate messaging to address innate fears by promoting preventive care to avoid more invasive care.</p> <p>1.C.10. Work with insurance professionals and share social media marketing strategies on the importance of oral health and decreasing high-risk behaviors.</p> <p>1.C.11. Commit to using motivational interviewing with high-risk patients in conjunction with actionable steps towards behavior change that yield improved oral health.</p>
<p>1.D. Decrease high-risk behaviors that contribute to oral health inequities, such as tobacco and e-cigarette/vaping use in adolescents and consumption of sugar-sweetened beverages.</p>	<p>1.D.1. Work with insurance professionals and others to distribute educational materials from trusted sources, such as CDC and the National Institutes of Health (NIH) for the public that address relevant high-risk behaviors (e.g., sugar-sweetened beverages, e-cigarettes/vaping).</p> <p>1.D.2. Promote policy measures to address sugar-sweetened beverages and their negative impact on oral and overall health.</p> <p>1.D.3. Promote updating oral health history forms to include questions about high-risk behaviors (such as e-cigarette/vaping use) and flag for referral or intervention.</p> <p>1.D.4. Increase peer-to-peer outreach to high schools to address the topic of vaping.</p> <p>1.D.5. Increase and expand oral health provider referrals to the Illinois Tobacco Quitline.</p>

Objective	Strategy
<p>1.E. Increase protective behaviors that improve oral health equity, such as HPV vaccination, fluoride, and healthy weight.</p>	<p>1.E.1. Distribute educational materials from trusted sources, such as CDC and NIH, to increase protective behaviors, such as uptake of HPV vaccinations.</p> <p>1.E.2. Actively promote throat cancer prevention by supporting HPV vaccine and coordination of care with primary care and oral health providers.</p> <p>1.E.3. Improve public’s knowledge and action to choose healthy foods, beverages, and to engage in physical activity to achieve and to maintain a healthy weight.</p> <p>1.E.4. Improve knowledge of oral health providers to communicate the importance of, how, when, and where to obtain HPV vaccination.</p> <p>1.E.5. Increase public messaging to all ages on the importance of drinking tap water from optimally fluoridated water systems.</p> <p>1.E.6. Strategically provide technical assistance to identified water operators that expand access to optimally fluoridated water.</p> <p>1.E.7. Increase acceptance of prevention intervention by pregnant individuals/parents/ caregivers to risk-based use of fluoride varnish during pregnancy and early childhood to age 6 years.</p>

**Challenge:** 75 of 102 Illinois counties have federally designated Dental Health Professional Shortage Areas.

**Goal 2:** Align infrastructure and workforce to promote timely and equitable access to oral health care.

Objective	Strategy
<p>2.A. Drive workforce development and intervention models designed to improve oral health outcomes for all Illinoisans with a focus on Medicaid members and uninsured persons.</p>	<p>2.A.1. Improve understanding of current oral health workforce and needs at state and local levels.</p> <p>2.A.2. Increase the number of Illinois Medicaid enrolled providers who provide services to more than 50 children and 50 adults annually.</p> <p>2.A.3. Expand teledentistry use and reimbursement to facilitate timely and appropriate care.</p> <p>2.A.4. Expand knowledge of clinical services that can be performed by providers, such as PHDH, CDHC, DA, or EFDA, to increase overall clinical capacity.</p> <p>2.A.5. Expand the use of Community Health Workers and case managers to facilitate oral health preventive care and treatment.</p> <p>2.A.6. Expand oral health professionals’ understanding of population health issues (e.g., race-cultural issues, health disparities, and inequities, working with vulnerable populations).</p> <p>2.A.7. Through relevant continuing education, strengthen the ability of the oral health workforce to meet the needs of diverse populations, such as those with dental fear, children under age 3, pregnant people, older individuals, persons with behavioral health concerns, persons with chronic diseases, and persons with disabilities.</p> <p>2.A.8. Support oral health providers with increased professional training opportunities (e.g., behavioral/mental health issues, evidenced-based approaches in acute pain control, antibiotic use, trauma-informed care principles).</p> <p>2.A.9. Support academic institutions to engage students of all ages, diverse geographies, and underrepresented minorities in oral workforce development.</p> <p>2.A.10. Expand oral health practitioners’ role in engaging youth into careers in oral health that addresses workforce needs and provides stable employment opportunities.</p>

Objective	Strategy
<p>2.B. Increase clinical service capacity in dental health professional shortage areas through recruitment and incentivizing workforce to provide care in these geographies and populations.</p>	<p>2.B.1. Continue to maximize the number of dentists and dental hygienists who receive support through the National Health Service Corps Loan Repayment Program.</p> <p>2.B.2. Increase the number of dentists who receive support through the Illinois Loan Repayment Program.</p> <p>2.B.3. Contact surrounding states (WI, IN, KY, MO, and IA) to research how/what attracts/retains providers to rural areas and pilot trials for viability.</p> <p>2.B.4. Increase the number of dental providers who actively work at an FQHC, local health department (LHD), or free clinic setting.</p> <p>2.B.5. Empower under-resourced community members to collaborate with their local health centers to add in-house dental services.</p> <p>2.B.6. Collaborate with hospital systems to increase dental residency programs to increase health care capacity in shortage areas.</p> <p>2.B.7. Innovate to increase the number of oral surgeons, pediatric dentists, and other specialists who actively care for Medicaid members and uninsured persons by providing enhanced compensation.</p> <p>2.B.8. Create a system to encourage dentists to dedicate consistent time to providing care in rural areas and other under-resourced communities regularly (e.g., 1-2 times monthly or weekly).</p> <p>2.B.9. Expand training for dental assistants to address workforce shortages experienced by FQHCs, LHDs, and private offices</p>

Objective	Strategy
<p>2.C. Improve the Illinois Medicaid dental benefit to meet the health care needs of its members, with a focus on family as a unit.</p>	<p>2.C.1. Work with Medicaid leaders to develop an annual report of who, where, and what oral health services were provided to Medicaid members, including an understanding of gaps in the Medicaid provider network.</p> <p>2.C.2. Work with managed care organizations (MCOs), state agencies, and partners to design an oral health benefit plan focused on health and disease prevention.</p> <p>2.C.3. Work closely with Medicaid MCOs to establish a clear care coordination process when follow-up treatment care is needed: D9992 (dental care-coordination) and D9997 (dental case management for patients with special health care needs).</p> <p>2.C.4. Increase the promotion of children enrolled in Medicaid who have all identified oral health disease treatment needs to be addressed.</p> <p>2.C.5. Provide each Medicaid family or member a suggested primary (and secondary) Medicaid enrolled dental provider.</p> <p>2.C.6. Require each MCO to maintain current lists of providers and remove the names of providers who no longer participate in a program within three months of discontinuation.</p> <p>2.C.7. Improve the ability for users to conveniently search for participating providers.</p> <p>2.C.8. Improve the ability for users to conveniently search for participating specialists.</p> <p>2.C.9. Assist providers and connectors of health care in fully understanding Medicaid dental benefits.</p> <p>2.C.10. Encourage private dentists to accept Medicaid by providing networking opportunities with other Medicaid providers, sharing best practices, and communicating other group benefits.</p> <p>2.C.11. Support an increase (to at least national median) reimbursement for prevention and disease treatment services provided for in the Medicaid program.</p> <p>2.C.12. Increase the proportion of children enrolled in Medicaid who receive preventive services by an oral health professional at least once annually.</p> <p>2.C.13. Increase the proportion of pregnant individuals enrolled in Medicaid who receive oral health preventive or periodontal services during pregnancy.</p> <p>2.C.14. Increase the proportion of adults enrolled in Medicaid with a diabetes diagnosis who receive oral health preventive services at least once annually.</p> <p>2.C.15. Increase the proportion of adults enrolled in Medicaid who receive oral health preventive services at least once annually.</p>

Objective	Strategy
<p>2.D. Reduce the proportion of adults and children with untreated tooth decay and periodontal disease.</p>	<p>2.D.1. Increase collaborative (Illinois State Board of Education [ISBE]), HFS, Head Start, IDPH) communication to parents, schools, and school districts about the importance of establishing a dental home, regular use of prevention services, and the need for addressing identified oral health disease treatment need in a timely fashion.</p> <p>2.D.2. Increase understandable communications to parents, to schools, and to school districts about the need for follow-up care after school examinations (K, second, sixth, and ninth grades).</p> <p>2.D.3. Increase the proportion of children of pre-school age with a dedicated regular source of dental care.</p> <p>2.D.4. Expand school-based sealant services, basic oral health care, and fluoride varnish (not gel), focused on Medicaid enrolled and uninsured children in addressing geographic disparities and inequities.</p> <p>2.D.5. Implement greater accountability for school-based mobile providers to meet children’s follow-up/restorative needs by providing full networking between schools and office-based dentists.</p> <p>2.D.6. Promote multiple sealant placement for children per American Dental Association suggested guidelines.</p> <p>2.D.7. Promote continuing education opportunities to providers on minimally invasive approaches to prevention and to help manage tooth decay in all age groups.</p> <p>2.D.8. Increase the adoption and expanded use of silver diamine fluoride in children, adults, and older adults as a caries arresting agent.</p> <p>2.D.9. Increase the provision of atraumatic restorative techniques (ART) and other minimally invasive approaches to help manage tooth decay in all age groups.</p> <p>2.D.10. Identify process, use of incentives for completion of dental care plans, and establish individualized maintained intervals.</p> <p>2.D.11. Promote continuing education opportunities to providers on routine oral health care during pregnancy and include that a referral from a physician to treat is not needed.</p> <p>2.D.12. Expand the number of oral health providers who care for individuals during pregnancy.</p> <p>2.D.13. Increase the proportion of adults who receive an oral health examination or preventive or periodontal services at least once annually.</p> <p>2.D.14. Increase the proportion of pregnant individuals who receive an oral health examination or preventive or periodontal services during pregnancy.</p> <p>2.D.15. Expand the number of oral health providers trained to care for the oral health needs of older adults.</p> <p>2.D.16. Identify, support, and pilot new models of service delivery that emphasize prevention and assure access to disease-controlling care.</p>

Objective	Strategy
<p>2.E. Increase the proportion of persons at health centers who also obtain comprehensive oral health services at their home health center.</p>	<p>2.E.1. Support FQHCs and LHDs in expanding dental services to more adults.</p> <p>2.E.2. Explore integrating oral health and primary care electronic health record (EHR) systems to facilitate ease of referrals and improved care coordination.</p> <p>2.E.3. Establish automated referral processes within the confines of each FQHC’s EHR and endpoint detection and response systems that ping persons with diabetes, pregnancy, and other chronic illnesses for an oral health referral.</p> <p>2.E.4. Distribute fact sheets throughout communities to educate individuals and families on the oral health services provided at their local FQHC or LHD.</p> <p>2.E.5. Increase clinical capacity at FQHCs and LHDs through the use of trained PHDH, EFDA, or dental case managers in clinical teams.</p> <p>2.E.6. Support FQHCs and LHDs evaluating their oral health program to ensure that each team member is working at the top of their clinical and regulatory ability.</p> <p>2.E.7. Support pilot programs in FQHCs oral health programs for diabetes/hypertension screening, education, and action.</p> <p>2.E.8. Expand dental training in FQHCs via rotations and placements at sites in all Illinois FQHCs.</p> <p>2.E.9 Support FQHCs and LHDs in ensuring they address identified oral health disease treatment needs in a timely fashion.</p> <p>2.E.10. Increase awareness of how the oral health encounter rate is established and updated.</p>
<p>2.F. Decrease the proportion of the Illinois population that uses the emergency department for non-traumatic dental issues.</p>	<p>2.F.1. Establish a communication strategy to Medicaid enrollees who have not received regular dental care in the year after visiting an ED setting.</p> <p>2.F.2. Decrease the number of Medicaid members who repeatedly receive temporary care in the ED setting by offering a referral to an area dental provider.</p> <p>2.F.3. Use local hospital discharge or syndromic surveillance data to understand access to care shortages.</p> <p>2.F.4. Engage health insurers and foundations to provide startup funding for hospital/dental clinic collaboration focused on reducing ED dental visits for all ages.</p> <p>2.F.5. Work with the Illinois Hospital Association and local hospitals to support and to develop priorities for local pilot projects.</p>

**Challenge:** Limited interprofessional risk-based oral health referrals exist within the health system.

**Goal 3:** Integrate and expand health promotion, primary prevention, and assurance of appropriate care.

Objective	Strategy
<p>3.A. Elevate oral health as a priority area within hospital systems, insurance providers, and other community health organizations.</p>	<p>3.A.1. Increase health insurer and system understanding of the positive return on investment of integrated oral health care services.</p> <p>3.A.2. Provide technical assistance and resources to health system leaders on oral health needs assessment, health promotion, surveillance, and integration activities.</p> <p>3.A.3. Encourage institutional leaders to name oral disease when they discuss common risk factors (such as unhealthy diets and tobacco use) in organizational health initiatives.</p> <p>3.A.4. Encourage joint applications for federal, state, and foundation funding for integration opportunities between oral health and non-oral health partners.</p> <p>3.A.5. Ensure health organizations’ oral health education and services are culturally and linguistically appropriate.</p> <p>3.A.6. Establish connections between each Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Early Head Start/Head Start, day care and preschool program, and their local oral health provider and/or health department.</p>





Objective	Strategy
<p>3.B. Expand oral health knowledge by non-oral health care personnel for use in health promotion, primary prevention, and referral for all ages to appropriate care.</p>	<p>3.B.1. Assist physicians, nurses, medical students, and other clinical non-oral health professionals and students in the understanding of routine oral health issues through online modules designed for health care professionals.</p> <p>3.B.2. Train health care staff via Smiles for Life module to address acute dental problems.</p> <p>3.B.3. Support non-oral health providers on management of oral health issues and appropriate antibiotic and pain medication prescribing as an interim measure while still referring to a dentist.</p> <p>3.B.4. Educate medical providers that treat pregnant individuals about Medicaid dental benefits, and that they should routinely prioritize and refer for dental care.</p> <p>3.B.5. Encourage pediatricians, family medicine providers, and obstetricians to educate parents about the importance of their children’s oral health.</p> <p>3.B.6. Work with obstetricians and increase the number of pregnant individuals who have identified a dental home for their unborn child (e.g., give the name of a dentist/pediatric dentist).</p> <p>3.B.7. Provide information for pediatricians to share with new parents about the role of oral health in infants nursing or taking a bottle throughout the night, and the oral health implications for children prescribed juice or PediaSure-like products.</p> <p>3.B.8. Train non-clinical staff, such as care navigators and community health workers, in providing oral health, nutrition, and wellness counseling.</p> <p>3.B.9. Increase clinical provider and community health worker knowledge of Medicaid/ insurance coverage for oral health benefits.</p> <p>3.B.10. Expand the ability of prenatal providers and doulas to provide promotion, prevention, and anticipatory guidance around oral health issues and identify oral health homes as part of prenatal classes.</p> <p>3.B.11. Establish referral arrangements and recommendations for oral health services for people with behavioral health disorders.</p> <p>3.B.12. Support piloting of electronic referral management tools designed to increase access to oral health services and care coordination for special populations (e.g., children, pregnant persons, older adults).</p> <p>3.B.13. Promote the importance of parents/guardians providing oral hygiene for children or those with special needs who don’t have the dexterity to effectively brush/floss.</p>

Objective	Strategy
3.C. Increase appropriate oral health service delivery in non-oral health settings.	<p>3.C.1. In primary care settings, increase routine oral health screenings, promotion of oral hygiene and nutrition counseling, documentation of findings, management of simple oral health issues, and referrals to dental homes for comprehensive dental care.</p> <p>3.C.2. Pilot providing preventive services in pediatric practices, OB/GYN practices, and other primary care settings. [Examples include anticipatory guidance, nutrition, fluoride varnish, SDF, motivational interviewing, and other services]</p> <p>3.C.3. Reinstate and/or pilot providing preventive services, including caregiver hygiene and oral health related nutrition, in elder care facilities, child care facilities, and WIC programs.</p> <p>3.C.4. Expand the use of Medicaid-reimbursable risk-based training and fluoride varnish application by non-oral health professionals for children up to age 6 and during pregnancy.</p> <p>3.C.5. Increase the number of Medicaid-enrolled children under the age of 3 years who receive risk-based intervention and oral health service provided by a non-oral health provider.</p>



**Challenge:** Illinois communities and stakeholders have limited information on disease burden.

**Goal 4:** Implement a surveillance system that measures and shares key indicators of oral health.

Objective	Strategy
<p>4.A. Develop an Illinois-specific data collection, tracking, and analysis plan (Illinois Oral Health Surveillance System - IOHSS) that incorporates and aligns with national initiatives (e.g., HRSA, HP 2030, and pending Surgeon General’s report).</p>	<p>4.A.1. Recruit a diverse and interdisciplinary advisory committee to the DOH that provides expertise, recommendations, and guidance to IOHSS and IOHP IV on an ongoing basis.</p> <p>4.A.2. Publish the IOHSS plan for public comment by December 2021.</p> <p>4.A.3. Create a regular process with an advisory committee to provide strategic guidance on oral health to IDPH and review IOHSS data and IOHP IV progress.</p> <p>4.A.4. Collaborate with state survey programs (e.g., PRAMS, BRFSS staff) to continuously improve the breadth of oral health data.</p> <p>4.A.5. Work with ISBE to increase regular reporting of school examination data for programmatic improvements that impact access to care and to disease burdens.</p> <p>4.A.6. Collaborate with other IDPH divisions and other state agencies on primary data collection through such activities as basic screening surveys for Head Start and third-grade children, pregnant individuals, and older adults.</p> <p>4.A.7. Incorporate real-time monitoring of oral health problems in IOHSS through syndromic surveillance monitoring.</p> <p>4.A.8. Partner with HFS to draft a brief of MCO and fee-for-service dental program.</p>
<p>4.B. Organize a data display/distribution system that tracks oral health indicators to provide state, regional, and local oral health data.</p>	<p>4.B.1. Identify and secure general funding for epidemiology services that provide data review and analysis for programmatic improvements.</p> <p>4.B.2. At the state and local level, advocate for consistent funding for surveillance, reporting, and data sharing.</p> <p>4.B.3. Collaborate with academic institutions and other experts on oral health data surveillance and analysis.</p> <p>4.B.4. Identify a public platform for Illinois’ oral health data for stakeholder and public use.</p> <p>4.B.5. Assemble oral health and social services resources by county.</p>
<p>4.C. Partner and distribute data briefs and reports that highlight inequities in disease burden between different population groups to spur action.</p>	<p>4.C.1. Identify and establish partnerships for published data distribution to reach wide audiences ready to act.</p> <p>4.C.2. Work with community stakeholders on the appropriate use of and data contribution.</p> <p>4.C.3. Support regular regional or local meetings with key partners and stakeholders centered on programmatic solutions identified in data reports and address oral health inequities.</p> <p>4.C.4. Promote the collection and use of local data to design programs that meet local oral health priorities.</p>

**Challenge:** Regular communication about progress and barriers will be needed to move IOHP IV goals forward.

**Goal 5:** Share information with stakeholders to track progress through IOHP IV communication updates.

Objective	Strategy
5.A. Develop and implement communications plan for IOHP IV.	5.A.1. Research and create a process for publicizing the IOHP IV launch by August 2021. 5.A.2. Design a messaging document for communicating the IOHP IV to the public. 5.A.3. Work with stakeholders to engage the social media team on a regular basis to create, to publish, and to engage on the topic of oral health. 5.A.4. Support stakeholder actions to call, to email, and to meet with local news professionals and reporters that build rapport and discuss Illinois’ oral health concerns. 5.A.5. Build partnerships with local news media outlets and organizations to leverage the distributional reach of IOHP IV updates.
5.B. Annually update IOHP IV objectives and strategies.	5.B.1. Regularly convene an advisory committee to review the oral health landscape and to evaluate progress towards IOHP IV. 5.B.2. Annually update IOHP IV objectives and strategies according to new opportunities identified by an advisory committee. 5.B.3. Annually review IDPH DOH materials and pull/update information 5.B.4. Provide an annual update brief on progress towards meeting IOHP IV Goals and Objectives for stakeholders and the public.



### Section III Indicators (*Measures of Success*)

*Measures of Success* are analogous to a quantitative program evaluation. It is important to realize that in the Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health*, some objectives are not measurable with the current systems. Key indicators are listed below and serve in a monitoring capacity that simultaneously shows the impact of IOHP IV focused attention. Through this process, DOH will be able to determine new benchmarks where needed and scrutinize how well programs work, including whether their goals and objectives are being met. This section of IOHP IV is crucial as it will provide objective information on many independent strategies that will be tried to meet the five stated goals. The evaluation will be a way to revise and keep IOHP IV current, incorporating updated opportunities for public health actions by the state, county, and local stakeholder groups. Annual review of indicators will be completed and shared with stakeholders to assess whether measurable objectives are improving in status and to identify policy solutions that can be leveraged to achieve desired health outcomes.

Objective	2021-2025 Indicators	Data Source	Year	Frequency	Baseline Data
<b>Health Promotion and Prevention Indicators</b>					
1E, 2D	Increase the proportion of children enrolled in Medicaid who received fluoride application (0-3 years).	HFS Data Request	2019	Annual	21%
3C	Increase the proportion of Medicaid enrolled children under the age of 6 years who received oral health services provided by a non-dentist provider.	HFS CMS-416	2019	Annual	4.62%
2C, 2D	Increase the proportion of children under the age of 6 who received at least one prevention visit.	HFS Data Request	2019	Annual	34.4%
2C, 2D	Increase the proportion of children and young adults between 6-17 years of age who received at least one prevention or periodontal service.	HFS Data Request	2019	Annual	57.6%
2C, 2D	Increase the proportion of adults between 18-64 years of age who received at least one prevention or periodontal service.	HFS Data Request	2019	Annual	14.1%
2C, 2D	Increase the proportion of adults over the age 18 who have a dental visit within the past year.	BRFSS	2018	Biennial	68.1%
1B, 2C	Increase the proportion of adults who have had teeth cleaned in the last year.	BRFSS	2018	Biennial	65.9%
2C	Increase the percentage of pregnant Medicaid members who received at least one preventive or periodontal service in the 365 days before delivery.	HFS Data Request	2019	Annual	6.8%
2E	Increase the percentage of persons with a diabetes diagnosis who received an oral health service (examination and/or dental cleaning/periodontal treatment).	HFS Data Request	2019	Annual	10.3%

**Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health (2021-2025)***

Objective	2021-2025 Indicators	Data Source	Year	Frequency	Baseline Data
2C	Increase the percentage of individuals who reported having their teeth cleaned by a dentist or dental hygienist during pregnancy.	PRAMS	2017	Annual	44.5%
2D	FQHCs: Increase the proportion of children who are 6 through 9 years of age at moderate to high risk of caries who received a sealant on a first permanent molar.	HRSA UDS	2019	Annual	57.74%
2D	Increase the proportion of children 6-11 years of age with a dental sealant on permanent first molar, per year.	HFS CMS-416	2019	Annual	18.21%
2D	Medicaid: Increase the proportion children age 0-20 years who received a fluoride varnish application.	HFS Data Request	2019	Annual	50.3%
2D	Increase the proportion of children who have had their oral health status assessed at K, second, sixth, and ninth grade.	ISBE	2013-2014	Annual	71.4%
<b>Dental Caries Indicators</b>					
2D	Decrease the proportion of third grade children with caries experience.	IDPH DOH (Healthy Smiles Healthy Growth)	2018-2019	Every 5 Years	41.6%
2D	Decrease the proportion of third grade children with untreated dental caries.	IDPH DOH (Healthy Smiles Healthy Growth)	2018-2019	Every 5 Years	22.2%
2D	Decrease the proportion of third grade children with urgent dental treatment needs.	IDPH DOH (Healthy Smiles Healthy Growth)	2018-2019	Every 5 Years	4%
2D	Increase the proportion of dental providers who report utilizing silver diamine fluoride to arrest dental caries.	IDPH DOH (Healthy Smiles Healthy Growth)	Developmental Objective		
<b>Other Indicators</b>					
2D	Increase the proportion of individuals of child-bearing age (18-44 years) who report having a visit to a dentist or dental clinic in the past year.	BRFSS	2018	Biennial	67.7%
2D	Decrease the proportion of adults aged 35-44 years of age reporting loss of permanent tooth (teeth).	BRFSS	2018	Biennial	35%
2D	Reduce the proportion of older adults aged 45 and over who have lost all their teeth [HP2030 Oral Health-05].	BRFSS	2018	Biennial	7.1%
2D	Decrease the number of adults over the age of 65 reporting the loss of all teeth.	BRFSS	2018	Biennial	11.3%

Objective	2021-2025 Indicators	Data Source	Year	Frequency	Baseline Data
1D	Increase the number referrals by oral health providers to the Illinois Tobacco Quitline of patients who use tobacco or e-cigarettes/ vaping devices.	ITQL	Developmental Objective		
2F	Decrease the proportion of children under the age of 18 who use ED visits for non-traumatic dental issues.	IDPH DPSQ, or BRFSS	2018	TBD	1.6% (BRFSS)
2D	Decrease the number of children under the age of 6 years treated under general anesthesia under codes D9222 and D9239.	HFS	2019	Annual	594
<b>Behavioral Risk Factors</b>					
1E, 3C	Decrease cancer of the oral cavity and pharynx incidence.	IDPH ISCR	2017	Annual	Incidence Rate per 100,000: Male: 18.8; Female: 6.8
2D	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage [HP2030 Oral Health-07].	IDPH ISCR	Developmental Objective		
1E, 3C	Increase HPV series completion (3 dose) of eligible adolescents 13-17 years.	CDC TeenVaxView	2015	Annual	Male: 64.5% Female: 68.4%
1D	Decrease prevalence of current tobacco use.	BRFSS	2019	Biennial	18-24 7.4% 25-44 18.2% 45-64 16.7% 65+ 9.1%
1D	Decrease prevalence of heavy alcohol use.	BRFSS	2019	Annual	18-24 8.7% 25-44 9.9% 45-64 6.8% 65+ 4.5%
1D	Decrease prevalence of sugar sweetened beverages consumption.	BRFSS	2018	TBD	18-24 50.3% 25-44 54.9% 45-64 50.6% 65+ 47.4%
2A	Decrease prevalence of opioid prescriptions for dental issues in adolescent/young adult.	IL PMP	2019	Annual	12-17 years 548.2 opioid prescriptions per 100,000  18-24 years 2,831.6 opioid prescriptions per 100,000 (2019)

**Illinois Oral Health Plan IV: *Eliminating Inequities in Oral Health (2021-2025)***

Objective	2021-2025 Indicators	Data Source	Year	Frequency	Baseline Data
<b>Infrastructure Indicators</b>					
2E	Increase the number of free, non-profit, FQHCs, LHDs, and look-alike sites with comprehensive oral health services.	ISDS, IPHCA and IDPH DOH	2020	Annual	212
2E	Increase the proportion of FQHC patients who also receive oral health services within the FQHC.	HRSA UDS	2018	Annual	14.8%
2E	Increase the number of local health department sites providing risk-based prevention activities.	IDPH Survey	Developmental Objective		
2E	Increase the number of free, non-profit, FQHC, LHDs, and look-alike oral health services sites with direct bi-lateral communication through EHR to primary care.	IDPH Survey	Developmental Objective		
<b>Workforce Indicators</b>					
2B	Decrease the number of counties that are federal Dental Health Profession Shortage areas.	IDPH Center for Rural Health	2019	Annual	75
2B	Decrease the number of oral health providers that serve low-income and Medicaid eligible residents needed to remove shortage area designation.	IDPH Center for Rural Health	2020	Annual	361.15 FTE
2B	Increase the number of dental providers practicing in Dental Health Profession Shortage areas.	IDPH Center for Rural Health, IDFPR	Developmental Objective		
2A, 2B	Increase the number of Public Health Dental Hygienists practicing in Dental Health Profession Shortage areas.	IDPH Report	Developmental Objective		
	Increase the proportion of dental providers who report caring for pregnant individuals.	IDPH Workforce Survey	Developmental Objective		
	Increase the proportion of general dentists who care for children under the age of 3 years.	IDPH Workforce Survey	Developmental Objective		
2B	Increase the number of dentists who actively participate (>50 claims/yr) in Medicaid per 1,000 EPSDT eligible enrolled children.	HFS Data Request	2019	Annual	1.49
3B	Increase the number of community health workers who are trained in oral health concepts using IDPH OH 101 curriculum.	IDPH Report	2020	Annual	93



Objective	2021-2025 Indicators	Data Source	Year	Frequency	Baseline Data
3B	Increase the number of community health workers, licensed health care providers, etc., who are trained in oral health concepts through online modules, such as Smiles for Life or Bright Smiles from Birth.	Smiles for Life Report	Developmental Objective		
Population Health Indicators					
1A, 1B, 2D, 2F	Decrease the proportion of Illinoisans who delayed dental care due to cost in the past 12 months.	NHIS, BRFSS (TBD)	Developmental Objective		
1E	Maintain the number of community water systems that are consistently fluoridating at optimal levels.	IDPH DOH	2020	Annual	145 naturally fluoridated community water systems; 770 adjusted community water systems
1E	Maintain the proportion of population with access to optimally fluoridated water.	CDC	2018	Annual	98.2%
1A	Increase the proportion of people with dental insurance [HP2030 Access to Health Services-02].	National Association of Dental Plans Annual State Report	2020	Annual	78% of the Illinois population has dental benefits
1A, 1B	Reduce the proportion of people who cannot get the dental care they need when they need it, reported as Non-Traumatic Dental Conditions Emergency Department use.	IDPH Policy Planning and Statistics	2017-2019, three-year average	Annual	71.48 per 10,000

Developmental Objectives represent high-priority public health issues and activities and do not yet have baseline data.

Indicators listed above will be reviewed annually and populated with available data.

## Advancing Oral Health Through Policy Initiatives

### *IOHP IV: Eliminating Inequities in Oral Health*

Illinois stakeholders and the public can support the many health policies that move oral health forward. These have been put forward by the many active state and national organizations. These policies include:

- » Re-integrate oral health within the larger umbrella of health.
- » Considering dental insurance coverage as a critical component of health insurance, rather than an optional benefit to be purchased separately.
- » Meet the health and well-being needs of adults insured by Medicaid and Medicare by covering services that also treat oral disease conditions.
- » Re-align publicly funded oral health insurance plans and co-pays that work for the insured, provider, and payer.
- » Develop structures that re-integrate social supports such as secure, affordable quality food and nutrition; transportation; and housing to improve health outcomes.
- » Legislate that restaurants disclose calorie content of food and drink items and legislate excise taxes on sugar-sweetened beverages.
- » Support workforce investment focused on growing the population of racial, ethnic, and geographic underrepresented minorities at all levels of the oral health workforce – community health worker, dental assistant, dental hygienist, dentist, and specialist providers.
- » Expand use of risk-based reimbursement for evidence-based, disease reducing, cost-saving services, such as the application of fluoride varnish in non-oral health care settings and timely, closed, bi-directional referrals.
- » Expand use of dental diagnostic codes, diagnostic coding used for oral health conditions.
- » Support increases in reimbursement and coverage levels for oral health services and benefits that are risk based.
- » Invest to develop, to implement, and to maintain robust state-based oral health surveillance systems.

## Appendices

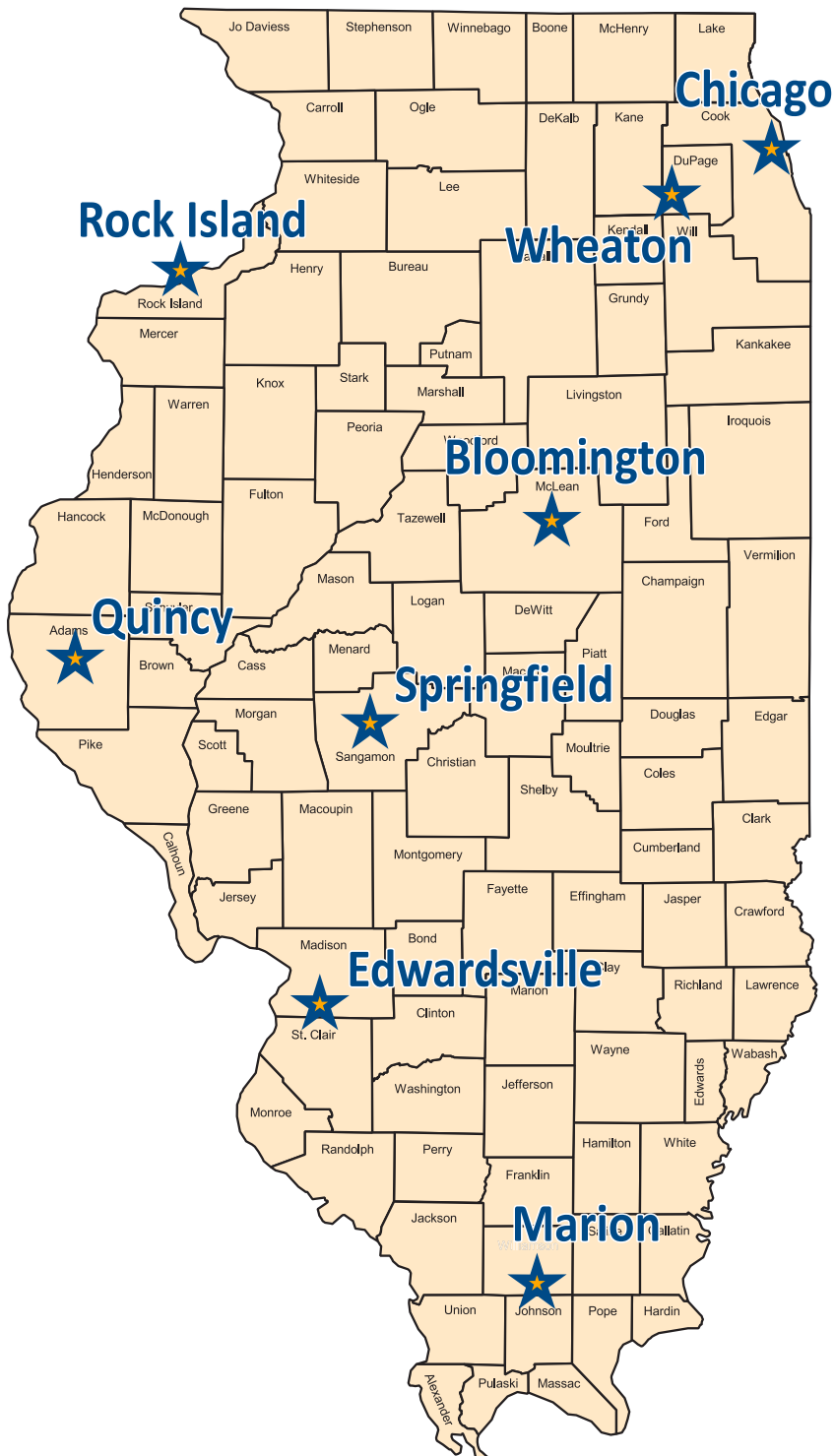
- A. Illinois Oral Health Plan Steering Committee Members
- B. Statewide Community Meetings and Attendees
- C. Working Diagram of IOHP IV
- D. Virtual Meetings In lieu of Oral Health Summit
- E. Listing of Abbreviations

### **Appendix A - Illinois Oral Health Plan Steering Committee Members**

#### **Invited and participants in developing the Illinois Oral Health Plan IV**

Terri Agin, Illinois Rural Health Association  
Juana Ballesteros, Illinois Department of Public Health  
Stacey Ballweg, Illinois Department of Public Health, Division of Oral Health  
Karen Berman, Ounce of Prevention Fund  
Meghan Bertolino, Illinois Department of Public Health, Office of Health Promotion  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Carol Braun, Prairie State College  
Julie Casper, Illinois Department of Public Health, Center for Rural Health  
Pam Cuffle, Illinois State Dental Society  
Bob Egan, Illinois Children’s Healthcare Foundation  
Ahmed El-Maghraby, Illinois Department of Public Health, MPH Intern  
Tasha R. Green Cruzat, Voices for Illinois Children  
Dean Harold J. Hearing, Midwestern University, College of Dental Medicine – Illinois  
Abby Holicky, Illinois Department of Public Health  
Tom Hughes, Illinois Public Health Association  
Julie Ann Janssen, IFLOSS Coalition  
Shannon Lightner, Illinois Department of Public Health, Office of Women’s Health and Family Services  
Christina McCutchan, Illinois Department of Healthcare and Family Services  
Laura Morrison-Frichtl, Illinois Head Start Association  
Jordan Powell, Illinois Primary Health Care Association  
Laura M. Scully, Illinois Dental Hygienists’ Association  
Dr. Kathy Shafer, Southern Illinois University at Edwardsville, School of Dental Medicine  
Dean Stanford, University of Illinois at Chicago College of Dentistry  
Dr. Alejandra Valencia, Oral Health Forum  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Lora Vitek, Delta Dental Foundation  
Kathy Waligora, EverThrive Illinois  
Jerrod Welch, Illinois Association of Public Health Administrators  
Kuliva Wilburn, IFLOSS Coalition

## Appendix B - Statewide Community Meetings and Attendees



### Community Meeting Participants

#### Chicago Community Meeting (September 6, 2019)

David Albert, Illinois Department of Human Services, Division of Mental Health  
Dr. Jorelle Alexander, Cook County Health and Hospital Systems  
Caritina Almanza, Enlace Chicago

Stephanie Altman, Shriver Center on Poverty Law  
Karen Baker, Northwest Community Healthcare  
Les Balla, Cook County Health and Hospital Systems  
Juana Ballesteros, Illinois Department of Public Health  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Anita Birton, Cermak Health Services  
Lee Braam, Heartland Alliance Health  
Mary Pat Burgess, Chicago Department of Public Health  
Gabriela Bustos, Sinai Urban Health Institute  
Elizabeth Cagan, White Crane Wellness Center  
Kahina Caldwell, Cook County Health and Hospital Systems  
Giselle Coelho, Cook County Health and Hospital Systems  
Carolyn Condiff, Cook County Health and Hospital Systems  
Dr. Clarissa Couch, Cook County Health and Hospital Systems  
Ellen Durant, Chicago Chapter National Black Nurses Association  
Donna L. Emmons, Illinois Head Start Association  
Dr. Sodabeh Etminan, Mile Square Health Center  
Rovee Fabi, Promise Healthcare  
Jamie Feld, Northshore / Kellogg Cancer Center  
Erin Fogarty, Livingston County Health Department  
Sherri Foran, Illinois Department of Public Health, Division of Oral Health  
Ann Frederickson, Chicago Department of Public Health  
Abidemi Ghastosho, Cook County Health and Hospital Systems  
Barbara Green, Cermak Health Services  
Ilda Hernandez, Enlace Chicago  
Abigail Holicky, Illinois Department of Public Health  
Mark Hunter, Illinois Department of Public Health  
Julie Ann Janssen, IFLOSS Coalition  
Aiemea Javier, Cook County Health and Hospital Systems  
Jasminka Jukic, Fox College  
Michelle Kacena, Loyola Pediatric Mobile Health Unit  
Dr. Lisa Kearney, Erie Family Health Center  
Barbara J. Kenney, Chicago Chapter National Black Nurses Association  
Fauzia Khan, Cook County Health and Hospital Systems  
Julie Kuhn, Sinai Urban Health Institute  
Andie Kyros, Colgate Bright Smiles Bright Futures  
Dr. Flavia Lamberghini, Apple Dental Care  
Erik Ligas, Private Citizen  
Dr. Lori R. Lightfoot, Cook County / Ford Heights  
Dr. Yvonne McLeod, Cook County Health and Hospital Systems  
Melissa Mende, Community Health  
Dr. David Miller  
Althea Moore, Cook County Health and Hospital Systems  
Khatija Noorullah, University of Illinois at Chicago  
Victoria Novotny, Oak Park River Forest Infant Welfare Society Children's Clinic  
Carina Perez, University of Illinois at Chicago Department of Pediatric Dentistry  
Carol Perez, University of Illinois at Chicago, College of Dentistry  
Elisabeth Purkis, University of Illinois at Chicago, College of Dentistry  
Randy Rabin, ACHS/Cook County Arlington Heights  
Elisabeth Raya, Cook County Health and Hospital Systems  
Rachel Reichlin, Michael Reese Health Trust

Anna Sandoval, University of Illinois at Chicago  
Laura Scully, Illinois Dental Hygienists' Association  
Adriana Semprum-Clavier, University of Illinois at Chicago, College of Dentistry  
Dean Clark Stanford, University of Illinois at Chicago, College of Dentistry  
Ian Stark, Mobile Care Chicago  
Dr. Rhay Street, Cook County Health and Hospital Systems  
Michael Svete, White Crane Wellness Center  
Brenda Taylor, Private Citizen  
Tiffany Thompson, Evanston Health & Human Services  
Matt Thullen, Illinois Children's Healthcare Foundation  
Ben Umunna, Oak Park River Forest Infant Welfare Society Children's Clinic  
Victoria Ursitti, Private Citizen  
Dr. Alejandra Valencia, Oral Health Forum  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Tasneem Wasanwala, University of Illinois at Chicago, Dental School  
Madeline Woodberry, Sinai Urban Health Institute  
Kim, Sinai Urban Health Institute

**Springfield Community Meeting (September 19, 2019)**

Nancy Amerson, Illinois Department of Public Health  
Teresa Armstrong, Cass County Health Department  
Stacey Ballweg, Illinois Department of Public Health, Division of Oral Health  
Lisa J. Betz, Illinois Department of Human Services, Division of Mental Health  
Lisa Biehl, Douglas County Health Department  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Lynnette Cale, McDonough and Schuyler County Health Departments  
Julie Casper, Illinois Department of Public Health  
Hope Cherry, Southern Illinois University Medicine  
Maria Clark, HSHS St. Francis Hospital  
Ashley Colwell, Illinois Primary Health Care Association  
Laura Cox, Macoupin County Health Department  
Kendra Craig, Fayette County Health Department  
Kristina Gray, Carl Sandburg College  
Teale Hall, DeWitt-Piatt Bi-County Health Department  
Tina Harth, FrontlineCo - Blue Cross and Blue Shield of Illinois Contractor  
Wil Hayes, Knox County Health Department  
Stacey Herman, Illinois Department of Public Health, Division of Oral Health  
Cheri Hoots, Illinois Primary Health Care Association  
Connie Horn, SIHF Healthcare  
Lori Jackson, Southern Illinois University Center for Family Medicine  
Julie Ann Janssen, IFLOSS Coalition  
Thomas Kistner, Springfield Urban League  
Stacy Kosier, Carl Sandburg College  
Dr. Mary-Margaret Looker, Central Counties Health Centers, Inc.  
Sarah May, OSF St. Francis Medical Center  
Lesa McMahan-Lowe, Illinois Department of Public Health, Division of Oral Health  
Courtney Michel, Illinois Department of Public Health  
Amanda Minor, Douglas County Health Department  
Melissa Mooney, Southern Illinois University Medicine  
Rose Mutzbauer, Illinois Department of Public Health, Division of Oral Health  
Lee Ann Reinert, Illinois Department of Human Services, Division of Mental Health

Amy Rose, Fulton County Health Department  
Tonya Sandstrom, Sangamon County Department of Public Health  
John Stallworth, Illinois Department of Public Health  
Mikal Sutton, Blue Cross and Blue Shield of Illinois  
Kent Tarro, Macoupin County Public Health Department  
Amy Thompson, Cass County Dental Clinic  
Dr. David Trost, Miles of Smiles  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Megan Williams, HSHS St. John's Hospital

### **Quincy Community Meeting (September 24, 2019)**

Anita Andress, Pike County Health Department  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Shanna Edison, Parent & Child Together (PACT) for West Central Illinois  
Beth Forbes, Adams County Health Department  
Christina Gaebel, Southern Illinois University Family Medicine of Quincy  
Michelle Hagstrom, Adams County Health Department  
Brandy Kirby, Quincy Public Schools Nursing Department  
Deb Laird, Adams County Health Department  
Melissa Lannery, Adams County Health Department  
Sara Mixer, Parent & Child Together for West Central Illinois  
Cyndi Ott, Quincy Public Schools  
Kendall Passmore, Southern Illinois University Family Medicine of Quincy  
Pam Pillars, Adams County Health Department  
Sarah Roman, Blessing Hospital  
Christina Terstriep, Adams County Health Department  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Jana West, Hancock County Health Department, Dental Center

### **Wheaton Community Meeting (October 10, 2019)**

Stephanie Altman, Shriver Center on Poverty Law  
Ashley Bae, Illinois Department of Human Services, Division of Mental Health  
Lauren Barone, American Academy of Pediatrics  
Kim Bartolomucci, The Oral Health Forum  
Natalie Basgall, DuPage County Health Department  
Dr. James D. Benz, Advocate Illinois Masonic Medical Center, Department of Dentistry  
Dr. Cheitali Bhansali, Heartland Health Centers  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Stephanie Blagaich, Heartland Health Centers  
Dani Brazee, Molina Healthcare  
Becky Bunge, Illinois Dental Hygienists' Association  
Steve Curatti, Kendall County Health Department  
Barbara Czahor, College of DuPage  
Mary Desjardins, Smile Illinois  
Beth Enke, DuPage County Health Department  
Debbie Fager, American Cancer Society  
Patricia Farrell, Illinois Psychological Association  
Sherri Foran, Illinois Department of Public Health, Division of Oral Health  
Alisha Fortener, City of Rockford Head Start  
Devan Gagliardo, Community Foundation of Grundy County

Dr. Sangita Garg, Will County Community Health Center  
Omayra Giachello, Illinois Department of Public Health  
Laura K. Gibson, DuPage County Health Department  
Mary Joyce Gomez, St. Bernard Hospital Dental Center  
Katie Harrison, Grundy County Health Department  
Nicole Johnson, Community Health Care, Inc.  
Ayesha Khan, University of Illinois at Chicago, College of Dentistry  
Craig S. Kohler, ONVI  
Elizabeth Kozak, Lewis University  
Natalie Layne, VNA Health Care  
Noah Lehman, DentaQuest  
Dr. Henry Lotsof, Avesis  
Mariana Martinez, Rush Copley Medical Center  
Amanda McMillen, Illinois Collaboration on Youth  
Ngozi Onyema-Melton, American Academy of Pediatrics  
Dr. Joanne Oppenheim, Pediatric Dental Health Associates  
Dr. Sharon Perlman, Sharon J. Perlman, DDS, MPH LLC  
Michelle Pruum, Grundy County Health Department  
Dr. Robert Rada  
Hollis Russinof, American Academy of Pediatrics  
Jennifer Schnepf, Winnebago County Health Department  
Lisa J. Siemsen, Illinois Dental Hygienists' Association  
Stephen Swanik, Advocate Illinois Masonic Medical Center  
Gail S. Szewczyk, Prairie State College  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Jessica Vavra, Delta Dental of Illinois Foundation  
K. Scott Viel, Rockford Public Schools  
Kristen Weber, Chicago Dental Society Foundation

**Rock Island Community Meeting (October 16, 2019)**

Kyle Auman, Ogle County Health Department  
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Jenna Link, Warren County Health Department  
Jana Meiners, Whiteside County Dental Clinic  
Steven Murmann, Warren County Dental Clinic  
Mary J. Reed, West Central Community Services, Inc.  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Evena Wash, Bethany for Children & Families  
Amy Winkler, West Central Community Services, Inc. Head Start

**Marion Community Meeting (October 30, 2019)**

Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Mary Christen, Illinois Department of Public Health, Division of Oral Health  
Tenley Dailey, John A Logan College  
Ashley Fox, Southern Seven Health Department & Head Start  
Joseph J. Harper, Illinois Department of Human Services, Division of Mental Health  
Lisa Hoelscher, HSHS St. Anthony's Memorial Hospital  
Jeffrey Isbell, IlliniCare Health  
Pam Karns, John A. Logan College  
Jackie Lewis, Community Health & Emergency Services Inc.



Sherri M. Lukes, Illinois Dental Hygienists' Association  
Stacey McKinney, Southern Illinois University  
Christy Mitchell, Wabash Area Development Inc.  
Alisa Newman, Wabash Area Development Inc.  
Angela Oathout, Randolph County Health Department  
Di Riley, Shawnee Health Service and Development Corporation  
Naomi Salley, Southern Seven Health Department  
Robert Schmitt, Gibson Area Hospital and Health Services  
Kimberly Scott-Pilkington, Egyptian Health Department  
Debbie Short, Wabash Area Development Inc.  
Michelle Sourbis, Community Health & Emergency Services Inc.  
Mark Stevens, Illinois Department of Public Health  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Letty Vicente, Illinois Department of Human Services - Illinois Migrant Seasonal Head Start  
Phyllis Wood, Egyptian Health Department

### **Alton Community Meeting (November 6, 2019)**

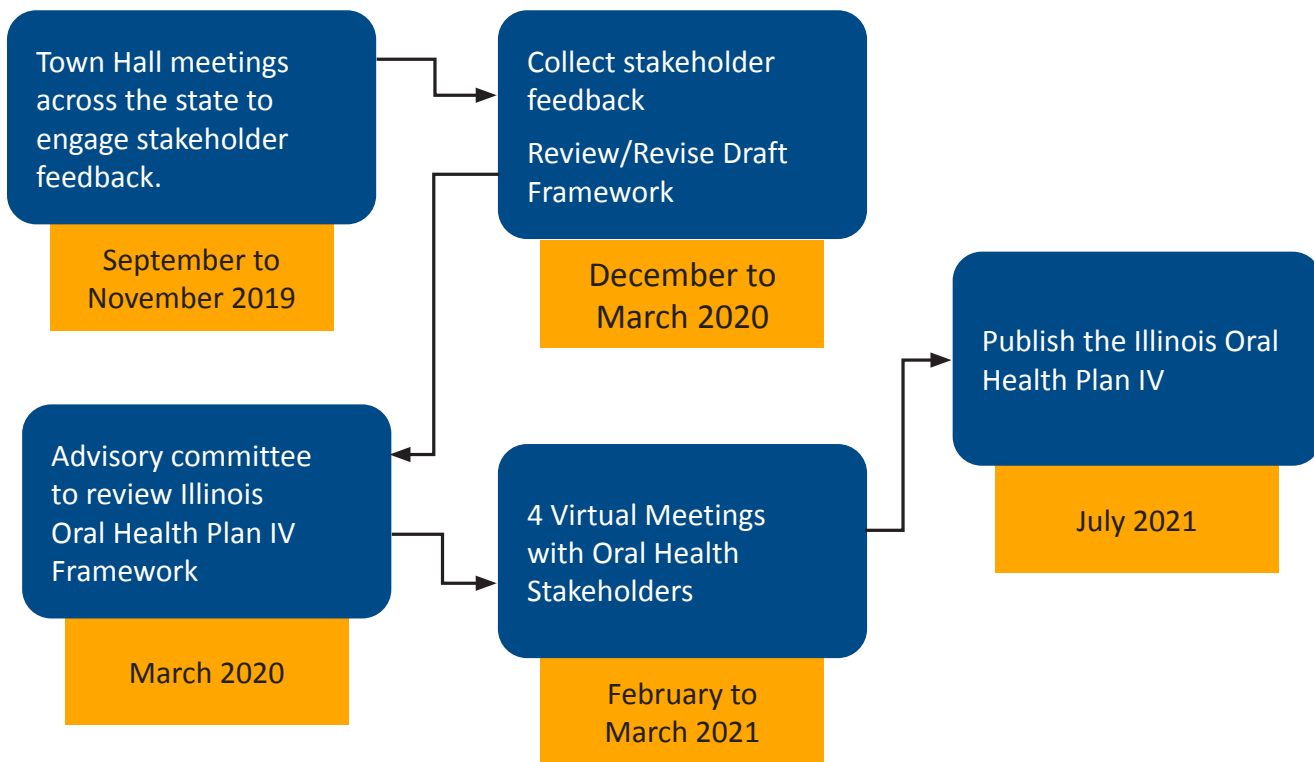
Lisa Bilbrey, Illinois Department of Public Health, Division of Oral Health  
Melissa Cavanaugh, Lewis and Clark Community College  
Candida Chappee, Lewis and Clark Community College  
Mary Christen, Illinois Department of Public Health  
Pam Cuffle, Illinois State Dental Society  
Alicia Ekhoft, Champaign-Urbana Public Health District  
Heidi Elliott, Children's Home & Aid  
Joann Emge, Sparta Community Hospital District  
Marilyn Green, Illinois Department of Public Health  
Jeffrey Isbell, IlliniCare Health  
Dr. Katie Kosten, Southern Illinois University School of Dental Medicine  
Tiffany Kosydor, Lewis and Clark Community College  
Gary M. Lindsay, Southern Illinois Healthcare Foundation  
Michael McNear, Jersey Community Hospital  
Sarah Perkhiser, Riverbend Head Start & Family Services  
Dr. Kathy Shafer, School of Dental Medicine, Maple Street  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health

### **Bloomington Community Meeting (November 19, 2019)**

Stephanie Altman, Shriver Center on Poverty Law  
Ingra Barton, McLean County Health Department  
Lisa Bilbrey, Illinois Department of Public Health  
Carol Braun, Prairie State College  
Diane Caruso, McLean County Health Department  
Laura Cox, Macoupin County Health Department  
Pam Cuffle, Illinois State Dental Society  
Rita Demask, Miles of Smiles  
Monica Dunn, Edgar County Public Health Department and Dental Clinic  
Frances E. Tourdot, Age Options  
Theresa Edmonds, McLean County Health Department  
Hollie Hutchcraft-Ronk, Champaign County Head Start  
Amanda Miller, DeWitt-Piatt Bi-County Health Department  
Dr. Sharon Molitoris, Southern Illinois University Center for Family Medicine

Thomas Nalepka, Tazewell County Health Department  
Kathy Olson, Crusader Community Health  
Gail S. Szewczyk, Prairie State College  
Darcy Sager, Champaign County Head Start  
Krista Smothers, DentaQuest  
Mary Southerlan, Southern Illinois University Center for Family Medicine  
Jeannie Thrasher, Miles of Smiles  
Sherece Tompson, Miles of Smiles  
Dr. Mona Van Kanegan, Illinois Department of Public Health, Division of Oral Health  
Dr. Stacey Van Scoyoc, Bloomington Family Dental  
Jana West, Hancock County Health Department  
Dr. Hannah Yasunaga, Macon County Health Department Dental Clinic

### Appendix C - Working Diagram of IOHP IV



\*The working diagram was updated to reflect the pandemic and restrictions of COVID-19.

## Appendix D - Virtual Meetings In lieu of Oral Health Summit

Virtual Meetings in lieu of Oral Health Summit due to COVID-19 health and safety.

Dear Oral Health Stakeholders,

Please save the date for four virtual meetings as we finalize the Illinois Oral Health Plan (IOHP IV).

Join colleagues from across the state for an IOHP IV update and to take the next steps that finalize the Illinois Oral Health Plan. Each session will focus on one or more goals with a facilitated discussion leading to a consensus on measurable objectives and strategies. Please plan to attend as many as you wish.

### Wednesday, February 17, 2021 – 11:30 a.m. – 1 p.m.

*Goal 4:* Implement and share a surveillance system to improve health that measures key indicators of oral health and  
*Goal 5:* Identify key indicators of oral health and share information with stakeholders to track progress through IOHP IV communication updates.

Introduction to Goals 4 and 5 presented by Mona Van Kanegan, Division of Oral Health

### Thursday, February 25, 2021 – 11:30 a.m. – 1 p.m.

*Goal 1:* Improve oral health status and self-care practices by addressing social determinants of health and promoting population-based health interventions.

Introduction to Goal 1 presented by Alejandra Valencia, Oral Health Forum

### Wednesday, March 3, 2021 – 11:30 a.m. – 1 p.m.

*Goal 2:* Align infrastructure and workforce systems to promote timely and equitable access to oral health care.

Introduction to Goal 2 presented by Scott Tomar, UIC College of Dentistry

### Wednesday, March 10, 2021 – 11:30 a.m. – 1 p.m.

*Goal 3:* Integrate and Expand Health Promotion, Primary Prevention and Assurance of appropriate care.

Introduction to Goal 3 presented by Lisa Kearney, Erie Family Health Center

## Appendix E - Listing of Abbreviations

ACA – Affordable Care Act  
ACOG – American College of Obstetricians and Gynecologist  
ADA – American Dental Association  
ART – Atraumatic restorative technique  
BHW – Bureau of Health Workforce  
BRFSS – Behavioral Risk Factor Surveillance System  
BSS – Basic Screening Survey  
CDC – Centers for Disease Control and Prevention  
CDHC – Community Dental Health Coordinator  
COVID-19 – COVID-19 Pandemic  
CRH – Center for Rural Health  
CSTE – Council on State and Territorial Epidemiologists  
DA – Dental Assistant  
DDIL – Delta Dental of Illinois Foundation  
DER – Dental Emergency Responder  
DHSS – U.S. Department of Health and Human Services  
DMRT – Disaster Emergency Medicine Readiness Training Center  
DOH – Division of Oral Health  
DSGP – Dental Sealant Grant Program  
ED – Emergency Department  
EFDA – Expanded Function Dental Assistant  
EHS – Early Head Start  
FQHC – Federally Qualified Health Center  
HFS – Healthcare and Family Services  
HHS – U.S. Department of Health and Human Services  
HP 2030 – Healthy People 2030  
HPSA – Health Professional Shortage Areas  
HPV – Human Papillomavirus  
HRSA – Health Resources and Services Administration  
HS – Head Start  
HSHG – Healthy Smiles Healthy Growth Survey  
ICAPP – Illinois Chapter of the American Academy of Pediatrics  
ICHF – Illinois Children’s Healthcare Foundation  
ICHWA – Illinois Community Health Worker Association  
IDFPR – Illinois Department of Financial and Professional Regulation  
IDHA – Illinois Dental Hygienists Association  
IDPH – Illinois Department of Public Health

IDPH DPSQ – Illinois Department of Public Health Division of Patient Safety and Quality  
IFLOSS – IFLOSS Coalition (Statewide Organization)  
IL PMP – Illinois Prescription Monitoring Program  
IOHP – Illinois Oral Health Plan  
IOHSS – Illinois Oral Health Surveillance System  
IPHCA – Illinois Primary Healthcare Association  
ISBE – Illinois State Board of Education  
ISDS – Illinois State Dental Society  
ITQL – Illinois Tobacco Quit Line  
LCI or Lower C – Lower confidence interval  
LHD – Local Health Department  
MCH – Maternal Child Health  
MCO – Managed Care Organizations  
MPH – Master of Public Health  
NH – Non-Hispanic  
NTDC – Non-Traumatic Dental Conditions  
OHCS – Oral Health Care System  
OHF – Oral Health Forum  
PAP – Post-Baccalaureate Admissions Program  
PHDH – Public Health Dental Hygienist  
PRAMS – Pregnancy Risk Assessment Monitoring System  
RDH – Registered Dental Hygienist  
SDF – Silver Diamine Fluoride  
SIU – Southern Illinois University  
SIU-SDM – Southern Illinois University School of Dental Medicine  
SLRP – State Loan Repayment Program  
UCI or Upper C – Upper confidence interval  
UDS – Uniform Data System  
UIC – University of Illinois at Chicago  
UIC COD-UHP – University of Illinois at Chicago College of Dentistry Urban Health Program  
UIC-COD – University of Illinois at Chicago College of Dentistry  
UIC-OCEAN – University of Illinois Chicago Office of Community Engagement and Neighborhood Health Partnerships  
URM – Underrepresented minority  
WHO – World Health Organization

WIC – Women, Infants and Children

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## Appendix F - Illinois Oral Health Plan IV Evaluation Report 2023

### Introduction

The Illinois Department of Public Health (IDPH) Oral Health Section (OHS) released the *Illinois Oral Health Plan (IOHP) IV: Eliminating Inequities in Oral Health (2021 – 2025)* in 2021. The IOHP was informed by many stakeholders across the state. The IDPH OHS values ongoing feedback from stakeholders and, over the course of this iteration of the IOHP, sought to solicit feedback on utility, awareness, sustainability, and alignment with organizational mission/goals. An evaluation survey was then created to solicit feedback to inform the direction of future iterations of the IOHP.

### Methods

An electronic evaluation survey was created utilizing the Illinois Research Electronic Data Capture (REDCap™) secure web application for building and managing online surveys and deployed across 300+ stakeholders. The survey was released June 1, 2023, distributed through the IDPH OHS listserv, and was closed June 30, 2023. The survey had a total of 64 respondents and 62 responded and indicated their organization type/affiliation. Of the individual responses, 52% (n=32) represent a local health department (LHD), 13% (n=8) represent a community health center (CHC)/federally qualified health center, 10% (n=6) represent a community-based organization/foundation, 3% (n=2) represent a private practice, 2% (n=1) represent a state agency, 2% (n=1) represent a community member, and 16% (n=10) responded as other with various organization types, such as associations, Head Start, charitable clinics, and school-based programming. [Figure 1]

Of the individual responses, the following professions/affiliations were indicated: 37.1% (n=23) oral health provider, 27.4% (n=17) program manager/director, 21.0% (n=13) non-clinical advocate, 9.7% (n=6) medical or other clinical provider, 3.2% (n=2) professional society/association member, and 1.6% (n=1) instructor. [Figure 2] Although not every county was represented, survey respondents were in both rural and urban counties across 48 unique ZIP codes. [Attachment 1]

### Results

Figure 1. Organization Type / Affiliation (n = 62)

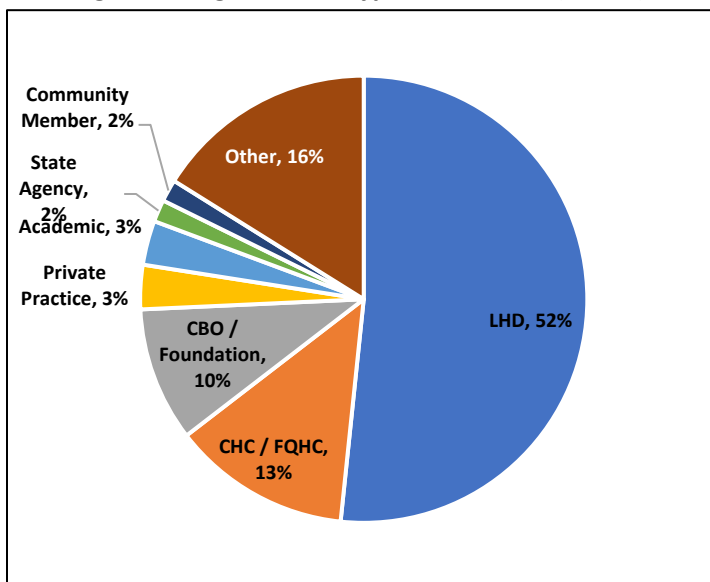
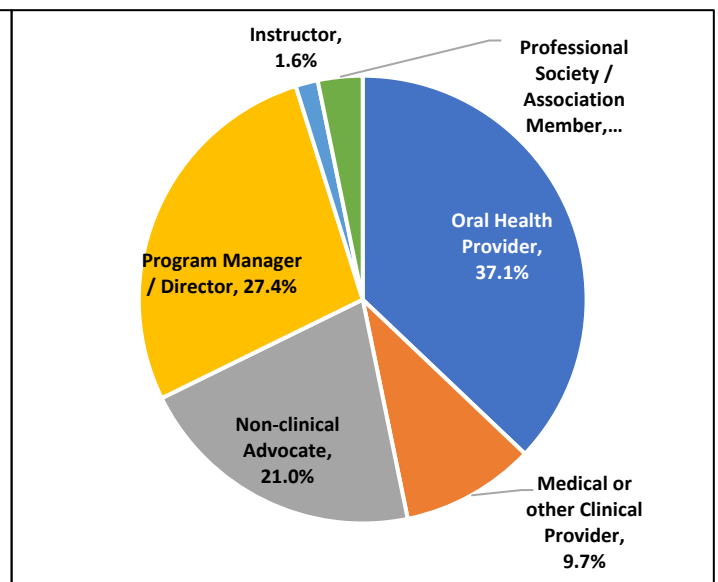


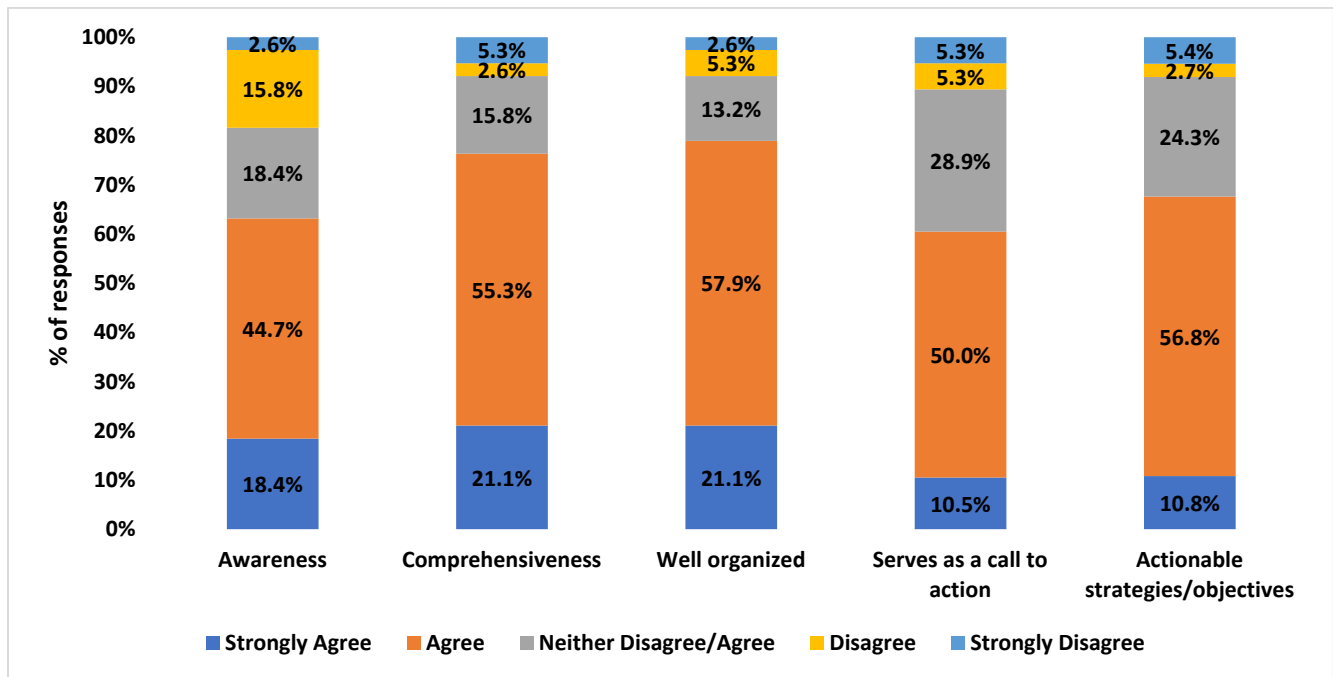
Figure 2. Professional Affiliation (n = 62)



**Plan Attributes**

Survey respondents indicated the degree to which they agree/disagree with various attributes of the IOHP using a Likert scale from 1-5 with 1 being strongly disagree and 5 being strongly agree. The statements included the level of awareness about the IOHP and whether the IOHP is comprehensive, well organized, serves as a call to action, and/or contains strategies/objectives that are actionable. Respondents agreed or strongly agreed with the organization of the plan (79.0%), followed by comprehensiveness (76.4%). For the level of awareness of the plan, 18.4% of respondents disagreed or strongly disagreed.

**Figure 3. Organizational Agreement with Select Attributes of the IOHP**



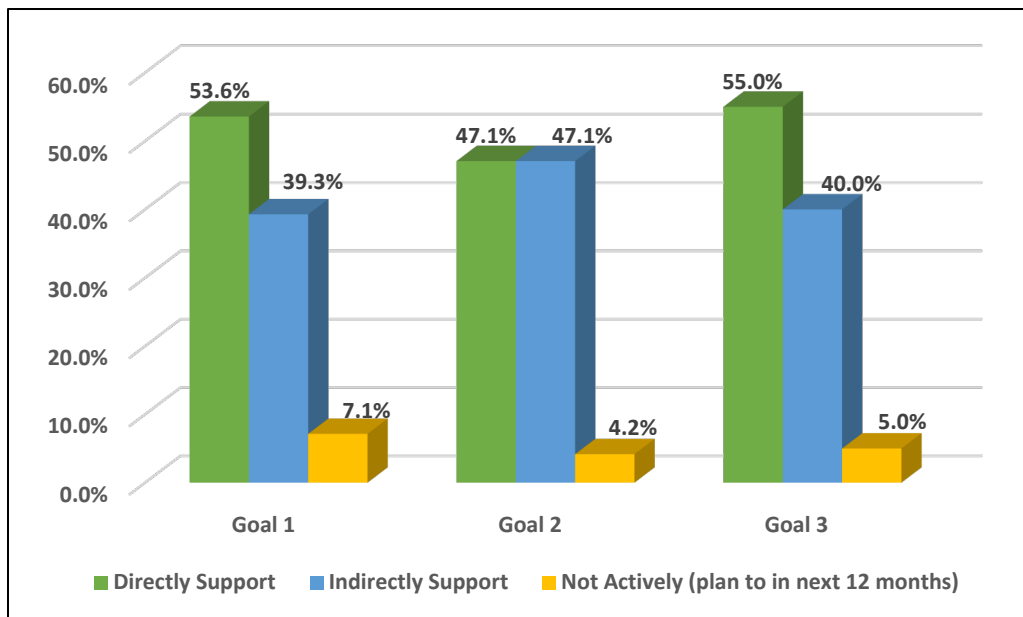
**Plan Support**

Respondents were asked about which IOHP goals aligned with their respective organization's mission or goals. Based on their selections, respondents were then asked specific questions about each goal. The IOHP goals included in the survey were:

- **Goal 1:** Improve oral health status and self-care practices by addressing the promotion of social determinants of health.
- **Goal 2:** Align infrastructure and workforce to promote timely and equitable access to oral health care.
- **Goal 3:** Integrate and expand health promotion, primary prevention, and assurance of appropriate care.

Almost half of respondents indicated organizational alignment with Goal 1 (46.7%), followed by Goal 3 (40.0%), and Goal 2 (38.3%), respectively. Of those, 38.3% indicated supporting two or more goals and 26.7% indicated alignment with all three goals. For each goal, respondents indicated if their organization supports the goal(s) directly, indirectly, or plan to support the goal in the next 12 months. A majority of responding organizations indicated they directly support Goal 3 (55.0%) and Goal 1 (53.6%). Goal 2 had the highest indirect support (47.1%). Across all goals, a few organizations indicated not actively supporting the goal(s) but plan to in the next 12 months. [Figure 4]

Figure 4. Type of Organizational Support by Goal

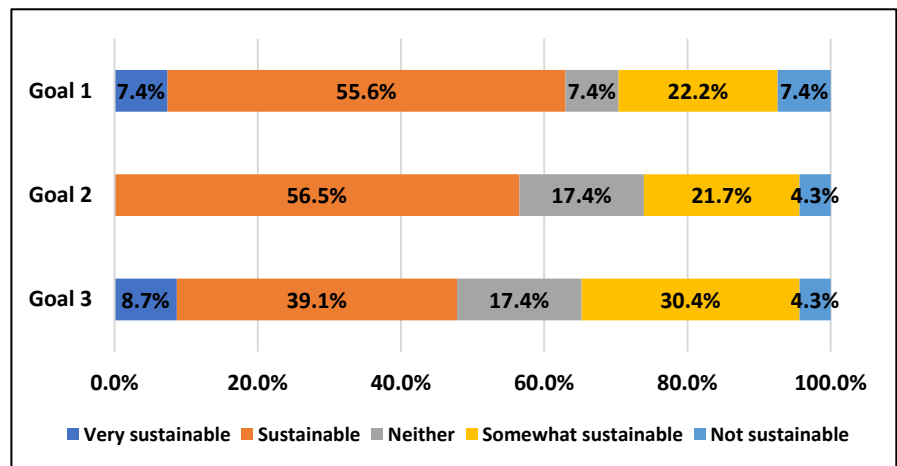


**Sustainability of Activities Implemented in Support of IOHP**

Respondents were asked if the activities they have implemented or enhanced in support of the goal(s) were sustainable. Sustainability was defined as including, but not limited to, funding, organizational support, and community support that are necessary for the long-term continuation of an organizational practice, policy, and/or process.

Respondents indicated activities implemented or enhanced for Goal 1 and Goal 2 were sustainable or very sustainable (63.0% and 56.5%, respectively). Goal 3 had the highest indication of activities being somewhat sustainable or not sustainable (34.7%). [Figure 5]

Figure 5. Level of Sustainability of Activities by Goal



**Impact of Activities Implemented in Support of IOHP**

Respondents were asked about the anticipated impact they foresee for the IOHP goal(s) that they indicated supporting. Specifically, respondents were asked to select the anticipated impact on the IOHP objectives outlined within each goal. (See Attachment 2 for the full list of IOHP objectives by goal and the response percentages.) Across all three goals, the objective with the highest anticipated impact was “Reduce the proportion of adults and children with untreated tooth decay and periodontal disease” (Goal 2). The objective with the lowest anticipated impact was “Increase the number of Illinoisans with comprehensive medical and dental insurance” (Goal 1) [Table 1].

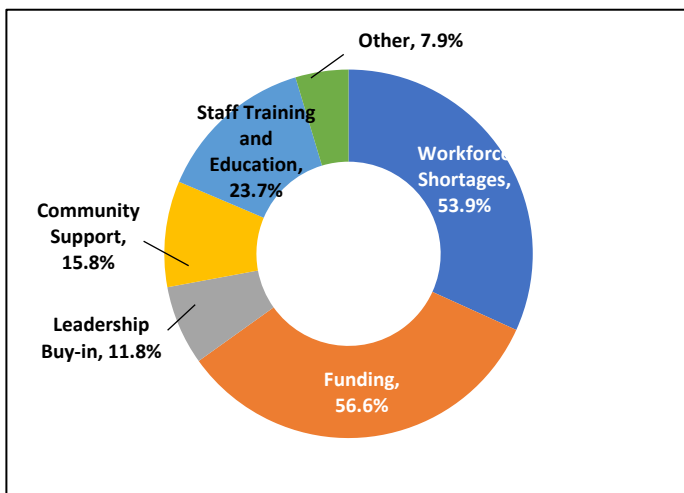
**Table 1. Objectives with Highest and Lowest Anticipated Impact by Goal**

	Highest Anticipated Impact	Lowest Anticipated Impact
<b>Goal 1: Improve oral health status and self-care practices by addressing social determinants of health promotion.</b>	<i>Increase understanding of how and when to obtain appropriate and timely professional oral health care. (71.4%)</i>	<i>Increase the number of Illinoisans with comprehensive medical and dental insurance. (25.0%)</i>
<b>Goal 2: Align infrastructure and workforce to promote timely and equitable access to oral health care.</b>	<i>Reduce the proportion of adults and children with untreated tooth decay and periodontal disease. (83.3%)</i>	<i>Increase the proportion of persons at health centers who also obtain comprehensive oral health services at their home health center. (41.7%)</i>
<b>Goal 3: Integrate and expand health promotion, primary prevention, and assurance of appropriate care.</b>	<i>Expand oral health knowledge by non-oral health care personnel for use in health promotion, primary prevention, and referral for all ages to appropriate care. (70.8%)</i>	<i>Elevate oral health as a priority area within hospital systems, insurance providers, and other community health organizations. (41.7%)</i>

**Challenges of Activities Implemented in Support of IOHP\***

Respondents were asked about challenges they have encountered while supporting each of the respective IOHP goals. When challenges across all three goals were combined, funding and workforce shortages were rated as the greatest challenges at 56.5% and 53.9% respectively. [Figure 6]. A similar trend was observed when analyzing the data within each of the goals independently. Goal 3 had a higher indication of challenges across each of the categories compared to Goal 1 and Goal 2 [Table 2]. Additional challenges indicated by respondents included “dental services for underinsured and uninsured,” “lack of dental providers for kids 5 years of age and under,” and “lack of integration of auxiliary dental care

**Figure 6. Challenges Encountered toward Supporting IOHP Goals, ALL Goals Combined**



**Table 2. Challenges Encountered toward Supporting IOHP Goals By Goal**

	Goal 1	Goal 2	Goal 3
<b>Workforce shortages</b>	53.6%	54.2%	54.2%
<b>Funding</b>	53.6%	58.3%	58.3%
<b>Leadership buy-in</b>	7.1%	8.3%	20.8%
<b>Community support</b>	21.4%	4.2%	20.8%
<b>Staff training and education</b>	17.9%	20.8%	33.3%
<b>Other</b>	7.1%	12.5%	4.2%

\*Respondents were able to select more than one category per response. As such, totals may not equal 100%

professionals.”

**Conclusion**

The IOHP serves as a critical framework for shaping oral health services and infrastructure as well as supporting the oral health needs of Illinoisans. The IOHP was rated favorably for being comprehensive, well organized, and serving as a call to action across various organizations. However, awareness of the IOHP was rated lower than all other categories. An ongoing priority should be around finding creative and innovative ways to solicit feedback/input from a variety of stakeholder

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groups when revising future IOHP iterations. Additionally, utilizing multiple modalities to promote the IOHP could support increased awareness/buy-in and lead to enhanced utility, alignment, and overall health outcomes.

The majority of respondents indicated directly or indirectly supporting one or more of the IOHP goals. Overall, the sustainability of the activities implemented in support of the goal(s) seemed promising. For areas with the lowest sustainability, further discussions might be necessary to understand unique challenges in making these activities sustainable (e.g., partnerships, service expansion limitations, health care access through reimbursement mechanisms, etc.).

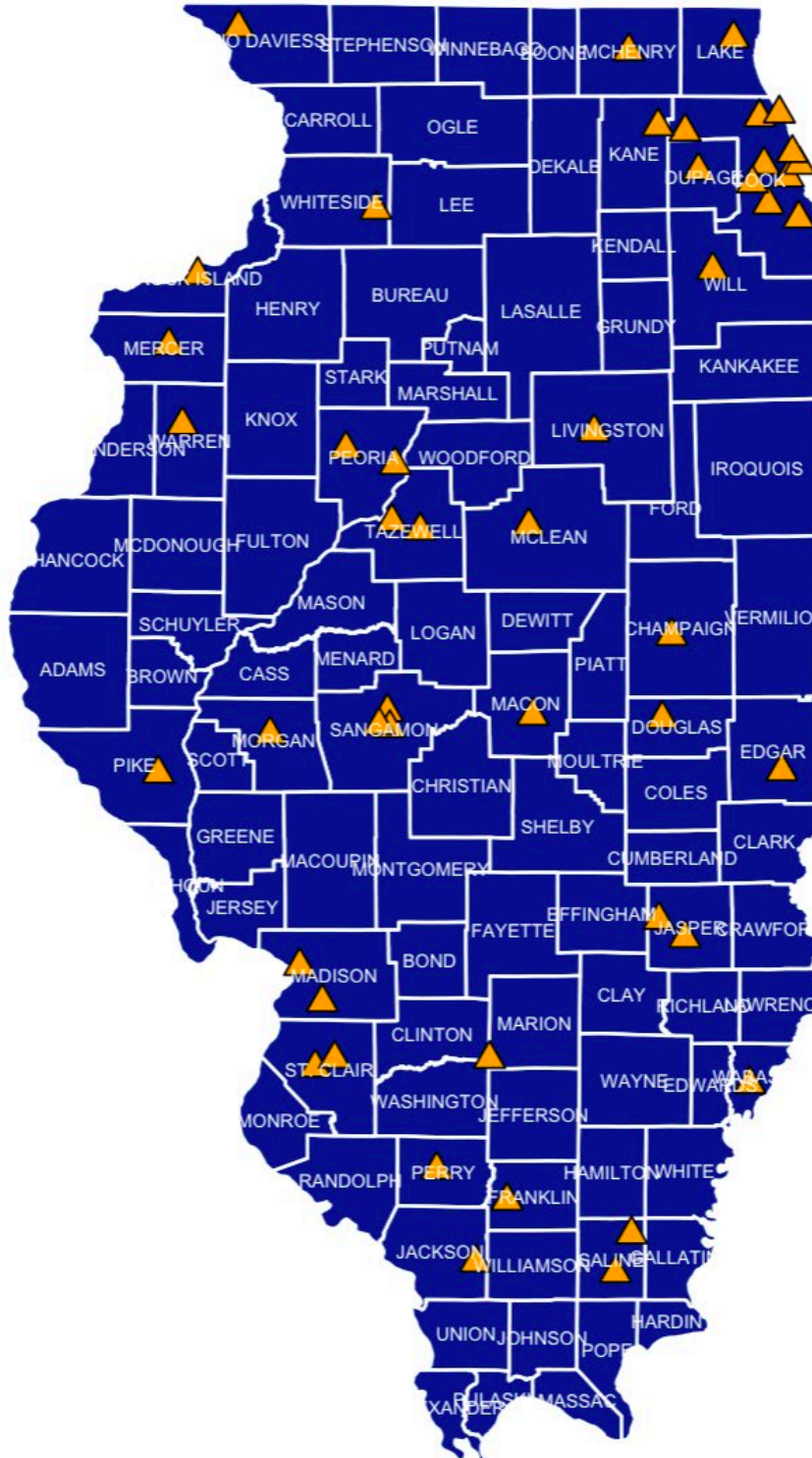
Not surprisingly, common themes regarding the highest anticipated impact of the IOHP were around areas that can be influenced through patient education and/or services; whereas common themes regarding the lowest anticipated impact of the IOHP were around areas that require broader policy and systems changes.

This survey informed IDPH OHS of the challenges organizations face while supporting the IOHP. The greatest challenges were related to funding, staffing, workforce shortages, staff education and training, and re-connecting oral health to health care systems. The IDPH OHS continues to work to highlight opportunities, showcase successes, and bring in statewide funding to address some of these challenges. Additional efforts related to reimbursement and coordination of oral health services, especially for those uninsured and underinsured, remain critical. Continued collaboration with oral health partners across the state and in alignment with the IOHP remain top priorities.

IDPH OHS plans to utilize this survey instrument (or equivalent) to ensure the *Illinois Oral Health Plan (IOHP) IV: Eliminating Inequities in Oral Health (2021 – 2025)* and future iterations of IOHPs are a useful resource for oral health providers, health systems, stakeholders, and community members.

Attachment 1

# IOHP Evaluation Survey Respondent Locations , by ZIP Code 2022-2023, 48 ZIP Code Locations



**Attachment 2. Anticipated Impact of Supporting IOHP goal(s), by Objective**

<b>Goal 1: Improve oral health status and self-care practices by addressing social determinants of health promotion.</b>	<b>%</b>
<i>Increase the number of Illinoisans with comprehensive medical and dental insurance.</i>	25.0%
<i>Increase understanding of how and when to obtain appropriate and timely professional oral health care.</i>	71.4%
<i>Address common risk factors for disease (e.g., nutrition, tobacco use) by sharing messaging with the diverse population of Illinois that good oral health is essential to good overall health.</i>	60.7%
<i>Decrease high-risk behaviors that contribute to oral health inequities, such as tobacco and e-cigarette/vaping use in adolescents and consumption of sugar-sweetened beverages.</i>	57.1%
<i>Increase protective behaviors that improve oral health equity, such as HPV vaccination, fluoride, and healthy weight.</i>	57.1%
<b>Goal 2: Align infrastructure and workforce to promote timely and equitable access to oral health care.</b>	<b>%</b>
<i>Drive workforce development and intervention models designed to improve oral health outcomes for all Illinoisans with a focus on Medicaid members and uninsured persons.</i>	54.2%
<i>Increase clinical service capacity in dental health professional shortage areas through recruitment and incentivizing workforce to provide care in these geographies and populations.</i>	50.0%
<i>Improve the Illinois Medicaid dental benefit to meet the health care needs of its members with a focus on family as a unit.</i>	50.0%
<i>Reduce the proportion of adults and children with untreated tooth decay and periodontal disease.</i>	83.3%
<i>Increase the proportion of persons at health centers who also obtain comprehensive oral health services at their home health center.</i>	41.7%
<i>Decrease the proportion of the Illinois population that uses the emergency department for non-traumatic dental issues.</i>	62.5%
<b>Goal 3: Integrate and expand health promotion, primary prevention, and assurance of appropriate care.</b>	<b>%</b>
<i>Elevate oral health as a priority area within hospital systems, insurance providers, and other community health organizations.</i>	41.7%
<i>Expand oral health knowledge by non-oral health care personnel for use in health promotion, primary prevention, and referral for all ages to appropriate care.</i>	70.8%
<i>Increase appropriate oral health service delivery in non-oral health settings.</i>	54.2%