# Oral Health in Illinois

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Illinois Children's Healthcare Foundation, Delta Dental of Illinois Foundation, and the Michael Reese Health Trust seek to catalyze oral health practitioners, healthcare providers, policy makers, insurers and educators in Illinois to find solutions to **improving the oral health of children and adults**, and ensuring access to preventive and treatment oral health services.

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# Foreword

Illinois Children's Healthcare Foundation (ILCHF), founded in 2002, began investing in children's oral health programs in 2004 as part of its strategy to make comprehensive health services available to all children in Illinois. The Foundation's early findings that children's oral health was one of the most pressing, unmet health care issues facing Illinois children, resulted in ILCHF's 2007 Children's Oral Health Initiative. In collaboration with the oral health community, **ILCHF adopted the following oral health vision:**

> *All children have access to quality oral health services in their communities and a new culture of awareness exists throughout the state about the interconnection of oral health and overall health.*

To date, ILCHF has committed over $37 million to children's oral health programs across the state designed to:

- **Build and strengthen the capacity of the safety net system to deliver high quality services**
- **Increase the number of health professionals caring for underserved children**
- **Create a greater awareness of the role that oral health plays in a child's overall health**

Early on, both ILCHF and Delta Dental of Illinois Foundation learned that in order to positively impact children's health, initiatives must take into account that children live and thrive within the context of families, parents, caregivers, schools, health care providers and other structures. Moreover, in order to measure impact and inform future strategies, data are imperative. In some respects, Illinois is rich in oral health data; however, data sources were fragmented. This fragmentation constituted a barrier to the creation and implementation of a systemic approach to improving the oral health of children and adults living in Illinois.

To overcome this barrier, ILCHF, in collaboration with Delta Dental of Illinois Foundation and the Michael Reese Health Trust commissioned this statewide oral health assessment, *Oral Health in Illinois* (the Assessment). The goal of the Assessment is to compile and analyze relevant data and produce a comprehensive picture of the state of oral health across the lifespan of all Illinoisans for the purpose of catalyzing systemic changes to meet the identified needs.

The Assessment was the first step in our collaborative commitment to quality oral health care for all. The second step was the creation of a website by the Delta Dental of Illinois Foundation. The Assessment maps and summarizes key statistical information. The website contains additional data, maps and charts that will be routinely updated to reflect the current state of oral health in Illinois. The third step will involve convening a series of meetings to outline actions to move this work forward. It is our hope that the information provided will be a resource to guide and direct future investments, engage new partners and impact public policies. We invite you as a committed partner, to continue to work with us toward good oral health for all Illinoisans.

# Executive Summary

ORAL HEALTH is an indivisible component of health and well-being of infants, children, adolescents, adults and seniors. At all ages, we need quality oral health care, including routine dental care. While tooth decay and oral diseases are among the most prevalent chronic health problems in the United States and in Illinois, the good news is that most oral health disease is preventable or treatable.

In 2000, the U.S. Surgeon General's report, *Oral Health in America*, rallied the nation to action to address the "silent epidemic" of poor oral health across the nation. Since then, national efforts, including *Healthy People 2020* and the Institute of Medicine's *Oral Health in America*, prioritized the promotion and advancement of oral health for all Americans. These national efforts spurred Illinois into action, leading to the most recent plan, *Healthy People, Healthy Smiles* (2012).

Building on these earlier efforts to advance oral health in Illinois, this report, Oral Health in Illinois, gives a comprehensive snapshot of the state of oral health across the lifespan of Illinoisans living in rural, suburban and urban communities. It also offers a blueprint for moving forward to achieve better health for all our residents—from pregnancy and infancy through older adulthood.

### *Oral health of Illinois children and adults*

Untreated cavities and oral health problems are highly prevalent among children in Illinois. Illinois children living in poverty are five times more likely to have fair or poor oral health compared to other children. Illinois is making strides to address the income disparities in children's oral health. The prevalence of untreated tooth decay declined to 22% (2013–2014), down from 30% in the previous decade (2003–2004), and the number of children with sealants has almost doubled.[1] However, one in five children has untreated tooth decay and access to pediatric oral health care is inadequate in Illinois. Only two-thirds of privately insured children and just over half (55%) of Medicaid covered children saw a dentist in 2013.[2]

Similarly, disparities exist in adult oral health care access and appear to be worsening. In 2015, over one third of Illinois adults (36%) reported not having visited the dentist in the past year, compared with 27% in 2005.[3] Poverty, living in a rural community, lack of awareness of the importance of preventive oral health care and treatment of decay and disease, fear, cost and lack of insurance are barriers to care.

### *Capacity of the oral health system in Illinois*

Public and private investments have been made toward building and strengthening the oral health infrastructure in Illinois. However, the current oral health delivery system falls short in being able to meet the level of need of the Illinois population. Persistent shortages in the oral health workforce limit access to oral health care in many rural areas of Illinois, and particularly in Southern Illinois. Millions of Illinoisans live in dental healthcare shortage areas, and many more live in areas without access to any specialty dental providers.[4]

More positively, a critical investment in the oral health of Illinois children is the school-based dental sealant program, which makes some preventive oral health care accessible to thousands of children every year in parts of the state. Fluoridation of drinking water also protects oral health; 99% of public water systems in Illinois are fluoridated, providing some oral health protection to the general public across the state.[5]

### *Oral health policy*

Illinois Fee-for-Service Medicaid reimbursements for oral health care are the fourth lowest in the nation for children, and last in the nation for adults. Low reimbursement drives down provider participation in Medicaid.[6] Seventeen of 102 counties in Illinois have no registered Medicaid dental provider, and another 27 counties have only one registered Medicaid dental provider.[7,8] Illinois falls behind other states (34th) in the number of Medicaid children receiving dental treatment.[9]

### *Where do we go from here?*

This assessment provides a foundation for understanding and strengthening the oral health infrastructure in Illinois. The Assessment indicates numerous opportunities to move the system forward, including the following:

1. **STUDY** the adequacy of Medicaid and Medicare reimbursements for oral health services and review the administrative burden on providers.
2. **EXPLORE** further integration of oral health and primary care.
3. **CONSIDER** a statewide public health approach to oral health messaging.

# Introduction

TOOTH DECAY AND ORAL DISEASES are among the most prevalent and preventable chronic health problems across the United States. In 2015, the Illinois Children's Healthcare Foundation (ILCHF), Delta Dental of Illinois Foundation, and the Michael Reese Health Trust launched this statewide oral health assessment, Oral Health in Illinois (the Assessment). The Assessment analyzes multiple sources of statistical information on oral health needs of Illinoisans, summarizes national and state trends in oral health care and policies over the past fifteen years, and suggests an approach to improving oral health of Illinoisans.

ILCHF, Delta Dental of Illinois Foundation, and the Michael Reese Health Trust seek to catalyze oral health practitioners, healthcare providers, policy makers, insurers and educators in Illinois to find solutions to improving the oral health of children and adults, and ensuring access to oral health services. Catalyzing action requires understanding the historical context and current conditions.

**CHAPTER 1** describes the extraordinary influence of the Surgeon General, propelling the nation to address the epidemic of oral health disease (2000). We examine the resulting responses of the U.S. Department of Health and Human Services (2010), Institute of Medicine (2011), and the Patient Protection and Affordable Care Act (2010), and the State of Illinois (2002–2012).

**CHAPTER 2** focuses on the burden of oral disease in Illinois, with particular focus on the persistent oral health disparities across the lifespan, and root causes for these disparities.

**CHAPTER 3** examines the capacity of the oral health system in Illinois. In addition to detailed quantitative data regarding capacity, over 60 oral health stakeholders across multiple sectors and geographic areas in Illinois were interviewed to provide their perspectives on the oral health safety net system.

**CHAPTER 4** addresses the policies that shape oral health status and access in Illinois.

**CHAPTER 5** concludes this report by considering strategies for improving access to oral health, strengthening the public health infrastructure and reducing health disparities in Illinois.

**HEALTHY PEOPLE 2020** established **oral health** as one of the nation's **12 highest priority** health issues.

1

2.48 million adults in Illinois have **untreated tooth decay**.

CHAPTER 1

# Oral Health: Historical and Current Context

## 1.1.0 SURGEON GENERAL'S CALL TO ACTION

In 2000, the U.S. Surgeon General's landmark report, *Oral Health in America*, drew the nation's attention to the silent epidemic of oral health disease in the United States, an epidemic that disproportionately affects our most vulnerable citizens—poor children, the elderly, members of racial and ethnic minority groups, and those affected by birth defects with disabling oral and craniofacial aspects.[10] In 2003, the Surgeon General gave the nation a framework for action to address this silent epidemic. The 2003 *National Call to Action to Promote Oral Health* garnered commitment of expertise and resources and mobilized public and private partnerships at all levels of society to engage in programs to promote oral health and prevent disease.[11]

Responding to the call to action, the U.S. Department of Health and Human Services (HHS) launched the *2010 Oral Health Initiative*. Subsequently, two broad-sweeping Federal efforts moved the *Oral Health Initiative* forward at the national and state level; these are *Healthy People 2020* and the Patient Protection and Affordable Care Act (ACA), Public Law 111–148.

## 1.2.0 *HEALTHY PEOPLE 2020*: MAKING ORAL HEALTH A NATIONAL AND STATE PRIORITY

*Healthy People 2020* established oral health as one of the nation's twelve highest priority health issues. *Healthy People 2020* affirmed that good oral health is essential to health and well-being, improving "a person's ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions."[12,13,14]

One of the great public health stories over the past 50 years is the marked improvement of the oral health of Americans.[15] This oral health success resulted from widespread adoption of community water fluoridation, along with the advancements in effective prevention and treatment.

Although these historic improvements in oral health are significant, much work is still required to reduce the burden of oral health disease. One in four American adults still has untreated tooth decay.[16] This equates to 2.48 million Illinois adults. Recognizing the work yet to be accomplished, *Healthy People 2020* sets forth objectives to ensure that all Americans are aware of the importance of oral health, adopt preventive practices, and are able to access effective preventive and dental treatment services. *Healthy People 2020* sets three key oral health objectives:[17]

- ***Increase awareness*** *of the importance of oral health to overall health and well-being;*
- ***Increase acceptance*** *and adoption of effective preventive interventions; and*
- ***Reduce disparities*** *in access to effective preventive and dental treatment services.*

*Healthy People 2020* not only elevated oral health as a priority at the national level, but at the state level as well. With guidance from the Centers for Disease Control and Prevention (CDC), Division of Oral Health (DOH), Illinois and other states launched oral health planning efforts. Specifically, the CDC encouraged states to support community water fluoridation, promote greater use of school-based and school-linked dental sealant programs, monitor oral diseases, such as dental caries (tooth decay) and periodontal infections (gum disease).

In summary, the *2010 Oral Health Initiative* and the oral health focus of *Healthy People 2020* gave impetus to federal agencies, state and local public health departments to collaborate, develop plans with measurable objectives, and partner across multiple sectors. State oral health plans guide efforts to improve oral health across life stages and overcome barriers to access to oral health care caused by geographic isolation, poverty, insufficient education, and lack of communication skills.

## 1.3.0 IOM AND ACA IMPERATIVE: IMPROVE ORAL HEALTH CARE ACCESS

In 2011, the Institute of Medicine (IOM) issued *Oral Health Care in America*. The IOM called for greater HHS accountability to ensure that the *Oral Health Initiative* advances the goals and objectives of *Healthy People 2020*. The IOM recommended increasing emphasis on disease prevention and oral health promotion; greater efforts to improve oral health literacy and cultural competence; new models of payment and delivery of care; and enhanced roles of non-dental health care professionals.[18] The IOM report emphasizes the need to improve access to oral health care, particularly among under-served and vulnerable populations.

During this same time period, the U.S. and state governments began implementation of the Affordable Care Act (ACA), signed into law on March 23, 2010. The ACA requires comprehensive health insurance reforms to make health care more affordable, accessible, and of higher quality for all Americans. The ACA includes provisions that directly target poor oral health, as well as health care in general.[19]

The ACA contains a number of strategies toward improving oral health through insurance plan improvements, oral health education, expansion of sealant programs and dental training. The ACA requires that:[20]

- *Most health plans (including basic health plans and plans offered under Medicaid expansion) cover a set of essential health benefits (EHBs) that includes pediatric oral care;*
- *The CDC will establish a five-year national oral health education campaign, using science-based strategies to target children, pregnant women, parents, the elderly, individuals with disabilities and ethnic and racial minority populations;*
- *Research-based oral health programs will be used to inform the public education campaign (effectiveness determined through ACA-funded demonstration studies);*
- *Existing school-based dental sealant programs will be expanded;*
- *HHS is authorized to make grants to, or enter into contracts with, dental schools, hospitals and nonprofits to participate in dental training programs, with allowance for direct financial assistance to program participants (including dental and dental hygiene students, practicing dentists, loan repayment for faculty in dental programs); and*
- *Funding for demonstration programs will be used to train or employ alternative dental health providers in underserved communities, as well as general funding for graduate medical education and residency programs.*

## 1.4.0
## STATE OF ILLINOIS: PROMOTING ORAL HEALTH, ACCESS AND PARTNERSHIP

In 2000 the Illinois Department of Public Health (IDPH) Division of Oral Health (DOH) developed the Illinois Oral Health Surveillance System (IOHSS). In 2001, IDPH convened an *Illinois Oral Health Summit*, and published the first *Illinois Oral Health Plan* in 2002. IDPH published the second state oral health plan in 2007, *Oral Health Care in Illinois*, *A Roadmap to the Future*, and the most recent plan, *Healthy People, Healthy Smiles*, in 2012.[21]

In 2010, the *Illinois State Health Improvement Plan* (SHIP) identified oral health as one of nine priority health areas. IDPH contracted with the IFLOSS Coalition, a statewide public-private partnership, to create the 2012 oral health plan for Illinois, *Healthy People, Healthy Smiles*, which aligns with the oral health objectives of *Healthy People 2020*. While this alignment would improve the ability to measure and monitor progress, and to compare progress to other states and the nation as a whole, for myriad reasons, including budgetary constraints and a vacancy in IDPH Director of the Division of Oral Health position, the action steps outlined in the 2012 *Healthy People, Healthy Smiles* have not been operationalized.

GOOD ORAL HEALTH IS ESSENTIAL TO HEALTH AND WELL-BEING, IMPROVING "A PERSON'S ABILITY TO SPEAK, SMILE, SMELL, TASTE, TOUCH, CHEW, SWALLOW, AND MAKE FACIAL EXPRESSIONS TO SHOW FEELINGS AND EMOTIONS.

*—HEALTHY PEOPLE 2020*

STATE ORAL HEALTH PLANS GUIDE EFFORTS TO IMPROVE ORAL HEALTH ACROSS LIFE STAGES AND OVERCOME BARRIERS TO ACCESS TO ORAL HEALTH CARE CAUSED BY GEOGRAPHIC ISOLATION, POVERTY, INSUFFICIENT EDUCATION, AND LACK OF COMMUNICATION SKILLS.

*—HEALTHY PEOPLE 2020*

Illinois children **living in poverty** are

## 5x more likely

to have **fair or poor** oral health.

Only 65% of Illinois children have had their 1st visit to a dentist before **5 years of age**.

17% of Illinois adults aged 65+ have **lost all of their natural teeth** due to tooth decay.

CHAPTER 2

# Oral Health of Illinois Children and Adults

Oral disease impacts physical, psychological, social, and economic health and well-being. The silent epidemic of dental disease, pain and diminished function burdens children and adults. Some population groups (e.g., children with special health care needs, pregnant women, children from poorer school districts, and low income adults) experience higher rates of oral health disease and have less access to care.

In this section, we address the question: ***What is the oral health status of children and adults in Illinois?*** We begin by describing the epidemiology of oral health disease among children and adults in Illinois; that is, we report and compare the prevalence of oral health problems among population subgroups, and describe the associated health burdens.

## 2.1.0 BURDEN OF ORAL HEALTH DISEASE

Approximately one in four adults and one in five children in the U.S. has untreated dental caries (also called dental cavities or tooth decay).[22] Thus, among the 9.9 million adults and 2.96 million children in Illinois, we estimate that 1.98 million adults and 651,000 children have untreated tooth decay.

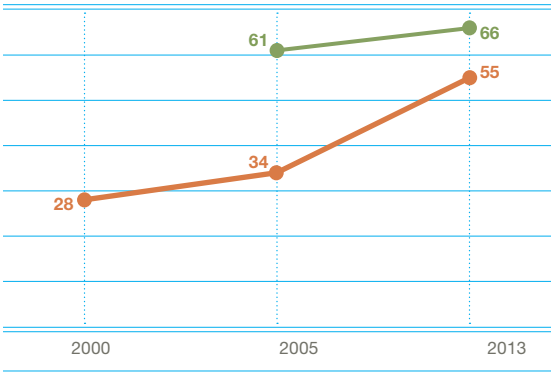
### *2.1.1 Childhood dental disease*

Childhood dental disease is largely preventable by early examination, identification of individual risk factors, education of parents and guardians, and early initiation of preventive care. Among third grade children in Illinois, the *Healthy Smiles, Healthy Growth* study (2013–2014) shows that 22% have untreated tooth decay, down from 30% the previous decade (2003–2004).[23] This is an encouraging trend, however applying the rate of 22% to the 2.96 million children across the state, we estimate that approximately 651,000 children in our state still have untreated decay.

Tooth decay is one of the most common chronic health conditions among children, often leading to pain and reduced ability to function academically and socially. The good news is that tooth decay is preventable and treatable. The bad news is that only 66% of children with private dental benefits coverage, and 55% of children with Medicaid coverage, had a dental visit in the past 12 months.[24]

Recognizing the progressive nature of oral disease, the American Academy of Pediatric Dentistry recommends that children visit a dentist within six months of getting their first tooth, and all children should see a dentist before their first birthday. Yet, according to a recent survey conducted by Delta Dental of Illinois, only 65% of Illinois children who have seen a dentist had their first visit before five years of age.[25]

**Illinois children with a dental visit in the past 12 months**
*(As a percent)*




*Source: Health Policy Institute, American Dental Association, 2016*

Knowing the reasons and risk factors for oral health disease among children is important to improve programming and policy. The National Maternal and Child Health Resource Center at Georgetown University summarizes the leading risk factors associated with poor oral health among children and adolescents:

- *Oral health care access disparities, particularly untreated tooth decay and low prevalence of sealant use among Black and Latino children;*
- *Affordability of oral health care;*
- *Unmet oral health care needs among children with special health care needs;*
- *Lack of adequate nutrition combined with excessive sugar consumption, particularly among children without regular exposure to fluoride through drinking water, toothpaste and varnish;*
- *Injury and violence leading to craniofacial, head, face and neck injuries, which occurs in more than half of cases of child abuse, as well as injury in sports, particularly when mouth guards are not used; and*
- *Exposure to maternal tobacco (associated with cleft palate and cleft lips) and environmental tobacco smoke which increases children's risk for tooth decay and for defective enamel formation.*[26]

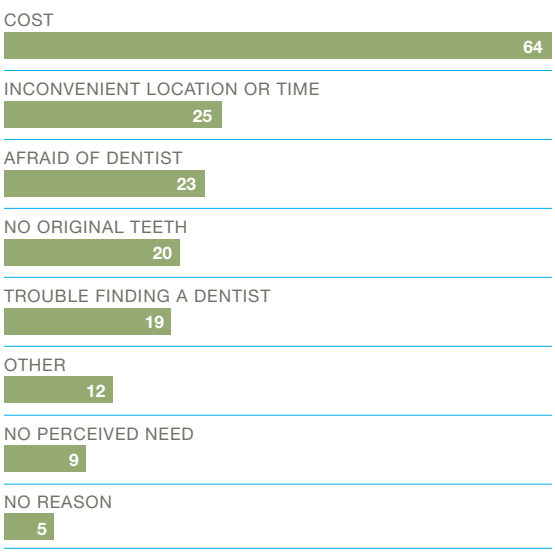
### *2.1.2 Adult dental disease*

In 2015, the American Dental Association (ADA) Health Policy Institute, in conjunction with the ADA Practice Institute and ADA Science Institute, developed a comprehensive survey to assess how Americans view their oral health and how they interact with the U.S. oral health care system. State level measures include self-reported oral health status and attitudes toward oral health, dental visits, insurance sources and status, and oral health services access.[27]

According to the findings of the 2015 ADA Illinois survey, in which adults were asked if they would rank their oral health as very good, good, fair, or poor, one in five Illinois adults reports the overall condition of his or her mouth and teeth is either fair (14%) or poor (8%); resulting in an estimated 2.1 million adults in Illinois who have fair or poor conditions of their mouths and teeth. Among the adults surveyed, 16% report avoiding smiling; and 19% report difficulty biting and chewing.

Among the respondents who had not visited a dentist or dental clinic, two-thirds (64%) cited cost as a reason. Other reasons included inconvenience (25%), fear (23%) and trouble finding a dentist (19%). One in five surveyed adults had no original teeth.

**Reasons for not visiting the dentist more frequently, among Illinois adults without a visit in the last 12 months**
*(As a percent)*




*Source: Health Policy Institute, American Dental Association, 2016*

## 2.2.0
## ORAL HEALTH INEQUITIES

### *2.2.1*
### *Oral health inequities among children*

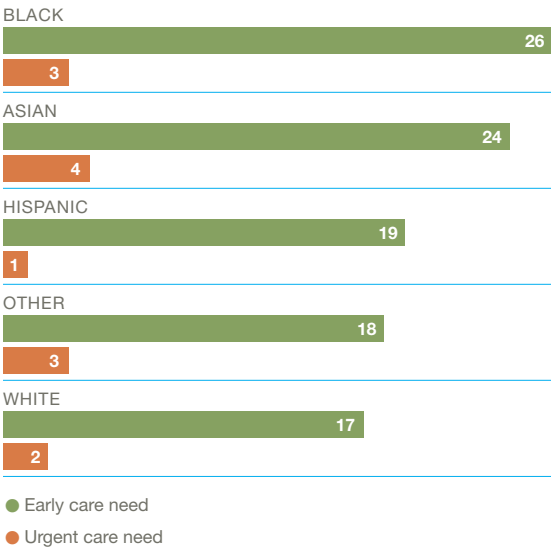
Illinois children living in poverty are five times more likely to have fair or poor oral health compared to children who do not live in poverty.[28] Nearly one in three Black children has untreated decay. Latino children are more likely than children of any other racial group to have caries experience, with 58% of Latinos having caries experience, compared to 52% among children overall.[29]

Looking at children's oral health status by geographic area, Suburban Cook County and rural areas have the highest burden of oral health disease. Nearly a third of children living in rural areas have untreated decay, compared to one in five children in urban areas.[30] Suburban Cook County children are twice as likely to have untreated decay as their Chicago peers. Less than one in five (18%) Suburban Cook County third graders have had any sealants applied to their teeth.[31]

Children living in poverty have less access to dental treatment, both general and specialty care. Few specialty providers accept Medicaid. Clearly these socioeconomic, racial, and geographic disparities begin in childhood and continue into adulthood and old age, and have profound consequences for children's overall health. Poor oral health impacts children's ability to participate in the essential experiences of childhood including participation in academic, social and recreational activities.

Pediatric dentists are the most common Medicaid specialty provider; however, there were only 49 pediatric dentists in Illinois participating in the Medicaid program in 2012.[32] In Illinois, Medicaid reimbursement for pediatric oral health was only 33% of what commercial insurance pays. Nationally, the average is 49%.[33]

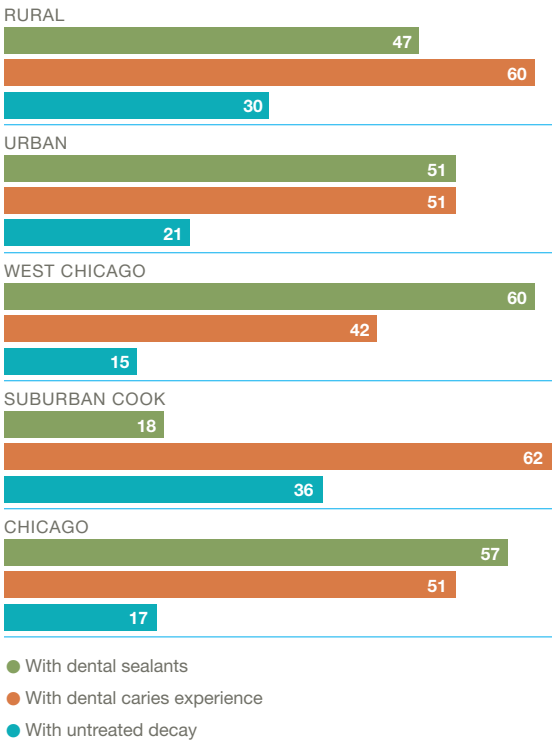
**Percentage of third graders with early and urgent care needs**
*(As a percent)*




*Source: Valencia A. Healthy Smiles, Healthy Growth: Assessing the Oral Health Status and Body Mass Index of Third Grade Children; 2014*

Through a combination of private insurance coverage and Medicaid, all Illinois children are eligible for dental coverage for treatment and an annual preventive dental visit. However, only two-thirds (66%) of children with private benefits, and 55% of children with Medicaid coverage, had a dental visit in the previous year.[34]

**Oral health status of children by region**
*(As a percent)*




*Source: Valencia A. Healthy Smiles, Healthy Growth: Assessing the Oral Health Status and Body Mass Index of Third Grade Children; 2014*

In 2015, 82% of all oral health services that were billed to Fee-for-Service Medicaid for children were either diagnostic (oral exams) or preventive (cleanings, fluoride varnish, and sealants). Restorative procedures, such as fillings and crowns, comprised just 9% of services, and oral surgery comprised another 4%. Specialty services, including orthodontics (braces) and endodontics (root canals), comprised the remaining 5% of services.[35]

The high proportion of children seen for preventive services may reflect the large number of school children seen by school-based dental sealant providers, who generally perform dental exams, cleaning, fluoride varnish, and sealants. The high proportion of children receiving preventive dental care may also reflect better access to these procedures due to higher reimbursement rates combined with the less resource-intensive nature of these procedures, as compared to more complex restorative procedures which are reimbursed at a lower rate.

There is a large unmet need for pediatric dental services, reflected in the statistics that 22% of children have untreated caries, and 2% have urgent dental needs.[36] There is also a lack of Medicaid specialist providers.

### *2.2.2 Oral health inequities among adults and older adults*

Among adults, household income is key predictor of oral health status and oral healthcare utilization. The ADA Health Policy Institute survey results for Illinois indicate that 93% of high income adults report good or very good oral health, as compared to 80% of middle income adults, and just under half (47%) of low income adults. While only 1% of adults from high income households report poor oral health, 20% of low income adults reported their oral health as poor.[37]

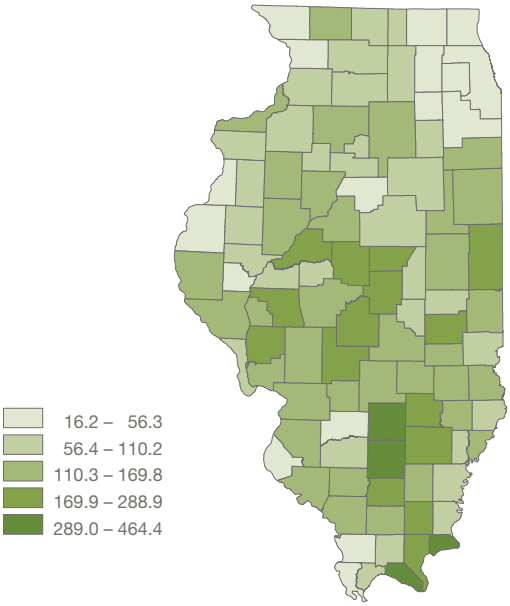
Over one-third of Illinois adults (36%), 3.6 million people, did not visit a dentist in the past year.[38] Consistent with national trends, the percent of Illinois adults visiting a dentist decreased in recent years. In 2005, 73% of Illinois adults visited a dentist in the past year. This percentage dropped to 64% in 2014.[39]

Adults of higher incomes and higher educational attainment were twice as likely to have had a recent dental visit (82% versus 40%). Illinois adults making $75,000 or more were twice as likely to have seen the dentist in the past year as those making less than $25,000.[40] College graduates

were also twice as likely to have seen the dentist compared with those with less than a high school diploma.[41] Over two-thirds of White Illinois adults had a recent dental visit, as compared to 58% of Black adults, and 48% of Latino adults.

Geographic location disparities exist, with 72% of suburban adults reporting visiting a dentist in the past year, compared to 69% of urban adults and 59% of rural adults.[42] Oral health Emergency Department (ED) visit rates for adults are highest in rural and southern Illinois counties where access to oral health care is limited. The risk of many diseases and health conditions increases with age. One population may have a higher rate of disease than another simply because they have more elderly residents. The purpose of age-adjustment is to compare rates across groups (in this case, oral health ED visit rates by race or county) after controlling for differences caused by differing population age distributions. In Figure 01, the age-adjusted rates of oral health ED visits (per 10,000 adults) range from under 56.3 in the Chicago area to Southern Illinois counties with rates over 289 per 10,000 adults.

*FIGURE 01.* **Age-adjusted oral health ED visit rates for adults, 2012-2014**




*Source: Illinois Hospital Association,* Discharge Data*, 2012-2014*

The Oral Health Forum conducted a financial analysis of the costs associated with the *Utilization of Emergency Departments for Non-Traumatic Dental Care (NTDC) in Illinois—2010 to 2014*.[43] The Oral Health Forum reported that in FY 2014, 32,859 Medicaid visits for NTDC were provided in ED settings in Illinois. The average visit charge for a Medicaid enrollee was $1,011 and the total charge to Illinois Medicaid was $33,256,845. Based on national estimates of the percent of divertible ED visits and the median cost of dental care in a community setting, The Oral Health Forum estimated that an effective statewide ED diversion program with dental care provided in a community setting has the potential to save the State of Illinois approximately $20.1M per year, in the Medicaid program alone.[44]

Oral health problems in adulthood continue into older adulthood. Older adults often have high levels of oral health need, with relatively low access to care. Factors contributing to the oral health status of seniors include overall declining health, side effects of medications, limited past access to preventive care, lack of access to providers, and a lack of dental insurance coverage. The 2016 Oral Health America report, *State of Decay*, indicates that poor health status among older adults is further exacerbated by income, disability, and race disparities. The *State of Decay* report gave the Illinois oral health infrastructure for seniors an overall ranking of 16th out of the 50 states, based on levels of edentulism (total tooth loss), water fluoridation, Medicaid benefits for low income seniors, the presence of a state oral health plan, and oral health surveillance.

ACCORDING TO THE CDC, IN 2015, 17% OF ADULTS AGED 65 AND OLDER IN ILLINOIS HAD LOST ALL OF THEIR NATURAL TEETH DUE TO TOOTH DECAY OR GUM DISEASE. THIS IS JUST SLIGHTLY HIGHER THAN THE NATIONAL AVERAGE OF 16%.

FACTORS CONTRIBUTING TO THE ORAL HEALTH STATUS OF SENIORS INCLUDE OVERALL DECLINING HEALTH, SIDE EFFECTS OF MEDICATIONS, LIMITED PAST ACCESS TO PREVENTIVE CARE, LACK OF ACCESS TO PROVIDERS, AND A LACK OF DENTAL INSURANCE COVERAGE.

According to the CDC, in 2015, 17% of adults aged 65 and older in Illinois had lost all of their natural teeth due to tooth decay or gum disease. This is just slightly higher than the national rate of 16%. In a 2009 assessment by the Illinois Department of Public Health and IFLOSS, 29% of seniors had untreated decay and 19% had an urgent need for dental care.[45] Limited dental insurance and no Medicare dental coverage (other than emergency care) are barriers to seniors. Illinois seniors also experience significant health inequities by educational attainment and income. Seniors with less than a high school education were more than three times as likely to have no remaining teeth as those who had graduated from college. The most dramatic inequity in tooth loss is associated with income. Over 25% of low income seniors had no remaining teeth, while only 2% of seniors with incomes of $75,000 plus had no remaining teeth.[46]

The number of Illinois children with **dental sealants** has increased 65% over the last 10 years.

**959** medical providers performed an estimated 27,970 **fluoride varnish applications** on Medicaid children in 2014.

CHAPTER 3

# Capacity of the Oral Health System in Illinois

In the previous section, we described the burden of oral health disease among children and adults in Illinois, and examined the disparities in access to prevention and treatment. In this section we explore the state's oral health care capacity to address inequities in access and care, both clinical and preventive. We begin with the oral health care infrastructure in Illinois and then discuss the results of the stakeholder study, which provides expert opinion and thinking about the oral health safety net system.

## 3.1.0 ORAL HEALTH INFRASTRUCTURE IN ILLINOIS

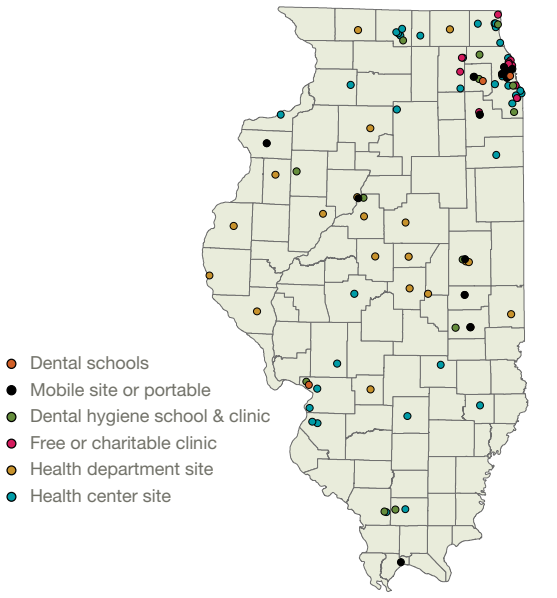
The oral health delivery system consists of networks of providers across sectors (e.g., healthcare, education, social service) and levels of government (federal, state, region, county, municipality). Private practice dental offices comprise the majority of sites where oral health care is delivered. However, many Illinoisans cannot access private dental practices, as low Medicaid reimbursement rates deter many private providers from participating in the Medicaid program. If Medicaid reimbursements and administrative burden were improved, conceivably more private providers would treat these populations.

### *Safety Net Oral Health Services*

The oral health safety net continues to be a critical component of the oral health delivery system in Illinois. Figure 02 illustrates the geographic distribution of safety net oral health services in Illinois. While large investments have been made to expand oral health infrastructure, many counties still lack *any* safety net access points, particularly rural communities. The oral health safety net infrastructure in Illinois does not have nearly enough capacity to meet the oral health needs of 3 million Medicaid recipients and low income households.[47]

*The map below reflects our best estimates based on survey response data from Spring 2016, and may not reflect the current infrastructure. Data was not collected on hospital-based clinics.*

*FIGURE 02.* **Illinois oral health infrastructure: selected providers**




### *FEDERALLY QUALIFIED HEALTH CENTERS*

Federally Qualified Health Centers (FQHCs) are a small but growing presence in the oral health care delivery system in Illinois. FQHCs are non-profit health care organizations located in health professional shortage areas that serve primarily low income individuals for whom care might be otherwise inaccessible. According to HRSA, of the 42 FQHCs operating 442 sites across the state, there are 35 FQHCs providing oral health services at 54 plus sites in Illinois.

FQHCs are well-positioned to serve some of the most at-risk and underserved populations in the state. However, FQHC providers and advocates reported that the payment model for FQHCs, based on a flat rate encounter model, does not align well with the time and equipment-intensive nature of many dental procedures. FQHC providers reported that, overall, their dental clinics are consistently operating at a loss. Stakeholders interviewed reported perceiving FQHCs as a good way to address the oral health needs of vulnerable populations, but emphasized that FQHCs on their own cannot be considered a singular solution for addressing the high level of unmet oral health need in the state. Growth of FQHC oral health services will likely be limited by the low Medicaid reimbursement rate received for oral health encounters.

### *LOCAL HEALTH DEPARTMENTS*

As an agency of local government, a local health department develops and administers programs and services addressing the community's most important health problems. These activities include oversight of routine public health services (e.g., vision and hearing testing of preschool and school-age children, water well permits, health screenings, restaurant inspections, and dental sealant programs). In Illinois, 26 local health departments, primarily concentrated in Central Illinois, provided oral health care services in 2015.

### *DENTAL SCHOOLS*

Illinois dental, dental hygiene, and dental assisting schools train the oral health workforce, and serve a critical role as oral health care safety net providers.[48] For example, the College of Dentistry at the University of Illinois–Chicago is the largest provider of Medicaid oral health services in the state. In 2015, UIC College of Dentistry saw 35,000 patients representing more than 100,000 appointments. Illinois' other two dental schools, the Southern Illinois University School of Dental Medicine, and the Midwestern University College of Dental Medicine–Illinois, also serve a significant number of patients.

### *PRIMARY CARE PROVIDER OFFICES*

Primary care practices are an increasingly important setting for oral health services. Children are more likely to have visited the doctor than the dentist in the last year.[49] Providing oral health through primary care settings can expand access to preventive oral health services. Strengthening referral mechanisms between primary care and dentistry can also help physicians and their staff to facilitate linkages to oral health care for their patients. However, primary care providers emphasize that referral mechanisms with oral health care providers must be established to make these linkages possible.

### *PUBLIC SCHOOLS*

Many children in the state receive preventive oral health services in primary school settings through school sealant providers. The expansion of school-based services, coupled with increased reimbursement of dental sealants through Medicaid, has led to a marked increase in the number of Illinois children with sealants, from 27% to 50% over the last decade.[50]

## 3.2.0
## ORAL HEALTH STAKEHOLDER STUDY

### *3.2.1*
### *Stakeholder study methodology*

Recognizing that the oral health safety net system consists of collaborative partnerships across state and local agencies, public and private organizations, we sought expert opinion from oral health stakeholders across multiple sectors and geographic areas.

*RESEARCH QUESTION: WHAT IS THE CAPACITY OF OUR ORAL HEALTH SAFETY NET SYSTEM?*

We considered these six aspects of the oral health safety net:

1. Oral health care access points and the policies that impact the distribution of oral health services and ability to serve populations in need;
2. The perceived capacity of oral health providers to meet local needs;
3. Disparities and barriers to access and care among geographic, racial, age, and other sub-populations;
4. The capacity of the state infrastructure for population-level oral health interventions and safety net services;
5. The availability and robustness of state oral health data; and
6. Stakeholder recommendations and identification of model practices.

*STAKEHOLDER PARTICIPANTS*

We identified potential stakeholder interviewees in consultation with the Illinois Children's Healthcare Foundation, Michael Reese Health Trust, Delta Dental of Illinois Foundation, as well as through professional networking at oral health conferences. We interviewed 65 individuals from 11 sectors. We informed interviewees that confidentiality would be maintained. Respondents from both across and outside the state included:

- *15 local public health department professionals from around the state,*
- *14 dental health professionals (8 dental and dental hygiene school professionals, 2 dental sealant providers, 4 private practitioners),*
- *13 employees working in advocacy organizations or coalitions,*
- *12 healthcare providers (6 FQHC setting, 3 non-FQHC setting, 3 charitable clinic setting), 4 Illinois government employees,*
- *5 members of the philanthropic community, and*
- *2 national oral health experts.*

*METHOD OF ANALYSIS*

We thematically categorized and coded the qualitative interview data. We used Dedoose 7.1.3 for data management, excerpting and coding. We derived themes based on repetitions of interviewee responses as they related to the burden of oral health and the capacity of the oral health safety net system in Illinois.

*INTERVIEW QUESTIONS*

We interviewed stakeholders to gain understanding of oral health care delivery, commonly observed oral health problems, and the interviewee's experience operating within the state's oral health care delivery system. Topics covered with the each of the stakeholder groups were:

**PROVIDERS:** Provider interviews focused on patient populations, with particular emphasis on Medicaid patients, and most commonly performed procedures. Providers discussed their experience with the Medicaid system, and described challenges and barriers the system presents for providers and their patients. We also solicited recommendations from providers on strategies to improve population oral health status, access to care, provider participation in Medicaid, and patient utilization of the oral health care system.

**ADVOCATES:** Advocate interviews focused on oral health system infrastructure, oral health status, access barriers and disparities. We asked advocates about important trends, policy directions, and systems change strategies to improve oral health in Illinois.

**GOVERNMENT EMPLOYEES:** Government employee interviews focused on state oral health infrastructure and state-level oral health program and policy interventions. Government stakeholders shared oral health priorities and data describing number of individuals served and the impact of programs and policies. The interview placed particular emphasis on exploring the availability and accessibility of data for integration into oral health assessments.

**PHILANTHROPIC COMMUNITY:** Philanthropic community interviews focused on perceptions of the greatest oral health needs and opportunities to improve oral health in Illinois. Inquiries focused particularly on where philanthropic giving should be focused to maximize impact.

**ORAL HEALTH EXPERTS:** Oral health expert interviews focused on placing the Illinois oral health system within a national context. Interviews focused on important national trends that are shaping oral health, and how the Illinois oral health delivery system and policies compared to other states. Interviews solicited recommendations for improving the state oral health system, as well as examples of promising or best practices in other states.

### *3.2.2 Stakeholder study results*

*ILLINOIS MEDICAID SYSTEM*

Stakeholders identified numerous challenges associated with participation in Illinois Medicaid program. The primary problems identified were:

- *Restrictions in covered services;*
- *Some of the lowest reimbursement rates in the country;*[51]
- *High administrative burden, which has been further exacerbated during the transition to managed care in many regions of the state, resulting in hours of additional paperwork and forms for Medicaid providers and hiring of additional administrative staff to process preauthorizations and denials; and*
- *Challenges experienced by Medicaid patients related to confusion about Medicaid, loss of providers, and difficulties of navigating an increasingly complex benefits system.*

With regard to rates, Illinois has the 4th lowest rate in the nation for children's services and the lowest reimbursement rate in the nation for adults covered through Fee-for-Service Medicaid. Illinois's expenditure per Fee-for-Service Medicaid recipient in 2010 was $223 versus a national average of $420—almost twice as much as Illinois.[52] Additionally, Illinois providers are reimbursed only 33% of commercial rates for pediatric Medicaid patients and just 14% of commercial rates for adults.[53]

Providers noted that with Medicaid reimbursements being quite low, but higher for preventive procedures, act as a disincentive for providers to perform complex and/or restorative procedures. Treatment procedures are often poorly reimbursed and dentists perform them at a loss. Complex procedures are reimbursed barely over the cost of the equipment. Providers noted the need to increase reimbursement rates for restorative procedures, which was perceived by several of the providers interviewed, as the only true solution to address low access to care.

Some providers and advocacy groups were critical of the transition to managed care; others expressed hope that managed care would be a positive change, bringing increased flexibility as well as a stronger emphasis on quality metrics and patient outcomes.

### *ACCESS TO ORAL HEALTH CARE*

Stakeholders noted that inequitable access to oral health care is associated with living in rural areas of the state, insurance type, income and disability status. Stakeholders reported that the central and southern regions of Illinois have lower access to care, particularly access to specialty care, than other regions in Illinois.

Specialty services are especially limited for individuals on Medicaid. Stakeholders indicated that due to the low rate of Medicaid participation among specialists, individuals with complex oral health needs often turn to the state dental schools for covered complex care.

Stakeholders also reported that adults on Medicaid in rural areas have perhaps the lowest access to care because they face both geographic barriers as well as barriers in covered services through Medicaid.

**"We receive multiple calls per week with requests for dental referrals, mostly for adults. It's about an hour travel time to the closest dental provider."**

*—HEALTH DEPARTMENT STAFF*

### *ORAL HEALTH WORKFORCE*

Discussions of the oral health workforce centered on the implications of what many stakeholders perceived to be a provider shortage, particularly in rural areas, and the factors that shape workforce trends.

**"It's not worth it for me to go move in the boondocks to make $50,000 a year to pay my debt. I can make $100,000 a year toward my debt here [in Chicago]."**

*—DENTIST*

These factors include the growing burden of student debt that dentists have upon graduation, a critical factor influencing career decisions. New graduates weigh where or whether to set up private practice offices, whether to accept Medicaid, and whether to practice in a public health environment, recognizing public sector employment is less profitable but carries lower financial risk than opening a new practice.

**"I say to our students if we are the sole group of people who have earned and are privileged to be licensed to provide this service and we vehemently oppose anyone else coming into that service domain, so you've got an exclusive set of permissions to provide this set of services, then I say that morally and ethically you're obligated to ensure that everybody has access to the services. You can't then say I'm the exclusive provider of these services but not only do I not allow you to come in to provide services . . . I'm going to provide service only to a select group."**

*—DENTAL SCHOOL PROFESSOR*

Stakeholders discussed the ways in which scope of practice laws in Illinois, as well as in other states, are shaping the oral health workforce and access to care. By extension, many discussions are taking place at the national level about the need for mid-level providers who could increase capacity to see populations that have traditionally experienced low access to dentists. Solving the oral health workforce shortage through use of mid-level providers is a highly controversial issue among dental providers in Illinois. Those against the expansion of mid-level providers express concern that a two-tiered system will evolve in which those with private insurance will be seeing dentists and those on Medicaid will be seeing mid-level professionals. Those in favor of expanding the availability of mid-level providers contend having some oral health services readily available is better than no services.

While the problem of inadequate access to dentists for low income individuals was broadly acknowledged across all sectors, stakeholders representing the dental industry did not frame the issue as workforce supply, but a Medicaid policy issue. Medicaid provides minimal coverage to low income adults and low cost reimbursement for most procedures. Stakeholders also noted that there is a high administrative burden associated with participating in the Medicaid program, creating a deterrent among dentists. Further, given the challenges to establishing financially viable practices in many areas of the state, dentists viewed the combination of low Medicaid reimbursement rate and high administrative burden as adding to the imbalanced distribution of Medicaid providers in Illinois.

**"The only time that a lot of [children] get seen is in school . . . the infrastructure in Illinois is so poor that [without it] we wouldn't see many of these kids."**

*—DENTIST*

**Across the board, stakeholders emphasized the need for data on oral health status and behaviors, workforce data, Medicaid-funded oral health services, as well as data on oral health access points.**

## *ILLINOIS ORAL HEALTH POLICY AND INFRASTRUCTURE*

Nearly every interview surfaced discussion on Illinois oral health policy and infrastructure. Stakeholders voiced strong opinions regarding the limited state public health capacity in oral health, indicating a need for stronger leadership and investment in oral health, both at the Illinois Department of Public Health (IDPH) as well as the Illinois Department of Healthcare and Family Services (HFS). Many advocates are profoundly concerned that Illinois had a period of two years

without an Oral Health Chief of the Division of Oral Health at the IDPH. The position was filled September 2016.

State government representatives indicated that oral health activities at the state-level are primarily limited to monitoring fluoridation of public water and the school-based dental sealant program, and collaborations to complete the Healthy Smiles Healthy Growth study, Illinois' most robust pediatric oral health surveillance activity. The state also has some oral health programming that occurs through Division of Maternal, Child and Family Health Services, the Division of Chronic Disease & School Health, and the Division of Newborn Screening. Many providers raised concerns regarding limitations of the program to link children with oral health needs to follow-up treatment. On the other hand, sealant providers, national experts, and state government representatives had high praise for the program, explaining that the program provides a low cost preventive intervention to children who would otherwise have no access at all to a dentist.

### *ORAL HEALTH SAFETY NET ACCESS POINTS*

The safety net includes all dental providers other than private or corporate practice dentists, such as public hospitals, hospital-based dental programs, community health centers and Federally Qualified Health Centers (FQHCs), health departments, free or charitable clinics, schools of dentistry and dental hygiene, and mobile programs. Survey participants noted that in Illinois there are multiple types of access points throughout the state, with considerable variability in patient characteristics, quality of services, patient volume and provider type. Though the public safety net infrastructure is growing, private practice providers are still the backbone of the oral health delivery system, delivering the vast majority of oral health services.

**"That's one of the values of an FQHC . . . it's a medical/dental facility and it provides that integration in terms of inter-professional practice and inter-professional education regarding oral health so that oral [health] is not viewed as an out of body experience."**

*—ORAL HEALTH EXPERT*

FQHCs in Illinois serve a small but growing number of oral health patients. In 2014, 139,996 patients received oral health exams from an FQHC.[54] FQHCs provide comprehensive primary health care, behavioral and mental health services to any patient regardless of ability to pay or health insurance status. FQHCs patient populations are predominantly low income, minority, and are either uninsured or rely heavily on public insurance.[55]

**"Having a pediatrician look in a child's mouth is a great thing. If there were relationships between dentists and pediatricians, this referral could happen easier."**

*—MEMBER OF THE PHILANTHROPIC COMMUNITY*

Stakeholders saw pediatricians as emerging oral health providers, with a small number of pediatricians now applying fluoride varnish. In 2014, 959 physicians applied dental varnish to Medicaid patients.[56] There are growing efforts to further integrate medical and dental care, both in Illinois and nationally. Stakeholders reported that strengthening relationships between pediatricians and oral health providers will allow for facilitation of linkage to dental homes.

ILLINOIS RECENTLY EXPANDED THE DENTAL SCOPE OF PRACTICE LAW SLIGHTLY THROUGH THE PASSAGE OF HB-5948 IN 2016, WHICH CREATED A PUBLIC HEALTH DENTAL HYGIENIST THAT WOULD BE ABLE TO PERFORM PREVENTIVE SERVICES WITHOUT THE PATIENT FIRST BEING SEEN BY A DENTIST.

## 3.3.0 ORAL HEALTH WORKFORCE

### *3.3.1 Oral health workforce capacity*

The Illinois oral health provider workforce consists of dentists, dental hygienists, and dental assistants. Due to the current scope of practice laws in Illinois, only dentists can perform procedures beyond preventive services. In most cases, preventive procedures performed by dental hygienists and dental assistants must be done under the supervision of a dentist. Some states have expanded professional scope of practice laws or introduced mid-level providers to address the workforce shortage, though this is a controversial solution among dental professionals.

Estimates of the Illinois dental workforce vary. The Federal Health Resources and Services Administration (HRSA) estimates that Illinois had a supply of 8,500 dentists and 5,000 dental hygienists in 2012.[57] More recently, the Centers for Medicare and Medicaid Services (CMS) report that there are 9,127 dentists practicing in Illinois in 2015.[58] The State of Illinois estimates that 10,370 dentists and 8,425 dental hygienists have active licenses as of July 2016.[59]

In response to Illinois' provider shortage, the state recently expanded the dental scope of practice law slightly through the passage of HB-5948 in 2016, which created a public health dental hygienist that would be able to perform preventive services without the patient first being seen by a dentist under a collaborative arrangement. HB-5948 also expanded the functions of dental assistants to allow them to perform scaling to remove plaque from teeth.

*TABLE 01.* **Current and projected supply and demand of Illinois dentists**

| | |
|---|---|
| **2012:** | |
| Supply | 8,508 |
| Demand | 8,906 |
| Shortage (as captured by dental health professional shortage area) | -398 |
| **2025:** | |
| Projected supply | 8,103 |
| Projected demand | 8,602 |
| Projected shortage (supply: demand + DHPSA) | -897 |

*Source: U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis.* National and State-Level Projections of Dentists and Dental Hygienists in the U.S., 2012-2025., *2015*

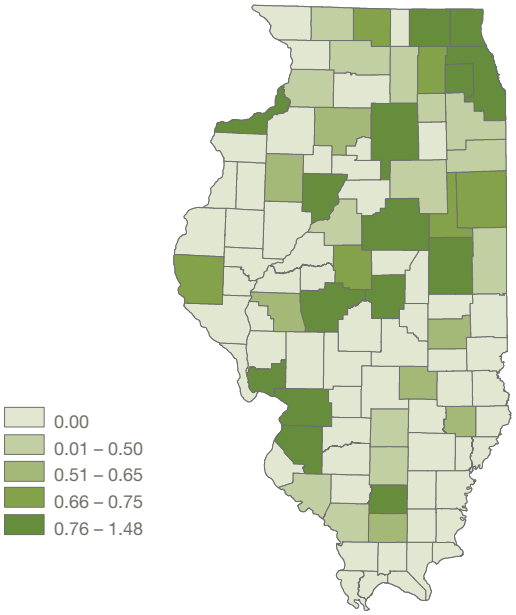
*TABLE 02.* **Specialty provider counts**

| *Specialty type* | *Practicing dentists* |
|---|---|
| General practice | 4,389 |
| Specialty unknown/not specified | 3,578 |
| Orthodontics | 323 |
| Oral and maxillofacial surgery | 261 |
| Periodontics | 177 |
| Endodontics | 148 |
| Pediatric dentistry | 140 |
| Prosthodontics | 53 |
| Dental public health | 38 |
| Oral and maxillofacial pathology | 20 |
| Total | 9,127 |

Note. Count of oral and maxillofacial radiology specialists was not available.

*Source: U.S. Centers for Medicare and Medicaid Services,* National Provider Identification Database, *2015 (Based on primary reported specialty)*

*FIGURE 03.* **Specialty dentists per 10,000 persons**




Note. Excludes dentists employed by federal government.

*Source: Health Resources and Services Administration, Primary Care Service Area Data, HRSA, 2010; U.S. Census Bureau, Decennial Census, 2010*

Interpretations of the sufficiency of the supply of dentists vary as well. As discussed in the previous section, oral health stakeholders have differing perceptions about whether there is an oral health workforce shortage in Illinois. According to HRSA, Illinois had a shortage of nearly 400 dentists in 2012. The shortage is projected to continue, leading to a doubling of the shortage by 2025 (Table 01). On the other hand, the American Dental Association (ADA) projects that the future supply of dentists will outpace the declining demand for dental services in the coming decades.[60]

## *SPECIALISTS*

Estimates of the number of specialists also vary. CMS estimates that approximately 9,127 dentists practiced in Illinois in 2015, with 87% identifying their specialty as general practice (or did not register a dental specialty).[61] In addition to general practice dentistry, there are nine dental specialties. Table 02 shows the number of providers for each specialty.

Figure 03 illustrates the distribution of specialty providers across the state. Specialty providers are concentrated in urban areas. Many counties have no specialty dentists. Additionally, there is a limited number of dentists trained to treat special needs patients.

### *3.3.2*
### *Oral health partnerships*

The current capacity of the oral health infrastructure falls short of meeting the level of need in the state. However, a number of ongoing efforts work to strengthen this infrastructure by increasing the capacity of existing providers, expanding oral health competencies among other providers, and fostering integration of oral health into the broader system of primary health care.

#### *INCREASING ORAL HEALTH COMPETENCIES AMONG PEDIATRICIANS*

The Illinois Chapter of the American Academy of Pediatrics (ICAAP) *Bright Smiles from Birth* program trains primary care providers how to provide oral health care to children under three, including performing oral health assessments, making referrals to dental homes, providing oral health education to parents, and applying fluoride varnish to children. Completion of the *Bright Smiles from Birth* program makes providers eligible to receive Medicaid reimbursement for fluoride varnish. In 2014, 959 medical providers performed an estimated 27,970 applications of fluoride varnish on Medicaid children.[62]

Another initiative developed in response to national efforts to train primary care providers on oral health integration is the *Smiles for Life* curriculum, which provides oral health education and oral exam training to physicians.[63]

#### *TRAINING COMMUNITY DENTAL HEALTH COORDINATORS*

In 2006, the American Dental Association launched a pilot project to create a new oral health professional whose competencies focus on fostering access and navigation of the oral health care system for underserved communities and providing oral health education.[64] Community Dental Health Coordinators (CDHCs) are community health workers who promote oral health prevention and linkage to care in their communities. Prairie State College is the first institution in Illinois to offer a CDHC certification program, which is done in conjunction with the dental hygiene degree curriculum.[65]

#### *INTEGRATING ORAL HEALTH INTO PRIMARY CARE*

Integration of oral health into primary care practice is increasingly recognized as a key to expanding oral health infrastructure and capacity. In response to the need for integration, HRSA developed an Integration of Oral Health and Primary Care Practice (IOHPCP) initiative, which establishes oral health competencies for primary care providers and outlines strategies for the adoption of these competencies in primary care settings.[66]

**1 in 5**

3rd grade children in Illinois has **untreated** tooth decay.

**64%**

of Illinois adults **visited a dentist** in 2014.

**17**

of 102 Illinois counties are **without a Medicaid dental provider**.

CHAPTER 4

# Oral Health Policy

We turn now to our third core question: ***What policies shape Illinois' oral health status and access?*** We begin by examining key statistics about the oral health of Illinoisans, with an eye toward the policies that influence these outcomes, and potential policy solutions to move Illinois forward:

- Dental disease is the most prevalent chronic childhood illness.[67]
- One in five third-grade children in Illinois has untreated tooth decay, with Black, Latino and Asian children having high percentages of untreated and rampant decay. Only half of third graders had at least one dental sealant.[68]
- Childhood tooth decay and adult oral diseases disproportionately affect low-income individuals and families, with the population of Latino children having the highest rates of untreated dental caries.[69]
- Among senior Illinois adults (65 plus years), 17% had lost all of their natural teeth.[70]
- Rural counties in Southern Illinois have much higher rates of emergency department visits for oral health problems among adults.[71]
- Only 64% of Illinois adults visited a dentist in 2014, citing cost and trouble finding a dentist as barriers.[72,73]
- Millions of Illinoisans live in HRSA-designated dental healthcare shortage areas.[74]
- FQHCs provided 174,340 oral health exams in 2014.[75]
- A survey conducted among Illinois local health departments in 2016 found that health departments provided oral health services to approximately 75,000 patients at over 24 sites.
- Only one in five practicing dentists are registered as Medicaid providers.[76]
- Seventeen of the 102 Illinois counties are without a Medicaid dental provider; another 27 counties have only one registered Medicaid dental provider.[77,78]
- There are only 49 pediatric dentists accepting Medicaid in Illinois. Fee-for-Service Medicaid reimbursement for pediatric oral health is 33% of commercial insurance reimbursement.[79,80,81]
- Reimbursement for adults covered through Fee-for-Service Medicaid is even worse than for children, with reimbursements lower than any other state of the nation, just 14% of commercial insurance reimbursement.[82]
- Medicare, which provides health coverage for Americans age 65 and over, does not cover most dental care or procedures such as cleanings, fillings, extractions, or dentures.[83]
- Illinois ranks sixth for the percent of Medicaid children receiving preventive service, but 34th for percent of Medicaid children receiving dental treatment.[84]

ALL KIDS IS THE STATE CHILDREN'S HEALTH INSURANCE PROGRAM IN ILLINOIS, WHICH PROVIDES COMPREHENSIVE, AFFORDABLE, OR FREE COVERAGE TO OVER 1.6 MILLION CHILDREN IN THE STATE. ALL ILLINOIS CHILDREN ARE ELIGIBLE FOR INSURANCE COVERAGE, REGARDLESS OF IMMIGRATION STATE OR HEALTH CONDITION.

## 4.1.0 CHILDREN'S ORAL HEALTH POLICY: CHIPRA AND ALL KIDS

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA), provides states with significant new funding and incentives for covering children through Medicaid and the Children's Health Insurance Program (CHIP).[85] All Kids is the State Children's Health Insurance Program (SCHIP) in Illinois, which provides comprehensive, affordable, or free coverage to over 1.6 million children in the state. Under state law, *all* Illinois children are eligible for insurance coverage, regardless of immigration state or health condition. The All Kids program offers health care coverage to children either at no cost or at low cost. All Kids helps in paying premiums of employer or private health insurance plans.

Under Federal law, all children enrolled in Medicaid are eligible to receive the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit, which provides comprehensive and preventive health care services for children under age 21. This Federal law ensures that Medicaid-eligible children have access to preventive health care, dental, mental health, vision, and hearing services.[86]

## 4.2.0 POLICY STRATEGIES TO IMPROVE CHIP PERFORMANCE AND EPSDT FOR DENTAL CARE

Improving CHIP performance and expanding access to the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit are essential to improving the oral health of Illinois children, and to reducing the disparities associated with poverty and with living in rural communities.

Fifty years ago (1967), Congress introduced Early and Periodic Screening, Diagnostic and Treatment (EPSDT) to ensure that children under the age of 21 who are enrolled in Medicaid receive age-appropriate screening, preventive services, and medically necessary treatment services, including dental care. States share responsibility for implementing the EPSDT benefit with the Centers for Medicare & Medicaid Services (CMS). Medicaid covers dental services for all child enrollees as part of the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit. Referral to a dentist is required for every child, with the periodicity schedule set by the state. Dental services for children must minimally include pain relief and treatment of infections, teeth restoration and dental health maintenance.

To support states in ensuring EPSDT benefits, CMS produced the 2013 guidance document, *Keep Kids Smiling: Promoting Oral Health through the Medicaid Benefit for Children & Adolescents*. *Keep Kids Smiling* gives states four policy strategies to improve Medicaid program performance and EPSDT. These strategies represent a variety of approaches to using evidence-based policies and engaging providers, families and other stakeholders:[87]

1. ***Improve state Medicaid program performance through policy changes:*** Match the state's periodicity schedule to clinical recommendations, use dental delivery system contracts to improve dental program performance, reimburse medical providers for preventive oral health services, and address data collection challenges related to using the CMS–416 form used to collect basic information on state Medicaid and CHIP programs.
2. ***Maximize provider participation:*** Reduce administrative burden for providers, help general dentists feel more comfortable treating young children, and maximize the capacity of the dental workforce by utilizing a variety of provider types.
3. ***Directly address children and families:*** Promote the benefit, address missed patient appointments, and educate children and families about the importance of oral health and what part they play in maintaining their oral health.
4. ***Partner with oral health stakeholders:*** Incorporate stakeholder perspectives in program planning at the state level to improve access to oral health care and a dental health home.

## 4.3.0 LOOKING NATIONALLY AND IN-STATE FOR POLICY DRIVERS AND PROMISING POLICY STRATEGIES

Illinois policymakers play an important role in improving the oral health of Illinoisans. Oral health policy has shaped, and will continue to shape, the safety net infrastructure, oral health care access and population-based prevention strategies. The National Conference of State Legislatures (NCSL) identifies key policy drivers of state oral health: (1) the Affordable Care Act, Medicaid and CHIP; (2) access to services; (3) workforce; and (4) prevention and awareness.

We examine the opportunities for Illinois policymakers to use these drivers to improve oral health:[88]

1. ***2010 Affordable Care Act (ACA):*** ACA does not require specific state action; however, policymakers have an opportunity to address coverage and access, prevention, oral health infrastructure and surveillance, and the dental health workforce. Potential policy roles include:
   - Oversee and regulate dental coverage provisions within the insurance exchanges.
   - Address dental provider shortages as more children receive oral health coverage and explore policies to expand the oral health workforce and attract more providers to underserved areas.
   - Explore the use of public health trust fund grants to support the work of state and local entities to address oral health.
   - Maintain awareness about authorized programs if funding is provided.

2. ***Access to services:*** Individuals need access to use dental services across their lifespans, but, due to cost and difficulty finding a dentist, access may be limited. Other access problems include low dentist participation in All Kids and Medicaid, dental health professional shortages in rural and Southern Illinois, and the corresponding transportation problems. NCSL gives examples of how Illinois and other states have tackled these challenges:
   - In Arizona, the state allows dental hygienists to form "affiliated practices" with dentists to provide care without a dentist's direct supervision, and funds a community college dental hygienist program.
   - South Carolina developed an initiative to train general dentists to treat children as well. During a two-year period the program trained over 100 rural dentists to treat pediatric patients, enabling these dentists to expand access within their communities.
   - Rhode Island expanded its network of oral health services, including community health centers, school-based health clinics and hospital dental centers to help meet the needs of children in low-income and rural communities.
   - Maine's 2008 bill LD 2192 offers tax incentives to dentists who practice in underserved areas of the state. Illinois incents dentists to practice in underserved areas by offering loan forgiveness programs.
   - Illinois passed Public Act 96-0067 (2009) permitting the Department of Healthcare and Family Services to award grants to local health departments for dental clinic development. Communities may apply for funding to improve access to dental care for low-income residents.

3. ***Workforce:*** In Illinois, and across the United States, professional dental shortages exist and are most acutely felt in rural areas. The access problem is aggravated by the fact that only 21% of Illinois dentists are registered as Medicaid providers. As a result, finding a dentist for those who rely on public insurance is an even greater challenge. Illinois policy makers can weigh a variety of options for expanding the oral health workforce including:
   - Adjust Medicaid reimbursement for dental services.
   - Widen the scope of practice for dental hygienists and/or create a new mid-level dental provider.
   - Expand pediatrician's role in oral health care to include patient referrals to local dentists, and oral health care education to patients and parents.
   - Train additional general dentists, as referrals and need for oral health services will continue to grow.
   - Consider alternative dental provider models, such as licensure of dental therapists.

4. ***Prevention and awareness:*** School-based dental sealant programs, school fluoride mouth-rinse programs, school-mandated preventive dental checkups, and community water fluoridation are best practices for preventing carries. Illinois requires children to have a dental exam prior to entering Kindergarten, 2nd and 6th grade. One area for improvement is expanding school-based sealant programming and connecting children to ongoing comprehensive services. The CDC promotes school-based dental sealant programs as effectively preventing and decreasing decay for children and adolescents. However, only half of Illinois third graders have had dental sealants. Successfully, 99% of community water systems in Illinois are fluoridated.

Access to oral healthcare is **not available** to parts of the Illinois population who live in poverty and rural areas.

The current oral healthcare workforce is **unable to fully meet** the needs of the Illinois population.

CHAPTER 5

# Where Do We Go From Here?

We conclude by summarizing the Illinois data gathered in this report. We then look at implications of these data for identifying specific opportunities for improving the oral health of children and adults in Illinois.

## DATA SUMMARY

- Chronic dental disease is a source of pain and functional impairment for a significant segment of the population in Illinois, both young and old. Good oral health is an indivisible component of health and well-being.
- Access to oral healthcare is not available to parts of the Illinois population who:
  - > *Live in poverty*
  - > *Live in rural areas*
  - > *Live in health provider shortage areas*
  - > *Have family members (parents and caregivers) who are not informed about the importance of oral healthcare*
  - > *Do not have insurance coverage that adequately funds oral healthcare*
- The current oral healthcare workforce is currently unable to fully meet the needs of the Illinois population.
- The Illinois Medicaid reimbursement rates are not sufficient to cover the costs of providing comprehensive oral healthcare.
- There are models in Illinois of successful expansion of oral healthcare to underserved populations.
- Dental disease is largely preventable in the population at large.

The overarching theme is one of needing to increase oral healthcare access for Illinois residents. Increased access may be achieved through several methods:

- Increasing and expanding oral health care access points throughout the state
- Bridging oral health and primary care health, including the provision of oral health services in primary care practices, local health departments, FQHCs, school-based health centers, and other community health centers
- Increasing the number of oral health professionals willing and able to provide quality and comprehensive services to underserved populations
- Educating the population at large on the importance of accepting oral healthcare

## OPPORTUNITIES

Consistent with a variety of recommendations at the state and federal levels we recommend the following opportunities for further consideration and exploration. These opportunities have the potential to increase access and utilization of oral health prevention and care, thereby improving the overall health of Illinois residents.

### 1. *Study the adequacy of Medicaid reimbursements for oral health services and review the administrative burden on providers.*

Illinois has some of the lowest Medicaid reimbursement rates in the country (see section 3.1.2). Low reimbursement rates make it cost prohibitive to provide oral health services both in private and public health settings. The administrative burden associated with being a provider who accepts Medicaid reimbursements is an additional disincentive. Increasing rates to more closely reimburse actual costs incurred and lowering administrative burden associated with participating in these programs has the potential to achieve the following objectives associated with increased access:

- *Increase the pool of oral health professionals who accept patients enrolled in Medicaid*
- *Allow public health clinics across the state the ability to compensate oral health professionals with competitive salaries and potentially increase the number of recent oral health professional graduates burdened with high student debt to choose careers in public oral health*

Without adequate funding, the system cannot meet the needs of Illinois citizens.

### 2. *Explore further integration of oral health and primary care*

Historically, oral health care has been separated from overall primary health care in the health professions. The education, practice, and payment systems have been separated. Illinois has examples of effective integration of oral and primary healthcare. There may be significant potential to meet the needs of the population at large if public funding can be increased to support these programs.

### 3. *Explore a statewide public health approach to oral health messaging*

Understanding the importance of oral health on one's overall health is an important component associated with accessing appropriate care. Health literacy is at the core of effective messaging that leads to important health decisions. This messaging can be targeted to specific population demographic groups to help alleviate cultural and age related disparities in receiving oral healthcare.

This report aims to catalyze the oral health community, public health officials, state and local leaders, policy makers, healthcare providers, insurers and educators in Illinois to find solutions to improving the oral health of every child and adult, and ensuring access to preventive and restorative oral health services. Together, we can improve the oral health of Illinoisans by strengthening the safety net infrastructure, and increasing oral health care access and population-based prevention strategies.

This Assessment and its associated website can serve as the foundation for a systematic approach to improving oral health for millions of Illinois residents. We look forward to convening stakeholders to facilitate the creation and implementation of action plans which help us attain the goal of good oral health for every child, woman and man in Illinois.

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It is our hope that the information provided in **Oral Health in Illinois** will be a resource to guide and direct future investments, engage new partners and impact public policies. We invite you as a committed partner, to continue to work with us toward good health for all Illinoisans.

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