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## **Executive Summary**

A general dentist (DDS or DMD) is the primary care dental provider that diagnoses, treats, and manages overall oral health. Treatment may include fillings, crowns, bridges, gum care, root canals, simple tooth removals, and removable appliances (dentures and partials). A dental hygienist will clean teeth, take X-rays, evaluate for gum infection and periodontal disease, apply sealants and fluoride treatments, and provide home care instructions. Dentists must have a college bachelor's degree and graduate from an accredited dental school. Dental hygienists must graduate from a college dental hygiene program. In Illinois, there are three dental schools and 13 colleges with dental hygiene programs. (1)



The Illinois Department of Public Health (IDPH) is focused on the expansion and support of the oral health workforce across the state and more specifically among Illinois' most undeserved communities. To this end, a multi-pronged strategic plan has been developed to increase the number and type of oral health providers and oral health services. To better understand the landscape of the oral health workforce in Illinois, the IDPH deployed an Oral Health Workforce Survey in 2021/2022 to dentists and dental hygienists. Respondents answered questions around individual demographics, specialties, and current and future plans to practice. In addition, respondents were asked questions about their current practice, to include, but not limited to the practice location, type, size, types of services, populations served, and barriers to serving special populations.

Overall, results indicate a predominantly male, White workforce of general dentists in the 55-64 age range. Alternatively, dental hygienists were predominately female, White, in the 55-64 age range. About one-third of dentists indicated they plan to stop practicing in the next 1 - 5 years, while about 25% of dental hygienists indicated the same timeline. Practice characteristics were primarily private/group practices and were closely split between solo and small group\* practices providing direct patient care. The majority of practices indicated serving special populations such as pregnant women, new pediatric patients, and patients with physical and/or developmental/intellectual challenges. However, less that 25% of practices indicated serving Medicaid patients. Of those, the majority indicated accepting new Medicaid patients. The primary Medicaid barriers were low or slow reimbursement.



# Introduction and Background

In 2021, the IDPH, Oral Health Section developed the <u>Illinois Oral Health Plan IV: Eliminating Inequities</u> in <u>Oral Health (2021-2025)</u>. (2) Through a series of community meetings and wide-ranging input, the plan outlines community strategies with a focus on the expansion and support of the oral health workforce in some of Illinois' most underserved communities. The primary goals and objectives set forth by the Illinois Oral Health Plan (IOHP) include but are not limited to the following:

- 1. Development of a stronger and expanded safety net of oral health providers in federally qualified health centers (FQHCs), local health departments, and other non-profit organizations.
- 2. Engagement of private practitioners in expanded services and community outreach activities, in support of oral health care visits by low-income and uninsured persons.
- 3. Growth in workforce and academic training programs for dentists and dental hygienists that are geographically distributed across the state.

In order to support these goals, it is important to understand the current state of the dental workforce in Illinois, to include provider and practice characteristics, scope and location of oral health services, populations served, and emerging issues. The first Illinois Dental Workforce Census Report was published in 2004 and it was followed by reports in 2006, 2015, and 2022. These reports provide important snapshots of the oral health workforce and help identify gaps in services and populations served.

In addition, the Illinois Oral Health Surveillance Plan, developed in 2021, provides a strategic approach to the development and implementation of an oral health surveillance system. (3) The goal of the surveillance system is to monitor state-specific, population-based oral disease burden and community programs (i.e. water fluoridation quality) and measure program impact. The Illinois Oral Health Surveillance Plan aligns with the IOHP IV: *Eliminating Inequities in Oral Health (2021 – 2025)* and Healthy People 2030 (HP2030) Oral Conditions Objectives. (4)

The 2022 Oral Health Workforce Survey for Dentists and Dental Hygienists (referred to as the Illinois Oral Health Workforce Survey) was administered between August 2021 and April 2022 in conjunction with the dentist and dental hygienist license renewal process. The electronic survey was developed to capture new information while preserving data elements to yield trends from prior oral health surveys. The data from these surveys are critical for providing information about the landscape of the oral health workforce in Illinois to enable planning, implementation and evaluation of interventions aimed at building oral health workforce capacity.

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# Purpose and Significance

The primary purpose of the Illinois Oral Health Workforce Survey was to ascertain and monitor the characteristics of the state's oral health workforce. The two distinct surveys (dentists and dental hygienists) were designed to gather characteristics of clinically active dentists and dental hygienists (see Appendix I). The ongoing collection of dental workforce data with license renewal provides insight and the means for tracking distribution and practice trends. Collecting and reporting dental workforce data allows the IDPH's Oral Health Section, decision makers, professional organizations, and academic institutions to view trends over time, and assist in the development of appropriate strategies and policies to ensure that the workforce fulfills citizen demands. The survey results are useful to public health officials, grant writers, dental professionals considering new practice locations and communities, organizations, and agencies to demonstrate workforce needs and strengths. Additional data tables, figures and maps can be found in Appendix II.

The conclusions that can be drawn from this data set are crucial for implementing any significant changes within the oral health workforce. In Illinois, the total population was projected to grow 5% between 2000 and 2020, with those 65 years of age and older projected to grow by 31%. (5) The population growth, coupled with an aging population with older Americans retaining their teeth, implies the need for oral health services will continue to increase. (6) Further constraints exist on the state's dental workforce. There are only three dental schools in Illinois. With the existing dental workforce aging, the necessity of new oral health professionals is imminent. The state's population is becoming more diverse. Oral health care demand by persons with disabilities is growing. Deliberate attention is required to ensure that a competent, diverse and adequate supply of oral health care professionals is available to address the needs in the state.





## Methods

The IDPH Oral Health Section strives for collaboration and partnership whenever possible. The Illinois Oral Health Workforce Survey was developed by the IDPH Oral Health Section along with contracted subject-matter-experts and in collaboration with the Illinois Oral Health Advisory Committee. The survey was designed to gather characteristics of clinically active dentists and dental hygienists. Characteristics considered for dentists included specialty, full or part-time status, number of practice locations, practice type (solo, group, etc.), if the dentist graduated from an Illinois dental school if they planned to stop practicing clinical dentistry within the next 10 years, and participation in response activities related to COVID-19. Characteristics considered for dental hygienists included number of practice locations, full or part-time status, employed by practice type, if the hygienist graduated from an Illinois dental hygiene program when they planned to stop practicing clinical dental hygiene, and COVID-19 changes to dental hygienists' roles. Additional demographic data was also captured for both professions to include gender, age, race and ethnicity. The survey was distributed electronically through the Research Electronic Data Capture (REDCap™) platform. The official survey was uploaded to REDCap in August 2021 and was made available to the oral health workforce community through April 30, 2022. The survey was sent out via custom links through member email distribution lists and through newsletters. In order to achieve the highest number of responses, the survey was promoted by various stakeholders, including: the Illinois Dental Hygienists Association, Illinois State Dental Society, Deans of dental schools (n=3), State Oral Health hygiene schools (n=13), Illinois Primary Health Care Association and other oral health partners. Specifically, the Illinois Dental Society provided survey promotion by pairing it with the annual dentist license renewal efforts. Finally, the Illinois Department of Financial

All data included in survey responses were validated (i.e., using license number to remove duplicate responses) and cleaned (i.e., removed missing data and test records). See **Figure 1: Survey Cleaning and Exclusion Criteria - Provider Characteristics**. The following data validation and cleaning methods were implemented for both dental hygienist and dental surveys:

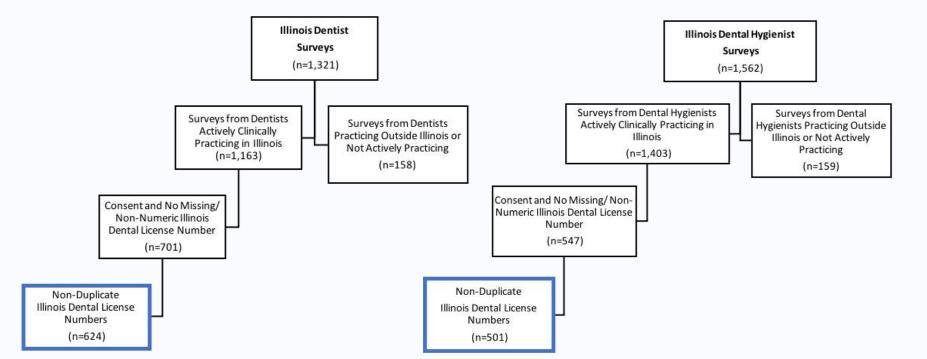
• The number of dentists in were identified using responses to the question of employment type. Individuals selecting "Full-time clinical practice in Illinois," "Part-time clinical practice in Illinois", or providing no response were included in the survey analysis. Surveys received where respondents were identified as actively clinically practicing were excluded if they did not consent to the survey and/or were missing or had non-numeric license numbers. Surveys were also deduplicated according to the state dental license number, with most recently completed survey kept for analysis. If a dental license had duplicates, but the most recent survey completed had missing responses, previously completed survey responses were used to fill in missing responses.



## Methods (continued)

- Percentages for each response to a question were calculated by the number of selections of a response/total number of unique dental license numbers responding to that specific question.
- For questions with open-ended response options, individual entries were grouped into common themes and frequencies calculated (e.g., top three concerns for practice, ideal work situation, etc.).
- If a question required a numerical response, but applicants responded with a range of numbers, the median number of the range was selected (e.g., average hours per week worked at practice).

Figure 1: Survey Cleaning and Exclusion Criteria - Provider Characteristics.

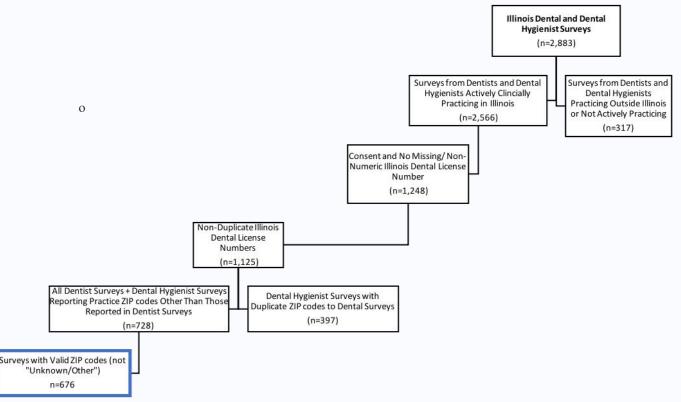




## Methods (continued)

- For the purposes of this report, only the top 3 5 responses were selected for any multi-selection question. Responses with small numbers of responses were not included but can be provided upon request as long as the data remains unidentifiable and in accordance with IDPH data protection policies.
- For the purposes of this report, race was aggregated into four main groups: White (White or Caucasian), Asian (Asian), Black (Black or African American), Hispanic (Hispanic or Latinx), or Other (Prefer not to say, Other, American Indian, Alaskan Native, Multiracial or Biracial, Native Hawaiian, or Pacific Islander).
- For the purposes of this report, dental practice characteristics were determined by including responses with unique ZIP codes. See Figure 2: Survey Cleaning and Exclusion Criteria Practice Characteristics. In instances with duplicate ZIP codes, responses were "pooled" and the average response was calculated and included in the analysis in an effort to control for duplicate responses for a single practice. If responses for a ZIP code were of equal frequency, the response in the minority was favored. For multi-selection questions (e.g., practice activities, barriers, populations), distinct selections for each ZIP code were grouped into frequency across ZIP codes.

Figure 2: Survey Cleaning and Exclusion Criteria - Practice Characteristics.







## Summary of Results

#### Characteristics of **Dentists** (Practicing in Illinois)

In 2021/2022, 10,511 dentists renewed their license. Of those, 1,321 completed the oral health workforce survey (response rate = 12.6%). Among the 1,321 who completed the survey, 1,163 (88%) indicated they are currently working in Illinois. The characteristics of dentists clinically practicing in Illinois were as follows:

- Male (60.0%)
- White (74.4%), Asian (12.2%), Other (6.1%), Hispanic (4.0%), Black (3.2%)
- Age Group: 35 44 years (19.6%), 55-64 years (29.1%), >65 years (24.1%)
- Average hours/week: 30 40 hours (55.6%), 20 30 hours (16.6%), 10 20 hours (10.1%)
- Specialty: General practice (85.6%), orthodontics (5.1%), pediatric dentistry (3.6%)
- Plan to stop practicing: 1 5 years (30.2%), 6 10 years (20.2%), 20 or more years (23.4%)

#### Characteristics of **Dental Practices** (Illinois)

- Dental practices were mostly private/group practice (83.4%) and were primarily solo (47.2%) or small group (43.6%).
- Almost all practices provide direct patient care (99.4%), followed by administration (58.1%), and teaching (42.4%).
- More than half of practices (55.8%) indicated use of silver diamine fluoride (SDF).
- Only 22.6% accept Medicaid and 66.6% serve children under the age of 3.

#### Characteristics of <u>Dental Hygienists</u> (Practicing in Illinois)

In 2021/2022, 8,497 dental hygienists renewed their license. Of those, 1,562 completed the oral health workforce survey (response rate = 18.4%). Among the 1,562 who completed the survey, 1,403 (89.8%) indicated they are currently working in Illinois. The characteristics of dental hygienists clinically practicing in Illinois were as follows:

- Female (97.6%)
- White (84.5%), Hispanic (6.0%), Other (4.8%), Asian (2.4%), Black (2.2%)
- Age Group: 24 34 years (25.1%), 45 54 years (23.9%), 55-64 years (25.5%)
- Average hours/week: 30 40 hours (50.9%), 20 30 hours (16.9%), 10 20 hours (12.8%)
- Certification: Public health dental hygienist (PHDH) (10.9%), community dental hygienist certification (CDHC) (4.0%)
- Plans to stop practicing: 1 5 years (24.6%), 6 10 years (24.6%), 20 or more years (25.1%)



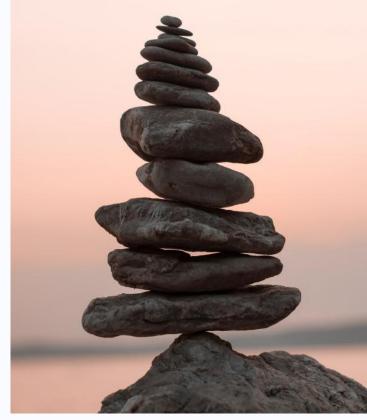
#### Illinois Oral Health Workforce Trends (2004 - 2022)

Year – to – year\* comparisons were made to determine if there were any changes in the diversity and practice characteristics among the oral health workforce (see Appendix II):

- Female dentists increased by almost 20% (from 19% in 2004 to 38.7% in 2022); male dental hygienists increased by less than 1% (0.6% in 2006 to 1.4% in 2022).
- Increased representation of Asian, Black, and Hispanic oral health providers was observed between 2004 and 2022 (2.5% average increase).
- The percentage of dentists who work more than 25 hours per week decreased between 2015 and 2022 and increased among dental hygienists in the same time period.
- Plans to stop practicing within 10 years decreased among dentists and dental hygienists between 2015 and 2022.
- \*Comparisons should be used with caution as methods for data collection varied significantly across comparison years.

Table 1:: Licensure and Provider Ratio to Population Trends (2004 - 2022), Illinois

| Year  | Number of Total Licenses Renewed |                   | Population Adjusted Dental Provider Ratio |                   |
|---|----------------------------------|-------------------|---|-------------------|
|   | Dentists                         | Dental Hygienists | Dentists                                  | Dental Hygienists |
| 2004  | 8,575                            | 5,329             | 1,468:1                                   | 2,362:1           |
| 2006  | 9,470                            | 6,689             | 1,334:1                                   | 1,889:1           |
| 2015  | 9,329                            | 7,779             | 1,378:1                                   | 1.653:1           |
| 2021/2022*  | 10,511                           | 8,497             | 1,205:1                                   | 1,491:1           |
| *Population Estimates, July 1, 2021 (v2021). https://www.census.gov/quickfacts/IL |                                  |                   |   |                   |





# Workforce Demographics

The majority of dentists were male (60.0%) and over 55 years of age (53.2%); 34.1% plan to stop practicing in less than one year, and 14.4% have a secondary practice site. With regard to COVID-19 support, 54.5% indicated providing vaccine awareness and education, 44.4% indicated providing COVID-19 patient education, and 34.2% indicated providing no COVID-19 support (see Appendix 2). Asian dentists are represented at 2 to 4 times that of Black, Hispanic, or other race / ethnicity groups (see Figure 3: Demographic Characteristics, Dentists vs. Dental hygienists [%]).

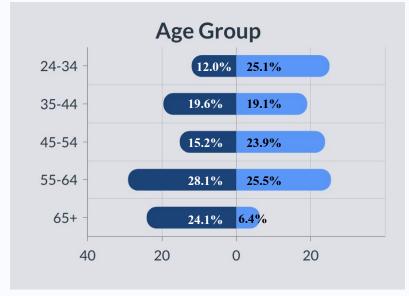
Dental hygienists responding to the survey were mostly female (98.6%) and more than 25.5% are older than 55 years of age; 25.1% plan to practice more than 20 years. With regard to COVID-19 support, 45.6% indicated providing vaccine awareness, and 36.6% indicated providing COVID-19 patient education (data not shown). The dental providers and dental hygienists responding to the survey represented a lower proportion of the population for Hispanics and Blacks (see Appendix 2).

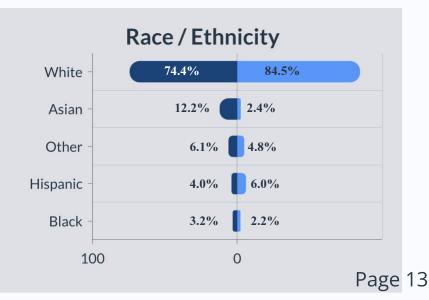
Figure 3: Demographic Characteristics, Dentists vs. Dental Hygienists (%)









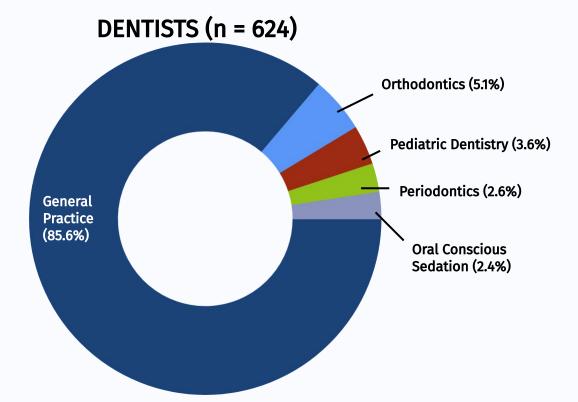




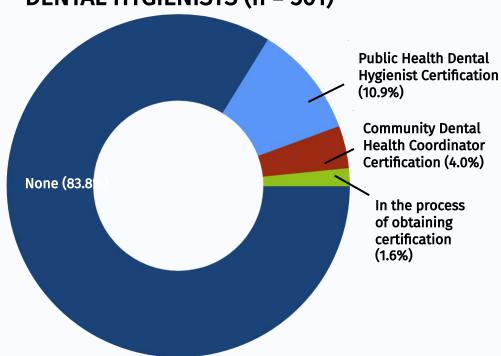
# Specialty Characteristics

The majority of respondents to the dentist survey indicated having a general practice license (85.6%) followed by the following specialties: orthodontics (5.1%), pediatric dentistry (3.6%), periodontics (2.6%), and oral conscious sedation (2.4%) (see Figure 4). Of the respondents completing the dental hygienists survey, 10.9% PHDH certification, 4.0% have a community dental health coordinator (CDHC) certification, and 1.6% indicated not being certified but are in the process of obtaining certification. The majority of dental hygienists indicating having a PHDH certification have had the certification between 1 - 5 years. Similarly, all CDHC certifications have been attained less than five years ago (data not shown).

Figure 4: Dentists and Dental Hygienists, by Specialty / Certification (%)









#### **Table 2: Practice Characteristics Across Reported Practice ZIP Codes (n = 361)**

|   | Number | Percent |  |
|---|--------|---------|--|
| Type of Practice (Top 3) (n = 361)            |        |         |  |
| Private / Group Practice                      | 301    | 83.4    |  |
| Other   | 23     | 6.4     |  |
| Federally Qualified Health Center             | 20     | 5.5     |  |
| Health Care Business / Corporation            | 17     | 4.7     |  |
| <b>Size*</b> (n = 360)                        |        |         |  |
| Solo  | 170    | 47.2    |  |
| Small Group                                   | 157    | 43.6    |  |
| Large Group                                   | 33     | 9.2     |  |
| <b>Activities</b> (Top 5) (n = 356)           |        |         |  |
| Patient Care                                  | 354    | 99.4    |  |
| Administration                                | 207    | 58.1    |  |
| Teaching                                      | 151    | 42.4    |  |
| Community Outreach and Education              | 84     | 23.6    |  |
| Other   | 11     | 3.1     |  |
| *Cita group refers to practices with 2 / FTFs | 1      |         |  |

\*Size group refers to practices with 2 - 4 FTEs. Large group refers to 5+ FTEs.

The majority of practices represented in this data set were private / group practice (83.4%), followed by other (6.4%), federally qualified health centers (FQHCs) (5.5%), and health care business /corporation (4.7%). In addition, more than 90% of practices were either solo (47.2%) or small group (43.6%). The top activities performed within dental practices include patient care (99.4%), administration (58.1%), teaching (42.4%), and community outreach and education (23.6%). See Table 1.

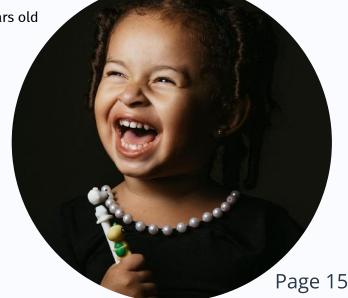
Additional practice characteristics include the following (data not shown\*):

- 13.7% of practices with staff vacancies
- 5.5% with a Public Health Collaborative Agreement completed by a dental hygienist
- 55.8% using silver diamine fluoride
- 22.6% accepting Medicaid patients; 71.6% of which indicated accepting NEW Medicaid patients

• 91.9% indicated accepting new adult patients

• 66.6% indicated accepting children under 3 years old

\*Data details available in Appendix II



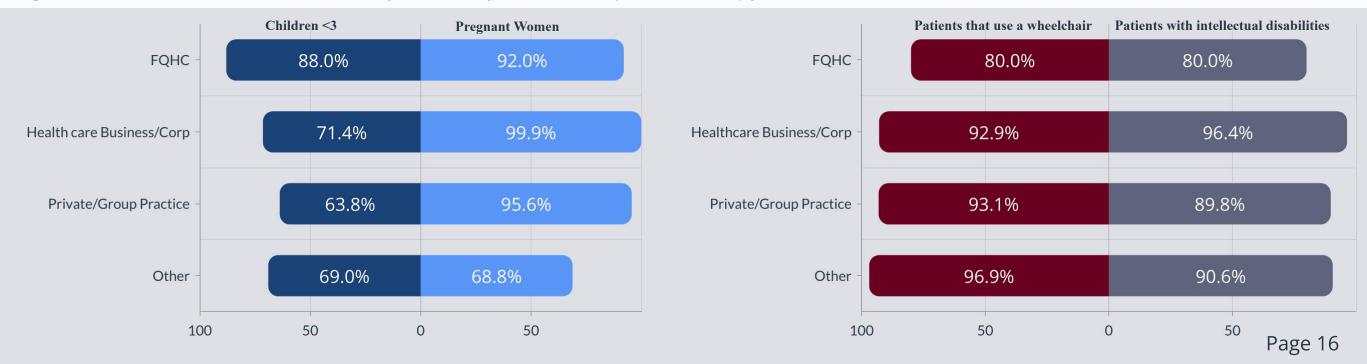


### Practice Characteristics

A higher proportion of FQHCs indicated serving children less than 3 years of age when compared to other site types. A high percentage of sites indicated seeing patients who use a wheelchair, patients with intellectual disabilites, and pregnant women, with the exception of pregnant women by "other" sites (68.8%) and wheelchair bound and individuals with intellectual challenges among FQHC's at 80.0%.

When looking at practice size, a smaller proportion of solo practices indicated serving children less than 3 years of age (59.3%), compared to small group and large group practices, 72.5% and 75.0% respectively. Practices that indicated serving children less than 3 years of age also indicated having a PHDH collaborative agreement in place (data not shown).

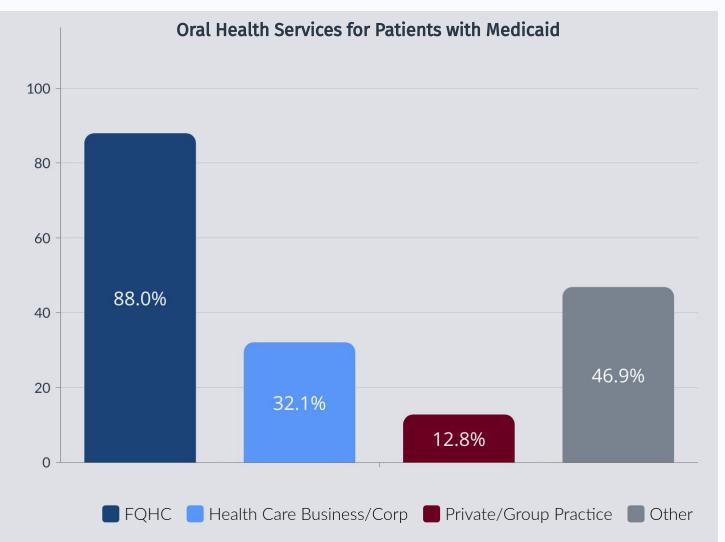
#### Figure 5: Oral Health Services for Special Populations, by Practice Type (%)





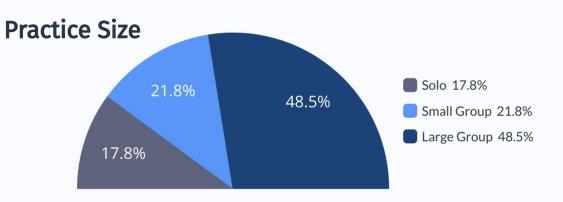
## Practice Characteristics

Figure 6: Oral Health Services for Medicaid Populations, by Practice Type and Practice Size (%) (n = 359)



A higher proportion of FQHCs indicated serving Medicaid patients (88.0%), followed by other (46.9%), health care business/corporation (32.1%), and private/group practice (12.8%).\* A higher proportion of large group practices (5+ FTE dentists) indicated seeing Medicaid patients (48.5%), followed by small group (2 - 4 FTE dentists (21.8%) and solo practices (17.8%). Additional analysis was conducted among select geographic designations and found Chicago sites serving Medicaid patients was more than double that of rural sites; 41.3% and 20.6%, respectively (data not shown).

Overall, the majority of practices accepting Medicaid patients indicated accepting new Medicaid patients (71.6%). The top barriers indicated among Medicaid providers included denial of payment, low reimbursement, and enrollment paperwork. Finally, of practices that indicated they served Medicaid patients, 73.7% have a PHDH collaborative agreement in place (data not shown).

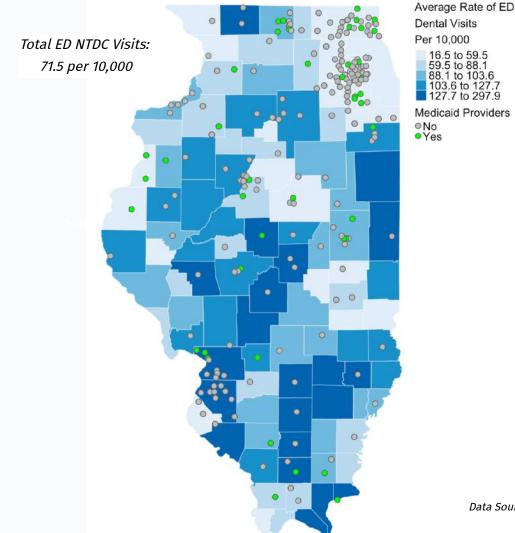


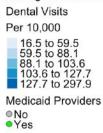
\*For the purposes of this report, the term "FQHC" can include other community health center designations that do not otherwise receive federal funding under section 330 of the PHS Act.



## Medicaid Practice Locations

Figure 7: Non-Traumatic Dental Condition ED Visits, Medicaid vs. Non-Medicaid Practices





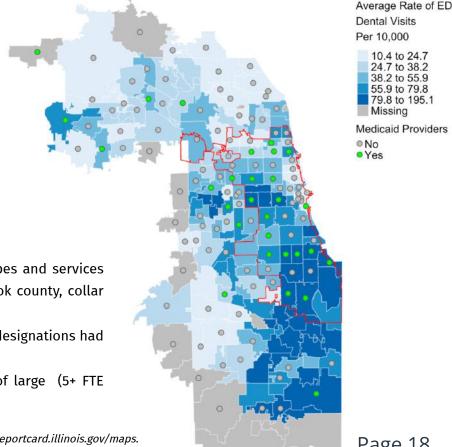
Looking at the average rate of emergency department (ED) dental visits (non-traumatic dental conditions) in parallel to the location of dental sites, as well as sites that take Medicaid patients, can provide insights with regard to sufficient access and/or coverage for vulnerable populations. Although not all dental sites are included, there are some interesting observations with regard to areas of high ED NTDCs and lack of providers that serve Medicaid patient. These instances are most notable in Cook County where areas with a higher number of dental sites that serve Medicaid patients also have a lower average rate of ED dental visits.

Additional analysis was conducted to look at practice types and services delivered by select geographic designations (Chicago, Cook county, collar counties, urban, and rural) areas: (see Appendix II)

- Chicago had the highest proportion of FQHCs; all other designations had 80% or more private / group practices.
- Cook and collar counties had the highest proportion of large (5+ FTE dentists); 13.6% and 12.0% respectively.

Data Source: IDPH Public Health Community Map (2016 - 2019) http://www.healthcarereportcard.illinois.gov/maps.

#### **Illinois: Cook County Only**



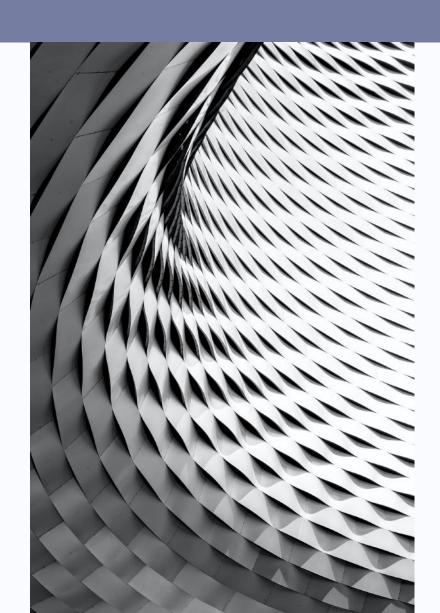


## Limitations

The nature of this project lends itself to a couple specific limitations:

- The data does not represent all licensed dentists and dental hygienists in Illinois.
- Data in the report are subject to limitations associated with the self-reporting of workforce characteristics.
- The survey was sent to dentists and dental hygienists who are active within the oral health workforce and whose licenses were renewed between September 2021 April 2022.
- Responses were voluntary, which may have impacted the total response rate.
- The time-period for taking the survey was in constant flux due to delays in the license renewal window which also may have reduced the number of survey responses received.
- FQHC site type selected by survey recipients can be inclusive of other community health centers that do not receive federal funding.\* For purposes of this report, any outputs that indicated less than 100% Medicaid coverage by FQHCs are likely a site type that does not received a federal award.

All FQHCs in Illinois (that receive a federal award) must assure that any fees or payments required by the Health Resources and Services Administration Center for Health Care Services will be reduced or waived in order to assure that not patient will be denied such services due to an individuals inability to pay for such services. https://bphc.hrsa.gov/compliance/compliance-manual/introduction





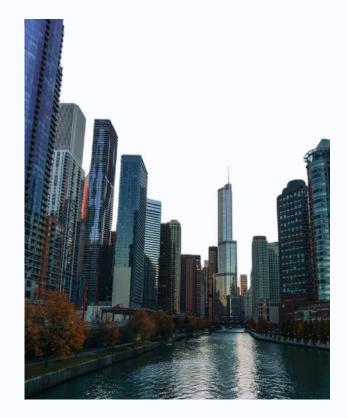
## **Conclusion and Future Considerations**

Between 2004 – 2022, there have been modest improvements in minority group representation within the oral health workforce in Illinois. Still, Illinois trends among racial and ethnic diversity follow national trends that indicate all minority groups, except Asians are underrepresented in health diagnosis and treating (dentists) and health technologists and technicians (dental hygienists) occupations. (7) The Gender diversity has increased substantially among dentists, the percentage of female dentists increased in Illinois (from 19% in 2004 to 38.7% in 2022).

The Illinois Oral Health Workforce Survey revealed a slightly lower proportion of general versus specialty dentists (approximately 6% less) compared to national trends, but it is in line with the proportion of pediatric dentists. (8) Oral health services provided to vulnerable populations continue to be a challenge as less than 1 in 4 Illinois sites indicated accepting Medicaid patients and 2 in 3 sites indicated serving children under the age of 3. Not surprisingly, a higher proportion of FQHCs indicated serving Medicaid, pregnant patients, and children under the age of 3 compared to other practice site types. Shortages in rural areas continue to be significant challenge nationally and in Illinois.

Although the oral health workforce in Illinois is increasing, responses from the 2021/2022 Illinois Oral Health Workforce Survey indicate a need to improve to keep up with the demand of the growing population. There continues to be a need for multi-pronged recruitment strategies, expanded training and pipeline programs, as well as incentives in oral health practice settings.

The IDPH Oral Health Section should assess the oral health workforce in a way that enables a representative and comprehensive understanding of the workforce, areas of workforce shortages, and provider capacities to further support strategic program planning to meet future demands in oral health across Illinois.



#### **APPENDIX I:**

#### **ORAL HEALTH WORKFORCE SURVEYS**

#### **DENTISTS AND DENTAL HYGIENISTS**



#### Confidential

#### Oral Health Workforce Survey [for Dentists and Dental Hygienists]

The Illinois Department of Public Health's mission is to protect the health and wellness of the people of Illinois through the prevention, health promotion, regulation, and the control of disease and injury. Essential public health services provided or assured by IDPH include (1) assessing and monitoring population health status, factors that influence health, and community needs and assets as well as building and supporting diverse and skilled public health workforce; (2) assuring an effective system that enables equitable access to the individual services and care needed to be healthy; and (3) strengthening, supporting, and mobilizing communities and partnerships to improve health.

Assessing and addressing oral health workforce supply, distribution, and training needs as well as working to assure equitable access to individual oral health services in collaboration with partners are important components of these essential public health services. The U.S. Department of Health and Human Services (DHHS) Health Resources and Services Administration (HRSA) has provided funding to IDPH to conduct an assessment of Illinois oral health workforce during the 2021 license renewal period. The assessment will assist IDPH and the state in gaining a better understanding of the oral health workforce, workforce shortages, and capacities in Illinois. The information gathered from the assessment will be used to expand the capacity of the oral health workforce through training, innovation, and other strategies that improve health and wellness.

#### **Informed Consent Statement**

IDPH requests your participation in a confidential survey that will be used to assess the oral health workforce in Illinois. Input into this survey was provided by Illinois Department of Financial and Professional Regulation, Illinois State Dental Society, Illinois Dental Hygienists Association, academic institutions, and other IDPH partners. The information and personal identifiers you share will be kept confidential to the full extent of the law. All data collected herein is for the sole purpose of evaluation and monitoring of oral health workforce and oral health programs in Illinois. Survey data will not be used for any other purpose, in whole or in part, without the express written consent of the individual respondent.

Individual names are not collected in this survey. However, the Illinois license number is collected and will only be used to de-duplicate responses (as necessary). Data will be collected using REDCap™, a secure web application that is in compliance with 21 CFR Part 11, Federal Information Security Modernization Act (FISMA), Health Insurance Portability and Accountability Act, and General Data Protection Regulation (GDPR). The information you provide will be aggregated and reported in summary form so that <u>no</u> individual will be identifiable in any report. Data will be suppressed in accordance with IDPH policy to ensure no individual practices are identifiable. IDPH is the only organization that will have access to the raw data captured throughout this survey process.

Participation or nonparticipation in the survey is voluntary and will not impact your relationship with society memberships or state licensing boards. Submission of this page will



be interpreted as your informed consent to participate and that you affirm you are at least 18 years of age.

If you have questions about this survey or any of the information being requested, contact the principal investigator, Dr. Mona Van Kanegan, chief, Division of Oral Health, IDPH, via email at Mona.VanKanegan@illinois.gov. If you have questions regarding your rights as a survey participant, contact the Illinois Department of Public Health Division of Oral Health at DPH.oralhealth@Illinois.gov.

**This study will take approximately 15 minutes to complete**. You may decline to take part in the survey or exit the survey at any time without any consequences. You may skip any question you do not wish to answer for any reason.

You may choose to decline to answer any of the questions. If you discontinue taking the survey before you have completed it, you will <u>not</u> be able to retrieve your responses or be able to complete the survey. We encourage all respondents to set aside time to enable completion of the survey, to completion, in one session.

ELECTRONIC CONSENT: Please select your choice below. Clicking on the "Agree" button indicates that

- You have read the above information
- You voluntarily agree to participate
- You are 18 years of age or older

| □ Ag | ree |  | Dis | sag | ree |
|------|-----|--|-----|-----|-----|
|------|-----|--|-----|-----|-----|

\*Feel free to print or save a copy of this form for your personal records\*



DENTISTS SURVEY

|     | Thank you for consenting to participate in this survey. You may begin the following section:                     |   |  |  |
|-----|--|---|--|--|
|     | WORKFORCE DEMOGRAPHICS   |   |  |  |
| 1.  | Please select your current license type (check all that apply).  | General Dentistry Specialty in Dentistry Dentist Temporary Dental Teaching Permit Dental Sedation Permit Controlled Substance Dental Residency/Intern Permit  |  |  |
| 2.  | Please provide your IL dental license number:  |   |  |  |
| 3.  | Please indicate your current Dental Practice/Specialty and Board Certification or Permits (check all that apply) | General Practice Prosthodontics Oral and Maxiofacial Surgery Oral and Maxiofacial Pathology Endodontics Dental Public Health Orthodontics Oral Radiology Pediatric Dentistry Periodontics Dental General Anesthisiology Oral Conscious Sedation Conscious Sedation Influenza vaccine certification Other (please specify) |  |  |
| За. | If "Other", please specify:  |   |  |  |
| 4.  | Please indicate degree(s) obtained (check all that apply):   | □ DDS / DMD □ MS □ PhD □ DrPH □ Other (please specify)  |  |  |
| 4a. | If "Other", please specify:  |   |  |  |
| 5.  | Please select your current age group.  | ○ 24 - 29<br>○ 30 - 34<br>○ 35-39<br>○ 40-44<br>○ 45-49<br>○ 50-54<br>○ 55-59<br>○ 60-64<br>○ 65-69<br>○ ≥70 years of age   |  |  |
| 6.  | What gender do you identify as?  | <ul><li>Male</li><li>Female</li><li>Non-binary / third gender</li><li>Prefer not to say</li></ul>   |  |  |

08/30/2021 11:40am





| Please select your Race/Ethnicity                             | <ul> <li>○ White or Caucasian</li> <li>○ Black or African American</li> <li>○ Asian</li> <li>○ Native Hawaiian or Pacific Islander</li> <li>○ American Indian or Alaskan Native</li> <li>○ Hispanic or Latinx</li> <li>○ Multiracial or Biracial</li> </ul>   |
|---|---|
|   | Other Prefer not to say   |
| Please specify further:                                       | <ul><li>○ Chinese</li><li>○ Indian</li><li>○ Japanese</li><li>○ Korean</li><li>○ Vietnamese</li><li>○ Other</li></ul>   |
| Please specify further:                                       | <ul><li>○ Filipino</li><li>○ Samoan</li><li>○ Other</li></ul>   |
| Please specify further:                                       | <ul><li>○ Puerto Rican</li><li>○ Cuban</li><li>○ Mexican</li><li>○ Other Hispanic Descent</li></ul>   |
| If "Other", please specify:                                   |   |
| What is your current employment status (check all that apply) | □ Full-time clinical practice in IL     □ Full-time clinical outside IL     □ Part-time clinical practice in IL     □ Part-time clinical practice outside IL     □ Part-time Administrative/Faculty (No Direct Patient Care)     □ Full-time Administrative/Faculty (No Direct Patient Care)     □ Other employment status (e.g.,Volunteer)     □ Fully Retired (Not Working) |
| If you selected "Other employment status", please specify:    |   |





| 8b. | Please indicate which state (pick list of state | ○ Alabama - AL        |
|-----|---|-----------------------|
|     | abbreviations)                                  | ○ Alaska - AK         |
|     |   | O Arizona - AZ        |
|     |   | O Arkansas - AR       |
|     |   | O California - CA     |
|     |   | Ocolorado - CO        |
|     |   | Oconnecticut - CT     |
|     |   | O Delaware - DE       |
|     |   | ○ Florida - FL        |
|     |   | ○ Georgia - GA        |
|     |   | ○ Hawaii - HI         |
|     |   | Oldaho - ID           |
|     |   | ○ Illinois - IL       |
|     |   | ◯ Indiana - IN        |
|     |   | O lowa - IA           |
|     |   | ○ Kansas - KS         |
|     |   | ○ Kentucky - KY       |
|     |   | O Louisiana - LA      |
|     |   | ○ Maine - ME          |
|     |   | ○ Maryland - MD       |
|     |   | Massachusetts - MA    |
|     |   | ◯ Michigan - MI       |
|     |   | ○ Minnesota - MN      |
|     |   |                       |
|     |   | ○ Missouri - MO       |
|     |   | ○ Montana - MT        |
|     |   | O Nebraska - NE       |
|     |   | ○ Nevada - NV         |
|     |   | ○ New Hampshire - NH  |
|     |   | ○ New Jersey - NJ     |
|     |   | ○ New Mexico - NM     |
|     |   | O New York - NY       |
|     |   | North Carolina - NC   |
|     |   | ○ North Dakota - ND   |
|     |   | Ohio - OH             |
|     |   | Oklahoma - OK         |
|     |   | Oregon - OR           |
|     |   | O Pennsylvania - PA   |
|     |   | ○ Rhode Island - RI   |
|     |   | O South Carolina - SC |
|     |   | O South Dakota - SD   |
|     |   | ○ Tennessee - TN      |
|     |   | ○ Texas - TX          |
|     |   | O Utah - UT           |
|     |   | ○ Vermont - VT        |
|     |   | ○ Virginia - VA       |
|     |   | ○ Washington - WA     |
|     |   | ○ West Virginia - WV  |
|     |   | ○ Wisconsin - WI      |
|     |   | ○ Wyoming - WY        |







| 8c. | Please indicate which state (pick list of state abbreviations)  | Alabama - AL Alaska - AK Arizona - AZ Arkansas - AR California - CA Colorado - CO Connecticut - CT Delaware - DE Florida - FL Georgia - GA Hawaii - HI Idaho - ID Illinois - IL Indiana - IN Iowa - IA Kansas - KS Kentucky - KY Louisiana - LA Maine - ME Maryland - MD Massachusetts - MA Michigan - MI Minnesota - MN Mississippi - MS Missouri - MO Montana - MT Nebraska - NE Nevada - NV New Hampshire - NH New Jersey - NJ New Hampshire - NH New Jersey - NJ New Mexico - NM New York - NY North Carolina - NC North Dakota - ND Ohio - OH Oklahoma - OK Oregon - OR Pennsylvania - PA Rhode Island - RI South Carolina - SC South Dakota - SD Tennessee - TN Texas - TX Utah - UT Vermont - VT Virginia - VA Washington - WA West Virginia - WV Wisconsin - WI Wyoming - WY |
|-----|---|--|
| 9.  | Specify the number of years you plan to remain active within the Oral Health Workforce (i.e. years to retirement) | <pre>&lt; 1 year     1 - 5 years     6 - 10 years     11 - 15 years     16 - 20 years     &gt; 20 years     Other (please specify)</pre>   |
| 9a. | If "Other", please specify:   |  |
|     |   | W  |





|      | LANGUAGE NEEDS  |   |
|------|---|---|
| 10.  | Are the basic language needs* of your patients being met during the healthcare encounter? *Basic language needs means that verbal and / or written communication are provided during the encounter to support the language needs of the individual patient. | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |
| 10a. | If Yes, please indicate what resources/services are being used to meet the language needs of your patients. (select all that apply)   | ☐ Printed materials ☐ Interpreter services (on-site) ☐ Interpreter services (off-site) ☐ Teletypewriter (TTY) services ☐ Electronic materials ☐ Other ☐ None    |
| 10ai | .lf "Other", please specify:  |   |
| 10b. | Please describe (in as much detail as possible) the types of translation/interpreter services currently utilized to meet patient language needs.  |   |
| 11.  | Please indicate which languages are a challenge in the healthcare communication with your patient(s)? (select all that apply)   | ☐ English ☐ Spanish ☐ French ☐ German ☐ Russian ☐ Polish ☐ Tagalog ☐ Japanese ☐ Chinese ☐ Vietnamese ☐ Korean ☐ American Sign Language ☐ Other (please specify) |
| 11a. | Please specify if you selected other:   |   |
|      |   |   |





|      | PRACTICE LOCATION & SERVICE FOR PRIMARY  | LOCATION   |
|------|--|--|
| 12.  | Please provide information for your primary practice location: Practice Type   | <ul> <li>Private Practice/Group Practice</li> <li>Healthcare Business/Corporation</li> <li>Academic Setting/Teaching</li> <li>State/Local Government</li> <li>VA or Hospital Clinic</li> <li>Nursing Home/Assisted Living</li> <li>Federally Qualified Health Center/Not for Profit</li> <li>Volunteer Clinic</li> <li>School-based Health Clinic (elementary or high school)</li> <li>Mobile Provider (bring equipment to set-up in high school, grammar school, daycare, etc.).</li> <li>Other (please specify)</li> </ul> |
| 12a. | If "Other", please specify:  |  |
|      |  |  |
| 13.  | Please provide information for your primary practice location: Practice Size  (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)                     | <ul><li>○ Solo</li><li>○ Small group (2-4 FTE dentists)</li><li>○ Large group (5+ FTE dentists)</li></ul>  |
| 14.  | Please provide information for your primary practice location: Location (Zip Code Only)  |  |
| 15.  | Please provide information for your primary practice location: Average hours per week  |  |
| 16.  | Please provide information for your primary practice location: Indicate if your practice has any clinical staff vacancies (full-time equivalent positions) | ○ Yes<br>○ No  |
| 16a. | Please indicate the number of DENTIST vacancies (full-time equivalent positions):  |  |
|      | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |
| 16b. | Please indicate the number of DENTAL HYGIENIST vacancies (full-time equivalent positions):   |  |
|      | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |
| 16c. | Please indicate the number of DENTAL ASSISTANT vacancies (full-time equivalent positions):   |  |
|      | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |
| 17.  | Please provide information for your primary practice location: Is Medicaid accepted at this location?  | ○ Yes<br>○ No  |





| 17a. | If Yes, are you accepting NEW Medicaid patients?  | <ul><li>Yes</li><li>No</li><li>Not sure</li></ul>   |
|------|---|---|
| 18.  | Please provide information for your primary practice location: Please indicate the barriers you encounter around Medicaid participation. (check all that apply)       | □ Enrollment Paperwork □ Need for Prior Approval □ Frequent Changes in Regulation □ Denial of Payment □ Slow Reimbursement □ On-and-off Eligibility of Patients □ Patient Characteristics □ Difficulty in Finding Specialists Who Accept Medicaid □ Low Reimbursement □ Other (please specify) □ None |
| 18a. | If "Other", please specify:   |   |
|      |   | -   |
| 19.  | Please provide information for your primary practice location: In your practice do you care for children less than 3 years of age?                                    | ○ Yes<br>○ No<br>○ N/A  |
| 20.  | Please provide information for your primary practice location: In your practice do you provide dental care to any of the following populations (check all that apply) | □ Patients with intellectual or developmental challenges     □ New Pediatric patients     □ Wheelchair-bound     □ Pregnant Patients     □ Other special population(s)     □ None   |
| 20a. | If "Other special population(s)", please specify:   |   |
|      |   |   |
| 21.  | Please provide information for your primary practice location: In your practice do you use silver diamine fluoride?   | ○ Yes<br>○ No<br>○ N/A  |
| 22.  | Are there public health dental hygenists in your practice working under a collaborative agreement in your practice?   | ○ Yes<br>○ No<br>○ N/A  |





|       | PRACTICE LOCATION & SERVICES FOR SECONDA   | RY LOCATION  |
|-------|--|--|
| 23.   | Do you have a secondary practice location?   | ○ Yes<br>○ No  |
| 23a.  | Please provide information for your secondary practice location: Practice Type   | <ul> <li>○ Private Practice/Group Practice</li> <li>○ Healthcare Business/Corporation</li> <li>○ Academic Setting/Teaching</li> <li>○ State/Local Government</li> <li>○ VA or Hospital Clinic</li> <li>○ Nursing Home/Assisted Living</li> <li>○ Federally Qualified Health Center/Not for Profit</li> <li>○ Volunteer Clinic</li> <li>○ School-based Health Clinic (elementary or high school)</li> <li>○ Mobile Provider (bring equipment to set-up in high school, grammar school, daycare, etc.).</li> <li>○ Other (please specify)</li> </ul> |
| 23ai  | .lf "Other", please specify:   |  |
| 23b.  | Please provide information for your secondary practice location: Practice Size  (Note: 1 Full Time Equivalent (FTE) = 32 clinical                            | <ul><li>○ Solo</li><li>○ Small group (2-4 FTE dentists)</li><li>○ Large group (5+ FTE dentists)</li></ul>  |
| 23c.  | Please provide information for your secondary practice   |  |
|       | location: Location (Zip Code Only)   | ·  |
| 23d.  | Please provide information for your secondary practice location: Average hours per week  |  |
| 23e.  | Please provide information for your secondary practice location: Indicate if your practice has any clinical staff vacancies (full-time equivalent positions) | ○ Yes<br>○ No  |
| 23ei  | Please indicate the number of DENTIST vacancies (full-time equivalent positions):  |  |
|       | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |
| 23eii | i.Please indicate the number of DENTAL HYGIENIST vacancies (full-time equivalent positions):   |  |
|       | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |
| 23ei  | iiPlease indicate the number of DENTAL ASSISTANT vacancies (full-time equivalent positions):   |  |
|       | (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)   |  |





| 23f.  | Please provide information for your secondary practice location: Is Medicaid accepted at this location?  | ○ Yes<br>○ No   |
|-------|--|---|
| 23fi. | If Yes, are you accepting NEW Medicaid patients?   | <ul><li>Yes</li><li>No</li><li>Not sure</li></ul>   |
| 23g.  | Please provide information for your secondary practice location: Please indicate the barriers you encounter around Medicaid participation. (check all that apply)        | □ Enrollment Paperwork □ Need for Prior Approval □ Frequent Changes in Regulation □ Denial of Payment □ Slow Reimbursement □ On-and-off Eligibility of Patients □ Patient Characteristics □ Difficulty in Finding Specialists Who Accept Medicaid □ Low Reimbursement □ Other (please specify) □ None |
| 23gi  | If "Other", please specify:  |   |
| 23h.  | Please provide information for your secondary practice location: In your practice do you care for children less than 3 years of age?                                     | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |
| 22i.  | Please provide information for your secondary practice location: In your practice do you provide dental care to any of the following populations: (check all that apply) | <ul> <li>□ Patients with intellectual or developmental challenges</li> <li>□ New Pediatric patients</li> <li>□ Wheelchair-bound</li> <li>□ Pregnant Patients</li> <li>□ Other special population(s)</li> <li>□ None</li> </ul>  |
| 23ii. | If "Other special population(s)", please specify:  |   |
| 23j.  | Please provide information for your secondary practice location: In your practice do you use silver diamine fluoride?  | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |
| 23k.  | Are there public health dental hygienists in your practice working under a collaborative agreement?  | <ul><li>Yes</li><li>No</li><li>N/A</li></ul>  |







|      | EXPANDED PRACTICE, SUPPORTS AND BARRIERS   |   |  |  |
|------|--|---|--|--|
| 24.  | Please indicate all activities you conduct in a typical week (check all that apply)  | <ul> <li>☐ Patient care</li> <li>☐ Teaching</li> <li>☐ Administration</li> <li>☐ Community Outreach &amp; Community Education</li> <li>☐ Other (please specify)</li> </ul>  |  |  |
| 24a. | If "Other", please specify:  |   |  |  |
| 25.  | Please indicate your ideal work situation:   | <ul><li>○ Want to work less</li><li>○ Want to work more</li><li>○ Working the amount wanted</li></ul>   |  |  |
| 25a. | If more or less, please describe the barriers you've encountered to attaining your ideal work situation:   |   |  |  |
| 26.  | Are you currently accepting new adult patients?  | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |  |  |
| 26a. | If no, please explain the reasons for not being able to accept new patients.   |   |  |  |
| 27.  | Please indicate COVID vaccine support you have provided within the past 12 months: (check all that apply)  | <ul> <li>Administered COVID-19 vaccine outside of my practice as a volunteer</li> <li>Provided COVID-19 patient education</li> <li>Provided vaccine awareness and education</li> <li>Planning on administering the COVID-19 vaccine in my practice</li> <li>Other (please specify)</li> <li>None</li> </ul> |  |  |
| 27a. | If "Other", please specify:  |   |  |  |
| 28.  | What are the top three most significant concerns for your practice? Please number and describe them in the box below (e.g., 1. Lack of oral health education resources). |   |  |  |







| WORKFORCE DEMOGRAPHICS  |   |  |
|---|---|--|
| Please provide your IL license number:  |   |  |
| Did you complete your dental hygiene education in IL?   | ○ Yes<br>○ No   |  |
| Please list the specific school/program   |   |  |
| Please indicate degree(s) obtained (check all that apply)   | ☐ Associates Degree ☐ Bachelors Degree ☐ Masters Degree ☐ PhD ☐ Other   |  |
| f "Other", please specify:  |   |  |
| Do you have a public health dental hygienist pertification?   | <ul><li>○ Yes</li><li>○ No</li><li>○ No but in the process of obtaining</li></ul>   |  |
| f Yes, please indicate how many years you have naintained a public health hygienist certification:  |   |  |
| Do you have a Community Dental Health Coordinator CDHC) Certification?                              | <ul><li>Yes</li><li>No</li><li>No but in the process of obtaining</li></ul>   |  |
| f Yes, please indicate how many years you have naintained a CDHC Certification:                     |   |  |
| Are there public health dental hygienists in your bractice working under a collaborative agreement? | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |  |
| Please select your current age group.   | ○ 24 - 29<br>○ 30 - 34<br>○ 35-39<br>○ 40-44<br>○ 45-49<br>○ 50-54<br>○ 55-59<br>○ 60-64<br>○ 65-69<br>○ â%¥70 years of age |  |
| What gender do you identify as?   | <ul><li>○ Male</li><li>○ Female</li><li>○ Non-binary / third gender</li><li>○ Prefer not to say</li></ul>                   |  |





| 10.  | Please select your Race/Ethnicity (check all that apply)       | <ul> <li>White or Caucasian</li> <li>Black or African American</li> <li>Asian</li> <li>Native Hawaiian or Pacific Islander</li> <li>American Indian or Alaskan Native</li> <li>Hispanic or Latinx</li> <li>Multiracial or Biracial</li> <li>Other</li> <li>Prefer not to say</li> </ul>  |
|------|--|--|
| 10a. | Please specify further:  | Chinese Indian Japanese Korean Vietnamese Other  |
| 10b. | Please specify further:  | ○ Filipino<br>○ Samoan<br>○ Other  |
| 10c. | Please specify further:  | <ul><li>○ Puerto Rican</li><li>○ Cuban</li><li>○ Mexican</li><li>○ Other Hispanic Descent</li></ul>  |
| 10d. | If "Other", please specify:                                    |  |
| 11.  | What is your current employment status (check all that apply): | □ Full-time clinical practice in IL     □ Full-time clinical outside IL     □ Part-time clinical practice in IL     □ Part-time clinical practice outside IL     □ Part-time Administrative/Faculty (No Direct Patient Care)     □ Full-time Administrative/Faculty (No Direct Patient Care)     □ Other employment status (e.g., Volunteer)     □ Fully Retired (Not Working) |





| 11a. l | Please indicate which state (pick list of state | OA           | Alabama - AL                           |
|--------|---|--------------|--|
|        | abbreviations)                                  | 0 4          | Alaska - AK                            |
|        |   | OA           | Arizona - AZ                           |
|        |   |              | Arkansas - AR                          |
|        |   | 00           | California - CA                        |
|        |   | 00           | Colorado - CO                          |
|        |   | $\bigcirc$ C | Connecticut - CT                       |
|        |   | 0            | Delaware - DE                          |
|        |   | $\bigcirc$ F | Florida - FL                           |
|        |   |              | Georgia - GA                           |
|        |   |              | Hawaii - HI                            |
|        |   |              | daho - ID                              |
|        |   |              | llinois - IL                           |
|        |   |              | ndiana - IN                            |
|        |   |              | owa - IA                               |
|        |   | $\bigcirc$ k | (ansas - KS                            |
|        |   |              | Kentucky - KY                          |
|        |   |              | ouisiana - LA                          |
|        |   |              | Maine - ME                             |
|        |   |              | Maryland - MD                          |
|        |   |              | Massachusetts - MA                     |
|        |   |              | ∕lichigan - Ml                         |
|        |   | _            | Minnesota - MN                         |
|        |   |              | Mississippi - MS                       |
|        |   |              | Missouri - MO                          |
|        |   |              | Montana - MT                           |
|        |   | _            | Nebraska - NE                          |
|        |   |              | Nevada - NV                            |
|        |   |              | New Hampshire - NH                     |
|        |   | _            | New Jersey - NJ                        |
|        |   |              | New Mexico - NM                        |
|        |   | _            | New York - NY                          |
|        |   | $\sim$       | North Carolina - NC                    |
|        |   |              | North Dakota - ND                      |
|        |   | _            | Ohio - OH                              |
|        |   | _            | Oklahoma - OK                          |
|        |   | _            | Oregon - OR                            |
|        |   |              | Pennsylvania - PA                      |
|        |   | _            | Rhode Island - RI                      |
|        |   |              | South Carolina - SC                    |
|        |   | _            | South Dakota - SD                      |
|        |   | _            | Fennessee - TN                         |
|        |   |              | <sup>-</sup> exas - TX<br>Jtah - UT    |
|        |   |              | /ermont - VT                           |
|        |   |              |  |
|        |   |              | /irginia - VA<br>Vashington - WA       |
|        |   |              | Vasnington - VVA<br>Vest Virginia - WV |
|        |   |              | Visconsin - WI                         |
|        |   |              |  |
|        |   | UV           | Nyoming - WY                           |







| Please indicate which state (pick list of state abbreviations)  | <ul> <li>○ Alabama - AL</li> <li>○ Alaska - AK</li> <li>○ Arizona - AZ</li> <li>○ Arkansas - AR</li> <li>○ California - CA</li> <li>○ Colorado - CO</li> <li>○ Connecticut - CT</li> <li>○ Delaware - DE</li> <li>○ Florida - FL</li> </ul>              |
|---|--|
|   | <ul> <li>Georgia - GA</li> <li>Hawaii - HI</li> <li>Idaho - ID</li> <li>Illinois - IL</li> <li>Indiana - IN</li> <li>Iowa - IA</li> <li>Kansas - KS</li> <li>Kentucky - KY</li> <li>Louisiana - LA</li> </ul>  |
|   | <ul> <li>Maine - ME</li> <li>Maryland - MD</li> <li>Massachusetts - MA</li> <li>Michigan - MI</li> <li>Minnesota - MN</li> <li>Mississippi - MS</li> <li>Missouri - MO</li> <li>Montana - MT</li> <li>Nebraska - NE</li> </ul>                           |
|   | <ul> <li>○ Nevada - NV</li> <li>○ New Hampshire - NH</li> <li>○ New Jersey - NJ</li> <li>○ New Mexico - NM</li> <li>○ New York - NY</li> <li>○ North Carolina - NC</li> <li>○ North Dakota - ND</li> <li>○ Ohio - OH</li> <li>○ Oklahoma - OK</li> </ul> |
|   | <ul> <li>Oregon - OR</li> <li>Pennsylvania - PA</li> <li>Rhode Island - RI</li> <li>South Carolina - SC</li> <li>South Dakota - SD</li> <li>Tennessee - TN</li> <li>Texas - TX</li> <li>Utah - UT</li> </ul>   |
|   | <ul> <li>○ Vermont - VT</li> <li>○ Virginia - VA</li> <li>○ Washington - WA</li> <li>○ West Virginia - WV</li> <li>○ Wisconsin - WI</li> <li>○ Wyoming - WY</li> </ul>   |
| 11c. If "Other employment status", please specify:  | <u> </u>   |
| 12. Specify the number of years you plan to remain active within the Oral Health Workforce (i.e. years to retirement) |  |

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| 12a. | If "Other", | please | specify |
|------|-------------|--------|---------|
| 12a. | ii Otilei , | picasc | Specify |

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|     | LANGUAGE NEEDS  |   |
|-----|---|---|
| 3.  | Are the basic language needs* of your patients being met during the healthcare encounter? *Basic language needs means that verbal and / or written communication are provided during the encounter to support the language needs of the individual patient. | <ul><li>Yes</li><li>No</li><li>N/A</li></ul>  |
| 3a. | If Yes, please indicate what resources/services are being used to meet the language needs of your patients. (select all that apply)   | ☐ Printed materials ☐ Interpreter services (on-site) ☐ Interpreter services (off-site) ☐ Teletypewriter (TTY) services ☐ Electronic materials ☐ Other ☐ None    |
| 3ai | If "Other", please specify:   |   |
| 3b. | Please describe (in as much detail as possible) the types of translation/interpreter services currently utilized to meet patient language needs.  |   |
| 4.  | Please indicate which languages are a challenge in the healthcare communication with your patient(s)? (select all that apply)   | ☐ English ☐ Spanish ☐ French ☐ German ☐ Russian ☐ Polish ☐ Tagalog ☐ Japanese ☐ Chinese ☐ Vietnamese ☐ Korean ☐ American Sign Language ☐ Other (please specify) |
| 4a. | If "Other", please specify:   |   |





|      | PRACTICE LOCATION & SERVICE FOR PRIMARY LO  | DCATION   |
|------|---|---|
| 15.  | Please provide information for your primary practice location: Practice Type  | Private Practice/Group Practice Healthcare Business/Corporation Academic Setting/Teaching State/Local Government VA or Hospital Clinic Nursing Home/Assisted Living Federally Qualified Health Center/Not for Profit Volunteer Clinic School-based Health Clinic (elementary or high school) Mobile Provider (bring equipment to set-up in high school, grammar school, daycare, etc.). |
| 15a. | If "Other", please specify:   |   |
|      |   |   |
| 16.  | Please provide information for your primary practice location: Practice Size  (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)                                  | <ul><li>○ Solo</li><li>○ Small group (2-4 FTE dentists)</li><li>○ Large group (5+ FTE dentists)</li></ul>   |
| 17.  | Please provide information for your primary practice location: Location (Zip Code Only)   |   |
| 18.  | Please provide information for your primary practice location: Average hours per week   |   |
| 19.  | Please provide information for your primary practice location: Please indicate the number of clinical dental hygienist staff vacancies (full-time equivalent positions) |   |
| 20.  | Please provide information for your primary practice location: Is Medicaid accepted at this location?   | ○ Yes<br>○ No   |
| 20a. | If Yes, are you accepting NEW Medicaid patients?  | <ul><li>Yes</li><li>No</li><li>Not sure</li></ul>   |
| 21.  | Please provide information for your primary practice location: Please indicate the barriers you encounter around Medicaid participation. (check all that apply)         | □ Enrollment Paperwork □ Need for Prior Approval □ Frequent Changes in Regulation □ Denial of Payment □ Slow Reimbursement □ On-and-off Eligibility of Patients □ Patient Characteristics □ Difficulty in Finding Specialists Who Accept Medicaid □ Low Reimbursement □ Other □ None  |

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| 21a. | If "Other", please specify:  |  |
|------|--|--|
|      |  |  |
| 22.  | Please provide information for your primary practice location: In your practice do you care for children less than 3 years of age?                                     | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>   |
| 23.  | Please provide information for your primary practice location: In your practice do you provide dental care to any of the following populations: (check all that apply) | <ul> <li>□ Patients with intellectual or developmental challenges</li> <li>□ New Pediatric patients</li> <li>□ Wheelchair-bound</li> <li>□ Pregnant Patients</li> <li>□ Other special population(s)</li> <li>□ None</li> </ul> |
| 23a. | If "Other special population(s)", please specify:  |  |
| 24.  | Please provide information for your primary practice   | ○ Yes  |
|      | location: In your practice do you use silver diamine fluoride?   | ◯ No<br>○ N/A  |





|       | PRACTICE LOCATION & SERVICES FOR SECONDAR   | RY LOCATION   |
|-------|---|---|
| 25.   | Do you have a secondary practice location?  | ○ Yes<br>○ No   |
| 25a.  | Please provide information for your secondary practice location: Practice Type  | Private Practice/Group Practice Healthcare Business/Corporation Academic Setting/Teaching State/Local Government VA or Hospital Clinic Nursing Home/Assisted Living Federally Qualified Health Center/Not for Profit Volunteer Clinic School-based Health Clinic (elementary or high school) Mobile Provider (bring equipment to set-up in high school, grammar school, daycare, etc.). |
| 25ai  | .If "Other", please specify:  |   |
| 25b.  | Please provide information for your secondary practice location: Practice Size  (Note: 1 Full Time Equivalent (FTE) = 32 clinical hours)                          | <ul><li>○ Solo</li><li>○ Small group (2-4 FTE dentists)</li><li>○ Large group (5+ FTE dentists)</li></ul>   |
| 25c.  | Please provide information for your secondary practice location: Location (Zip Code Only)   |   |
| 25d.  | Please provide information for your secondary practice location: Average hours per week   |   |
| 25e.  | Please provide information for your secondary practice location: Please indicate the number of clinical staff vacancies (full-time equivalent positions)          |   |
| 25f.  | Please provide information for your secondary practice location: Is Medicaid accepted at this location?   | ○ Yes<br>○ No   |
| 25fi. | If Yes, are you accepting NEW Medicaid patients?  | <ul><li>Yes</li><li>No</li><li>Not sure</li></ul>   |
| 25g.  | Please provide information for your secondary practice location: Please indicate the barriers you encounter around Medicaid participation. (check all that apply) | □ Enrollment Paperwork □ Need for Prior Approval □ Frequent Changes in Regulation □ Denial of Payment □ Slow Reimbursement □ On-and-off Eligibility of Patients □ Patient Characteristics □ Difficulty in Finding Specialists Who Accept Medicaid □ Low Reimbursement □ Other □ None  |

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| 25gi  | .If "Other", please specify:  |   |
|-------|---|---|
| 25h.  | Please provide information for your secondary practice location: In your practice do you care for children less than 3 years of age?                                    | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |
| 25i.  | Please provide information for your secondary practice location: In your practice do you provide dental care to any of the following populations (check all that apply) | ☐ Patients with intellectual or developmental challenges ☐ New Pediatric patients ☐ Wheelchair-bound ☐ Pregnant Patients ☐ Other special population(s) ☐ None |
| 25ii. | If "Other special population(s)", please specify:   |   |
| 25j.  | Please provide information for your secondary practice location: In your practice do you use silver diamine fluoride?   | <ul><li>○ Yes</li><li>○ No</li><li>○ N/A</li></ul>  |





|      | Expanded Practice, Supports and Barriers   |   |
|------|--|---|
| 26.  | Please indicate all activities you conduct in a typical week (check all that apply)  | <ul> <li>☐ Patient care</li> <li>☐ Teaching</li> <li>☐ Administration</li> <li>☐ Community Outreach &amp; Community Education</li> <li>☐ Other</li> </ul> |
| 26a. | If "Other", please specify:  |   |
| 27.  | Please indicate your ideal work situation:   | <ul><li>○ Want to work less</li><li>○ Want to work more</li><li>○ Working the amount wanted</li></ul>   |
| 27a. | If more or less, please describe the barriers you've encountered to attaining your ideal work situation.   |   |
| 28.  | Please indicate COVID vaccine support you have provided within the past 12 months: (check all that apply)  | <ul> <li>□ Provided COVID-19 patient education</li> <li>□ Provided vaccine awareness and education</li> <li>□ Other</li> <li>□ None</li> </ul>            |
| 28a. | If "Other", please specify:  |   |
| 29.  | What are the top three most significant concerns for your practice? Please number and describe them in the box below (e.g., 1. Lack of oral health education resources). |   |





# **APPENDIX II**

## **ORAL HEALTH WORKFORCE SURVEY**

## **DATA TABLES AND FIGURES**



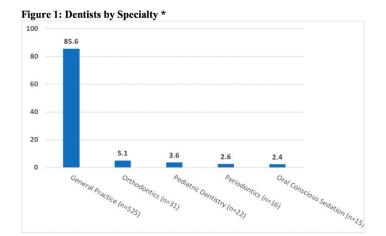
## **DENTISTS**

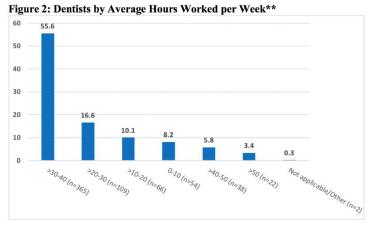
| Table 1: Summary of the Active Clinically Practicing Dentists in Illinois 2021/2022 |        |         |
|---|--------|---------|
|   | Number | Percent |
| Gender (n=623)  | •      | •       |
| Male  | 374    | 60.0    |
| Female  | 241    | 38.7    |
| Age groups (n=623)  | ·      | ,       |
| ≥65   | 150    | 24.1    |
| 55-64   | 181    | 29.1    |
| 35-44   | 122    | 19.6    |
| 45-54   | 95     | 15.2    |
| 24-34   | 75     | 12.0    |
| Plans to stop practice (n=619)  | _      |         |
| Less than 1 year  | 24     | 3.9     |
| 1-5 years   | 187    | 30.2    |
| 6-10 years  | 125    | 20.2    |
| 11-15 years   | 77     | 12.4    |
| 16 -20 years  | 59     | 9.5     |
| More than 20 years  | 145    | 23.4    |
| Dentists with secondary practice sites (n=577)                                      |        |         |
| No  | 494    | 85.6    |
| Yes   | 83     | 14.4    |
| Hours worked per week** (n=656)   |        |         |
| 0-10 hours  | 54     | 8.2     |
| More than 10-20 hours   | 66     | 10.1    |
| More than 20 -30 hours  | 109    | 16.6    |
| More than 30-40 hours   | 365    | 55.6    |
| More than 40-50 hours   | 38     | 5.8     |
| More than 50 hours  | 22     | 3.4     |
| Not applicable/ Other   | 2      | 0.3     |
| COVID-19 support* (n=561)   |        |         |
| Provided vaccine awareness and education  | 306    | 54.5    |
| Provided COVID-19 patient education   | 249    | 44.4    |
| None  | 192    | 34.2    |
| Administered COVID-19 vaccine outside of my practice as a volunteer                 | 29     | 5.2     |
| Planning on administering the COVID-19 vaccine in my practice                       | 19     | 3.4     |
| Other ************************************  | 15     | 2.7     |

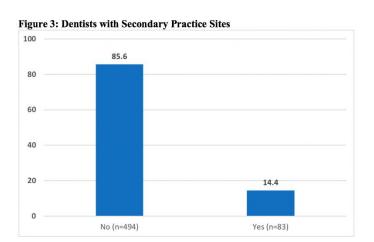


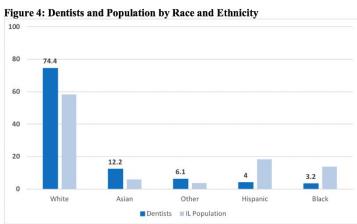
<sup>\*</sup>Multi-selection question \*\*Out of all practices (Primary and Secondary)

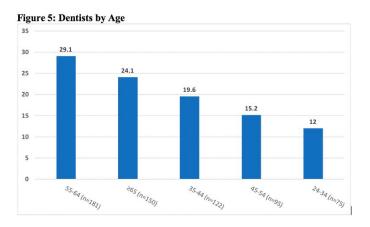
### FIGURES 1 – 5: DENTISTS CLINICALLY PRACTICING IN ILLINOIS











Illinois race population proportions retrieved from 2020 Decennial Census Survey.



## **DENTAL HYGIENISTS**

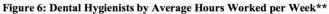
|  | Number | Percent  |
|--|--------|----------|
| Gender (n=499)   | Rumber | rerecite |
| Female   | 487    | 97.6     |
| Male   | 7      | 1.4      |
| Age groups (n=498)   |        |          |
| ≥65  | 32     | 6.4      |
| 55-64  | 127    | 25.5     |
| 35-44  | 95     | 19.1     |
| 45-54  | 119    | 23.9     |
| 24-34  | 125    | 25.1     |
| Plans to stop practice (n=499)                                 |        | •        |
| Less than 1 year   | 6      | 1.2      |
| 1-5 years  | 114    | 22.8     |
| 6-10 years   | 123    | 24.6     |
| 11-15 years  | 69     | 13.8     |
| 16 -20 years   | 61     | 12.2     |
| More than 20 years   | 125    | 25.1     |
| <b>Dental hygienists with secondary practice sites</b> (n=462) | ,      | 1        |
| No   | 380    | 82.3     |
| Yes  | 82     | 17.7     |
| Hours worked per week** (n=540)                                |        | •        |
| 0-10 hours   | 70     | 13       |
| More than 10-20 hours  | 69     | 12.8     |
| More than 20 -30 hours   | 91     | 16.9     |
| More than 30-40 hours  | 275    | 50.9     |
| More than 40-50 hours  | 17     | 3.1      |
| More than 50 hours   | 13     | 2.4      |
| Not applicable/ Other  | 48     | 8.9      |
| COVID-19 support* (n=432)                                      | ·      | •        |
| None   | 193    | 44.7     |
| Other  | 14     | 3.2      |
| Provided vaccine awareness and education                       | 197    | 45.6     |
| Provided COVID-19 patient education                            | 158    | 36.6     |



<sup>\*</sup>Multi-selection question \*\*Out of all practices (Primary and Secondary)

## FIGURES 6 - 9: DENTAL HYGIENISTS CLINICALLY PRACTICING IN ILLINOIS

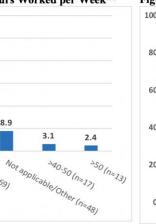
3.1

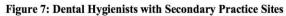


12.8

8.9

210-20 (n=69)





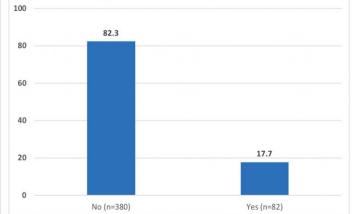


Figure 8. Dental Hygienists by Race

230,40 (n=275)

16.9

13

0-10 (n=70)

-20-30 (n=91)

60

50

40 30

20

10

0

50.9

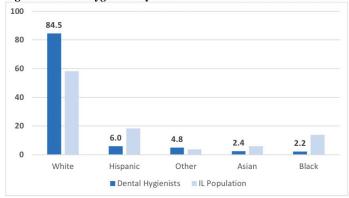
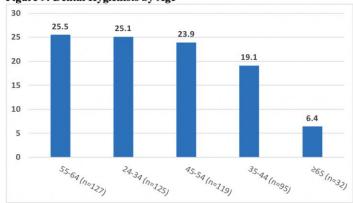


Figure 9: Dental Hygienists by Age



Illinois race population proportions retrieved from 2020 Decennial Census Survey.



## PRACTICE CHARACTERISTICS AND CHALLENGES, BY ZIP CODE

| Table 3: Average Dental Practice Characteristics Across Reported Practice ZIP Codes (n=361), Illinois 2021/2022            |                               |                                     |
|--|-------------------------------|-------------------------------------|
|  | Number                        | Percent                             |
| Type of practice (Top 3) (n=361)   |                               |                                     |
| Private practice/ Group practice Other Federally qualified health center/ Not for profit Health care business/ Corporation | 301<br>23<br>20<br>17         | 83.4<br>6.4<br>5.5<br>4.7           |
| Size <sup>1</sup> (n=360)  |                               |                                     |
| Solo Small group Large group Staff vacancies (n=300)   | 170<br>157<br>33              | 47.2<br>43.6<br>9.2                 |
| No<br>Yes  | 259<br>41                     | 86.3<br>13.7                        |
| Public Health Collaborative Agreement completed by dental hygienists (na   | =344)                         |                                     |
| No<br>Yes  | 325<br>19                     | 94.5<br>5.5                         |
| <b>Activities (Top 5) *</b> (n= 356)   |                               |                                     |
| Patient care Administration Teaching Community outreach and community education Other                                      | 354<br>207<br>151<br>84<br>11 | 99.4<br>58.1<br>42.4<br>23.6<br>3.1 |
| Use silver fluoride (n=344)  |                               |                                     |
| Yes<br>No  | 192<br>152                    | 55.8<br>44.2                        |
| Barriers to ideal work (Top 3) * (n=144)   |                               | 1                                   |
| Time<br>Staffing<br>Financial  | 63<br>52<br>42                | 43.8<br>36.1<br>29.2                |

<sup>1.</sup> Small group refers to practices with 2-4 FTE dentists. Large group refers to 5+ FTE dentists. \*Multi-selection question



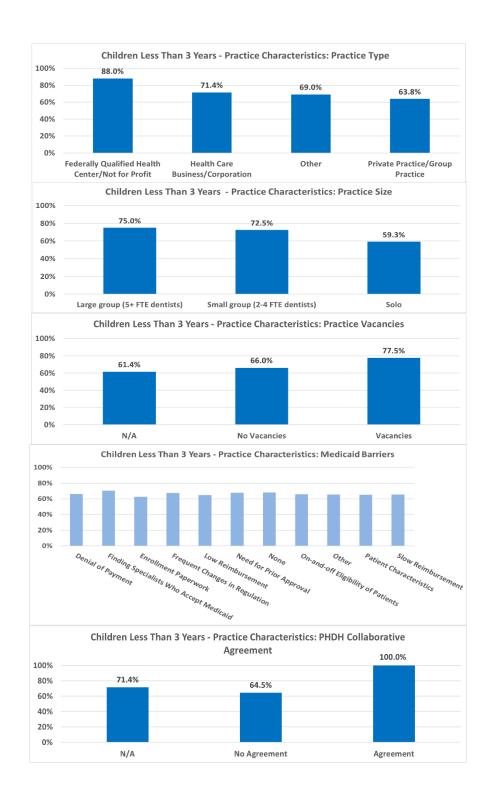
## PRACTICE CHARACTERISTICS AND POPULATIONS SERVED

| Table 4: Average Dental Practice Special Populations Served Across Reported Practice ZIP codes (n=361), Illinois 2021/2022 |        |         |
|--|--------|---------|
| Medicaid   | Number | Percent |
| Medicaid accepted(n=359)   |        |         |
| No   | 278    | 77.4    |
| Yes  | 81     | 22.6    |
| Accepting new Medicaid patients, if accepting medicaid (n=109)   |        |         |
| Yes  | 78     | 71.6    |
| Not Sure   | 18     | 16.5    |
| No   | 13     | 11.9    |
| Medicaid barriers* (Top 3) (n=338)   |        |         |
| Low reimbursement  | 254    | 75.1    |
| Patient characteristics  | 254    | 75.1    |
| Slow reimbursement   | 196    | 58.0    |
| Other Populations Accepted   | Number | Percent |
| General populations* (n=359)   |        |         |
| Pregnant patients  | 340    | 94.7    |
| Wheelchair-bound   | 337    | 93.9    |
| Patients with intellectual or developmental challenges   | 331    | 92.2    |
| New pediatric patients   | 319    | 88.9    |
| Other  | 51     | 14.2    |
| None of the above  | 15     | 4.2     |
| Children under 3 years old (n=353)   |        |         |
| Yes  | 235    | 66.6    |
| No   | 118    | 33.4    |
| New adult patients** (n=273)   | Ĭ      |         |
| Yes  | 251    | 91.9    |
| No   | 22     | 8.1     |

<sup>1.</sup> Small group refers to practices with 2-4 FTE dentists. Large group refers to 5+ FTE dentists. \*Multi-selection question \*\*Limited to Dentists



Figure 10. Service to Children Less Than 3 Years Old and Average ZIP Code Practice Characteristics



1. Denominator has been calculated out of each total response to a practice characteristic (X% of large group practices serve X population).



Figure 11. Service to Pregnant Patients and Average ZIP Code Practice Characteristics

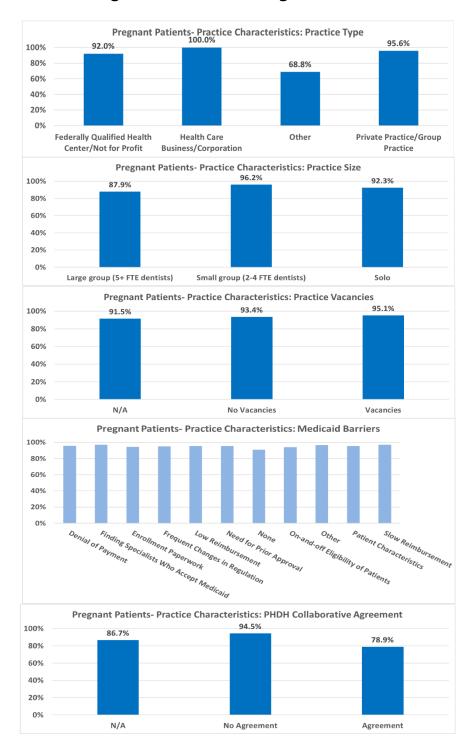




Figure 12. Service to Wheelchair-Bound Patients and Average ZIP Code Practice Characteristics

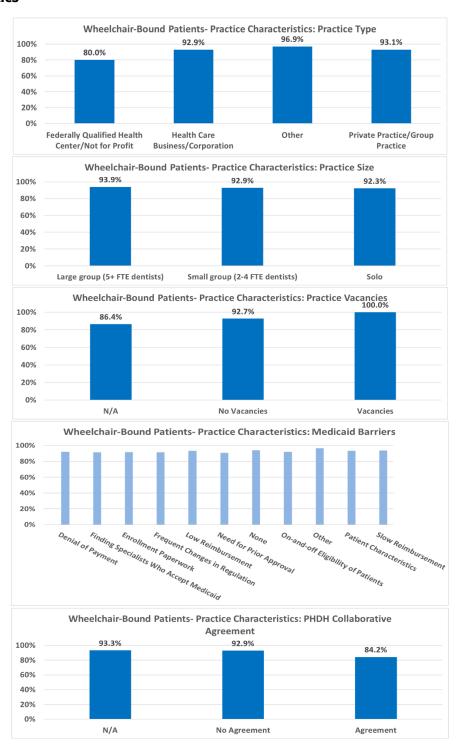




Figure 13. Service to Patients with Intellectual or Developmental Challenges and Average ZIP Code Practice Characteristics

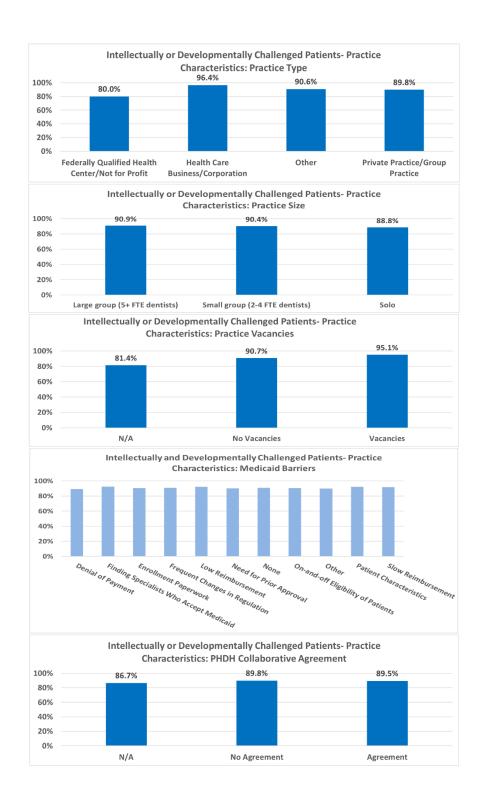
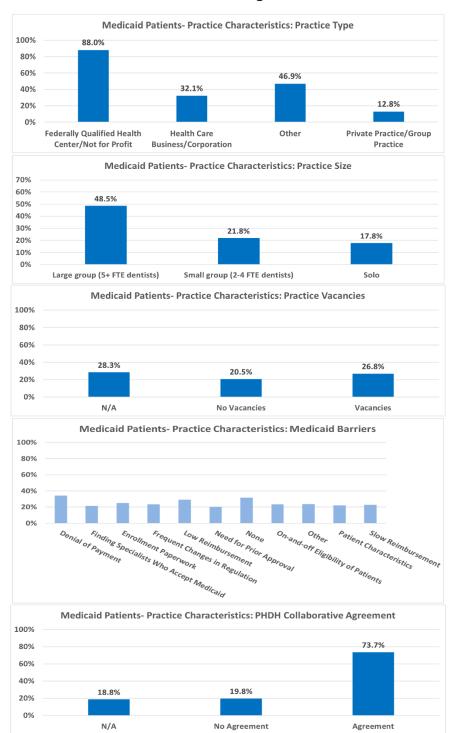




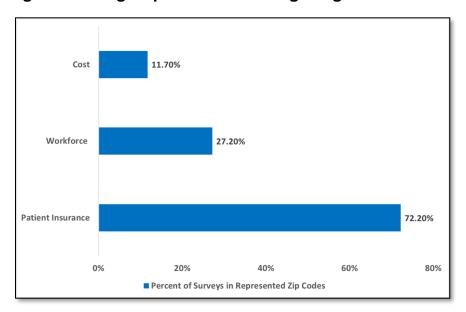
Figure 14. Service to Patients with Medicaid and Average ZIP Code Practice Characteristics





## [Dental and Dental Hygienist Practice Concerns]

Figure 15. Average Top Three Concerns Regarding Dental Practices\*



- 1. Patient Insurance includes responses pertaining to awareness, limitations, costs of services, and/or coverage. Workforce includes responses pertaining to availability, shortages, and/or turnover. Cost includes responses pertaining to cost of supplies, wages, overhead, and/or equipment.
- 2. Denominator represents all concerns pertaining to unique ZIP codes identified by preferencing dentist surveys, followed by any additional data in unrepresented ZIP codes that might be retrieved from dental hygienist surveys (n=1,116 concerns).
- \*Multi-selection question



## **ORAL HEALTH WORKFORCE TRENDS (ILLINOIS)**

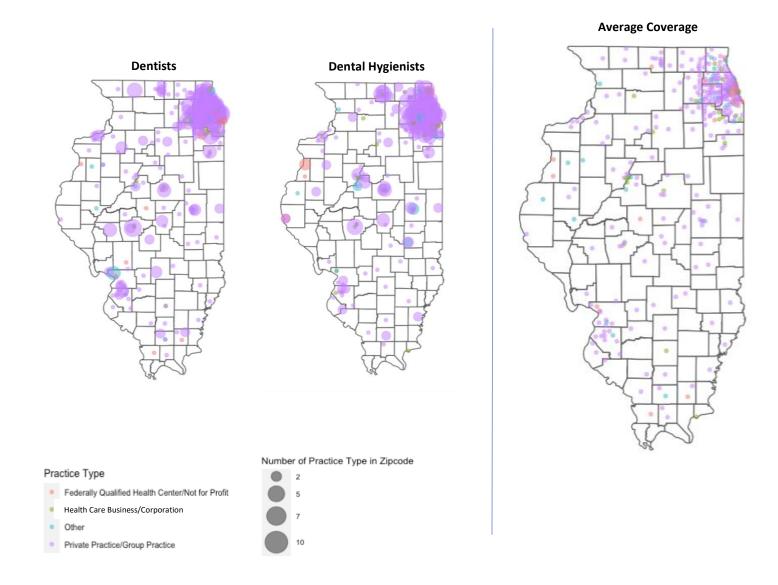
| Table 5: Oral Health Workforce Tr       | ends (20       | 04 – 20    | 22)            |            |
|---|----------------|------------|----------------|------------|
| Dentists                                | 2022           | 2015       | 2006**         | 2004       |
| License renewals                        |                |            |                |            |
|   | 10,511         | 9,329      | 9,470          | 8,575      |
| Sex                                     |                | ,          | ,              |            |
| Male<br>Female                          | 60.0%<br>38.7% | 71%<br>29% | 74.8%<br>25.2% | 81%<br>19% |
| Age group                               | 30.770         | 2770       | 25.270         | 1270       |
| ≥65                                     | 24.1%          |            |                |            |
| 55-64  <br>45-54                        | 29.1%<br>15.2% |            |                | 50         |
| 35-44                                   | 19.6%          |            |                | (Averag    |
| 25-34                                   | 12.0%          |            |                |            |
| Race / Ethnicity                        |                | l          | l .            | Ì          |
| Asian                                   | 12.2%          |            | 10.3%          |            |
| Black/African American                  | 3.2%           |            | 3.2%           |            |
| Hispanic/Latino                         | 4.0%           |            |                |            |
| White                                   | 74.4%          | 81%        | 82.0%          | 85%        |
| Work >25 hours per week                 |                |            |                |            |
|   | 55.6%*         | 68%        |                | 72%*       |
| Plan to stop practicing within 10 years |                | I          | I              | ı          |
|   | 54.3%          | 58%        | 72.2%          | 33%        |
| Dental Hygienists                       | 2022           | 2015       | 2006**         | 2004       |
| License renewals                        |                | I          | ı              | ı          |
|   | 8,497          | 7,779      | 6,689          | 5,329      |
| Sex                                     |                | ر م        | l              | l          |
| Male .                                  | 1.4%           | 1%         | 0.6%           |            |
| Female                                  | 97.6%          | 99%        | 94.4%          |            |
| Age group                               |                | l          | l              | J 50       |
| Average Age                             |                |            |                | (Averag    |
| Race / Ethnicity                        |                |            |                |            |
| Asian                                   | 2.4%           |            |                |            |
| Black/African American                  | 2.2%           |            | 1.3%           | 0.1%       |
| Hispanic/Latino                         | 6.0%           |            | 3.7%           | 2.0%       |
| White                                   | 84.5%          | 94%        | 95.7%          | 95.0%      |
| Work >25 hours per week                 |                |            |                |            |
|   | 50.9%*         | 46%        | 57.2%          | 46%        |
| Plan to stop practicing within 10 years |                |            |                |            |
|   | 48.6%          | 65%        | 15.6%          |            |

(2015) https://www.heartlandalliance.org/wp-content/uploads/2020/02/OHF-Oral-Health-Workforce-Summary-2015-FINAL-2.pdf (2004 & 2006) http://www.idph.state.il.us/healthwellness/oralhlth/Dental\_Workforce\_Census2006\_09.pdf

<sup>\*</sup>Actual measure >30 hrs/week
\*\*The 2006 dental workforce survey was required for dentists and voluntary for dental hygienists. All other survey years were voluntary for both dentists and dental hygienists.



#### **ORAL HEALTH WORKFORCE SURVEY – ADDITIONAL FIGURES**



1.Surveys with listed ZIP codes not in Illinois were excluded from this figure (Dental ZIP codes excluded=9; Dental Hygienist ZIP codes excluded=4).

2. "Average Coverage" represents average practice type selected by dentists by ZIP code. For any outstanding ZIP codes unrepresented among dentist surveys, dental hygienist surveys were used to calculate average practice types.



| Table AP1: Service to Children Less Than 3 Years Old and General Practice Characteristics Across<br>ZIP Codes (n=353)  |   |  |
|--|---|--|
| Dentist/Dental Hygienist Practice Characteristics  | Number  | Percent  |
| Practice Type  |   |  |
| Federally qualified health center/Not for profit Health care business/Corporation Other Private practice/Group practice  | 22<br>20<br>20<br>173   | 88.0<br>71.4<br>69.0<br>63.8   |
| Practice Size  |   |  |
| Large group (5+ FTE dentists) Small Solo N/A   | 24<br>111<br>99<br>1  | 75.0<br>72.5<br>59.3<br>100  |
| Vacancies  |   |  |
| No<br>Yes<br>N/A   | 87<br>9<br>22   | 66.0<br>77.5<br>61.4   |
| Medicaid Barriers  |   |  |
| Denial of payment Finding a specialist who accepts Medicaid Enrollment paperwork Frequent changes in regulation Low reimbursement Need for prior approval None On-and-off eligibility of patients Other Patient characteristics Slow reimbursement | 109<br>122<br>97<br>95<br>163<br>101<br>66<br>89<br>19<br>164 | 66.1<br>70.5<br>62.6<br>67.4<br>64.9<br>67.8<br>68.0<br>65.9<br>65.5<br>65.3 |
| Public Health Collaborative Agreement  | 1   |  |
| No<br>Yes<br>N/A   | 207<br>18<br>10   | 64.5<br>100<br>71.4  |

| Table AP2: Service to Pregnant Patients and General Practice Characteristics Across ZIP Codes (n=359)                   |                       |                             |
|---|-----------------------|-----------------------------|
| Dentist/Dental Hygienist Practice Characteristics   | Number                | Percent                     |
| Practice type   |                       |                             |
| Federally qualified health center/Not for profit Health care business/Corporation Other Private practice/Group practice | 23<br>28<br>22<br>262 | 92.0<br>100<br>68.8<br>95.6 |
| Practice size   |                       |                             |
| Large group (5+ FTE dentists) Small Solo N/A  | 29<br>150<br>156<br>0 | 87.9<br>96.2<br>92.3<br>0   |
| Vacancies   |                       |                             |



| No  | 242 | 93.4 |
|---|-----|------|
| Yes                                       | 39  | 95.1 |
| N/A                                       | 54  | 91.5 |
| Medicaid barriers                         |     |      |
| Denial of payment                         | 160 | 95.8 |
| Finding a specialist who accepts Medicaid | 170 | 97.1 |
| Enrollment paperwork                      | 150 | 94.3 |
| Frequent changes in regulation            | 135 | 95.1 |
| Low reimbursement                         | 242 | 95.3 |
| Need for prior approval                   | 145 | 95.4 |
| None                                      | 91  | 91.0 |
| On-and-off eligibility of patients        | 128 | 94.1 |
| Other                                     | 29  | 96.7 |
| Patient characteristics                   | 242 | 95.3 |
| Slow reimbursement                        | 190 | 96.9 |
|   |     |      |
| Public Health Collaborative Agreement     |     |      |
| No  | 307 | 94.5 |
| Yes                                       | 15  | 78.9 |
| N/A                                       | 13  | 86.7 |

| Table AP3: Service to Wheelchair-bound Patients and General Practice Characteristics Across ZIP  Codes (n=359)  |   |  |
|---|---|--|
| Dentist/Dental Hygienist Practice Characteristics   | Number  | Percent  |
| Practice type Federally qualified health center/Not for profit Health care business/Corporation Other Private practice/Group practice   | 20<br>26<br>31<br>255                                     | 80.0<br>92.9<br>96.9<br>93.1   |
| Practice size  Large group (5+ FTE dentists)  Small  Solo  N/A  | 31<br>145<br>156<br>0                                     | 93.9<br>92.9<br>92.3<br>0  |
| Vacancies   |   |  |
| No<br>Yes<br>N/A  | 240<br>41<br>51   | 92.7<br>100<br>86.4  |
| Medicaid barriers   |   |  |
| Denial of payment Finding a specialist who accepts Medicaid Enrollment paperwork Frequent changes in regulation Low reimbursement Need for prior approval None On-and-off eligibility of patients Other Patient characteristics | 154<br>160<br>146<br>130<br>237<br>138<br>94<br>125<br>29 | 92.2<br>91.4<br>91.8<br>91.6<br>93.3<br>90.8<br>94.0<br>91.9<br>96.7<br>93.3 |



| Slow reimbursement                    | 184 | 93.9 |
|---------------------------------------|-----|------|
| Public Health Collaborative Agreement |     |      |
| No                                    | 302 | 92.9 |
| Yes                                   | 16  | 84.2 |
| N/A                                   | 14  | 93.3 |

| Table AP4: Service to Intellectually/Developmentally Challenged Patients and General Practice Characteristics Across ZIP Codes (n=359) |        |         |
|--|--------|---------|
| Dentist/Dental Hygienist Practice Characteristics  | Number | Percent |
| Practice type  |        |         |
| Federally qualified health center/Not for profit   | 20     | 80.0    |
| Health care business/Corporation   | 27     | 96.4    |
| Other  | 29     | 90.6    |
| Private practice/Group practice  | 246    | 89.8    |
| Practice size  |        |         |
| Large group (5+ FTE dentists)  | 30     | 90.9    |
| Small  | 141    | 90.4    |
| Solo   | 150    | 88.8    |
| N/A  | 1      | 100     |
| Vacancies  |        |         |
| No   | 235    | 90.7    |
| Yes  | 39     | 95.1    |
| N/A  | 48     | 81.4    |
| Medicaid barriers  | _      |         |
| Denial of payment  | 149    | 89.2    |
| Finding a specialist who accepts Medicaid  | 162    | 92.6    |
| Enrollment paperwork   | 144    | 90.6    |
| Frequent changes in regulation   | 129    | 90.9    |
| Low reimbursement  | 234    | 92.1    |
| Need for prior approval  | 137    | 90.1    |
| None   | 91     | 91.0    |
| On-and-off eligibility of patients   | 123    | 90.4    |
| Other  | 27     | 90.0    |
| Patient characteristics  | 234    | 92.1    |
| Slow reimbursement   | 180    | 91.8    |
| Public Health Collaborative Agreement  |        | I       |
| No   | 292    | 89.8    |
| Yes  | 17     | 89.5    |
| N/A  | 13     | 86.7    |

| Table AP5: Service to Medicaid Patients and General Practice Characteristics Across ZIP Codes (n=359) |        |         |
|---|--------|---------|
| Dentist/Dental Hygienist Practice Characteristics   | Number | Percent |
| Practice Type   |        |         |
| Federally qualified health center/Not for profit  | 22     | 88.0    |



| Health care business/Corporation<br>Other<br>Private practice/Group practice   | 9<br>15<br>35   | 32.1<br>46.9<br>12.8   |
|--|---|--|
| Practice size  |   |  |
| Large group (5+ FTE dentists) Small Solo N/A   | 16<br>34<br>30<br>1   | 48.5<br>21.8<br>17.8<br>100  |
| Vacancies  |   |  |
| No<br>Yes<br>N/A   | 53<br>11<br>17  | 20.5<br>26.8<br>28.3   |
| Medicaid barriers  |   |  |
| Denial of payment Finding a specialist who accepts Medicaid Enrollment paperwork Frequent changes in regulation Low reimbursement Need for prior approval None On-and-off eligibility of patients Other Patient characteristics Slow reimbursement | 39<br>60<br>34<br>35<br>59<br>44<br>20<br>43<br>7<br>60<br>43 | 34.3<br>21.5<br>24.8<br>23.3<br>29.0<br>20.0<br>31.6<br>23.3<br>23.7<br>21.9<br>22.6 |
| Public Health Collaborative Agreement  |   |  |
| No<br>Yes<br>N/A   | 64<br>14<br>3   | 19.8<br>73.7<br>18.8   |

| Table AP6: Top Concerns Across Dental and Dental Hygienists Surveys (n = 1,125) |        |         |
|---|--------|---------|
| Top Concerns  | Number | Percent |
| Patient insurance (awareness, limitations, and cost of services/coverage)       | 1608   | 45.6%   |
| Other   | 417    | 11.8%   |
| Workforce (availability, shortages, turnover, etc.)                             | 366    | 10.4%   |
| Cost of supplies/wages/overhead/outdated equipment                              | 258    | 7.3%    |
| No concerns   | 159    | 4.5%    |
| Scheduling  | 131    | 3.7%    |
| Low reimbursement rates/ Delayed payment  | 119    | 3.4%    |
| Poor patient oral health education/commitment                                   | 119    | 3.4%    |
| N/A   | 102    | 2.9%    |
| Coverage/patient eligibility  | 60     | 1.7%    |
| Shortage of patients  | 50     | 1.4%    |



| Medicaid approval                    | 44    | 1.2% |
|--------------------------------------|-------|------|
| Burnout                              | 27    | 0.8% |
| Insurance/Government regulations     | 20    | 0.6% |
| Corporate/Small practice competition | 18    | 0.5% |
| Lengthy/Complicated claim filing     | 11    | 0.3% |
| Poor insurance/Provider relationship | 10    | 0.3% |
| Invalid referrals                    | 8     | 0.2% |
| Patients not paying                  | 2     | 0.1% |
| TOTAL                                | 3,529 | 100% |

| Table AP7: Language Needs/Support Across Dental and Dental Hygienists Surveys<br>(n = 1,125)   |   |  |
|--|---|--|
| Language Needs/Support   | Number  | Percent  |
| Language needs met (n=1,088)   |   |  |
| Yes<br>No<br>N/A   | 940<br>72<br>76   | 86.4<br>6.6<br>7.0   |
| Language resources* (n=940)  |   |  |
| Printed materials Interpreter services Electronic materials None Interpreter services (Off site) Other  Translation services* (n=681) Internal translating services None External translating services Other | 382<br>269<br>81<br>66<br>172<br>336<br>186<br>141<br>113 | 64.9<br>40.6<br>28.6<br>8.6<br>7.0<br>18.3<br>49.3<br>27.3<br>20.7<br>16.6 |
| Familial/Caregiver assistance Translating apps/Software  | 92<br>90  | 13.5<br>13.2   |
| Language challenges* (n=1,125)   |   |  |
| Other Spanish American Sign Language Chinese Polish Vietnamese   | 966<br>525<br>197<br>197<br>190<br>155                    | 85.9<br>46.7<br>17.5<br>17.5<br>16.9<br>13.8                               |

<sup>\*</sup>Multi-selection question



| Table AP8: School / Program Attended and Degree(s) Across Dental and Dental Hygienists (n = 1,125)   |  |   |  |  |
|--|--|---|--|--|
| Dentists   | Number   | Percent   |  |  |
| <b>Degree(s)*</b> (n=620)  |  |   |  |  |
| DDS_DMD<br>MS<br>Other<br>PhD<br>DrPH  | 617<br>70<br>21<br>6<br>1  | 99.5<br>11.3<br>3.4<br>1.0<br>0.2   |  |  |
| Dental Hygienists  | Number   | Percent   |  |  |
| School/Program attended (n=492)  |  |   |  |  |
| Other¹ Harper College Southern Illinois University Prairie State College Parkland College Illinois Central College Lake Land Community College College of DuPage Loyola University of Chicago Kennedy King College College of Lake County Rock Valley College Lewis and Clark Community College Carl Sandburg College City Colleges of Chicago-Malcolm X | 87<br>67<br>60<br>55<br>36<br>33<br>31<br>26<br>22<br>18<br>16<br>14<br>11 | 17.7<br>13.6<br>12.2<br>11.2<br>7.3<br>6.7<br>6.3<br>5.3<br>4.5<br>3.7<br>3.3<br>2.8<br>2.2<br>2.0<br>2.0 |  |  |
| <b>Degree(s)*</b> (n=501)  |  |   |  |  |
| Associates<br>Bachelors<br>Masters<br>Other  | 426<br>144<br>15<br>7  | 85.0<br>28.7<br>3.0<br>1.4  |  |  |

<sup>1.</sup> Any school or program with <10 counts. \*Multi-selection question



Table AP9: BRFSS Classifications\* by Practice Type (n = 352)

|                | FQHC /<br>Not for Profit | Health Care Business<br>/ Corporation | Other | Private<br>Practice /<br>Group<br>Practice |
|----------------|--------------------------|---------------------------------------|-------|--|
| Chicago        | 28.26%                   | 13.04%                                | 4.35% | 54.35%                                     |
| Collar         | 3.76%                    | 7.52%                                 | 5.26% | 83.46%                                     |
| Cook           | 1.23%                    | 8.64%                                 | 9.88% | 80.25%                                     |
| Rural          | 6.09%                    | 5.22%                                 | 8.70% | 80.00%                                     |
| Urban          | 3.06%                    | 7.14%                                 | 5.10% | 84.69%                                     |
| Grand<br>Total | 6.13%                    | 7.61%                                 | 6.77% | 79.49%                                     |

Table AP10: BRFSS Classifications\* by Practice Size (n = 351)

|                | Large group (5+ FTE dentists) | Small group (2-4 FTE dentists) | Solo   |
|----------------|-------------------------------|--------------------------------|--------|
| Chicago        | 8.89%                         | 53.33%                         | 37.78% |
| Collar         | 12.03%                        | 47.37%                         | 40.60% |
| Cook           | 13.58%                        | 38.27%                         | 48.15% |
| Rural          | 2.61%                         | 40.00%                         | 57.39% |
| Urban          | 6.12%                         | 41.84%                         | 52.04% |
| Grand<br>Total | 8.47%                         | 43.43%                         | 48.09% |

Table AP11: BRFSS Classifications\* by Practices Serving Medicaid Patients (n = 351)

|                | Yes    | No     |
|----------------|--------|--------|
| Chicago        | 41.30% | 58.70% |
| Collar         | 17.29% | 82.71% |
| Cook           | 12.35% | 87.65% |
| Rural          | 20.35% | 79.65% |
| Urban          | 18.56% | 81.44% |
| Grand<br>Total | 19.79% | 80.21% |

<sup>\*</sup>BRFSS Classifications

https://www.huduser.gov/portal/datasets/usps\_crosswalk.html (4th quarter 2021)
Chicago Zips identified using: https://data.cityofchicago.org/Facilities-Geographic-Boundaries/Boundaries-ZIP-Codes/qdcf-axmw



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