

HEALTH WORKFORCE STUDIES PROGRAM

DATA REPORT

2014 INDIANA DENTIST WORKFORCE

Produced by:

Health Workforce Studies Program

Indiana University School of Medicine, Department of Family Medicine

In Collaboration with:

Indiana Area Health Education Centers Program

Zachary T. Sheff, MPH

Callie L. Nowak, BS

Hannah Maxey, PhD, MPH, RDH

May 2015



Stands for Jobs
INDIANA AHEC
NETWORK



INDIANA UNIVERSITY
DEPARTMENT OF FAMILY MEDICINE
School of Medicine

ACKNOWLEDGEMENTS

We would like to extend our gratitude to all the talented and dedicated individuals who provided valuable and timely assistance to us during the project. Preparing this report required the assistance, cooperation, and effort of many individuals and agency staff. The survey data and additional data elements were provided by the Indiana Professional Licensing Agency through the Indiana State Department of Health. An advisory committee provided direction and insights regarding the data analysis and report generation:

- Ed Popcheff, Director of Governmental Affairs, Indiana Dentist Association
- Heather Taylor, RDH, Professor of Dental Hygiene Program, Indiana University School of Dentistry
- James Miller, DDS, MSD, PhD, State Oral Health Director, Indiana State Department of Health
- John Williams, DMD, MBA, Dean of Indiana University School of Dentistry
- Karen Yoder, PhD, MSD, Professor of Preventive and Community Dentistry and Director of Civic and Engagement and Health Policy, Indiana University School of Dentistry
- Leila Alter, DDS, Dentist, Bedford, IN.

The cooperation and support of the Indiana State Department of Health was instrumental in obtaining the survey data delivery and interpretation. The authors are grateful for the financial support received from the Indiana Area Health Education Centers Program to produce this report.

Zachary T. Sheff, MPH

Callie L. Nowak, BS

Hannah Maxey, PhD, MPH, RDH

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY	4
INTRODUCTION	5
Preface	5
Methods	5
Limitations	6
THE DENTIST WORKFORCE	7
Inclusion Criteria	7
<i>Figure 2.1 Inclusion and Exclusion Criteria for Indiana Dentists</i>	<i>7</i>
Summary	8
Comparison with Non-responders and Previous Years' Data	8
DATA TABLES	10
2014 Indiana Dentist Licensure Survey	11
<i>Table 6.1 Survey Response Rate</i>	<i>11</i>
<i>Table 6.2 Mean Age of Respondents by Rurality</i>	<i>11</i>
<i>Table 6.3 Sex</i>	<i>11</i>
<i>Table 6.4 Mean Age by Sex</i>	<i>11</i>
<i>Table 6.5 Respondent Age Distribution</i>	<i>11</i>
<i>Table 6.6 Specialty</i>	<i>12</i>
<i>Table 6.7 Average Hours Worked per Week</i>	<i>12</i>
<i>Table 6.8 Currently Accepting New Medicaid Patients</i>	<i>12</i>
<i>Table 6.9 Secondary Practice Location</i>	<i>13</i>
<i>Table 6.10 Rurality of Practice Location</i>	<i>13</i>
<i>Table 6.11 Acceptance of New Medicaid Patients by Rurality</i>	<i>13</i>

EXECUTIVE SUMMARY

The dentist workforce is the primary provider of oral health care to Indiana residents. In 2014, there were 3,982 dentists who held an active license in Indiana. These dentists were not surveyed during their re-licensure period, as has been done in the past, but were contacted by the Indiana Professional Licensing Agency (IPLA) via email in the fall of 2014 and asked to complete a brief survey. Despite follow-up reminders from IPLA and the Indiana Dentist Association (IDA) survey response was low (13.4%). The previous survey, which was administered during dentists' 2012 re-licensure period, had a response rate of 80.7 percent.

Of the 3,982 actively licensed dentists who were offered the survey, there were 532 respondents. Only 424 dentists were included in this analysis after filtering respondents to include only those who were actively licensed, practicing in Indiana, and currently practicing as dentists.

Because of the small proportion of the actively licensed dentist workforce in Indiana that is represented in this analysis, it is unclear whether this sample is representative of the overall workforce. Comparing 2014 survey data with 2012 survey data indicated similar patterns in dental specialty and hours worked per week. However, slightly more rural dentists responded to the 2014 survey than the 2012 survey. Comparisons between responders and non-responders to the 2014 survey indicate that those who completed the survey were older than those who did not.

The collection of high quality health workforce data is dependent upon reaching a large proportion of the health workforce. The low response rate to this survey suggests that this methodology is not optimal for collecting data on Indiana's health professional workforces. Survey response fell by 67.3 percent compared to the 2012 dentist re-licensure survey. Embedding the survey instrument in the health professional re-licensure process has consistently yielded high (>80%) response rates across all health professions and should be considered as the primary method of survey administration for future data collection.

INTRODUCTION

Preface

The 2014 Dentist Data Report was developed by the Health Workforce Studies (HWS) program at Indiana University School of Medicine, Department of Family Medicine. The report presents data collected in a survey distributed to dentists who were actively licensed to practice in Indiana by the Indiana Professional Licensing Agency (IPLA).

It should be noted that this data was collected with a different methodology than previous dentist workforce reports. Typically, dentists are offered a voluntary survey during their biennial re-licensure period, but this survey was not administered during their 2013-2014 re-licensure. In an effort to collect information on the dentist workforce, dentists were instead asked to complete a brief survey that was distributed to them through the IPLA in the fall of 2014. However, the response rate to the 2014 sample survey (13.4%) was considerably lower than previous surveys administered during re-licensure (2012 dentist survey response rate was 80.7%). Because of the extremely low response rate, no maps detailing the distribution of the dentist workforce were produced. Additionally, it is unlikely that the data collected in this report are representative of Indiana's overall dentist workforce.

Methods

A brief survey instrument was developed by HWS asking dentists for their work status, dental specialty, acceptance of new Medicaid patients, practice location, and average work hours per week. The survey was hosted on IUPUI's REDCap website. A link to the survey instrument was emailed to all active dentists through IPLA using the email address each dentist provided during their re-licensure. The survey link was accompanied by an explanatory email from IPLA and dentists received follow-up emails from IPLA and Indiana Dentist Association (IDA). The survey was initially distributed by IPLA on October 27, 2014 to all actively licensed dentists via email. On November 13, 2014, IDA included a call for participation and a link to the survey in their newsletter to members. Additionally, a link to the survey was posted on IDA's website and twitter feed and the link remained on their website until December 1, 2014. A final reminder to complete the survey was emailed to all active dentists by IPLA on November 21, 2014. Responses were collected from October 27, 2014 to December 20, 2014.

Survey data was downloaded from REDCap on January 6, 2015. Survey respondents were asked to include their first name, last name, date of birth, and professional license number in order to match survey responses with 2014 IPLA licensure data. Many survey respondents did not supply a license

number (preferred matching method) and were manually updated by looking up the respondent's first and last name on IPLA's website using the "Search and Verify" feature. After confirming license numbers for all respondents, survey data was matched with license data to ensure that survey respondents were actively licensed dentists.

Inclusion criteria were applied to survey respondents to filter out individuals who were not actively licensed, not practicing in Indiana, or not practicing as a dentist. Survey respondents were not asked to provide their sex; however, the sex of individuals who responded to the 2012 dentist licensure survey was linked to 2014 data for this analysis. The final data set was then analyzed using statistical software (Microsoft Excel and SAS 9.4). Descriptive statistics were generated including frequencies and percentages for categorical variables and means for continuous variables. No maps of dentist distribution were created due to the low response rate to the survey (13.4%).

Limitations

The primary limitation to this analysis was the low survey response rate (13.4%). Because no data was collected on a large proportion of the Indiana dentist workforce it is unclear whether the small sample included in this analysis is representative of the workforce as a whole. An effort was made to assess the representativeness of survey data by comparing results (where applicable) with 2012 dentist survey data which had a notably higher response rate (80.7%), but few variables were comparable. 2014 survey respondents were found to be slightly older than individuals who did not respond to the 2014 survey (but held an active Indiana license). Additionally, 2014 respondents were older than individuals included in the analysis of the 2012 dentist re-licensure survey. 2014 dentist survey respondents were similar to those who responded to the 2012 survey in dental specialty and hours worked per week, but had a greater proportion of respondents from rural practice locations than 2012.

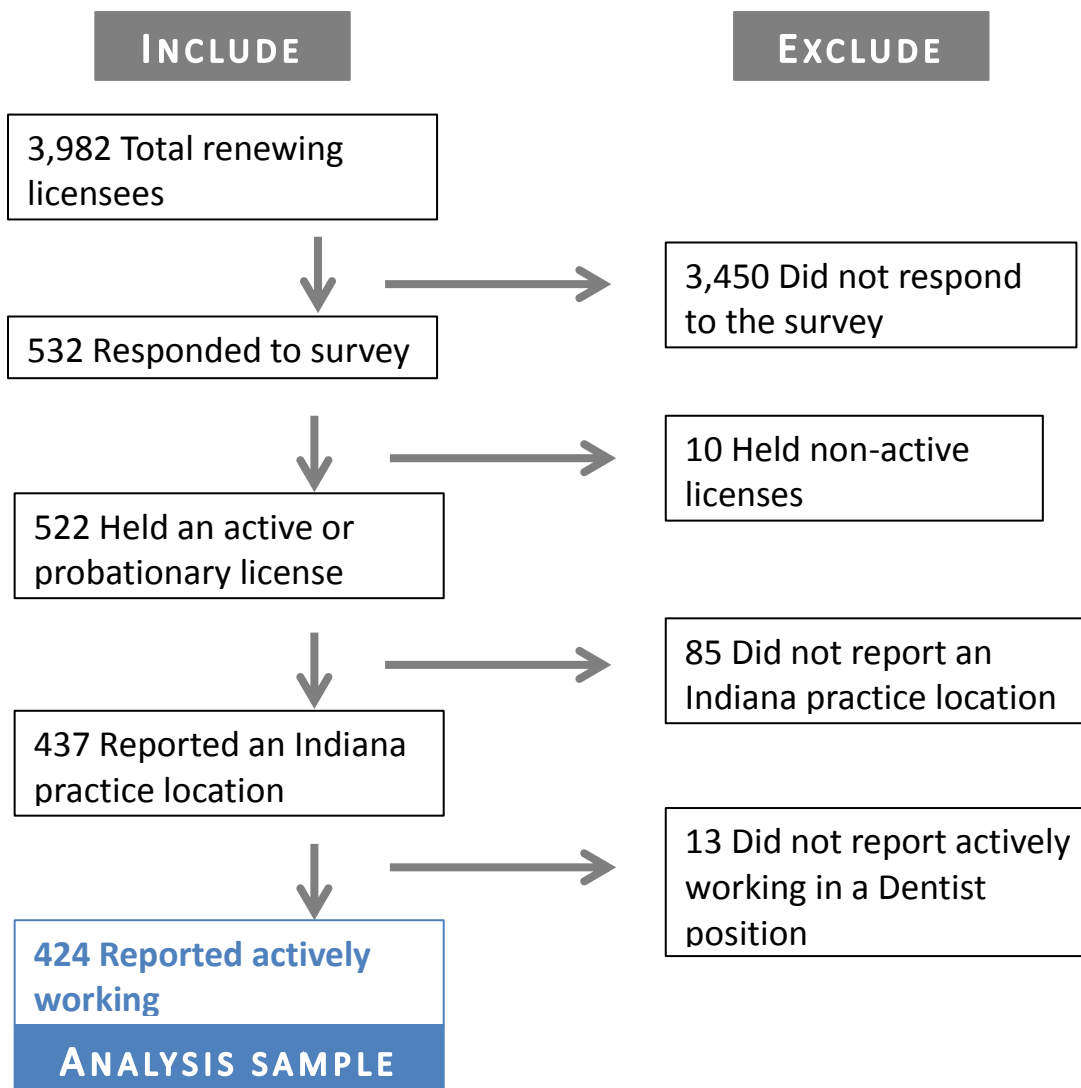
The survey was distributed via email; therefore, any dentists who did not provide IPLA with a valid, active email address were not offered the survey. This further reduced the proportion of the overall Indiana dentist workforce that was exposed to the survey instrument. Additionally, survey information was based upon self-reported data that could not be easily verified independently.

THE DENTIST WORKFORCE

Inclusion Criteria

There were 3,982 total dentist license renewals during the 2013-2014 re-licensure period. Of these, 424 dentists responded to the survey and met all criteria for inclusion in the analysis. The survey had a 13.4 percent response rate.

Figure 2.1 Inclusion and Exclusion Criteria for Indiana Dentists



Summary

The overall mean age of survey respondents was 53.0 years of age. There was only a small difference in the mean age of respondents in rural versus urban counties. Rural counties had a mean age of 53.4 years of age, and urban counties had a mean age of 52.9. The mean age for males (55.0) was higher than the mean age for females (48.0). No other demographic data were collected.

The most common specialty reported among respondents was general dental practice (79.2%). The majority of respondents worked 25 or more hours per week (79.2%). Few respondents (4.7%) indicated working 40 or more hours per week. Less than half (40.6%) of respondents indicated that they were currently accepting new Medicaid patients. Four out of every five respondents (80.7%) listed a primary practice location in an urban county. Only 38.6 percent of respondents with practices located in urban counties reported that they were currently accepting new Medicaid patients compared to 48.8 percent of rurally located respondents. The majority of respondents (85.6%) did not report having a second practice location.

Comparison with Non-responders and Previous Years' Data

Few comparisons with survey non-responders and 2012 dentist re-licensure report data were possible. Limited information was available for non-responders and few questions on the previous survey instrument were comparable to the survey offered in 2014.

Date of birth was available for all actively licensed dentists which enabled a comparison of the mean age of 2014 survey responders, 2014 non-responders, and dentist included in the 2012 data report. Respondents to the 2014 dentist survey were, on average, older than those who did not respond and older than those who responded to the 2012 survey. 2014 survey responders' mean age was 53.0 years old; 2014 non-responders' mean age was 50.7 years old; and 2012 survey responders' mean age was 49.4 years old.

Data collected from the 2012 dentist re-licensure survey that were comparable to 2014 data included dental specialty, average work hours per week, and rurality of practice locations. In both 2012 and 2014, roughly 80 percent of respondents reported practicing in general dentistry (78.9% in 2012; 79.2% in 2014).

Dentists were asked to provide their average weekly work hours in both 2012 and 2014, but different hourly categories were used which prevented a direct comparison. However, 79.6 percent of

respondents to the 2012 survey indicated working 30 or more hours per week and 79.2 percent of respondents to the 2014 survey reported working 25 or more hours per week. These data indicate approximate agreement between the two surveys.

Rurality of respondents' practice location was assessed in both 2012 and 2014. In 2014, 80.7 percent of respondents reported a primary practice location in an urban county, while 84.9 percent of respondents to the 2012 survey reported practicing in an urban county.

DATA TABLES

2014 Indiana Dentist Licensure Survey

Table 6.1 Survey Response Rate

Survey Response Rate	2012		2014	
	Number	Percent	Number	Percent
Renewed online and responded to the survey	3,025	80.7	532	13.4
Total online renewals 2014	3,748		3,982	

Table 6.2 Mean Age of Respondents by Rurality

Mean Age	Age
Rural	53.4
Urban	52.9
Overall Mean Age	53.0

Table 6.3 Sex

Sex	Number	Percent
Male	267	79.9
Female	67	20.1
Total	334	100.0
No Response	90	

Table 6.4 Mean Age by Sex

Sex	Mean Age
Male	55.0
Female	48.0
Overall Mean Age	53.0

Table 6.5 Respondent Age Distribution

Age	Number	Percent
Under 35	40	9.4
35 – 45	72	17.0
45 – 55	99	23.3
55 – 65	154	36.3
Over 65	59	13.9
Total	424	100.0
No Response Given	0	

Table 6.6 Specialty

Specialty	Number	Percent
General dental practice	335	79.2
Pediatric dentistry	30	7.1
Orthodontics and Dentofacial orthopedics	19	4.5
Oral and maxillofacial surgery	14	3.3
Endodontics	7	1.7
Periodontics	6	1.4
Prosthodontics	6	1.4
Other	3	0.7
Dental public health	2	0.5
Oral and maxillofacial pathology	1	0.2
Total	423	100.0
No Response Given	1	

Table 6.7 Average Hours Worked per Week

Hours	Number	Percent
0-8	14	3.3
9-16	15	3.6
17-24	59	14.0
25-32	161	38.2
33-40	153	36.3
40 or more	20	4.7
Total	422	100.0
No Response Given	2	

Table 6.8 Currently Accepting New Medicaid Patients

Accepting	Number	Percent
Yes	172	40.6
No	252	59.4
Total	424	100.0
No Response Given	0	

Table 6.9 Secondary Practice Location

Second Practice Location	Number	Percent
Yes	61	14.4
No	363	85.6
Total	424	100.0
No Response Given	0	

Table 6.10 Rurality of Practice Location

Rurality	Number	Percent
Rural	82	19.3
Urban	342	80.7
Total	424	100.0
No Response Given	0	

Table 6.11 Acceptance of New Medicaid Patients by Rurality

Rurality	Accepting		Not Accepting	
	Number	Percent	Number	Percent
Rural	40	48.8	42	51.2
Urban	132	38.6	210	61.4
Total	172		252	