Missouri’s Dental Hygiene Workforce-2015

Dental hygiene is the science and practice of the recognition, treatment, and prevention of oral diseases. Dental hygienists primarily remove calcified deposits from above and below the gum line, examine patients for signs of oral disease, and provide other forms of preventative dental care while working in a complementary partnership with dentists. In Missouri, dental hygienists receive licensure through the Department of Insurance, Financial Institutions, and Professional Registration, Dental Board. As a part of the licensing process, licensees are required to provide the general demographic information from which this analysis is based. Information on licensees is current as of 5/20/2015 and was obtained through the publicly reported records of the Missouri Dental Board.

Dental hygienists must obtain an associate’s or bachelor’s degree from an institution accredited by the Commission on Dental Accreditation (CODA). Degree programs generally require between 84 (associate) and 118 (bachelor) credit hours. Education courses entail an average of 2,932 clock hours, including 659 supervised pre-clinical and clinical dental hygiene instruction. The candidate must then successfully complete the written National Board Dental Hygiene Exam, a clinical exam, and a jurisprudence test on Missouri laws to obtain a license as a Missouri dental hygienist.

*There are 8 accredited dental hygiene programs with 10 sites in Missouri: 1

- Concorde Career Colleges, Inc., Kansas City 21 students
- University of Missouri Kansas City 30 students
- North Central Missouri College/ Hillyard Technical College St. Joseph 12 students
- Ozark Technical Community College Springfield 18 students
- Saint Louis Community College-Forest Park St. Louis 32 students
- Missouri College St. Louis 30 students
- State Fair Community College Sedalia 10 students
- Missouri Southern State University Joplin 30 students
- Missouri Southern State University Rolla 10 students
- Missouri Southern State University Sikeston 10 students

Overall
There are 3,711 hygienists licensed by the State of Missouri. Of these, 2,875 list a current Missouri address. Kansas and Illinois continue to be the most frequently listed as an out-of-state contact address. Since the 2014 assessment, overall licensure figures have not changed significantly (3,707 in 2014) however, the number of Missouri contact addresses has increased slightly by 1.3% (2,837 in 2014) while both Kansas (350 in 2014 vs. 333 in 2015) and Illinois (303 in 2014 vs. 293 in 2015) contacts have decreased. This change may be attributed to Missouri offering higher wages: Missouri, $68,900; Kansas, $64,310; Illinois, $61,110. Missouri currently has a population to dental hygienist ratio of 2,109:1. 6,7,13

*Numbers are current as of 2015
In comparison with the rest of the United States, Missouri employs a lower number of dental hygienists than the majority of states (Figure 1). Nationally, metropolitan (urban) areas have higher relative rates of dental hygienists with southern California having the highest rate (Figure 2).

**Figures 1 and 2. Bureau of Labor Statistics**
Geographic Distribution
The current location of resident dental hygienists in Missouri is displayed in Figure 3. The maldistribution of service between urban and rural areas remains even as the number of dental hygienists in Missouri grows. Areas classified as *urban contain 2,170 hygienists (75.5%), while those classified as rural contain 705 hygienists (24.5%). The urban population-to-dental hygienist ratio is 1,592:1, while the rural ratio is 3,699:1. St. Louis County is consistent in having the most dental hygienists (671) in Missouri with a 5% increase since the 2014 workforce analysis. St. Charles County has the second highest number at half the amount of St. Louis County (336). Both counties are classified as urban. Sixteen rural counties have only one dental hygienist and a total of 8 rural counties currently do not have a licensed dental hygienist, as compared with 11 counties in 2014, which shows slight improvement.

*Urban counties are defined as having a population density of over 150 persons per square mile and any county containing part of the central city of a census defined Metropolitan Statistical Area.
Expansion of the Profession

The expansion of the dental hygiene profession within Missouri is demonstrated by two factors: the annual number of new licensees and the overall number of licensees in a year. Although not as significant as previous years, there continues to be an increase in the number of dental hygienists licensed in Missouri per year. In State Fiscal Year (SFY) 1999 Missouri licensed a total of 2,261 hygienists as compared with 3,711 in SFY 2014 (Figure 4). In calendar year 2003 there were 119 new dental hygiene licenses given by Missouri. This number increased over 50% by the year 2014 to 248 licensees (Figure 5). Although the numbers are significantly higher than 2003, there was a 6.25% decline in the number of new Missouri licensees between 2013 and 2014 (16 licenses). As of 5/12/2015, there were 72 new Missouri licensees.

According to Bureau of Labor Statistics, employment of dental hygienists is projected to grow by 33% by the year 2022, significantly faster than the average for all occupations. This can be partially attributed to the growing body of research linking general health and oral health. 

Figure 4. Number of Total Dental Hygiene Licensees by Fiscal Year

Figure 5. Number of New Dental Hygienists by Calendar Year
Looking at the number of years of licensure in Missouri shows a fairly linear decrease in total licensees as the number of years of licensure increases, with the most pronounced decrease in total licensees occurring between the <5 years and 5-9 years groups (Figure 6).  

![Figure 6. Total Years of Experience of Current Dental Hygiene Licensees in Missouri](image)

**Permits**
Of the varying types of permits that a hygienist can obtain in Missouri, infiltration anesthesia, block anesthesia, and nitrous oxide (N2O), 88.5% have obtained either one or a combination of multiple permits (Figure 7). The most widely held permit is for infiltration/block/N2O (68.8% of total permits).

![Figure 7. Dental Hygiene Permits](image)
Income
Nationally, the annual median income for dental hygienists in 2012 was $70,210 and more than half of those employed worked part time. The average annual salary for hygienists in Missouri in 2012 was $68,900. Average annual salaries for Kansas ($64,310) and Illinois ($61,110) are lower compared with Missouri, which may explain the increase in resident dental hygienists in Missouri (Figure 8). The top paying area as of 2014 was the District of Columbia with an annual mean salary of $95,570. Metropolitan regions, both nationally and in Missouri continue to be the top paying areas for this occupation (Figures 10 and 11).

![Figure 8. Average Annual Salary for Dental Hygienists, Missouri Compared with Surrounding States](image1)

Compared to all other professions in Missouri dental hygienists were earning a significantly higher annual income, as of 2010 (Figure 9).

![Figure 9. Dental Hygienists Salaries compared with all Professions in Missouri](image2)
Figure 10. Bureau of Labor Statistics

Figure 11. Bureau of Labor Statistics
Dental Assistants Compared to Dental Hygienists

Dental hygienists often work with dental assistants. Dental assistants provide patient care, take x-rays, schedule appointments and assist with recordkeeping. Formal education requirements vary by state. Missouri does not require education or training requirements unless the dental assistant assists in administering and monitoring nitrous oxide analgesia. An Expanded-Functions Dental Assistant permit is available through the Missouri Dental Board. 9

Nationally, as of 2012, the median annual wage for dental assistants was $34,500, less than half of the median annual dental hygienist salary. The annual mean wage in Missouri is comparable at $33,740 (Figure 12). Seventy-five percent of dental assistants work full-time. 10 Employment of dental assistants is projected to grow as much as 25% by the year 2022 (Figure 13). There is no licensee data on dental assistants in Missouri due to the fact that licensing is not a requirement for employment. 9

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