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Introduction

The Oral Health Program within the Office of Maternal, Child and Family Health, Bureau for Public Health, and Department of Health and Human Resources is committed to the promotion and improvement of the oral health of all West Virginians. In order to better serve the citizens of West Virginia, the State Oral Health Plan was created by the Oral Health Program with the input of the West Virginia Oral Health Advisory Board and other community partners.

The Oral Health Program utilizes the State Oral Health Plan as its primary planning tool, and has been working to achieve the objectives set forth in the plan. Priorities include a multitude of topics, the dental workforce being among those in the forefront. Objective four of the Oral Health Plan calls for the Program to strengthen and improve the dental health workforce.

In response, a survey was created by the West Virginia University School of Dentistry and the Oral Health Program. The survey was distributed to West Virginia dentists and dental hygienists during the 2012 license renewal by the West Virginia Board of Dental Examiners. The primary purpose of this voluntary survey was to gain insight on clinically active dentists and dental hygienists working in the State.

Prior to this survey, the oral health community had studied the geographical distribution of dentists in West Virginia (see the following map). However, no one had studied the retirement plans, barriers to practice, utilization of dental hygienists or other key factors in their decision to continue offering clinical services. This study will help to guide future activities to assure the availability of a qualified oral health workforce well into the future.

![Map of West Virginia with Dentist Per County](source: West Virginia Dental Association)
Methods

The West Virginia Dental and Dental Hygiene Workforce Surveys were administered in January 2012 through the West Virginia Board of Dental Examiners (WVBDE) in cooperation with the West Virginia University School of Dentistry and the West Virginia Department of Health and Human Resources, Oral Health Program. These optional surveys were sent out to all dentists and hygienists licensed by the WVBDE to be completed and returned with their re-licensure application.

The WVBDE sent 1,236 surveys to dentists seeking license renewal. The Program had an acceptable return rate at 57% (706 surveys). In addition, 1,335 surveys were sent to dental hygienists also seeking license renewal. The response rate was also acceptable for this group at 53% (708 surveys).

Results

The findings from the two surveys are summarized below:

Dentist Survey

Respondents were 73% male and 22% female. Ninety-four percent of respondents were white, 1% was black, and 5% other. Among the respondents, 81% of dentists graduated from West Virginia University School of Dentistry while only 18% graduated from other schools.
Forty-seven percent of respondents were born prior to 1956, 21% were born between 1957 and 1966, 14% between 1967 and 1976 and 18% born since 1977. Nearly half of all licensed dentists are over the age of 56 years.

Twenty-six percent of respondents were awarded degrees prior to 1980.
Thirteen percent of respondents had a current West Virginia license but did not practice dentistry. The most common reason that respondents offered for not practicing was because they were retired (25%). Fifty-seven percent had other reasons for not practicing. This should be further explored in future surveys as it is unclear if there are common reasons within this sub-category for not practicing.

The majority of licensed dentists (67%) practice in the area of general dentistry. No respondents self-identified as specializing in oral / maxillofacial radiology.

<table>
<thead>
<tr>
<th>Current Practice Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Dentistry</td>
<td>67 %</td>
</tr>
<tr>
<td>Dental Public Health</td>
<td>2 %</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>6 %</td>
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<tr>
<td>Educator / Academic</td>
<td>2 %</td>
</tr>
<tr>
<td>Oral / Maxillofacial Surgery</td>
<td>6 %</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>1 %</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>3 %</td>
</tr>
<tr>
<td>Other</td>
<td>1 %</td>
</tr>
<tr>
<td>Endodontics</td>
<td>3 %</td>
</tr>
<tr>
<td>Oral / Maxillofacial Radiology</td>
<td>0 %</td>
</tr>
<tr>
<td>Periodontics</td>
<td>2 %</td>
</tr>
<tr>
<td>Blank</td>
<td>7 %</td>
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</tbody>
</table>
Over half of the respondents described their current practice setting as solo practice. Twenty-six percent have a group practice and the remaining 22% practice in VA hospital/military, academic/teaching institute, state/local government and other, respectively.

Of those whose primary occupation was that of a private practice, 66% of dentists described their role as owners, 7% as associates, 4% as independent contractors, 3% as non-owners, and 1% as other.
When asked how many years they had been in their current primary practice setting/position, 43% indicated they had been in their current setting/position for 20 or more years.

Eighty five percent of the dentists were accepting new patients while 6% were not accepting new patients at the time of the survey.
The majority of dentists (57%) reported that they treated more than 100 patients per month.

Questioned about the types of government programs respondents participated in at the time of the survey, CHIP (56%), Medicaid-child (55%), adult Medicaid-emergencies (32%), TANF (30%), worker’s comp (19%), donated denture program (14%) and other (10%) were named as programs in which the dentists participated.
Twenty-nine percent of respondents stated that they treated no Medicaid patients per month, 39% treated 1 - 50 Medicaid patients per month and 18 % treated more than 15 patients per month.

Of the dentists who accept Medicaid, only 46% accepted new patients with this benefit. Forty percent of respondents did not accept new Medicaid patients, which may cause barriers to oral health care.
The most commonly reported reasons for not accepting new Medicaid patients were low compensation (29%) and broken appointments (26%).

Most dentists (61%) reported that they employ a dental hygienist in their practice. However, only 46% employed a hygienist full-time. Of those who did not hire a dental hygienist, 2% reported that none were available, 7% reported it was their personal choice, 6% reported that their patient base did not support the employment and 11% had other reasons.
Given the tenured workforce of the survey respondents, it is very important to understand their plans for future dental practice. When asked, 261 (37%) of respondents reported that they plan to retire within the next ten years.

Fifty-eight percent of respondents were not interested in recruiting other dentists to replace them, 12% had searched and found success in recruiting a dentist, 6% searched but did not have any success while 11% did not try to recruit anyone but indicated that they would like to recruit a dentist.
**Hygienist Survey**

Respondents were 89% female, 1% male and 10% unknown; 91% were white, 1% black and 8% were other. The hygiene school with the highest percentage of graduates for this survey was West Liberty University 26%. West Virginia University was second at 24% followed by Bridgemont at 17%.

Thirty-six percent of licensed hygienists graduated since 2001, as compared to 22% of the licensed dentists. In addition, 4% of respondents were born prior to 1950, 29% between 1950 and 1965, 36% between 1966 and 1980, and 25% since 1981.
At the time of the survey, 22% of the dental hygienists were licensed but not practicing. Fifty-six percent of respondents indicated “other” as the reason they are not working. However, it is noteworthy that 17% of respondents were unable to secure employment.

The majority of dental hygienists (78%) indicated that they are employed in either a solo or group practice.
General dentistry is the most common practice area (69%) for hygienist respondents.

Fifty-three percent of respondents have been in their current position for ten years or less.
Many West Virginia dental hygienists work part-time. Seventeen percent of hygienists worked less than 20 hours per week while 54% work more than 21 hours. Eighty-four percent of hygienists treat more than fifty patients per month.

Seventeen percent of the respondents indicated that they were seeking additional employment as a dental hygienist. Kanawha (22%), Ohio (13%), and Monongalia (12%) were the top three counties of choice for those seeking additional employment. In addition, respondents were asked about the kind(s) of difficulty they experienced as it relates to finding a job. Twenty-two percent said that they were looking but could not find full-time employment and 15% were looking but could not find part-time employment. Salary, benefits and commuting distance were the most common concerns.
Fifty-five percent of hygienists indicated that they have no plans to stop working in the next ten years. Of those who plan to stop practicing in the next ten years (25%), the most common reasons included: retirement (17%), family commitments (4%), career change (2%), and 5% indicated other reasons.

Conclusion

The survey results demonstrated that the vast majority of dentists were educated at West Virginia University (81%); however, the proportion of dental school graduates that remain in the State after the completion of their degree is decreasing. According to the West Virginia University School of Dentistry, only 12.5% of the 2011 graduates remained in West Virginia upon graduation, compared to 27.5% in 2010 and 42% in 2009. Additionally, 37% of dentists in West Virginia plan to retire in the next ten years. Key findings of the dentist survey are summarized below:

- Eighty-one percent of dentists currently practicing in West Virginia graduated from the West Virginia University School of Dentistry.
- Thirteen percent of dentists were not practicing at the time of this study. Of those, only seven percent indicated that they were not practicing due to the inability to secure employment.
- Sixty-seven percent of West Virginia dentists are general dentists.
- Thirty-seven percent of dentists in West Virginia plan to retire in the next ten years.
- Seventeen percent of dentists are interested in recruiting a dentist to replace them after retirement.
The majority of hygienists were educated at West Virginia University and West Liberty University. Only twenty-one percent of hygienists plan to stop practicing in the next 10 years. Key findings of the hygienist survey are summarized below:

- Fifty percent of dental hygienists currently practicing in West Virginia are West Virginia University and West Liberty alumni.
- One-fourth of dental hygienists were not practicing at the time of this study, but only 17% indicated that an ability to secure employment was a barrier.
- Fifty-five percent of hygienists indicated that they have no plans to retire in the next ten years.

**Next Steps**

As a result of the findings in this study and the in-state retention rates of the West Virginia University School of Dentistry graduates, the Oral Health Program has developed the Dental Workforce Loan Reimbursement Program. This program is targeted to West Virginia University graduates wishing to practice dentistry in West Virginia. Participants must be willing to practice in a Dental Health Professional Shortage Area and may obtain up to $50,000 in loan repayment over a two year period. In addition, a technical assistance team comprised of a dentist, hygienist, billing specialist, and office manager will be available to assist dental practices in rural communities to maximize patient services and develop sustainable dental practices. This program is funded through a grant award from the Health Resources and Services Administration (HRSA).