California Survey of Dental Hygienists, 2005-2006: A Workforce Profile

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Suggested Citation:

Executive Summary

Oral health is an important component of overall health and well-being. The oral health workforce is the fundamental component of the provision of oral health services, and registered dental hygienists (RDH) play a critical role as dental care providers who focus on the prevention of dental disease. Dental hygienists primarily work as part of the dental care team in dental office settings. However, California state law also allows for two additional licensure categories – Alternative Practice (AP) and Extended Function (EF). Alternative Practice providers may work independently in certain geographic areas and settings, and Extended Function providers have an expanded scope of practice but must work under supervision.

This report provides the first comprehensive examination of the dental hygiene workforce in California derived from a sample survey conducted in 2005-2006. The results are summaries across all providers in the state, although local variations may exist within regions, types of providers, or across demographic differences. Major findings of the survey are summarized below.

Demographic Characteristics
- The dental hygiene workforce is primarily female, married with children, and white. The younger cohort of dental hygienists exhibit more race/ethnic diversity than dental hygienists in total, but are still not as diverse as the population of California.

Education and Licensure
- The majority of hygienists are educated in California at the associate degree level. Very few providers are currently enrolled in a degree granting educational program in a health field.
- One fifth of providers indicated some level of interest in pursuing education in Alternative Practice or Extended Function.

Practice Status & Supply
- There are an estimated 11,225 active dental hygienists in California. This is approximately 30 active dental hygienists per 100,000 population, under half the estimated ratio of 71 active dentists per 100,000 population in California.
- One sixth of the licensed providers in the state are not currently active. Of these, less than a third intend to return to practice, indicating that the potential reserve workforce consists of only about five percent of licensed providers.
- The labor market for dental hygienists seems to be contracting, with providers reporting a more difficult time finding employment today than five years ago. However, the majority of providers still experience little or no difficulty finding employment. More providers report not enough hygienists in their community than report too many. Most providers report an adequate number of hygienists in their community.
- The vast majority of active hygienists are in clinical practice (vs. a non-clinical position).

Patient Population
- Dental hygienists report caring for patients that are most often adults (18-64) and white.
- Very few hygienists report seeing children under age five.
- Dental hygienists report that on average, one sixth of their patients are medically compromised.

Practice Characteristics
- Most hygienists are working in a dental office that is a solo or partner private practice office, and which is primarily a general or periodontal practice.
- Providers are working on average four days a week, and fifty weeks a year. Two fifths of providers work in more than one practice.
• Dental hygienists’ average hourly wage is $45.56. However, wages vary widely by region of the state. Benefits are most likely to be dental care and continuing education support.

• About a third of dental hygienists consult with dental specialists or physicians outside their office setting in the care of their patients.

Scope of Work & Clinical Activities
• Therapeutic, preventive and diagnostic procedures were likely to be performed by most hygienists, with fewer reporting restorative, surgical or cosmetic procedures.

• Very few providers work in public health sealant programs or volunteer their dental hygiene services on a regular basis.

Work Hours by Activity & Job Satisfaction
• Clinical providers work fewer weekly hours than non-clinical providers, and these hours are primarily in patient care.

• Non-clinical dental hygienists still report clinical care hours, but spend more hours in teaching, administration and public health.

• Dental hygienists are generally very satisfied with their work environments and feel that they currently are using the skills and training for which they’ve been licensed.

Professional Issues
• About a third of hygienists report being a member of their professional association.

• There was low (30-50% positive) personal agreement or interest by providers for: self-employment, education and practice in restorative procedures, direct reimbursement, working with underserved populations or in underserved settings.

• There was moderate (50-70% positive) personal agreement or interest for: lessened supervision requirements, prescriptive authority, working outside a dental office, improving access to care, agreeing with the adequacy of the current regulatory structure as well as being amenable to a fee increase to enable self-regulation, desiring interaction with non-dental health providers, opportunities for loan repayment, working in education or administration, and joining a volunteer registry for emergency response.

• There was strong personal agreement or interest (70% + positive) for: feeling that their current environment is a good fit.

Non-Traditional Practice
• Just over ten percent of hygienists are practicing in any capacity in a non-traditional setting (defined as anything that is not a dental office).

• RDHAPs are far more likely to be working in a non-traditional setting than RDHs.

• Of those reporting working in a non-traditional practice, RDHs are most likely to be working in schools, while RDHAPs are most likely to be working in nursing homes or with homebound patients, and RDHEFs are most likely to be working in a community health center.

• Just under a quarter of hygienists report any interest in working in a non-traditional practice in the future.

• Those working in a non-traditional setting report a variety of payor sources, and report the motivation for their work is personal satisfaction and community service.

The dental hygiene workforce is experiencing two broad, and possibly competing trends. On one hand the existing providers are very satisfied with the current practice of dental hygiene, including their clinical work, salary, and work settings. On the other hand, there is a desire for more responsibility and freedom to work in alternative settings and arrangements. These trends will certainly shape future developments in the profession, but more importantly, they are likely to impact patient care and access to care in unforeseen ways.
Introduction

Access to dental care is an issue that has received increasing attention from policy makers, dental and medical professions, consumer groups, and educators. Data on who is providing and receiving care, in what setting care is provided, and how the care is being financed are critical to inform the process of increasing access to care.

Registered Dental Hygienists (RDHs) play a critical role in efforts to promote access to oral health care and prevent dental diseases. The heightened attention on the nation's oral health needs and growing disparities in oral health, as well as pending revisions in federal procedures for designating dental health professions shortage areas, create a compelling need for better data on the current RDH workforce in California.

Policymakers, workforce planners, and health professions educators all need comprehensive data on the RDH workforce in order to better understand a variety of issues, including: the distribution of these health professionals in the state, the way in which RDHs are deployed in clinical settings, the scope of RDH practice, the extent of involvement of RDHs in public health and population-oriented prevention activities and in meeting the oral health needs of all Californians.

The purpose of this study was to gather information about the RDH workforce and systematically examine the following areas:

1. Practice status and reasons for leaving the profession
2. Demographic characteristics
3. Educational and licensure profile
4. Labor market data
5. Patient populations served
6. Practice characteristics, including work setting, wages & benefits, and consultations outside of the dental practice (DDS, RNs, MDs, etc)
7. Clinical activities performed, including public health and volunteerism
8. The work hours of RDHs in clinical practice and non-clinical positions
9. Job satisfaction
10. Professional issues, including interest in performing in a more independent role as oral health practitioners and willingness to provide care in underserved communities.
11. The number of providers working in non-traditional practices, and the parameters of those practices

This report provides the first comprehensive examination of the dental hygiene workforce in California.

Methods

The survey was developed from information gathered from a literature review as well as from interviews from an expert group of stakeholders, including researchers, policy makers, dental professionals and educators. A draft version was piloted to a random selection of 30 licensed hygienists stratified into two groups by whether they were in an urban setting - San Francisco (15 for an in-person focus group) or in a rural or frontier community (15 for a phone interview).

From Group 1 (San Francisco), 5 surveys (33%) were returned, and 4 of these 5 participants attended the focus group. In addition, one person who was initially in the rural group also attended the focus group. The focus group was facilitated by an outside facilitator, and observed by the PI and another researcher. From Group 2 (rural), 6 surveys (40%) were returned, and 5 phone interviews were conducted. Additional conversations were held with project collaborators and the survey was refined and finalized. The final stratified sample was pulled from a license file of all RDH / APs / EFs obtained from the California Department of Consumer Affairs in August 2005. For RDHs, only those with a
California address were included. Duplicate AP and EF listing in the RDH file were removed. Those chosen for the pilot were removed prior to pulling the sample.

All RDHAPs and RDHEFs were sampled. The RDH file was geocoded and matched to rural-urban commuting codes (RUCAs)\(^1\) to stratify the sample of RDHs. Ninety-eight percent of the records matched with 282 missing a zip match. Of those that matched, 91% were in urban RUCAs while 9% were in rural RUCAs. Every RDH with an address in a small town or rural RUCA (codes 4-11) were sampled, while 20% of the RDHs with an urban address (RUCA code 1-3) or a missing RUCA were randomly sampled.

The final sample selection resulted in 3,802 records. In the process of survey follow-up we verified that 51 people were ineligible and were removed. The final eligible sample selection was 3751. The overall response of 2776 translates to a response rate of 73%, but this varies by sampling frame as show in Figure 1.

Figure 1: Response Rates by Sampling Category

The final data were weighted to adjust for sampling and response bias, post stratification issues, regional variation, graduation date, and association membership status. The final numbers are presented in Table 1.

Table 1: Survey Response by License Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Sampled</th>
<th>Raw Response</th>
<th>Weighted Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDH</td>
<td>3607</td>
<td>2643</td>
<td>13,323</td>
</tr>
<tr>
<td>RDHAP</td>
<td>119</td>
<td>110</td>
<td>119</td>
</tr>
<tr>
<td>RDHEF</td>
<td>25</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>3751</td>
<td>2776</td>
<td>13,467</td>
</tr>
</tbody>
</table>

\(^1\) For full definition see: [http://depts.washington.edu/uwruca/](http://depts.washington.edu/uwruca/)
Section 1: Practice Status of All Licensed Dental Hygienists

This section includes analysis of all respondents (n=2776) weighted to be representative of a total of 13,467 dental hygienists in the state. Of the licensed providers, 83.4% are actively practicing dental hygiene. Of the 16.7% of providers that are not practicing, 68.9% have no intention of returning to hygiene practice.

Figure 2 & Figure 3: Practice Status & Intention to Return

Providers licensed as RDHAPs and RDHEFs are less likely to be inactive than RDHs without the additional certification.

Figure 4: Practice Status by License Category
License Status vs. Reported Status

The Committee on Dental Auxiliaries (COMDA) license file of RDHs maintains a status code indicating whether the current licensee is active or inactive. This status code was compared to the self-report data on active/inactive status in the survey. The results show that if the license file indicated inactive, the hygienist was very likely to be inactive. For example, only 20, or 0.1% of the sample listed in the license file as inactive actually reported being currently active. Alternatively, a good number of respondents that contained an active status code in the license file (n=1163, or 8.6% of the sample) reported being inactive in the survey.

Figure 5: Comparison of Survey and License Status Codes
Characteristics of Inactive Providers

As noted in Figure 2, approximately 16.7% of licensed providers are not currently active. We explored the reasons for leaving practice, and compared the demographics of the providers who are active and inactive. The top reason for leaving was for family responsibilities regarding children. These reasons are listed in Table 2. The age distribution of active and inactive providers (Figure 6) shows that inactive providers tend to be older, but there are a number of inactive providers in the younger age ranges. Female hygienists are less likely to be active than male hygienists.

Table 2: Reasons for Leaving Practice

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Responsibilities - Children</td>
<td>18.0%</td>
</tr>
<tr>
<td>Retirement</td>
<td>15.2%</td>
</tr>
<tr>
<td>Change of Career outside of Dentistry</td>
<td>11.0%</td>
</tr>
<tr>
<td>Job Disability</td>
<td>9.9%</td>
</tr>
<tr>
<td>Moved</td>
<td>7.2%</td>
</tr>
<tr>
<td>Health Reasons</td>
<td>5.7%</td>
</tr>
<tr>
<td>Physical/Ergonomic Reasons</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Figure 6: Age Comparison of Active and Inactive Providers

![Active vs. Inactive RDH in California: Age Distribution](chart)

Figure 7: Gender Comparison of Active and Inactive Providers

![Active vs. Inactive RDHs in California: Gender Distribution](chart)
The marital status and educational level of active and inactive providers were examined. On average, the lower the degree status attained (in any discipline, not necessarily dental hygiene) the higher the percentage of active providers. Only 12.2% of providers with the degree level of Associate/Certificate are inactive, vs. 29.8% of those with a Masters or Doctoral Degree. A higher percent of inactive providers are married than of active providers.

Figure 8: Educational Level Comparison of Active and Inactive Providers

Figure 9: Marital Status Comparison of Active and Inactive Providers
Section 2: Demographic Characteristics of Active Dental Hygienists

This section includes analysis of all active dental hygienists respondents (n=2318) weighted to be representative of a total of 11,225 dental hygienists in the state. The distribution of age, gender, race, marital status, children, and language abilities are provided below. The mean age of providers is 45, 72.5% of providers are married, and 55.5% of providers have one or more children living at home.

Figure 10: Age Distribution of Active Providers

![Age Distribution Chart]

Figure 11: Marital Status of Active Providers

![Marital Status Chart]

Table 3: Presence of Dependent Children at Home

<table>
<thead>
<tr>
<th>Children</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>6,047</td>
<td>55.4%</td>
</tr>
<tr>
<td>No</td>
<td>4,873</td>
<td>44.6%</td>
</tr>
</tbody>
</table>
Dental Hygienists are primarily female, with male hygienists making up only about 2.5% of the dental hygiene workforce. This gender distribution varies by age, as shown in Table 4. As well, dental hygienists are primarily white, although the younger hygiene workforce (age 18-30) is more diverse than the total hygiene population as shown in Table 5.

Table 4: Gender Distribution of Providers, by Age Category

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>51+</td>
<td>1.9%</td>
<td>98.1%</td>
</tr>
<tr>
<td>41-50</td>
<td>3.4%</td>
<td>96.6%</td>
</tr>
<tr>
<td>31-40</td>
<td>3.0%</td>
<td>97.0%</td>
</tr>
<tr>
<td>18-30</td>
<td>0.3%*</td>
<td>99.7%</td>
</tr>
<tr>
<td>Total</td>
<td>2.5%</td>
<td>97.5%</td>
</tr>
</tbody>
</table>

*Note, the low number of male hygienists in the 18-30 age range may be an indication that men are coming into the profession at an older age, not that men are decreasing as a proportion of the profession. Education data show a generally consistent proportion of men graduating in the last ten years (varying by year from 2.6%-5.7%)

Table 5: Gender Distribution of Providers, by Age Category

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% 18-30</th>
<th>% Total</th>
<th>CA Pop.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>67.0%</td>
<td>76.6%</td>
<td>46.7%</td>
</tr>
<tr>
<td>Asian</td>
<td>9.8%</td>
<td>9.5%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.2%</td>
<td>7.3%</td>
<td>32.4%</td>
</tr>
<tr>
<td>Multiple Race/Ethnicity</td>
<td>3.4%</td>
<td>2.4%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Other</td>
<td>4.3%</td>
<td>1.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Pac Island/ Hawaiian</td>
<td>2.8%</td>
<td>1.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>African-American</td>
<td>0%</td>
<td>1.0%</td>
<td>6.4%</td>
</tr>
<tr>
<td>American Indian</td>
<td>0.8%</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

*CA Dept of Finance Table B-7 (2000)

**Functional Ability to Communicate with Patients in a Language other than English**

- Twenty-seven percent of dental hygienists report being able to functionally communicate with their patients in at least one language other than English.
- Thirty-six different languages were reportedly spoken.
- Of those reporting a second language, 67% reported speaking Spanish, while 5% reported speaking Farsi, German, Vietnamese and French. All other languages were spoken by fewer than 4% of dental hygienists.
Section 3: Education and Licensure Profile of Active Dental Hygienists

This section includes analysis of all active dental hygienists respondents (n=2318) weighted to a total of 11,225 dental hygienists in the state. The survey asked questions about hygienists’ education level, school location, enrollment in a degree granting program in a health field, and alternative licensure (interest in being an AP or EF).

The majority of hygienists are educated at the associate degree level (50.2%). A larger proportion of the younger cohort of dental hygienists has an associate degree than in older cohorts. Three quarters (77%) of hygienists were educated in dental hygiene programs located in California.

Figure 12: Highest Level of Education Attained

Figure 13: Location of First Licensure (In-state vs. Out-of-state)

A small percentage of active hygienist (2.6%) are currently enrolled in a degree or certificate granting program in a health care field. Those that were enrolled were mostly in non-dental area (62.6%) while 25.5% were enrolled in an RDHAP or RDHEF program. A small number 3.3% were enrolled in dental school. Just over 5% of active providers are very interested in pursuing education as an RDHAP, with 3.5% very interested in RDHEF education.
Figure 14: Current Enrollment in a Degree Granting Program in Health Care

Percent of Active Dental Hygienists in California Currently Enrolled in a Degree or Certificate Granting Program in Health Care

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6%</td>
<td>97.4%</td>
</tr>
</tbody>
</table>

Figure 15: Type of Additional Education Being Pursued by RDHs

Type of Education Being Pursued by Active Hygienists Currently Enrolled in a Degree or Certificate Granting Program in Health Care (n=288)

<table>
<thead>
<tr>
<th>RDHAP/EF</th>
<th>DDS</th>
<th>Other</th>
<th>Missing/Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.5%</td>
<td>3.3%</td>
<td>62.6%</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

Figure 16: Interest in Pursuing Education as an RDHAP or RDHEF

Active Dental Hygienists in California Intention to Pursue Additional AP/EF Licensure

<table>
<thead>
<tr>
<th>Not Likely</th>
<th>Somewhat Unlikely</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
<th>Not sure what this is</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.1%</td>
<td>15.9%</td>
<td>15.1%</td>
<td>5.1%</td>
<td>5.9%</td>
</tr>
<tr>
<td>59.2%</td>
<td>14.9%</td>
<td>13.4%</td>
<td>4.9%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
Section 4: Dental Hygiene Labor Market Indicators

This section includes analysis of all active dental hygienists respondents (n=2318) weighted to a total of 11,225 dental hygienists in the state. The survey asked a series of questions about finding employment, including: level of difficulty, type of difficulties encountered, length of time needed, and opinion of workforce supply.

Just under 10% of the active dental hygiene workforce reported they were actively looking for work. Note that this does not necessarily mean they are unemployed, it simply means they are currently looking for dental hygiene employment.

On average, the additional number of weekly hours desired by those looking for work is 10.2 hours. The most common response was 8 hours, and responses ranged from 0.5 hours to 36 hours. Just under one-quarter of the dental hygiene workforce has looked for work sometime in the past year (Figure 17).

Figure 17: Time Since Last Looked for Dental Hygiene Work

<table>
<thead>
<tr>
<th>Last Time Looked for Clinical Work</th>
<th>Clinically Active Dental Hygienists in California</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-12 Months Ago</td>
<td>14%</td>
</tr>
<tr>
<td>1-3 Years Ago</td>
<td>19%</td>
</tr>
<tr>
<td>3-5 Years Ago</td>
<td>15%</td>
</tr>
<tr>
<td>5-10 Years Ago</td>
<td>17%</td>
</tr>
<tr>
<td>10-20 Years Ago</td>
<td>18%</td>
</tr>
<tr>
<td>More than 20 Years Ago</td>
<td>6%</td>
</tr>
</tbody>
</table>
Hygienists were asked about the level of difficulty they had obtaining employment the last time they looked for work. Tables 18, 19 and 20 show these data. As is clear by all three charts, the level of difficulty in finding work has been increasing in the past five years, however the difficulty level is still relatively low.

**Figure 18: Level of Difficulty Encountered When Last Looked for Work**

![Chart showing level of difficulty encountered when looking for a position by time since last search.](chart18)

**Figure 19: Length of Job Search Time Necessary When Last Looked for Work**

![Chart showing length of job search time necessary when last looked for work.](chart19)
Dental Hygienists were asked their opinion on the number of providers in the community where they worked. Two thirds felt there were an adequate number of providers, while 20% felt there were too few, and only 12% felt there were too many.

Figure 20: Type of Difficulties Encountered When Last Looked for Work
RDHs were asked if their primary dental hygiene activity was in a clinical or non-clinical position. The vast majority of hygienists are clinical providers (98.4%). On average providers practice 46 weeks per year and 3.4 days per week, although the most common response (mode) is 50 weeks per year and 4 days per week.

Almost half the RDH active workforce intends to remain in the workforce for 10 or more years. Only a small percentage of respondents (4.1%) intend to retire in the next 2 years.

Figure 22: Clinical Practice vs. Non-Clinical Practice Status

Figure 23: Additional Years Intending to Practice
Section 5: Dental Hygiene Patient Population

This section includes analysis of all active dental hygienists (RDH only) who are primarily doing clinical work (n=2144) weighted to be representative of a total of 10,855 dental hygienists in the state. On average, dental hygienists see 8.4 patients in an 8 hour day, with the most common response being 8 patients, for an average of one patient per hour.

On average, RDHs have difficulty communicating with 2% of their patient population due to language barriers, however this varies widely, from 0% - 65%. Only 5% of RDHs have difficulty communicating with more than 10% of their patients, and only 1% have difficulty with 25% or more of their patients.

The majority of RDH patients are adults age 18-65 (62%), with older adults 65+ comprising an additional 21% of the patients (Figure 24). Most patients are white (67%) or Hispanic (15%), however the patient population does not reflect the total population of California (see Figure 25). Finally, RDHs estimate that on average, 17% of their patients may be medically compromised, while close to 3% are estimated to be mentally ill or developmentally disabled. Just under 2% were estimated to be a severe behavioral challenge (Figure 26).

Figure 24: Age Distribution of RDH Patients
Figure 25: Race/Ethnicity Distribution of RDH Patients

Patient Distribution of Clinically Active Dental Hygienists in California (2005-2006)

- African-American: 5.6%
- American Indian: 1.0%
- Asian-Pacific Islander: 1.4%
- Hispanic/Latino: 6.4%
- White: 67.3%
- Other: 2.6%

Figure 26: Prevalence of Special Needs Patients in RDH Practices

Patient Distribution of Clinically Active Dental Hygienists in California (2005-2006)

- Medically Compromised: 16.8%
- Developmentally Disabled: 2.9%
- Mentally Ill: 2.6%
- Behavioral Challenge: 1.5%
- Mean: □
- Mode: △
Section 6: Dental Hygiene Practice Characteristics

Work Setting and Size

This section includes analysis of all active dental hygienists (RDH only) who are primarily doing clinical work (n=2144) weighted to be representative of a total of 10,855 dental hygienists in the state. Hygienists were asked a variety of questions regarding the characteristics of up to three practices. The majority of hygienists work in only one practice (58%), while 29% report working in two practices, and 9.4% report working in three practices. The remainder (3.6%) did not report practice information. Just under 2% of providers reported that one or more of their practice sites was a temporary position. The mean weekly hours per practice site varied from 22 hours in the primary practice to 8.7 hours in practice 3.

Figure 27: Mean Reported Hours per Practice

![Figure 27: Mean Reported Hours per Practice](image)

Figure 28: RDH Work Settings

![Figure 28: RDH Work Settings](image)
The main type of work setting reported by hygienists was a private dental office (97.6%). The additional types of setting reported included “other” (undefined), followed by community clinic, schools, and Indian health & military VA. Figure 28 shows the distribution of reported practice sites, which may include more than one practice site per hygienist, and should not be interpreted as representative of the distribution of dental practices, but rather as the distribution of hygienists work settings.

Work settings were classified by type of dental practice or practices. The majority of reported settings were classified as only a general practice, with the next most common being a periodontal practice. A number of practices were classified as more than one type, therefore Table 6 contains a row for “Mixed Type”. “Other” practice types were listed as Prosthodontic, Orthodontic, Cosmetic, Mixed, Mobile and Dental Hygiene.

Table 6: RDH Reported Work Setting - Type of Dental Practice

<table>
<thead>
<tr>
<th>Type of Practice</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practice</td>
<td>87%</td>
</tr>
<tr>
<td>Pediatric Practice</td>
<td>1%</td>
</tr>
<tr>
<td>Periodontal Practice</td>
<td>6%</td>
</tr>
<tr>
<td>Mixed Type</td>
<td>5%</td>
</tr>
<tr>
<td>Other Practice</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Hygienists reported how many total hygienists work at their practice setting. Of practices that employ full time hygienists, they most often employ only one. Of practices that employ part time hygienists, they most often employ two or more hygienists.

Figure 29: Number of Employed RDHs per Practice Site
Vacancies are reported per practice sites, by full time and part time status. The majority of practices do not have any vacant RDH positions, about a fifth of respondents didn’t know the number of vacancies, and only 9.4% of practices have one or more part time vacancies. Even fewer practices have full time vacancies (1.5%).

The vast majority of hygienists are employed directly (92%), with only 5% employed though a third party. A third of RDHs reported they had a contract, while 8% reported they did not have a contract.

Figure 30: Number of RDH Vacant Positions per Practice Site

Figure 31: Employment Status by Practice Site
Hygienists reported the number of dentists working at each site. The majority reported one general dentist at each site, (62%) with an additional 19% reporting two dentists. About 16 percent of sites reported one or more specialist dentist. Hygienists also reported the years they were employed at each site. The mean number of years reported were 9.1 years at site 1, 6.3 years at site 2, and 5.4 years at site 3.

Figure 32: Number of Dentists Per Employment Site

Figure 33: Years Employed per Site
**Wages and Benefits**

Hygienists reported their benefits and wages for each practice site. The most common benefit was dental care and/or coverage, followed by continuing education support, paid holiday/vacation and retirement/pension. Wages varied by region, but the average statewide reported wage (by practice) was $45.56 per hour. This ranges from a high of $50.91 in the San Francisco Bay Area to a low of $39.19 in the San Joaquin Valley.

**Figure 34: Benefits Across Practice Site**

![Benefits Across Practice Site](image)

**Figure 35: Wages by State Region**

![Wages by State Region](image)
Region Notes:

- Northern California Region has been split to east (inland – Siskiyou, Modoc, Lassen, Plumas, Sierra, and Nevada) and west (coastal – Del Norte, Humboldt, Trinity, Mendocino and Lake) sections.
- The Southern California Region was split into east (inland – San Bernardino & Riverside) and west (coastal – Ventura, Los Angeles, and Orange) sections.
- This results in 11 regions for the RDH analysis, based on the 9 economic regions used for the California Economic Strategies Panel.

**Consultation Among Other Health Providers**

Hygienists were asked if they collaborated with any other health providers outside their immediate dental care team. The greatest number reported consulting with a dental specialist, followed by physician, or none. A small percentage consulted with nurses, physician assistants and nutritionists.

**Figure 37: Reported Consultations with other Health Providers**

![Distribution of Reported Consultations Outside Primary Dental Care Team](image-url)
Section 7: Dental Hygiene Clinical Activities

This section includes analysis of all active dental hygienists (RDH only) who are primarily doing clinical work (n=2144) weighted to a total of 10,855 dental hygienists in the state. Hygienists were asked which clinical activities (yes/no) they personally performed in their practice as a dental hygienist.

Hygienists reported performing a wide variety of activities in their practices. The vast majority personally did most preventive activities (82.4% across the total of activities), with fewer doing sealants and anti-microbial placements than the other preventive activities.

Figure 38: Preventive Clinical Activities

*Totals are sums across all sub-categories within general type of procedure
In the diagnostic category more variation was reported, with 69.1% on average doing these activities. Almost all hygienists reported taking medical histories, performing a hygiene exam, charting and treatment planning. Brush biopsies and impressions were less likely to be done by hygienists.

Figure 39: Diagnostic Clinical Activities

Scope of Work - Clinically Active RDHs in California
In the restorative arena we see far fewer yes responses on average, only 8.6% across the total of activities, with the most reported activity being polishing restorations. Under therapeutic activities the percentages reporting yes to these activities (across the total of activities) increases to 92.5%, with almost all activities in the 80-90% ranges.

Figure 40: Restorative and Therapeutic Clinical Activities

*Totals are sums across all sub-categories within general type of procedure*
Few hygienists report many cosmetic procedures (13.2% across the total of activities), however we only asked about light activation and impressions for whitening. Finally, in the surgical category we find wide variation, with a high percent doing anesthesia, but few doing dressing or surgical assisting.

Figure 41: Cosmetic and Surgical Clinical Activities

*Totals are sums across all sub-categories within general type of procedure
Public Health & Volunteering Activities

Hygienists were asked if they worked in a sealant program or volunteered any dental hygiene services. Very few reported working in a sealant program (6%) and only slightly more reported volunteering (10%). Of those that do volunteer, the majority do this on an annual basis, with just over a third volunteering monthly, and only 1.5% volunteering weekly.

Figure 42: Additional Activities of Dental Hygienists

Figure 43: Frequency of Volunteer Activities
Section 8: Hours by Work Activity – Clinical and Non-Clinical Hygienists

This section includes analysis of all active dental hygienists respondents (RDH, AP & EF) (n=2318) weighted to be representative of a total of 11,225 dental hygienists in the state. We examined the hours per week spent in a variety of work activities. As can be seen in Figure 44, those hygienists reporting they work primarily in clinical practice spend the majority of their hours doing patient care, with very little time (on average) spent in other activities. Those hygienists that reported being active primarily in a non-clinical role, reported some patient care hours (about 6 per week on average) but many more hours in administration, public health, and teaching. On average, non-clinical hygienists work more hours per week than clinical hygienists.

Figure 44: Mean Hours per Weekly Activity

*98.4% of hygienists are in clinical practice, only 1.6% are in non-clinical practice
Section 9: Job Satisfaction

This section includes analysis of all active dental hygienists respondents (RDH, AP & EF) (n=2318) weighted to a total of 11,225 dental hygienists in the state. There were two components of measuring job satisfaction. The first was to ask what contributes to the individual's sense of job satisfaction. The second was current level of job satisfaction overall. The results are displayed in Figure 45, split by clinical and non-clinical respondents. The items rated as contributing the greatest to clinical hygienists’ satisfaction are “Sense of Accomplishment”, “Respect for Abilities”, and “Working with People”. The items rated as contributing the greatest to non-clinical hygienists’ satisfaction are “Respect for Abilities”, “Sense of Accomplishment”, “Intellectual Stimulation” and “Working with People”. The two areas where they differ the most are in “Variety of Responsibilities” (more important to non-clinical) and “Income” (more important to clinical).

Figure 45: Job Satisfaction
Section 10: Professional Issues

Association Membership

This section includes analysis of all active dental hygienists respondents (RDH, AP & EF) (n=2318) weighted to a total of 11,225 dental hygienists in the state. Hygienists were asked if they were members of the California Dental Hygienists’ Association or the American Dental Hygienists’ Association. While technically one must be a member of both, we received conflicting responses to these questions; hence we provide a third column that is the response “yes” to either question. Overall, 36.5% of respondents were members of their professional associations.

Figure 46: Professional Association Membership

![Bar Chart: Active Dental Hygienists’ Membership in Professional Association]

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHA</td>
<td>64.8%</td>
<td>35.2%</td>
</tr>
<tr>
<td>CDHA</td>
<td>66.6%</td>
<td>33.4%</td>
</tr>
<tr>
<td>Member of CDHA or ADHA</td>
<td>63.5%</td>
<td>36.5%</td>
</tr>
</tbody>
</table>
Opinions on Professional Issues in Dental Hygiene

Respondents were asked to indicate their level of agreement with a series of statements about dental hygiene professional issues. The results are distributed across four response types, from “strongly agree” to “strongly disagree”.

Figure 47: Opinions on Self-Employment and Supervision

Question 1: As a Dental Hygienist, I would like to be a self-employed dental hygienist in a setting of my choice working without any supervision requirements by a dentist (e.g. - my own dental hygiene practice, either in an independent office or by contract with another organization such as a school, nursing home, medical office, where I am responsible for all billing & liability).

Question 2: As a Dental Hygienist, in my current practice I would prefer that all procedures I am trained for, including those currently requiring direct supervision, (local anesthesia, nitrous oxide, and periodontal soft tissue curettage) only require general supervision.

Respondents indicated a moderate desire to work independently (39.7% in agreement), and a large desire for general supervision only (69.7% in agreement)
Figure 48: Opinions on Prescriptive Authority and Restorative Procedures

Question 1: As a Dental Hygienist, I would like to have prescriptive authority so that I can prescribe appropriate treatments for my patients directly.

Question 2: As a Dental Hygienist, I would like to do basic restorative procedures such as placing amalgams or composites and I would be interested in pursuing the education necessary to learn and be certified in these skills if this were available to me.

Respondents favor having prescriptive authority by nearly a two to one margin, while opposing wanting to do restorative procedures by a similar margin, with more strong disagreement on restorative than prescriptive procedures.
Figure 49: Opinions on Skill Use and Environment

Question 1: As a Dental Hygienist, I am not practicing to the full extent of my training. In my day-to-day dental hygiene practice I am not using all the skills and/or doing all the procedures I was trained to do in school.

Question 2: As a Dental Hygienist, I feel that my current work environment is a good fit for my skills and interests.

Two thirds of respondents disagreed that they were not using all their skills, (meaning they felt they were using all the skills they were trained to use) and almost all respondents (93.8%) felt their current environment was a good fit.
Figure 50: Opinions on Alternative Work Settings and Reimbursement

Question 1: As a Dental Hygienist, I would like to practice dental hygiene in settings outside of a dental office (e.g., nursing homes, schools, public health clinics, medical offices, etc.).

Question 2: As a Dental Hygienist, I would prefer to be reimbursed for my services directly by insurers or Denti-Cal/Healthy Families rather than using the dentist or another third party to bill.

Respondents were split evenly on their agreement about wanting to work outside a dental office, while they were more likely to disagree that they’d like to be reimbursed directly.
Figure 51: Opinions on Working with Underserved Populations and Access to Care

Question 1: As a Dental Hygienist, I am interested in working with disadvantaged patients (i.e., poor, indigent, homebound, medically compromised, developmentally disabled, elderly) although I know this work may pay less than my traditional practice.

Question 2: As a Dental Hygienist, I am interested in working in a practice in an underserved community (i.e., inner city, rural, migrant) although I know this work may pay less than my traditional practice.

Question 3: As a Dental Hygienist, Improving access to dental care for those who have trouble getting services is an important issue that I feel responsible to address in my community.

Dental hygienists were likely to be in agreement (66.8%) with the statement that improving access is important, however were more likely to disagree that they personally desired to work with disadvantaged patients (67.5%) or in underserved communities (69.6%).
Figure 52: Opinions on the Regulatory Structure of Dental Hygiene

Question 1: As a Dental Hygienist, I am happy with the current regulatory structure of the Dental Board of California administering the Committee on Dental Auxiliaries (COMDA)

Question 2: As a Dental Hygienist, I would agree to increased licensure renewal fees (up to 4 times the current fee of $35 every two years) if this allowed my profession to be regulated by an independent dental hygiene board or bureau instead of by the Dental Board of California.

Active RDH Opinions on Professional Issues

Dental hygienists report agreement (54.0%) but not strong agreement (3.6%) with the adequacy of the current regulatory structure, and general agreement (57.1%) with an increase in licensure fees in return for self-regulation.
Figure 53: Opinions on Health Care Provider Interaction and Loan Repayment Program

Question 1: As a Dental Hygienist, I would like to practice dental hygiene in a setting where I have interaction with other non-dental health professionals (physicians, nurses, nutritionists, etc).

Question 2: A loan repayment program is one in which your student loans are partially repaid in return for working for an organization that serves disadvantaged patients or is located in an underserved community. As a Dental Hygienist, if I had been aware of this opportunity at the time of my graduation I would have agreed to work for 2-4 years in an organization such as this in exchange for this benefit.

Dental hygienists report high agreement (67.6%) with a desire to interact with other non-dental health care providers, (only 2.8% reported strongly disagreeing with this statement). As for loan repayment, just over half agreed they would have liked this option (52.1%).
Figure 54: Opinions on Emergency Registry and Working in Administration or Education

Question 1: As a Dental Hygienist, I am interested in becoming part of a volunteer registry for healthcare professionals that would be activated for local, state and/or federal emergency response.

Question 2: As a Dental Hygienist, I am interested in working in a health care administration or education position that utilizes my dental hygiene background and training.

Just over half (54.0%) agreed that they would be interested in being part of a volunteer registry for emergency response, and about the same proportion (57.8%) would be interested in a health care administrative or education position that utilizes their dental hygiene background.
Section 11: Non-traditional Dental Hygiene Practice

This section includes analysis of all active dental hygienists respondents (n=2318) weighted to a total of 11,225 dental hygienists in the state. We explored the number of providers who work outside a dental office, the capacity in which they work outside the office, and the characteristics of these practices. We also asked about intent to work in a non-traditional practice in the future, and perceptions of barriers to working in these settings.

Frequency and Perceptions of Non-Traditional Practice

Hygienists were asked if they spend any of their time working outside the dental office under the general supervision of a dentist or employer, or if they work unsupervised in a public health program. Over 10% of hygienists report working in some non-traditional setting, however very few providers are working unsupervised in a public health program.

Figure 55: Frequency of Non-Traditional Practice

Spend Any Time in Non-Traditional Settings Under General Supervision of Employer
Active RDH, EF & AP’s in California

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Traditional Setting</td>
<td>10.4%</td>
<td>89.6%</td>
</tr>
<tr>
<td>Unsupervised in Public Health Program</td>
<td>1.6%</td>
<td>98.4%</td>
</tr>
</tbody>
</table>
RDHAPs are by far the most likely type of hygienist to be working in any non-traditional setting (See Figure 56 & 57). RDHs working in non-traditional settings are most likely to work in schools, while RDHAPs are most likely to be working in nursing homes or with home-bound residents and RDHEFs are most likely to be working in community clinics.

**Figure 56: Percent of Providers in Non-Traditional Settings by License Type**

<table>
<thead>
<tr>
<th>Practice in Non-Traditional Settings</th>
<th>Comparison of RDH, RDHAP &amp; RDHEFs in California</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDH</td>
<td>Yes: 9.8% No: 90.2%</td>
</tr>
<tr>
<td>RDHAP</td>
<td>Yes: 66.7% No: 33.3%</td>
</tr>
<tr>
<td>RDHEF</td>
<td>Yes: 16.7% No: 83.3%</td>
</tr>
</tbody>
</table>

**Figure 57: Percent of Providers in Public Health Programs by License Type**

<table>
<thead>
<tr>
<th>Practice in Unsupervised Public Health Program</th>
<th>Comparison of RDH, RDHAP &amp; RDHEFs in California</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDH</td>
<td>Yes: 1.4% No: 98.6%</td>
</tr>
<tr>
<td>RDHAP</td>
<td>Yes: 25.0% No: 75.0%</td>
</tr>
<tr>
<td>RDHEF</td>
<td>Yes: 5.6% No: 94.4%</td>
</tr>
</tbody>
</table>
Figure 58: Type of Non-Traditional Settings

Active Hygienists in California (n=1089)

- Hospital
- Homebound Residence
- Fed-State/Tribal Institution
- Schools
- Community/Migrant Clinic
- Nursing Home/Assisted Living
- Community Centers
- Local Public Health Clinic
- Home Health Agency
- Other

Figure 59: Type of Public Health Settings

Unsupervised Hygienists in California (n=169)

- Hospital
- Other
- Fed-State/Tribal Institution
- Schools
- Community/Migrant Clinic
- Nursing Home/Assisted Living
- Local Public Health Clinic
- Home Health Agency

*RDHEF and RDHAP have been collapsed due to small numbers of responses*
Just under a quarter of providers report they would be interested or very interested in pursuing a non-traditional practice in the future. The highest barriers perceived to working outside a dental office was not lack of interest, but rather lower pay and ability to be reimbursed. Ergonomics was also an issue that was rated a larger barrier.

Figure 60: Likelihood of Pursuing Non-Traditional Practice in the Future

![Future Likelihood of Pursuing Non-Traditional Practice](image)

Figure 61: Barriers to Pursuing Non-Traditional Practice in the Future

![Reported Level of Barriers to RDHs Working Outside Private Practice](image)
**Characteristics of Non-Traditional Practices**

Those providers who reported they currently work in a setting outside the dental office provided information on their non-traditional practice. Compensation for services performed usually comes from their employer (30.6%) or a government payor (33.4%). Almost 17% said they provided services on a volunteer basis.

**Figure 62: Compensation Source for Non-Traditional Practice**
The factors that were most important in their decision to work in a non-traditional setting are personal satisfaction (76.2%) and community service (48.6%). The education providers felt would have been helpful in preparing to work in a non-traditional setting are adaptation of practice to this setting (51.1%) and cultural competency (33.5%).

Figure 63: Factors Influencing Decision to work in a Non-Traditional Practice

![Figure 63: Factors Influencing Decision to work in a Non-Traditional Practice](image)

Figure 64: Educational Preparation Needed for Non-Traditional Practice

![Figure 64: Educational Preparation Needed for Non-Traditional Practice](image)
Those working in this setting most often said they learned of the opportunity though a friend, relative or colleague (34.0%) or through a dentist (18.5%). Finally, of those working in this setting 60% felt it was somewhat difficult or difficult to refer patients to a dentist from the non-traditional setting.

Figure 65: Knowledge of Availability of Non-Traditional Practice Job

![Pie Chart: How First Learned of Availability of Present Job in Non-traditional Setting (n=934)]

- School Placement Office: 7.9%
- Newspaper Ad: 8.3%
- Friend/Relative/Colleague: 34.0%
- Interned at Setting: 18.3%
- Private Dentist: 18.5%
- Placement Office: 6.1%
- Ad in Journal: 2.1%
- Referred from employer: 2.5%
- DH Referral Sources: 1.9%
- Other: 0.7%

Figure 66: Ease of Referral to Dentist from Non-Traditional Practice

![Pie Chart: Ease of Referral to DDS from Non-traditional Practice Site (n=934)]

- Easy: 36.8%
- Somewhat Easy: 20.0%
- Somewhat Difficult: 23.4%
- Difficult: 15.5%
- Not Applicable: 4.8%
For further information, please contact the author:

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