

**GEOGRAPHIC DISTRIBUTION OF DENTISTS IN  
CALIFORNIA  
DENTAL SHORTAGE AREAS, 1998**

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**A REPORT BY THE  
CENTER FOR CALIFORNIA HEALTH WORKFORCE STUDIES  
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## EXECUTIVE SUMMARY

Access to dental services in California is an issue of increasing concern to federal and state policy makers, as demonstrated by both new legislation addressing access to dental care and increased funding for existing programs. Recent research has shown that many Californians do not receive regular dental care. Oral diseases and other oral conditions – tooth decay, gum disease, oral cancer, and tooth loss—are among the most prevalent of all chronic health conditions. Forty-four percent of California adults had no dental insurance in 1995, and those with insurance were twice as likely as those without insurance to have visited a dentist.<sup>1</sup> More than half of all California children--twice the proportion of children in other states--have untreated tooth decay. Twenty-eight percent of California children have no dental insurance--roughly twice the number of children without medical insurance. Nearly half of all preschool children and 12 percent of all high school students have never been to a dentist.<sup>2</sup> These findings are of particular concern because very effective and inexpensive procedures are available that can prevent or ameliorate most oral disease.

One important element of access to care is an adequate local supply of dentists. However, to date, there has not been a comprehensive assessment of the availability and geographic distribution of dentists in California. This report provides information on the numbers and distribution of “active” (i.e. presumed to be practicing) dentists in the state of California. The purpose of this report is to highlight current areas of clear “shortage” where the number of dentists is below the federal level to be considered a Dental Health Professional Shortage Area (DHPSA). Of particular concern are the geographic areas in the state that have very few dentists or no dentists at all.

This assessment is meant to provide a baseline source of data upon which a variety of state, federal or other programs may build future efforts at increasing access to dental services. It also provides a starting point for future research on access to and availability

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<sup>1</sup> (1997) Dental Service Use and Dental Insurance Coverage -- United States Behavioral Risk Factor Surveillance System, 1995 *MMWR Weekly*, 46(50);1199-1203, December 19.

of dental care. Finally it provides an overview of current programs that address the issue of access to dental care.

The supply of dentists in a community may not necessarily equate with access to care for its population because many Californians, especially children and minorities, lack dental insurance or other resources for obtaining dental care. And those with Denti-Cal may have difficulty finding a dentist who accepts Denti-Cal patients. Socioeconomic status, availability of transportation, presence of a fluoridated water system and other factors also affect access to dental care. However, if there are very few or no dentists in a region access to care may be compromised.

*Key Findings:*

- ❖ Of the 487 Medical Service Study Areas (MSSAs) in California, 97 (20%) are currently at or below the federal Health Professional Shortage Area (HPSA) ratio of primary care dentists-to-population of 1:5000.
- ❖ Sixty-six of the 97 shortage MSSAs (68%) are rural, containing 1.06 million people, 3.1 percent of California's population. Thirty-one of the 97 shortage MSSAs (32%) are urban, containing 3.06 million people, 8.9 percent of the state's population.
- ❖ Of the 32 MSSAs that have no dentists, 31 are rural.
- ❖ In both rural and urban MSSAs, the population in shortage MSSAs tends to look different than the population in non-shortage MSSAs. In particular, shortage areas tend to:
  - Have higher minority populations
  - Have lower median incomes
  - Have a higher percentage of children
- ❖ Only 6.2 percent of shortage MSSAs have fluoridated water, compared to 16.2 percent of non-shortage MSSAs.
- ❖ While various programs aimed at increasing access to dental care services exist, very few of them are aimed at placing dentists in underserved areas.

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<sup>2</sup> Pollick HF et al., (1997) *The Oral Health of California's Children: A Neglected Epidemic*, San Rafael, CA: The Dental Health Foundation.

## INTRODUCTION

Access to dental services has become an issue of increasing interest to state policy makers. In recent months, federal and state policy makers have expressed great interest in improving access to dental care services through introduction of new legislation and increasing funding for existing programs.<sup>3</sup> However, little is known about the supply of active dentists in California. This report provides basic information on the numbers, distribution and characteristics of California's dentists.<sup>4</sup>

State health planners have divided California into 487 Medical Service Study Areas (MSSAs). MSSAs are the geographic regions that are used to designate Health Professional Shortage Areas (HPSAs) in California, which are used for National Health Service Corps (NHSC) placements and other programs aimed at improving access to care for underserved populations.

This analysis examines the primary care dentist-to-population ratio for each MSSA, and highlights MSSAs that have shortages of primary care dentists (PCDs).<sup>5</sup> However, the local supply of dentists is only one component of access to dental services. The ratios presented in this report do not indicate which dentists serve low-income persons or those without dental insurance, nor do they indicate how much time the dentist spends in practice or other factors that may limit access.

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<sup>3</sup> Further details on current policy and legislation are presented in Appendix D.

<sup>4</sup> The American Dental Association supplied 1998 data on dentists in California.

<sup>5</sup> For the purposes of this report the term "Primary Care Dentist" refers to general practice and pediatric dentists. These are the categories of dentists that are eligible to be counted when applying for DHPA designation.

## CHARACTERISTICS OF DENTISTS

There are approximately 28,800 licensed dentists in California. Of these, approximately 23,079 (80.1%) are in active practice.<sup>6</sup> The vast majority of active dentists are in general practice (80.6%). Over 60 percent of dentists graduated from dental school in California; less than one percent of dentists graduated from foreign dental schools.

**Table 1: Active Dentists in California by Specialty and Gender**

	Total	Male		Female	
		Number	Percent	Number	Percent
<b>General Practice</b>	18,611	15,079	81.0%	3,532	19.0%
<b>Orthodontics</b>	1,215	1,081	89.0%	134	11.0%
<b>Oral Surgery</b>	703	678	96.4%	25	3.6%
<b>Periodontics</b>	657	566	86.1%	91	13.9%
<b>Pediatric Dentistry</b>	492	390	79.3%	102	20.7%
<b>Endodontics</b>	507	463	91.3%	44	8.7%
<b>Prosthodontics</b>	412	382	92.7%	30	7.3%
<b>Public Health</b>	88	70	79.5%	18	20.5%
<b>Oral Pathology</b>	35	30	85.7%	5	14.3%
<b>Total</b>	22,720	18,739	82.5%	3,981	17.5%

*Missing=359*

*Source: ADA, 1998*

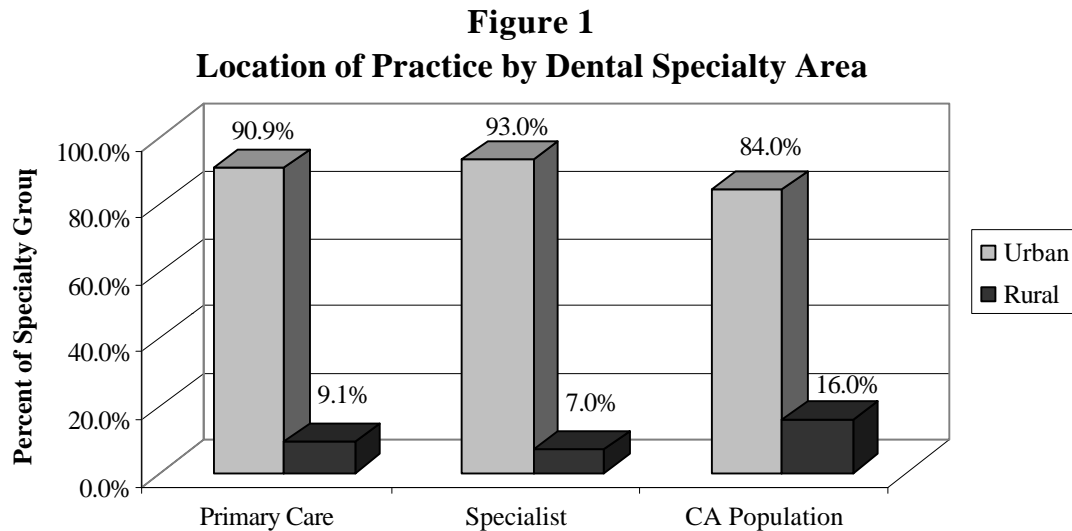
Most dentists practice in urban areas of the state. Overall, 91.2 percent of dentists practice in an urban area, while 84.0 percent of the population resides in an urban area. Primary care dentists (PCDs) are slightly more likely to practice in rural areas (9.1%) compared to specialists (7.0%), shown in Figure 1.<sup>7</sup> Public health dentists and oral

<sup>6</sup> The demographics describe the characteristics of ALL active dentists in California.

<sup>7</sup> An MSSA is rural if: 1) the population density is 250 persons per square mile or less, 2) the area does not contain a significant portion of an incorporated city with a total population of greater than 50,000 (the definition of “significant portion” is being developed), and 3) the MSSA meets the population density requirement but contains a significant portion of a city over 50,000. In such cases, the California Health Manpower Commission (CHMPC) can override based on their judgment and designate rural. (There are seven of these special designations.)



pathologists are not included as they are generally not in direct patient care, and are only a small fraction of all dentists.



*Source: ADA, 1998 & OSHPD, 1998*

Dentistry in California is primarily a male profession. Only 18 percent of dentists in California are women. However, while only 11 percent of dentists age 40 and over are women, 34 percent of dentists under 40 are women, resulting from a higher percentage of female graduates in recent years. The average age of a practicing dentist in California is 48. This differs significantly by gender; the average age of a male dentist is 50, while the average age of a female dentist is 40.

Race/ethnicity reporting is incomplete overall, but reporting is more complete the younger the dentist. Approximately 41 percent of dentists age 65 and over did not report race; however for dentists under the age of 40 only 13 percent did not report race. The data show that for dentists in their 20s and 30s who report race/ethnicity, 51.8 percent are white, 40.6 percent are Asian, 5.8 percent are Hispanic, 1.7 percent are African-American, and 0.2

percent are Native American. Hispanics and African-Americans are especially underrepresented among California dentists; Hispanics and African-Americans comprise 30 percent and 7 percent respectively, of the overall California population.<sup>8</sup>

## **DENTAL SHORTAGE AREAS**

### *Terms and Definitions*

This analysis examines primary care dentist-to-population ratios by Medical Service Study Areas (MSSAs). An MSSA is a rational service area used by state agencies such as the Office of Statewide Health Planning and Development (OSHPD) for the administration of various programs, notably for federal Health Professional Shortage Area (HPSA) designations. These areas are aggregates of census tracts. They are designated by the California Health Manpower Policy Commission (CHMPC), and are considered rational service areas for health professions analysis and programs. In 1998 there were 487 MSSAs in the state. MSSAs were originally created for state programs focusing on primary care physicians. They take into account natural rational service boundaries such as rivers and lakes, and demographic boundaries such as population, income, and neighborhoods. MSSAs may also be relevant service areas for PCDs, as the number of active dentists in the state is approximately equal to the number of primary care physicians in the state. However, there may be other factors that limit the relevance of MSSAs to PCDs. For example, the presence of a fluoridated community water supply is known to affect the number of patients that can be maintained by a dental practice.

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<sup>8</sup> State of California, Department of Finance, *County Projections with Race/Ethnic Detail*. Sacramento, CA: June 1999. <http://www.dof.ca.gov/html/Demograp/druhpar.htm>

As well, the average number of active patients in a primary care medical practice is typically greater than that of an average primary care dental practice. The Bureau of Primary Care has minimum standards for Community Health Clinics (CHC's) for visits by physicians at 4200 per year and for dentists at 2300 per year.

Dental Health Professional Shortage Areas (DHPSAs) are areas of dental workforce shortage, based primarily on the availability of dentists. There are two kinds of DHPSAs, geographic and special population.<sup>9</sup> To qualify as a geographic DHPSA a region must:

- 1) Be a rational service area for the delivery of dental services (e.g. MSSA) with a population-to-full time equivalent (FTE) ratio of at least 5000:1. The area may also have a population-to-FTE dentist ratio of less than 5000:1 but greater than 4000:1 with unusually high needs or insufficient capacity of existing providers. It should be noted that if the majority of an area's population does not have a fluoridated water supply, it is considered as having unusually high needs.
- 2) The area must demonstrate that its adjoining or contiguous areas are over-utilized, excessively distant, or inaccessible to the population of the area under consideration. If the possibility of qualifying as a geographic DHPSA is ruled out, a region may still be able to qualify as a special population DHPSA.

To qualify as a special population DHPSA an area must:

- 1) be a rational service area for the delivery of dental services,
- 2) have a full time equivalent (FTE) dentist-to-special population ratio of at least 1:4000, and

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<sup>9</sup> Facilities such as prisons may also be designated as DHPSAs, but our work does not address this type of designation.

- 3) demonstrate that the special population in the area experiences significant barriers to obtaining dental care.<sup>10</sup> These “special populations” tend to be low-income, poverty or migrant populations in a particular region.

The benefits of either type of DHPSA designation are personnel placement through the National Health Service Corps (NHSC), and funding preferences for General Practice Dentistry Residency (GPR) programs that place graduates in shortage areas. The federal scholarship program for dentists was discontinued, but is being re-implemented in 1999 on a limited basis. Designation is not automatic -- a region must apply, which requires going through a series of steps to determine qualification. Once designated, DHPSAs are nationally ranked to determine areas of ‘greatest need.’ This ranking along with a site ranking are used by the NHSC to prioritize placement of federal scholarship and loan repayment assignments. The state loan repayment program does not use the “greatest need” criteria, and has more flexibility in placing program participants in the DHPSA site of their choice.

This study simulates the DHPSA designation process in a simplified manner by estimating the current dentist-to-population ratio in each MSSA. In this way we have determined the number of MSSAs that could potentially qualify for DHPSA designation. Criteria other than the dentist-to-population ratio (e.g., dental resources in adjacent areas) that factor into formal DHPSA designation determination are not evaluated in this report. Also, DHPSA designation is based on the number of FTE dentists, which can be affected

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<sup>10</sup> US Bureau of Primary Health Care (1995) *Dental HPSA Guidebook, National Health Service Corps*. US Department of Health and Human Services, August.

by the dentist's age and the number of auxiliary personnel employed, and our data do not permit such analysis. However, additional data are provided on existing DHPSA designations and fluoridation status of the 487 MSSAs.<sup>11</sup>

#### *Primary Care Dentist-to-Population Ratio Levels*

Federal guidelines for DHPSA designation specify that only primary care dentists (general practice and pediatric dentists) may be counted in a geographic area when computing the dentist-to-population ratio.<sup>12</sup> Approximately 83 percent of practicing dentists are either general practitioners or pediatric dentists. Based on counts of only primary care dentists, there are 97 shortage MSSAs in California. Thirty-one of the shortage MSSAs (32%) are urban and 66 of the shortage MSSAs (68%) are rural.

An additional 24 MSSAs fall in the range between 1:5000 and 1:4000 (1.25:5000) primary care dentist-to-population, and could be considered for a special population designation. A summary of the number of MSSAs at each primary care dentist-to-population level appears in Table 2. A full list of MSSAs and corresponding primary care dentist-to-population ratio level is provided in Appendix C.

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<sup>11</sup> The Office of Statewide Health Planning and Development (OSHPD) provided data on existing designations, and information on fluoridated water was provided by the California Department of Health Services, Office of Dental Health Services.

<sup>12</sup> For a special population designation all dentists may be counted, but qualification for a geographic designation must be ruled out first. This first qualification as a geographic designation is what this analysis is based on.

**Table 2: Number of MSSAs at Each Primary Care Dentist-to-Population Ratio Level**

Dentist Supply Level (Dentists per 5000 Pop.)	Urban	Rural	Total
Shortage (0-1)	31	66	97
Special Shortage (1-1.25)	13	11	24
Low (1.25-3)	107	96	203
Medium (3-5)	89	33	122
High (5+)	36	5	41
<b>Total</b>	<b>276</b>	<b>211</b>	<b>487</b>

*Current Designations*

Currently, 83 MSSAs are designated as either geographic or special population DHPSAs. Of the 97 MSSAs that we found to be at shortage level, only 36 (37.1%) are currently designated. The remaining 47 MSSAs that are currently designated we did not find to be at an overall shortage level.

**Table 3: Current DHPSA Designations and Shortage Areas**

	DHPSA Designations	Shortage Level MSSAs	Shortage Level MSSAs Currently Designated
Urban MSSAs (n=276)	33	31	14 (45.2%)
Rural MSSAs (n=211)	50	66	22 (33.3%)
<b>Total (n=487)</b>	<b>83</b>	<b>97</b>	<b>36 (37.1%)</b>

MSSAs at shortage level may not be officially designated as a DHPSA because the DHPSA designation is not automatic. A community must go through a lengthy application process to become designated. As well, some MSSAs may be designated as a DHPSA although we find them to have an adequate number of primary care dentists. This could be for a number of reasons. First, our counts are estimates that assume each dentist in an area to be one FTE. If the dentists in a region are not practicing full time the area may be at shortage level and qualify for a DHPSA designation. Second, many of the

designations are for special populations; while our counts estimate the total number of dentists in an area, some areas have access problems for specific populations such as low income persons, Medi-Cal recipients or migrant farmworkers. Third, DHPSA designations are only re-evaluated after three years. Areas previously designated may have acquired new dentists and no longer have a shortage of primary care dentists. Finally, errors in accurately enumerating dentists in either the DHPSA process or our own data files may result in conflicting assessment of shortage status.

*Urban and Rural Characteristics*

The mean primary care dentist-to-population ratio for urban MSSAs is 3.1 dentists per 5000 population. The ratio is much smaller in rural MSSAs -- only 1.8 dentists per 5000 population. A higher percentage of rural MSSAs are at shortage level than urban MSSAs -- 31.3 percent vs. 11.2 percent, respectively. However, three-quarters of the 4.1 million people that reside in dental shortage MSSAs are in urban areas. This is due to the greater population in urban MSSAs, the average population of a rural MSSA being only one-quarter of that in an urban MSSA.

**Table 4: Urban and Rural MSSA Characteristics**

<b>MSSA</b>	<b>Number of MSSAs</b>	<b>Mean Population of MSSA</b>	<b>Mean # of Primary care Dentists per 5000 population</b>	<b>Number and Percent of MSSAs at “Shortage” Level (&lt;1/5000)</b>
<b>Urban</b>	276	104,594	3.1	31 (11.2%)
<b>Rural</b>	211	27,088	1.8	66 (31.3%)

A comparison of the population within MSSAs shows that the mean population of urban shortage and urban non-shortage MSSAs is very similar (Table 5). In rural areas however, the mean population of shortage MSSAs is only half the mean population of non-shortage areas, indicating that the rural shortage MSSAs are generally more sparsely populated than rural non-shortage MSSAs.

**Table 5: Mean and Total Population of MSSAs by Rural and Shortage Status**

	Urban		Rural	
	Mean	Total (%)	Mean	Total (%)
<b>Shortage MSSAs</b>	98,772	3,061,957 (11%)	16,092	1,062,057 (20%)
<b>Non-Shortage MSSAs</b>	105,331	25,806,119 (89%)	32,094	4,653,617 (80%)

*Shortage Medical Service Study Areas (MSSAs)*

The characteristics of the populations of shortage areas differ from those in non-shortage areas for both urban and rural MSSAs. Shortage areas tend to have higher proportions of

**Table 6: Population Characteristics of Urban and Rural Shortage and Non-Shortage MSSAs**

	Urban MSSAs		Rural MSSAs	
	Shortage	Non-Shortage	Shortage	Non-Shortage
<b>Mean Ratio of PCDs: 5000 Pop.</b>	0.6	3.4	0.3	2.5
<b>Mean Percent African-American</b>	29%	5%	2%	2%
<b>Mean Percent Hispanic</b>	49%	25%	31%	21%
<b>Mean Percent Asian</b>	12%	13%	1%	2%
<b>Mean Percent Native American</b>	1%	0.9%	7%	4%
<b>Mean Percent Children (0-17)</b>	35%	27%	29%	28%
<b>Mean Percent Elderly (65+)</b>	8%	11%	13%	14%
<b>Mean Median Household Income</b>	\$38,765	\$54,232	\$29,824	\$32,593
<b>Mean Percent Low Income Households (\$25,000 or less annually)</b>	40%	27%	47%	43%



Hispanic and African-American residents and lower economic status, especially in the urban shortage areas. Shortage areas also tend to have a higher percentage of children than non-shortage areas. Rural shortage MSSAs have the lowest mean dentist-to-population ratio. Of the 32 MSSAs that have no dentists, 31 are rural.

### *Additional Information*

There are many factors that may affect access to dental services. One issue of importance, especially in rural California, is the presence of a public dental clinic. There are currently 175 MSSAs that contain at least one community clinic (including but not limited to Federally Qualified Health Centers) providing dental services. These MSSAs tend to be low income; of low income MSSAs, 47.5 percent have a clinic, while of high income MSSAs only 26.2 percent have a clinic.<sup>13</sup> Of the 97 shortage MSSAs, 29 (29.9%) have a dental clinic. Urban shortage MSSAs are more likely to have a dental clinic (41.9%) than rural shortage MSSAs (24.2%).

“Community water fluoridation remains the most effective, practical and least expensive method available for dental caries prevention...”<sup>14</sup> Unfortunately, very few communities in California are fluoridated. Of the 487 MSSAs, only 69 are served by water systems that fluoridate at the time of this analysis.<sup>15</sup> Of the 69 fluoridated MSSAs, 80 percent are urban, 20 percent are rural; only 6 are considered shortage MSSAs. This means that only 6.2

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<sup>13</sup> The lowest tercile of MSSAs according to median income.

<sup>14</sup> Gift, Helen C. and others (1996) “*The State of the Nation’s Oral Health: Mid-decade Assessment of Healthy People 2000*,” *Journal of Public Health Dentistry*, 56(2):84-91, Spring.

<sup>15</sup> Fluoridated Communities with Adjusted Water Systems in California, 1990. California Department of Health Services, Office of Dental Health Services, Community Water Fluoridation Project

percent of shortage MSSAs have fluoridated water, compared to 16.2 percent of non-shortage MSSAs. Because absence of a fluoridated water supply can qualify an area for a federal special population shortage area designation, which uses a PCD-to-population ratio of 1:4000 as its criterion, we have included those areas on the maps in Appendix B.

## **CURRENT PROGRAMS, POLICY AND LEGISLATION**

Access to dental services, or lack thereof, is an issue that is receiving increasing attention. New legislation dealing with this issue has been recently introduced both in California and at the federal level. Recent court actions have prompted the state's Medi-Cal dental program ("Denti-Cal") to initiate special projects to increase dental access for those individuals eligible for the program. The state's Child Health and Disability Prevention program, a health screening program for low-income children from 0 to 18 years of age, (0-20 for Medi-Cal eligible children) continues to find dental disease one of the most prevalent problems in this population. And the state's Healthy Families program, a health insurance program for low-income children, needs to be able to find dental providers in rural areas who would be able to serve potentially eligible children. A more detailed description of the current programs and policies in California aimed at increasing access to dental services is in Appendix D.

## CONCLUSION

This report has provided information on the numbers and distribution of practicing dentists in the state of California. It has highlighted areas of clear “shortage” where the number of dentists is below the federal level to be considered a Dental Health Professional Shortage Area. While the presence of dentists in a region may not necessarily equate with access to care for a community’s population, if there are very few or no dentists in a community, access to care may be compromised. What is clear is that while there are a variety of programs aimed at addressing the issue of access to dental care, the data clearly show that there is an inequitable geographic distribution of dentists in the state. Highlights include:

- Twenty percent of the state’s MSSAs containing 12 percent of the state’s population may have problems with geographic access to dental health services.
- Dental professional shortages are both an urban and rural problem, with 11.2 percent of urban MSSAs and 31.3 percent of rural MSSAs at shortage level.
- Communities with a shortage of dental professionals tend to have a higher percentage of minority and/or low income persons.
- There are both state and federal programs aimed at placing dental health professionals in underserved areas. However, in 1998 there were only two dentists serving through the state program and 18 dentists serving through the federal program.

### *Recommendations*

- Increasing the supply of dentists in underserved areas will require focused efforts at many levels. Issues that need to be addressed are diversity in the dental workforce, the disproportionately low supply of dentists serving poor and minority populations, the availability of dental services in community clinics, and the lack of fluoridated water supplies.
- While this report deals mainly with the supply side issues of access to dental care services, demand affects access as well. The prevalence of dental insurance coverage, the use of dental auxiliaries, and teledentistry are also important factors in the overall equation. While this report has laid the groundwork, more research is needed on current access to dental care in California and the options for increasing that access.
- Many MSSAs qualify for a DHPSA designation but are not designated. The state should make efforts to develop an easy and efficient process for DHPSA designation, to inform potentially qualified areas of their options, and to provide technical assistance in applying for a DHPSA designation and NHSC placements.
- Given the lack of information on access to dental care, research on access to other health professionals, physicians in particular, may yield some clues as to strategies that may work for increasing access to dental care services.<sup>16</sup> It has been suggested that a comprehensive strategy aiming at all phases of dental education and practice may be the key to success.

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<sup>16</sup> Grumbach, K Coffman, J Liu, R and Mertz, E (1999) *Strategies for Increasing Physician Supply in Medically Underserved Communities in California*. Berkeley, CA: California Policy Research Center, University of California.

**APPENDIX A**  
**METHODOLOGY**

Data for this project derived from four sources. The American Dental Association (ADA) supplied data on the number and characteristics of dentists in California. The Office of Statewide Health Planning and Development (OSHPD) supplied data on the Medical Service Study Areas (MSSAs) and community clinics that provide dental services. Current demographic information is supplied by R.L. Polk, and was extracted by census tract using TargetPro from MapInfo Corporation. Fluoridation information was supplied by the California Department of Health Services, Office of Dental Health Services.

The ADA data contained an address for each dentist, mostly practice addresses, which were used to pinpoint each dentist to a census tract (For a small number of dentists without a practice address we used home address to geocode their location of practice). We used the OSHPD file to merge the census tract information into MSSA level data. The data on dentists and population were then used to compute ratios of the number of dentists per 5000 population by MSSA.

There is no information available on the number of hours each dentist works; for this analysis each active dentist in California was counted as one Full Time Equivalent (FTE) which may overestimate the workforce actually available. Only general practice and pediatric dentists were counted when computing dentist-to-population ratios. The designation criteria for DHPSA status allow only for primary care dentists (general practice and pediatric dentists) to be counted and this analysis is consistent with those requirements.

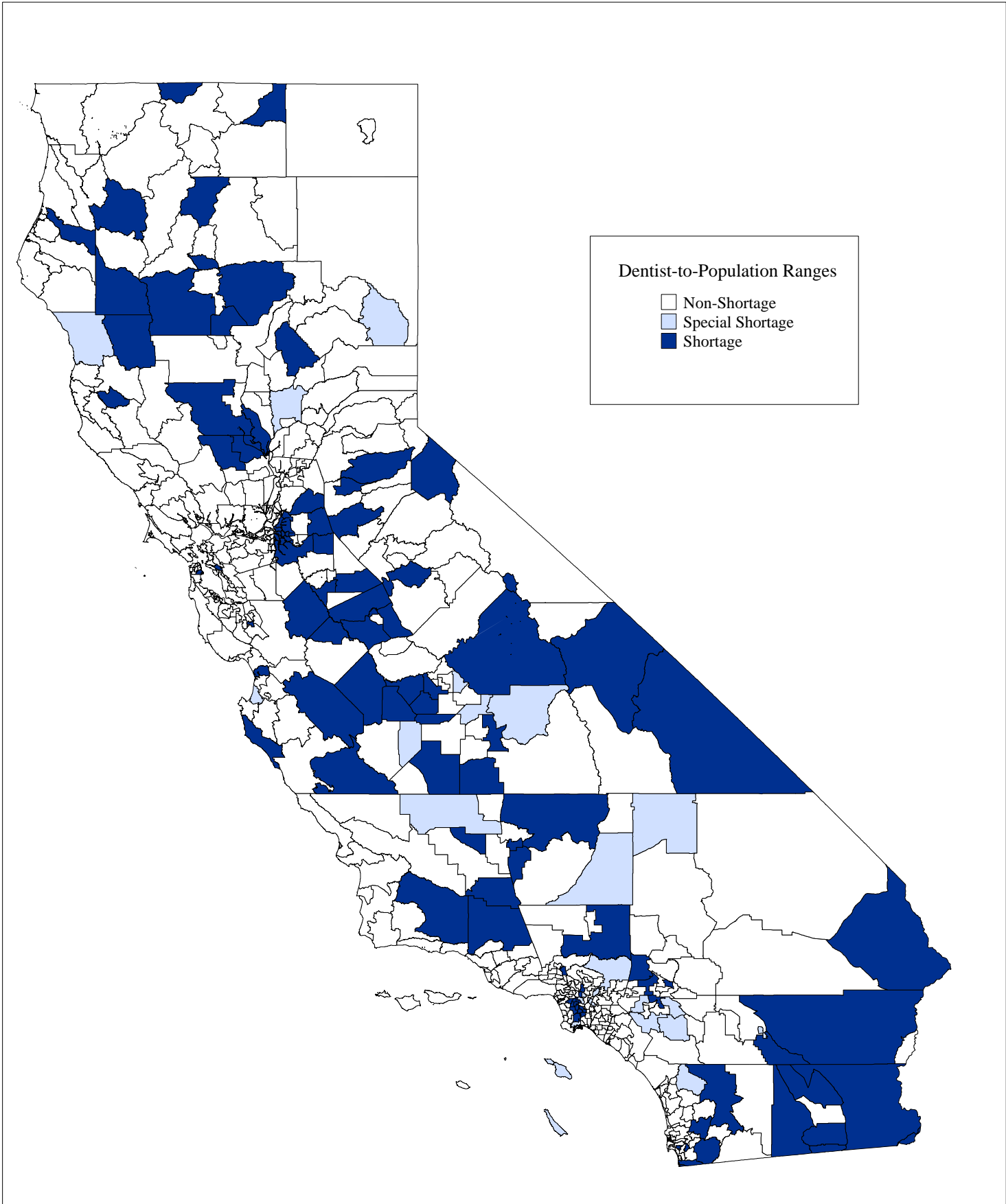
**APPENDIX B**

**DENTAL SHORTAGE AREA MAPS**

# Map 1

## MSSAs with a Shortage of Primary Care Dentists

### California, 1998



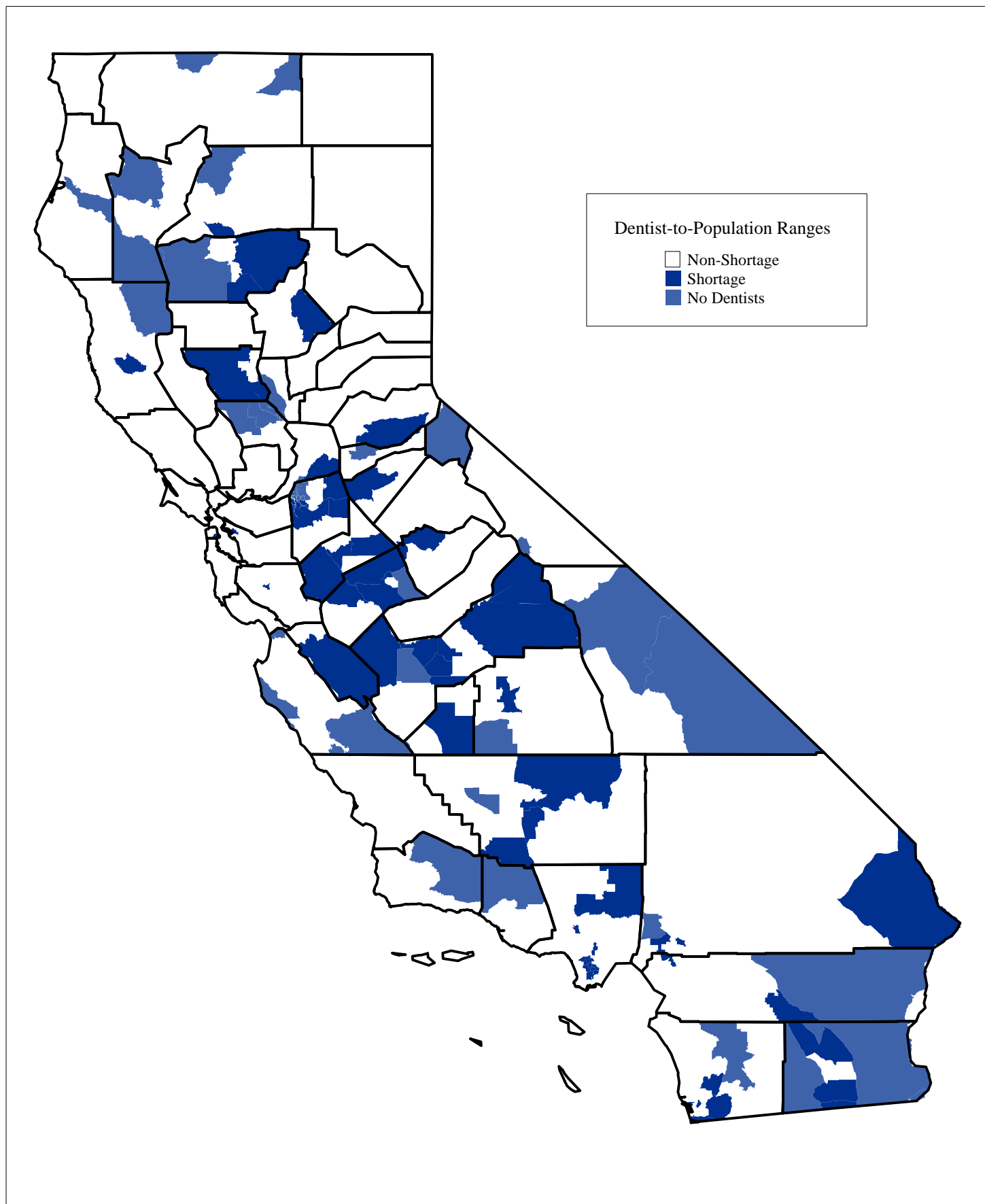
Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)



# Map 2

## MSSAs with a Shortage of Primary Care Dentists

### California Counties, 1998

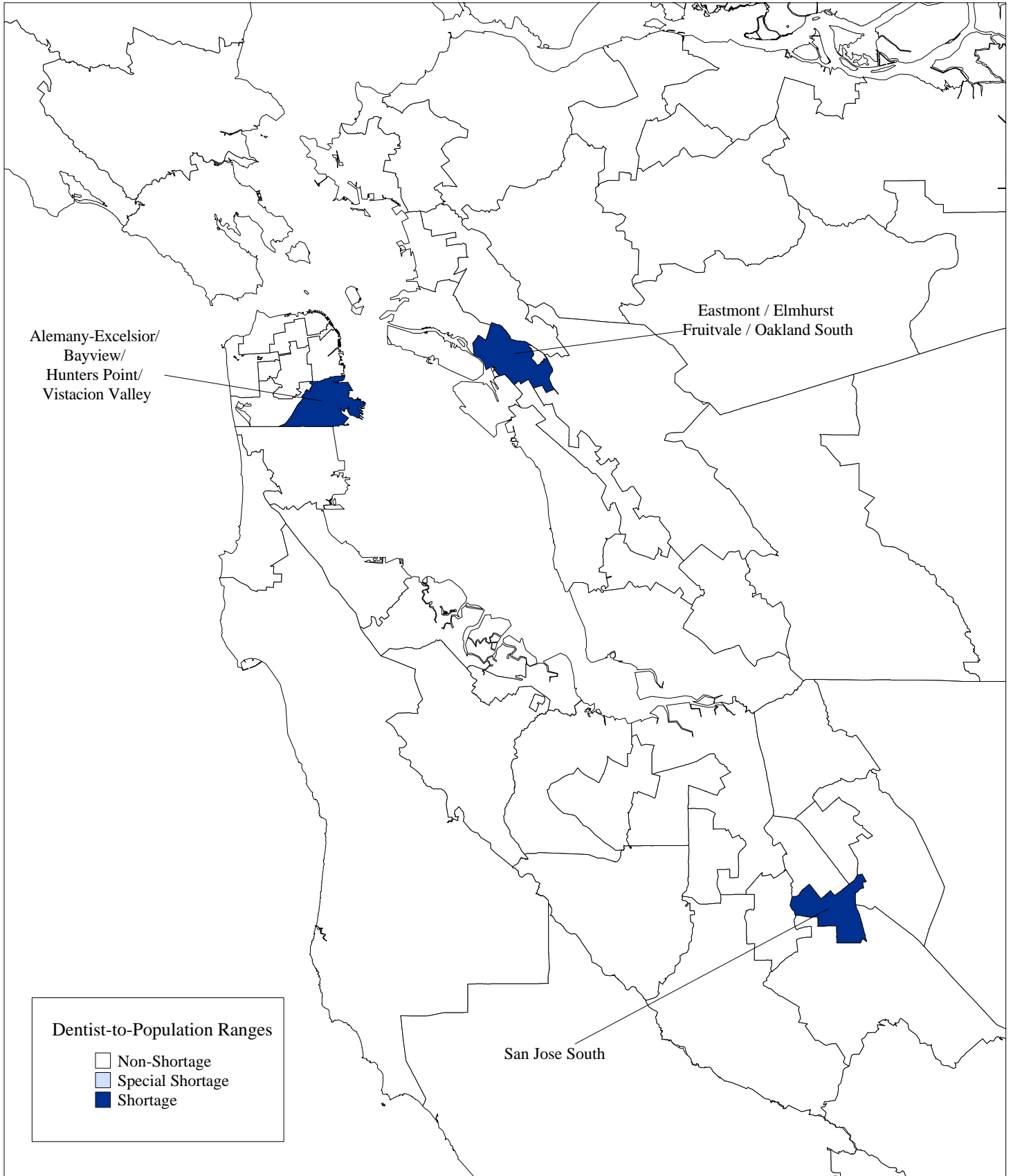


Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)

# Map 3

## MSSAs with a Shortage of Primary Care Dentists

### San Francisco Bay Area, 1998

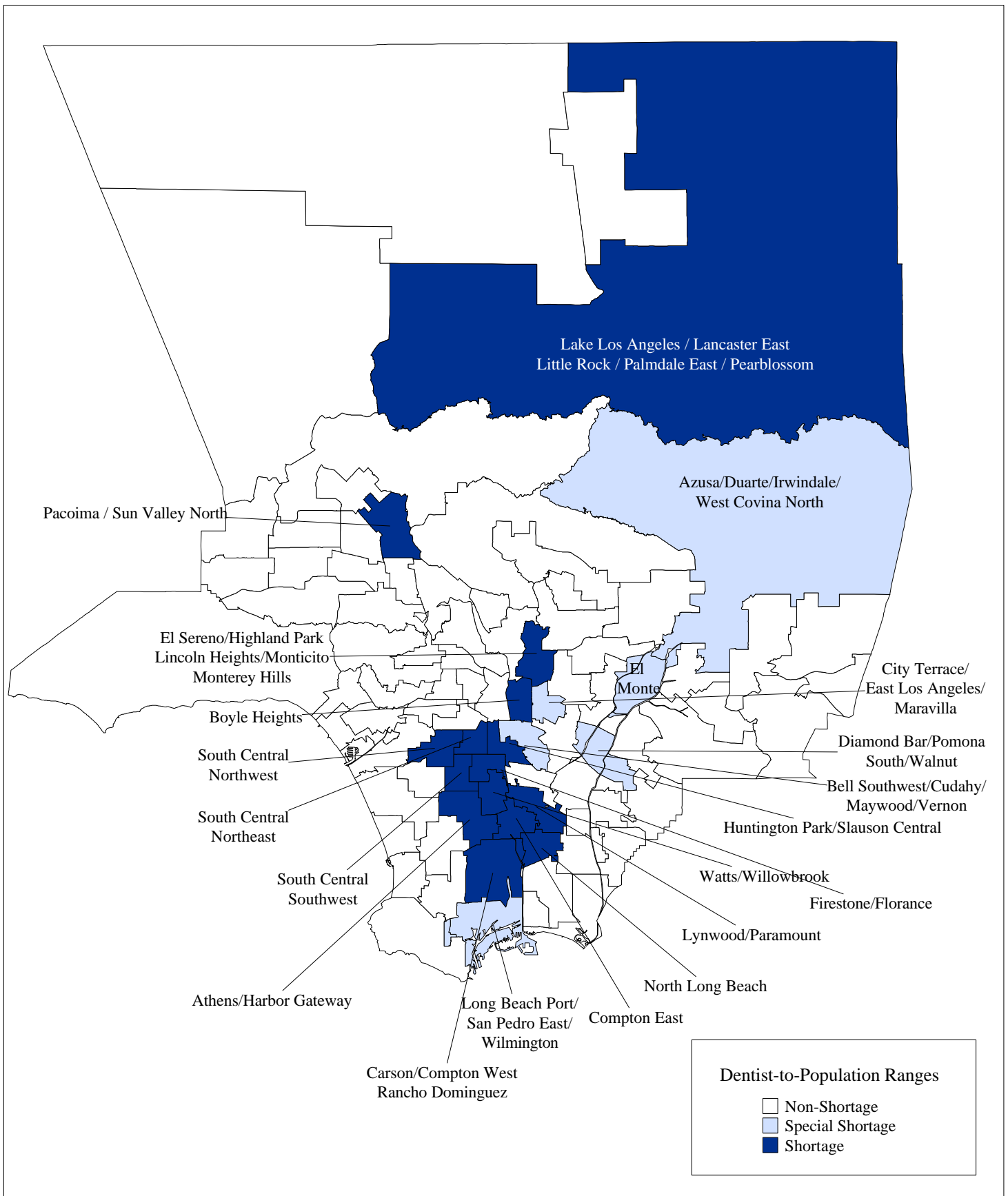


Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)

# Map 4

## MSSAs with a Shortage of Primary Care Dentists

### Los Angeles County, 1998

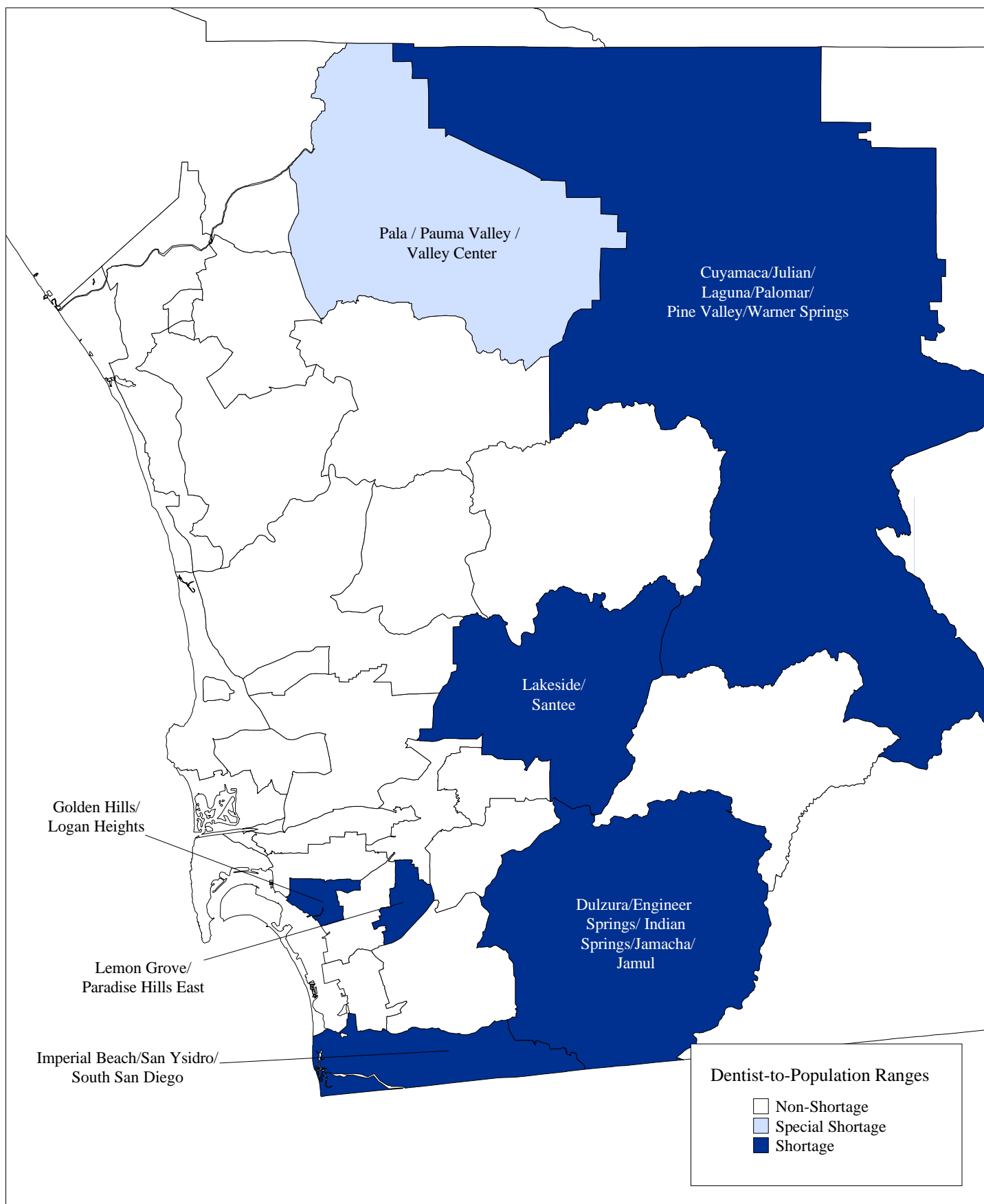


Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)

# Map 5

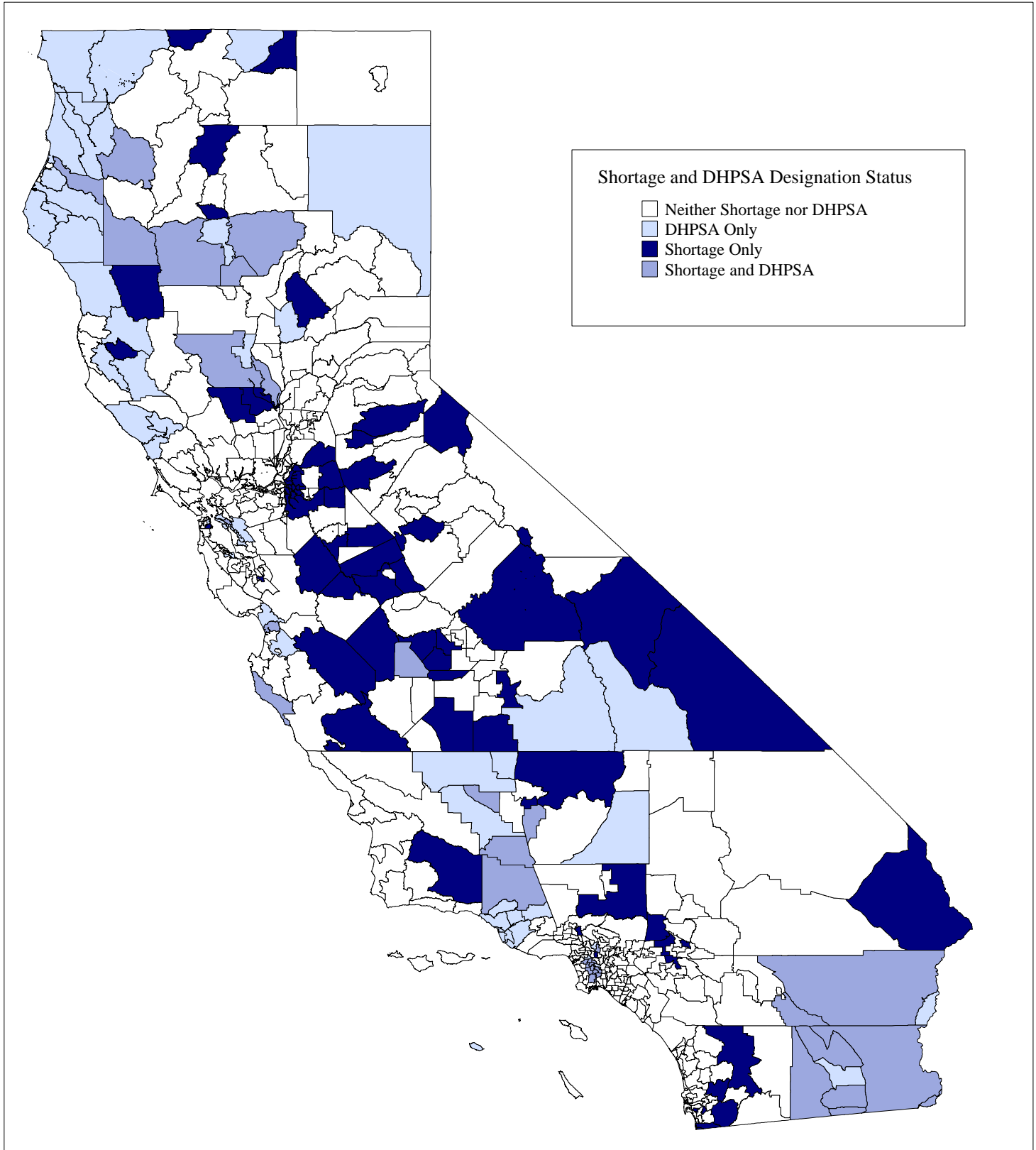
## MSSAs with a Shortage of Primary Care Dentists

### San Diego County, 1998



Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)

Map 6  
MSSAs with a Shortage of Primary Care Dentists and Dental  
Health Professional Shortage Areas as currently designated  
by the Federal Division of Shortage Designations  
California, 1998



Sources: ADA (1998), OSHPD (1998), MapInfoDATA (1998)

**APPENDIX C**

**LIST OF MSSAs BY DENTIST-TO-POPULATION LEVEL**

The following list of Medical Service Study Areas (MSSAs) is in rank order by primary care dentist-to-population ratio, from the lowest ratio to the highest ratio. The list also includes the county of the MSSA, urban/rural classification, whether the MSSA is currently designated a Dental Health Professional Shortage Area (DHPSA) and whether the water sources are fluoridated. The ratios are estimates based on American Dental Association 1998 data and 1998 population projections. While they are in rank order, actual ratios are not reported, rather the range in which the ratio falls is reported. MSSAs are classified as shortage or special based on the criteria used for designating DHPSAs.

Primary Care Dentist-to-Population Ranges are as follows:

- Shortage\*** = No Dentists
- Shortage** = (0:5000 - 1:5000)
- Special** = (1:5000 - 1.25:5000)
- Low** = (1.25:5000 - 3:5000)
- Medium** = (3:5000 - 5:5000)
- High** = (5:5000 - 18:5000)

DHPSA Special Designation Types:

- DC** = Denti-Cal Eligible Population
- LI** = Low Income Population
- LI/MFW** = Low Income / Migrant Farm Worker Population
- MC** = Medi-Cal Eligible Population
- M/LI** = Migrant /Low Income Population
- P** = Poverty Population

RANK	MSSA NUM.	MSSA NAME	DENTIST LEVEL	COUNTY	URBAN/RURAL	DHPSA DESIGNATION	FLUOR. WATER
1.	3	Markleeville	Shortage*	Alpine	Rural	No	No
2.	5	Sutter Creek-Plymouth	Shortage*	Amador	Rural	No	No
3.	26	San Joaquin-Tranquility	Shortage*	Fresno	Rural	Yes	No
4.	40	Area around Arcata, not in the city of Arcata	Shortage*	Humboldt	Rural	Yes (LI)	No
5.	46	Winterhaven-Bard	Shortage*	Imperial	Rural	Yes (MC)	No
6.	47	East Imperial	Shortage*	Imperial	Rural	Yes	No
7.	52	West Imperial	Shortage*	Imperial	Rural	Yes	No
8.	54	Independence	Shortage*	Inyo	Rural	No	No
9.	56	Death Valley	Shortage*	Inyo	Rural	No	No
10.	59	Buttonwillow	Shortage*	Kern	Rural	Yes	No
11.	92	Covelo	Shortage*	Mendocino	Rural	No	No
12.	97 c	Planada/LeGrand	Shortage*	Merced	Rural	No	No
13.	101.2	Tule Lake	Shortage*	Siskiyou	Rural	No	No
14.	103	Mono South, Mammoth Lakes	Shortage*	Mono	Rural	No	No
15.	104	Coastal, Big Sur, Lucial	Shortage*	Monterey	Rural	Yes	No
16.	106	San Ardo	Shortage*	Monterey	Rural	No	No
17.	127	Chiriaco Summit/Desert Center/Eagle Mountain	Shortage*	Riverside	Rural	Yes	No
18.	148	Lytle Creek/Wrightwood	Shortage*	San Bernardino	Rural	No	No
19.	154	Cuyamaca/Julian/Laguna/Palomar/Pine Valley	Shortage*	San Diego	Rural	No	No
20.	168	Thornton	Shortage*	San Joaquin	Rural	No	No
21.	177	Cuyama	Shortage*	Santa Barbara	Rural	No	No
22.	184.2	Pajaro	Shortage*	Monterey	Urban	Yes	No

Dentist-to-population ranges are estimates from ADA data. For the purpose of HPSA designation, actual supply of dentists must be confirmed at the local community level.

<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
23.	187	Sacramento Canyon, Castella, Lakehead, O'Brien	Shortage*	Shasta	Rural	No	No
24.	196	Hornbrook-Hilt	Shortage*	Siskiyou	Rural	No	No
25.	216	Meridian-Robbins	Shortage*	Sutter	Rural	Yes	No
26.	219	West Tehama	Shortage*	Tehama	Rural	Yes (P)	No
27.	223	Lower Trinity, Helena, Salyer	Shortage*	Trinity	Rural	Yes	No
28.	226	Mad River, Ruth, Zenia	Shortage*	Trinity	Rural	Yes	No
29.	230	Earlimart, Pixley, Tipton	Shortage*	Tulare	Rural	No	No
30.	237	Los Padres	Shortage*	Ventura	Rural	Yes (LJ/MFW)	No
31.	243	Esparto	Shortage*	Yolo	Rural	No	No
32.	246.2	Knights Landing	Shortage*	Yolo	Rural	No	No
33.	57.1	Southern portion of Westside, Frazier Park	Shortage	Kern	Rural	Yes	No
34.	11	Feather Falls	Shortage	Butte	Rural	No	No
35.	84	Coulterville	Shortage	Mariposa	Rural	No	No
36.	141	San Benito-Bitterwater	Shortage	San Benito	Rural	No	No
37.	93.2	Redwood-Potter	Shortage	Mendocino	Rural	No	No
38.	35 e	Calwa/Easton/Edison/Malaga	Shortage	Fresno	Urban	No	No
39.	78.2 aaa	Watts/Willowbrook	Shortage	Los Angeles	Urban	Yes	No
40.	25	Firebaugh/Mendota	Shortage	Fresno	Rural	No	No
41.	78.2 s	South Central Southwest	Shortage	Los Angeles	Urban	Yes	No
42.	78.2 fff	Firestone/Florance	Shortage	Los Angeles	Urban	Yes	No
43.	97 b	Southwest Merced	Shortage	Merced	Urban	No	Yes
44.	143	Big River/Needles	Shortage	San Bernardino	Rural	No	No
45.	78.2 k	South Central Northwest	Shortage	Los Angeles	Urban	Yes	No
46.	161.1	Lemon Grove/Paradise Hills East	Shortage	San Diego	Urban	No	No
47.	78.2 ggg	South Central Northeast	Shortage	Los Angeles	Urban	Yes	No
48.	128	Arabia/Desert Beach/Flowing Wells/Mecca/Thermal	Shortage	Riverside	Rural	Yes	No
49.	63	Lake Isabella	Shortage	Kern	Rural	No	No
50.	78.2 ppp	Pacoima/Sun Valley North	Shortage	Los Angeles	Urban	No	No
51.	96	Atwater, Hilmar-Irwin, Livingston-Delhi, Snelling	Shortage	Merced	Rural	No	No
52.	29	Kerman	Shortage	Fresno	Rural	No	No
53.	232	Springville-Johnsondale	Shortage	Tulare	Rural	No	No
54.	49	Calexico	Shortage	Imperial	Rural	Yes	No
55.	169 b	Stockton East and South	Shortage	San Joaquin	Urban	No	No
56.	2 d	Eastmont/Elmhurst/Fruitvale/Oakland South	Shortage	Alameda	Urban	Yes	No
57.	68	Corcoran	Shortage	Kings	Rural	No	No
58.	69.1	Laton/Riverdale	Shortage	Fresno	Rural	No	No
59.	165	Linden-Farmington	Shortage	San Joaquin	Rural	No	No
60.	77 a	Lake Los Angeles/Lancaster East/Little Rock/Palmdale East	Shortage	Los Angeles	Urban	No	No
61.	78.2 uuu	Athens/Harbor Gateway	Shortage	Los Angeles	Urban	Yes	No
62.	214	Hughson	Shortage	Stanislaus	Rural	No	No
63.	136	Galt	Shortage	Sacramento	Rural	No	No
64.	78.2 h	Boyle Heights	Shortage	Los Angeles	Urban	No	No

Dentist-to-population ranges are estimates from ADA data. For the purpose of HPSA designation, actual supply of dentists must be confirmed at the local community level.



<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/ RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
65.	51	Northwestern portion of Calipatria, Westmorland, Westmorland	Shortage	Imperial	Rural	Yes	No
66.	66 b	Bakersfield East/Lakeview/LaLoma	Shortage	Kern	Urban	No	No
67.	135 a	Eastside/Fairmont Park/Riverside Downtown/Rubidoux/	Shortage	Riverside	Urban	No	No
68.	94	Gustine	Shortage	Merced	Rural	No	No
69.	78.2 000	Lynwood/Paramount	Shortage	Los Angeles	Urban	Yes	No
70.	161 j	Imperial Beach/San Ysidro/South San Diego	Shortage	San Diego	Urban	No	No
71.	78.2 bbb	Compton East	Shortage	Los Angeles	Urban	Yes	No
72.	151 e	Fontana West/Rancho Cucamonga East/Rialto North	Shortage	San Bernardino	Urban	No	No
73.	189.1	Southern portion of Redding-Anderson, Anderson, Cottonwood	Shortage	Shasta	Rural	No	No
74.	32	Academy/Auberry/Huntington Lake/Squaw Valley/etc.	Shortage	Fresno	Rural	No	No
75.	23.2	Pollock Pines/Echo Summit	Shortage	El Dorado	Rural	No	No
76.	118.2	Donner Summit	Shortage	Placer	Rural	No	No
77.	215 c	Ceres	Shortage	Stanislaus	Urban	No	No
78.	228	Exeter, Ivanhoe, Lindsay	Shortage	Tulare	Rural	No	No
79.	161 c	Golden Hills/Logan Heights	Shortage	San Diego	Urban	No	No
80.	167	Lockeford	Shortage	San Joaquin	Rural	No	No
81.	61	Arvin-Lamont	Shortage	Kern	Rural	Yes(MC)	No
82.	213	Newman	Shortage	Stanislaus	Rural	No	No
83.	30	Caruthers-Raisin City	Shortage	Fresno	Rural	No	No
84.	78.2 I	El Sereno/Highland Park/Lincoln Heights/Montecito/	Shortage	Los Angeles	Urban	Yes	No
85.	13	San Andreas	Shortage	Calaveras	Rural	No	No
86.	157	Dulzura/Engineer Springs/Indian Springs/Jamacha/Jamul	Shortage	San Diego	Rural	No	No
87.	161 m	Lakeside/Santee	Shortage	San Diego	Urban	No	No
88.	78.2 v	Carson/Compton West/Rancho Dominguez	Shortage	Los Angeles	Urban	Yes	No
89.	16	Central Colusa, West Colusa	Shortage	Colusa	Rural	Yes (M/LJ)	No
90.	151 k	Highland West/San Bernardino Northeast	Shortage	San Bernardino	Urban	No	No
91.	162 f	Alemany-Excelsior/Bayview/Hunters Point/Vistacion Valley	Shortage	San Francisco	Urban	No	Yes
92.	78.2 iii	North Long Beach	Shortage	Los Angeles	Urban	Yes	No
93.	222	Corning, Southwest portion of East Tehama, Los Molinos	Shortage	Tehama	Rural	Yes (P)	No
94.	183 h	San Jose South	Shortage	Santa Clara	Urban	No	No
95.	48	El Centro	Shortage	Imperial	Rural	Yes	No
96.	220	East Tehama	Shortage	Tehama	Rural	Yes (P)	No
97.	78.2 ccc	Huntington Park/Slauson-Central	Shortage	Los Angeles	Urban	Yes	No
98.	58	Shafter, Wasco	Special	Kern	Rural	Yes	No
99.	78.2 d	City Terrace/East Los Angeles/Maravilla	Special	Los Angeles	Urban	No	No
100.	78.2 ddd	Bell Southwest/Cudahy/Maywood/Vernon	Special	Los Angeles	Urban	No	No
101.	110 b	Del Ray Oaks/Marina/Sand City/Seaside	Special	Monterey	Urban	No	No
102.	65	Southern portion of East Kern, Boron, California City	Special	Kern	Rural	Yes	No
103.	135 f	Corona South/Lake Mathews/Mead Vally	Special	Riverside	Urban	No	No
104.	218.2	Marysville	Special	Yuba	Rural	No	No
105.	133	Canyon Lake/Perris/Sun City	Special	Riverside	Urban	No	No
106.	78.2 oo	El Monte	Special	Los Angeles	Urban	No	No

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<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/ RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
107.	28	Huron	Special	Fresno	Rural	No	No
108.	78.2 ww	Montebello East/Pico Rivera South/Santa Fe Springs West	Special	Los Angeles	Urban	No	No
109.	142	Argus/Trona	Special	San Bernardino	Rural	No	No
110.	78.2 p	Long Beach Port/San Pedro East/Wilmington	Special	Los Angeles	Urban	No	Yes
111.	229	Woodlake-Three Rivers	Special	Tulare	Rural	No	No
112.	135 e	Corona North/Jurupa/Norco	Special	Riverside	Urban	No	No
113.	124	Portola	Special	Plumas	Rural	No	No
114.	78.1	Avalon	Special	Los Angeles	Rural	No	No
115.	153	Pala/Pauma Valley/Valley Center	Special	San Diego	Rural	No	No
116.	129.2	Coachella City/Indio	Special	Riverside	Urban	No	No
117.	135 g	Moreno Valley	Special	Riverside	Urban	No	No
118.	31	Centerville/Sanger	Special	Fresno	Urban	No	No
119.	90	Laytonville, Leggett	Special	Mendocino	Urban	Yes	No
120.	227	Dinuba, Orosi-Culter	Special	Tulare	Rural	No	No
121.	78.2 zzz	Azusa/Duarte/Irwindale/West Covina North	Special	Los Angeles	Urban	No	No
122.	145 b	Apple Valley/Hesperia Central and East	Special	San Bernardino	Urban	No	No
123.	207	Russian River-Coastal	Low	Sonoma	Rural	Yes (LI)	No
124.	176 b	East Menlo Park/East Palo Alto/Fair Oaks/Redwood City East	Low	San Mateo	Urban	Yes	No
125.	139 a	Del Paso Heights/EIverta/Natomas/Rio Linda	Low	Sacramento	Urban	No	No
126.	60	McFarland-Delano	Low	Kern	Rural	Yes	No
127.	37	Willows	Low	Glenn	Rural	No	No
128.	9.2	Live Oak	Low	Sutter	Rural	No	No
129.	118.1	Colfax	Low	Placer	Rural	No	No
130.	79.1	Oakhurst-North Fork`	Low	Madera	Rural	No	No
131.	18 f	Richmond West/San Pablo West	Low	Contra Costa	Urban	No	Yes
132.	139 f	Fruitridge/Oak Park	Low	Sacramento	Urban	No	No
133.	150	Baker/Harvard/Newberry Springs	Low	San Bernardino	Rural	No	No
134.	18 d	Antioch North/Pittsburg North	Low	Contra Costa	Urban	No	Yes
135.	151 b	Ontario Central and East/Rancho Cucamonga South	Low	San Bernardino	Urban	No	No
136.	36	Orland	Low	Glenn	Rural	No	No
137.	147	Blue Jay/Crestline/Lake Arrowhead/Skyforest/Twin Peaks	Low	San Bernardino	Rural	No	No
138.	217	South Sutter	Low	Sutter	Rural	No	No
139.	139 c	Antelope/North Highlands	Low	Sacramento	Urban	No	No
140.	159	Buckman Springs/Canyon City/Jacumba/Morena Village/Tecate	Low	San Diego	Rural	No	No
141.	78.2 bb	North Hollywood	Low	Los Angeles	Urban	No	No
142.	41	Ferndale	Low	Humboldt	Rural	Yes (LI)	No
143.	180.2	Guadalupe	Low	Santa Barbara	Rural	No	No
144.	78.2 jij	Long Beach West Central	Low	Los Angeles	Urban	No	Yes
145.	144	Twentynine Palms/Yucca Valley	Low	San Bernardino	Rural	No	No
146.	91	Willits	Low	Mendocino	Rural	Yes (LI)	No
147.	151 a	Chino South	Low	San Bernardino	Urban	No	No
148.	78.2 II	Arleta/Panorama City/Sepulveda	Low	Los Angeles	Urban	No	No

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<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/ RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
149.	201	Dixon	Low	Solano	Rural	No	No
150.	248.2	Lincoln	Low	Placer	Rural	No	No
151.	231	Porterville, Strathmore, Terra Bella	Low	Tulare	Rural	Yes	No
152.	9.1	Biggs/Griddley	Low	Butte	Rural	No	Yes
153.	78.2 r	Inglewood	Low	Los Angeles	Urban	No	No
154.	109.1	Castroville	Low	Monterey	Urban	No	No
155.	192	West Sierra	Low	Sierra	Rural	No	No
156.	191	East Sierra	Low	Sierra	Rural	No	No
157.	193	Happy Camp	Low	Siskiyou	Rural	Yes	No
158.	34	Del Ray/Orange Cove/Parlier/Reedley	Low	Fresno	Urban	No	No
159.	151 f	Bloomington/Fontana East/Rialto Central	Low	San Bernardino	Urban	No	No
160.	122	Greenville	Low	Plumas	Rural	No	No
161.	161 g	Encanto/Lincoln Acres/National City North/Paradise Hills West	Low	San Diego	Urban	No	No
162.	62	Tehachapi	Low	Kern	Rural	No	No
163.	151 g	Rialto Northeast/San Bernardino Northwest	Low	San Bernardino	Urban	No	No
164.	116 b	Santa Ana Central	Low	Orange	Urban	No	No
165.	78.2 yyy	Baldwin Park/Bassett/West Covina West	Low	Los Angeles	Urban	No	No
166.	78.2 ff	Atwater/Cypress Park/Eagle Rock/Glassell/Mt. Washington	Low	Los Angeles	Urban	Yes	No
167.	245	Clarksburg	Low	Yolo	Rural	No	No
168.	50	Brawley, Southwestern portion of Calipatria-Westmorland	Low	Imperial	Rural	Yes	No
169.	78.2 www	Industry Central/West Covina Southeast	Low	Los Angeles	Urban	No	No
170.	78.2 c	Bell Northwest/Bell Gardens/Commerce/Montebello West	Low	Los Angeles	Urban	No	No
171.	78.2 cccc	Chatsworth	Low	Los Angeles	Urban	No	No
172.	225	Hayfork, Forest Glen, Peanut	Low	Trinity	Rural	No	No
173.	78.2 ss	Pomona Central	Low	Los Angeles	Urban	No	No
174.	140	Hollister, San Juan Bautista	Low	San Benito	Rural	No	No
175.	146	Big Bear Lake/Fawnskin/Moorridge/Sugarloaf	Low	San Bernardino	Rural	No	No
176.	78.2 sss	South Gate	Low	Los Angeles	Urban	Yes	No
177.	163	Tracy	Low	San Joaquin	Rural	No	No
178.	70	Upper Lake-Clearlake Oaks, Lakeport	Low	Lake	Rural	No	No
179.	33	Fowler, Kingsburg, Selma	Low	Fresno	Urban	No	No
180.	175	South Coastside, Half Moon Bay, La Honda	Low	San Mateo	Rural	No	No
181.	78.2 nmn	West Adams	Low	Los Angeles	Urban	No	No
182.	206	Cloverdale	Low	Sonoma	Rural	No	No
183.	78.2 gg	Granada Hills	Low	Los Angeles	Urban	No	No
184.	12	Angels	Low	Calaveras	Rural	No	No
185.	120	Forest Hill-Back Country	Low	Placer	Rural	No	No
186.	158	Ballena/Ramona/Rosemont/San Diego Country Estates	Low	San Diego	Rural	No	No
187.	78.2 uu	La Mirada	Low	Los Angeles	Urban	No	No
188.	42	Fortuna	Low	Humboldt	Rural	No	No
189.	188	Central Shasta, Montgomery Creek, Oak Run, Round Mountain	Low	Shasta	Rural	No	No
190.	57.2	Northern portion of Westside, Taft	Low	Kern	Rural	Yes (LI)	No

Dentist-to-population ranges are estimates from ADA data. For the purpose of HPSA designation, actual supply of dentists must be confirmed at the local community level.

<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/ RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
191.	115.2 b	Coto de Caza/Rancho Santa Margarita/Silverado Canyon	Low	Orange	Urban	No	No
192.	137	Isleton	Low	Sacramento	Rural	No	No
193.	78.2 vv	Pico Rivera North/Whittier	Low	Los Angeles	Urban	No	No
194.	132	Hemet-San Jacinto	Low	Riverside	Urban	No	No
195.	134	Banning/Beaumont	Low	Riverside	Rural	No	No
196.	18 c	Concord Central	Low	Contra Costa	Urban	No	Yes
197.	239.2	Fillmore/North Fillmore/Piru	Low	Ventura	Rural	Yes (LJ/MFW)	No
198.	27	Coalinga	Low	Fresno	Rural	No	Yes
199.	155	Alpine/Descanso/Japatul	Low	San Diego	Rural	No	No
200.	100	Adin-Lookout	Low	Modoc	Rural	No	No
201.	101.1	Tule Lake/Newell	Low	Modoc	Rural	No	No
202.	99	Surprise Valley	Low	Modoc	Rural	No	No
203.	239.1	Santa Paula	Low	Ventura	Urban	Yes (LJ/MFW)	No
204.	66 a	Bakersfield North/Oildale	Low	Kern	Urban	No	No
205.	78.2 cc	Van Nuys Central	Low	Los Angeles	Urban	No	No
206.	241 b	Oxnard Central	Low	Ventura	Urban	Yes (LJ/MFW)	No
207.	64	Northern portion of East Kern, Ridgecrest	Low	Kern	Rural	No	No
208.	107	Gonzales, Greenfield, Soledad	Low	Monterey	Rural	No	No
209.	239.3	Moorpark	Low	Ventura	Urban	No	No
210.	77 c	Lancaster Central/Palmdale Central	Low	Los Angeles	Urban	No	No
211.	135 b	Edgemont/Orange Crest/Woodcrest	Low	Riverside	Urban	No	No
212.	78.2 a	Echo Park/Griffith Park/Silverlake	Low	Los Angeles	Urban	No	No
213.	78.2 dd	Burbank East/Glendale North/Tujunga	Low	Los Angeles	Urban	No	No
214.	109.2 a	North Salinas	Low	Monterey	Urban	Yes	No
215.	95	Dos Palos, Los Banos	Low	Merced	Rural	No	Yes
216.	113.1	Woldwood	Low	Nevada	Rural	No	No
217.	179	Eastern portion of Lompoc Valley, Four Corners, Lompoc	Low	Santa Barbara	Rural	No	No
218.	151 c	Chino North/Montclair/Ontario Southwest	Low	San Bernardino	Urban	No	No
219.	2 g	San Leandro West/San Lorenzo/Hayward West	Low	Alameda	Urban	No	Yes
220.	116 c	Anaheim West	Low	Orange	Urban	No	No
221.	164	Escalon, Manteca, Ripon	Low	San Joaquin	Urban	No	No
222.	15	East Colusa	Low	Colusa	Rural	Yes (M/LI)	No
223.	78.2 m	Bellflower North/Norwalk	Low	Los Angeles	Urban	No	No
224.	194	Etna, Fort Jones	Low	Siskiyou	Rural	No	No
225.	135 d	Arlington/Corona East/Home Gardens/La Sierra/Riverside SW	Low	Riverside	Urban	No	No
226.	233 b	Tulare	Low	Tulare	Rural	No	No
227.	156 c	Carlsbad East/Encinitas East/La Costa/Rancho Santa Fe/etc.	Low	San Diego	Urban	No	No
228.	71	Lower Lake-Middletown	Low	Lake	Rural	No	No
229.	35 d	McLane/Roosevelt	Low	Fresno	Urban	No	No
230.	69.2	Hanford/Lemoore	Low	Kings	Rural	No	No
231.	76	Canyon country/Newhall/Santa Clarita/Saugus/Valencia	Low	Los Angeles	Urban	No	No
232.	130	Idyllwild/Pine Cove	Low	Riverside	Rural	No	No

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233.	238	Meiners Oaks/Oak View/Ojai	Low	Ventura	Urban	Yes (LI/MFW)	No
234.	79.2	Chowchilla	Low	Madera	Rural	No	No
235.	80	Madera, Madera Southwest, Madera West	Low	Madera	Rural	No	No
236.	145 a	Adelanto/Hesperia Northwest/Pinon Hills/Victorville	Low	San Bernardino	Rural	No	No
237.	78.2 hhh	Pasadena North Central/Pasadena Northwest	Low	Los Angeles	Urban	No	No
238.	182	Gilroy/Morgan Hill/San Martin	Low	Santa Clara	Rural	No	Yes
239.	242	Winters	Low	Yolo	Rural	No	No
240.	149	Barstow/Daggett/Oro Grande/Yermo	Low	San Bernardino	Rural	No	No
241.	1161	Anaheim Central	Low	Orange	Urban	No	No
242.	78.2 rrr	Artesia/Cerritos/Hawaiian Gardens/Lakewood East	Low	Los Angeles	Urban	No	No
243.	35 b	Clovis/Hoover	Low	Fresno	Urban	No	No
244.	78.2 hh	Mission Hills/San Fernando	Low	Los Angeles	Urban	No	No
245.	161 i	Spring Valley	Low	San Diego	Urban	No	No
246.	221	Red Bluff	Low	Tehama	Rural	Yes (P)	No
247.	17	Byron	Low	Contra Costa	Rural	No	Yes
248.	183 d	San Jose Central	Low	Santa Clara	Urban	No	Yes
249.	178	Santa Ynez Valley	Low	Santa Barbara	Rural	No	No
250.	85	Mariposa	Low	Mariposa	Rural	No	No
251.	185 b	Santa Cruz/Twin Lakes	Low	Santa Cruz	Rural	No	No
252.	38	Trinity-Klamath	Low	Humboldt	Rural	Yes (LI)	No
253.	151 h	Colton/San Bernardino South	Low	San Bernardino	Urban	No	No
254.	10	Oroville, Palermo	Low	Butte	Rural	Yes (M/LI)	Yes
255.	116 g	Santa Ana South	Low	Orange	Urban	No	No
256.	78.2 nn	Monterey Park	Low	Los Angeles	Urban	No	No
257.	18 a	Crockett/Martinez North/Pinole/Port Costa/Rodeo	Low	Contra Costa	Urban	No	Yes
258.	241 c	Oxnard West/Ventura South	Low	Ventura	Urban	Yes (LI/MFW)	No
259.	174	North Coast, Morro Bay	Low	San Luis Obispo	Rural	No	No
260.	204	Vallejo	Low	Solano	Urban	No	Yes
261.	131	Lake Elsinore/Murrieta	Low	Riverside	Rural	No	No
262.	183 k	Evergreen	Low	Santa Clara	Urban	No	Yes
263.	160	Fallbrook/Live Oak Park/Rainbow	Low	San Diego	Rural	No	No
264.	184.1	Watsonville	Low	Santa Cruz	Urban	Yes	No
265.	105	King City	Low	Monterey	Rural	No	No
266.	162 c	Inner Mission/Potrero Hill/South of Market/Tenderloin	Low	San Francisco	Urban	Yes (LI)	Yes
267.	215 a	Modesto West/Salida	Low	Stanislaus	Urban	No	No
268.	161 n	Coronado/Ocean Beach/Point Loma	Low	San Diego	Urban	No	No
269.	98	Alturas	Low	Modoc	Rural	No	No
270.	116 a	Buena Park/La Palma	Low	Orange	Urban	No	No
271.	202	Vacaville	Low	Solano	Urban	No	No
272.	116 r	Garden Grove/Stanton	Low	Orange	Urban	No	Yes
273.	18 e	Antioch South/Brentwood/Knightsen/Oakley/Pittsburg SW	Low	Contra Costa	Urban	No	Yes
274.	186	Southwest Shasta, French Gulch, Whiskeytown	Low	Shasta	Rural	No	No

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275.	116 t	Huntington Beach Central	Low	Orange	Urban	No	Yes
276.	212	Turlock	Low	Stanislaus	Urban	No	No
277.	78.2.1	Exposition Park/Leimert Park	Low	Los Angeles	Urban	Yes	No
278.	161 d	City Heights/Downtown/Middletown/Oak Park	Low	San Diego	Urban	No	No
279.	235	Groveland	Low	Toulumne	Rural	No	No
280.	78.2 g	Hollywood East	Low	Los Angeles	Urban	No	No
281.	246.1	Woodland	Low	Yolo	Urban	No	No
282.	234.2	Tuolumne City	Low	Tuolumne	Rural	No	No
283.	240 a	Simi Valley	Low	Ventura	Urban	No	No
284.	78.2 b	Pico-Union/Westlake	Low	Los Angeles	Urban	No	No
285.	129.1 a	Cathedral City S/Indian Wells/La Quinta/Palm Desert/	Low	Riverside	Urban	No	No
286.	2 i	Fremont Southwest/Newark	Low	Alameda	Urban	No	Yes
287.	139 g	East Sacramento/Rancho Cordova South	Low	Sacramento	Urban	No	No
288.	21	Fremont North/Union City East	Low	Alameda	Urban	Yes	Yes
289.	199	McCloud-Medicine Lake	Low	Siskiyou	Rural	No	No
290.	14	West Point-Wilseyville	Low	Calaveras	Rural	No	No
291.	176 d	Daly City South/Pacifica	Low	San Mateo	Urban	No	Yes
292.	77 b	Acton/Aqua Dulce/Lake Elizabeth/Lancaster W/Leona Valley	Low	Los Angeles	Urban	No	No
293.	8	Paradise	Low	Butte	Rural	No	No
294.	78.2 tt	Claremont/La Verne/Pomona North/San Dimas	Low	Los Angeles	Urban	No	No
295.	138	Rio Vista	Low	Solano	Rural	No	No
296.	161 s	Bonita/Chula Vista East/East Lake/Lynwood Hills	Low	San Diego	Urban	No	No
297.	78.2 qq	Montebello West/Rosemead/South San Gabriel	Low	Los Angeles	Urban	No	No
298.	78.2 mmm	Chinatown/Downtown/Echo Park South	Low	Los Angeles	Urban	No	No
299.	126	Blythe	Low	Riverside	Rural	Yes (LI)	No
300.	166	Lodi	Low	San Joaquin	Urban	No	No
301.	116 i	Santa Ana West	Low	Orange	Urban	No	No
302.	88	Point Arena	Low	Mendocino	Rural	No	No
303.	67	Avenal	Low	Kings	Rural	No	No
304.	116 k	Brea West/La Habra	Low	Orange	Urban	No	No
305.	78.2 rr	Altadena/Arcadia West/La Canada-Flintridge/Pasadena North	Low	Los Angeles	Urban	No	No
306.	86	Yosemite	Low	Mariposa	Rural	No	No
307.	161 h	El Cajon	Low	San Diego	Urban	No	No
308.	171	Arroyo Grande, Nipomo	Low	San Luis Obispo	Rural	No	No
309.	211	Oakdale	Low	Stanislaus	Rural	No	No
310.	173	Paso Robles	Low	San Luis Obispo	Rural	No	No
311.	180.1	Western Lompoc Valley, Santa Maria Valley, Betteravia,	Low	Santa Barbara	Urban	No	No
312.	19	Crescent City, Klamath, Smith River-Gasquet	Low	Del Norte	Rural	Yes (DC)	Yes
313.	170	Atascadero	Low	San Luis Obispo	Rural	No	No
314.	233 a	Visalia	Low	Tulare	Urban	No	No
315.	156 e	Escondido	Low	San Diego	Urban	No	No
316.	116 u	Huntington Beach West/Seal Beach	Low	Orange	Urban	No	Yes

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317.	78.2 zz	Reseda	Low	Los Angeles	Urban	No	No
318.	247	Yuba Foothills	Low	Yuba	Rural	No	No
319.	139 e	Fair Oaks/Folsom/Gold River/Orangevale/Rancho Cordova	Low	Sacramento	Urban	No	No
320.	111	Angwin, Berryessa, Calistoga, St. Helena	Low	Napa	Rural	No	No
321.	208	Sonoma	Low	Sonoma	Rural	No	No
322.	66 c	Bakersfield Downtown/Bakersfield Southwest	Low	Kern	Urban	No	No
323.	218.1	Yuba City	Low	Sutter	Rural	No	No
324.	78.2 pp	Hacienda Heights/Industry East/La Habra Heights/Rowland	Low	Los Angeles	Urban	No	No
325.	24	South Lake Tahoe	Medium	El Dorado	Rural	No	No
326.	116 s	Westminster	Medium	Orange	Urban	No	No
327.	2 h	Hayward Central/San Leandro East	Medium	Alameda	Urban	Yes	Yes
328.	195	Montague, Yreka	Medium	Siskiyou	Rural	No	No
329.	1	Livermore	Medium	Alameda	Urban	No	No
330.	181 a	El Encanto Heights/Goleta/Isla Vista	Medium	Santa Barbara	Urban	No	No
331.	241 a	Camarillo/Oxnard South/Port Hueneme	Medium	Ventura	Urban	Yes (LI/MFW)	No
332.	197	Mount Shasta, Weed	Medium	Siskiyou	Rural	No	No
333.	43	Garberville area, including Rio Dell, Scotia	Medium	Humboldt	Rural	Yes (LI)	Yes
334.	2 f	Castro Valley/Hayward Northeast/Oak Knoll	Medium	Alameda	Urban	Yes	Yes
335.	116 m	Brea East/Placentia/Yorba Linda	Medium	Orange	Urban	No	No
336.	151 j	Redlands South/Yucaipa	Medium	San Bernardino	Urban	No	No
337.	78.2 e	Koreatown/Mid-City	Medium	Los Angeles	Urban	No	No
338.	151 d	Alta Loma/Rancho Cucamonga West/Upland	Medium	San Bernardino	Urban	No	No
339.	129.1 b	Desert Hot Springs/Cathedral City North/Palm Springs	Medium	Riverside	Urban	No	No
340.	244	Davis	Medium	Yolo	Urban	No	No
341.	116 q	Anaheim East/City of Orange North	Medium	Orange	Urban	No	No
342.	169 a	Stockton North Central	Medium	San Joaquin	Urban	No	No
343.	112	Napa	Medium	Napa	Urban	No	No
344.	78.2 t	Hermosa Beach/Manhattan Beach/Redondo Beach /Torrance	Medium	Los Angeles	Urban	No	No
345.	203	Fairfield-Suisun	Medium	Solano	Urban	No	Yes
346.	189.2	Central/Northern Redding-Anderson, Redding, Pine Grove,	Medium	Shasta	Urban	No	No
347.	123	Quincy	Medium	Plumas	Rural	No	No
348.	78.2 kkk	Long Beach East/Long Beach Shoreline	Medium	Los Angeles	Urban	No	Yes
349.	139 b	Citrus Heights/Foothill Farms	Medium	Sacramento	Urban	No	No
350.	116 p	Costa Mesa	Medium	Orange	Urban	No	No
351.	78.2 eee	Downey	Medium	Los Angeles	Urban	No	No
352.	78.2 n	Bellflower South/Lakewood West	Medium	Los Angeles	Urban	No	No
353.	23.1	Placerville	Medium	El Dorado	Rural	No	Yes
354.	190	East Shasta, Burney, Cassel, Fall River Mills, Hat Creek,	Medium	Shasta	Rural	No	No
355.	161 o	Allied Gardens/Del Cerro/Mission Valley/Serra Mesa	Medium	San Diego	Urban	No	No
356.	108	Carmel Valley, Toro	Medium	Monterey	Rural	No	No
357.	45	Eureka	Medium	Humboldt	Urban	Yes (LI)	Yes
358.	162 g	Castro/Haight-Ashbury/Noe Valley/Western Addition	Medium	San Francisco	Urban	No	No

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359.	78.2 z	Santa Monica South/Venice	Medium	Los Angeles	Urban	No	No
360.	224	Weaverville, Trinity Center, Lewiston	Medium	Trinity	Rural	No	No
361.	2 b	Berkeley Hills/Oakland Hills	Medium	Alameda	Urban	No	<b>Yes</b>
362.	156 d	San Marcos North/Vista East	Medium	San Diego	Urban	No	No
363.	78.2 f	West Hollywood	Medium	Los Angeles	Urban	No	No
364.	87.1	Boonville, Navarro, Philo, Yorkville	Medium	Mendocino	Rural	<b>Yes</b>	No
365.	139 h	Elk Grove/Freepport/Laguna Creek/Pocket	Medium	Sacramento	Urban	No	No
366.	78.2 o	Rancho Palos Verdes/Rolling Hills/San Pedro West	Medium	Los Angeles	Urban	No	No
367.	78.2 q	El Segundo/Hawthorne/Lawndale	Medium	Los Angeles	Urban	No	No
368.	209	Petaluma	Medium	Sonoma	Urban	No	No
369.	78.2 vvv	Diamond Bar/Pomona South/Walnut	Medium	Los Angeles	Urban	No	No
370.	241 d	Ventura North	Medium	Ventura	Urban	<b>Yes (LI/MFW)</b>	No
371.	78.2 bbbb	Gardina/Torrance Northeast	Medium	Los Angeles	Urban	No	No
372.	161 a	Linda Vista/Mission Beach/Pacific Beach	Medium	San Diego	Urban	No	No
373.	176 a	Brisbane/Colma/Daily City North/South San Francisco	Medium	San Mateo	Urban	No	<b>Yes</b>
374.	183 b	Beryessa/Milpitas	Medium	Santa Clara	Urban	No	No
375.	6	Pine Grove-Silver Lake	Medium	Amador	Rural	No	No
376.	78.2 qq	Covina East/Glendora West/West Covina Southeast	Medium	Los Angeles	Urban	No	No
377.	18 g	El Cerrito/Kensington/Richmond East/San Pablo East	Medium	Contra Costa	Urban	No	<b>Yes</b>
378.	7	Chico, Durham, Paradise	Medium	Butte	Rural	No	No
379.	82	Novato	Medium	Marin	Rural	No	No
380.	248.1	Wheatland	Medium	Yuba	Rural	No	No
381.	183 e	Alum Rock	Medium	Santa Clara	Urban	No	No
382.	78.2 ttt	Burbank South	Medium	Los Angeles	Urban	No	No
383.	22	North El Dorado	Medium	El Dorado	Rural	No	No
384.	2 k	Dublin/Pleasanton/San Ramon/Sunol	Medium	Alameda	Urban	No	No
385.	44	Garberville area, including Garberville, Redway	Medium	Humboldt	Rural	<b>Yes (LI)</b>	No
386.	176 f	Belmont East/Foster City/Redwood Shores/San Carlos East/	Medium	San Mateo	Urban	No	No
387.	35 c	Central Fresno/Roeding	Medium	Fresno	Urban	No	<b>Yes</b>
388.	183 I	Almaden/Santa Teresa	Medium	Santa Clara	Urban	No	No
389.	89	Fort Bragg	Medium	Mendocino	Rural	No	No
390.	156 b	Cardiff East/Carlsbad Central/Encinitas Central/Oceanside East	Medium	San Diego	Urban	No	No
391.	4	Ione, Jackson	Medium	Amador	Rural	No	No
392.	115.1	Dana Point/San Clemente/San Juan Capistrano	Medium	Orange	Urban	No	No
393.	78.2 kk	Northridge	Medium	Los Angeles	Urban	No	No
394.	2 e	Alameda/Oakland Airport	Medium	Alameda	Urban	<b>Yes</b>	<b>Yes</b>
395.	87.2	Mendocino	Medium	Mendocino	Rural	No	No
396.	152	Borrego Springs/Ocotillo Wells	Medium	San Diego	Rural	No	No
397.	161 k	Chula Vista West	Medium	San Diego	Urban	No	No
398.	172	San Luis Obispo	Medium	San Luis Obispo	Rural	No	<b>Yes</b>
399.	116 f	Fullerton	Medium	Orange	Urban	No	No
400.	185 c	Capitola/Aptos/Rio del Mar	Medium	Santa Cruz	Urban	No	No

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401.	181 b	Carpinteria/Santa Barbara/Montecito	Medium	Santa Barbara	Urban	No	No
402.	78.2 xxx	Arcadia/Bradbury/Monrovia/Sierra Madre	Medium	Los Angeles	Urban	No	No
403.	116 e	Cypress/Los Alamitos/Rossmoor	Medium	Orange	Urban	No	No
404.	183 g	Cambrian East/Willow Glen	Medium	Santa Clara	Urban	No	No
405.	236	Stanislaus-Yosemite	Medium	Toulumne	Rural	No	No
406.	234.1	Sonora	Medium	Toulumne	Rural	No	No
407.	39	Arcata / North Coastal	Medium	Humboldt	Rural	Yes (LI)	Yes
408.	53	Bishop	Medium	Inyo	Rural	No	No
409.	205	Healdsburg, Geyserville	Medium	Sonoma	Rural	Yes (LI)	Yes
410.	55	Lone Pine	Medium	Inyo	Rural	Yes	No
411.	183 m	Cambrian West/Campbell South/Los Gatos/Monte Sereno	Medium	Santa Clara	Urban	No	No
412.	78.2 dddd	Alhambra/San Gabriel/Temple City	Medium	Los Angeles	Urban	No	No
413.	215 b	Modesto East/Riverbank	Medium	Stanislaus	Urban	No	No
414.	113.2	Grass Valley/Nevada City	Medium	Nevada	Rural	No	No
415.	97 a	Central Merced	Medium	Merced	Urban	No	Yes
416.	2 c	Oakland West	Medium	Alameda	Urban	Yes	Yes
417.	119	Auburn	Medium	Placer	Urban	No	No
418.	161 f	Lake Murray/La Mesa/San Carlos	Medium	San Diego	Urban	No	No
419.	116 n	Anaheim Hills/City of Orange East	Medium	Orange	Urban	No	No
420.	78.2 III	Bixby Knolls/Long Beach North Central/Signal Hill	Medium	Los Angeles	Urban	No	No
421.	185 a	Boulder Creek/Felton/Scotts Valley	Medium	Santa Cruz	Urban	No	No
422.	117	Lake Tahoe, Tahoe City	Medium	Placer	Rural	No	No
423.	18 b	Concord North/Martinez South/Pleasant Hill	Medium	Contra Costa	Urban	No	Yes
424.	81	Point Reys National Seashore, Inverness,Bolinas,Stinson Beach	Medium	Marin	Rural	No	No
425.	210	Santa Rosa, Sebastopol	Medium	Sonoma	Urban	No	No
426.	115.2 a	Lake Forest/Mission Viejo	Medium	Orange	Urban	No	No
427.	18 h	Danville/San Ramon	Medium	Contra Costa	Urban	No	Yes
428.	73	Big Valley	Medium	Lassen	Rural	No	No
429.	161 p	Mira Mesa/Rancho Penasquitos	Medium	San Diego	Urban	No	No
430.	78.2 xx	Agoura Hills/Brentwood/Calabasas/Malibu/Pacific Palisades	Medium	Los Angeles	Urban	No	No
431.	162 a	Chinatown/Inner Richmond/North Beach	Medium	San Francisco	Urban	No	Yes
432.	161 e	College Area/Hillcrest/Kensington/Mission Hills/North Park	Medium	San Diego	Urban	No	No
433.	240 b	Thousand Oaks	Medium	Ventura	Urban	No	No
434.	161 b	Clairemont/Kearny Mesa	Medium	San Diego	Urban	No	No
435.	116 o	Irvine Central and North	Medium	Orange	Urban	No	No
436.	183 c	Sunnyvale	Medium	Santa Clara	Urban	No	No
437.	183 n	Campbell North/Santa Clara	Medium	Santa Clara	Urban	No	No
438.	156 a	Cardiff West/Carlsbad West/Leucadia West/Oceanside	Medium	Santa Clara	Urban	No	No
439.	183 j	Alviso/San Jose West/Santa Clara	Medium	Santa Clara	Urban	No	No
440.	121	Roseville, Loomis Basin-Folsom Lake	Medium	Santa Clara	Urban	No	No
441.	78.2 x	Cheviot Hills/Mid-City West/Rancho Park	Medium	Placer	Urban	No	Yes
442.	116 d	Irvine South/Newport Beach	Medium	Los Angeles	Urban	No	No
				Orange	Urban	No	No

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443.	135 c	Casablanca/Riverside Central	Medium	Riverside	Urban	No	No
444.	93.1	Hopland, Ukiah	Medium	Mendocino	Rural	Yes (LI)	No
445.	83 b	Fairfax/San Anselmo/San Rafael	Medium	Marin	Urban	No	Yes
446.	72	Susanville/Honeylake/Madeline Plains	Medium	Lassen	Rural	Yes	No
447.	78.2 aaaa	Torrance Southeast	High	Los Angeles	Urban	No	No
448.	169 c	Stockton Northwest	High	San Joaquin	Urban	No	No
449.	78.2 j	Baldwin Hills/Ladera Heights/Marina del Rey/Windsor Hills	High	Los Angeles	Urban	No	No
450.	2 j	Fremont Central/Irvington/Mission San Jose/Niles	High	Alameda	Urban	No	Yes
451.	116 j	Fountain Valley/Huntington Beach North	High	Orange	Urban	No	Yes
452.	176 c	Belmont West/Portola Valley/San Carlos West/Redwood City	High	San Mateo	Urban	No	No
453.	83 a	Mill Valley/Sausalito/Tiburon	High	Marin	Urban	No	Yes
454.	18 I	Lafayette/Moraga/Oriinda/Walnut Creek West	High	Contra Costa	Urban	No	Yes
455.	102	Mono North, Topaz, Walker	High	Mono	Rural	No	No
456.	78.2 jj	Sherman Oaks/Studio City	High	Los Angeles	Urban	No	No
457.	200	Butte Valley, Dorris	High	Siskiyou	Rural	Yes	No
458.	183 a	Mountain View Northwest/Palo Alto	High	Santa Clara	Urban	No	Yes
459.	78.2 ii	Canoga Park/West Hills	High	Los Angeles	Urban	No	No
460.	78.2 y	Culver City/Mar Vista/Palms	High	Los Angeles	Urban	No	No
461.	114	Donner	High	Nevada	Rural	No	No
462.	78.2 u	Redondo Beach South/Torrance Southwest	High	Los Angeles	Urban	No	No
463.	2 a	Berkeley South and West/Emeryville/Oakland North	High	Alameda	Urban	No	Yes
464.	78.2 ee	Glendale South	High	Los Angeles	Urban	No	No
465.	162 e	Outer Richmond/Outer Sunset	High	San Francisco	Urban	No	Yes
466.	125	Chester	High	Plumas	Rural	No	No
467.	18 j	Concord South/Walnut Creek Central and East	High	Contra Costa	Urban	No	Yes
468.	161 r	Del Mar/LaJolla/Sorrento Valley/University City	High	San Diego	Urban	No	No
469.	110 a	Carmel/Monterey/Pacific Grove	High	Monterey	Urban	No	No
470.	161 q	Poway/Rancho Bernardo	High	San Diego	Urban	No	No
471.	139 I	Land Park/Meadowview/Sacramento Downtown	High	Sacramento	Urban	No	No
472.	183 f	Cupertino/Saratoga	High	Santa Clara	Urban	No	No
473.	176 e	Burlingame/Hillsborough/Millbrae/San Bruno/San Mateo North	High	San Mateo	Urban	No	Yes
474.	35 a	Bullard/Woodward Park	High	Fresno	Urban	No	No
475.	183 I	Los Altos/Mountain View Southeast	High	Santa Clara	Urban	No	No
476.	78.2 mm	Pasadena South/San Marino/South Pasadena	High	Los Angeles	Urban	No	No
477.	115.2 c	Laguna Beach/Laguna Niguel	High	Orange	Urban	No	No
478.	116 h	City of Orange South/Santa Ana North/Tustin	High	Orange	Urban	No	No
479.	139 d	Arden/Carmichael	High	Sacramento	Urban	No	No
480.	162 d	Lake Merced/Merced Heights/Ocean View	High	San Francisco	Urban	No	Yes
481.	198	Dunsmuir	High	Siskiyou	Rural	No	No
482.	151 i	Grand Terrace/Highland East/Loma Linda/Redlands North	High	San Bernardino	Urban	No	No
483.	78.2 yy	Encino/Tarzana/Van Nuys South/Woodland Hills	High	Los Angeles	Urban	No	No
484.	78.2 w	Santa Monica North/Sawelle/Westwood	High	Los Angeles	Urban	No	No

Dentist-to-population ranges are estimates from ADA data. For the purpose of HPSA designation, actual supply of dentists must be confirmed at the local community level.

<b>RANK</b>	<b>MSSA NUM.</b>	<b>MSSA NAME</b>	<b>DENTIST LEVEL</b>	<b>COUNTY</b>	<b>URBAN/RURAL</b>	<b>DHPSA DESIGNATION</b>	<b>FLUOR. WATER</b>
485.	78.2 aa	Bel Air/Beverly Hills/Hancock Park/Mount Olympus	High	Los Angeles	Urban	No	<b>Yes</b>
486.	109.2 b	South Central Salinas/South Salinas	High	Monterey	Urban	No	No
487.	162 b	Downtown/Inner sunset/Pacific Heights/Panhandle/Parnassus	High	San Francisco	Urban	No	<b>Yes</b>

**Sources:**

Office of Statewide Health Planning and Development. Medical Service Study Area Files, 1998.

MapInfo Corporation. TargetPro Demographics, MapInfoDATA 1998 Demographic Indicators for California.

Fluoridated Communities with Adjusted Water Systems in California, 1990. California Department of Health Services, Office of Dental Health Services, Community Water Fluoridation Project.

Dentist-to-population ranges are estimates from ADA data. For the purpose of HPSA designation, actual supply of dentists must be confirmed at the local community level.

## **APPENDIX D**

### **CURRENT PROGRAMS, POLICY AND LEGISLATION**

Three state agencies run programs that address the issue of access to dental care in California. The Department of Health Services (DHS) is responsible for outreach and providing services, specifically through its Child Health and Disability Prevention Program (CHDP) and Denti-Cal programs. The Managed Risk Medical Insurance Board (MRMIB) in collaboration with DHS administers the Healthy Families Program and the Rural Health Demonstration Projects. The Office of Statewide Health Planning and Development (OSHPD) has a Statewide Loan Repayment Program through the National Health Service Corps, in addition to a capital grants program geared to improvements in dental infrastructure.

The *Department of Health Services* pays for dental services for Californians enrolled in Medi-Cal. The Office of Medi-Cal Dental Services within DHS administers this program, which provided dental care to more than two million of the 5.1 million Medi-Cal beneficiaries in 1997.<sup>1</sup>

At the federal level, Medicaid requires that access to dental services be available to all Medicaid eligible children under 21 as called for under the federal Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) law. In California, the EPSDT program is administered by the Child Health and Disability Prevention program (CHDP)—the exception is for treatment, which is paid for by Medi-Cal.<sup>2</sup> Denti-Cal is the fee-for-service program through which over 90 percent of Medi-Cal beneficiaries are eligible.

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<sup>1</sup> Medi-Cal Policy Institute. (1999, January). *Medi-Cal and Dental Health Services* (Issue Brief No. 6). Oakland, CA: Medi-Cal Policy Institute.

<sup>2</sup> Medi-Cal Policy Institute. (1999, January). *Medi-Cal and Dental Health Services* (Issue Brief No. 6). Oakland, CA: Medi-Cal Policy Institute.

Denti-Cal is administered through the Delta Dental Plan intermediary. Delta Dental Plan of California is the fiscal intermediary for this program, and pays for the services through contracts with providers.

Twelve counties--which contain approximately 80 percent of the Medi-Cal population--have a two-plan model of managed care. Dental services are “carved out” of this model, and participants in the two-plan model generally receive dental services through the traditional fee-for-service Denti-Cal program. Other counties may provide medical services through prepaid health plans (PHPs) or through County Organized Health Systems (COHS), neither of which cover dental services. A Geographic Managed Care model covering medical and dental services was implemented in Sacramento in 1994. This model allows enrollees to choose from four commercial dental plans.

In addition to serving the Medi-Cal population, DHS runs a variety of more targeted programs with the goal of increasing access to dental services for various populations. The County Medical Services Program (CMSP) reimburses the medical and dental cost for medically indigent adults aged 21-64 who are of marginal income and are not eligible for Medi-Cal. The CMSP Governing Board administers this program in conjunction with the Office of County Health Services. Thirty-four small, rural counties currently participate with a combined monthly caseload of 40,000-44,000 CMSP-eligible clients and an annual budget of \$200 million. Over 93 percent of eligible clients are eligible for dental services, and the total expenditures for dental services (FY 1996-1997) were \$15.7 million.

The Office of County Health Services also administers a variety of health programs through the use of Proposition 99 (a.k.a. the Tobacco Tax) funding. The California Healthcare for Indigents Program (CHIP) and the Rural Health Services Program (RHS) reimburse providers for uncompensated services for individuals who cannot afford care and for whom no other source of payment is available. The Children's Treatment Program (CTP) reimburses Medi-Cal and Denti-Cal enrolled providers for treatment of conditions detected through a Child Health and Disability Prevention (CHDP) health screening. A CTP patient must reside in a participating county, be under the age of 19 on the date of service, and reside with a family that does not qualify for Medi-Cal with no share of cost and has no other means to pay for such treatment. There are currently 33 counties involved in this program with 160 dentists participating.

DHS also provides grants for Rural Demonstration Projects. Recently funds have been awarded for the purchase of mobile dental clinics, dental equipment, renovation of dental facilities and an increase in dental staff in both numbers and hours, primarily for the purpose of increasing access to Medi-Cal and Healthy Families enrollees.

A 1990 court case (Clark vs. Kizer) in a California court found that fewer than 40 percent of dentists in the state treated Medi-Cal patients (the national standard is 50 percent as cited in the HCFA Medicaid Manual). An additional finding was that dentists were being reimbursed at 40 percent of their usual rates, thereby discouraging dentists' participation in the program. The court then ordered that DHS, through Delta Dental, make extraordinary efforts to increase access to dental care in 16 counties. This has been done

primarily through the use of mobile clinics. Reimbursement rates were increased, and then subsequently decreased, with little overall change in the proportion of participating dentists.<sup>3</sup>

The *Managed Risk Medical Insurance Board (MRMIB)* is responsible for handling the contracts for services provided by the Healthy Families Program (HFP). The HFP is a state and federal funded health, dental, and vision coverage program for children ages 1-18 with family incomes above the level eligible for no cost Medi-Cal and below 200 percent of the federal poverty level (\$27,300 for a family of three). Twenty-five health plans, four dental plans and one vision plan are participating in the program for the 1999-2000 benefit year.

Through its own Rural Health Demonstration Project, MRMIB has distributed \$6 million to address access to health care, which includes dental care concerns. There are three areas to which a majority of the funding has been distributed: 1) mobile dental vans used by Delta Dental providers 2) an increase in office hours by dentists and dental hygienists and 3) outreach to local schools to educate children about the importance of oral health.

The State Loan Repayment Program is administered through the *Office of Statewide Health Planning and Development, (OSHPD)* funded by a grant from the National Health Service Corps. This program is designed to assist in the placement of health care providers, including dentists, into Health Professional Shortage Areas (HPSAs). Through

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<sup>3</sup> Medi-Cal Policy Institute. (1999, January). Medi-Cal and Dental Health Services (Issue Brief No. 6). Oakland, CA: Medi-Cal Policy Institute.



this program, OSHPD is authorized to repay outstanding government and commercial loans incurred for the purpose of obtaining health professional education. Loan repayment ranges from \$25,000 to \$35,000 per year of service in which the provider must commit to providing full-time dental care in an urban or rural HPSA for a minimum of two consecutive years and up to four years as desired. The provider must also locate a position at a suitable practice site that is willing to match the Office's loan repayment award on a 50/50 basis. Dentists began to be included in the state loan repayment program in 1995. In the intervening years there have been four dental loan repayment placements, all of which have completed their service obligation (as of 8/99). Two of the four placements still practice at their placement site. The federal loan repayment program had a total of 18 placements serving at some point in 1998, including five dentists who started their service and four dentists who ended their service during the year.

Rural Health Development Grants are also awarded by OSHPD for capital expenditures. In the last funding cycle, funds were awarded for both the development and/or expansion of dental facilities in pre-existing medical clinics. The Rural Health Policy Council has a Rural Health Services Small Grants Program that grants awards of \$25,000 or less. In the most recent funding cycle, grants were awarded to pay for dental screening, cleaning and restorative treatment in a wide variety of rural settings.

During the 1999 California Legislative session, a myriad of bills were introduced which addressed, either directly or indirectly, access to dental care issues. Many of these bills are geared to improving access through the Healthy Families program. The bill that most

clearly addresses the access to dental care issue, independent of Healthy Families, is AB 1065.

AB 1065 was introduced by Assembly Member Denise Moreno Ducheny. This bill establishes pilot projects in three counties to increase access to dental services for Medi-Cal eligible infants and children up to five years of age. The bill requires DHS, in conjunction with the University of California, to design, implement and evaluate pilot projects that would provide risk assessment visits, preventative procedures, outreach and education to parents and caretakers of Medi-Cal children, and recruitment, training, certification and enhanced Medi-Cal reimbursement of dental providers participating in the projects. The bill will be up for hearing when the legislature reconvenes in January, 2000.