



Primary Care Dental Capacity in Oregon

**Results of the 2007 Primary Care
Dental Survey**

**Oregon Department of Human Services
November 2007**

We'd like to thank dentists and their staff for supporting our survey. We'd also like to thank the Oral Health Advisory Board for reviewing a draft of this report. Their comments improved the final product. We hope significant resources result from use of this report.

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Introduction

In January 2007 Health Systems Planning initiated a statewide survey of general and pediatric dentists. The purpose of this survey was to supply interested policy-makers and communities information on access to dental care in the state.

An additional benefit from this data is identifying areas that might be eligible for Dental Health Professional Shortage Designations. A dental designation potentially could help a community obtain grant funding for a public health clinic or recruit a National Health Service Corps (NHSC) provider. Beyond the benefit to a clinic matched with a NHSC provider, the dentist may be eligible for school loan repayments -- by a fixed amount for up to four years of practice.

It has been almost 10 years since the previous "Primary Care Dental Capacity in Oregon" report was released. That report was used by many organizations to successfully acquire funding for dental projects across the state. We are pleased to have the expertise to analyze and map current data and publish this more timely report.

A little historical context may be helpful in interpreting the results of this survey. Various factors affect the number of dentists in Oregon, where they practice, and the payer mix of their patients. Dentists often practice solo or in very small groups and the amount of overhead they experience in establishing and maintaining their practices is one factor. The level of reimbursement is another critical factor, especially as it relates to overhead costs. Historically, Medicaid has paid less than other payers. The education pipeline is another factor and takes awhile to respond once the need is known. The total number of graduates does not tell the whole story. Oregon faces a challenge in matching the interests of dental or medical school graduates with the diverse needs of its communities. Rural Oregon faces acute challenges in addressing its needs across provider types. School funding is another critical element.

Increasingly, dentists who are part of the baby boomer generation will be looking to limit the size of their practice or retiring all together. The impact of baby boomer retirements will affect the entire U.S. health care system, as well as the nation overall. In combination with reimbursement and other factors, it will present significant challenges to planning for sufficient capacity to serve the needs of Oregonians.

Ultimately, this report, based on point-in-time survey data, tells a story about Oregon's present number of primary care dentists relative to the state's population, in particular relative to its low-income population. But it is only part of the story. Access to dental care depends on the total number of active practitioners in the state and the relative proportion of their practice available to low-income Oregonians. That in turn depends on some of the factors noted above.

Introduction

A number of strategies are available to policy-makers. They include but are not limited to one or more of the following:

- Implement policies that open up more of the existing capacity;
- Recruit additional dentists (increase capacity), which involves development of the dental school pipeline;
- Modify the existing workforce in some way to expand capacity of the existing dental delivery system.

The intent of this report is to contribute to policy discussions and assist groups involved with policy implementation. We hope the report is helpful and we would be pleased to answer questions regarding the data.

Survey Method

Survey

In January 2007, surveys were mailed to all dentists known to the Oregon Board of Dentistry who were practicing in state as general or pediatric dentists. See Appendix F for the survey form. A second mailing was sent to non-respondents in March. Calls were made to complete missing data. We extend our appreciation to the dental community throughout Oregon for this cooperative effort aimed at bringing resources to the underserved populations of the state.

Survey respondents were asked to indicate their practice specialty and sub-specialty, and the percent of their practice devoted to each. Although all dentists who received a mailed survey were listed by the Oregon Board of Dentistry as general or pediatric dentists, some respondents did not list a primary care specialty or sub-specialty. These respondents were coded as “not primary care” and, along with respondents who were not engaged in direct patient care, did not contribute to the total primary care dental FTEs in their county. Oregon dentists who only list offices outside the state also were excluded.

In an effort to share the information so that confidentiality of individual providers is maintained, several small counties are grouped into Regions I and II. This creates a significant number of dentists for reporting low-income data. Region I consists of Gilliam, Grant, Jefferson, Morrow, Sherman and Wheeler counties. Region II combines Harney and Lake counties.

While most of the data in this report are from the 2007 survey, some data from the previous Oregon Dental Survey conducted in 2005 are also included for comparison.

Primary Care Dental FTE Calculation and Imputation

Using the formulas prescribed by the federal Health Resources and Services Administration (HRSA), a primary care dental Full Time Equivalent (FTE) was calculated for each primary care respondent (Appendix A). In order to estimate the total number of primary care FTEs for all dentists in Oregon, an FTE value for each non-respondent was imputed based on the survey data. All FTE values reported here include those imputed values.

Survey Method

Special Populations

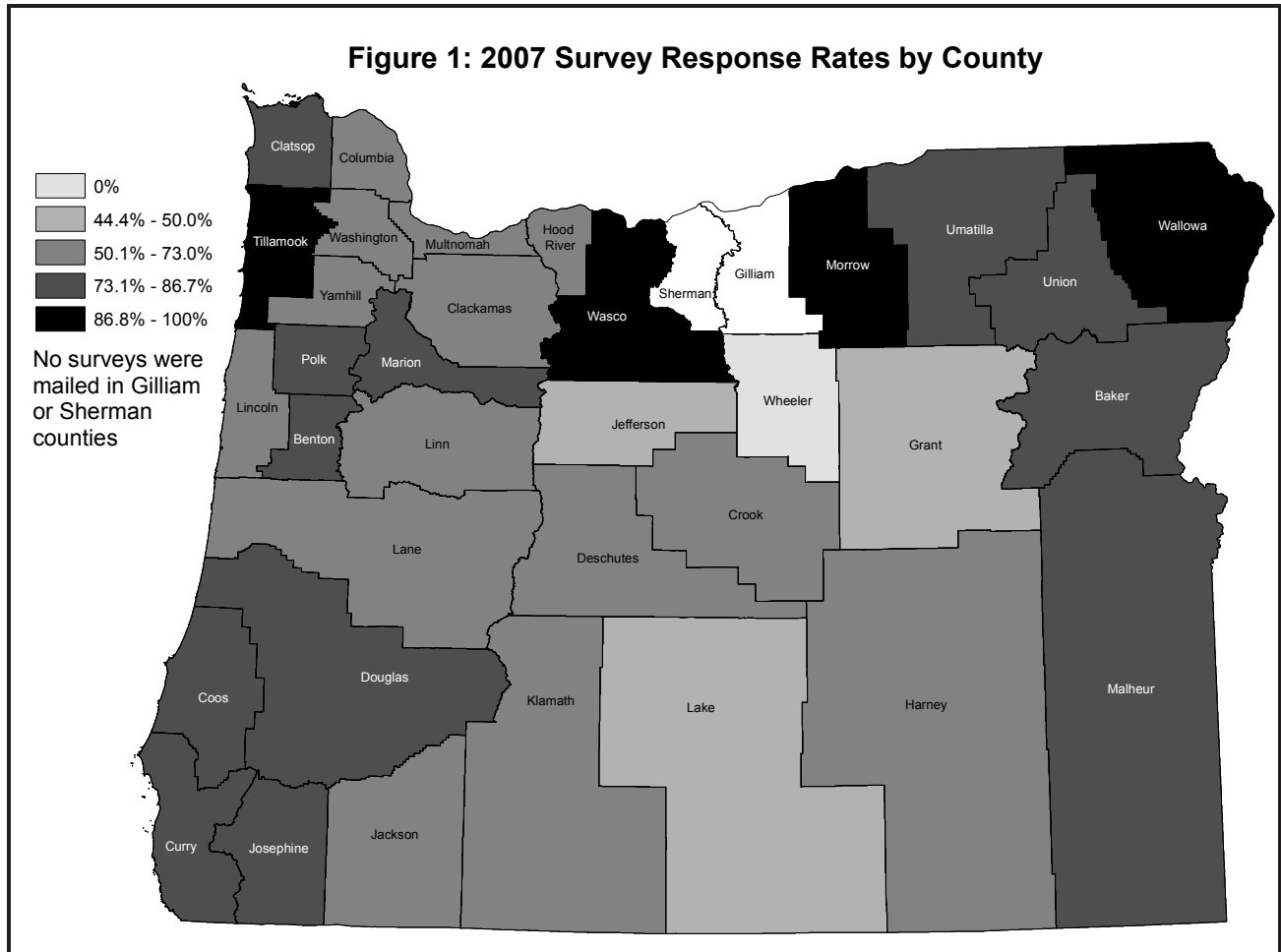
Survey respondents were asked what percent of their patients were in four vulnerable population groups: Medicaid recipients, sliding-fee scale clients, seasonal farmworkers and migrant farmworkers. The portion of each dentist's primary care FTE devoted to special populations was calculated based on those percents. Total FTEs for each of the four groups were calculated by county.

Population to Provider Ratios

Two population to provider ratios were calculated - one for the total population and one for the low-income population. For the first, the total population of each county was divided by the sum of all primary care dental FTEs in that county. For those counties where estimates of the low-income population was available, a ratio was calculated by dividing the number of persons living below 200% of the Federal Poverty Level by the sum of primary care FTEs serving Medicaid and sliding-fee scale patients.

Survey Results and Analysis

Survey Response Rates

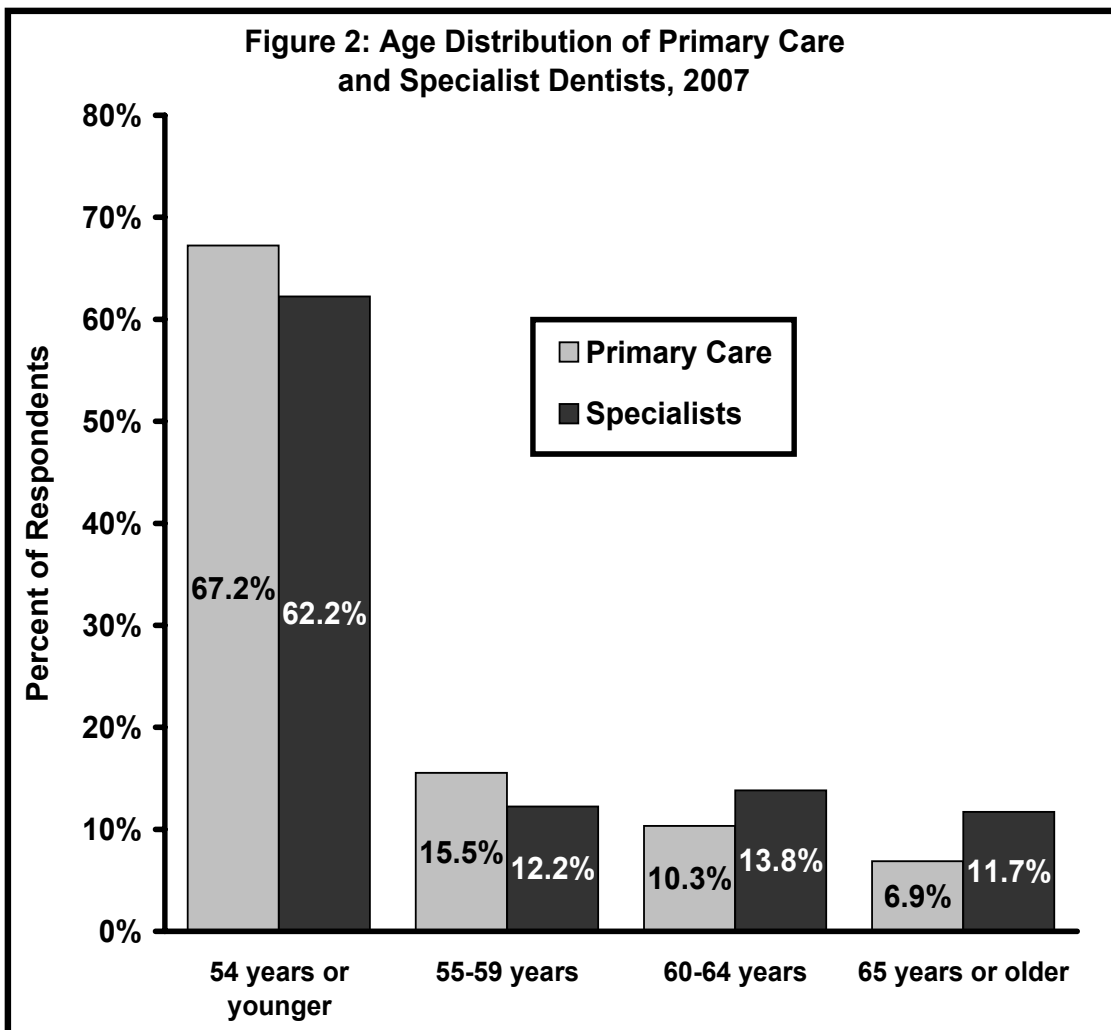


- Surveys were mailed to all dentists listed as general or pediatric dentists by the Oregon Dental Board.
- The overall survey **response rate was 70%**, with wide variation by county.
- Of the 1,784 Oregon dentists who responded to the survey, **1,383 (77.5%) were practicing primary care dentists**. The remaining 401 respondents were either not currently practicing or reported only practicing as a specialist.
- No surveys were mailed in Gilliam or Sherman counties.
- Response numbers by county are shown in Appendix B for the 2007 survey and Appendix C for the 2005 survey.

Survey Results and Analysis

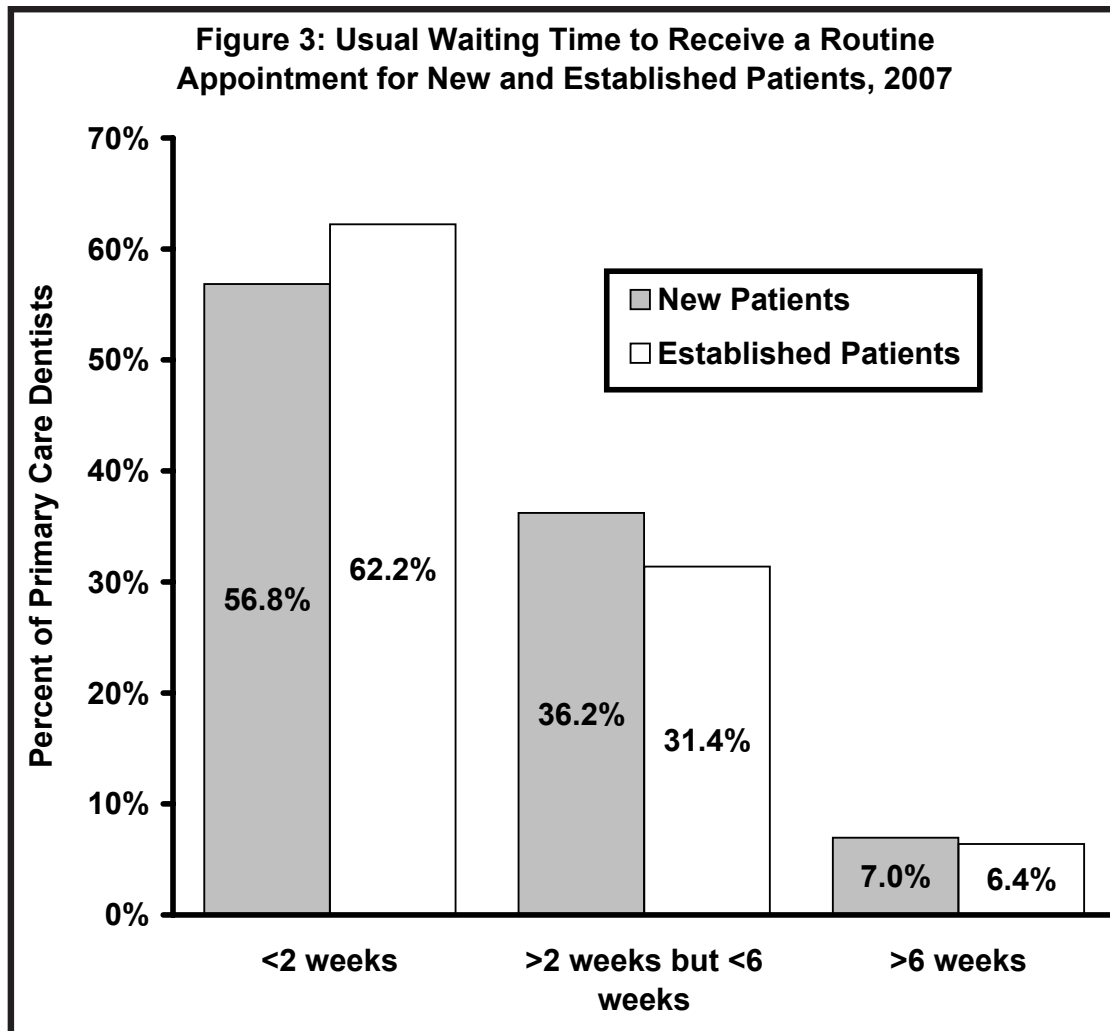
Characteristics of Primary Care Dentists in Oregon

- 6.9% of primary care dentists were **65 years or older** compared to 11.7% of specialists.
- One third (33.3%) of primary care dentists **practice in a group**.
- 40.1% of primary care dentists reported they offer **language translation** to their patients. This included both having someone on staff who could communicate in another language and using a translation service.



Survey Results and Analysis

Characteristics of Primary Care Dentists in Oregon



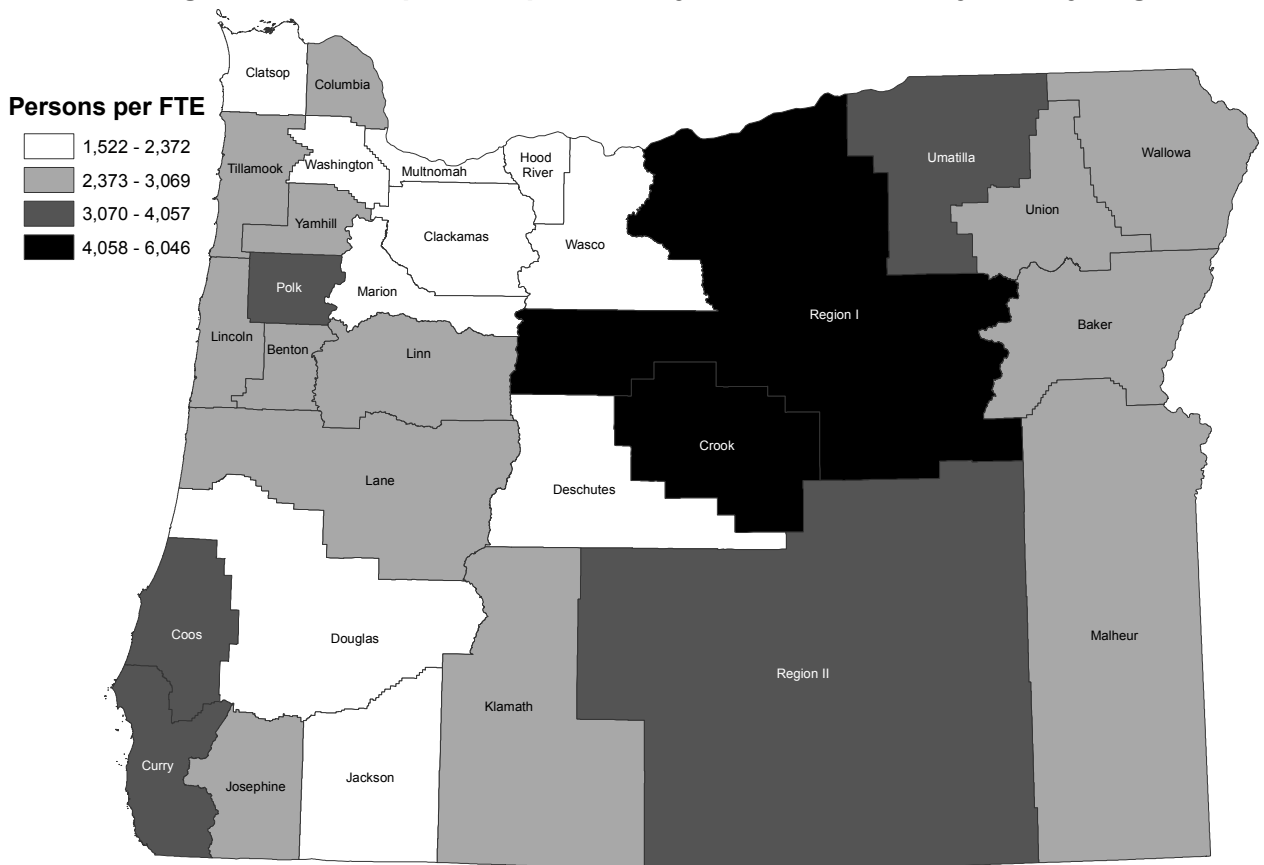
- The majority (95.3%) of primary care dentists reported they were **accepting new patients** at the time of the survey.
- However, more than half of those (45.8%) also said they had some kind of **restrictions on new patients**.
- Most primary care dentists reported that the **wait time to receive an appointment** was less than two weeks for both new and established patients.

Survey Results and Analysis

Total Primary Care Dental FTEs

- All FTE values are calculated according to HRSA guidelines and include values imputed for non-responders. See Table 1 for detailed data.
- There were an estimated **1,645.4 primary care dental FTEs** statewide.
- The estimated primary care dental FTE count is equivalent to **2,243 Oregon residents per dentist**. This ratio has **increased** from 2,185 residents per dentist since the 2005 survey.
- Multnomah County had by far the greatest **number of primary care dental FTEs** (413.6) and Wallowa County had the fewest (2.8).
- The lowest **population to FTE ratio** was in Hood River County (1,522 residents: 1 dentist) and the highest was in Crook County (6,046 residents: 1 dentist).
- Comparable data from the 2005 survey are shown in Appendix D.

Figure 4: 2007 Population per Primary Care Dental FTE by County/Region



Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler.
 Region II: Harney and Lake.

Survey Results and Analysis

Table 1: Population Per 2007 Estimated Primary Care Dental FTE By County

PLACE	2007 ESTIMATED TOTAL FTE	CHANGE FROM 2005 ESTIMATED TOTAL FTE	2006 POPULATION	GENERAL POPULATION PER ESTIMATED FTE
Baker	5.9	1.0	16,470	2,794
Benton	28.3	-8.8	84,125	2,970
Clackamas	172.2	-2.7	367,040	2,131
Clatsop	19.0	3.3	37,045	1,950
Columbia	15.4	-2.7	46,965	3,051
Coos	18.6	1.6	62,905	3,389
Crook	4.1	-0.9	24,525	6,046
Curry	6.3	-1.0	21,365	3,366
Deschutes	64.3	-6.3	152,615	2,372
Douglas	46.0	5.8	103,815	2,257
Hood River	14.0	2.2	21,335	1,522
Jackson	84.6	-2.9	198,615	2,348
Josephine	32.9	1.8	81,125	2,464
Klamath	21.3	-0.1	65,455	3,069
Lane	136.7	-2.3	339,740	2,486
Lincoln	16.1	-0.7	44,520	2,764
Linn	37.2	1.9	108,250	2,911
Malheur	11.8	-0.7	31,725	2,690
Marion	149.0	10.1	306,665	2,058
Multnomah	413.6	11.2	701,545	1,696
Polk	16.4	-1.1	66,670	4,057
Region I	9.3	1.0	46,480	4,991
Region II	4.2	0.1	15,210	3,593
Tillamook	9.1	1.8	25,530	2,803
Umatilla	22.2	0.3	72,190	3,250
Union	9.1	-0.1	25,110	2,746
Wallowa	2.8	0.0	7,140	2,550
Wasco	11.4	-0.2	24,070	2,107
Washington	231.3	-9.2	500,585	2,164
Yamhill	32.1	3.0	91,675	2,858
State Total	1,645.4	5.6	3,690,505	2,243

Estimated FTE includes values imputed for survey non-responders.

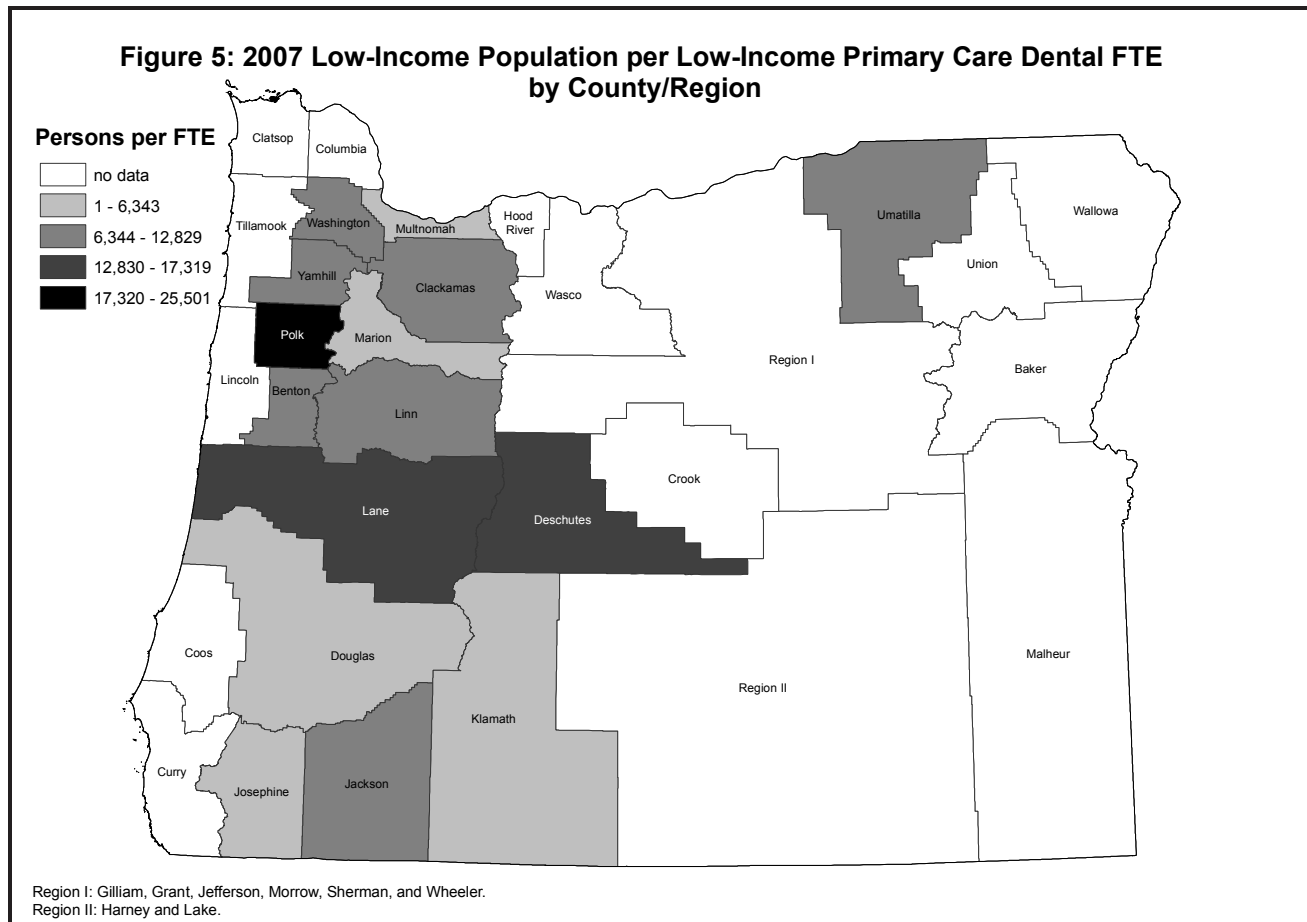
Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler.

Region II: Harney and Lake.

Population data source: Portland State University, Population Research Center, 2006 Oregon Population Report

Survey Results and Analysis

Primary Care Dental FTEs for Low-income Population



- All FTE values are calculated according to HRSA guidelines and include values imputed for non-responders. Low-income FTEs are the sum of sliding-fee scale and Medicaid percent of practice. See Table 2 for detailed data.
- There were an estimated **146.5 low-income primary care dental FTEs** statewide.
- The estimated low-income primary care dental FTE count is equivalent to **7,986** low-income Oregonians for every dentist serving that population. This ratio has decreased from **11,198** residents per dentist since 2005.
- Multnomah County had the greatest **number of low-income primary care dental FTEs** (48.3).
- Seven counties and both of the multi-county regions had **less than one full time low-income FTE** each.
- Of the counties for which low-income population data are available, the lowest **population to FTE ratio** was also in Multnomah County (4,618 residents: 1 dentist) and the highest was in Polk County (25,501 residents: 1 dentist).
- Comparable data from the 2005 survey are shown in Appendix E.

Survey Results and Analysis

Table 2: Low-income Population Per 2007 Estimated Primary Care Dental Low-income FTE By County

PLACE	2007 ESTIMATED LOW-INCOME FTE	CHANGE FROM 2005 ESTIMATED LOW-INCOME FTE	2006 LOW-INCOME POPULATION*	LOW-INCOME POPULATION PER ESTIMATED LOW-INCOME FTE
Baker	0.5	+ 0.2	NA	
Benton	2.0	+ 0.5	23,384	11,599
Clackamas	7.5	+ 1.8	87,129	11,565
Clatsop	2.6	+ 1.6	NA	
Columbia	1.2	- 1.4	NA	
Coos	1.3	+ 1.1	NA	
Crook	0.0	0.0	NA	
Curry	0.7	+ 0.1	NA	
Deschutes	2.3	- 0.2	40,045	17,319
Douglas	6.0	+ 1.0	38,148	6,343
Hood River	1.8	+ 1.2	NA	
Jackson	5.5	- 0.3	70,921	12,829
Josephine	5.4	+ 2.5	29,567	5,497
Klamath	5.0	+ 0.5	26,867	5,373
Lane	7.7	+ 1.8	114,200	14,854
Lincoln	0.4	- 1.9	NA	
Linn	3.9	+ 3.3	38,151	9,733
Malheur	2.5	+ 0.3	NA	
Marion	18.4	+ 7.6	109,971	5,969
Multnomah	48.3	+ 9.0	222,833	4,618
Polk	1.0	- 0.4	26,049	25,501
Region I	0.9	+ 0.9	NA	
Region II	0.4	+ 0.1	NA	
Tillamook	1.0	+ 0.4	NA	
Umatilla	2.4	+ 1.9	25,057	10,567
Union	0.9	+ 0.4	NA	
Wallowa	0.2	- 0.1	NA	
Wasco	0.5	+ 0.4	NA	
Washington	14.0	+ 7.4	128,912	9,225
Yamhill	2.3	+ 2.0	27,427	12,093
State Total	146.5	+ 42.0	1,170,245	7,986

Estimated FTE includes values imputed for survey non-responders.

Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler.

Region II: Harney and Lake.

*Low-Income = Living below 200% of Federal Poverty Level

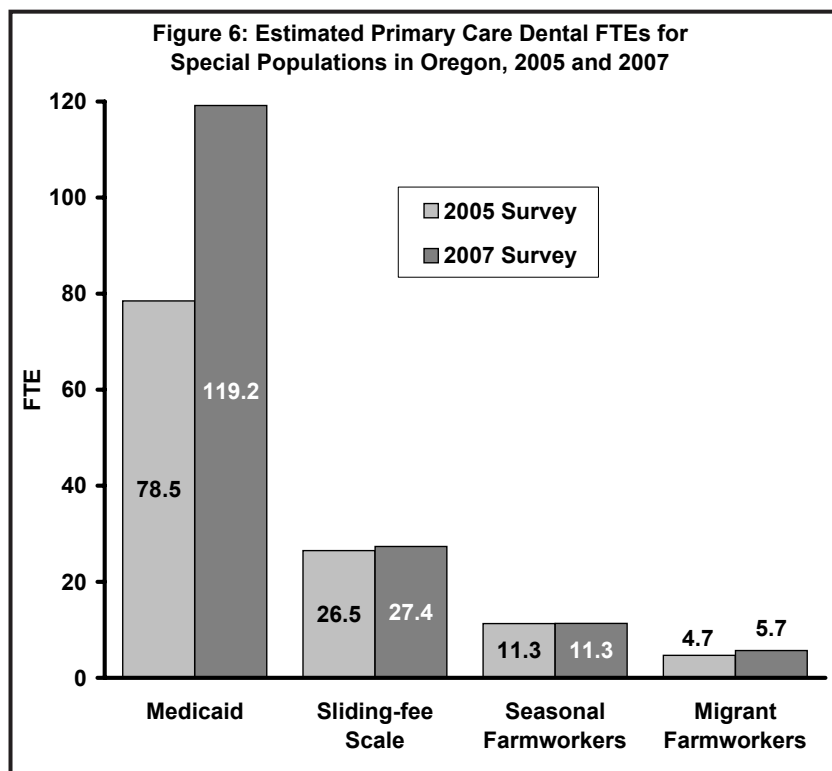
Data source: 2006 American Community Survey, US Census Bureau.

NA = 2006 data not available

Survey Results and Analysis

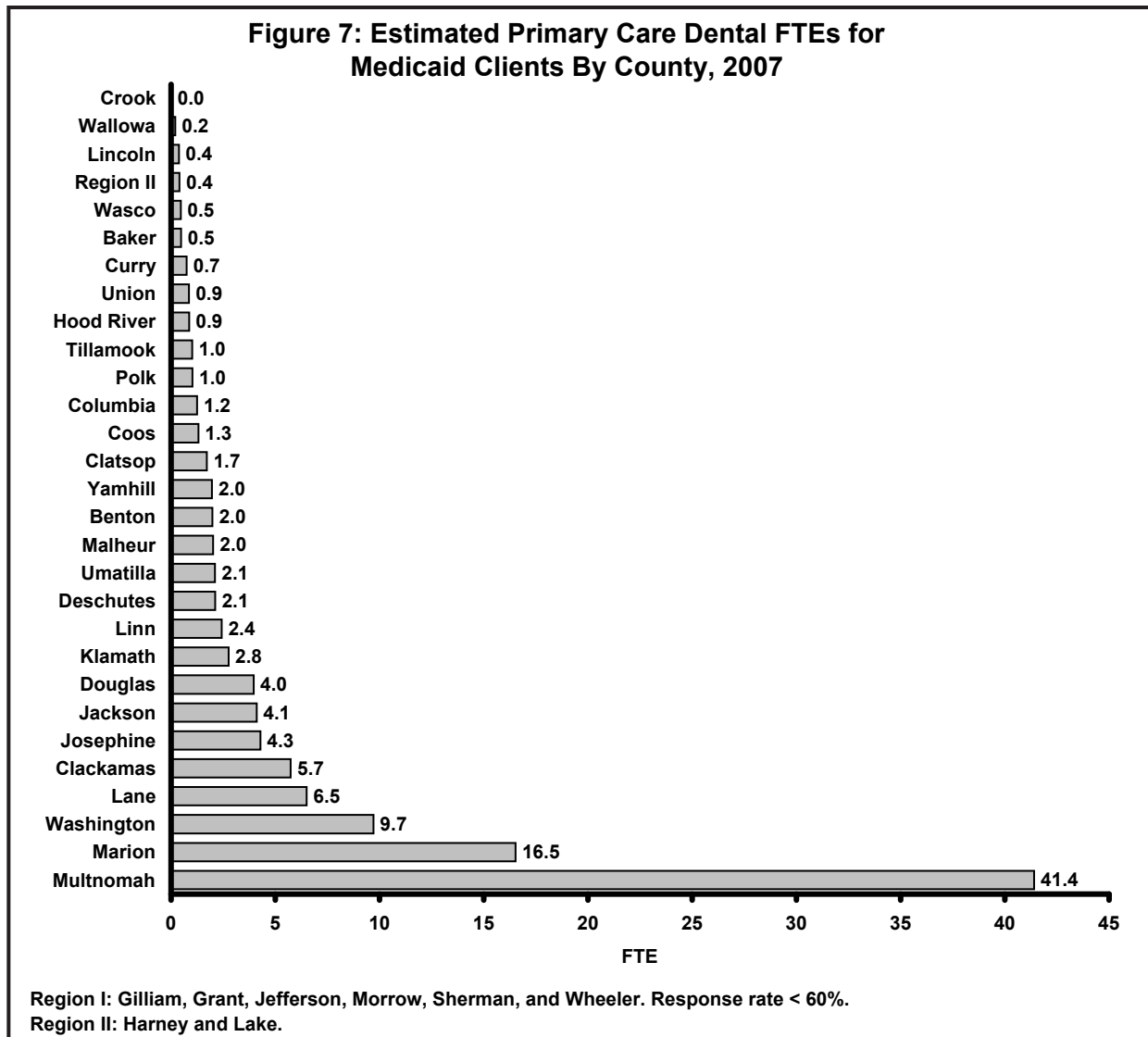
Primary Care Dental FTEs for Other Special Populations

- FTEs for special populations were calculated by multiplying each dentist's total calculated FTE by the percent of that dentist's patients who were in each group. Values were then imputed for non-responders.
- The estimated number of statewide primary care FTEs serving the **Medicaid** population increased from 78.5 to 119.2 between 2005 and 2007. However, outreach to the Medicaid dental community in 2007 may have increased the response rate from Medicaid providers.
- The estimated number of FTEs serving **sliding-fee scale patients** and **migrant or seasonal farmworkers** has remained roughly the same.
- In 2007, there were an estimated 17.0 primary care dental FTEs serving **farmworkers** in the entire state.
- In September 2002, Alice Larson, Ph.D., published a report titled "Migrant and Seasonal Farmworker Enumeration Profiles Study, Oregon." The data were too old to use in this report for comparison with FTE capacity. Therefore no ratios were calculated. At that time, the total estimate of migrant and seasonal farmworkers and their families in Oregon was 174,484.



Survey Results and Analysis

Medicaid FTEs by County



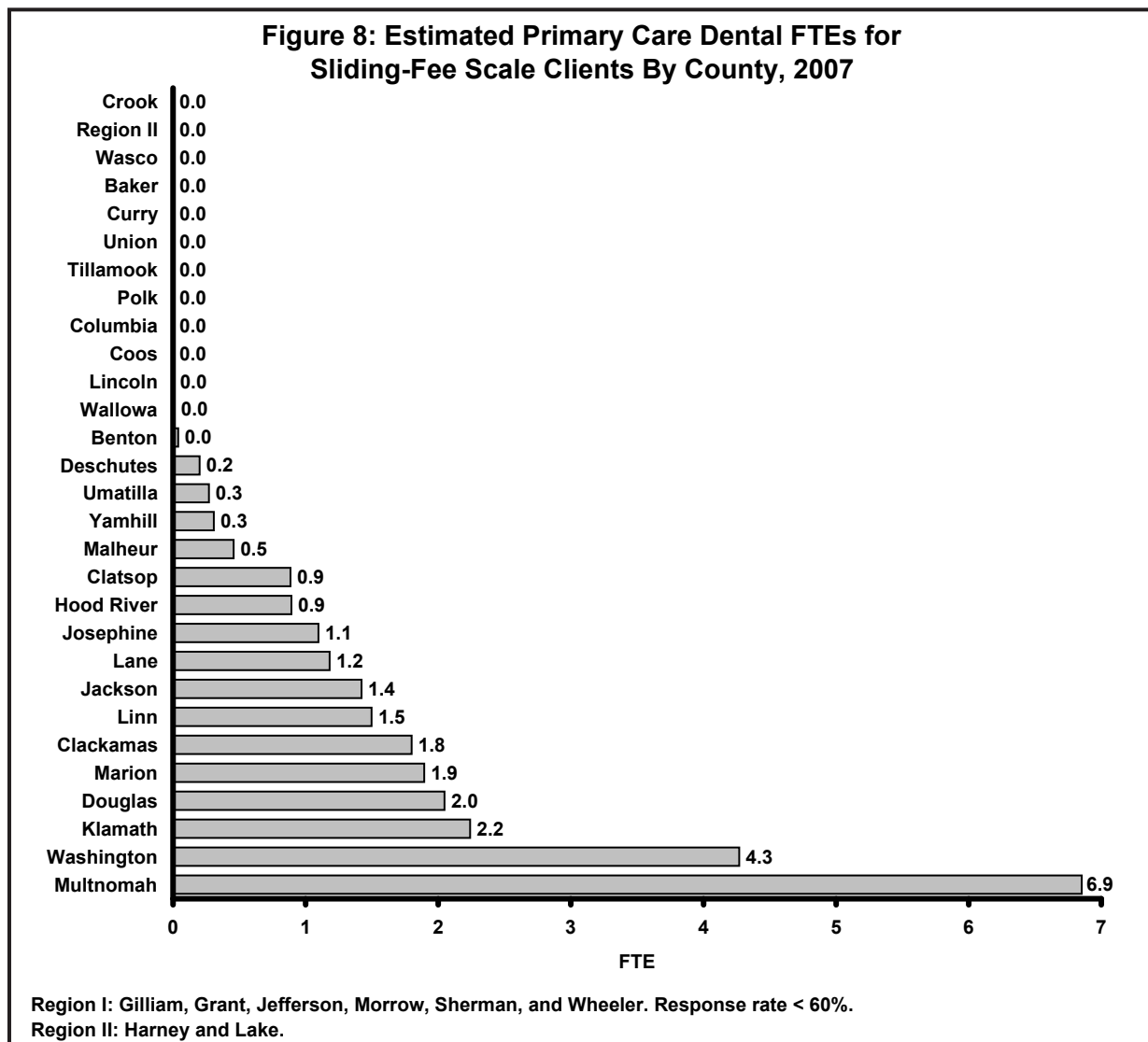
- Of the state's estimated 119.2 Medicaid FTEs, 41.4 (35%) are located in Multnomah County.
- Eight counties and Region II had ***fewer than one full FTE*** serving the Medicaid population.
- Values are imputed for non-responders. Estimated FTE is not shown on Figure 7 for areas with less than a 60% response rate.

Survey Results and Analysis

Sliding-Fee Scale FTEs by County

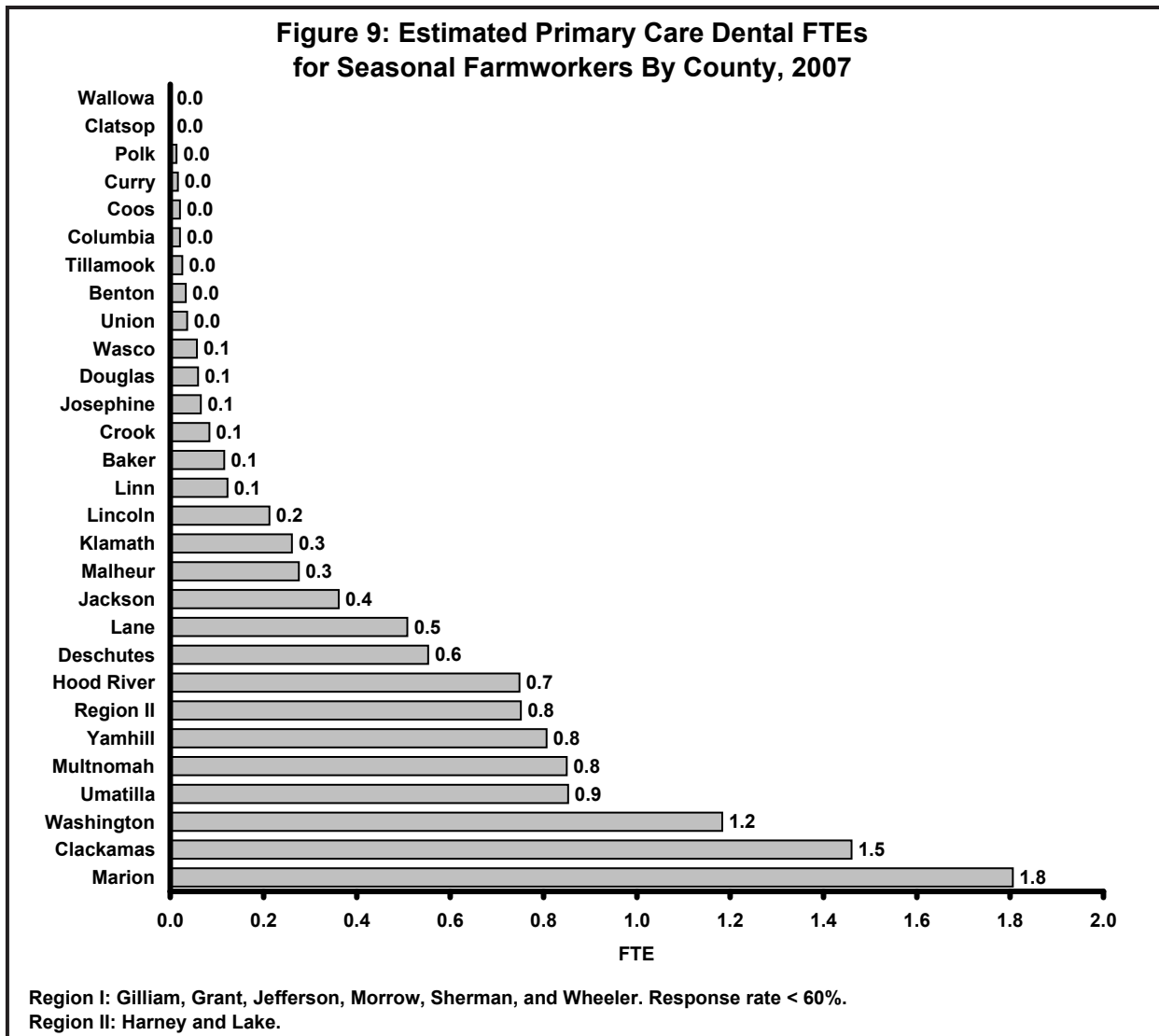
- Of the state’s 27.4 sliding-fee scale FTEs, 6.9 (25%) are located in Multnomah County. An additional 16% are in Washington County.
- Values are imputed for non-responders. Estimated FTE is not shown on Figure 8 for areas with less than a 60% response rate.
- Only 10 counties had **at least one full FTE** serving sliding-fee scale clients.

Figure 8: Estimated Primary Care Dental FTEs for Sliding-Fee Scale Clients By County, 2007



Survey Results and Analysis

Seasonal Farmworker FTEs by County



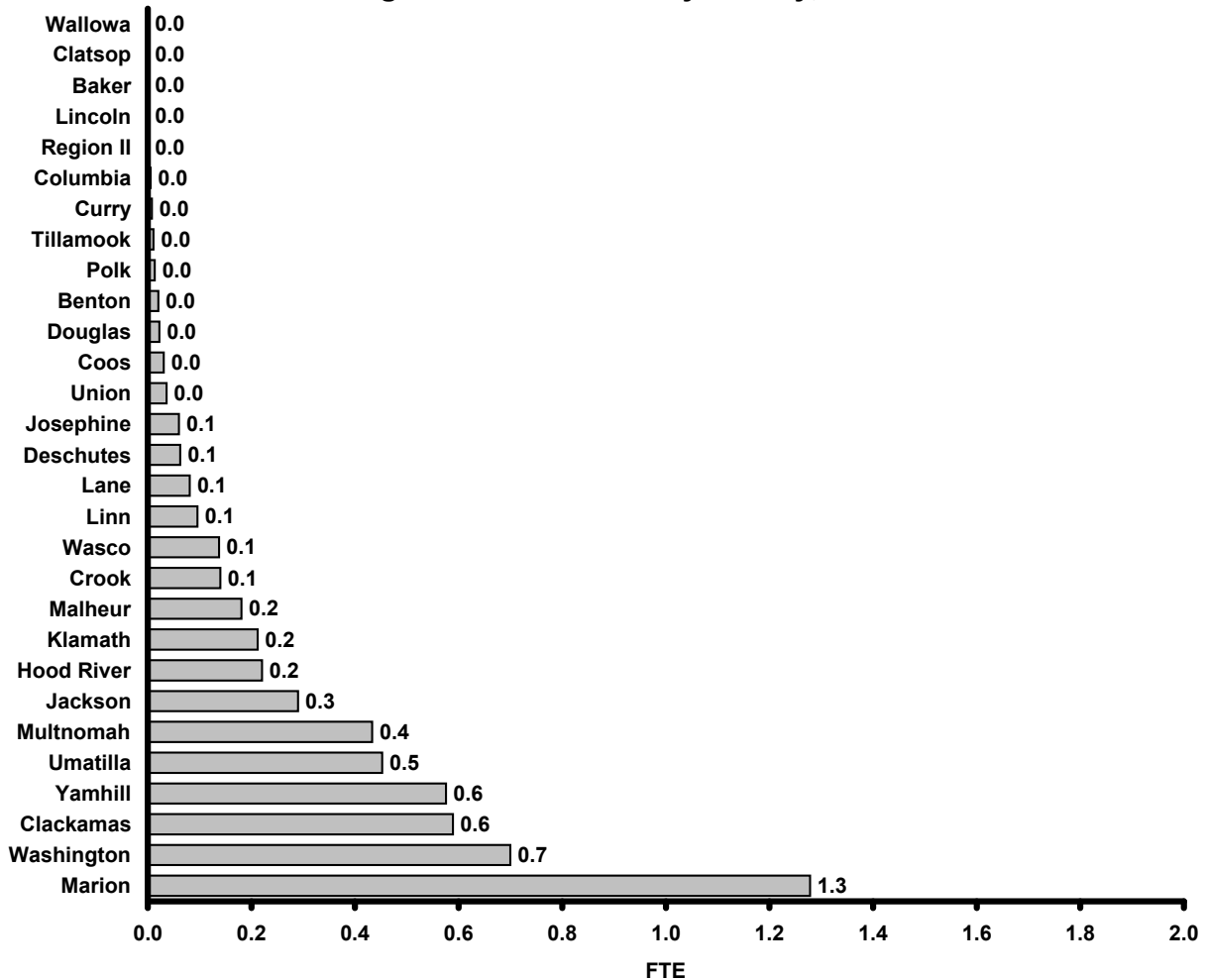
- Only three counties have at least one full FTE serving seasonal farmworkers. They are Washington, Clackamas and Marion counties.
- These **three counties have 40%** of the seasonal farmworker FTEs in the state.
- Values are imputed for non-responders. Estimated FTE is not shown on Figure 9 for areas with less than a 60% response rate.

Survey Results and Analysis

Migrant Farmworker FTEs by County

- Only Marion County has at least one full FTE serving migrant farmworkers.
- Values are imputed for non-responders. Estimated FTE is not shown on Figure 10 for areas with less than a 60% response rate.

Figure 10: Estimated Primary Care Dental FTEs for Migrant Farmworkers By County, 2007



Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler. Response rate < 60%.
 Region II: Harney and Lake.

Discussion

Several issues should be considered when examining the results of this survey.

Saturation Ratio: The Federal Health Resources and Services Administration (HRSA) considers a dental population to provider ratio greater than 3,000:1 to be overutilization of resources. The administration considers any area with this ratio to have no services available for patients from contiguous areas.

Shortage Ratio: The major HRSA criteria for a Dental Health Professional Shortage Designation is the population to provider ratio. For areas with low amounts of fluoride in the drinking water, the minimum ratio to qualify is 4,000:1. If the population majority in an area benefits from fluoridation, the ratio for Federal Shortage Designation climbs to 5,000:1. Only five counties in Oregon have more than 50% of the population covered by fluoridation. These counties are Benton, Clatsop, Coos, Marion and Wasco. The HRSA considers an area that meets one of these shortage ratios as having “critical need.”

Other considerations: Factors such as rational service area, high needs, low-income population percent and distance are also considered when applying for a shortage designation. The Primary Care Program in Health Systems Planning makes applications for shortage designations (see Appendix G). Communities demonstrating “readiness” such as a coalition, seed money or in-kind resources to be used to start a public dental program are encouraged to call the Health Systems Planning unit and further investigate the possibility of a designation.

Special populations: Table 2 illustrates a great need for low-income (<200% FPL) dental services. In fact, the need is overwhelming in several counties where the population to provider ratio varies between two and four times the level HRSA considers critical.

Recommendations

We believe policy-makers need to better understand the reasons behind the gaps between the needs of Oregonians and available resources.

In the introduction we identified several high-level categories for organizing strategies and we have organized our recommendations accordingly. Our thoughts are primarily directional rather than explicitly highly detailed recommendations. We invite the experts to winnow this list, include other recommendations we have not thought of, or flesh out ones we have.

Open Up Existing Dental Capacity

- Overhead for dental practices is high. Every procedure is invasive and dental operatories are treated more like surgical units. This contributes to the cost of delivering care. When reimbursement is 50% of “usual and customary” fees, it is often below the actual cost of providing care. Providers can actually lose money for the services they provide. Reasonable reimbursement would generate more capacity.
- By covering greater numbers of people with dental insurance, capacity would improve. According to the 2006 Oregon Population Survey, 41% of the population has no dental insurance. While some can afford care, many cannot. Because periodontal disease is being linked to more and more chronic diseases, it has been proven to be cheaper on the medical side to treat the gum disease. It has also been shown that adults with dental coverage are more likely to see that their children go to the dentist.
- A rural policy equivalent to Rural Health Clinics who receive the Prospective Payment System (PPS) for dental might improve access in rural areas.
- Policy-makers should consider dental benefits in the SB 329 Delivery System planning efforts.
- Consider outlining and promoting strategies to encourage baby boomer dentists to remain in the workforce longer and/or help them match with students before and after graduation. Perhaps they could cut back their hours while mentoring the new doctor, thus increasing the capacity of one provider.

Recruit Additional Dentists:

- Determine the existing capacity of the educational pipeline and current resources.
- Determine and then secure additional resources to increase interest in dental careers among grade and high school students.
- Determine and secure resources to increase dental school capacity and enrollment.

Recommendations

- Determine and adopt incentives that increase the likelihood graduates will practice in Oregon (rural residencies, regional dental programs, etc.).
- Increase funding for the Oregon Student Assistance Commission, which added dentists to its list of students eligible for loan repayment in rural areas, as of the 2007 session. No new money was made available to cover these additional providers.
- Determine Oregon communities in greatest need and whether community health centers can expand or be created to meet that need.
- Determine Oregon communities where corresponding primary care and behavioral health capacity and access needs exist, and align efforts across the dental, behavioral health, and primary care sectors to provide services in an integrated manner.

Modify the Existing Workforce

- Reassess current prevention strategies especially regarding sealants and other preventive measures;
- Increase the level, range, and scope of these prevention strategies;
- Assess and improve the level of screening activities and associated referrals to catch issues before they worsen;
- Analyze and determine to what degree addressing any scope of practice issues are relevant and can increase the ability of the existing workforce to address needs.

Appendix A

Primary Care Dental FTE Formulas and Imputation Method

Dentist Equivalency Weights by Age and Number of Auxiliaries

<u>Auxiliary FTEs</u>	<u>Dentist's Age</u>			
	<u>< 55</u>	<u>55-99</u>	<u>60-64</u>	<u>65+</u>
0	0.8	0.7	0.6	0.5
1	1.0	0.9	0.8	0.7
2	1.2	1.0	1.0	0.8
3	1.4	1.2	1.0	1.0
>= 4	1.5	1.5	1.3	1.2

where:

**Auxiliary FTE = (weekly hygienist hours + weekly chairside assistant hours) / 40
and rounded to whole number**

Primary Care Dental FTE Calculation

PC Dental FTE = Dentist Equivalency Weight X (Weekly Primary Care Hours/40)

A dentist's FTE may exceed 1.0 because of equivalency weighting.

Medicaid, sliding-fee scale, seasonal farmworker and migrant farmworker FTEs are calculated by multiplying the dentist's primary care FTE by the percent of practice for each population.

For dentists with offices in two counties, their PC Dental FTE is split between the counties based on the percent of their primary care hours spent in each office.

A dentist's FTE can exceed 1.0 due to auxiliaries

FTE Imputation for Non-Responders

The mean Primary Care Dental FTE in each county (counting both primary care dentists and specialists) is assigned to all non-responders in that county. Total Primary Care FTEs are then summed for each county and the state.

Appendix B

2007 Dental Survey Response Matrix

COUNTY*	SURVEYS MAILED	NON-RESPONDERS [^]	RESPONDERS				RESPONSE RATE
			TOTAL	PRIMARY CARE DENTISTS	SPECIALISTS OR UNKNOWN SPECIALTY	NON-PRACTICING	
Baker	9	2	7	7	0	0	78%
Benton	42	10	32	24	5	3	76%
Clackamas	263	82	181	135	26	20	69%
Clatsop	24	4	20	19	0	1	83%
Columbia	22	8	14	12	1	1	64%
Coos	36	7	29	21	2	6	81%
Crook	7	2	5	4	0	1	71%
Curry	12	3	9	6	0	3	75%
Deschutes	114	37	77	50	13	14	68%
Douglas	56	13	43	41	1	1	77%
Gilliam	0	0	0	0	0	0	
Grant	4	2	2	2	0	0	50%
Harney	3	1	2	2	0	0	67%
Hood River	20	7	13	11	1	1	65%
Jackson	126	34	92	70	11	11	73%
Jefferson	9	5	4	2	1	1	44%
Josephine	48	11	37	31	3	3	77%
Klamath	38	14	24	17	2	5	63%
Lake	2	1	1	1	0	0	50%
Lane	203	62	141	113	14	14	69%
Lincoln	24	7	17	14	1	2	71%
Linn	46	13	33	28	2	3	72%
Malheur	15	2	13	12	0	1	87%
Marion	221	56	165	133	20	12	75%
Morrow	1	0	1	1	0	0	100%
Multnomah	675	224	451	344	55	52	67%
Polk	23	6	17	13	0	4	74%
Sherman	0	0	0	0	0	0	
Tillamook	13	1	12	10	0	2	92%
Umatilla	32	6	26	21	2	3	81%
Union	15	3	12	8	2	2	80%
Wallowa	3	0	3	3	0	0	100%
Wasco	16	1	15	12	0	3	94%
Washington	367	118	249	189	30	30	68%
Wheeler	1	1	0	0	0	0	0%
Yamhill	55	18	37	27	3	7	67%
Total	2,545	761	1,784	1,383	195	206	70%

*County: For non-responders, this is based on work address reported by the Board of Dentistry. For responders, this is based on work address provided by the dentist. When actively practicing responders listed office locations in different counties, the county for the office where they worked the greater number of hours was used.

[^]Non-Responders" include surveys returned undeliverable.

Total does not include 31 surveys sent to dentists with Oregon mailing addresses but who practice only out of state.

Appendix C

2005 Dental Survey Response Matrix

COUNTY*	SURVEYS MAILED	NON-RESPONDERS^	RESPONDERS				RESPONSE RATE
			TOTAL	PRIMARY CARE DENTISTS	SPECIALISTS OR UNKNOWN SPECIALTY	NON-PRACTICING	
Baker	7	2	5	5	0	0	71%
Benton	47	17	30	25	1	4	64%
Clackamas	237	94	143	125	3	15	60%
Clatsop	24	9	15	13	1	1	63%
Columbia	26	9	17	15	0	2	65%
Coos	32	11	21	15	0	6	66%
Crook	6	2	4	4	0	0	67%
Curry	11	4	7	6	1	0	64%
Deschutes	101	45	56	44	2	10	55%
Douglas	50	15	35	32	0	3	70%
Gilliam	0	0	0	0	0	0	
Grant	4	2	2	2	0	0	50%
Harney	3	0	3	3	0	0	100%
Hood River	16	4	12	11	0	1	75%
Jackson	114	48	66	58	1	7	58%
Jefferson	5	5	0	0	0	0	0%
Josephine	46	16	30	27	1	2	65%
Klamath	32	10	22	18	0	4	69%
Lake	3	1	2	1	0	1	67%
Lane	189	83	106	90	1	15	56%
Lincoln	23	6	17	14	0	3	74%
Linn	45	13	32	28	1	3	71%
Malheur	15	4	11	10	0	1	73%
Marion	184	61	123	112	4	7	67%
Morrow	0	0	0	0	0	0	
Multnomah	587	265	322	275	13	34	55%
Polk	26	6	20	15	1	4	77%
Sherman	0	0	0	0	0	0	
Tillamook	13	4	9	7	1	1	69%
Umatilla	31	6	25	21	2	2	81%
Union	12	4	8	7	1	0	67%
Wallowa	3	0	3	3	0	0	100%
Wasco	16	4	12	11	0	1	75%
Washington	326	116	210	182	4	24	64%
Wheeler	0	0	0	0	0	0	
Yamhill	46	17	29	23	1	5	63%
Total	2,280	883	1,397	1,202	39	156	61%

*County: For non-responders, this is based on work address reported by the Board of Dentistry. For responders, this is based on work address provided by the dentist. When actively practicing responders listed office locations in different counties, the county for the office where they worked the greater number of hours was used.

^"Non-Responders" include surveys returned undeliverable.

Total does not include 167 surveys sent to dentists with Oregon mailing addresses but who practice only out of state.

Appendix D

Population Per 2005 Estimated Primary Care Dental FTE By County

PLACE	2005 ESTIMATED TOTAL FTE	2004 POPULATION	GENERAL POPULATION PER ESTIMATED FTE
Baker	4.9	16,547	3,400
Benton	37.2	81,751	2,200
Clackamas	174.9	356,247	2,037
Clatsop	15.7	36,401	2,319
Columbia	18.1	45,646	2,528
Coos	17.0	62,698	3,696
Crook	4.9	20,651	4,197
Curry	7.3	21,149	2,889
Deschutes	70.6	135,449	1,918
Douglas	40.2	102,346	2,547
Hood River	11.8	21,049	1,782
Jackson	87.5	191,200	2,186
Josephine	31.1	78,600	2,529
Klamath	21.4	64,800	3,028
Lane	139.0	333,351	2,398
Lincoln	16.8	44,397	2,645
Linn	35.3	106,348	3,011
Malheur	12.5	31,854	2,556
Marion	138.9	298,452	2,149
Multnomah	402.4	685,950	1,704
Polk	17.6	64,951	3,696
Region I	8.3	45,097	5,417
Region II	4.1	15,148	3,702
Tillamook	7.3	24,949	3,420
Umatilla	21.9	72,248	3,296
Union	9.3	24,851	2,685
Wallowa	2.8	7,150	2,600
Wasco	11.7	23,900	2,051
Washington	240.5	480,199	1,996
Yamhill	29.1	89,199	3,068
State Total	1,639.8	3,582,578	2,185

Estimated FTE includes values imputed for survey non-responders.

Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler.

Region II: Harney and Lake.

Population data source: Portland State University, Population Research Center, 2004 Oregon Population Report

Appendix E

Low-income Population Per 2005 Estimated Primary Care Dental Low-income FTE By County

PLACE	2005 ESTIMATED LOW-INCOME FTE	2004 LOW- INCOME POPULATION*	LOW-INCOME POPULATION PER ESTIMATED LOW- INCOME FTE
Baker	0.2	NA	
Benton	1.6	NA	
Clackamas	5.7	82,610	14,404
Clatsop	1.0	NA	
Columbia	2.6	NA	
Coos	0.2	NA	
Crook	0.0	NA	
Curry	0.6	NA	
Deschutes	2.5	NA	
Douglas	5.0	NA	
Hood River	0.5	NA	
Jackson	5.8	NA	
Josephine	2.9	NA	
Klamath	4.5	NA	
Lane	5.9	111,008	18,760
Lincoln	2.3	NA	
Linn	0.6	NA	
Malheur	2.2	NA	
Marion	10.8	121,221	11,190
Multnomah	39.6	228,917	5,780
Polk	1.4	NA	
Region I	0.0	NA	
Region II	0.3	NA	
Tillamook	0.6	NA	
Umatilla	0.4	NA	
Union	0.5	NA	
Wallowa	0.4	NA	
Wasco	0.1	NA	
Washington	6.6	112,281	16,983
Yamhill	0.3	NA	
State Total	105.0	1,175,892	11,198

Estimated FTE includes values imputed for survey non-responders.

Region I: Gilliam, Grant, Jefferson, Morrow, Sherman, and Wheeler.

Region II: Harney and Lake.

*Low-Income = Living below 200% of Federal Poverty Level.

Data source: 2004 American Community Survey, US Census Bureau.

NA = 2004 data not available

Appendix F

2007 Dental Survey Form, Page 1

PLEASE RETURN THIS SURVEY IN THE STAMPED ENVELOPE PROVIDED BY JANUARY 26, 2007	
Make corrections <u>next to</u> your name and phone number below	
Name: <u>JANE Q DENTIST, D.M.D.</u>	
Work Phone: _____	
<p>Is this dentist currently engaged in direct patient care in Oregon? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Volunteer only</p> <p>If NO please fill in your zip code: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> then stop here and return your survey.</p> <p>If VOLUNTEER ONLY please turn the page over and fill out the back of the survey.</p> <p>If YES please continue filling out the front page of the survey:</p>	
Specialty: <input type="radio"/> General Dentistry Other Specialty: _____	Percent of Practice: <input type="text"/> <input type="text"/> <input type="text"/> %
Sub-specialty: _____	Percent of Practice: <input type="text"/> <input type="text"/> <input type="text"/> %
Make corrections <u>next to or beneath</u> your main office address below	
Office location - Address: <u>111 CAVITY ROAD</u>	
City: <u>SMILE</u>	State: <u>OR</u> ZIP: <u>99999</u> County: _____
How many hours per week are you engaged in direct patient care at this location? <input type="text"/> <input type="text"/> <input type="text"/>	
Additional office location - Address: _____	
City: _____	State: _____ ZIP: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> County: _____
How many hours per week are you engaged in direct patient care at this location? <input type="text"/> <input type="text"/> <input type="text"/>	
Does this dentist practice in a group? <input type="radio"/> Yes <input type="radio"/> No If yes, how many dentists are in the group? <input type="text"/> <input type="text"/>	
How many total hours of help per week does this dentist receive from (add part time and full time staff hours):	
dental hygienists <input type="text"/> <input type="text"/> <input type="text"/>	chairside assistants <input type="text"/> <input type="text"/> <input type="text"/>
Does this dentist treat college students in a school environment? <input type="radio"/> Yes <input type="radio"/> No If yes, how many hours per week? <input type="text"/> <input type="text"/> <input type="text"/>	
1. This dentist's age is: <input type="radio"/> 54 years old or younger <input type="radio"/> 55 - 59 years old <input type="radio"/> 60 - 64 years old <input type="radio"/> 65 years old or older	6. What percentage of this dentist's patients are migrant farmworkers ? <i>(A migrant farmworker is an individual whose principal employment is in agriculture on a seasonal basis and who has established a temporary living arrangement for the purpose of performing agricultural labor)</i> <input type="radio"/> None <input type="radio"/> 1% <input type="radio"/> < 1 <input type="radio"/> Other, please specify: <input type="text"/> <input type="text"/> <input type="text"/> %
2. What percentage of this dentist's patients are Medicaid (OHP) patients? <input type="radio"/> None <input type="radio"/> 1% <input type="radio"/> < 1 <input type="radio"/> Other, please specify: <input type="text"/> <input type="text"/> <input type="text"/> %	7. Is this dentist currently accepting new patients? <input type="radio"/> Yes <input type="radio"/> No If you answered YES to the above question, are there restrictions? <input type="radio"/> Yes <input type="radio"/> No Please specify restrictions: _____
3. What percentage of this dentist's patients use a posted sliding fee scale ? <input type="radio"/> None <input type="radio"/> 1% <input type="radio"/> < 1 <input type="radio"/> Other, please specify: <input type="text"/> <input type="text"/> <input type="text"/> %	8. When a patient calls to request a <u>routine appointment</u> , what is the usual elapsed time between the request and the appointment for: A NEW PATIENT: <input type="radio"/> <2-weeks <input type="radio"/> >2-weeks but <6-weeks <input type="radio"/> >6-weeks AN ESTABLISHED PATIENT: <input type="radio"/> <2-weeks <input type="radio"/> >2-weeks but <6-weeks <input type="radio"/> >6-weeks Stop and return your survey.
4. Does this dentist or others on staff offer language interpretation for patients? <input type="radio"/> Yes <input type="radio"/> No If YES, what language(s)? _____	
5. What percentage of this dentist's patients are seasonal farmworkers ? <i>(A seasonal farmworker is a resident whose principal employment is in agriculture on a seasonal basis)</i> <input type="radio"/> None <input type="radio"/> 1% <input type="radio"/> < 1 <input type="radio"/> Other, please specify: <input type="text"/> <input type="text"/> <input type="text"/> %	
First Mailing _____	1

Appendix F

2007 Dental Survey Form, Page 2

Page 2

How many hours per week of volunteer work as a dentist do you do?

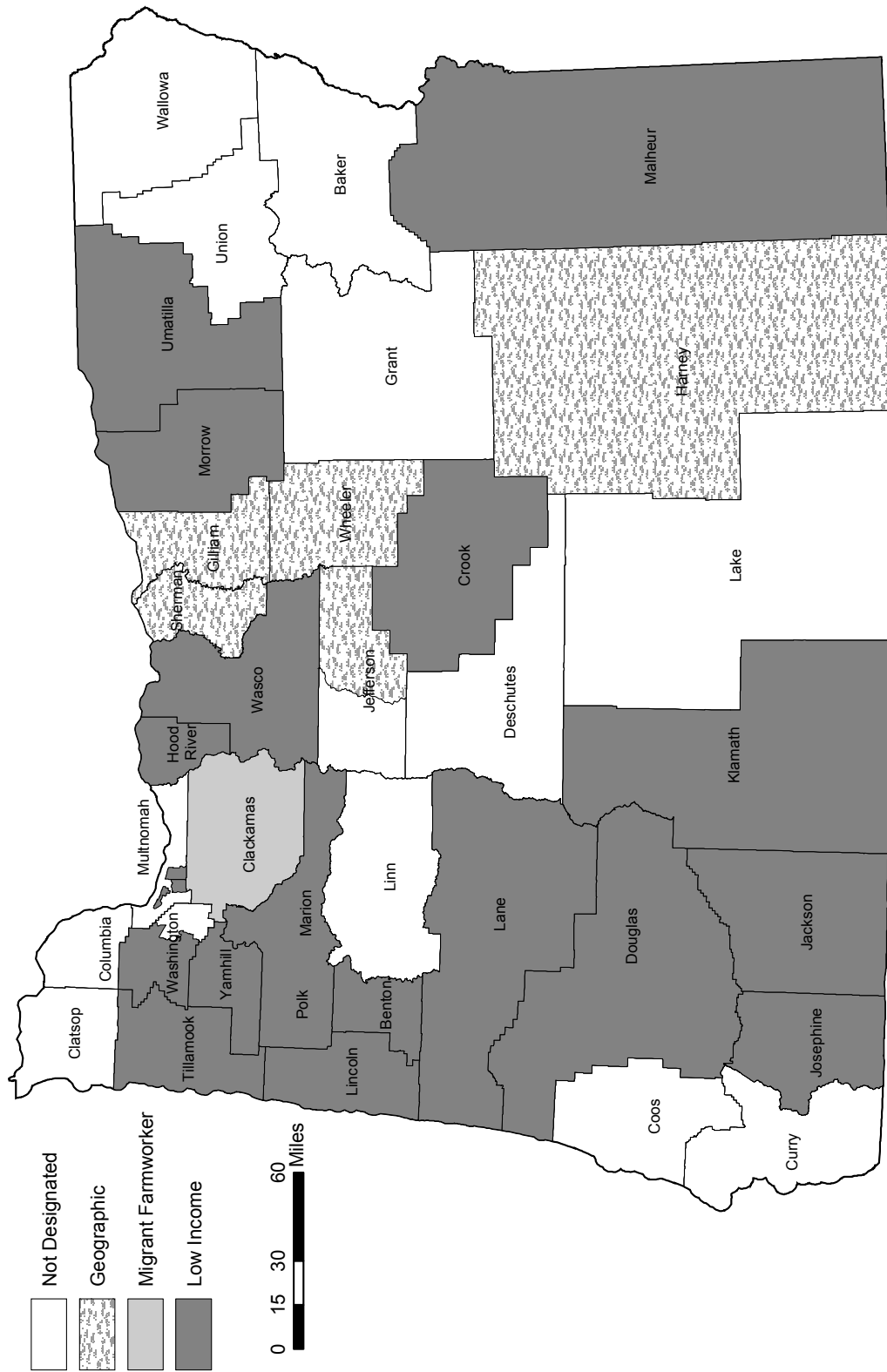
Please fill in your zip code: then return your survey.

First Mailing

1

Appendix G

Oregon Health Professional Shortage Areas (HPSA) Dental Designations as of 7/31/2007



Data Source: Health Resources & Services Administration (HRSA), Bureau of Health Professions
Prepared By: Health Systems Planning 7/31/07

