



# 2009 Colorado Dentist Workforce Survey

---

*Codebook and Variable Frequencies  
Report – Public Use File*

---

Colorado Health Institute  
303 E. 17<sup>th</sup> Avenue, Suite 930  
Denver, CO 80203  
[www.coloradohealthinstitute.org](http://www.coloradohealthinstitute.org)

January 2010

Informing Policy. Advancing Health.

## TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	1
INTRODUCTION.....	2
2009 COLORADO DENTIST WORKFORCE SURVEY .....	2
Methods .....	2
Response rate .....	2
Sampling methods .....	3
Weighting up to the population .....	3
PUBLIC USE DATA FILE.....	3
Technical information .....	3
Codebook structure .....	3
2009 DENTIST WORKFORCE SURVEY FORM.....	5
LISTING OF VARIABLES .....	11
CODEBOOK AND FREQUENCIES.....	14
Created variables .....	61
APPENDIX A: BUSINESS RULES FOR DATA CLEANING.....	63
APPENDIX B: SAMPLING AND RESPONSE SUMMARY BY STRATA .....	65
APPENDIX C: POSTCARDS AND COVER LETTERS .....	66

## **ACKNOWLEDGMENTS**

Funding was provided by Colorado Department of Public Health and Environment's (CDPHE) Oral Health Program.

## INTRODUCTION

The Colorado Health Institute (CHI) serves as an independent, nonpartisan source of health information and policy analysis. With funding from The Colorado Trust, CHI is building a comprehensive health professions database for the purpose of informing health workforce policy in Colorado.

A series of profession-specific workforce databases is being constructed to complement existing health professions workforce data. From these data, CHI is developing a set of indicators that will document changes in health care workforce supply and demand as well as practice patterns that exist in Colorado communities over time. A database download function has been developed to enable visitors to the CHI Web site to download health professions data and customize reports by profession and geographic location.

### 2009 COLORADO DENTIST WORKFORCE SURVEY

#### Methods

The survey was administered in four waves by mail beginning on July 31, 2009. The first wave was a postcard alerting the 887 randomly selected dentists that a survey was coming. On August 10, 2009, the second mailing, which included a cover letter with Commonly Asked Questions, a questionnaire, a self-addressed stamped envelope and a \$2 token, went out to the randomly selected sample of actively licensed dentists living in a urban Colorado area according to the Rural/Urban Commuting Area (RUCA) codes<sup>1</sup>. The survey forms were mailed to the contact address in each licensee's file at the Colorado Department of Regulatory Agencies (DORA). This address may have been the dentist's home or practice location.

On August 17, 2009, a postcard was mailed either reminding the dentists to fill out the survey or thanking them if they already sent it back. The fourth mailing, sent on August 31, 2009, consisted of a cover letter, a second questionnaire and a self-addressed stamped envelope [See Appendix C for cover letters and postcards].

#### Response rate

CHI received survey responses from 282 dentists during the first mailing of questionnaires which ended on August 21, 2009. The second questionnaire mailing yielded an additional 188 completed surveys. In total, CHI received survey responses from 470 or 55 percent of those who were mailed a survey form. The following table shows the final survey disposition by response category.

<b>Final Disposition</b>	<b>Number</b>
Surveys mailed to Colorado dentist sample	887
Rural	5
Out of state	13
Unable to forward	6
Non-responses	10
Eligible sample	858
Returned completed questionnaires (2 <sup>nd</sup> wave)	282
Returned completed questionnaires (4 <sup>th</sup> wave)	188
Total returned completed questionnaires	470
Response rate	54.8%

Data from the paper survey questionnaires returned to CHI were entered into an electronic database (N=463). In addition, seven survey forms were submitted to CHI via an online option on the Internet. With the paper forms, CHI randomly selected 25 for data entry validation. Data entry was 99+ percent accurate across all

---

<sup>1</sup> Rural-urban commuting area (RUCA) codes are a sub-county measure of urban/rural status based on 2000 Census data and 2004 ZIP Codes; they are more specific than county-based definitions of rural and therefore more accurately classify intra-county rural and urban areas. For more information on RUCA codes, refer to <http://depts.washington.edu/uwruca/index.html>.

survey variables entered. Data verification and cleaning were conducted with a series of quality checks to ensure data completeness and adherence to formatting protocols [See Appendix A for Data Cleaning Business Rules].

### **Sampling methods**

The sample was drawn from the 2009 DORA database of dentists with an active Colorado license and a contact address in urban Colorado (n=2,995).

The sampling design followed a disproportionate stratified random sampling scheme and included 887 dentists randomly selected from six strata. The six sample strata were based on combinations of gender and age. [See Appendix B for sampling and response summary by stratum].

### **Weighting up to the population**

This survey was conducted to yield information about dentists holding an active license and practicing in urban Colorado as of July 2009. A survey form was mailed to a random sample of licensed Colorado dentists with a contact address in urban Colorado (N=887). The data file includes variable counts for valid respondents only (N=470).

Strata based on gender and age were used to develop the survey weight variable and adjust for non-response bias. The weight variable must be applied to all descriptive and inferential statistics calculated from the dentist workforce survey data in order to correctly apportion the sample population to the overall urban dentist population in Colorado. [See Appendix B for strata information].

### **PUBLIC USE DATA FILE**

This codebook specifies the variables contained in the 2009 CHI Colorado Dentist Workforce Survey public use file (PUF). The file contains 470 records, one for each respondent, and includes a weight variable. The PUF contains 99 variables. [See the list of variables on p.11-13 for the variables contained in the PUF].

The PUF is available for anyone to analyze. To minimize any risk of indirect identification and ensure confidentiality of survey respondents, sub-state geographic identifiers such as county, city and ZIP Code, and other sensitive variables such as graduation year, are removed or rolled up into categorical variables. Users of the PUF must fill out a registration form.

All users of the data must include the following citation in any public release of the data or its subsequent analysis: "Source: The 2009 Dentist Workforce Survey, Colorado Health Institute."

In addition, CHI requests that interested individuals and organizations using the database share their analysis and findings with CHI by contacting Christine Demont-Heinrich at 720.382.7093, or by e-mail at [demont-heinrichc@coloradohealthinstitute.org](mailto:demont-heinrichc@coloradohealthinstitute.org).

### **Technical information**

The PUF is released as SAS, comma-delimited, Excel and SPSS files. In addition, a sampling and response summary by strata is provided in Appendix B.

### **Codebook structure**

The codebook lists variable labels in the order in which they appear on the questionnaire. Each variable includes a name, description and any appropriate technical notes. The last 3 variables in the codebook were created from survey questions and re-coded to protect the confidentiality of survey respondents.

For each variable, an unweighted and weighted frequency is provided. The unweighted sum for each variable totals 470, that is, the number of survey respondents. The weighted sum is 2,995, the number of actively licensed dentists living or practicing in urban Colorado [Because of rounding, totals in the weighted frequency tables do not always equal 2,995].

Four different values are used to indicate the type of missing value. A -6 indicates an invalid answer such as marking more than one item when only one was supposed to be marked or a value that is not possible (e.g., working more than 168 hours per week). A value of -7 indicates that a respondent answered a question when they weren't supposed to (as part of a skip pattern). A value of -8 indicates a blank value that is supposed to be blank (respondent successfully followed instructions regarding a skip pattern). Finally, a value of -9 indicates a blank value when information should have been provided. A value of -6 is usually retained if it is within a skip pattern so that it takes precedence over a -7.

**For more information, contact:**

Glenn Goodrich

Programmer/Analyst

Colorado Health Institute

720.382.7095

[goodrichg@coloradohealthinstitute.org](mailto:goodrichg@coloradohealthinstitute.org)



## 2009 COLORADO DENTIST WORKFORCE SURVEY

Survey # \_ \_ \_ \_

The Colorado Health Institute is conducting this survey on behalf of the Colorado Department of Public Health and Environment's Oral Health Program. This survey is voluntary. Your answers are confidential. Please complete the form and return this questionnaire in the self-addressed stamped envelope provided. Thank you for your assistance in this important survey about urban dentistry. If you have any questions please contact Michael Boyson, MHA at 303.831.4200 x207 or by e-mail at [boysonm@coloradohealthinstitute.org](mailto:boysonm@coloradohealthinstitute.org).

### ABOUT YOUR DENTAL PRACTICE

1. **Which of the following best describes your current professional status?** [MARK ONLY ONE BOX]
  - ☐ Fulltime dentist actively seeing patients [30 HOURS OR MORE PER WEEK]
  - ☐ Part-time dentist actively seeing patients [LESS THAN 30 HOURS PER WEEK]
  - ☐ Retired, but seeing patients on a volunteer basis
  - ☐ Retired, not seeing patients → **STOP HERE AND RETURN QUESTIONNAIRE**
  - ☐ Active in professional oral health-related activities (e.g. administration, faculty/teaching, research, public health) but not seeing patients → **STOP HERE AND RETURN QUESTIONNAIRE**
  - ☐ I am working outside the field of dentistry → **STOP HERE AND RETURN QUESTIONNAIRE**
2. **Are you currently practicing exclusively as an ADA-certified dentist specialist?**
  - ☐ Yes → **GO TO Q2A**
  - ☐ No, I practice general dentistry and may or may not offer specialty care → **SKIP TO Q3**
- 2a. **If YES TO Q2, in which of the following ADA-certified specialty areas do you practice?** [MARK YES OR NO FOR EACH SPECIALTY]

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Endodontics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial pathology
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial radiology
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial surgery
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Orthodontics and dentofacial orthopedics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Pediatric dentistry
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Periodontics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Prosthodontics
3. **In your general dentistry practice, do you provide any of the following ADA-certified specialty services to your patients?** [MARK YES OR NO FOR EACH SPECIALTY]

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Endodontics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial pathology
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial radiology
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Oral and maxillofacial surgery
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Orthodontics and dentofacial orthopedics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Pediatric dentistry
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Periodontics
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Prosthodontics
4. **Which of the following best describes the type of setting in which you currently practice at your primary practice location?** [MARK ONLY ONE BOX]
  - ☐ Solo, private practice
  - ☐ Dental group in private practice
  - ☐ Public health department/agency or school-based clinic
  - ☐ Community health center

5. **What is the ZIP Code of your primary practice location?** \_\_\_\_\_ [5-DIGIT ZIP CODE]
6. **How many years have you practiced at your current primary practice location?**  
 \_\_\_\_\_ [NUMBER OF YEARS ROUNDED UP]
7. **Approximately how many dental visits did YOU provide in 2008 at your primary practice location?** [YOUR BEST ESTIMATE, THE NUMBER SHOULD NOT INCLUDE DENTAL HYGIENE VISITS]  
 \_\_\_\_\_ [NUMBER OF VISITS]
8. **Which of the following factors, if any, led to your decision to practice in your current practice location?** [MARK YES, NO OR NOT APPLICABLE (N/A) FOR EACH FACTOR]
- |                              |                             |                              |   |
|------------------------------|-----------------------------|------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Quality of life   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Recreational/leisure activities                           |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Salary potential  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Opportunity to join a large practice                      |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Bought an established practice                            |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | National Health Services Corp scholarship/loan commitment |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | Other (specify) _____                                     |
9. **Please estimate the amount of time you spent in your dental practice per week in 2008**  
 (INCLUDE DIRECT PATIENT CARE, TEACHING, ADMINISTRATION, OTHER PROFESSIONAL ACTIVITIES, CDE)  
 Average TOTAL number of professional hours per week \_\_\_\_\_ [NUMBER OF HOURS]  
 Average number of hours spent in direct patient care per week \_\_\_\_\_ [NUMBER OF HOURS]
10. **How many other dentists practice in your primary office?** [ENTER "0" IF A SOLO PRACTICE]  
 \_\_\_\_\_ Number of full-time dentists [30+ HOURS PER WEEK]  
 \_\_\_\_\_ Number of part-time dentists [LESS THAN 30 HOURS PER WEEK]
11. **How many dental hygienists does your primary practice currently employ?** [ENTER "0" IF YOU DO NOT EMPLOY DENTAL HYGIENISTS]  
 \_\_\_\_\_ Number of full-time dental hygienists [30+ HOURS PER WEEK]  
 \_\_\_\_\_ Number of part-time dental hygienists [LESS THAN 30 HOURS PER WEEK]
12. **If you currently employ dental hygienists which of the following best describes your recruiting experience?** [MARK ONLY ONE BOX]
- ☐ It is easy to recruit dental hygienists in my practice  
☐ It is difficult to recruit dental hygienists in my practice  
☐ I am not currently recruiting a dental hygienists
13. **Which of the following best describes your experience at retaining dental hygienists in your practice?** [MARK ONLY ONE BOX]
- ☐ I am not currently employing or contracting with a dental hygienist  
☐ It is easy to retain dental hygienists in my practice  
☐ It is difficult to retain dental hygienists in my practice (explain) \_\_\_\_\_
-



**14. How many chair-side dental assistants do you currently employ?** [ENTER "0" IF YOU DO NOT EMPLOY ANY CHAIR-SIDE ASSISTANTS]

\_\_\_\_\_ Number of full-time chair-side dental assistants [30+ HOURS PER WEEK]

\_\_\_\_\_ Number of part-time chair-side dental assistants [LESS THAN 30 HOURS PER WEEK]

**15. Are you accepting new patients into your primary dental practice at this time?**

☐ Yes

☐ No

**16. Describe the insurance status/payment options available to patients in your primary practice.**

[MARK YES OR NO FOR EACH]

☐ Yes ☐ No I offer a sliding fee payment schedule based on patients' income

☐ Yes ☐ No I accept Medicaid payment

☐ Yes ☐ No I currently accept new Medicaid patients

☐ Yes ☐ No I accept Child Health Plan Plus (CHP+) payment

☐ Yes ☐ No I currently accept new CHP+ patients

☐ Yes ☐ No I accept Delta Dental payment

☐ Yes ☐ No I currently accept new Delta Dental patients

**16a. If you DO NOT accept Medicaid payment, listed below are some factors that have been identified as contributing to the decision not to accept Medicaid patients.** [ON A SCALE OF 1-5, CIRCLE THE RELATIVE IMPORTANCE OF EACH FACTOR TO YOU, 1=VERY IMPORTANT, 5=NOT IMPORTANT]

	Very Important			Not Important		
Medicaid reimbursement is too low	1	2	3	4	5	N/A
Paperwork is too burdensome and/or time consuming	1	2	3	4	5	N/A
Too many "no-shows"	1	2	3	4	5	N/A
Lack of patient compliance with oral hygiene practices	1	2	3	4	5	N/A
Other (specify) _____	1	2	3	4	5	N/A

**17. Please estimate the percentage of direct patient care time you spend with the following patients.** [PERCENT SHOULD ADD UP TO 100% FOR DIRECT PATIENT CARE ONLY]

\_\_\_\_\_ % Infants (ages 0-3 yrs)

\_\_\_\_\_ % Children and adolescents (ages 4-17 yrs)

\_\_\_\_\_ % Working age adults (ages 18-64 yrs)

\_\_\_\_\_ % Older adults (ages 65 yrs+)

100% ALL PATIENTS

**18. Estimate the approximate dollar amount of charity care YOU (individually) provided in 2008.**

[CHARITY CARE INCLUDES FREE SERVICES PROVIDED IN YOUR PRIMARY PRACTICE OR AN ALTERNATIVE SETTING AND NON-MONETARY REIMBURSEMENT, DO NOT INCLUDE BAD DEBT] [MARK ONLY ONE BOX]

☐ None ☐ \$10,001 to \$25,000

☐ \$2,500 or less ☐ Over \$25,000

☐ \$2,501 to \$5,000 ☐ Do not know

☐ \$5,001 to \$10,000

19. Do you speak a language other than English to communicate with some or all of your patients?

☐ Yes → If YES, specify language: \_\_\_\_\_

☐ No

#### ABOUT YOUR DENTAL SCHOOL EXPERIENCE

20. In what state did you attend dental school? [ENTER TWO-LETTER STATE CODE, XX FOR FOREIGN COUNTRY]

\_\_\_\_

21. In what year did you graduate from dental school? [YYYY] \_\_\_\_

22. To prepare you for practice, please rate the adequacy of the **CLASSROOM** instruction you had in dental school in each of the following areas. [CIRCLE ONE RESPONSE FOR EACH INSTRUCTIONAL AREA]

	Most Adequate			Inadequate		
Dental care for pregnant women	1	2	3	4	5	N/A
Dental care for infants (ages 0 - 3 yrs)	1	2	3	4	5	N/A
Dental care for children/adolescents (ages 4 - 17 yrs)	1	2	3	4	5	N/A
Dental care for persons with disabilities	1	2	3	4	5	N/A
Dental care for persons with behavioral health problems	1	2	3	4	5	N/A
Treatment of caries	1	2	3	4	5	N/A
Preventive dental care such as fluoride varnishes and application of sealants	1	2	3	4	5	N/A
Setting up a dental practice	1	2	3	4	5	N/A
Management of a dental practice including marketing and customer service	1	2	3	4	5	N/A
Working with other health care professionals such as physicians and specialties	1	2	3	4	5	N/A
Training in endodontics	1	2	3	4	5	N/A
Training in oral surgery	1	2	3	4	5	N/A
Training in orthodontics	1	2	3	4	5	N/A
Training in periodontics	1	2	3	4	5	N/A

23. To prepare you for practice, please rate the adequacy of the **CLINICAL** experiences you had in dental school in each of the following areas. [CIRCLE ONE RESPONSE FOR EACH AREA]

	Most Adequate			Inadequate		
Dental care for pregnant women	1	2	3	4	5	N/A
Dental care for infants (ages 0 - 3 yrs)	1	2	3	4	5	N/A
Dental care for children/adolescents (ages 4 - 17 yrs)	1	2	3	4	5	N/A
Dental care for persons with disabilities	1	2	3	4	5	N/A
Dental care for persons with behavioral health problems	1	2	3	4	5	N/A
Treatment of caries	1	2	3	4	5	N/A
Preventive dental care such as fluoride varnishes and application of sealants	1	2	3	4	5	N/A
Working with other health care professionals such as physicians and specialties	1	2	3	4	5	N/A
Training in endodontics	1	2	3	4	5	N/A
Training in oral surgery	1	2	3	4	5	N/A
Training in orthodontics	1	2	3	4	5	N/A
Training in periodontics	1	2	3	4	5	N/A

24. In general, how prepared were you to practice general dentistry after graduating from dental school? [ON A SCALE OF 1-5, CIRCLE YOUR ASSESSMENT]

Fully  
Prepared

Not  
Prepared

1

2

3

4

5

25. In general, how prepared were you to manage a general dentistry practice after graduating from dental school? [ON A SCALE OF 1-5, CIRCLE YOUR ASSESSMENT]

Fully  
Prepared

Not  
Prepared

1

2

3

4

5

#### ABOUT YOU

26. In what year were you born? 19 \_\_\_\_

27. What is your gender?

☐ Male

☐ Female

28. What is your race/ethnicity? [PLEASE MARK THE ONE CHOICE THAT YOU FEEL MOST CLOSELY DESCRIBES YOU]

☐ Mixed Heritage

☐ African American

☐ White Hispanic

☐ Non-White Hispanic

☐ White

☐ Native American

☐ Asian/Pacific Islander

☐ Alaskan Native

29. Which of the following best describes the area in which you grew up? [MARK ONLY ONE BOX]

☐ Rural

☐ Suburban

☐ Urban

30. How many years have you practiced dentistry in Colorado?

\_\_\_\_ [NUMBER OF YEARS ROUNDED UP]

#### ABOUT THE FUTURE OF DENTAL CARE IN YOUR COMMUNITY

31. Are you planning to leave your current dental practice in the next twelve months?

☐ Yes → GO TO Q31A

☐ No → SKIP TO Q32

**31a. IF YES, there are many factors that influence a decision to leave a practice. Listed below are some of these factors.** [ON A SCALE OF 1-5, CIRCLE THE RELATIVE IMPORTANCE OF EACH FACTOR TO YOU, 1=VERY IMPORTANT, 5=NOT IMPORTANT]

	Very Important			Not Important		
I plan to retire	1	2	3	4	5	N/A
I plan to relocate to a different practice location	1	2	3	4	5	N/A
I do not have a sufficient patient load to profitably operate my practice	1	2	3	4	5	N/A
The administration and management of the practice has become too burdensome	1	2	3	4	5	N/A
The work is no longer professionally challenging	1	2	3	4	5	N/A
I have too many Medicaid patients to sustain my practice	1	2	3	4	5	N/A
I have family responsibilities that interfere with my ability to continue my practice	1	2	3	4	5	N/A
My health does not permit me to continue my practice	1	2	3	4	5	N/A
Other (specify) _____	1	2	3	4	5	N/A

**32. Do you collaborate with other dentists, physicians and nurses in your community to provide preventive oral health services?**

☐ Yes → If YES, please describe in what ways: \_\_\_\_\_

☐ No

**33. What, if any, is the greatest professional challenge you anticipate facing in the next 12 months?** [MARK ONLY ONE BOX]

☐ None

☐ Low patient volume

☐ Adequate patient volume but low collection rate

☐ Medicaid reimbursement rates

☐ Low reimbursement rates from dental insurers

☐ Lack of knowledge about community resources to assist my low-income patients

☐ Physical demands of the work

☐ Practice management challenges

☐ Other (please specify) \_\_\_\_\_

**34. How important do you think the following policies would be at improving access to oral health care in Colorado?** [ON A SCALE OF 1-5, CIRCLE THE RELATIVE IMPORTANCE OF EACH FACTOR TO YOU, 1=VERY IMPORTANT, 5=NOT IMPORTANT]

	Very Important			Not Important		
Increase Medicaid reimbursement rates	1	2	3	4	5	N/A
Expand access to Medicaid coverage for low-income Colorado adults	1	2	3	4	5	N/A
Ensure every Coloradan has access to dental insurance	1	2	3	4	5	N/A
Provide low cost liability insurance coverage for dentists that provide voluntary dental care to low-income children and adults	1	2	3	4	5	N/A
Ensure that loan forgiveness programs exist for all dentists willing to practice in a dental underserved area of Colorado for a specified period of time	1	2	3	4	5	N/A

Please return questionnaire in the enclosed self-addressed stamped envelope. The time you have taken to complete this survey is important and appreciated. Your responses will help to inform Colorado policymakers about the practice of dentistry in our state.

**THANK YOU!**

## LIST OF VARIABLES

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
1	EMPLOY_STATUS_GRP	Professional status grouping
2	ADA_CERT	Currently practicing as an ADA-certified dentist specialist
2a	ORTHODON	ADA-certified: Orthodontics and dentofacial orthopedics
2a	PEDIATRIC	ADA-certified: Pediatric dentistry
3	PRV_ENDO	Provide ADA services: Endodontics
3	PRV_ORMAXPATH	Provide ADA services: Oral and maxillofacial pathology
3	PRV_ORMAXRAD	Provide ADA services: Oral and maxillofacial radiology
3	PRV_ORMAXSURG	Provide ADA services: Oral and maxillofacial surgery
3	PRV_ORTHODONTICS	Provide ADA services: Orthodontics and dentofacial orthopedics
3	PRV_PEDIATRICS	Provide ADA services: Pediatric dentistry
3	PRV_PERIODONTICS	Provide ADA services: Periodontics
3	PRV_PROSTHODONTICS	Provide ADA services: Prosthodontics
4	SETTING_GRP	Setting grouping
6	LGTH_SVC_YR_PRIMARY_GRP	Number of years at current practice, grouping
7	VISITS_2008_GRP	Number of visits in 2008, grouping
8	COMM_QUAL_LIFE	Factors for practicing in current location: Quality of life
8	COMM_RECREATION	Factors for practicing in current location: Recreational/leisure activities
8	COMM_SALARY	Factors for practicing in current location: Salary potential
8	COMM_JNLRGPRC	Factors for practicing in current location: Opportunity to join a large practice
8	COMM_BOUGHTTEST	Factors for practicing in current location: Bought an established practice
8	COMM_OTHER	Factors for practicing in current location: Other
9	HRS08_TOTPROF_GRP	Total professional hrs, grouping
9	HRS08_DIRCARE_GRP	Total direct care hrs, grouping
10	FT_DENT_OFFICE_GRP	Num of other FT dentists in office, grouping
10	PT_DENT_OFFICE_GRP	Num of other PT dentists in office, grouping
11	FT_DENHYG_GRP	Num of FT dental hygienists, grouping
11	PT_DENHYG_GRP	Num of PT dental hygienists, grouping
12	RECRUITDH	Dental hygienist recruiting experience
13	RETAINDH	Dental hygienist retainment
14	FT_DENCHR_ASST_GRP	Num of FT chair side assistants, grouping
14	PT_DENCHR_ASST_GRP	Num of PT chair side assistants, grouping
16	SERVE_SFS_INC	Payment options available: Sliding fee payment schedule based on pt. income
16	ACCEPT_MDCAID	Payment options available: Medicaid
16	ACCEPT_NEW_MDCAID	Payment options available: New Medicaid patients
16	ACCEPT_CHPP_PAY	Payment options available: CHP+
16	ACCEPT_NEW_CHPP_PAY	Payment options available: New CHP+ patients
16	ACCEPT_DELTA	Payment options available: Delta Dental
16	ACCEPT_NEW_DELTA	Payment options available: New Delta Dental patients
16a	REJECTMDCD_REIMBLOW_GRP	Rsn for not acpt Medicaid payment: Reimbursement too low grouping

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
16a	REJECTMDCD_TIMECONS_GRP	Rsn for not acpt Medicaid payment: Paperwork too burdensome grouping
16a	REJECTMDCD_NOSHOW_GRP	Rsn for not acpt Medicaid payment: Too many no-shows grouping
16a	REJECTMDCD_PTCOMPL_GRP	Rsn for not acpt Medicaid payment: Lack of pt. compliance grouping
17	PCTCARE_INFANT_GRP	Direct patient care time for infants (0-3), grouping
17	PCTCARE_CHILDREN_GRP	Direct patient care time for children (4-17), grouping
17	PCTCARE_ADULT_GRP	Direct patient care time for adults (18-64), grouping
17	PCTCARE_OLDADULT_GRP	Direct patient care time for older adults (65+), grouping
18	CHARITY_GRP	Approximate dollar amount of charity care provided for 2008 grouping
19	LANG_OTHENG	Speak another language to communicate with pts
19	LANG_SPANISH	Spanish speaking to communicate with patients
20	GRAD_STATE_GRP	Dental school state, CO vs. non-CO
21	GRAD_YEAR_GRP	Graduation year from dental school, grouping
22	EDCARE_PREGNANT_GRP	Classroom Adequacy: Dental care for pregnant women
22	EDCARE_INFANT_GRP	Classroom Adequacy: Dental care for infants (ages 0-3)
22	EDCARE_CHILDREN_GRP	Classroom Adequacy: Dental care for children/adolescents (4-17)
22	EDCARE_DISAB_GRP	Classroom Adequacy: Dental care for persons with disabilities
22	EDCARE_BEHAVE_GRP	Classroom Adequacy: Dental care for persons with behavioral health problems
22	EDCARE_SETUP_PR_GRP	Classroom Adequacy: Setting up a dental practice
22	EDCARE_MGMT_GRP	Classroom Adequacy: Management of a dental practice
22	EDCARE_WORKWITH_GRP	Classroom Adequacy: Working with other health care professionals
22	EDCARE_ENDO_GRP	Classroom Adequacy: Training in endodontics
22	EDCARE_ORSURG_GRP	Classroom Adequacy: Training in oral surgery
22	EDCARE_ORTHO_GRP	Classroom Adequacy: Training in orthodontics
22	EDCARE_PERIO_GRP	Classroom Adequacy: Training in periodontics
23	CLIN_PREGNANT_GRP	Clinical Adequacy: Dental care for pregnant women
23	CLIN_INFANT_GRP	Clinical Adequacy: Dental care for infants (ages 0-3)
23	CLIN_CHILDREN_GRP	Clinical Adequacy: Dental care for children/adolescents (4-17)
23	CLIN_DISAB_GRP	Clinical Adequacy: Dental care for persons with disabilities
23	CLIN_BEHAVE_GRP	Clinical Adequacy: Dental care for persons with behavioral health problems
23	CLIN_PREVENTIVE_GRP	Clinical Adequacy: Preventive dental care
23	CLIN_WORKWITH_GRP	Clinical Adequacy: Working with other health care professionals
23	CLIN_ENDO_GRP	Clinical Adequacy: Training in endodontics
23	CLIN_ORSURG_GRP	Clinical Adequacy: Training in oral surgery
23	CLIN_ORTHO_GRP	Clinical Adequacy: Training in orthodontics
23	CLIN_PERIO_GRP	Clinical Adequacy: Training in periodontics
25	PREPARE_MGMT_DENT_GRP	Not prepared (4,5): Preparation for managing practice after graduation from dental school
26	BIRTH_YR_GRP	Birth year group
27	GENDER	Gender
28	RACE_GRP	Race white/non-white
29	GREWUP_LOCATION	Location respondent grew up in
30	PRACYR_CO_GRP	Number of years practicing in CO, grouping
31	LEAVE_NEXT12MO	Leaving current dental practice in next 12 months?

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
32	COLLAB_OTHERS	Collaboration with other dentists, physicians, and nurses
33	CHALLENGE_NONE	Challenge in next 12 months: None
33	CHALLENGE_LOWVOL	Challenge in next 12 months: Low patient volume
33	CHALLENGE_LOWCOLLECT	Challenge in next 12 months: Adequate patient volume, but low collection rate
33	CHALLENGE_INSREIMB	Challenge in next 12 months: Low reimbursement rates from dental insurers
33	CHALLENGE_PHYDEM	Challenge in next 12 months: Physical demands of the work
33	CHALLENGE_MGMT	Challenge in next 12 months: Practice management challenges
33	CHALLENGE_OTHER	Challenge in next 12 months: Other
34	INCRMDCD_REIMB_GRP	Improving access to health care: Increase Medicaid reimbursement rates grouping
34	EXPNDMDCD_LWINCADLT_GRP	Improving access to health care: Expand Medicaid coverage for low-income adults grouping
34	ENSURE_ACC_DINS_GRP	Improving access to health care: Ensure every Coloradan has access to dental insurance grouping
34	LWLIAB_VOLCARE_GRP	Improving access to health care: Low cost liability ins. for volunteer work to low-income pts grouping
34	LOANFGV_UNDESV_GRP	Improving access to health care: Loan forgiveness for those willing to stay in underserved area grouping
CREATED VARIABLE	AGE_GRP	Age grouping
CREATED VARIABLE	GRAD_NUMYRS_GRP	Num of yrs since grad from dental school, grouping
CREATED VARIABLE	GRAD_AGE_GRP	Graduation age grouping

## CODEBOOK AND FREQUENCIES

**QUESTION  
NUMBER**  
1

**VARIABLE NAME**  
EMPLOY\_STATUS\_GRP

**DESCRIPTION**  
Professional status grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	5	37
-6	Invalid answer/out of range	1	2
1	Fulltime dentist actively seeing patients	354	2291
2	Part-time dentist actively seeing patients	74	344
3	Retired, not seeing patients or out of state	36	322
TOTAL		470	2996

**QUESTION  
NUMBER**  
2

**VARIABLE NAME**  
ADA\_CERT

**DESCRIPTION**  
Currently practicing as an ADA-certified dentist specialist

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	7	48
-8	Not Applicable	34	286
0	No	343	2107
1	Yes	86	555
TOTAL		470	2996



---

---

**QUESTION  
NUMBER**  
2a

**VARIABLE NAME**  
ORTHODON

**DESCRIPTION**  
ADA-certified: Orthodontics and dentofacial orthopedics

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	36	226
-8	Not Applicable	369	2325
-7	Skip pattern violation	8	67
0	No	28	153
1	Yes	29	224
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
2a

**VARIABLE NAME**  
PEDIATRIC

**DESCRIPTION**  
ADA-certified: Pediatric dentistry

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	40	318
-8	Not Applicable	369	2325
-7	Skip pattern violation	8	67
0	No	28	178
1	Yes	25	106
TOTAL		470	2994

---

---

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_ENDO

**DESCRIPTION**  
Provide ADA services: Endodontics

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	107	721
-8	Not Applicable	34	286
0	No	74	421
1	Yes	255	1567
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_ORMAXPATH

**DESCRIPTION**  
Provide ADA services: Oral and maxillofacial pathology

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	161	1019
-8	Not Applicable	34	286
0	No	176	1015
1	Yes	99	675
TOTAL		470	2995

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_ORMAXRAD

**DESCRIPTION**  
Provide ADA services: Oral and maxillofacial radiology

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	161	978
-8	Not Applicable	34	286
0	No	167	1020
1	Yes	108	712
TOTAL		470	2996

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_ORMAXSURG

**DESCRIPTION**  
Provide ADA services: Oral and maxillofacial surgery

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	111	691
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	No	69	447
1	Yes	255	1569
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_ORTHODONTICS

**DESCRIPTION**  
Provide ADA services: Orthodontics and dentofacial orthopedics

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	163	1015
-8	Not Applicable	34	286
0	No	198	1295
1	Yes	75	399
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_PEDIATRICS

**DESCRIPTION**  
Provide ADA services: Pediatric dentistry

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	96	675
-8	Not Applicable	34	286
0	No	35	291
1	Yes	305	1743
TOTAL		470	2995

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_PERIODONTICS

**DESCRIPTION**  
Provide ADA services: Periodontics

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	112	715
-8	Not Applicable	34	286
0	No	66	444
1	Yes	258	1551
TOTAL		470	2996

**QUESTION  
NUMBER**  
3

**VARIABLE NAME**  
PRV\_PROSTHODONTICS

**DESCRIPTION**  
Provide ADA services: Prosthodontics

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	101	654
-8	Not Applicable	34	286
0	No	37	175
1	Yes	298	1881
TOTAL		470	2996

**QUESTION  
NUMBER**  
4

**VARIABLE NAME**  
SETTING\_GRP

**DESCRIPTION**  
Setting grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	6	32
-8	Not Applicable	34	286
-6	Invalid answer/out of range	3	22
1	Solo, private practice	236	1584
2	Dental group in private practice	165	931
3	Public health dept/agency, or community health center	26	140
TOTAL		470	2995

**QUESTION  
NUMBER**  
6

**VARIABLE NAME**  
LGTH\_SVC\_YR\_PRIMARY\_GRP

**DESCRIPTION**  
Number of years at current practice, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	5	43
-8	Not Applicable	34	286
1	0-5 years	221	994
2	6-10 years	89	585
3	11-20 years	69	550
4	21 years or more	52	538
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
7

**VARIABLE NAME**  
VISITS\_2008\_GRP

**DESCRIPTION**  
Number of visits in 2008, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	75	399
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	13
1	0-1000 visits	91	489
2	1001-1499 visits	49	370
3	1500-2000 visits	94	638
4	2001-3000 visits	67	377
5	3000+ visits	58	423
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_QUAL\_LIFE

**DESCRIPTION**  
Factors for practicing in current location: Quality of life

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	37	175
-8	Not Applicable	34	286
0	No	28	183
1	Yes	357	2229
2	N/A	14	122
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_RECREATION

**DESCRIPTION**  
Factors for practicing in current location: Recreational/leisure activities

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	53	280
-8	Not Applicable	34	286
0	No	61	378
1	Yes	296	1879
2	N/A	26	173
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_SALARY

**DESCRIPTION**  
Factors for practicing in current location: Salary potential

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	55	297
-8	Not Applicable	34	286
0	No	102	681
1	Yes	260	1568
2	N/A	19	164
TOTAL		470	2996



**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_JNLRGPRC

**DESCRIPTION**  
Factors for practicing in current location: Opportunity to join a large practice

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	83	500
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	No	221	1468
1	Yes	80	379
2	N/A	51	360
TOTAL		470	2995

**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_BOUGHTTEST

**DESCRIPTION**  
Factors for practicing in current location: Bought an established practice

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	62	364
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	No	144	916
1	Yes	172	1075
2	N/A	57	350
TOTAL		470	2994

---

---

**QUESTION  
NUMBER**  
8

**VARIABLE NAME**  
COMM\_OTHER

**DESCRIPTION**  
Factors for practicing in current location: Other

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	246	1443
-8	Not Applicable	34	286
0	No	43	274
1	Yes	75	524
2	N/A	72	468
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
9

**VARIABLE NAME**  
HRS08\_TOTPROF\_GRP

**DESCRIPTION**  
Total professional hrs, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	16	109
-8	Not Applicable	34	286
-6	Invalid answer/out of range	8	38
1	0-24 hours	32	162
2	25-32 hours	118	737
3	33-40 hours	189	1188
4	41 hours or more	73	476
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
9

**VARIABLE NAME**  
HRS08\_DIRCARE\_GRP

**DESCRIPTION**  
Total direct care hrs, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	24	157
-8	Not Applicable	34	286
-6	Invalid answer/out of range	10	59
1	0-24 hours	70	352
2	25-32 hours	203	1313
3	33 hours or more	129	829
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
10

**VARIABLE NAME**  
FT\_DENT\_OFFICE\_GRP

**DESCRIPTION**  
Num of other FT dentists in office, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	32	161
-8	Not Applicable	34	286
1	None	204	1365
2	1 FT dentist	98	570
3	2 FT dentists	47	300
4	3 or more FT dentists	55	314
TOTAL		470	2996

**QUESTION  
NUMBER**  
10

**VARIABLE NAME**  
PT\_DENT\_OFFICE\_GRP

**DESCRIPTION**  
Num of other PT dentists in office, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	86	593
-8	Not Applicable	34	286
1	None	248	1589
2	1 or more PT dentists	102	527
TOTAL		470	2995

**QUESTION  
NUMBER**  
11

**VARIABLE NAME**  
FT\_DENHYG\_GRP

**DESCRIPTION**  
Num of FT dental hygienists, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	49	364
-8	Not Applicable	34	286
1	None	166	1044
2	1 FT dental hygienist	127	712
3	2 FT dental hygienists	58	368
4	3 or more FT dental hygienists	36	222
TOTAL		470	2996

**QUESTION  
NUMBER**  
11

**VARIABLE NAME**  
PT\_DENHYG\_GRP

**DESCRIPTION**  
Num of PT dental hygienists, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	74	452
-8	Not Applicable	34	286
1	None	187	1185
2	1 PT dental hygienist	83	516
3	2 PT dental hygienists	57	330
4	3 or more PT dental hygienists	35	226
TOTAL		470	2995

**QUESTION  
NUMBER**  
12

**VARIABLE NAME**  
RECRUITDH

**DESCRIPTION**  
Dental hygienist recruiting experience

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	67	494
-8	Not Applicable	34	286
-6	Invalid answer/out of range	5	27
1	It is easy to recruit dental hygienists in my practice	129	840
2	It is difficult to recruit dental hygienists in my practice	31	193
3	I am not currently recruiting a dental hygienist	204	1155
TOTAL		470	2995

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
13	RETAINDH	Dental hygienist retention

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	57	390
-8	Not Applicable	34	286
1	I am not currently employing or contracting with a dental hygienist	87	580
2	It is easy to retain dental hygienists in my practice	267	1595
3	It is difficult to retain dental hygienists in my practice	25	145
TOTAL		470	2996

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
14	FT_DENCHR_ASST_GRP	Num of FT chair side assistants, grouping

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Ordinal

---

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	27	168
-8	Not Applicable	34	286
1	None	34	209
2	1 FT chair side assistant	137	985
3	2 FT chair side assistants	92	564
4	3 or more FT chair side assistants	146	783
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
14

**VARIABLE NAME**  
PT\_DENCHR\_ASST\_GRP

**DESCRIPTION**  
Num of PT chair side assistants, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	156	980
-8	Not Applicable	34	286
1	None	152	1024
2	1 PT chair side assistant	80	463
3	2 or more PT chair side assistants	48	243
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
16

**VARIABLE NAME**  
SERVE\_SFS\_INC

**DESCRIPTION**  
Payment options available: Sliding fee payment schedule based on pt. income

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	46	242
-8	Not Applicable	34	286
0	No	347	2153
1	Yes	43	315
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
16

**VARIABLE NAME**  
ACCEPT\_MDCAID

**DESCRIPTION**  
Payment options available: Medicaid

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	43	245
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	No	292	1938
1	Yes	100	524
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
16

**VARIABLE NAME**  
ACCEPT\_NEW\_MDCAID

**DESCRIPTION**  
Payment options available: New Medicaid patients

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	46	266
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	No	300	2002
1	Yes	89	437
TOTAL		470	2994



**QUESTION  
NUMBER**  
16

**VARIABLE NAME**  
ACCEPT\_CHPP\_PAY

**DESCRIPTION**  
Payment options available: CHP+

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	45	265
-8	Not Applicable	34	286
0	No	243	1678
1	Yes	148	766
TOTAL		470	2995

**QUESTION  
NUMBER**  
16

**VARIABLE NAME**  
ACCEPT\_NEW\_CHPP\_PAY

**DESCRIPTION**  
Payment options available: new CHP+ patients

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	47	303
-8	Not Applicable	34	286
0	No	242	1659
1	Yes	147	748
TOTAL		470	2996

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
16	ACCEPT_DELTA	Payment options available: Delta Dental

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	10	54
-8	Not Applicable	34	286
0	No	38	294
1	Yes	388	2361
TOTAL		470	2995

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
16	ACCEPT_NEW_DELTA	Payment options available: new Delta Dental patients

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	11	56
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	No	33	247
1	Yes	391	2404
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
16a

**VARIABLE NAME**  
REJECTMDCD\_REIMBLOW\_GRP

**DESCRIPTION**  
Rsn for not accpt Medicaid payment: Reimbursement too low grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	113	614
-8	Not Applicable	34	286
0	Not important or indifferent (3,4,5)	30	191
1	Very Important/Important (1,2)	271	1798
2	N/A	22	106
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
16a

**VARIABLE NAME**  
REJECTMDCD\_TIMECONS\_GRP

**DESCRIPTION**  
Rsn for not accpt Medicaid payment: Paperwork too burdensome grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	119	660
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	18
0	Not important or indifferent (3,4,5)	43	231
1	Very Important/Important (1,2)	244	1643
2	N/A	29	157
TOTAL		470	2995

**QUESTION  
NUMBER**  
16a

**VARIABLE NAME**  
REJECTMDCD\_NOSHOW\_GRP

**DESCRIPTION**  
Rsn for not accpt Medicaid payment: Too many no-shows grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	123	699
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	20
0	Not important or indifferent (3,4,5)	32	198
1	Very Important/Important (1,2)	230	1474
2	N/A	49	319
TOTAL		470	2996

**QUESTION  
NUMBER**  
16a

**VARIABLE NAME**  
REJECTMDCD\_PTCOMPL\_GRP

**DESCRIPTION**  
Rsn for not accpt Medicaid payment: Lack of pt. compliance grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	129	704
-8	Not Applicable	34	286
0	Not important or indifferent (3,4,5)	101	701
1	Very Important/Important (1,2)	154	917
2	N/A	52	388
TOTAL		470	2996

**QUESTION  
NUMBER**  
17

**VARIABLE NAME**  
PCTCARE\_INFANT\_GRP

**DESCRIPTION**  
Direct patient care time for infants (0-3), grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	9	79
-8	Not Applicable	34	286
-6	Invalid answer/out of range	13	85
1	0 or none	179	1315
2	1 to 5 percent	181	995
3	6 percent or more	54	234
TOTAL		470	2994

**QUESTION  
NUMBER**  
17

**VARIABLE NAME**  
PCTCARE\_CHILDREN\_GRP

**DESCRIPTION**  
Direct patient care time for children (4-17), grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
	Missing	9	79
-8	Not Applicable	34	286
-6	Invalid answer/out of range	13	85
1	0-10 percent	156	1116
2	11-20 percent	117	693
3	21-50 percent	78	377
4	51-100 percent	63	359
TOTAL		470	2995

**QUESTION  
NUMBER**  
17

**VARIABLE NAME**  
PCTCARE\_ADULT\_GRP

**DESCRIPTION**  
Direct patient care time for adults (18-64), grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
	Missing	9	79
-8	Not Applicable	34	286
-6	Invalid answer/out of range	13	85
1	0-10 percent	39	181
2	11-40 percent	69	479
3	41-50 percent	70	464
4	51-60 percent	75	477
5	61-70 percent	69	375
6	71-100 percent	92	569
TOTAL		470	2995

**QUESTION  
NUMBER**  
17

**VARIABLE NAME**  
PCTCARE\_OLDADULT\_GRP

**DESCRIPTION**  
Direct patient care time for older adults (65+), grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
	Missing	9	79
-8	Not Applicable	34	286
-6	Invalid answer/out of range	13	85
1	0 percent	51	252
2	1-10 percent	133	748
3	11-20 percent	107	608
4	21-30 percent	67	446
5	31-100 percent	56	492
TOTAL		470	2996

**QUESTION  
NUMBER**  
18

**VARIABLE NAME**  
CHARITY\_GRP

**DESCRIPTION**  
Approximate dollar amount of charity care provided for 2008 grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	4	26
-8	Not Applicable	34	286
-6	Invalid answer/out of range	4	27
1	\$2,500 or less	108	571
2	\$2,501 to \$5,000	101	620
3	\$5,001 to \$10,000	99	693
4	\$10,001 to \$25,000	52	329
5	\$25,001 or more	41	302
6	Do not know	27	141
TOTAL		470	2995

**QUESTION  
NUMBER**  
19

**VARIABLE NAME**  
LANG\_OTHENG

**DESCRIPTION**  
Speak another language to communicate with pts

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	10	71
-8	Not Applicable	34	286
0	No	306	2001
1	Yes	120	637
TOTAL		470	2995

**QUESTION  
NUMBER**  
19

**VARIABLE NAME**  
LANG\_SPANISH

**DESCRIPTION**  
Spanish speaking to communicate with patients

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	12	99
-8	Not Applicable	339	2283
0	Other language, not Spanish	35	218
1	Spanish	84	395
TOTAL		470	2995

**QUESTION  
NUMBER**  
20

**VARIABLE NAME**  
GRAD\_STATE\_GRP

**DESCRIPTION**  
Dental school state, CO vs. non-CO

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	13	104
-8	Not Applicable	34	286
0	Not Colorado	318	2104
1	Colorado	105	502
TOTAL		470	2996



---

---

**QUESTION  
NUMBER**  
21

**VARIABLE NAME**  
GRAD\_YEAR\_GRP

**DESCRIPTION**  
Graduation year from dental school, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	12	116
-8	Not Applicable	34	286
-6	Invalid answer/out of range	3	25
1	1983 or before	93	1016
2	1984-1993	96	594
3	1994-2003	119	586
4	2004 or later	113	374
TOTAL		470	2997

---

---

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_PREGNANT\_GRP

**DESCRIPTION**  
Classroom Adequacy: Dental care for pregnant women grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	16	125
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	352	2074
1	Inadequate (4,5)	64	479
2	N/A	4	31
TOTAL		470	2995

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_INFANT\_GRP

**DESCRIPTION**  
Classroom Adequacy: Dental care for infants (ages 0-3) grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	17	125
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Adequate or indifferent, (1,2,3)	282	1664
1	Inadequate (4,5)	130	892
2	N/A	6	26
TOTAL		470	2996

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_CHILDREN\_GRP

**DESCRIPTION**  
Classroom Adequacy: Dental care for children/adolescents (4-17) grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	15	122
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Adequate or indifferent, (1,2,3)	385	2329
1	Inadequate (4,5)	33	244
2	N/A	2	11
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_DISAB\_GRP

**DESCRIPTION**  
Classroom Adequacy: Dental care for persons with disabilities

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	21	149
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	3
0	Adequate or indifferent, (1,2,3)	323	1954
1	Inadequate (4,5)	88	592
2	N/A	2	11
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_BEHAVE\_GRP

**DESCRIPTION**  
Classroom Adequacy: Dental care for persons with behavioral health problems  
grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	20	164
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Adequate or indifferent, (1,2,3)	285	1614
1	Inadequate (4,5)	127	914
2	N/A	3	15
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_SETUP\_PR\_GRP

**DESCRIPTION**  
Classroom Adequacy: Setting up a dental practice grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	15	122
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	12
0	Adequate or indifferent, (1,2,3)	197	1157
1	Inadequate (4,5)	220	1406
2	N/A	2	13
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_MGMT\_GRP

**DESCRIPTION**  
Classroom Adequacy: Management of a dental practice grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	14	120
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	Adequate or indifferent, (1,2,3)	154	819
1	Inadequate (4,5)	265	1756
2	N/A	2	13
TOTAL		470	2996

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_WORKWITH\_GRP

**DESCRIPTION**  
Classroom Adequacy: Working with other health care professionals grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	14	120
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	285	1684
1	Inadequate (4,5)	135	894
2	N/A	2	11
TOTAL		470	2995

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_ENDO\_GRP

**DESCRIPTION**  
Classroom Adequacy: Training in endodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	15	124
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	13
0	Adequate or indifferent, (1,2,3)	393	2417
1	Inadequate (4,5)	25	146
2	N/A	1	10
TOTAL		470	2996

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_ORSURG\_GRP

**DESCRIPTION**  
Classroom Adequacy: Training in oral surgery grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	16	125
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	387	2332
1	Inadequate (4,5)	32	243
2	N/A	1	10
TOTAL		470	2996

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_ORTHO\_GRP

**DESCRIPTION**  
Classroom Adequacy: Training in orthodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	17	141
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	Adequate or indifferent, (1,2,3)	229	1396
1	Inadequate (4,5)	186	1140
2	N/A	3	31
TOTAL		470	2996

**QUESTION  
NUMBER**  
22

**VARIABLE NAME**  
EDCARE\_PERIO\_GRP

**DESCRIPTION**  
Classroom Adequacy: Training in periodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	16	123
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	10
0	Adequate or indifferent, (1,2,3)	391	2373
1	Inadequate (4,5)	27	194
2	N/A	1	10
TOTAL		470	2995

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_PREGNANT\_GRP

**DESCRIPTION**  
Clinical Adequacy: Dental care for pregnant women grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	17	128
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	295	1784
1	Inadequate (4,5)	111	737
2	N/A	13	61
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_INFANT\_GRP

**DESCRIPTION**  
Clinical Adequacy: Dental care for infants (ages 0-3) grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	17	129
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	222	1310
1	Inadequate (4,5)	172	1152
2	N/A	25	119
TOTAL		470	2996

---

---

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_CHILDREN\_GRP

**DESCRIPTION**  
Clinical Adequacy: Dental care for children/adolescents (4-17) grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	17	127
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	Adequate or indifferent, (1,2,3)	369	2246
1	Inadequate (4,5)	48	325
2	N/A	1	10
TOTAL		470	2996



---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
23	CLIN_DISAB_GRP	Clinical Adequacy: Dental care for persons with disabilities grouping

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	16	125
-8	Not Applicable	34	286
0	Adequate or indifferent, (1,2,3)	297	1767
1	Inadequate (4,5)	115	775
2	N/A	8	42
TOTAL		470	2995

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
23	CLIN_BEHAVE_GRP	Clinical Adequacy: Dental care for persons with behavioral health problems grouping

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	18	147
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	10
0	Adequate or indifferent, (1,2,3)	259	1493
1	Inadequate (4,5)	148	997
2	N/A	10	63
TOTAL		470	2996

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_PREVENTIVE\_GRP

**DESCRIPTION**  
Clinical Adequacy: Preventive dental care grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	17	135
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	18
0	Adequate or indifferent, (1,2,3)	379	2209
1	Inadequate (4,5)	30	243
2	N/A	9	105
TOTAL		470	2996

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_WORKWITH\_GRP

**DESCRIPTION**  
Clinical Adequacy: Working with other health care professionals grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	17	128
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	18
0	Adequate or indifferent, (1,2,3)	291	1772
1	Inadequate (4,5)	124	777
2	N/A	3	15
TOTAL		470	2996

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_ENDO\_GRP

**DESCRIPTION**  
Clinical Adequacy: Training in endodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	16	127
-8	Not Applicable	34	286
-6	Invalid answer/out of range	6	55
0	Adequate or indifferent, (1,2,3)	387	2369
1	Inadequate (4,5)	26	149
2	N/A	1	10
TOTAL		470	2996

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_ORSURG\_GRP

**DESCRIPTION**  
Clinical Adequacy: Training in oral surgery grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	17	129
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	Adequate or indifferent, (1,2,3)	383	2337
1	Inadequate (4,5)	34	233
2	N/A	1	10
TOTAL		470	2997

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_ORTHO\_GRP

**DESCRIPTION**  
Clinical Adequacy: Training in orthodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	19	165
-8	Not Applicable	34	286
-6	Invalid answer/out of range	3	25
0	Adequate or indifferent, (1,2,3)	222	1361
1	Inadequate (4,5)	187	1109
2	N/A	5	50
TOTAL		470	2996

**QUESTION  
NUMBER**  
23

**VARIABLE NAME**  
CLIN\_PERIO\_GRP

**DESCRIPTION**  
Clinical Adequacy: Training in periodontics grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	16	125
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Adequate or indifferent, (1,2,3)	388	2329
1	Inadequate (4,5)	30	243
2	N/A	1	10
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
25

**VARIABLE NAME**  
PREPARE\_MGMT\_DENT\_GRP

**DESCRIPTION**  
Preparation for managing practice after graduation from dental school grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	8	44
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	2
0	Prepared or indifferent (1,2,3)	207	1292
1	Not prepared (4,5)	220	1371
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
26

**VARIABLE NAME**  
BIRTH\_YR\_GRP

**DESCRIPTION**  
Birth year group

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	42	337
1	On or before 1954	82	897
2	1955-1964	104	719
3	1965-1974	102	632
4	1975 or after	140	411
TOTAL		470	2996

**QUESTION  
NUMBER**  
27

**VARIABLE NAME**  
GENDER

**DESCRIPTION**  
Gender

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	6	46
-8	Not Applicable	34	286
0	Female	220	560
1	Male	210	2103
TOTAL		470	2995

**QUESTION  
NUMBER**  
28

**VARIABLE NAME**  
RACE\_GRP

**DESCRIPTION**  
Race white/non-white

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	11	81
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	13
0	Non-white	71	394
1	White	352	2221
TOTAL		470	2995

**QUESTION  
NUMBER**  
29

**VARIABLE NAME**  
GREWUP\_LOCATION

**DESCRIPTION**  
Location respondent grew up in

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	9	62
-8	Not Applicable	34	286
-6	Invalid answer/out of range	3	23
1	Rural	107	608
2	Suburban	241	1527
3	Urban	76	489
TOTAL		470	2995

**QUESTION  
NUMBER**  
30

**VARIABLE NAME**  
PRACYR\_CO\_GRP

**DESCRIPTION**  
Number of years practicing in CO, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	6	29
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	21
1	0-5 years	157	572
2	6-10 years	77	442
3	11-20 years	91	522
4	21-25 years	43	343
5	26-30 years	34	384
6	31 years	26	396
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
31

**VARIABLE NAME**  
LEAVE\_NEXT12MO

**DESCRIPTION**  
Leaving current dental practice in next 12 months?

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	5	35
-8	Not Applicable	34	286
-6	Invalid answer/out of range	2	6
0	No	397	2474
1	Yes	32	193
TOTAL		470	2994

---

---

**QUESTION  
NUMBER**  
32

**VARIABLE NAME**  
COLLAB\_OTHERS

**DESCRIPTION**  
Collaboration with other dentists, physicians, and nurses

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	17	142
-8	Not Applicable	34	286
0	No	245	1691
1	Yes	174	877
TOTAL		470	2996



---

---

**QUESTION  
NUMBER**  
33

**VARIABLE NAME**  
CHALLENGE\_NONE

**DESCRIPTION**  
Challenge in next 12 months: None

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	370	2235
1	Yes	57	435
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
33

**VARIABLE NAME**  
CHALLENGE\_LOWVOL

**DESCRIPTION**  
Challenge in next 12 months: Low patient volume

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	300	1810
1	Yes	127	860
TOTAL		470	2995

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
33	CHALLENGE_LOWCOLLECT	Challenge in next 12 months: Adequate patient volume, but low collection rate

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	400	2496
1	Yes	27	174
TOTAL		470	2995

---

---

<b>QUESTION NUMBER</b>	<b>VARIABLE NAME</b>	<b>DESCRIPTION</b>
33	CHALLENGE_INSREIMB	Challenge in next 12 months: Low reimbursement rates from dental insurers

<b>TYPE</b>	<b>LENGTH</b>	<b>FORMAT</b>
Numeric	8	Nominal

---

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	342	2180
1	Yes	85	490
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
33

**VARIABLE NAME**  
CHALLENGE\_PHYDEM

**DESCRIPTION**  
Challenge in next 12 months: Physical demands of the work

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	381	2422
1	Yes	46	248
TOTAL		470	2995

---

---

**QUESTION  
NUMBER**  
33

**VARIABLE NAME**  
CHALLENGE\_MGMT

**DESCRIPTION**  
Challenge in next 12 months: Practice management challenges

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

---

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	327	2127
1	Yes	100	543
TOTAL		470	2995

**QUESTION  
NUMBER**  
33

**VARIABLE NAME**  
CHALLENGE\_OTHER

**DESCRIPTION**  
Challenge in next 12 months: Other

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	9	39
-8	Not Applicable	34	286
0	No	387	2457
1	Yes	40	213
TOTAL		470	2995

**QUESTION  
NUMBER**  
34

**VARIABLE NAME**  
INCRMDCD\_REIMB\_GRP

**DESCRIPTION**  
Improving access to health care: Increase Medicaid reimbursement rates grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<b>VALUE</b>	<b>VALUE LABEL</b>	<b>UNWEIGHTED FREQUENCY</b>	<b>WEIGHTED FREQUENCY</b>
-9	Missing	16	126
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	10
0	Not Important or indifferent (3,4,5)	91	
1	Very Important/Important (1,2)	310	
2	N/A	18	
TOTAL		470	2997

**QUESTION  
NUMBER**  
34

**VARIABLE NAME**  
EXPNDMDCD\_LWINCADLT\_GRP

**DESCRIPTION**  
Improving access to health care: Expand Medicaid coverage for low-income adults grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	18	147
-8	Not Applicable	34	286
0	Not Important or indifferent (3,4,5)	187	
1	Very Important/Important (1,2)	210	
2	N/A	21	
TOTAL		470	2996

**QUESTION  
NUMBER**  
34

**VARIABLE NAME**  
ENSURE\_ACC\_DINS\_GRP

**DESCRIPTION**  
Improving access to health care: Ensure every Coloradan has access to dental insurance grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	13	127
-8	Not Applicable	34	286
0	Not Important or indifferent (3,4,5)	213	1369
1	Very Important/Important (1,2)	198	1130
2	N/A	12	84
TOTAL		470	2996

**QUESTION  
NUMBER**  
34

**VARIABLE NAME**  
LWLIAB\_VOLCARE\_GRP

**DESCRIPTION**  
Improving access to health care: Low cost liability ins. for volunteer work to low-income pts grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	16	119
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Not Important or indifferent (3,4,5)	203	1333
1	Very Important/Important (1,2)	200	1151
2	N/A	16	102
TOTAL		470	2994

**QUESTION  
NUMBER**  
34

**VARIABLE NAME**  
LOANFGV\_UNDESV\_GRP

**DESCRIPTION**  
Improving access to health care: Loan forgiveness for those willing to stay in underserved area grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Nominal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	15	146
-8	Not Applicable	34	286
-6	Invalid answer/out of range	1	3
0	Not Important or indifferent (3,4,5)	123	925
1	Very Important/Important (1,2)	280	1482
2	N/A	17	154
TOTAL		470	2995

## CREATED VARIABLES

**CREATED  
VARIABLE**

**VARIABLE NAME**  
AGE\_GRP

**DESCRIPTION**  
Age grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	42	337
1	34 years or younger	140	411
2	35-44 years	102	632
3	45-54 years	104	719
5	55 or older	82	897
TOTAL		470	2996

**CREATED  
VARIABLE**

**VARIABLE NAME**  
GRAD\_NUMYRS\_GRP

**DESCRIPTION**  
Num of yrs since grad from dental school, grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

<u>VALUE</u>	<u>VALUE LABEL</u>	<u>UNWEIGHTED FREQUENCY</u>	<u>WEIGHTED FREQUENCY</u>
-9	Missing	49	426
1	0-5 years	113	374
2	6-15 years	119	586
3	16-25 years	96	594
4	26-35 years	73	662
5	36 years or more	20	354
TOTAL		470	2996

---

---

**CREATED  
VARIABLE**

**VARIABLE NAME**  
GRAD\_AGE\_GRP

**DESCRIPTION**  
Graduation age grouping

**TYPE**  
Numeric

**LENGTH**  
8

**FORMAT**  
Ordinal

---

---

<b><u>VALUE</u></b>	<b><u>VALUE LABEL</u></b>	<b><u>UNWEIGHTED FREQUENCY</u></b>	<b><u>WEIGHTED FREQUENCY</u></b>
-9	Missing	53	436
1	0-25 years	45	384
2	26-35 years	350	2092
3	36 years or more	22	84
TOTAL		470	2996



## APPENDIX A BUSINESS RULES FOR DATA CLEANING

The Colorado Health Institute (CHI) used the following business rules to edit data obtained from the 2009 Colorado Dentist Workforce Survey.

For more information, contact Glenn Goodrich at 720.382.7095 or [goodrichg@ColoradoHealthInstitute.org](mailto:goodrichg@ColoradoHealthInstitute.org).

### General Rules:

1. Terminology- Unless otherwise stated, “-6” refers to an Invalid Answer/Out of Range; “-7” refers to the respondent answering a question that should have been skipped; “-8” means the question is missing due to a skip pattern; and “-9” means the respondent did not answer the question.
2. Case exclusions- If the primary practice location ZIP Code (Q5) was out of state (non-Colorado), the case was excluded. If the medical practice location ZIP Code was located in a rural area according to the RUCA codes (created from Q5), the case was also excluded.
3. Calculated variables- When the value was missing, regardless of the reason, all created variables were set to -9 (includes missing due to blank responses as well as invalid or inconsistent responses). This rule applied to such variables as age, graduation age and number of years since graduation.
4. Contradictory answers within an item- If more than one item was marked for items with strictly one option, the variable was coded as -6; if nothing was marked, the resulting variable was coded as -9. This rule applied to Q1, Q4, Q8, Q12, Q13, Q16a, Q18, Q22, Q23, Q24, Q25, Q27, Q28, Q29, Q31a, and Q34.
5. For items with a series of yes/no questions- if respondent marked both “yes” and “no” on any sub-portion, the particular portion where this occurred was recoded as -6. This rule applied to Q2, Q2a, Q3, Q15, Q16, Q19, Q31, and Q32.

### Question-Specific Rules:

1. Due to the large number of multiple responses to Q33, individual dummy variables were created for each response to preserve this information.
2. If the respondent indicated any of the 4<sup>th</sup> through 6<sup>th</sup> options on Q1, then any subsequent questions answered were coded to -7. Subsequent questions not answered were coded to -8 as well.
3. If the respondent indicated yes on Q2 and also responded to Q2a, then item(s) on Q2a were coded to -7. Items left blank on Q2a under the same scenario were coded to -8.
4. If the respondent indicated no on Q31 and also responded to Q31a, then item(s) on Q32a were coded to -7. Items left blank on Q32a under the same scenario were coded to -8.
5. If a description is provided for the other portion of Q8 and yes is not checked, we force this indicator to be yes. If no description is present and either no or N/A is indicated then the description field is set to -8.
6. If the first two options are not indicated on Q13 but a description for the difficulty portion of the question exists, then we force the third option (difficult to retain dental hygienists) to be indicated as opposed to the first two. If the description for difficulty is blank and one of the first two options is marked, then the description is coded to -8.
7. For Q16a other, if the respondent indicates N/A but a description is present then the description field is coded as -7. Under the same scenario as above if the description is blank then the description is coded as -8.
8. For Q19, if a language is specified in the description, but yes is not indicated, we force the indicator to yes. If the respondent indicates no for item 19 and there is no description then the description field is coded as -8. Finally if the respondent indicates yes but that they are only familiar with the language in question, then the indicator is set to no (only happens for one case).
9. For Q31a regarding the other reason for leaving, if the respondent indicates N/A then the description portion of this particular item within Q31a is set to -8.
10. If a description for Q32 exists, but yes is not indicated, then we force the indication portion of the question to yes. If the indication portion of the question is no and there is no description, then description field is coded as -8.

11. If the other box is not checked on Q33 and there is no description, the description portion is coded as -8.
12. If the number of office visits for Q7 is more than 20,000, then the item is coded to -7.
13. For Q9, if the total professional hours are 168 hours or more then the item is coded as -6. Similarly for direct care if the number of hours is 168 or more then the item is coded as -6. If the number of hours for direct care is more than the total professional hours, then both components of Q16 are coded as -6.
14. If the graduation year (Q21) is before 1920 the item is coded as -6.
15. If the birth year (Q26) is before 1880 then the item is coded as -6.
16. For item 17, if at least one percentage is present and an individual component percentage is missing we code that missing percentage as 0. For the case where percentages are provided, if they do not sum to 100, then each component is set to -6.

**APPENDIX B**  
**SAMPLING AND RESPONSE SUMMARY BY STRATA**

<b>STRATA</b>	<b>POPULATION</b>	<b>ELIGIBLE<sup>2</sup></b>	<b>RESPONDENTS</b>	<b>RESPONSE RATE</b>
Male: <35	240	141	74	52.5%
Male: 35-49	699	147	72	49.0%
Male: 50 +	1449	147	80	54.4%
Female: <35	174	145	70	48.3%
Female: 35-49	299	146	88	60.3%
Female: 50 +	134	132	86	65.2%
<b>TOTAL</b>	<b>2995</b>	<b>858</b>	<b>470</b>	<b>54.8%</b>

<sup>2</sup> Eligible includes the number of active licensed dentists in the sample with a contact address in urban Colorado minus rural, out of state, unable to forward and non-responses.

## APPENDIX C POSTCARDS AND COVER LETTERS



Colorado Health Institute  
1576 Sherman Street, Ste. 300  
Denver, CO 80203-1728

Dear Colleague,

Within a week you will receive in the mail a request to fill out a dentist workforce questionnaire for an important study being conducted by the Colorado Health Institute on behalf of the Colorado Department of Public Health and Environment's (CDPHE) Oral Health Program.

The purpose of the questionnaire is to inform state policymakers, the University of Colorado Denver School of Dental Medicine and the Colorado Area Health Education Centers about dental practice issues from dentists who practice in Colorado's urban communities.

I am writing you in advance because we have found many people like to know ahead of time that they will be contacted. Thank you in advance for your time and consideration in helping make our survey effort successful.

Sincerely,

A handwritten signature in blue ink, reading 'Pamela P. Hanes'.

Pamela P. Hanes, PhD  
President and CEO

August 10, 2009

Survey # XXXX

XXXXXXXXXX  
XXXXXXXXXXXX  
XXXXXX, CO XXXXX

Dear Dr. XXXXXXXX:

We need your help to learn more about the practice of dentistry in Colorado's urban communities. Many Coloradans living in the state's urban areas have difficulty getting access to the oral health care they need. Colorado's policymakers at both the state and local level would benefit from a better understanding of the training, practice and reimbursement issues related to recruiting and retaining dentists throughout Colorado's urban communities.

The Colorado Health Institute (CHI) was asked by the Colorado Department of Public Health and Environment's Oral Health Program to survey Colorado's urban dentists to provide a more comprehensive picture of the state's dental workforce. Your participation in this survey effort is extremely important.

The responses you provide will be confidential, survey findings will only be reported in the aggregate and your name will be removed from our database once survey administration has been completed.

CHI values your participation in this effort. The survey should take approximately 15 minutes to complete. A high response rate will ensure the reliability of the findings and provide the most accurate and generalizable picture of dentistry in Colorado's urban communities.

*Commonly Asked Questions* about the survey are included on the back of this letter. If you have any additional questions about the survey or about the Colorado Health Institute, please contact Michael Boyson at 303.831.4200 x 207.

Enclosed is a \$2 bill, a small token of our appreciation for filling out the survey. Thank you for your participation.

Warm regards,



Pamela P. Hanes, PhD  
President and CEO

You can also complete the survey form online at: <http://www.ColoradoHealthInstitute.org/Dentist2009.html>. Type the number shown at the top of your survey form (XXXX) → Complete the questionnaire and click the "submit" button when you finish.

## COMMONLY ASKED QUESTIONS

### **Who are the Colorado policymakers who will see the summary results?**

CHI will share a report of the urban dentist workforce survey findings with interested individuals and groups including:

- Legislators
- State agencies, such as the Colorado Department of Public Health and Environment's Oral Health Program and the Department of Health Care Policy and Financing (the state's Medicaid agency)
- Colorado's health foundations including The Colorado Trust, Caring for Colorado Foundation and The Colorado Health Foundation
- University of Colorado (CU) Denver School of Dental Medicine
- Colorado Dental Association

### **Why is this survey important?**

The Colorado Department of Public Health and Environment's (CDPHE) Oral Health Program will use the information to identify opportunities for improving access to oral health care in Colorado's urban communities. The CU Denver School of Dental Medicine will use the information to improve its classroom instruction and clinical experience for dental students. The Colorado Area Health Education Centers will identify opportunities to increase high school students' interests in health careers. The Colorado Health Institute will match respondents' results with the 2008 rural dentist survey and inform legislators about training and practice issues related to dentistry to assist their workforce deliberations. For more information about the 2008 rural dentist survey, see

[http://www.coloradohealthinstitute.org/resourceHotissues/workforce\\_RuralDentist.htm](http://www.coloradohealthinstitute.org/resourceHotissues/workforce_RuralDentist.htm).

### **How was I selected to be in the sample?**

Using the home or work address contained in the Colorado Department of Regulatory Agency's dentist licensure file matched to the Colorado Dental Association mailing list, CHI matched ZIP Codes with the definition of urban developed by the U.S. Department of Agriculture (Rural Urban Commuting Areas or RUCAs). RUCA codes are a sub-county measure of rural-urban status based on 2000 U.S. Census data and 2006 ZIP Codes. For more information on RUCA codes, refer to <http://depts.washington.edu/uwruca/index.html>.

### **If I am retired or not practicing dentistry, do I need to fill out the questionnaire?**

Yes, but only the first question. Please answer the first question and return the enclosed questionnaire in the self-addressed stamped envelope. Your name will then be taken off the CHI mailing list for any further contact.

### **Who sees my answers?**

CHI staff members working on the survey have signed an agreement to protect the confidentiality of the data collected. Before the public sees the summary results or a public use data file, CHI staff will ensure that survey responses that could identify an individual are re-coded to protect the confidentiality of all survey respondents.

### **How much time does the questionnaire take?**

There are 34 questions. Based on a pre-test of the survey instrument, we estimate the questionnaire will take approximately 15 minutes to complete.

### **What happens if I do not respond?**

This is a voluntary survey. However, if you do not respond, the survey will be less representative of the population of dentists practicing in urban areas of the state.

### **Can I see a report from the survey?**

If you would like a copy of the final report based on this survey, please contact Rebecca Crepin, CHI research assistant, at 303.831.4200 x 216 or [crepinr@coloradohealthinstitute.org](mailto:crepinr@coloradohealthinstitute.org).



Colorado Health Institute  
1576 Sherman Street, Ste. 300  
Denver, CO 80203-1728

Dear Colleague,

Last week you received a letter inviting you to participate in an Urban Dentist Workforce Survey. Your name was randomly selected from a list of current licensed dentists living or working in an urban Colorado community to participate in a workforce survey.

If you have already completed the survey online or returned the form to us, please accept our sincere thanks. If not, we ask that you please do so as soon as possible. It is only through practicing dentists like you completing the questionnaire that Colorado policymakers will fully understand the workforce issues that you and your colleagues face in providing dental care in Colorado's urban communities.

If you did not receive a questionnaire, or if it was misplaced, please call Rebecca Crepin at 303.831.4200 x 216 and we will get another one in the mail to you today.

Warm regards,

A handwritten signature in blue ink, reading 'Pamela P. Hanes'.

Pamela P. Hanes, PhD  
President and CEO

August 31, 2009

Survey # XXXX

XXXXXXX  
XXXXXXXXXX  
XXXXX, CO XXXXX

Dear Dr. XXXXXXX:

About three weeks ago the Colorado Health Institute mailed you a questionnaire about your practice experiences as a Colorado dentist. To date, we have not received your completed questionnaire.

Preliminary findings from returned surveys indicate that many practicing dentists in Colorado are being impacted by current economic conditions. We are writing to you because your participation is important to the reliability and validity of the final survey results. As we stated in the initial invitational letter, your responses will be confidential and only reported in the aggregate.

A few people have called to say that they are retired or not seeing patients. If that is the case with you, we ask you to simply complete the first question and then return the survey to CHI.

I have enclosed another copy of the questionnaire and a self-addressed envelope in the event the first survey was misplaced. I hope that you will take the 15 minutes to fill it out and return it today. If you have any questions, please contact Michael Boyson at 303.831.4200 x 207. Thank you very much for your participation in this important survey effort.

Sincerely,



Pamela P. Hanes, PhD  
President and CEO

You may also complete the survey form online at: <http://www.ColoradoHealthInstitute.org/Dentist2009.html>. Type the number shown at the top of your survey form (XXXX) → Complete the questionnaire and click the "submit" button when you finish.



## FREQUENTLY ASKED QUESTIONS

### **How many people have responded?**

So far, we have received 296 surveys: 293 paper forms and 3 filled out online representing a 34 percent response rate. We are aiming for a much higher response rate.

### **Who are the Colorado policymakers who will see the summary results?**

CHI will share a report of the urban dentist workforce survey findings with interested individuals and groups including:

- Legislators
- State agencies, such as the Colorado Department of Public Health and Environment's Oral Health Program and the Department of Health Care Policy and Financing (the state's Medicaid agency)
- Colorado's health foundations including The Colorado Trust, Caring for Colorado Foundation and The Colorado Health Foundation
- University of Colorado (CU) Denver School of Dental Medicine
- Colorado Dental Association

### **Why is this survey important?**

The Colorado Department of Public Health and Environment's (CDPHE) Oral Health Program will use the information to identify opportunities for improving access to oral health care in Colorado's urban communities. The CU Denver School of Dental Medicine will use the information to improve its classroom instruction and clinical experience for dental students. The Colorado Area Health Education Centers will identify opportunities to increase high school students' interests in health careers. The Colorado Health Institute will match respondents' results with the 2008 rural dentist survey and inform legislators about training and practice issues related to dentistry to assist their workforce deliberations. For more information about the 2008 rural dentist survey, see [http://www.coloradohealthinstitute.org/resourceHotissues/workforce\\_RuralDentist.htm](http://www.coloradohealthinstitute.org/resourceHotissues/workforce_RuralDentist.htm).

### **How was I selected to be in the sample?**

Using the home or work address contained in the Colorado Department of Regulatory Agency's dentist licensure file matched to the Colorado Dental Association mailing list, CHI matched ZIP Codes with the definition of urban developed by the U.S. Department of Agriculture (Rural Urban Commuting Areas or RUCAs). RUCA codes are a sub-county measure of rural-urban status based on 2000 U.S. Census data and 2006 ZIP Codes. For more information on RUCA codes, refer to <http://depts.washington.edu/uwruca/index.html>.

### **If I am retired or not practicing dentistry, do I need to fill out the questionnaire?**

Yes, but only the first question. Please answer this question by returning the enclosed questionnaire in the self-addressed stamped envelope. Your name will then be taken off the CHI mailing list for any further contact.

### **Who sees my answers?**

CHI staff members working on the survey have signed a confidentiality agreement to protect the confidentiality of the data collected. Before the public sees the summary results or a public use file, CHI staff will ensure that survey responses are re-coded when necessary to protect the confidentiality of all survey respondents.

### **What happens if I do not respond?**

This is a voluntary survey. However, if you do not respond, the survey will be less representative of the population of dentists practicing in urban areas of the state.

### **Can I see a report from the survey?**

If you would like a copy of the final report based on this survey, please contact Rebecca Crepin, CHI research assistant, at 303.831.4200 x 216 or [crepinr@coloradohealthinstitute.org](mailto:crepinr@coloradohealthinstitute.org).