

**The California Community Clinic  
Oral Health Capacity Study:**

**The Capacity of California's Community Clinics to Provide  
Oral Health Services and  
Host Dental Student and Dental Resident Rotations**

**Report to the California Endowment  
December 31, 2005**

The California Community Clinic Oral Health Capacity Study:  
The Capacity of California's Community Clinics to Provide  
Oral Health Services and Host Dental Student and Dental Resident Rotations

Report to the California Endowment  
December 31, 2005

Paul Glassman DDS, MA, MBA  
Professor of Dental Practice  
Associate Dean for Information and Educational Technology  
Director of the AEGD Program  
[pglassman@pacific.edu](mailto:pglassman@pacific.edu)

Paul Subar, DDS  
Assistant Professor of Dental Practice  
[psubar@pacific.edu](mailto:psubar@pacific.edu)

University of the Pacific  
Arthur A. Dugoni School of Dentistry  
2155 Webster St  
San Francisco, CA 94115

Supported by The California Endowment  
Grant # 20041986

# The California Community Clinic Oral Health Capacity Study

## Table of Contents

Introduction.....	1
Purpose of the Study .....	2
Methodology.....	2
Advisory and Steering Committees .....	3
Design the Survey Instruments .....	3
Define the Universe of Clinics.....	3
Mail the Survey and Follow-up Surveys .....	4
Conduct Focus Group .....	4
Conduct Follow-up Telephone Interviews.....	4
Conduct Post-Survey Telephone Follow-up.....	4
Findings and Comments .....	5
Survey Results from Clinics with Dental Facilities – General Agency Questions.....	5
Response Rate.....	5
Clinic Associations .....	5
Clinic Type.....	6
Clinic Funding .....	6
Payer Mix.....	7
Patient Population .....	7
Special Patients .....	8
Student/Resident Rotations.....	8
Number and Length of Rotations.....	9
Ratings of Rotations.....	9
Factors to Increase Rotations .....	10
Barriers.....	10
Planned Increase in Dental Services .....	11
Constraints to Increasing Patients Seen .....	11
Suggestions for Increasing Access.....	12
Survey Results from Clinics with Dental Facilities – Specific Dental Facility Questions.....	12
Clinic Operational Data .....	12
Number of Employees .....	13
Number of Procedures .....	14
Survey Results from Clinics without Dental Facilities.....	15
Response Rate.....	15
Clinic Associations .....	15
Clinic Type.....	16
Clinic Funding .....	16
Payer Mix.....	17
Patient Population .....	17
Special Patients .....	18
Means to Provide Dental Services .....	18
Operating Room Dentistry.....	18
Dental Consultation .....	18

Who Provides Dental Services.....	19
Number of Patients who Receive Dental Services .....	19
Number of Patients who Receive Dental Services .....	19
Possible Dental Student/Resident Rotations.....	19
Barriers to Dental Student/Resident Rotations .....	20
Plans to add Dental Services.....	20
Population Changes .....	20
Constraints to Adding Dental Services .....	21
Support to Increase Dental Services .....	21
Results from Focus Group Sessions .....	21
Conclusions.....	22
Future Work.....	23
Summary.....	24

# The California Community Clinic Oral Health Capacity Study

## Introduction

This study of the oral health capacity of California community clinics is a result of and a part of the activities of the California Initiative, itself a part of the National Pipeline Program.

The National Pipeline Program was launched in 2003. Known as the Pipeline, Profession & Practice: Community-Based Dental Education (Dental Pipeline) program, this five-year program is designed to help increase access to dental care for underserved populations. Grant funds from The Robert Wood Johnson Foundation and The California Endowment were made available to 15 U.S. dental schools to develop community-based clinical education programs that provide care to the most vulnerable populations and to increase recruitment and retention of low-income and underrepresented minority students. Participating schools have agreed to

Establish community-based clinical education programs;

- Establish community-based clinical education programs;
- Revise didactic and clinical curricula to integrate community-based practice experiences into their educational programs; and
- Implement programs to increase recruitment and retention of underrepresented minority and low-income students.

The California Endowment joined the Dental Pipeline program in February 2003 to fund the California Initiative and involve all five of California's dental schools in the Pipeline Program. The goals of the California Initiative are to:

- Recruit and retain an increased number of underrepresented minority students to their dental programs.
- Reform the curricula to integrate community-based practice experience and courses in cultural competency, public health, and the social and behavioral sciences.
- Establish community-based clinical education programs.
- Create a state and national policy agenda that will sustain the efforts of the Dental Pipeline program.

One aspect of the California Initiative was to establish a California Oral Health Policy Committee to develop policies that will sustain the Dental Pipeline: California Initiative's program objectives after the Endowment's funding period ends in 2007. A focus of the Policy Committee was to foster placement of dental students and residents in community clinics. These placements are valuable educational experiences for dental students and residents and provide much needed workforce for community clinics. It was apparent, however, that there was little information available about the capacity of the state's community clinics to host such placements. There was also little information about the opportunities and barriers to establishing these experiences from the viewpoint of community clinics and dental schools.

The California Oral Health Policy Committee felt that it was important to have more information about the capacity of the state to fulfill the goals of the California Initiative. With funding from the California endowment, this Community Capacity study was undertaken.

## **Purpose of the Study**

The general aims of the study were to answer several questions about the opportunities and barriers to placement of dental students and residents in community sites. The questions included:

- What systems are currently being used to arrange student and resident rotations?
- What is the capacity of the community clinics to accept student and resident rotations?
- Could an organized collaborative system be developed to facilitate schools and clinics collaborating to start or expand community rotations for student and residents?
- What kind of arrangements would facilitate establishment of these experiences?

There were also some more specific objectives of the study. These were to:

- Understand the organization, location, facilities, financing, workforce, patient populations and services provided by California's community clinics.
- Determine the capacity and barriers of the California community clinics to expand services to underserved populations and to use student and resident workforce.
- Examine arrangements to facilitate placements of students and residents.
- Assess stakeholder opinions about legislative, regulatory, and policy changes that are needed
- Assess stakeholder opinions about action needed to increase availability of oral health care

## **Methodology**

This study was conducted by staff at the University of the Pacific, Arthur A. Dugoni School of Dentistry. Project staff included:

- Paul Glassman DDS, MA, MBA, Project Director
- Paul Subar DDS, Project Faculty Member
- David Chambers, EdM, MBA, Ph, Statistical Consultant
- Mari Okamura, Project Manager

This study was conducted in several steps. They were:

- Form Advisory and Steering Committees to provide feedback about the study design and results.
- Design the survey instruments
- Define and characterize the universe of clinics and determine the contact person who would be responsible for responding to the study survey.
- Mail the survey and follow-up surveys to non-responders
- Conduct an in-person focus group with community clinic directors and representatives of community clinic organizations.
- Conduct telephone interviews with representatives of community clinics, community clinic organizations, and dental schools.
- Conduct post-survey telephone follow-up with selected contact persons

### Advisory and Steering Committees

A steering committee was convened October 4th, 2004 composed of representatives from the California Primary Care Association (CPCA), the California Association of Public Hospitals (CAPH), the Oral Health Access Council (OHAC), and the 5 California dental Schools. The steering committee provided input on the methodology to be used to contact community clinic, the questions to be asked, and ways to motivate recipients to respond to the survey.

Members of the steering committee were augmented by several additional members of the California Oral Health Access Council as well as various community clinic Executive Directors, Dental Directors, and other principals to form an Advisory Committee which met via teleconference to aid in development of the California Clinics Capacity Study throughout early 2005. These individuals provided ongoing recommendations as the project developed.

### Design the Survey Instruments

The project staff worked with the Advisory and Steering Committees to develop the written survey instruments. There were three survey instruments developed:

1. A general survey for community clinic agencies that had a dental facility. This survey contained items related to the clinic's organization, financing, patients pool, experience with dental students and residents, perceived barriers to expanding student and resident involvement, and opinions about policy changes needed to facilitate these arrangements.
2. A specific survey for each dental facility or clinic operated by a community clinic agency. It was known that some agencies operated more than one clinic facility and therefore might submit more than one of these surveys. This survey contained items related to the clinic's facilities, workforce, and oral health services that were provided.
3. A general survey for community clinic agencies that did not have a dental facility. This survey contained items similar to survey #1, but was tailored for clinics with no dental facility.

### Define the Universe of Clinics

An initial list of approximately 1000 clinics was compiled by collecting clinic names from the organizations represented on the Steering Committee and from searches of the Internet. All of these clinics were called to: see if they were still in operation; sort out duplicates; determine if they were members of clinic consortia or other clinic groups; determine who had administrative responsibility; and who would be responsible for filling out the written survey. In addition, a determination was made about whether the clinic had a dental facility or offered dental services.

Even with this initial preparation, it was found that a number of clinics were initially misclassified based on information supplied by the clinic and new surveys had to be sent or data collected based on the correct categorization.

### Mail the Survey and Follow-up Surveys

From the initial list of clinics and agencies, a final list of 728 agencies was compiled. Of these, 232 had indicated that they had dental facilities and 496 had indicated that they did not. An initial mailing of surveys was conducted in March, 2005 and a follow-up mailing of non-responders conducted in May 2005. In addition a short survey was sent to those clinics who had not responded to the two initial survey mailings.

### Conduct Focus Group

In August 2005 a focus group was held at the Pacific School of Dentistry. The session was facilitated by Mr. Tim Henderson, a consultant hired for this purpose. Participants included clinic directors and representatives of the California Primary Care Association (CPCA), the California Association of Public Hospitals (CAPH), and the Oral Health Access Council (OHAC). This focus group provided feedback on the results of the written survey and insight about the potential for increasing collaboration between community clinics and dental schools.

### Conduct Follow-up Telephone Interviews

In August and September 2005, Mr. Tim Henderson conducted telephone interviews with representatives of community clinics, community clinic organizations, and dental schools. These interviews solicited additional information about these stakeholders' views on potential mechanisms for increasing collaboration between clinics and dental schools.

A second focus group was conducted at a workshop during the annual CPCA meeting in September 2006. Again, this workshop provided feedback on the results of the written survey and insight about the potential for increasing collaboration between community clinics and dental schools.

A third focus group took place at an all day interim meeting of the Pipeline Health Policy Committee in December 2005. At this session, feedback was solicited about the implications, from the viewpoint of the California dental schools, of the survey results. Also further steps and policy implications were discussed.

### Conduct Post-Survey Telephone Follow-up

After the results of the written survey were compiled, the contact person from some agencies was called to clarify some of the responses indicated on the survey. In addition, some agencies were re-classified as having or not having dental facilities based on the survey responses and these follow-up calls.

## Findings and Comments

There was a very low response rate from public hospitals and dental education-based clinics. The findings presented here do include any responses from public hospitals but do not include the few responses from dental education-based clinics.

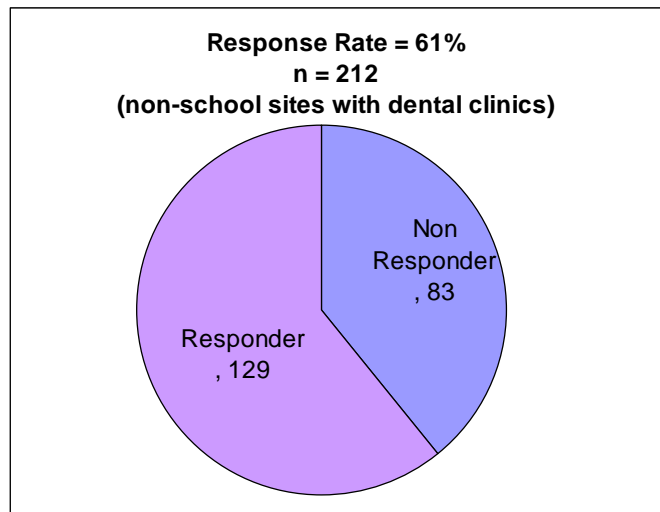
The findings from this study are divided into several sections:

- Survey Results from Clinics with Dental Facilities – General Agency Questions
- Survey Results from Clinics with Dental Facilities – Specific Dental Facility Questions
- Survey Results from Clinics without Dental Facilities
- Results of Focus Group Sessions

### Survey Results from Clinics with Dental Facilities – General Agency Questions

#### Response Rate

Sent	212
Non Responder	83
Responder	129
Response	61%



Comment: This response rate was considered acceptable for this type of survey. This was especially true when the difficulty in identifying someone responsible to fill out the survey was considered along with the length of the survey.

Clinic Associations: Number in each type of association (multiple associations per clinic)

	#	CPCA
CPCA	69	69
CAPH	3	0
Local Consortium	50	34
County Group	27	15
Other	37	21
Total	186	139

Comment: The majority of clinics belong to the CPCA (69 out of 129 or 54%). However many clinics belong to local consortia or other groups and do not belong to CPCA.

Clinic Type: Number with each clinic type (multiple types per clinic)

	#	FQHC
Free standing Dental Clinic	18	5
School-based Clinic (Dental Only)	6	1
Mobile Clinic (Van)	15	7
Hospital Based Clinic	7	1
VA Facility	0	0
Public Hospital	2	0
Rural Health Clinic 95-210	7	3
Medical/Dental Clinic	63	37
Mobile Clinic (portable)	4	4
County Health Facility	13	0
FQHC	68	68
School-based (Med/dental)	13	8
FQHC Look-Alike	6	4
Free Clinic	4	1
Total	226	139

Comment: The majority of clinics that responded to this survey are FQHCs (68 out of 129 or 53%). However, many clinics characterized themselves in other categories.

Clinic Funding: Average percent per source

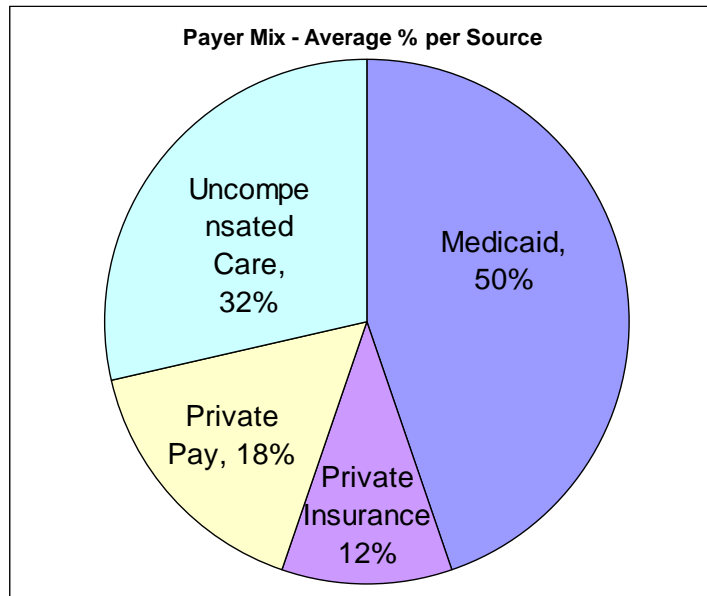
	Average %
County Funding	28%
Federal Funding	24%
Grant Funding	24%
Private Contributions	14%
Private Contracts	7%
Patient Fees	35%
Other	26%

Other responses included HMO, city funding, private insurance, investment earnings, and rental income

Comment: There was a fairly even distribution of sources of clinic funding among the categories listed in the survey.

Payer Mix: Average percent per source

Medicaid	50%
Private Insurance	12%
Private Pay	18%
Uncompensated Care	32%



Comment: The majority of patients in the clinics that responded to this survey had Medicaid coverage. As expected there was a low number with private dental insurance or private pay for services.

Dental Patient Population: Average percent per category

	Average %
Caucasian	29%
Black or African American	9%
Asian	7%
American Indian or Alaska Native	12%
Hispanic	56%
Native Hawaiian or Pacific Islander	3%
Multi-racial	5%
Declined to state	3%

Comment: Clearly, the largest population group served by the clinics that responded to this survey was Hispanic. There were a number of clinics that specifically served American Indian populations which accounts for the relatively high proportion of responses in this category.

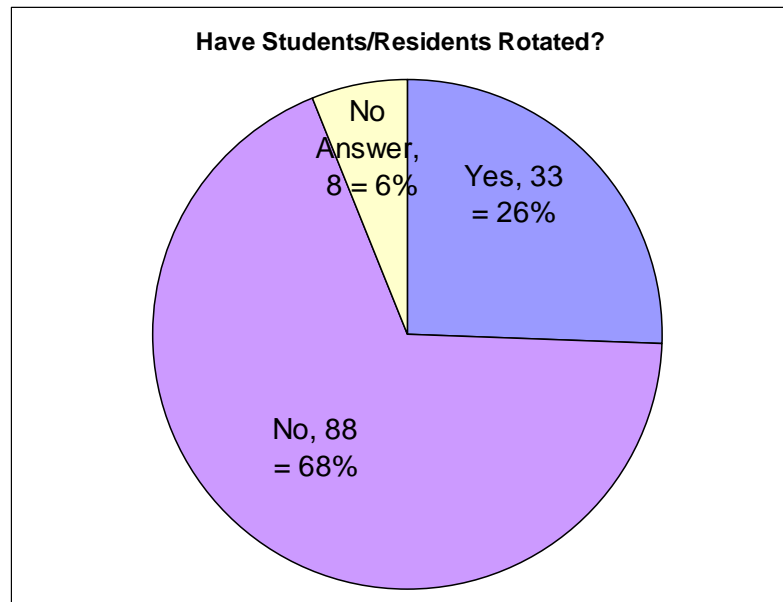
Special Populations: Average percent per category

	Average %
Medically Compromised	28%
Pediatric	45%
Developmentally Disabled	4%
Mentally Ill	9%
Geriatric	13%
Other	41%

Comment: The highest special group was children. There were relatively few people with developmental disabilities and mental illness given the fact that many people in these groups have low incomes and have difficulty finding sources of dental care.

Have you ever had dental students or dental residents rotate through your clinic?

Yes	33	26%
No	88	68%
No Answer	8	6%
Total	129	



Comment: About a quarter of the clinics that responded to this survey have had some experience with dental student or resident rotations. This is in contrast to the responses to the next question where only about 15% of clinics reported on the status of current rotations.

### Number and Length of Rotations

	# Clinics responding	Average
How many students rotate per week?	21	2.3
How many days per student?	23	6.2
How many residents rotate per week?	11	3.2
How many days per resident?	11	4.6

Note: removed one outlier with 24 students rotating per week and 13 days per student

Comment: As noted in the response to the previous question the average number of students and residents rotating and the average length of the rotations is fairly limited at present. There were a few clinics with higher number and one, as noted, with 24 students rotating per week and an average of 13 days per student/

### Ratings of Rotations

	# Clinics	Yes	Somewhat	No	% Yes
Are dental <b>students/residents</b> prepared for your particular patient population?	28	24	2	2	86%
Are the dental <b>students</b> producing adequately?	22	16	1	5	73%
Are the dental <b>residents</b> producing adequately?	11	10	1	0	91%
Are the dental <b>students/residents</b> spending enough time at your clinic(s) to learn your clinic protocols to be productive?	26	19	1	6	73%

Comment: The clinics responding to this survey felt that, in general both students and residents were prepared for their rotations. However, they clearly felt that residents were more productive and that both students and residents were not spending enough time in their rotations.

If you were in a position to start or change the number of dental students/residents rotating in your clinics, what types of support would influence your decision?

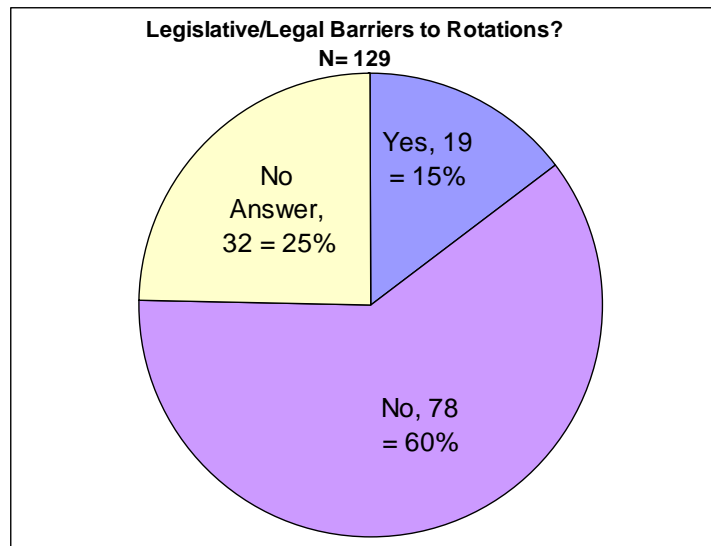
	#
Faculty Appointments	28
CE opportunities	31
Association with a University	36
Access to specialty consults	42
Other	46

Other responses included funding, getting faculty in clinics, adequate rotation length, marketing tools (PR opportunities), and education of clinic administration

Comment: Clinics that responded to this survey felt that there were a number of types of support that could help them be in a better position to start or expand the number of student or resident rotations.

Are there legislative, regulatory, policy, or procedural barriers preventing you from hosting a dental student or dental resident?

Yes	19	15%
No	78	60%
No Answer	32	25%
Total	129	



Barriers listed

- Distance from schools
- Monitoring/supervision challenges
- JCAHO Credentialing/liability issues
- Patient perception issues
- Space
- Contractual agreements
- “insurmountable red tape!!”

Comment: Most clinics (60%) did not perceive any legislative, regulatory, policy, or procedural barriers to hosting dental students or residents. However, those that did perceive barriers listed many types of barriers with no single or few types receiving large numbers of comments.

Do you plan to increase/decrease dental services or expand your dental facility in the next 1-3 years? By what percent?

	#	Average %
Increase in dental services	75	35%
Decrease in dental services	3	27%

Comment: Almost 60% of the clinics that responded to this survey planned to increase dental services or expand their dental facility in the next 1-3 years. They planned to increase services by an average of 35%.

What constraints do you have to increasing the number of patients seen

	Not Significant Constraint 1	2	Significant Constraint 3	4	Very Significant Constraint 5	Average Rating
Patient transportation barriers	25	26	25	15	7	2.5
Overall clinic size	27	20	17	13	21	2.8
Number of operatories	28	17	18	10	24	2.8
Number of general dentists	22	22	19	11	24	2.9
Number of specialists	11	17	18	15	30	3.4
Social Services or other support	32	31	18	10	3	2.2
Number of hours clinic is open	34	29	16	7	11	2.3

Comment: While clinics perceived all of the items listed above as constraints to increasing the number of patients seen, the most significant factors were access to specialist and the number of general dentists. Space was also a listed as a significant barrier. Access to specialists and general dentistry workforce could be addressed by increased student/resident rotations while space would not be.

What suggestions do you have for increasing access to care in conjunction with student/resident rotations?

The write-in responses to this question included:

- Make rotations reliable and productive – long rotations, good objectives, proper orientation
- Revenue sharing
- Provide faculty for clinics for rotations, faculty appointments
- Specialty consultation perhaps using distance electronic consultation systems
- Incentives for students/residents to work in community clinics – loan repayment, scholarships, mandatory residency education for dental school graduates (PGY1)
- Mobile facilities
- Increase funding for student/resident placement
- Reimbursement rates for care
- Integrate primary care medical and dental visits

Comment: Several items here are significant and consistent with suggestions from the focus groups and general conclusions of this study. These include the need for rotations to be longer than they are now in order to be productive for the clinics; the need for support from dental schools for specialty consultation, and the need to better integrate medical and dental services.

Survey Results from Clinics with Dental Facilities – Specific Dental Facility Questions

Dental Clinic Operational Data

	Average
Chairs or operatories	5.30 Chairs
% time with no-shows/cancellations	19% of time
Patients treated/day	25.67 Patients
Wait time for new patient exam	28 Days
Wait time for emergency visit	0.97 Days
Hours open per day – M-F	8.62 Hours
Hours open per day - Saturday	7.4 Hours
Hours open per day - Sunday	9 Hours
Weekend Hours	19% of clinics

Comment: It is very clear that the clinics that responded to this survey are having trouble meeting the demand for services. In spite of being open an average of 8.6 hours a day and almost 20% of clinics having additional weekend hours, there is still an average 28 day waiting time for a new patient examination. In part this is a result of the fact that the clinics are not able to operate efficient delivery systems with almost 20% of potential chair time unused because of no-shows or cancellations. In addition, the average number of patients seen per day, 26, would

be considered very low when compared to a private practice with an average of 5.3 chairs and 1.7 full time dentists.

Number of Employees

	# of responders	Average # responders	Average # all	FTE - # of responders	Average FTE responders	Average FTE all
General Dentists	120	3.18	2.96	106	2.08	1.71
Pedodontists	19	1.58	0.23	8	1.13	0.07
Endodontists	3	1	0.02	1	1	0.01
Periodontists	3	1	0.02	0	0	0
Oral Surgeons	10	2	0.16	2	2.02	0.03
Registered Dental Hygienists	40	1.58	0.49	25	1.18	0.23
Registered Dental Assistants	105	2.97	2.42	96	2.72	2.02
Unregistered Dental Assistants	94	2.89	2.11	83	2.65	1.71
All other office staff	109	2.65	2.24	94	2.41	1.76
Dental Students						
Dental Residents						

	Capacity responders	Capacity New FTE responders	Capacity New FTE all
General Dentists	72	1.75	0.98
Pedodontists	25	1.44	0.28
Endodontists	12	1.08	0.1
Periodontists	5	1	0.04
Oral Surgeons	13	1.27	0.13
Registered Dental Hygienists	40	1.15	0.36
Registered Dental Assistants	68	2.1	1.11
Unregistered Dental Assistants	45	1.93	0.67
All other office staff	53	1.74	0.71
Dental Students	42	1.88	0.61
Dental Residents	46	1.54	0.55

Comment: The first table above lists current employees by the number in each category and the full time equivalent (FTE). The second table lists the clinics perception of the potential to add additional employees in each category. It is clear that there is a shortage of dental specialists working in the clinics that responded to this survey. Periodontists and Endodontists were particularly rare. The number of dental hygienists was also very low compared to the staffing ratio found in many private practices. The clinics perceived that, on average, they had capacity in their facilities for an additional full time general dentist and dental assistant. They also indicated that they had capacity for more than a half time dental student and dental resident.

### Number of Procedures Performed per Month

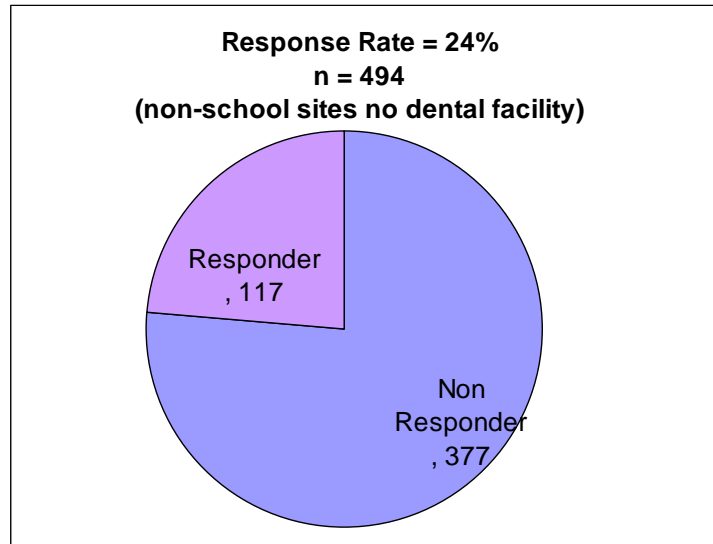
	# of responders	Average # responders	Average # all
Comprehensive exam	95	136	100
Full mouth radiographic series	84	109	71
Panoramic	41	30	10
Sealant	92	87	62
Child oral prophylaxis	89	84	58
Adult oral prophylaxis	82	94	60
Amalgam fillings	92	165	118
Composites	92	121	86
Crowns	86	17	9
Stainless steel crowns	71	33	18
Fixed partial dentures	40	11	3
Full Dentures	69	19	10
Removable cast partial dentures	52	15	6
Acrylic stayplates	64	17	9
Simple extractions	96	81	60
Surgical extractions	79	21	13
Anterior root canals	83	14	9
Posterior root canals	71	14	8
Scaling/root planning	83	56	36
Periodontal surgery	12	3	0.2
Orthodontics	12	28	12

Comment: It can be seen from the table above that the clinics that responded to this survey are, on average, providing very basic dental services. The predominant procedures were examinations, x-rays, cleanings, restorations, sealants, and extractions. Consistent with the earlier finding related to the number of patients seen per day, the number of procedures performed is very low for clinics that are on average open almost 50 hours per week, have 5.3 operatories and employ 1.7 full time general dentists.

Survey Results from Clinics without Dental Facilities

Response Rate

Sent	494
Non Responder	377
Responder	117
Response	24%



Comment: The response rate for clinics with no dental facilities was much lower than that for clinics with dental facilities. This was to be expected and is consistent with the comments to some questions on this survey that dental services were not a part of the mission of many of these clinics.

Clinic Associations: Number in each type of association (multiple associations per clinic)

	#	CPCA
CPCA	49	49
CAPH	6	0
Local Consortium	67	37
County Group	25	11
Other	32	8
Total	179	105

Comment: Less than half of the clinics responding to this survey categorized themselves as member of CPCA. As with the clinics with dental services, many were members of local consortia or other groups

Clinic Type: Number with each clinic type (multiple types per clinic)

	#	FQHC
Mobile Clinic (Van)	2	2
Hospital Based Clinic	1	0
VA Facility	1	0
Public Hospital	0	0
Mobile (portable equipment)	2	1
County Health Facility	16	8
FQHC	36	36
Medical Clinic	7	4
Total	65	51

Comment: As with the clinics with dental facilities, the largest number of these clinics were FQHCs. However that represented only 30% of the clinics in this sample. The next highest number categorized themselves as county health facilities.

Clinic Funding: Average percent per source

	Average %
County Funding	29%
Federal Funding	25%
Grant Funding	22%
Private Contributions	15%
Private Contracts	11%
Patient Fees	28%
Other	54%

Comment: As with the clinics with dental facilities, there was a fairly even distribution of sources of clinic funding among the categories listed in the survey.

Payer Mix: Average percent per source

Medicaid	45%
Private Insurance	12%
Private Pay	11%
Uncompensated Care	45%

Comment: These results are almost identical to those for the clinics with dental facilities. There are slightly fewer patients with Medicaid coverage and a resulting increase in uncompensated care.

Patient Population: Average percent per category

	Average %
Caucasian	28%
Black or African American	14%
Asian	7%
American Indian or Alaska Native	6%
Hispanic	53%
Native Hawaiian or Pacific Islander	3%
Multi-racial	9%
Declined to state	2%

Comment: These results are also similar to those for the clinics with dental facilities. Again, the largest population group served by the clinics that responded to this survey was Hispanic. The number of Black patients was higher in these clinics with fewer Native Americans served.

Special Populations: Average percent per category

	Average %
Medically Compromised	47%
Pediatric	36%
Developmentally Disabled	4%
Mentally Ill	19%
Geriatric	15%
Other	43%

Comment: The number of medically compromised patients and people with mental illness seen in these clinics is higher than in the clinics with dental facilities. This could be consistent with the mission of these clinics, which is to provide medical care. I could also be that the dental clinics are not as able to serve people with these conditions.

Does your facility have a means of delivering dental services?

Yes	13	12%
No	94	88%
Total	107	

Comment: A small number (12%) of these clinics has a means of providing dental services.

Does your facility offer operating room dentistry?

Yes	3	3%
No	99	97%
Total	102	

Comment: Again, only a small number of these clinics offer operating room dentistry. That would only be expected in clinics associated with hospitals or surgicenters.

Does the dental service provide consults other clinic providers?

Yes	11	29%
No	27	71%
Total	38	

Comment: Again this would typically be the case for clinics associated with hospitals or surgicenters.

Who provides dental services at your clinic sites?

Contract Dentist	6
Contract Oral Surgeon	2
Physician	22
Registered Dental Hygienist	4

Comment: It can be seen from this table that only a few of these clinics had arrangements for consultation, contract, or referral to dentists or dental hygienists. The largest response to this question was Physicians, but that was elicited from only 19% of the clinics responding to this survey.

How many patients are treated for dental disease/oral complications per month in your organization?

Average number per clinic per month	14.7
-------------------------------------	------

Comment: This low number is consistent with other finding that indicate that dental services are mostly not available at these clinics with no dental facility.

Does your facility have dental students or residents rotate through for educational purposes?

Yes	3	3%
No	88	97%
Total	91	

Comment: As expected, very very few of these clinics has rotations for dental students pr residents.

If financial and logistical barriers could be overcome how many dental students or dental residents could rotate through your clinical sites per week?

	# responders	#
Average # dental students/clinic/week	18	1.7
Average # dental residents/clinic/week	16	1.4
Average days dental student rotation	13	2.4
Average days dental resident rotation	16	3.1

Comment: As indicated in the table, very few clinics responded to this question. There were a few (about 14%) that did, however. These clinics did indicate the possibility that dental student or resident rotations might be possible.

Are there legislative, regulatory, policy, or procedural barriers preventing you from hosting a dental student or dental resident?

Yes	27	38%
No	45	63%
Total	72	

Barriers included "Not related to mission", "no space", "no supervisor"

Comment: Although the majority of respondents did not indicate that they perceived legislative, regulatory, policy, or procedural barriers to having dental student or resident rotations, answers to other questions indicate that most did not see this as consistent with their mission.

Do you plan to add dental services or expand your facility in the future?

Yes	34	31%
No	74	69%
Total	108	

Comment: This response is very significant in that it demonstrates an interest and plans to include dental services for almost 1/3 of the clinics responding to this survey.

Do you foresee population changes in your region that would affect your delivery of dental services?

Yes	14	16%
No	75	84%
Total	89	

Comment: Although the previous item indicates that almost 1/3 of the clinics responding to this survey plan to add or increase dental services, the reason is apparently not because of perceived changes in population in their region. It is likely that the demand for these services is already present.

Ideally, if you had no other constraints what would prevent you from adding dental services/clinic?

Funding	65
Personnel	42
Patient flow	10
Space	68
Other	31

Comment: The largest perceived constraints are funding and space. Consistent with previous items, there does not appear to be concern that there would not be enough patients needing these services.

In your opinion, what steps could community clinics and dental education programs do to increase availability of oral health care services to underserved populations?

Items listed included:

- funding
- partnerships with dental schools
- better reimbursement
- Automatic HPSA designation for FQHC

Comment: These responses are consistent with the information from other items that there is some interest in including dental services but barriers on funding, staffing, and space exist.

### Results from Focus Group Sessions

The following are the main ideas that emerged from the focus group and telephone follow-up interviews:

- Clinics need significant assistance, direction and leadership from dental schools to make rotations useful and effective.
- The need to remain fiscally solvent while taking on these rotations is critical. This consideration applies to both the community clinics and dental schools.
- Many dental school administrators and faculty are still not aware of the potential benefit from closer collaboration between dental schools and community clinics
- Often the lack of space in community clinics, schedule time and supervisor time is a deterrent to effective rotations.
- Public policymakers can do more to support these rotations.
- Clinics that are contemplating rotations consider space, finances, and resources.
- Clinics that have rotations report importance of training students and residents in public health values and the stimulation to staff from the teaching environment.

Comment: The last two points are very significant. Those clinics that have overcome the barriers and established rotations are very positive about them. Therefore it is critical to find ways to help clinics that have not yet established rotations to overcome their real and perceived barriers in order to get to the point where they can also see the benefits of these experiences.

## Conclusions

This study has provided valuable information for community clinics, clinic organizations, and dental schools about the need for and mutual benefit for increased cooperation between the dental schools and clinics. This survey is the first of its kind in the nation and also provides previously nonexistent information about the oral health safety net in California.

The project staff has compiled the results of the surveys and received feedback about the significance of these results from many individuals and groups, as outlined in this report. The primary conclusions from this work are:

- The oral health safety-net system in California is not a system. It is a loose association of clinics linked in a patchwork of clinic organizations, local consortia, other grouping, and stand alone clinics with no affiliations to other clinics. There is no central repository of contact or other information about these clinics and no communication system that can reliably retrieve information from and provide information to all these clinics.
- Clinics without dental facilities provide a limited number of dental services and even those with dental facilities provide few dental services considering the availability of chairs and staff. The discrepancy between the demand for services and the availability of services has resulted in long wait times for appointments, averaging 28 days wait for a new patient examination.
- Approximately 1/3 of clinics with dental facilities as well as those without dental facilities plan on adding or increasing dental services in the next 3-5 years. This may be motivated by both unmet patient demand and federal regulations for FQHCs that require inclusion of dental facilities in any new clinic or clinic remodel. These planned increases will put tremendous strain on a system that is already struggling to find adequate workforce. The motivation and opportunities for clinics and dental schools to collaborate will increase in the future.
- There are many clinics that want to expand dental services and are interested in and capable of having dental student and resident rotations.
- Clinics that have rotations like them and feel that they provide a number of tangible and intangible benefits to the clinic in addition to providing needed workforce to meet the clinic's patient care mission.
- Rotations to community clinics are important educational experiences for dental students and residents and can increase future practitioners' understanding of public health issues and diverse populations.
- Dental student/resident rotations can supply significant needed workforce for clinics.
- Developing a successful rotation program takes a lot of planning and support.
- There is a need for a planning and support network between clinics and schools.

## Future Work

This study has provided the groundwork for realizing the potential benefit of increased collaboration between community clinics and dental schools in the state of California. As indicated in the report, there is tremendous potential and interest in ongoing dialog between the clinics, clinic organizations and the dental schools to foster closer relationships, increased rotation of students and residents, and ultimately improved oral health of underserved populations. There is still considerable work to do to capitalize on the information provided by this report.

The results of this study will be presented in multiple state and national forums in the coming months and years. In addition several publications are planned on various aspects of the data from this survey. Manuscripts are being prepared and will be submitted for publication in the Spring of 2006.

Many individuals in the focus groups and feedback sessions expressed the need for ongoing dialog and cooperation between community clinics and dental schools. Some suggestions for the shape and nature of that collaboration are:

- Develop a planning and support network to foster collaboration and communication between community clinics and dental schools. Some mechanisms that can be incorporated into that support network include:
  - Site visits
  - Liaison positions
  - Work groups
  - Conferences – in-person, videoconference, teleconference
  - Electronic communications – listserv, web sites
  - Surveys
- Use the network described above to develop and disseminate model solutions/and programs including:
  - Develop plans/coalitions/methods to address real and perceived barriers
  - Compile descriptions of working models in California and other states that can be applied in California.
  - Develop model arrangements including reimbursement for services, revenue sharing, job sharing, and cross training.
  - Develop models for improving operational systems including distance electronic specialty consultation and practice management consultation.
  - Use the network communication tools to brainstorm new ideas
- Advocate for health policy reform to facilitate collaboration between clinics and dental schools
  - Incentives for students/residents to work in community clinics such as increased loan repayment programs as well as scholarships and mandatory residency education for dental school graduates (PGY1).

- Increase reimbursement rates for care of complex patients, especially those who require more time and expertise to treat.
- Focus on community oral health prevention programs including outreach for preventive education, community based medical model prevention treatments, case management systems.
- Integrate primary care medical and dental treatment

## **Summary**

This study of the capacity of community clinics to provide oral health services and collaborate with dental schools has provided valuable information for community clinics, clinic organizations, and dental schools about the need for and mutual benefit of increased cooperation between these groups. This survey is the first of its kind in the nation and also provides previously nonexistent information about the oral health safety net in California.

It is clear that there can be significant mutual benefit from closer cooperation between the dental schools and clinics. Clinics have a serious need for help with general workforce, specialist consultation, and practice management improvement. Schools need additional experiences for their students to train them to meet the needs of an increasingly complex population.

Future work in this area needs to incorporate a planning and support network to foster communication and collaboration between community clinics and dental schools. In addition clinics and dental schools have the opportunity to collaborate on health policy reform. By working together they can accomplish their mutual goal of improving and maintaining the oral health of the underserved populations in California.