

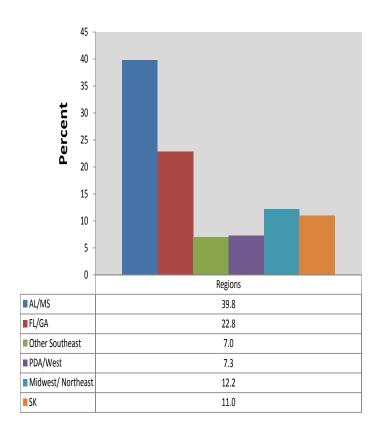
Dental Practice-Based Research Network www.DentalPBRN.org

DPBRN 20: Infrastructure Update Survey

Results: Overall and by Region-Graphs

Date prepared: October 13, 2011

Table A: Respondents by DPBRN Region



¹AL/MS: Alabama/Mississippi; FL/GA: Florida/Georgia; Other southeast: 37-NC, 9-SC, 3-TN, 1-TX, 1-VA; PDA/West: Permanente Dental Associates and Kaiser Permanente's Center for Health Research in 40-OR, 11-WA, 1-CO, 1-NM; Midwest/Northeast: HealthPartners and private practitioners in 82-MN, 2-WI, 1-MA, 1-ME, 2-NY, 1-OH; SK: Scandinavia countries of Denmark, Norway and Sweden.

Report below is based on 729 respondents; 73.6% of the 991 practitioners invited.

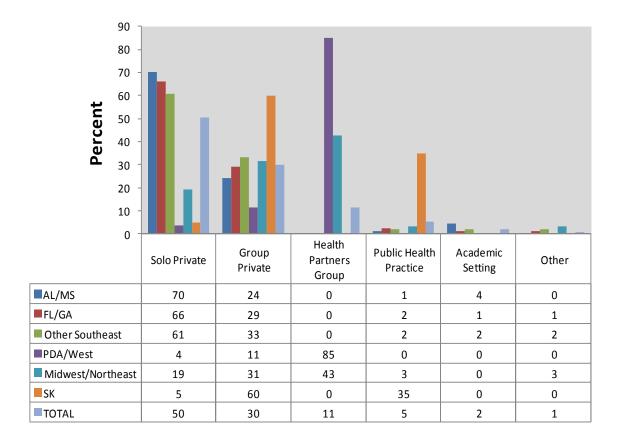
"Total" columns not summing to 729 are due to missing data.

Section 1: About your practice and your patients

1. Which category best describes your practice?

- a. Solo private practice (only one dentist in the practice)
- b. Group private practice (more than one dentist)
- c. HealthPartners Dental Group or Permanente Dental Associates
- d. Public health practice, community health center, or publicly-funded clinic
- e. Academic setting
- f. Other, please specify:

Question 1: Type of Practice

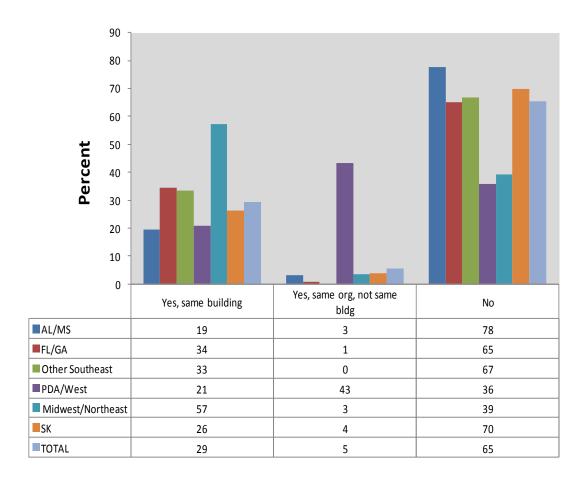


• Out of all respondents, 50% were solo private practices and nearly 30% were in group private practices.

2. Are you in the same building or organization with any providers of medical care?

- a. Yes, in the same building
- b. Yes, in the same organization, but not in the same building
- c. No

Question 2: Same building with medical care providers

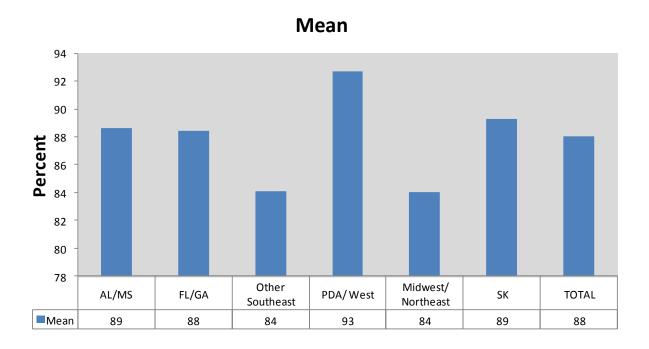


• The majority of all practices (65%) were not located in the same building or organization with providers of medical care.

3. What percent of your patients do you estimate consider your practice their regular source of dental care?

__ % of my patients

Question 3: Source for regular dental care



• The average estimated percent of patients considering his/her practice as their regular source of dental care was 88%.

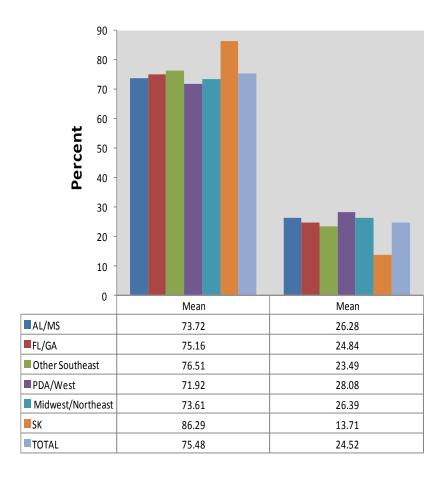
4. What percent of your patients do you estimate...

Seek dental care occasionally or regularly, whether or not they have a specific problem

Seek dental care only when they have a problem of some type

% of patients
% of my patients
100% [must add to 100%]

Question 4: When patients seek dental care



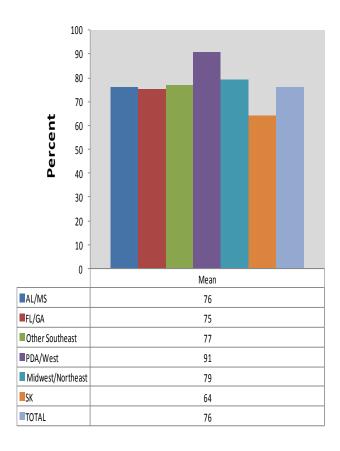
Regularly whether or not they have a specific problem

Only when they have a problem of some type

- The average estimated percent of patients seeking dental care on a regular basis was about 76%.
- The average estimated percent of patients seeking care only when they have a problem was about 25%.

5. What percent of your patients do you estimate have a regular source of <u>medical</u> care?
___ % of my patients

Question 5: Patients with source of medical care



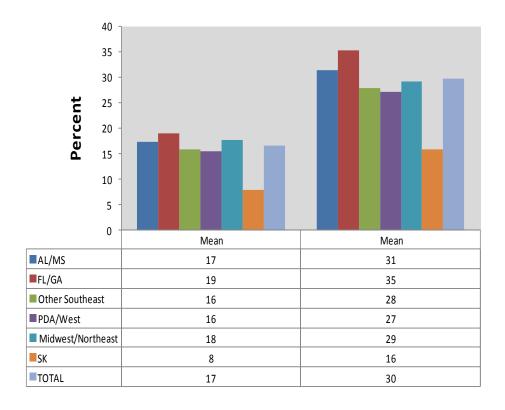
• The average estimate for patients having regular medical care was 76% with SK being the lowest at 64% and PDA/West being the highest at about 91%.

6. What percentage of your patients do you estimate have been diagnosed with...

diabetes mellitus of any type ___ %

cardiovascular disease (including hypertension) __ %

Question 6: Patients with diabetes or cardiovascular disease



Patients with diabetes mellitus of any type

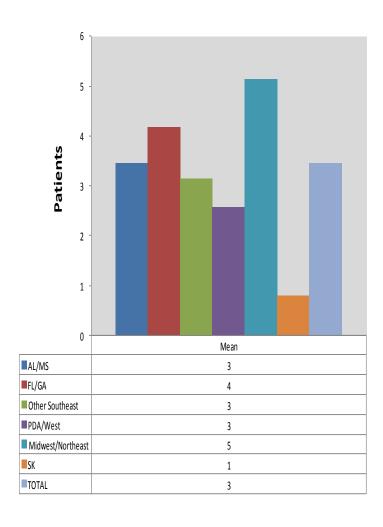
Patients with cardiovascular disease (including hypertension)

- The average estimated percent of patients with diabetes mellitus was about 17%; SK was lower at about 8%.
- About 30% of patients were estimated to have cardiovascular disease; SK was lower at about 16%.

7. In the past month, how many patients have you referred to a physician for evaluation of medical problems?

__ patients referred in the past month (*number* of patients, <u>not</u> percentage)

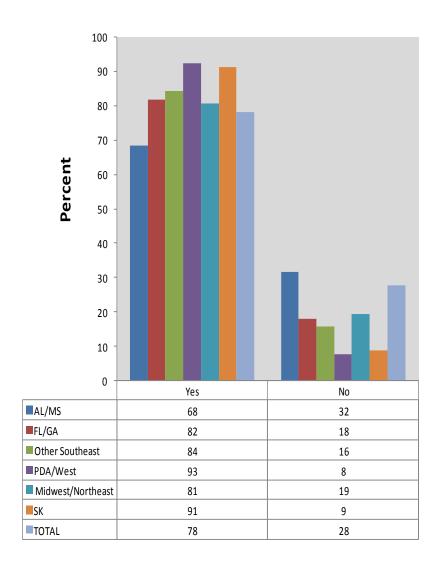
Question 7: Patient referrals to physician



• The average number of patients referred to a physician in the last month was about 3; Midwest/Northeast was slightly higher at 5 while SK was considerably lower at 0.8.

8. Do you use a computer to manage clinical (as opposed to administrative) patient data?

Question 8: Manage patient data with computer



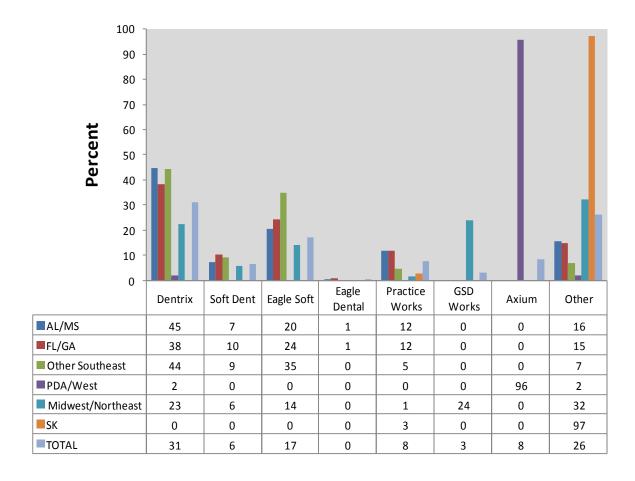
• 78% of respondents use a computer to manage clinical data.

a. Yes [if yes, then please answer this question...]

8a. What brand do you use?

- a. Dentrix
- b. Soft Dent
- c. Eagle Soft
- d. Eagle Dental
- e. Practice Works
- f. GSD Works
- g. Axium
- h. Other, please specify:

Question 8a: Brand of dental software used



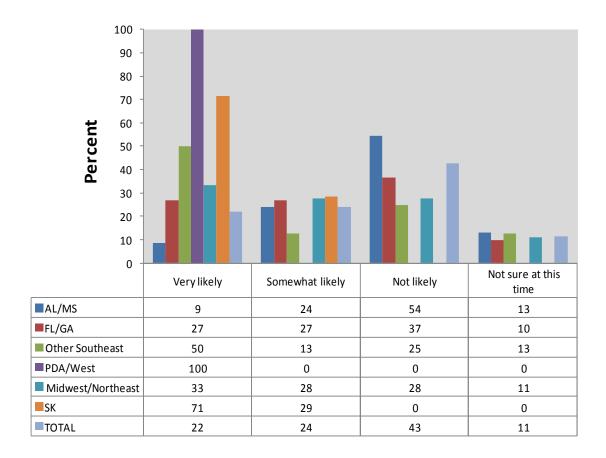
For respondents using computers, the most common software used was Dentrix at about 31%.

b. No [if no, then please answer this question...]

8b. Within the next two years, how likely are you to begin using a computer to manage clinical patient data?

- a. Very likely
- b. Somewhat likely
- c. Not likely
- d. Not sure at this time

Question 8b: Likelihood of using computers within next 2 years

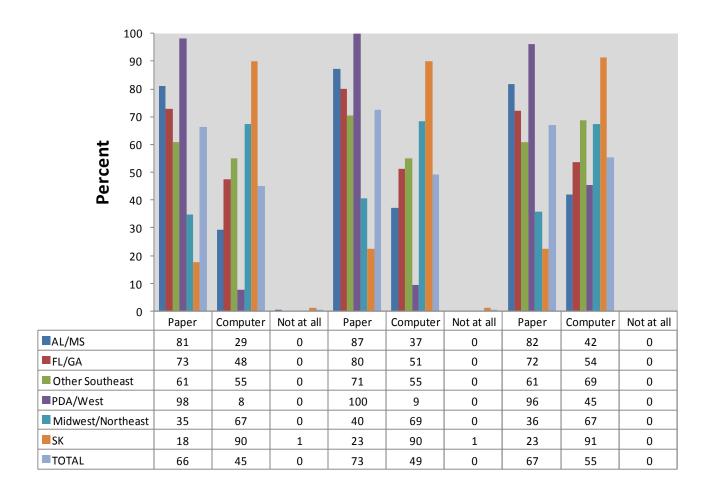


• For respondents not using computers to manage clinical data, about 46% were very or somewhat likely to within the next 2 years. This varied considerable across regions, e.g., over half (54%) from AL/MS were not likely to use computers to manage clinical data in the next 2 years while all from SK were very or somewhat likely to.

9. Please indicate how you store clinical information. If you store information on both paper and computer, please check <u>both</u> categories.

Type of information	Paper	Computer	Not at all
chief complaint			
medical history			
dental history			
progress notes			
problem list/diagnoses			
treatment plan			
completed treatment			
dental status			
periodontal charting			
Radiographs			
extraoral images or photographs			
intraoral images or photographs			
Appointments			
other:			

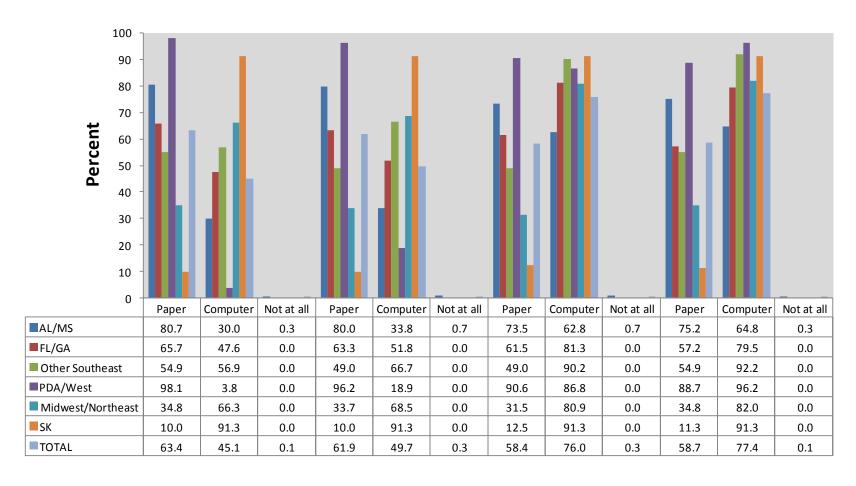
Question 9(A-1): Storing clinical information



Chief complaint Medical history Dental History

• Summary on next page.

Question 9(A-2): Storing clinical information

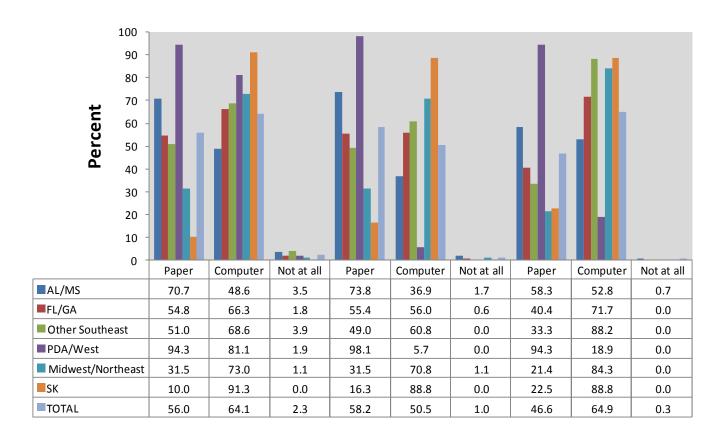


Progress notes Problem list/diagnoses Treatment plan Completed treatment

• Paper only option accounted for about half (ranged from 45% to 55%) for medical and dental history, progress notes, and problem diagnosis, and about one-fourth (ranged from about 22-24%) for treatment plan and completed treatment.

• Computer only ranged from 27% (medical history) to 41% (treatment plan and completed treatment).

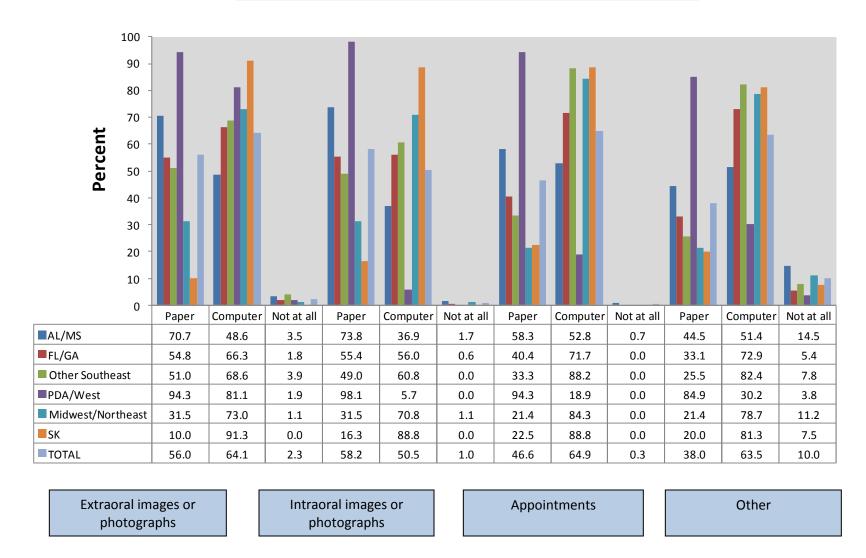
Question 9(B-1): Storing clinical information



Dental status Periodontal charting Radiographs

Summary on next page.

Question 9(B-2): Storing clinical information

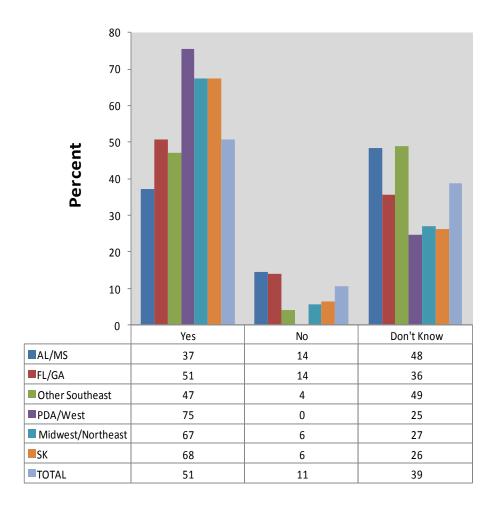


- Paper only was most common for periodontal charting at about 49%, otherwise ranged from 11% (appointments) to nearly 35% (radiographs).
- Computer only was highest for appointments at 76%, otherwise ranged from 41% to 57%.
- Using both paper and computer was highest for "dental status" 22%, otherwise ranged from 9% to 13%.

10. Would you be willing to use data from your computer system for DPBRN studies, where feasible and allowed by confidentiality regulations, instead of having to enter them separately by hand or sending them to your DPBRN Regional Coordinator?

- a. Yes
- b. No
- c. Don't know

Question 10: Use data for DPBRN studies



About 51% of participants were willing to use data from their computer system for DPBRN studies.

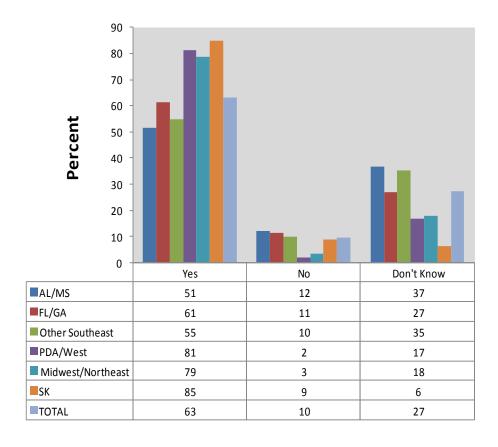
11. Would you be willing to use electronic forms (e.g., a secure system loaded onto your computer, laptop, or tablet PC) rather than paper forms for collecting research data?

a. Yes

b. No

c. Don't know

Question 11: Electronic forms versus paper

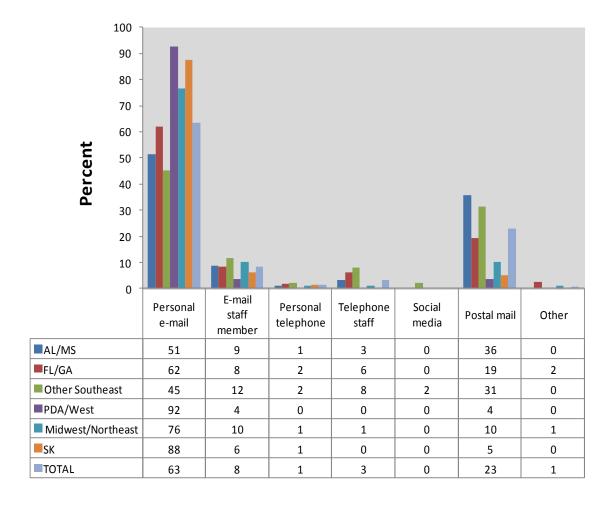


• 63% of respondents were willing to use electronic forms when collecting research data, about 10% opposed the idea and 27% were undecided.

12. When receiving periodic communication from your DPBRN Regional Coordinator, how do you prefer to be contacted?

- a. By personal email
- b. By e-mail to a staff member in my practice who will relay the information
- c. By personal telephone call
- d. By telephone call to a staff member in my practice who will relay the information
- e. Through social media (e.g., Facebook, Twitter, LinkedIn)
- f. By postal mail
- g. Other (please list):

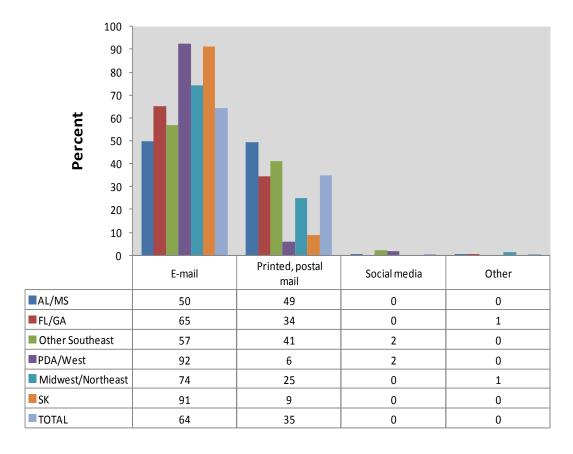
Question 12: Communication preference



• The majority of respondents (63%) preferred communicating with their DPBRN Regional Coordinator through personal e-mail, 23% preferred postal mail. This differed considerably across regions.

- 13. When receiving a notice of new DPBRN results and network information (e.g., study findings, notice of publications, newsletters), how you do prefer to receive this information?
 - a. By e-mail
 - b. Printed, sent by postal mail
 - c. Through social media (e.g., Facebook, Twitter, LinkedIn)
 - d. Other (please list):_____

Question 13: Preference for receiving DPBRN results and network information

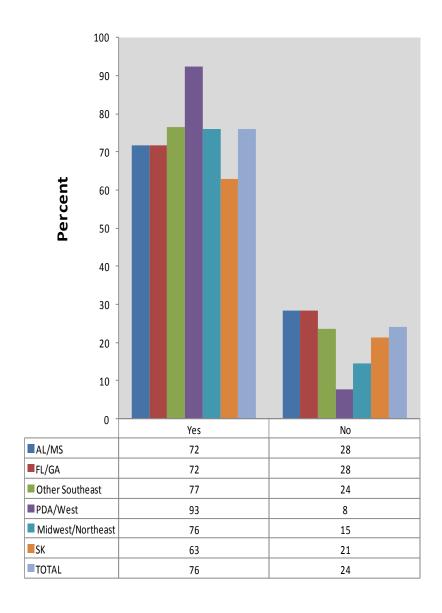


 About two-thirds (64%) of respondents preferred to receive results and network information by e-mail, and about one-third (35%) by postal mail.

a. Do you do personally do any root canal procedures?

Yes [if yes, then please answer these questions...]

Question 14: Participate in root canal procedures

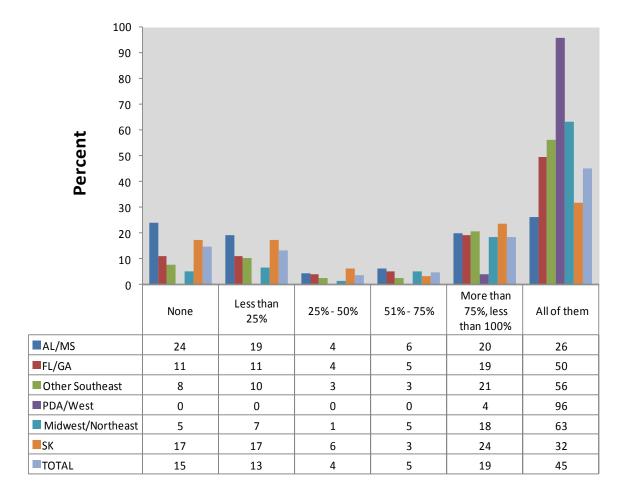


• 76% of respondents perform root canal procedures.

14a. On what percent of these root canals do you estimate that you use a rubber dam?

- a. None
- b. Less than 25%
- c. 25% 50%
- d. 51% 75%
- e. More than 75%, but less than 100%
- f. All of them

Question 14a: Use of rubber dam

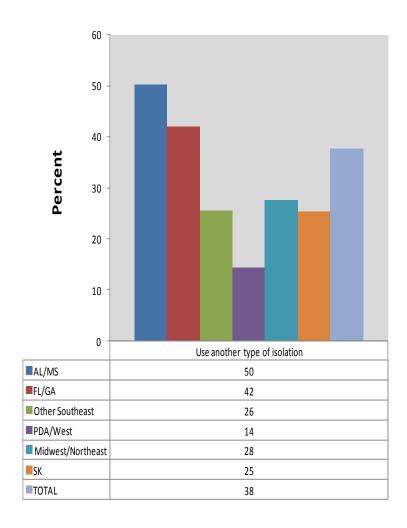


• When performing root canal procedures, only 45% use a rubber dam every time and about 15% never use a rubber dam.

14b. Do you use any other type of isolation?

- a. Yes; please specify _____
- b. No

Question 14b: Use another type of isolation



• About 38% of respondents use some other type of isolation.

Section 2: Types of dental staff

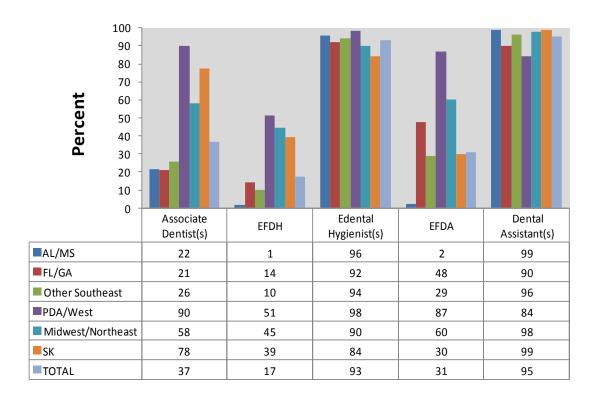
In this survey, the term "expanded function" means activities that dental hygienists and dental assistants cannot do in all U.S. states or Scandinavian countries.

Examples of "expanded duties" for dental hygienists and dental assistants would include cavity preparation for simple dental restorations, administering local anesthetic injections, re-cementing permanent crowns, extracting primary teeth or comparable procedures.

15. Please indicate if your practice setting employs any of the following dental providers:

		Check if your practice employs	Check if your practice does not employ
a.	Associate Dentist(s)		
b.	Expanded Function Dental Hygienist(s) (EFDH)		
C.	Dental Hygienist(s)		
d.	Expanded Function Dental Assistant(s) (EFDA)		
е.	Dental Assistant(s)		

Question 15: Practices who employ these providers

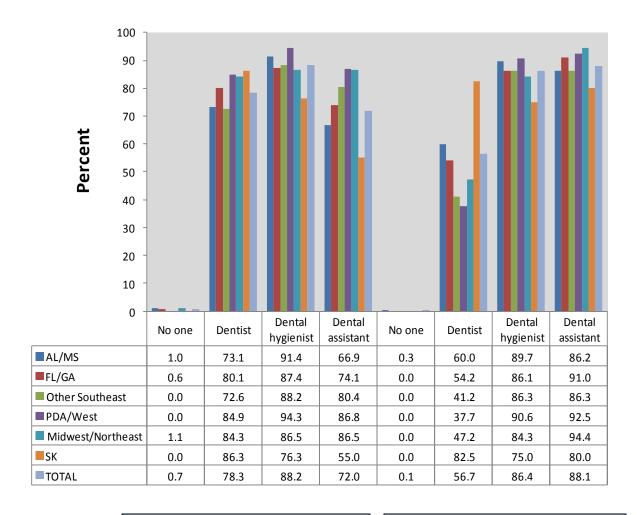


- The most common type of employee was a dental hygienist at 93% and dental assistant at 95%.
- The least common type of employee was the Expanded Function Dental Hygienist at 17%.

16. Please indicate all the personnel in your office who do each procedure (MARK ALL THAT APPLY):

	No one does this procedure in my practice setting.	A dentist does this in my practice setting.	A dental hygienist does this in my practice setting.	A dental assistant does this in my practice setting.
Oral health education and prevention				
Take radiographs				
Take impressions				
Apply topical medications (e.g., topical fluoride, bleaching agents and cavity varnishes)				

Question 16(A-1): Identifying personnel who perform specific tasks

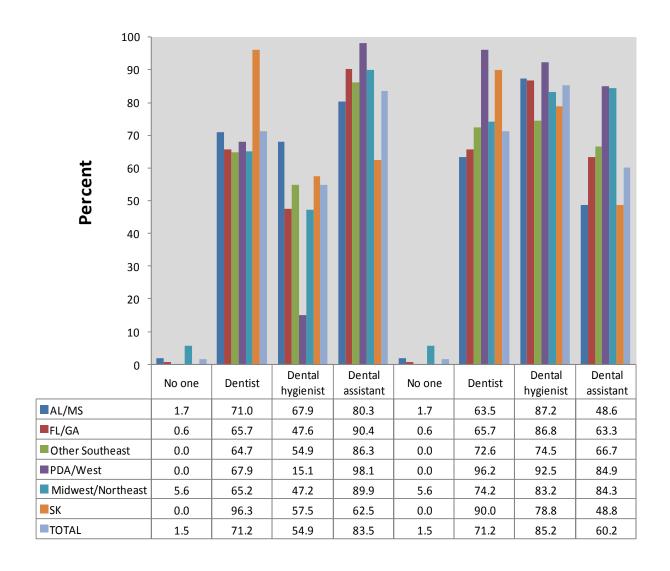


Oral health education and prevention

Take radiographs

Summary on next page.

Question 16(A-2): Identifying personnel who perform specific tasks



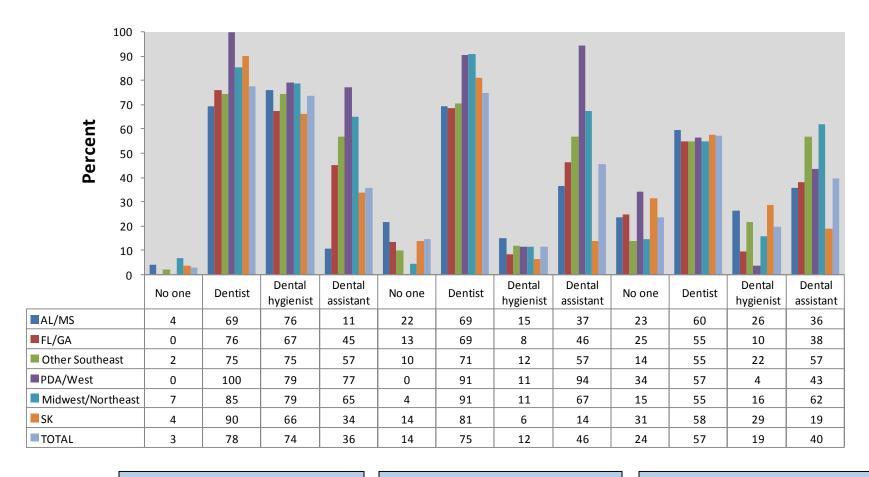
Take impressions

Apply topical medications

- Dentists performed 71-78% of above procedures, except for radiographs, for which about 57% of dentists performed.
- Dental hygienist performed 85-88% of above procedures, except taking impressions, for which about 55% of hygienists performed.
- Dental assistants performed 60% (apply topical medications) to 88% (take radiographs) of above procedures.

			Dentai	Dentai	
	No one	Dentist	Hygienist	Assistant	_
Etch enamel surfaces, apply pit and fissure sealants					_
Place and remove rubber dam					
Fabricate athletic mouth guards					-

Question 16(B-1): Identifying personnel who perform specific tasks



Etch enamel surfaces, apply pit and fissure sealants

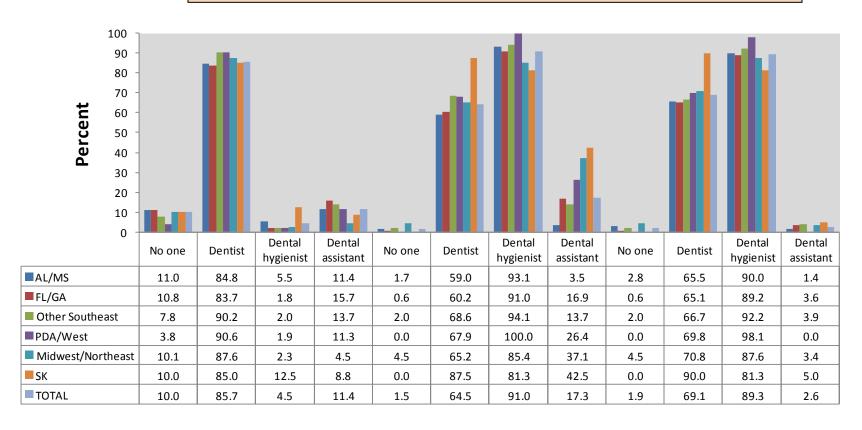
Place and remove rubber dam

Fabricate athletic mouth guards

Summary on next page.

			Dental	Dental	
	No one	Dentist	Hygienist	Assistant	
Denture soft relines					
Remove supra-gingival deposits					
Remove sub-gingival deposits					

Question 16(B-2): Identifying personnel who perform specific tasks

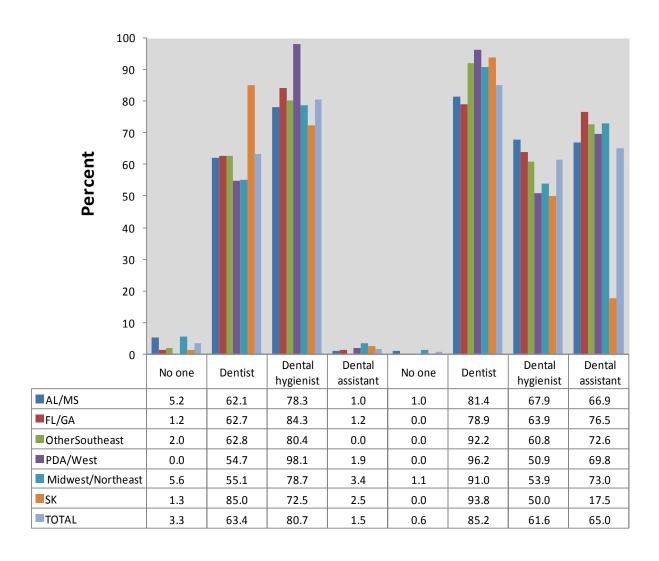


Denture soft relines Remove supra-gingival deposits Remove sub-gingival deposits

• Dentists performed the majority of the above procedures except "remove supra-gingival deposits" and "remove sub-gingival deposits" where the dental hygienist was highest at 91% and 89%, respectively, and the dental assistant was least.

			Dental	Dental	
	No one	Dentist	Hygienist	Assistant	
Perform root curettage					
Remove excess cement					

Question 16(C-1): Identifying personnel who perform specific tasks



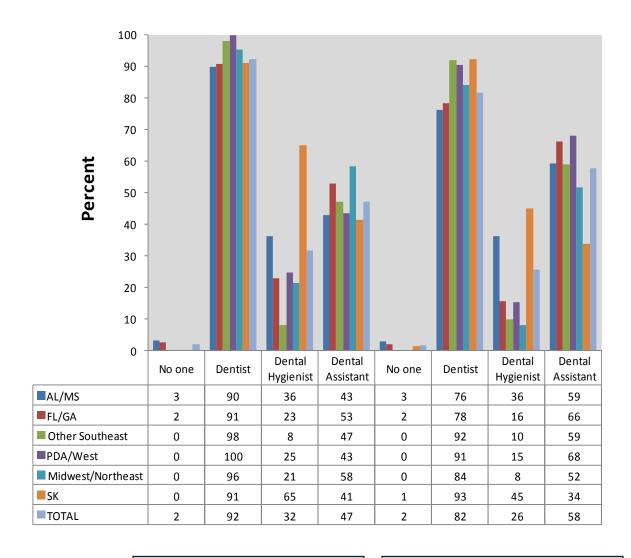
Perform root curettage

Remove excess cement

Summary on next page.

			Dental	Dental	
	No one	Dentist	Hygienist	Assistant	
Place temporary fillings					-
Cement and adjust temporary restorations					

Question 16(C-2): Identifying personnel who perform specific tasks



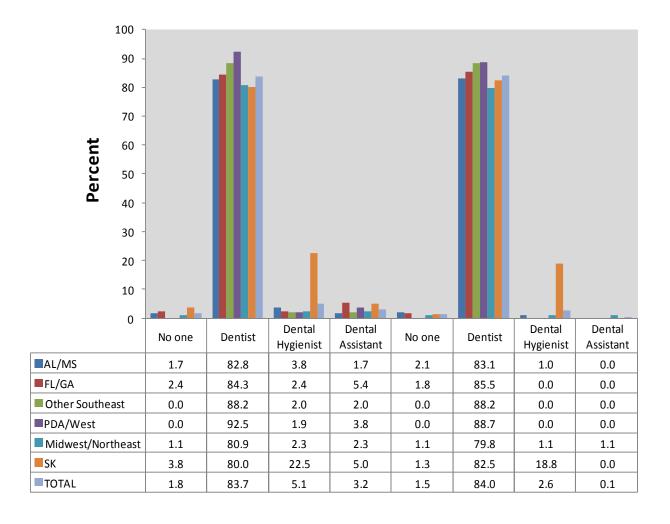
Place temporary fillings

Cement and adjust temporary restorations

• The dentist was greatest and dental hygienist was least in these categories except "perform root curettage" where the dental hygienist was greatest at about 81% and the dental assistant was least at about 2%.

			Dental	Dental	
	No one	Dentist	Hygienist	Assistant	_
Re-cement permanent crowns					_
Cavity excavation and preparation for simple permanent					
restorations					

Question 16(D-1): Identifying personnel who perform specific tasks



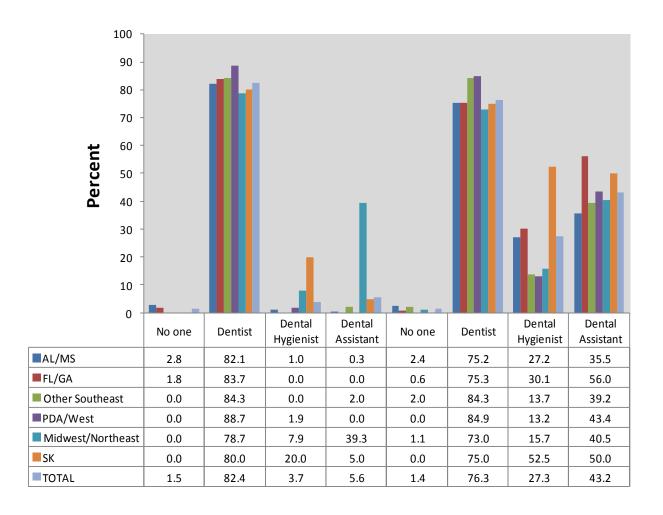
Re-cement permanent crowns

Cavity excavation and preparation for simple permanent restorations

Summary on next page.

			Dentai	Dentai	
	No one	Dentist	Hygienist	Assistant	
Place, carve and adjust restorations					
Suture removal					•

Question 16(D-2): Identifying personnel who perform specific tasks



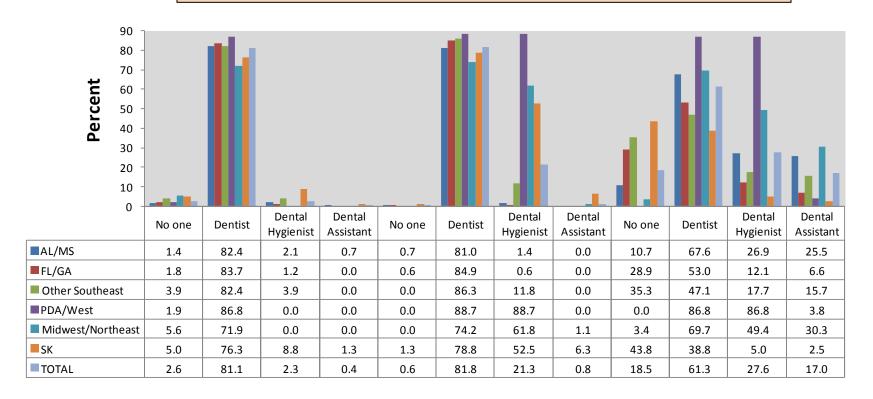
Place, carve and adjust restorations

Suture removal

- Unlike other categories, the dentist was highest in all these categories, performing 76-84% of these procedures.
- The dental hygienist and dental assistant performed 27% and 43%, respectively, of suture removals.

	No one	Dentist	Dental Hygienist	Dental Assistant	
Extract primary teeth					
Administer local anesthetic					
Administer nitrous oxide inhalation					

Question 16E: Identifying personnel who perform specific tasks



Extract primary teeth

Administer local anesthetic

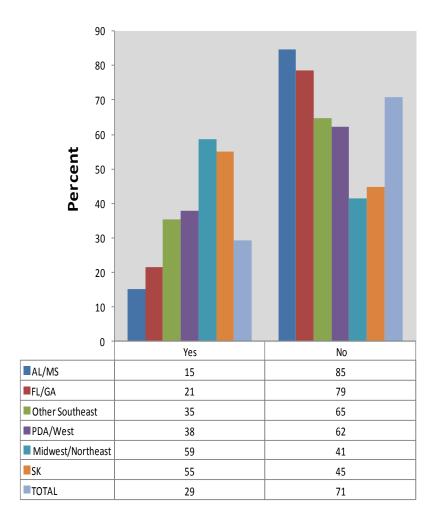
Administer nitrous oxide inhalation

- The dentist performed the majority of these procedures, ranging from 61% to about 82%.
- The dental hygienist participated to a greater extent than the dental assistant in "administer local anesthetic" (21% vs. 0.8%) and administer nitrous oxide inhalation" (about 28% vs. 17%)

17. Have you ever worked with or employed an Expanded Function Dental Hygienist or Expanded Function Dental Assistant who was certified to perform care in areas beyond what is normally allowed (e.g., restorative functions, local anesthesia, administration of nitrous oxide)?

a. Yes b. No

Question 17: Experience working with EFDH or EFDA

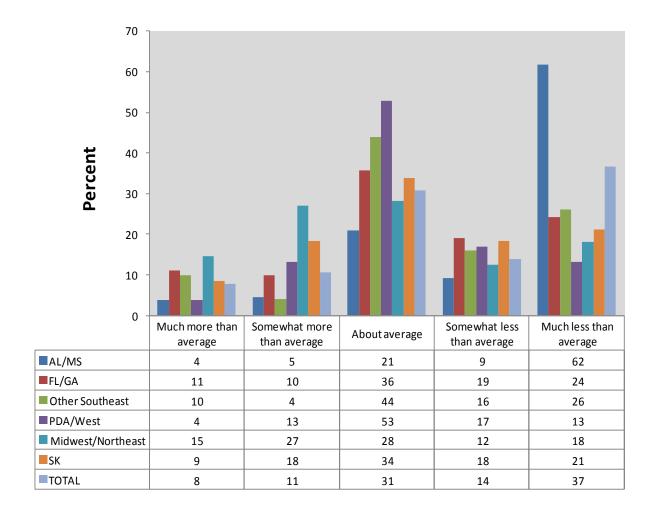


 Only 29% of respondents have worked with or employed an Expanded Function Dental Hygienist or Expanded Function Dental Assistant.

18. Would you say that your level of experience working with expanded function Dental Hygienists and/or expanded function Dental Assistants is:

- a. Much more than average
- b. Somewhat more than average
- c. About average
- d. Somewhat less than average
- e. Much less than average

Question 18: Level of experience working with EFDH or EFDA

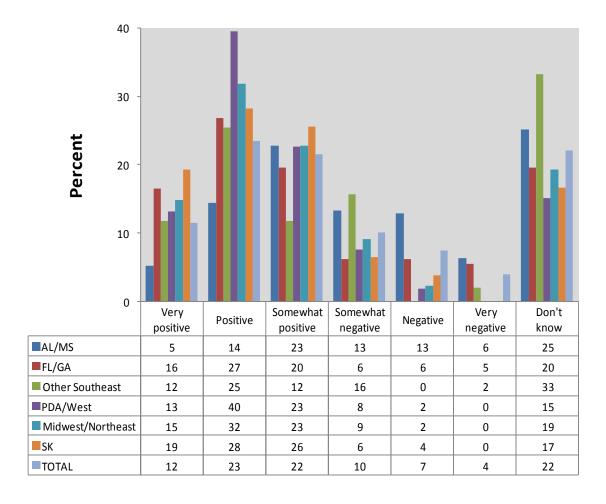


 About 37% of respondents rated their experience working with Expanded Function Dental Hygienists or Expanded Function Dental Assistants as much less than average.

19. Do you think that expanded function dental hygienists or expanded function dental assistants have a positive or negative impact on the provision of quality dental care?

- a. Very positive
- b. Positive
- c. Somewhat positive
- d. Somewhat negative
- e. Negative
- f. Very negative
- g. Don't know

Question 19: EFDH or EFDA have positive or negative impact



- Most respondents rated Expanded Function Dental Hygienists or Expanded Function Dental Assistants as having
 a positive impact on the provision of quality dental care; sum of very to somewhat positive categories was 57%.
- 22% of respondents were undecided, and a total of 21% considered the expanded positions as having a (very to somewhat) negative impact to some degree.

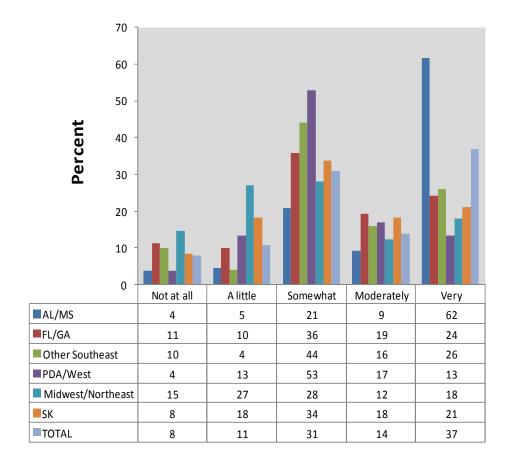
Section 3: Expanding duties of non-dentist providers

Dental therapists are dental providers who deliver a limited set of preventive, therapeutic and basic restorative services. In some countries, they have been recognized dental providers for some time, but in the United States it is a new provider type. Currently only the state of Minnesota recognizes this provider.

20. How informed are you about the dental therapist provider?

- a. Not at all I have never heard of It [please skip to Question #23]
- b. A little
- c. Somewhat
- d. Moderately
- e. Very

Question 20: Knowledge of dental therapist provider

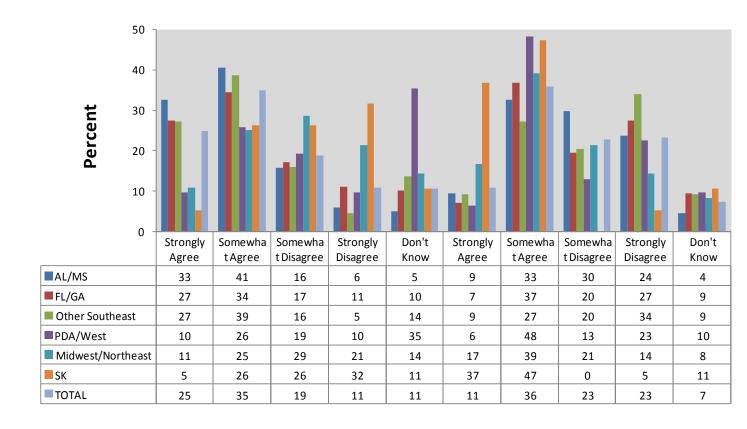


 When considering how well respondents were informed about a dental therapist provider, answers ranged from very informed at 11% to not at all at 30%.

21. The following are statements about potential impacts that dental therapists could have on dentists. For each one, please indicate the extent to which you agree or disagree with each statement

		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't Know	
a	It would disrupt the relationship I have with my patients						
b.	It would free up time for me to focus on more complex and interesting dental procedures		П		П		
C.	The administrative burden would not be worth it						_
d.	I would trust the quality of their work in all areas for which they are trained						

Question 21(A): Impacts dental therapists could have

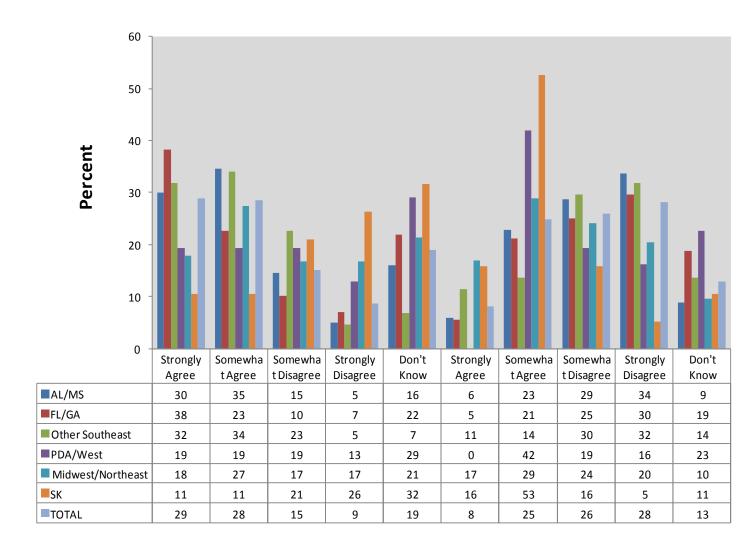


It would disrupt the relationship
I have with my patients.

It would free up time for me to focus on more complex and interesting dental procedures.

• Summary on next page.

Question 21(B): Impacts dental therapists could have



The administrative burden would not be worth it.

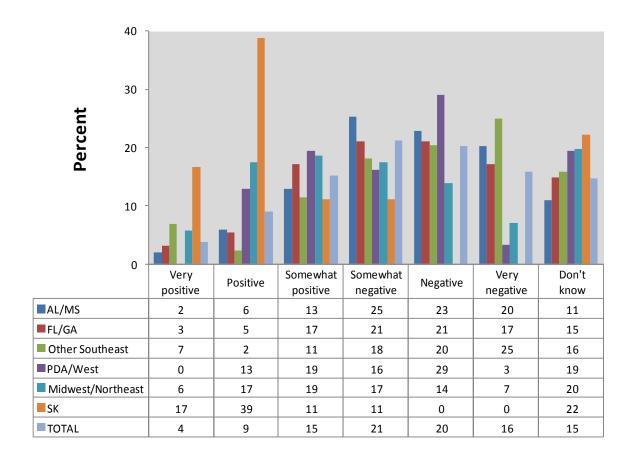
I would trust the quality of their work in all areas for which they are trained.

- The opinion that it would free up time for me to focus on more complex and interesting dental procedure, was about equal when totaling the agree (46.6%) and disagree (46.0%) responses.
- All other opinions led to a negative impression about dental therapists as the majority strongly or somewhat
 agreed they would disrupt relationships established with patients, the administrative burden would not be worth it,
 and the quality of their work could not be trusted.

22. Do you think that dental therapists will have a positive or negative impact on the provision of quality dental care?

- a. Very positive
- b. Positive
- c. Somewhat positive
- d. Somewhat negative
- e. Negative
- f. Very negative
- g. Don't know

Question 22: Dental therapists have positive or negative impact

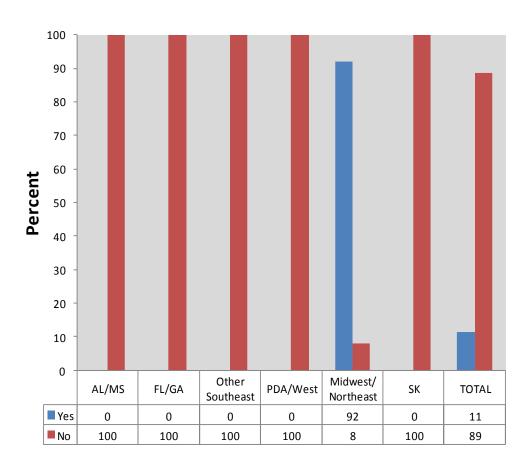


 About 28% of all respondents considered dental therapists as having some type of positive effect on dental care while a total of 57% considered them as having a negative impact.

23. Is your practice in the state of Minnesota?

- a. Yes [go to question 24M]
- b. No [go to question 24]

Question 23: Practice located in Minnesota



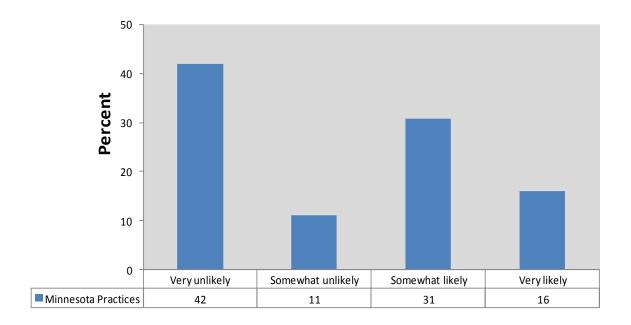
• 11% of participants practice in the state of Minnesota while about 89% practice outside Minnesota.

MINNESOTA ONLY SECTION:

24M. The first class of dental therapists will graduate in Minnesota in 2011. How likely is it that your practice will consider hiring a dental therapist?

- a. Very unlikely
- b. Somewhat unlikely
- c. Somewhat likely
- d. Very likely

Question 24M: Likeliness of hiring dental therapists

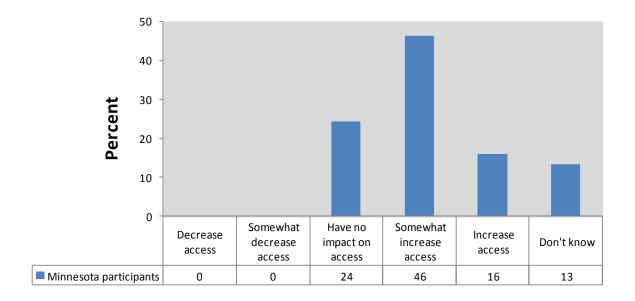


• Most practices were unlikely (to some degree) to hire dental therapists, totaling 53%.

25M. A specific aspect of the legislation passed was in response to access to dental care in the state of Minnesota. What impact do you think dental therapists will have on access to dental care in Minnesota?

- a. Decrease access
- b. Somewhat decrease access
- c. Have no impact on access
- d. Somewhat increase access
- e. Increase access
- f. Don't know

Question 25M: Dental therapists' impact on access to dental care

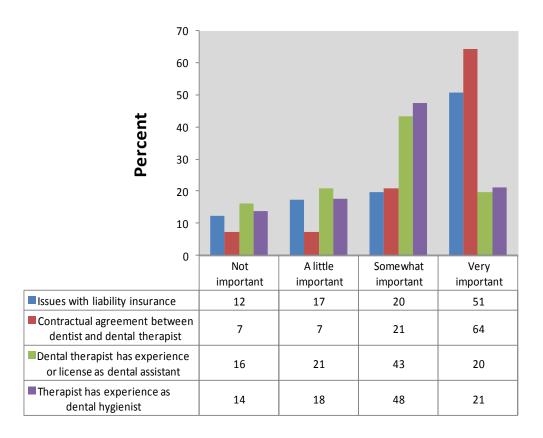


When considering what impact dental therapists would have on access to dental care, 13% didn't know while 24% felt they would have no impact whatsoever. A total of 62% believed dental therapists would increase access to some degree. No one thought that there would be a decrease in access.

26M. When deciding whether to hire a dental therapist, how important do you think the following factors are:

	Not important	A little important	Somewhat important	Very important	
a. Issues associated with liability insurance					
 b. The nature of the contractual agreement between the dentist and dental therapist 					
 c. Whether the dental therapist has experience and/or licensure as a dental assistant 					
 d. Whether the dental therapist has experience and/or licensure as a dental hygienist 					

Question 26M: Factors involved with declining to hire a dental therapist

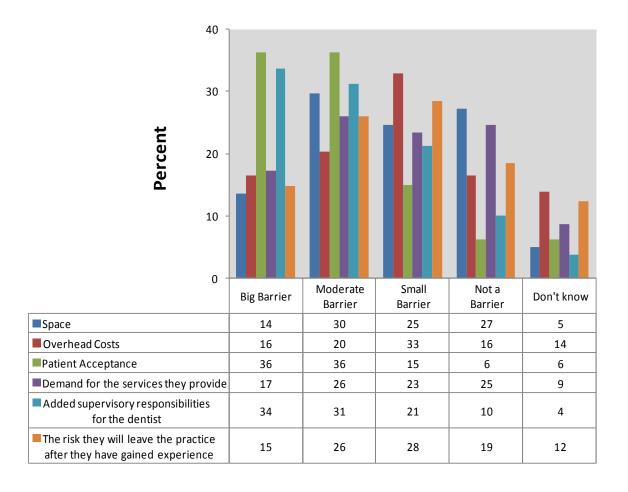


- The concern of most importance was the nature of contractual agreement between the dentist and dental therapist with 85% of respondents considering it either somewhat (21%) or very (64%) important.
- The concern of least importance was whether or not the therapist had experience as a dental assistant with 63% of respondents considering it either somewhat (43%) or very (20%) important.

27M. The following are potential barriers to hiring a dental therapist. For each one, please indicate how much of a barrier it would be for your practice if you were to consider hiring a Dental Therapist.

		Big Barrier	Moderate Barrier	SMALL BARRIER	NOT A BARRIER	Don't Know
а	Space					
b	Overhead Costs					
С	Patient Acceptance					
d	Demand for the services they would provide					
е	Added supervisory responsibilities for the Dentist					
f	The risk they will leave the practice after they have gained experience					

Question 27M: Barriers involved with hiring a dental therapist

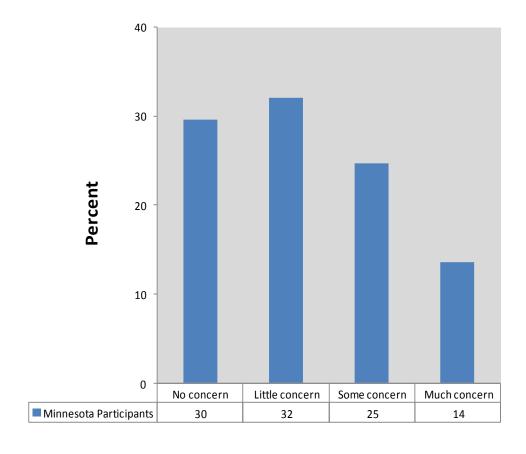


When totaling the levels of barriers in each category, most ranged within 67% to 70%. However, two categories
were higher, namely adding supervisory and patient acceptance at 86% and 88%, respectively.

28M. The Minnesota legislation requires that basic socio-demographic characteristics of the patients seen by dental therapists be reported to the State Board of Dentistry. How much of a concern would this be in the consideration of hiring a dental therapist in your practice setting?

- a. Of no concern
- b. Of little concern
- c. Of some concern
- d. Of much concern

Question 28M: Reporting socio-demographic characteristics

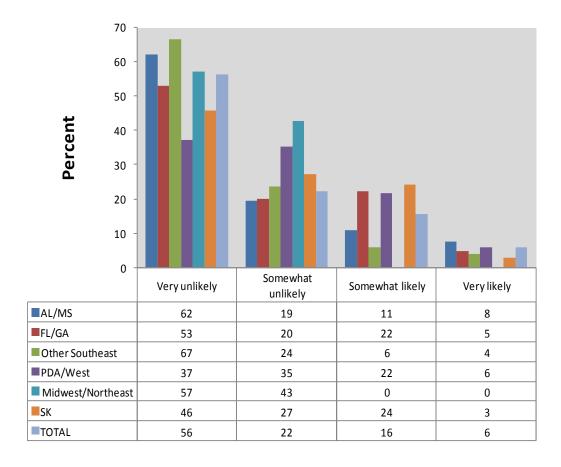


• Only about 30% of respondents considered this to be of no concern at all.

NON-MINNESOTA

- 24. At the current time Minnesota is the only U.S. state that licenses dental therapists. Other states are considering licensing dental therapists. If your state were to license dental therapists, how likely is it that your practice will consider hiring a dental therapist?
 - a. Very unlikely
 - b. Somewhat unlikely
 - c. Somewhat likely
 - d. Very likely

Question 24: Likeliness of hiring dental therapists

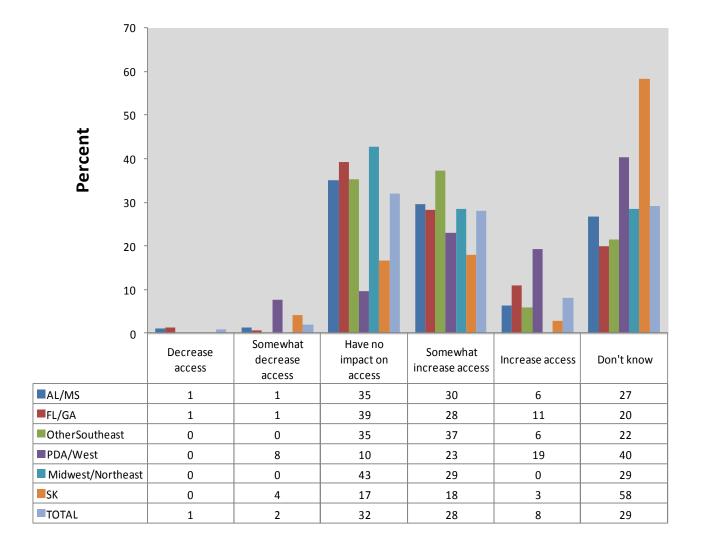


• The majority, 78%, of non-Minnesota respondents were somewhat or very unlikely to consider hiring a dental therapist.

- 25. A specific aspect of the legislation passed in Minnesota was in response to access to dental care in the state.

 If your state were to allow dental therapists to practice, what impact do you think dental therapists would have on access to dental care in your state?
 - a. Decrease access
 - b. Somewhat decrease access
 - c. Have no impact on access
 - d. Somewhat increase access
 - e. Increase access
 - f. Don't know

Question 25: Impact of dental therapists on access to dental care



 Considering the impact dental therapists might have on access to dental care, 36% of non-Minnesota respondents believed it would increase access while 32% believed there would be no impact at all.