



Dental Practice-Based Research Network
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DPBRN 15: Blood Glucose Testing in Dental Practice

Summary of Overall Results

Date Prepared: July 11, 2011

This study had four components, each with a separate data form. All were conducted within 28 practices indicated in the table below.

- A. Patient screening. This survey elicited data on risk of diabetes, and if determined to be at high-risk, willingness to have glucose level tested, and if tested, test results.
- B. Patient survey. A self administered questionnaire among patients screened eliciting opinions regarding testing glucose levels in dental office.
- C. Dentist/staff survey. A self-administered questionnaire completed by the practitioner and/or members of his/her staff. A maximum of 4 surveys could be completed by each practice. Note: There was no unique identifier to specify who was completing the survey.
- D. End of the study survey. Elicited opinions on how well the study went and value of glucose testing in dental offices from each of the 28 participating practitioners.

Table 1: Distribution of DPBRN practitioner-investigators, participating patients and enrolled diabetics according to DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Dentists (End of Study)	6	21.4	6	21.4	5	17.9	6	21.4	5	17.9	28	100
Dentist/Staff Surveys	22	30.6	24	33.3	12	16.7	6	8.3	8	11.1	72	100
Patient Surveys	99	19.9	104	20.9	85	17.1	99	19.9	111	22.3	498	100
Patient Screening	99	19.9	105	21.1	84	16.9	99	19.9	111	22.3	498	100

¹AL/MS: Alabama/Mississippi; FL/GA: Florida/Georgia; MN: HealthPartners and private practitioners in Minnesota; PDA: Permanente Dental Associates and Kaiser Permanente’s Center for Health Research; and DK: Denmark.

²Percentages for this table only are within rows for each variable.

Note: That there was one patient (from MN) for whom we had a survey, but no screening form, and one patient (from FL/GA) for whom we had a screening form but no survey.

Results are summarized into these sections:

- A. Patient screening: pages 3-6.
- B. Patient survey: pages 7-9.
- C. Dentist/staff survey: pages 10-14
- D. End of the study survey: pages 15-18.

A. Patient Screening Questionnaire (Note: Sums not totaling 498 are due to missing data.)

1. Patient Gender

- a Male
 b Female

2. Patient age in years (only patients 19 and older can be enrolled)

Table A.Q1-2: Gender and age of participating patients by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Gender												
Male	36	36.4	46	43.8	35	41.7	46	46.5	59	53.2	222	44.6
Female	63	63.6	59	56.2	49	58.3	53	53.5	52	46.9	276	55.4
Age (years)												
Mean	50.6		50.9		52.0		49.9		52.9		51.3	
(SD)	16.2		12.9		17.9		12.7		15.8		15.1	
(min-max)	19-85		21-78		19-88		22-77		19-89		19-89	
19 - 44 years	33	33.3	26	24.8	31	36.9	29	29.3	35	31.5	154	30.9
45 - 54 years	27	27.3	38	36.2	17	20.2	34	34.3	22	19.8	138	27.7
55-64 years	20	20.2	29	27.6	17	20.2	26	26.3	24	21.6	116	23.3
>= 65 years	19	19.2	12	11.4	19	22.6	10	10.1	30	27.0	90	18.1

- Overall, 55% of patients were female.
- The mean age of participating patients was 51 years, ranged from 19 to 89 years

3. Patient ethnicity

- a not reported or unknown (I do not wish to provide this information)
 b Hispanic or Latino
 c Not Hispanic or Latino

Table A.Q3: Ethnicity of participating patients by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Ethnicity												
Not Rptd/Unknown	2	2.0	2	1.9	2	2.4	12	12.1	19	17.1	37	7.4
Hispanic\Latino	1	1.0	11	10.5	3	3.6	7	7.1	0	0.0	22	4.4
Not Hispanic\Latino	96	97.0	92	87.6	79	94.1	80	80.8	92	82.9	439	88.2

- 4% of patients whose ethnicity was available were of Hispanic/Latino ethnicity, notably higher in FL/GA at about 11%.

4. Patient race

- a not reported or unknown (I do not wish to provide this information)
- b White
- c Black or African-American
- d American Indian or Alaska Native
- e Asian
- f Native Hawaiian or Other Pacific Islander
- g Other (please specify)

Table A.Q4: Race of participating patients by DPBRN region

Race	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
White	66	66.7	90	85.7	70	83.3	82	82.8	111	100.0	419	84.1
African-American	31	31.3	11	10.5	4	4.8	3	3.0	0	0.0	49	9.8
Am. Indian/Alaska	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Asian	0	0.0	1	1.0	4	4.8	5	5.1	0	0.0	10	2.0
Hawaiian or Islander	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	1	0.2
Other	2	2.0	1	1.0	1	1.2	6	6.1	0	0.0	10	2.0
Missing	0	0.0	1	1.0	5	6.0	3	3.0	0	0.0	9	1.8

- 84% of patients were White, about 10% Black/African-American, with considerable differences by region: SK 100% White and AL/MS being 31% Black/African-American.

5. Does the patient have any dental insurance or third party coverage?

- a Yes
- b No

Table A.Q5: Participating patients according to whether had any dental insurance by DPBRN region

Does the patient have any dental insurance or third party coverage?	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	76	76.8	68	64.8	65	77.4	92	92.9	111	100.0	412	82.7
No	23	23.2	37	35.2	19	22.6	7	7.1	0	0.0	86	17.3

- Overall, about 83% had some type of dental insurance, all of SK and only about 65% in FL/GA.

Using the chart, record if the patient is classified as overweight.

7. If the patient is in the overweight range, check below:

Overweight (refer to chart)

8. ASK: Has a doctor ever told you that you have (check all that apply. [note: not meaningful to sum percents]):

High blood pressure

High cholesterol

 Diabetes

Pre-diabetes

Table A.Q7-8: Conditions or diagnoses of patients by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Q7: Overweight	81	81.8	78	74.3	63	75.0	85	85.9	74	66.7	381	76.5
Q8: Has a doctor ever told you that you have:												
Q8: High blood pressure	43	43.4	43	41.0	28	33.3	24	24.2	28	25.2	166	33.3
Q8: High cholesterol	41	41.4	36	34.3	28	33.3	25	25.3	11	9.9	141	28.3
Q8: Diabetic category												
Diabetes	12	12.1	12	11.4	11	13.1	14	14.1	2	1.8	51	10.2
Pre-diabetes	5	5.1	4	3.8	5	6.0	7	7.1	3	2.7	24	4.8
Neither Pre- or Diabetes	82	82.8	89	84.8	68	81.0	78	78.8	106	95.5	423	84.9

- Approximately 77% of the patients were classified as overweight, ranged from 67% (SK) to about 86% (PDA).
- 33% of patients reported high blood pressure, ranged from 24-25% (PDA and SK) to 43% (AL/MS).
- 28% of patients reported having high cholesterol, lowest in SK at 10% and highest in AL/MS at 41%.
- 15% of patients reported having diabetes or a pre-diabetic condition/status.

Table A.Eligible: Patients eligible* for glucose screening by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Eligible	94	95.0	91	86.7	75	89.3	89	89.9	79	71.2	428	85.9
Of Eligible:												
Declined	3	3.2	0	0.0	1	1.3	1	1.1	2	2.5	7	1.6

*Eligible if had any one of the following: overweight, high blood pressure, high cholesterol, pre or frank diabetes.

- Nearly 86% of patients were considered at increased high risk for diabetes, or had diabetes, and thus eligible for glucose screening.
- 1.6% of eligible patients declined the opportunity to participate.

12. Test Reading: mg/dL

Table A.Q12: Glucose Level Testing Results by DPBRN region

	AL/MS N=91		FL/GA N=90		MN N=74		PDA N=86		SK N=75		TOTAL N=416*	
Test Reading												
Mean	105.0		116.4		116.9		110.7		106.7		111.0	
(SD)	24.7		57.2		37.7		28.0		17.4		36.4	
(min-max)	50-224		70-465		66-299		74-265		76-162		50-465	
Test Reading ≥120 mg/dL												
	N	%	N	%	N	%	N	%	N	%	N	%
	16	17.6	23	25.6	23	31.1	23	26.7	17	22.7	102	24.5

*Missing for 5 participants

- The overall average blood glucose level reading was 111.0 mg/dL, ranged from 50 to 465.
- Overall, about 25% of patients had blood glucose levels greater than or equal to 120 mg/dL.

B. Patient Survey (Note: Sums not totaling to 498 are due to missing data.)

1. Overall, I think blood sugar testing in the Dental Office is a good idea.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table B.Q1: Patient opinion about blood sugar testing in the dental office by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Overall, I think blood sugar testing in the Dental Office is a good idea.												
Strongly Disagree	2	2.0	3	2.9	0	0.0	2	2.0	2	1.8	9	1.8
Disagree	0	0.0	1	1.0	0	0.0	2	2.0	1	0.9	4	0.8
Neutral	7	7.1	13	12.5	16	18.8	24	24.2	12	10.8	72	14.5
Agree	41	41.4	39	37.5	28	32.9	40	40.4	28	25.2	176	35.3
Strongly Agree	49	49.5	48	46.2	41	48.2	31	31.3	68	61.3	237	47.6

- Almost 83% of patients felt blood sugar testing in the dental office was a good idea by selecting either the “agree” or “strongly agree” categories.

2. Having my blood sugar tested today was easy.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table B.Q2: Patient opinion about the simplicity of the blood sugar test by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Having my blood sugar tested today was easy.												
Strongly Disagree	2	2.1	2	2.2	0	0.0	3	3.3	2	2.6	9	2.1
Disagree	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neutral	1	1.0	0	0.0	1	1.3	0	0.0	1	1.3	3	0.7
Agree	19	19.8	21	22.6	14	18.4	19	20.9	4	5.1	77	17.7
Strongly Agree	74	77.1	70	75.3	61	80.3	69	75.8	71	91.0	345	79.5

- 97% of patients agreed/strongly agreed that the blood sugar test was easy.

3. This test gave me useful information.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table B.Q3: Patient opinion about the usefulness of the blood sugar testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
This test gave me useful information.												
Strongly Disagree	2	2.1	2	2.2	1	1.3	3	3.3	0	0.0	8	1.8
Disagree	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neutral	4	4.2	3	3.2	6	7.9	9	9.9	7	9.0	29	6.7
Agree	19	19.8	22	23.7	24	31.6	32	35.2	9	11.5	106	24.4
Strongly Agree	71	74.0	66	71.0	45	59.2	47	51.7	62	79.5	291	67.1

- 91% of responding patients agreed the test provided useful information.

4. Testing for glucose shows a high level of care in this office.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table B.Q4: Patient opinion about level of care shown through blood sugar testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Testing for glucose shows a high level of care in this office.												
Strongly Disagree	2	2.0	2	1.9	0	0.0	2	2.0	0	0.0	6	1.2
Disagree	1	1.0	0	0.0	0	0.0	1	1.0	2	1.8	4	0.8
Neutral	3	3.0	8	7.7	9	10.7	12	12.1	6	5.4	38	7.7
Agree	34	34.3	31	29.8	37	44.1	44	44.4	24	21.6	170	34.2
Strongly Agree	59	59.6	63	60.6	38	45.2	40	40.4	79	71.2	279	56.1

- 90% of patients agreed testing for glucose showed a high level of care, ranged from 85% PDA to 93% AL/MS and SK.

5. I am more likely to refer friends and family to this practice because blood sugar testing is offered here.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table B.Q5: Patient opinion about referring other patients by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
I am more likely to refer friends and family to this practice because blood sugar testing is offered here.												
Strongly Disagree	1	1.0	1	1.0	3	3.6	1	1.0	3	2.7	9	1.8
Disagree	5	5.1	1	1.0	5	6.0	6	6.1	2	1.8	19	3.9
Neutral	25	25.3	29	28.2	37	44.6	45	45.9	23	20.7	159	32.2
Agree	29	29.3	36	35.0	19	22.9	25	25.5	30	27.0	139	28.1
Strongly Agree	39	39.4	36	35.0	19	22.9	21	21.4	53	47.8	168	34.0

- 62% of patients were more likely to refer patients, with considerable differences by region: SK at 75% and MN and PDA at 46% and 47% consecutively.

C. Dentist/Staff Questionnaire (Note: Sums not totaling 72 are due to missing data.)

1. Patients with no diabetes but high glucose will benefit from testing in the dental office.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q1: Dentist opinion about patient benefits from blood sugar testing by DPBRN Region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Patients with no diabetes but high glucose will benefit from testing in the dental office.												
Strongly Disagree	0	0.0	0	0.0	1	8.3	0	0.0	0	0.0	1	1.5
Disagree	0	0.0	1	4.2	0	0.0	0	0.0	0	0.0	1	1.5
Neutral	2	12.5	1	4.2	3	25.0	1	16.7	1	12.5	8	12.1
Agree	7	43.8	8	33.3	6	50.0	2	33.3	5	62.5	28	42.4
Strongly Agree	7	43.8	14	58.3	2	16.7	3	50.0	2	25.0	28	42.4

- Overall, about 85% of respondents agreed/strongly agreed that blood sugar testing was beneficial to patients with high glucose levels.

2. Patients with diabetes may get better glucose control if tested in the dental office.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q2: Dentist opinion about glucose control by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Patients with diabetes may get better glucose control if tested in the dental office.												
Strongly Disagree	0	0.0	1	4.2	1	8.3	0	0.0	0	0.0	2	3.0
Disagree	0	0.0	1	4.2	2	16.7	0	0.0	0	0.0	3	4.5
Neutral	3	17.7	5	20.8	3	25.0	1	16.7	4	50.0	16	23.9
Agree	9	52.9	11	45.8	5	41.7	2	33.3	2	25.0	29	43.3
Strongly Agree	5	29.4	6	25.0	1	8.3	3	50.0	2	25.0	17	25.4

- Over 69% of respondents agreed patients could get better glucose control by testing in the dental office.

3. Glucose reading will help determine the timing of invasive dental procedures.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q3: Dentist opinion about relevance of timing for dental procedures by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose reading will help determine the timing of invasive dental procedures.												
Strongly Disagree	0	0.0	2	8.3	0	0.0	0	0.0	0	0.0	2	3.0
Disagree	0	0.0	1	4.2	2	16.7	0	0.0	0	0.0	3	4.5
Neutral	4	23.5	8	33.3	3	25.0	3	50.0	4	50.0	22	32.8
Agree	3	17.7	4	16.7	4	33.3	2	33.3	3	37.5	16	23.9
Strongly Agree	10	58.8	9	37.5	3	25.0	1	16.7	1	12.5	24	35.8

- About 60% of respondents agreed glucose reading was relevant to the timing of dental procedures.

4. Glucose testing will identify patients at high risk for periodontal disease.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q4: Dentist opinion about identifying patients with periodontal disease by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose testing will identify patients at high risk for periodontal disease.												
Strongly Disagree	0	0.0	2	8.3	1	8.3	0	0.0	0	0.0	3	4.5
Disagree	0	0.0	0	0.0	2	16.7	0	0.0	2	25.0	4	6.0
Neutral	2	11.8	1	4.2	2	16.7	3	50.0	2	25.0	10	14.9
Agree	9	52.9	8	33.3	5	41.7	1	16.7	2	25.0	25	37.3
Strongly Agree	6	35.3	13	54.2	2	16.7	2	33.3	2	25.0	25	37.3

- Overall, about 75% of the respondents agreed/strongly agreed glucose testing will identify patients at high risk for periodontal disease.

5. Tested patients develop increased confidence in the practice and perceived an increased importance of their general health to their dental treatment.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q5: Dentist opinion about increasing confidence DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Tested patients develop increased confidence in the practice and perceived an increased importance of their general health to their dental treatment.												
Strongly Disagree	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Disagree	0	0.0	0	0.0	1	8.3	0	0.0	0	0.0	1	1.5
Neutral	2	11.8	0	0.0	3	25.0	1	16.7	1	12.5	7	10.5
Agree	8	47.1	10	41.7	6	50.0	3	50.0	3	37.5	30	44.8
Strongly Agree	7	41.2	14	58.3	2	16.7	2	33.3	4	50.0	29	43.3

- 88% of respondents agreed testing patients increased both confidence and the importance of their general health to their dental treatment.

Potential negative aspects

6. Glucose testing is time-consuming

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q6: Dentist opinion about glucose testing being time consuming by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose testing is time-consuming.												
Strongly Disagree	5	29.4	6	25.0	1	8.3	1	16.7	1	12.5	14	20.9
Disagree	3	17.7	12	50.0	5	41.7	0	0.0	5	62.5	25	37.3
Neutral	7	41.2	4	16.7	0	0.0	1	16.7	1	12.5	13	19.4
Agree	1	5.9	1	4.2	3	25.0	3	50.0	1	12.5	9	13.4
Strongly Agree	1	5.9	1	4.2	3	25.0	1	16.7	0	0.0	6	9.0

- 22% of respondents agreed testing was time consuming.

7. Glucose testing is too expensive to do in dental practice.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q7: Dentist opinion about glucose testing expenses by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose testing is too expensive to do in dental practice.												
Strongly Disagree	5	29.4	6	25.0	3	25.0	1	16.7	1	12.5	16	23.9
Disagree	3	17.7	10	41.7	1	8.3	1	16.7	3	37.5	18	26.9
Neutral	8	47.1	8	33.3	7	58.3	3	50.0	4	50.0	30	44.8
Agree	1	5.9	0	0.0	1	8.3	1	16.7	0	0.0	3	4.5
Strongly Agree	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

- Only 4% of respondents agreed glucose testing was too expensive.

8. Glucose levels are not relevant to dental practice

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q8: Dentist opinion about relevance of glucose testing in dental practice by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose levels are not relevant to dental practice.												
Strongly Disagree	9	52.9	15	65.2	4	33.3	2	33.3	3	37.5	33	50.0
Disagree	6	35.3	6	26.1	2	16.7	3	50.0	1	12.5	18	27.3
Neutral	1	5.9	1	4.4	6	50.0	1	16.7	4	50.0	13	19.7
Agree	1	5.9	0	0.0	1	0.0	1	0.0	0	0.0	1	1.5
Strongly Agree	0	0.0	1	4.4	0	0.0	0	0.0	0	0.0	1	1.5

- Only 3% of respondents agreed glucose testing was not relevant to dental practice.

9. Patients were unhappy that my practice did glucose screening.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q9: Dentist opinion about patient reactions about glucose testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Patients were unhappy that my practice did glucose screening.												
Strongly Disagree	11	64.7	21	87.5	5	41.7	3	50.0	8	100.0	48	71.6
Disagree	4	23.5	2	8.3	5	41.7	3	50.0	0	0.0	14	20.9
Neutral	0	0.0	1	4.2	1	8.3	0	0.0	0	0.0	2	3.0
Agree	1	5.9	0	0.0	1	8.3	0	0.0	0	0.0	2	3.0
Strongly Agree	1	5.9	0	0.0	0	0.0	0	0.0	0	0.0	1	1.5

- Over 4% of respondents agreed patients were unhappy about the glucose screening.

10. Glucose testing opens the practice to liability suits.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Table C.Q10: Dentist opinion about liability suits by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Glucose testing opens the practice to liability suits.												
Strongly Disagree	8	47.1	14	58.3	4	33.3	1	16.7	3	37.5	30	44.8
Disagree	5	29.4	4	16.7	3	25.0	3	50.0	3	37.5	18	26.9
Neutral	3	17.7	6	25.0	5	41.7	2	33.3	0	0.0	16	23.9
Agree	1	5.9	0	0.0	0	0.0	0	0.0	2	25.0	3	4.5
Strongly Agree	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

- Overall, about 4% of respondents agreed glucose testing opened the practice to liability suits.

D. End of Study Practice Interview

1. Who performed the blood sugar testing in your practice? (Check all that apply).

- Dentist
 Hygienist
 Dental Assistant
 Other (please specify):

Table D.Q1: Performance of blood sugar testing by DPBRN region (who performed test?)¹

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Who performed the blood sugar testing in your practice?												
Dentist	1	16.7	4	66.7	5	100.0	6	100.0	3	60.0	19	67.9
Hygienist	2	33.3	4	66.7	1	20.0	0	0.0	0	0.0	7	25.0
Dental Assistant	5	83.3	4	66.7	2	40.0	1	16.7	5	100.0	17	60.7
Other	1	16.7	1	16.7	0	0.0	0	0.0	0	0.0	2	7.1

¹Percents will total more than 100 due to multiple answer choices.

- In the 28 practices, the blood glucose testing was performed by 68% of the dentists, 25% of hygienists, about 61% dental assistants, and 7% categorized as “other”.

2. Where was the testing performed? (Check all that apply)

- Regular dental operator
 Hygienist’s operator
 Exam only operator
 Other location (please describe):

Table D.Q2: Performance of blood sugar testing by DPBRN region (where was test performed?)¹

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Where was the testing performed?												
Reg. dental op	5	83.3	5	83.3	5	100.0	6	100.0	5	100.0	26	92.9
Hygienist’s op	3	50.0	5	83.3	2	40.0	1	16.7	0	0.0	11	39.3
Exam only op	1	16.7	1	16.7	0	0.0	0	0.0	0	0.0	2	7.1
Other	0	0.0	1	16.7	1	20.0	0	0.0	1	20.0	3	10.7

¹Percents will total more than 100 due to multiple answer choices.

- Overall, about 93% of dental practices reported that the blood sugar testing was performed in a regular dental operator.
- 39% of dental practices reported the blood sugar testing was done in a hygienist’s operator.
- Of participating practices, AL/MS and FL/GA were the only regions to perform the testing in an exam only operator at about 17% each, yielding an overall total of 7%.

- The testing was performed at an “other” location as reported by 11% of the dental practices.

3. Was the testing well-received by patients?

- Yes
 No

4. Was testing easy to perform by the end of the study?

- Yes
 No

Table D.Q3: Patients reception of blood sugar testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Was the testing well-received by patients?												
Yes	6	100.0	6	100.0	5	100.0	5	100.0	5	100.0	27	100.0
Was testing easy to perform by the end of the study?												
Yes	6	100.0	6	100.0	5	100.0	6	100.0	5	100.0	28	100.0

- All respondents agreed the testing was well-received by patients.
- All respondents agreed the testing was easy to perform by the end of the study.

5. How long did the testing for each patient last on average by the end of the study?

- <2 min
 2-5 min
 >5 min

Table D.Q5: Length of time for blood sugar testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
How long did the testing for each patient last on average by the end of the study?												
<2 minutes	0	0.0	3	50.0	4	80.0	1	16.7	0	0.0	8	28.6
2 - 5 minutes	6	100.0	3	50.0	1	20.0	3	50.0	5	100.0	18	64.3
>5 minutes	0	0.0	0	0.0	0	0.0	2	33.3	0	0.0	2	7.1

- 64% of testing required 2 – 5 minutes.

6. Was testing disruptive to the regular run of the practice by the end of the study?

- Yes
 No

Table D.Q6: Testing Considered Disruptive by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Was testing disruptive to the regular run of the practice by the end of the study?												
Yes	1	16.7	0	0.0	0	0.0	5	83.3	3	60.0	9	34.6
No	5	83.3	5	100.0	4	100.0	1	16.7	2	40.0	17	65.4

- Over one-third of respondents agreed the testing was disruptive.

7. Do you now feel that routine blood glucose testing is:

- Beneficial to the practice
 Detrimental to the practice
 Indifferent

8. Do you think routine blood glucose testing for patients at risk for or diagnosed with diabetes should be implemented in dental practice?

- Yes
 No

Table D.Q7-8: Dentists' opinions about glucose testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Do you now feel that routine blood glucose testing is:												
Beneficial	6	100.0	6	100.0	5	100.0	3	50.0	3	60.0	23	82.1
Detrimental	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Indifferent	0	0.0	0	0.0	0	0.0	3	50.0	2	40.0	5	17.9
Do you think routine blood glucose testing for patients at risk for or diagnosed with diabetes should be implemented in dental practice?												
Yes	5	83.3	6	100.0	5	100.0	5	83.3	5	100.0	26	92.9
No	1	16.7	0	0.0	0	0.0	1	16.7	0	0.0	2	7.1

- Overall, 82% of respondents agreed glucose testing is beneficial.
- About 93% of respondents agreed glucose testing should be implemented in dental practice for patients diagnosed with or at risk for diabetes.

9. What barriers MUST be overcome before you would do routine blood glucose testing in your practice in the future? (Check all that apply)

- Insurance companies must provide reimbursement for testing
- The testing procedure would have to be easier
- Patients would have to be more demanding of it
- Other

Table D.Q9: Dentists' opinions about barriers to overcome with glucose testing by DPBRN region

	AL/MS		FL/GA		MN		PDA		SK		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
What barriers MUST be overcome before you would do routine blood glucose testing in your practice in the future?												
Reimbursement	5	83.3	3	50.0	3	75.0	3	50.0	2	40.0	16	59.3
Easier testing	0	0.0	0	0.0	0	0.0	1	16.7	0	0.0	1	3.7
Pt. demand	1	16.7	1	16.7	1	25.0	1	16.7	3	60.0	7	25.9
Other	1	16.7	5	83.3	0	0.0	4	66.7	2	40.0	12	44.4

- The most common barrier to overcome in order to allow testing is insurance reimbursement at 59%.