

2007 Oral Health Care of Vulnerable Elderly Patients Survey

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I. INTRODUCTION

A. Background

The *2007 Oral Health Care of Vulnerable Elderly Patients Survey* was conducted for the first time in 2007-2008 by the Survey Center on behalf of the Council on Access, Prevention and Interprofessional Relations (CAPIR). The goal of this survey was to gather valuable information about oral health care of vulnerable elderly patients. Vulnerable elderly patients are patients over age 65 who have any or all of the following: limited mobility, limited resources, or complex health status.

B. Survey Methodology

The *2007 Oral Health Care of Vulnerable Elderly Patients Survey* was sent to a national random sample of dentists in active private practice in 2007. Active private practitioners are dentists engaged in private dental practice (full- or part-time) as either a primary or secondary occupation.

B 1. Sampling

The sample for the *2007 Oral Health Care of Vulnerable Elderly Patients Survey* was drawn from the ADA Sampling Frame, which includes all professionally active dentists who graduated from an accredited dental school in the United States. The sample file contained 4,935 dentists in active private practice in the following four groups based on Masterfile specialty: 4,620 general practitioners, 105 oral surgeons, 105 endodontists, and 105 periodontists.

B 2. Data Collection

The *2007 Oral Health Care of Vulnerable Elderly Patients Survey* was first mailed to dentists in private practice on November 2, 2007. Two follow-up mailings were sent to non-respondents in December 2007 and January 2008. In March, non-respondents were contacted by telephone and asked to complete the questionnaire.

When data collection ended on June 12, 2008, a total of 1,582 dentists had responded to the survey. The final adjusted response rate (excluding unclaimed, deceased and foreign dentists) was 36.0%.

The purpose of this survey data is descriptive. Unless otherwise noted, differences between subgroups of survey respondents should not be assumed to be statistically significant.

B 3. Data Analysis and Presentation

Demographic variables from the *2007 Oral Health Care of Vulnerable Elderly Patients Survey* were compared to that of the sample frame using chi-square analysis. Minor statistical differences were detected for several demographic variables. However, these differences were not strong enough to warrant statistical weighting for the purpose of this summary. See Appendix A for respondent demographic statistics.

Selected results were analyzed using t-tests or chi-square tests by dentists' status (new vs. established dentist) and are presented where relevant and statistically significant. New dentists are defined as dentists who graduated after 1997 and established dentists are defined as dentist who graduated in 1997 or earlier.

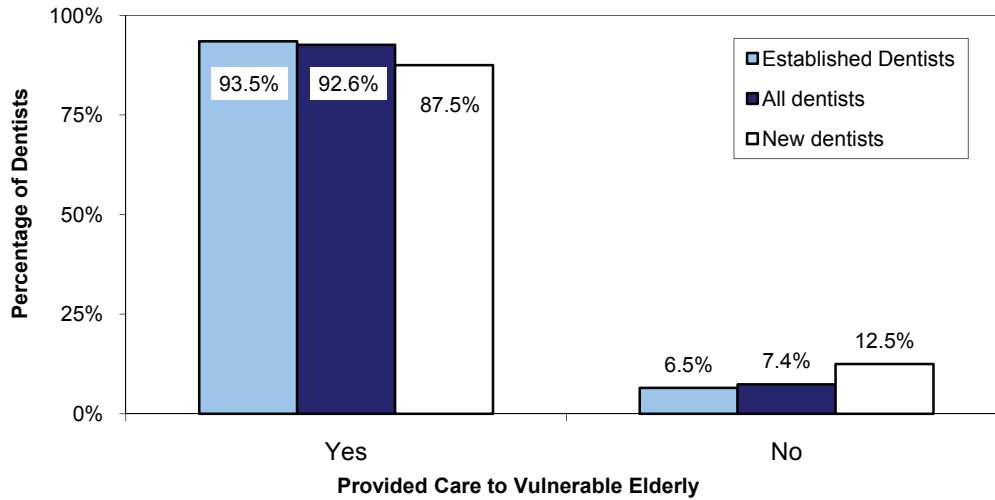
II. KEY FINDINGS

- The majority of dentists (92.6%) in private practice provided oral health care to vulnerable elderly patients in 2007. When analyzed by dentists' status, 93.5% of established dentists and 87.5% of new dentists reported providing oral health care to vulnerable elderly patients.
- Among dentists who did not provide oral health care to vulnerable elderly patients, the most common reason for not treating vulnerable elderly patients was because they 'preferred not to treat medically complex patients' (29.1%). Dentists who did not treat vulnerable elderly patients were most likely to refer them to general dentists with experience in geriatric practice (33.3%).
- Among dentists who treated vulnerable elderly patients, 9.1% of their patients were vulnerable elderly patients, on average. The most common places dentists treated vulnerable elderly patients were in their office (98.3%) or in a nursing home/long term care facility (13.8%).
- Over one-third of established dentists (38.6%) and one-quarter of new dentists (25.3%) were 'very comfortable' treating vulnerable elderly patients.
- About one-quarter of vulnerable elderly patients (24.9%) required dentists to consult with dental specialists and over one-third of vulnerable elderly patients (37.4%) required dentists to consult with physicians. By dentists' status, new dentists were more likely than established dentists to consult with both dental specialists and physicians regarding vulnerable elderly patients.
- About two-fifths of dentists (39.5%) referred vulnerable elderly patients to transportation services, the most common referral made.
- The majority of dentists performed oral cancer exams during initial evaluations (93.0%) and periodically (87.2%) on vulnerable elderly patients. Over three-quarters of dentists (77.2%) asked about tobacco use and 38.6% of dentists provided cessation counseling to vulnerable elderly patients.
- Over half of vulnerable elderly patients (56.6%) were not covered by insurance that pays or partially pays for dental services, 31.2% were covered by private insurance and 12.2% were covered by public assistance. Established dentists' vulnerable elderly patients were less likely to have insurance than new dentists' vulnerable elderly patients.
- In 2007, over half of vulnerable elderly patients (57.4%) received discounted dental care and 14.3% of vulnerable elderly patients received free dental care.
- Just over one-third of dentists (35.8%) were familiar with the Donated Dental Services program and about two-fifths of dentists (42.9%) participated in the Donated Dental Services program among dentists who were familiar with the program.
- One-third of dentists (33.5%) indicated that vulnerable elderly patients had a problem obtaining dental care in their community. Another 39.5% indicated they were unaware if vulnerable elderly patients had problems obtaining care in their community.
- Dentists felt that the biggest barriers to vulnerable elderly patients receiving care were 'inability to pay for services' (88.7%), 'lack of transportation to the dentist's office' (68.4%) and 'inadequate financial support for care from local, state and/or federal programs' (65.5%).
- About one-quarter of dentists (25.1%) reported having attended a didactic course on vulnerable elderly patients in the last three years.
- A small percentage of dentists (6.8%) actively promoted their practices to vulnerable elderly patients. Among dentists who actively promoted their practice to vulnerable elderly patients, one-fifth (20.8%) provided dental services outside the office. The most common place services were provided outside the office was in nursing homes.

III. ORAL HEALTH CARE OF VULNERABLE ELDERLY PATIENTS

The majority of dentists (92.6%) provided oral health care to vulnerable elderly patients in 2007. When analyzed by dentists' status, 93.5% of established dentists and 87.5% of new dentists reported providing oral health care to vulnerable elderly patients. (See Figure 1.)

Figure 1: Oral Health Care of Vulnerable Elderly Patients by Dentists' Status*, 2007**



*Chi-square p-value < .01.
**N=1,582

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

IV. REASONS FOR NOT TREATING VULNERABLE ELDERLY PATIENTS AND REFERRALS FOR TREATMENT

Among dentists who did not provide oral health care to vulnerable elderly patients, the most common reason dentists did not provide care to vulnerable elderly patients was that they 'prefer not to treat medically complex patients' (29.1%). (See Table 1).

Table 1: Reasons Oral Health Care Was Not Provided to Vulnerable Elderly Patients, 2007*

<i>Reasons Dentists Did Not Provide Oral Health Care to Vulnerable Elderly Patients (Select All)</i>	<i>Percent</i>	<i>N</i>
Prefer not to treat medically complex patients	29.1%	30
No vulnerable elderly patients in dentist's area	19.4	20
Dentist's practice is limited to pediatrics or orthodontics	17.5	18
Prefer not to treat, lacks knowledge about treating such patients	14.6	15
Patients have difficulty arranging transportation to dentist's office	8.7	9
Practice is too busy to accommodate patients needs	4.9	5
Don't know	12.6	13
Other	24.3	25

*Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Among dentists who did not treat vulnerable elderly patients, the most common referral was to a general dentist with experience in geriatric practice (33.3%). (See Table 2.)

Table 2: Dental Referrals of Vulnerable Elderly Patients, 2007*

<i>Referral Type (Select All)</i>	<i>Percent</i>	<i>N</i>
General dentists with geriatric experience	33.3%	30
Oral and maxillofacial surgeons	25.6	23
Endodontists	10.0	9
Periodontists	10.0	9
Prosthodontists	16.7	15
No referrals	52.8	48

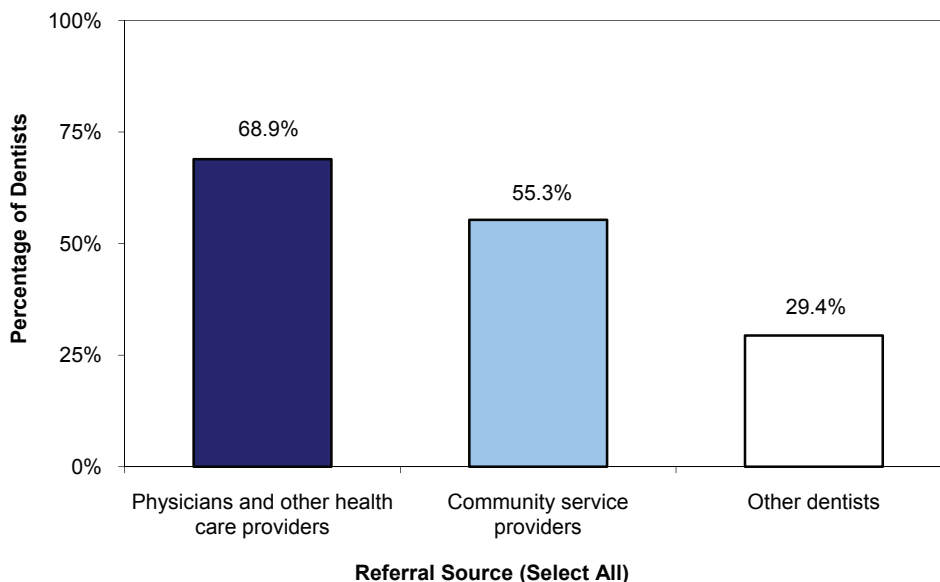
*Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

V. REFERRAL SOURCES AND TREATMENT OF VULNERABLE ELDERLY PATIENTS

The remainder of the report provides statistics on dentists in private practice who treated vulnerable elderly patients in 2007. As shown in Figure 2, the majority of dentists were more likely to have vulnerable elderly patients referred to their practice by physicians and other health care providers (68.9%), or community service providers (55.3%) than by other dentists.

Figure 2: Referral Sources of Vulnerable Elderly Patients to Dentists' Practices, 2007*



*N=992

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Among dentists who treated vulnerable elderly patients, 9.1% of their patients were vulnerable elderly patients, on average. (See Table 3.)

Table 3: Percentage of Patients Who Were Vulnerable Elderly, 2007

	<i>Mean</i>	<i>1st Q¹</i>	<i>Median</i>	<i>3rd Q¹</i>	<i>S.D.¹</i>	<i>N¹</i>
Percentage of all patients that are vulnerable elderly patients	9.1%	2.0%	5.0%	10.0%	12.1%	1,431

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

The majority of dentists treated vulnerable elderly patients in their office (98.3%) or in a nursing home/long term care facility (13.8%). (See Table 4.)

Table 4: Settings Where Dentists Treated Vulnerable Elderly Patients, 2007*

<i>Treatment Settings (Select All)</i>	<i>Percent</i>	<i>N</i>
Dentists' office	98.3%	1,430
Nursing home/long term care facility	13.8	201
Patients' home	7.8	113
Assisted living facility	7.1	103
Senior housing	2.8	40
Hospital**	2.2	33
Mobile or portable practice	1.3	19
Other	1.6	24

*Statistics derived from a sample size of less than 30 respondents may be unreliable.

**Category created from grouping similar 'Other' specify responses.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Over one-third of vulnerable elderly patients (37.4%) required dentists to consult with physicians and about one-fourth of vulnerable elderly patients (24.9%) required dentists to consult with dental specialists. By dentists' status, new dentists were more likely to consult with both physicians and dental specialists than were established dentists. (See Table 5.)

Table 5: Consultations With Other Providers for Vulnerable Elderly Patient Treatment by Dentists' Status*, 2007

<i>Provider Consultation</i>	<i>Established Dentists</i>			<i>New Dentists</i>			<i>All Dentists</i>		
	<i>Mean</i>	<i>S.D.</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Dental specialists	23.7%	22.8%	998	32.3%	25.8%	163	24.9%	23.4%	1,161
Physicians	36.0	30.8	1,081	46.1	31.0	178	37.4	31.0	1,259

*T-test p-value < .01.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

¹Throughout this report the following abbreviations are used to refer to statistical estimates: "1st Q" for the first quartile, "3rd Q" for the third quartile, "S.D." for the standard deviation, and "N" for the number of respondents. Please see the Glossary on page 18 for definitions of all statistical terms.

As shown in Table 6, dentists most commonly referred vulnerable elderly patients to transportation services (39.5%) and social services (15.8%).

Table 6: Non-Dental Referrals for Vulnerable Elderly Patients, 2007

Referral Type (Select All)	Percent	N
Transportation services	39.5%	541
Social services	15.8	212
Financial counselors for medical or dental care	10.1	133
Mental health workers for depression	7.7	101
Case management	7.4	97
Dieticians	4.9	65

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

The majority of dentists performed oral cancer exams on vulnerable elderly patients during initial evaluations (93.0%) and during periodic evaluations (87.2%). About half of dentists performed oral cancer exams when they noticed a problem (48.6%) or on high-risk patients (45.6%). (See Table 7.)

Table 7: Performing Oral Cancer Exams on Vulnerable Elderly Patients, 2007

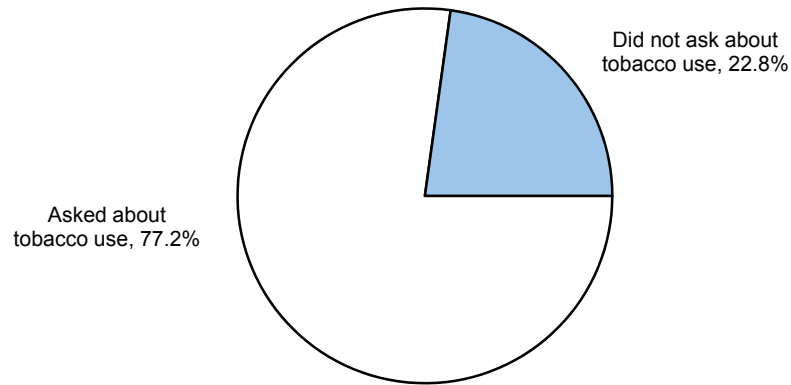
When Oral Cancer Exam Performed (Select All)	Percent	N
During initial evaluations	93.0%	1,344
During periodic evaluations	87.2	1,260
When a problem was noticed	48.6	702
On high-risk patients	45.6	659
Other*	3.3	47

*See Appendix B for a summary of 'Other' specify responses.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Over three-quarters of dentists (77.2%) asked vulnerable elderly patients about their current or former tobacco use. (See Figure 3.)

Figure 3: Inquiry of Vulnerable Elderly Patients Tobacco Use Habits, 2007*

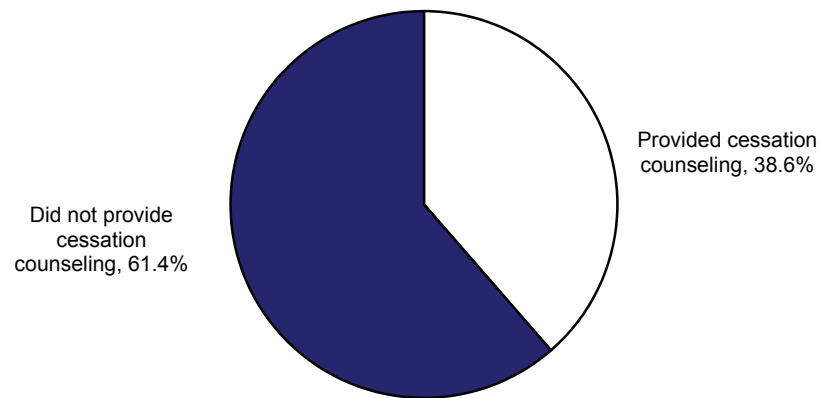


*N=1,440

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

As shown in Figure 4, about three-fifths (61.4%) of dentists did not provide cessation counseling to vulnerable elderly patients who are or were tobacco users.

Figure 4: Provision of Tobacco Cessation Counseling for Vulnerable Elderly Patients, 2007*



*N=1,058

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

VI. ACCESS TO CARE FOR VULNERABLE ELDERLY PATIENTS

As shown in Table 8, over half of vulnerable elderly patients (56.6%) were not covered by insurance, 31.2% had private insurance and 12.2% were covered by public assistance. The percentage of vulnerable elderly patients not covered by an insurance program was higher for established dentists (58.2%) compared to new dentists (46.9%).

Table 8: Dental Insurance Coverage of Vulnerable Elderly Patients by Dentists' Status*, 2007

<i>Insurance Type</i>	<i>Established Dentists' Patients</i>			<i>New Dentists' Patients</i>			<i>All Dentists' Patients</i>		
	<i>Mean</i>	<i>S.D.</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>N</i>
Private insurance	30.7%	26.0%	1,068	34.1%	29.0%	178	31.2%	26.5%	1,246
Public assistance	11.1	21.9	1,068	19.0	29.1	178	12.2	23.2	1,246
No insurance	58.2	30.0	1,068	46.9	31.8	178	56.6	30.5	1,246

*T-test p-value < .01

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

The majority of dentists (74.5%) provided some form of charitable care for vulnerable elderly patients. Over three-quarters of established dentists (76.5%) provided charitable care for vulnerable elderly patients whereas about three-fifths of new dentists (62.0%) provided charitable care for vulnerable elderly patients. (See Table 9.)

Table 9: Charitable Care for Vulnerable Elderly Patients by Dentists' Status*, 2007**

<i>Type of Charitable Care Provided</i>	<i>Established Dentists</i>	<i>N</i>	<i>New Dentists</i>	<i>N</i>	<i>All Dentists</i>	<i>N</i>
Free care	3.4%	42	1.5%	3	3.1%	45
Discounted care	27.0	337	31.0	62	27.6	399
Both free and discounted care	46.1	575	29.5	59	43.8	634
No charitable care	23.5	293	38.0	76	25.5	369

*Chi-square p-value < .01.

**Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

On average, dentists provided over half of their vulnerable elderly patients (57.4%) with discounted care and 14.3% with free care. (See Table 10.)

Table 10: Percentage of Vulnerable Elderly Patients Who Received Charitable Care, 2007

Type of Charitable Care Received	Mean	S.D.	N
Discounted dental care	57.4%	35.8%	976
Free dental care	14.3	17.9	734

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

More than one-third of established dentists (37.8%) and less than one-fourth of new dentists (23.1%) were familiar with the Donated Dental Services program as shown in Table 11.

Table 11: Familiarity With the Donated Dental Services Program (DDS) by Dentists' Status*, 2007

Familiarity with DDS	Established Dentists	N	New Dentists	N	All Dentists	N
Familiar with DDS	37.8%	463	23.1%	46	35.8%	509
Not familiar with DDS	62.2	761	76.9	153	64.2	914

*Chi-square p-value < .01.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Among dentists who were familiar with the Donated Dental Services program, 44.5% of established dentists but only 25.6% of new dentists participated in the donated dental services program. (See Table 12.)

Table 12: Participation in the Donated Dental Services Program (DDS) by Dentists' Status*, 2007**

Participation in DDS	Established Dentists	N	New Dentists	N	All Dentists	N
Participated in DDS	44.5%	202	25.6%	11	42.9%	213
Did not participate in DDS	55.5	252	74.4	32	57.1	284

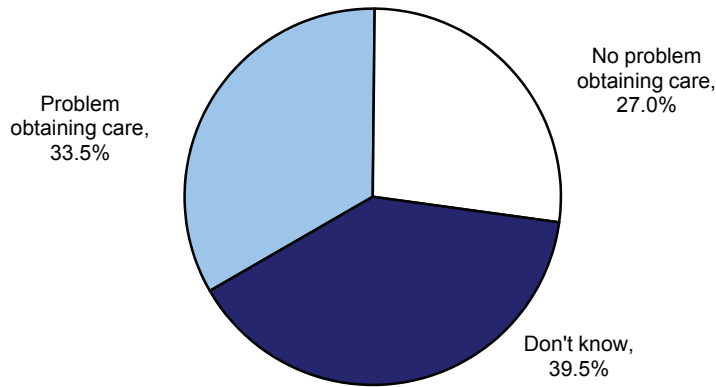
*Chi-square p-value < .01.

**Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

One in three dentists (33.5%) reported that vulnerable elderly patients had a problem obtaining dental care. About two in five dentists (39.5%) did not know if vulnerable elderly patients had a problem obtaining dental care. (See Figure 5.)

Figure 5: Awareness of Problems Obtaining Dental Care Among Vulnerable Elderly Patients, 2007*



*N=1,437

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

As shown in Table 13, the most common barriers to dental care among vulnerable elderly patients as identified by dentists were as follows: inability to pay for services (88.7%), lack of transportation to the dentist’s office (68.4%), and inadequate financial support for care from local, state and/or federal programs (65.5%).

Table 13: Barriers to Dental Care for Vulnerable Elderly Patients, 2007*

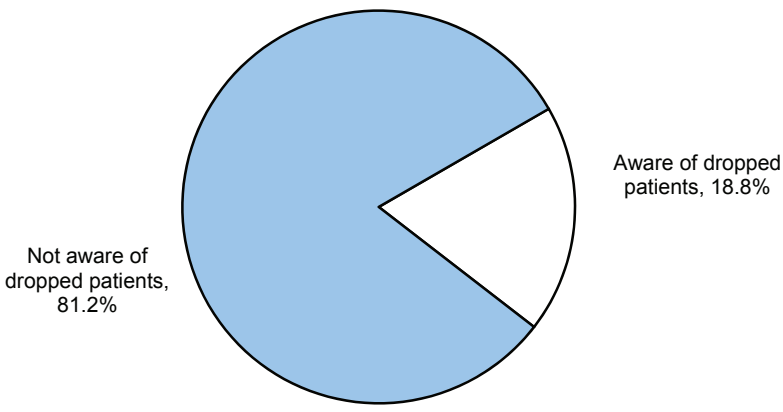
Barriers (Select All)	Percent	N
Unable to pay for services	88.7%	424
Lack of transportation to the dentist’s office	68.4	327
Inadequate financial support for care from local, state and/or federal programs	65.5	313
Lack of perceived need	61.5	294
Not knowing where to go	51.3	245
No equipment/space available for care in their housing facility	37.0	177
Lack of trained providers	24.7	118
Other	4.2	20

*Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Figure 6 shows that the majority of dentists (81.2%) were unaware of vulnerable elderly patients who dropped out of their practice due to access issues in the past two years.

Figure 6: Awareness of Vulnerable Elderly Patients Withdrawal From Dentists' Practices Due to Access Issues in the Past Two Years, 2007*



*N=1,391
 Source: American Dental Association, Survey Center, 2007 Oral Health Care of Vulnerable Elderly Patients Survey

VII. DENTISTS' COMFORT LEVEL AND TRAINING

As shown in Table 14, the majority of dentists who treated vulnerable elderly patients were 'very comfortable' (36.7%) or 'somewhat comfortable' (51.0%) treating vulnerable elderly patients. Established dentists were more likely to report being 'very comfortable' treating vulnerable elderly patients than new dentists (38.6% vs. 25.3%, respectively).

Table 14: Comfort Level Treating Vulnerable Elderly Patients by Dentists' Status*, 2007**

<i>Comfort Level</i>	<i>Established Dentists</i>	<i>N</i>	<i>New Dentists</i>	<i>N</i>	<i>All Dentists</i>	<i>N</i>
Very comfortable	38.6%	479	25.3%	51	36.7%	530
Somewhat comfortable	49.9	620	57.9	117	51.0	737
Somewhat uncomfortable	10.1	126	15.8	32	11.0	158
Not at all comfortable	1.4	17	1.0	2	1.3	19

*Chi-square p-value < .01.
 **Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 Oral Health Care of Vulnerable Elderly Patients Survey

As shown in Table 15, over half of dentists felt comfortable treating vulnerable elderly patients with late stage dementia (51.7%) and with complex medical issues (57.0%).

Table 15: Comfort in Treating Vulnerable Elderly Patients With Late Stage Dementia and Complex Medical Issues, 2007

<i>Medical Condition</i>	<i>Percent</i>	<i>N</i>
Late stage dementia	51.7%	739
Complex medical issues	57.0	816

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

One-quarter of dentists (25.1%) had taken didactic continuing education courses on treating vulnerable elderly patients in the past three years. Dentists who had taken didactic continuing education courses averaged 7.8 hours of didactic training in the past three years. A small number of dentists (N=28) had taken hands-on courses on treating vulnerable elderly patients in the past three years, reporting an average of 25.5 hours of hands-on training in the past three years. (See Table 16.)

Table 16: Attendance of Didactic and Hands-On Continuing Education Courses Focused on Treating Vulnerable Elderly Patients in the Past Three Years, 2007*

<i>Course Type</i>	<i>Percent</i>	<i>N</i>
Didactic (lecture) course	25.1%	360
Hands-on (clinical) course	2.1	28

*Statistics derived from a sample size of less than 30 respondents may be unreliable.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

The services that dentists most frequently limited for vulnerable elderly patients were implants (57.7%), oral surgery (49.5%), and esthetic reconstruction (44.4%). Dentists were least likely to limit diagnostic and preventive services (13.7%) when caring for vulnerable elderly patients. (See Table 17.)

Table 17: Limits in Scope of Services Provided to Vulnerable Elderly Patients, 2007

Services Limited in Scope (Select All)	Percent	N
Implants	57.7%	725
Oral surgery	49.5	637
Esthetic reconstruction	44.4	556
Periodontal	42.2	529
Fixed prosthodontics	37.4	467
Restorative	24.1	305
Removable prosthodontics	23.9	300
Emergency services	20.9	264
Diagnostic and preventive	13.7	177

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Dentists were asked to indicate if they would like more information on eight treatment areas for vulnerable elderly patients. As shown in Table 18, over two-thirds of dentists (68.5%) would like more information in ‘managing patients with complex medical histories’, over three-fifths of dentists (63.6%) would like more information on ‘managing xerostomia’, and about half of dentists (49.1%) would like more information on ‘managing patients living with dementia’.

Table 18: Areas of Treatment Where Information is Needed on Vulnerable Elderly Patient Care, 2007*

Areas of Treatment (Select All)	Percent	N
Managing patients with complex medical histories	68.5%	846
Managing xerostomia	63.6	786
Managing patients living with dementia	49.1	606
Managing caries	48.7	602
Home care regimens for those with functional impairments	41.5	513
Home care regimens for those with mental impairment	35.6	440
Working with caregivers	32.6	402
Portable equipment	14.8	183
Other**	1.9	24

*Statistics derived from a sample size of less than 30 respondents may be unreliable.

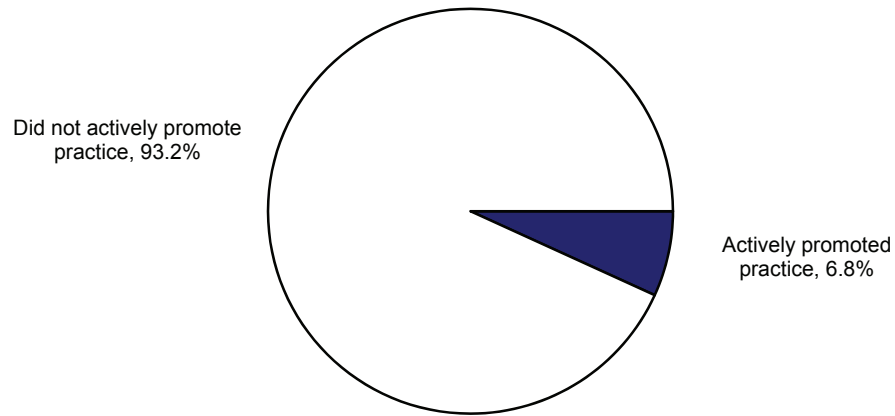
**See Appendix B for a summary of ‘Other’ specify responses.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

VIII. PROMOTION TO VULNERABLE ELDERLY PATIENTS

The majority of dentists (93.2%) did not actively promote their practice to vulnerable elderly patients. (See Figure 7.)

Figure 7: Promotion of Dentists’ Practices to Vulnerable Elderly Patients, 2007



*N=1,452

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Aside from ‘Other’ methods, dentists were almost equally likely to have promoted their practices to vulnerable elderly patients by speaking at senior centers (26.7%), attending health fairs (26.4%), or by advertising in media targeted to seniors (22.2%). (See Table 19.)

Table 19: Methods Used to Promote Dentists’ Practices to Vulnerable Elderly Patients, 2007*

<i>Method (Select All)</i>	<i>Percent</i>	<i>N</i>
Speaking at senior centers	26.7%	24
Attending health fairs	26.4	24
Advertising in media targeted to seniors	22.2	20
Word of mouth**	22.2	20
Other	31.1	28

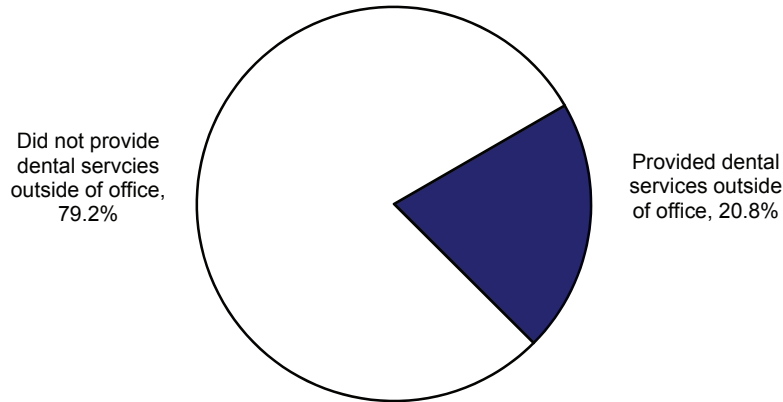
*Statistics derived from a sample size of less than 30 respondents may be unreliable.

** Category created from grouping similar ‘Other’ specify responses.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

The majority of dentists (79.2%) did not provide dental services outside of their office for vulnerable elderly patients. (See Figure 8.)

Figure 8: Provision of Dental Services for Vulnerable Elderly Patients Outside of Dentists’ Offices, 2007*



*N=1,438

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

As shown in Table 20, the most common locations outside of their offices dentists provided dental services for vulnerable elderly patients were nursing homes (63.8%) or assisted living centers (40.0%).

Table 20: Location Outside of Dentists’ Offices Where Dental Services for Vulnerable Elderly Patients Were Provided, 2007*

Location (Select All)	Percent	N
Nursing homes	63.8%	185
Assisted living centers	40.0	116
Senior centers	16.2	47
Hospital**	11.4	33
Home**	7.9	23
Mobile practice	4.8	14
Other	17.6	51

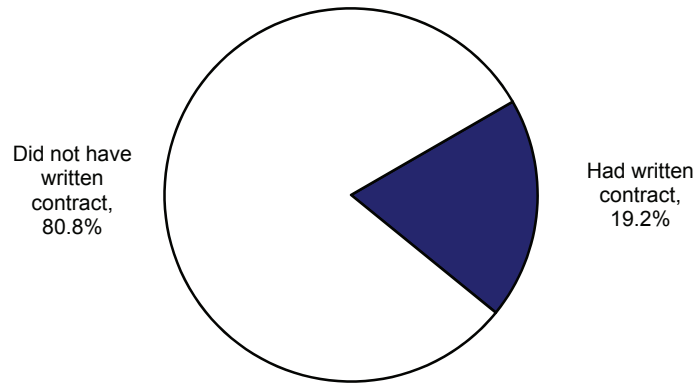
*Statistics derived from a sample size of less than 30 respondents may be unreliable.

**Category created from grouping similar 'Other' specify responses.

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

Among dentists who provided care for vulnerable elderly patients outside of the office, the majority of dentists (80.8%) did not have a written contract with the facilities where they provided care. (See Figure 9.)

Figure 9: Contract Status With Facilities Outside of Dentists' Offices to Provide Care for Vulnerable Elderly Patients, 2007*

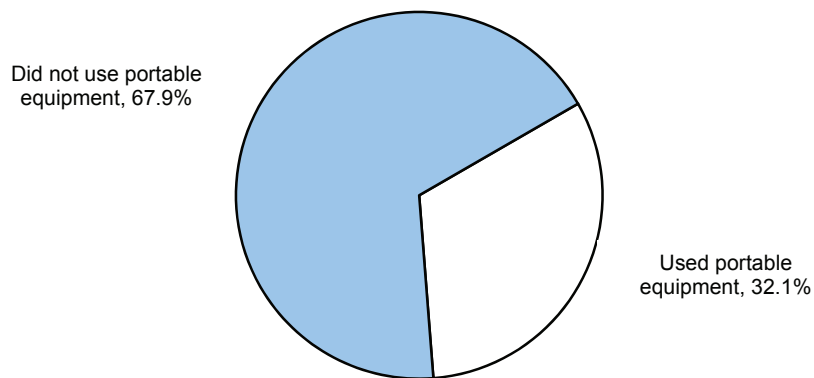


*N=291

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

When providing care for vulnerable elderly patients outside of their office, over two-thirds of dentists (67.9%) did not use portable equipment at facilities to provide care. (See Figure 10.)

Figure 10: Use of Portable Equipment at Facilities Outside of Dentists' Offices to Provide Care for Vulnerable Elderly Patients, 2007*

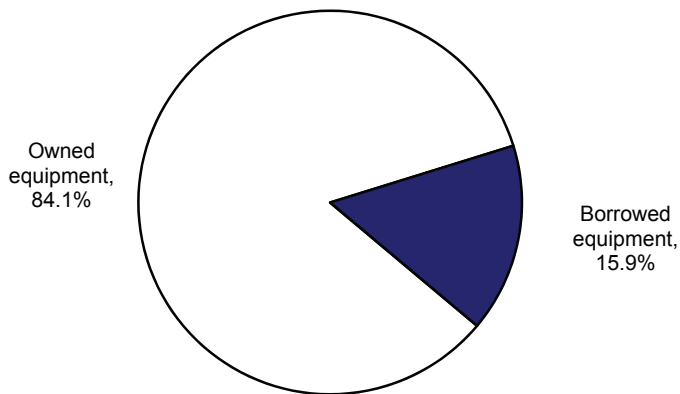


*N=289

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

When providing care for vulnerable elderly patients outside of their office using portable equipment, the majority of dentists (84.1%) owned the equipment they used to provide care. (See Figure 11).

Figure 11: Ownership of Equipment Used to Treat Vulnerable Elderly Patients Outside of Dentists' Offices, 2007*



*N=88

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

IX. GLOSSARY

MEAN

The arithmetic average calculated by adding all responses together and then dividing by the number of respondents.

MEDIAN

A statistical measure that divides ranked numeric responses into halves. The median is the response which falls at the fifty percent mark. The responses in one half are all smaller than the median and those in the other half are all larger than the median.

QUARTILES

A statistical measure that divides ranked number responses into four equal quarters. The 1st quartile is the response that falls at the twenty-five percent mark and divides the responses into two unequal groups. One group contains one-fourth of the responses and the other three-fourths of the responses. The responses in the smaller group are all smaller than the 1st quartile and those in the larger group are all larger than the 1st quartile.

The 2nd quartile is the response that falls at the fifty- percent mark and divides the responses into two equal groups. The responses in one half are all smaller than the 2nd quartile and those in the other half are all larger than the 2nd quartile. The 2nd quartile is also known as the median.

The 3rd quartile is the response that falls at the seventy-five percent mark and divides the responses into two unequal groups. One group contains three-fourth of the responses and the other one-fourth of the responses. The responses in the larger group are all smaller than the 3rd quartile and those in the smaller group are all larger than the 3rd quartile.

REGIONS

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, and Pennsylvania

Midwest: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

South: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas.

West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington.

STANDARD DEVIATION

The typical deviation of sample values from the mean. The size of the standard deviation reflects the accuracy of the sample mean in representing the population. In a normal population, 68.0% of the observations fall within one standard deviation of the mean, 95.5% within two standard deviations, and 99.7% within three standard deviations.

Appendix A

Demographic Profile of Respondents

Table A-1: Demographic Profile of Respondent Dentists

Demographic	Number	Percent	Demographic	Number	Percent
Total number of respondents	1,582	100.0%			
Region¹			Age		
Northeast	353	32.5	18-34	113	7.3%
South	643	40.6	35-44	248	16.0
Midwest	180	11.4	45-54	500	32.3
West	396	25.7	55-64	489	31.6
			65+	198	12.8
Gender			Graduation Year		
Female	275	17.5	1959 or earlier	49	3.1
Male	1,295	82.5	1960-1969	163	10.3
			1970-1979	449	28.4
Race			1980-1989	511	32.3
Asian	115	8.1	1990-1999	265	16.8
Black	34	2.4	2000-2007	145	9.2
Hispanic	54	3.8			
White	1,213	85.2	Primary Occupation		
Other/Unknown	7	0.5	Private practice (>30 hr/wk)	1,386	87.6
			Private practice (<30 hr/wk)	182	11.5
Status			Other	14	0.9
Established Dentist	1,351	85.4			
New Dentist	231	14.6	Specialty		
			General Practice	1,483	93.7
Membership			Oral Surgery	35	2.2
Member	1,323	83.6	Endodontics	28	1.8
Non-member	259	16.4	Periodontics	36	2.3
Ownership					
Owner	1,276	85.9			
Employee	69	4.7			
Associate	91	6.1			
Contractor	42	2.8			
Other	7	0.5			

Source: American Dental Association, Survey Center, 2007 *Oral Health Care of Vulnerable Elderly Patients Survey*

¹Please refer to the Glossary on page 18 for a description of states included in each region.

Appendix B

Summary of 'Other' Specify Responses

Summary of ‘Other’ specify responses for Table 18: Areas of Treatment Where Information is Needed on Vulnerable Elderly Care, 2007.

- Not interested in any of the treatment areas listed (11)
- Information on dental coverage and treatment (3)
- Information on State and Federal funding for treatment (5)
- Hands-on courses in treating the vulnerable elderly patient (1)
- Information on adapting dental office to fit the needs of the elderly patient (1)
- Information on documentation methods and liability issues (1)
- Information on motivating family members and care giving (1)

Summary of ‘Other’ specify responses for Table 7: Performing Oral Cancer Exams on Vulnerable Elderly Patients, 2007.

- Oral cancer examinations are done on all patients (20)
- Oral cancer examinations are routinely done at every appointment (3)
- Oral cancer examinations are done annually (2)
- Oral cancer examinations are done only by patient request (2)
- Oral cancer examinations are done only by doctor referrals (2)
- Oral cancer examinations only give to patients with a family history of cancer (1)
- Oral cancer examinations provided to patients through VELscope (2) or Vizilite Plus screening (1)
- Other (4)

Summary of ‘Other’ specify responses for ‘Do you have any suggestions that would help improve the oral health care received by vulnerable elderly patients in general?’

- Improve coverage and access for vulnerable elderly (29)
- Improve practice compensation and reimbursement (25)
- Improve caregiver assistance of daily oral health care (25)
- Improve caregiver education (24)
- Medicare and Medicaid Oral Health Coverage (22)
- Improve access to transportation (15)
- Increase oral health care funding (10)
- Improve provider education (9)
- Improve education for vulnerable elderly patients (6)
- Increase access to mobile dental units and equipment (7)
- Increase frequency of visits (6)
- Targeted education (6)
- Increase volunteer dental services for vulnerable elderly patients (6)
- Use of fluoride treatments (5)
- Increase dental treatment facilities (5)
- Improve education among family and friends on oral health care (5)
- Improve communication with caregivers (4)
- Improve curriculum in dental schools (4)
- Increase involvement of medical doctors (4)
- Improve communication with providers (3)
- Other (56)

Appendix C

2007 Oral Health Care of Vulnerable Elderly Patients
Survey Instrument