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# Do optometrists see 20/20? A survey of vision care utilized by optometrists: Implications for the profession

## Abstract

**Purpose:** The American Optometric Association's Optometric Clinical Practice Guidelines identify appropriate utilization strategies for eye and vision examinations. Optometrists, like all health care providers, should follow the recommended standard of care as a doctor and as a patient. The purpose of this survey was to evaluate if optometrists seek and recommend the standard of vision care.

**Method:** A survey was mailed to 650 randomly selected optometrists in the states of Oregon and Washington. The survey provided data describing the optometrists' personal demographics, medical conditions, visual conditions, and utilization of vision care. Additional data included a survey of the optometrists' recommendation of preventive eye care for their patients.

**Results:** A 41% response rate was achieved from the mailing. In evaluating the data from optometrists who reported no ocular or medical conditions, the data show that 70% of the doctors surveyed, between the age of twenty and forty, have met the AOA guidelines recommendation of having a refraction, anterior segment exam, posterior segment exam, and intraocular pressure measurement within the recommended three year interval. Sixty-four percent of the doctors surveyed, between the age of forty-one and sixty, have met the AOA guidelines recommendation of having all of the procedures listed performed within the past two years. Of the doctors surveyed over the age of sixty, 36% have met the AOA guidelines of having all the procedures listed performed within the past year. With respect to preventive vision care for their patients, 90% of doctors, of all ages, reported that they recommend the AOA guidelines recommendation for their patients between the age of twenty and forty. Eighty-one percent of doctors, of all ages, reported recommending the AOA guidelines to their patients between the age of forty-one and sixty. Of those doctors surveyed, 30% of the respondents recommend the AOA guidelines to their patients over the age of sixty.

**Conclusion:** Most optometrists' personal eye care is consistent with the AOA Optometric Clinical Practice Guidelines. Most optometrists are recommending to their patients care intervals that are consistent with these guidelines. However, optometrists over the age of sixty are not seeking the standard of vision care recommended by the AOA guidelines and optometrists of all ages are not recommending the AOA guidelines to their patients over the age of sixty. It is recommended that all optometrists be educated as to the reason for the frequency of optometric examinations for themselves as well as for their patients over the age of sixty.

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## Committee Chair

Suzanne D. Scott

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**DO OPTOMETRISTS SEE 20/20?**

**A SURVEY OF VISION CARE UTILIZED BY OPTOMETRISTS:  
IMPLICATIONS FOR THE PROFESSION**

**By**

**MELISSA M. BELL  
DOUGLAS J. WALKER**

A thesis submitted to the faculty of the  
College of Optometry  
Pacific University  
Forest Grove, Oregon  
for the degree of  
Doctor of Optometry  
May, 1999

**Advisor:**

**Dr. Suzanne D. Scott**

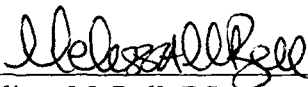
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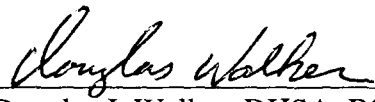
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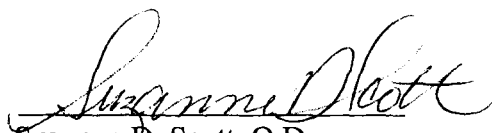
IMPLICATIONS FOR THE PROFESSION

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## *Melissa M. Bell*

In 1994, Melissa completed her undergraduate education and graduated from Portland State University, in Portland, Oregon. Prior to her admission to Pacific University College of Optometry, Forest Grove, Oregon, in 1995, Melissa worked in the banking industry. While in school, Melissa was active in many student activities and held various positions, such as the Washington Association of Optometric Physicians student liaison. During her fourth year of optometric studies, Melissa completed externships at the Walla Walla Veterans Affairs Medical Center in Walla Walla, Washington, and at Pacific Cataract & Laser Institute in Kennewick, Washington. Melissa will receive her doctorate of optometry degree in May 1999. After graduation from optometry school, Melissa hopes to join an established private practice and become an associate where she can practice her interests of ocular disease and contact lenses in Eastern Washington, where her and her husband would like to reside.

## *Douglas J. Walker*

Doug completed undergraduate and post-graduate education at the University of Alberta in Edmonton, Alberta, Canada. In 1990 he received his Bachelor of Science in Medical Laboratory Science and in 1994 he received a Diplomate in Health Service Administration and Community Medicine. Doug worked as a Medical Laboratory Technologist at the Cross Cancer Institute in Edmonton, Alberta prior to being admitted to Pacific University College of Optometry, Forest Grove, Oregon, in 1995. Doug has been very involved with both academic and extracurricular activities during his time at Pacific University. He has held positions of Trustee and National President in the American Optometric Student Association, which represents all optometry students at the schools and colleges of optometry in the U.S., Canada and Puerto Rico.

Doug has excelled academically while at Pacific University and has received recognition for his efforts from the Beta Sigma Kappa Optometric Honor Society for each year at the College of Optometry. His leadership accomplishments have also been recognized by his receipt of the American Optometric Association Leadership Award and placement in the *Who's Who Among Students in American Universities and Colleges*. During his fourth year of optometry school Doug completed externships at Carl Albert Indian Health Facility in Ada, Oklahoma and at the private practice of Dr. John Rush in Gold Beach, Oregon. Upon graduation, Doug plans to become a productive associate and eventual partner in a private optometric practice.

# *Abstract*

## Purpose

The *American Optometric Association's Optometric Clinical Practice Guidelines* identify appropriate utilization strategies for eye and vision examinations. Optometrists, like all health care providers, should follow the recommended standard of care as a doctor and as a patient. The purpose of this survey was to evaluate if optometrists seek and recommend the standard of vision care.

## Method

A survey was mailed to 650 randomly selected optometrists in the states of Oregon and Washington. The survey provided data describing the optometrists' personal demographics, medical conditions, visual conditions, and utilization of vision care. Additional data included a survey of the optometrists' recommendation of preventive eye care for their patients.

## Results

A 41% response rate was achieved from the mailing. In evaluating the data from optometrists who reported no ocular or medical conditions, the data show that 70% of the doctors surveyed, between the age of twenty and forty, have met the AOA guidelines recommendation of having a refraction, anterior segment exam, posterior segment exam, and intraocular pressure measurement within the recommended three year interval. Sixty-four percent of the doctors surveyed, between the age of forty-one and sixty, have met the AOA guidelines recommendation of having all of the procedures listed performed within the past two years. Of the doctors surveyed over the age of sixty, 36% have met the AOA guidelines of having all the procedures listed performed within the past year. With respect to preventive vision care for their patients, 90% of doctors, of all ages, reported that they recommend the AOA guidelines recommendation for their patients between the age of twenty and forty. Eighty-one percent of doctors, of all ages, reported recommending the AOA guidelines to their patients between the age of forty-one and sixty. Of those doctors surveyed, 30% of the respondents recommend the AOA guidelines to their patients over the age of sixty.

## Conclusion

Most optometrists' personal eye care is consistent with the *AOA Optometric Clinical Practice Guidelines*. Most optometrists are recommending to their patients care intervals that are



consistent with these guidelines. However, optometrists over the age of sixty are not seeking the standard of vision care recommended by the AOA guidelines and optometrists of all ages are not recommending the AOA guidelines to their patients over the age of sixty. It is recommended that all optometrists be educated as to the reason for the frequency of optometric examinations for themselves as well as for their patients over the age of sixty.

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## *Introduction*

Clinical Practice Guidelines (CPG) are systematically developed statements about specific clinical recommendations to assist practitioners in making decisions about appropriate vision care. Clinical Practice Guidelines are tools that can help optometrists deliver high-quality vision care by outlining the best practices based on available evidence and expert opinion. CPGs have the potential to reduce variation and improve appropriateness and, thus, efficiency of vision care. However, no matter how well guidelines are developed, unless they are actually used by practitioners, their impact in terms of improving clinical practice will be minimal.

Clinical Practice Guidelines have been known by a number of different names including practice standards, practice recommendations, policies, practice parameters, practice options, clinical indicators, and many more. All have the basic premise of being a set statement, direction, or principle to assist the health care practitioner with patient care decisions about the appropriate diagnostic, therapeutic, or other clinical procedure for specific clinical circumstances. Rogers described the desirable qualities of an effective practice guideline, namely low complexity, “observability,” “trialability” and cost, among other factors.<sup>1,2</sup>

The American Optometric Association designated a committee in 1991 to design standards of care for the optometric profession. This AOA Clinical Guidelines Coordinating Committee was charged with the responsibility of overseeing the Association’s clinical guidelines development process. The AOA Board of Trustees appointed members. Selected individuals represent various entities within the Association having an interest in the development of clinical guidelines for optometry. American Optometric Association’s Optometric Clinical Practice Guideline for the Comprehensive Adult Eye and Vision Examination describes appropriate examination procedures for evaluation of the eye health and vision status of adult patients to reduce the risk of vision loss.<sup>3</sup> The adoption of practice guidelines by the AOA keeps optometry on the leading edge of public health policy.<sup>4</sup>

The AOA Optometric Clinical Practice Guidelines for the Comprehensive Adult Eye and Vision Examination contains recommendations regarding frequency of vision examinations for adults. The AOA Guidelines recommendations for adults are divided into three age groups and each age group have a recommended interval for the asymptomatic or risk free adult. The age groups are divided into the following categories, nineteen to forty, forty-one to sixty, and over sixty. The recommendations for vision care for the asymptomatic adult for each age group are every two to three years, every two years, and every year, respectively.

In recent years a significant increase of information from research, both within and outside the profession, has helped to further promote preventive strategies. For optometric preventive vision care services to benefit the public, services must be incorporated into the day to day activities. This may require changes in attitude, modification in procedures, additional continuing education, and perhaps even a change in the optometrist’s own lifestyle.<sup>5</sup>

In optometry, standards of care have been well established for primary eye care.<sup>6-8</sup> Standard of care is defined through a complex interaction between health care and law. In optometry, standards of care may be determined by state optometry practice acts, rulings of state boards, advances in research and technology, health insurance reimbursements, rulings of federal government agencies, quality assurance mechanisms, professional education, and litigation involving optometrists and physicians.<sup>3</sup>

By implementing clinical practice guidelines the profession seeks to improve eye care, especially preventive eye care. In general, the legal and public health professions welcome practice guidelines. Practice guidelines allow optometry to regulate itself and frees it, to some extent, from legal regulation.

The *American Optometric Association's Optometric Clinical Practice Guidelines* identify appropriate utilization strategies for eye and vision examinations. Optometrists, like all health care providers, should follow the recommended standard of care as a doctor and as a patient. The purpose of this survey was to evaluate if optometrists seek and recommend the standard of vision care.

## *Methods*

A survey, consisting of twenty questions and requiring approximately five to ten minutes to complete, was administered to Oregon and Washington licensed optometrists. (See Appendix A.)

### Eligibility Criteria

Doctors of Optometry currently, or previously, licensed in the states of Oregon and Washington was eligible for our survey.

### Sampling Strategy

Based on a minimum expected response rate of 30% and a desire to have responses from at least 195 optometrists, we drew a sample of 650 optometrists. Of the 650 optometrists selected, 325 optometrists were from Oregon and 325 optometrists were from Washington. In order to draw our sample, we used the computer database of the Pacific University Continuing Education Department. A Pacific University Continuing Education Staff Member randomly selected every sixth optometrist using the computer database, until 325 names from each state were selected.

### Content of Survey

The survey included questions inquiring about personal demographic data, medical conditions, visual conditions, and utilization of vision care. It also included questions regarding the optometrist's recommendation of preventive eye care for their patients. The survey was confidential to ensure accuracy of the responses.

Personal demographic data included (1) age, (2) sex, (3) year of graduation, (4) school attended, (5) primary practice location, (6) primary mode of practice, (7) any other practitioners in their office or clinic.

Medical conditions included (8) any conditions listed requiring medical care such as cardiac, thyroid, respiratory, diabetes, hypertension, arthritis, cancer, or other problems.

Visual conditions included (9) diagnosis of any ocular conditions such as high myopia (>4D), glaucoma, cataracts, strabismus, retinopathy, keratoconus, age-related macular degeneration, or any other ocular conditions.

Utilization of eye care by the practitioner themselves included (10) most recent refraction, anterior segment exam, posterior segment exam, dilated fundus exam, intraocular pressure measurement, automated visual fields, and blood pressure measurement.

Questions regarding the optometrist's recommendation of preventive eye care for their patients consisted of a series of questions asking the doctor at what intervals they recommend a refraction, anterior segment exam, posterior segment exam, dilated fundus exam, intraocular pressure measurement, automated visual fields, and blood pressure, to be performed on a preventive basis for their patients, assuming no medical or ocular complications.

### Administration of Survey

Surveys were mailed to the 650 randomly selected optometrists in the states of Oregon and Washington on January 22, 1998, from Forest Grove, Oregon, with a return request date of February 4, 1998. Each letter contained a cover letter, survey, and self-addressed stamped envelope. The cover letter was written on Pacific University College of Optometry letterhead and explained why the survey was being conducted, the importance of conducting the survey, and an encouraging note to participate. The self-addressed stamped envelope was included to ensure confidentiality and to make it more convenient for the optometrists to return the survey, thus increasing the response rate. Since the survey was confidential there was no means available to remind non-respondents. No financial incentive to participate in the survey was provided. A copy of the cover letter is included in Appendix B.

# Results

## Response

Responses were received from 265 optometrists, a 41% response rate. Twenty-seven surveys were incomplete and excluded. Of the 650 surveys sent out 27 were returned as undeliverable, approximately 4 percent. One hundred twenty-one (51%) were received from Oregon and 117 (49%) were received from Washington. Because the preventive care recommendations were requested based on no ocular or medical complications, all optometrists with ocular or medical conditions were excluded from the analysis. Of the usable surveys returned 148 (62%) optometrists had no medical or ocular conditions noted. This group of respondents became our final sample group for the comparisons to preventive care recommendations.

## Characteristics of Respondents

The final sample group consisted of 89% males and 11% females. The age of the respondents fell into the following categories 35% between twenty and forty years of age, 55% between the age of forty-one and sixty, and 10% were over the age of sixty-one as shown in Table 1.

Age Groups	Number of Respondents in Age Group	Percentage of Respondents in Age Group
Twenty to Forty	50	35%
Forty-one to Sixty	77	55%
Over Sixty	14	10%

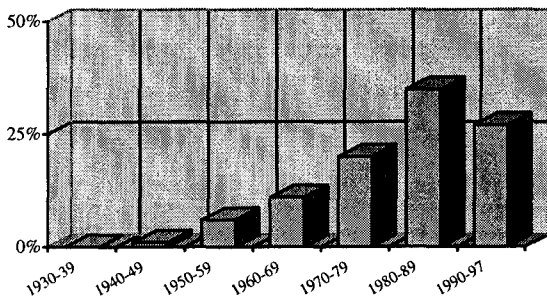
The majority of the respondents graduated from Pacific University College of Optometry (80%) followed by Illinois College of Optometry (5%), Southern California College of Optometry (4%), Pennsylvania College of Optometry and University of California at Berkley (3% each) and the remaining five schools comprise of only 1% each as represented in Table 2.

Table 2  
**Percentage of respondents by school attended**

School Attended	Number of Respondents	Percentage of Respondents
IAU	0	0%
ICO	7	5%
IU	0	0%
MCO	0	0%
NEWENCO	2	2%
NOVA	0	0%
NSU	1	<1%
OSU	0	0%
PCO	4	3%
PUCO	119	80%
SCCO	6	4%
SCO	2	1%
SUNY	1	<1%
UAB	1	<1%
UCB	5	3%
UHCO	0	0%
UM	0	0%
UMSL	0	0%
UW	0	0%

Fig. 1

**Percentage of respondents by graduating year**

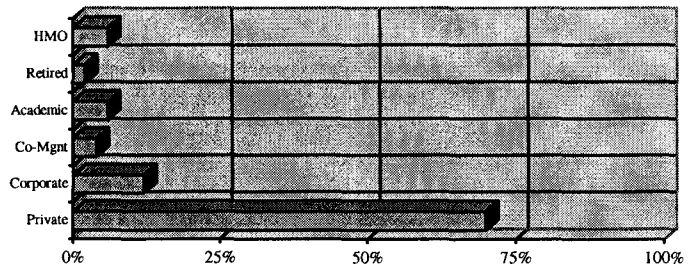


Among the practitioners surveyed, eighty-two percent graduated after 1970. Thirty-five percent graduated between 1980 and 1989, 27% graduated between 1990 and 1997, 20% graduated between 1970 and 1979, and the remaining 18% graduated before 1970 (*Fig. 1*).

More than half of the doctors who responded to the survey are in private practice (70%), 12% are in corporate optometry. HMOs and academic institutions each comprise 6%, of the practicing modes, while co-management settings only involve 4% of the respondents. Two percent of the respondents were retired (*Fig. 2*).

Fig. 2

**Percentage of respondents by mode of practice**





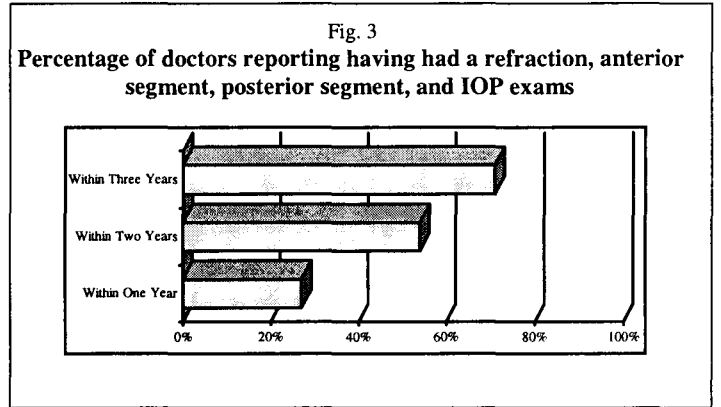
Optometrists Personal Vision Care Utilization

The group data shows that within the past three years 95% of optometrists had refractions, 81% had anterior segment exams, 76% had posterior segment exams, and 89% had intraocular pressure measurements. Table 3 shows annual intervals and the percentage of responding doctors of all ages who have had refractions, anterior segment exams, posterior segment exams, and intraocular pressure readings.

**Table 3**  
**Percentage of doctors, of all ages, who had the following procedures performed**

	Refraction	Anterior Segment	Posterior Segment	Intraocular Pressures
Within One Year	69%	42%	31%	52%
Within Two Years	91%	72%	60%	83%
Within Three Years	95%	81%	76%	89%

Of all doctors surveyed 71% disclosed they had all of the following procedures including a refraction, anterior segment exam, posterior segment exam, and intraocular pressures measured within the past three years, 54% percent within the past two years, and 27% percent within the past year (Fig.3).

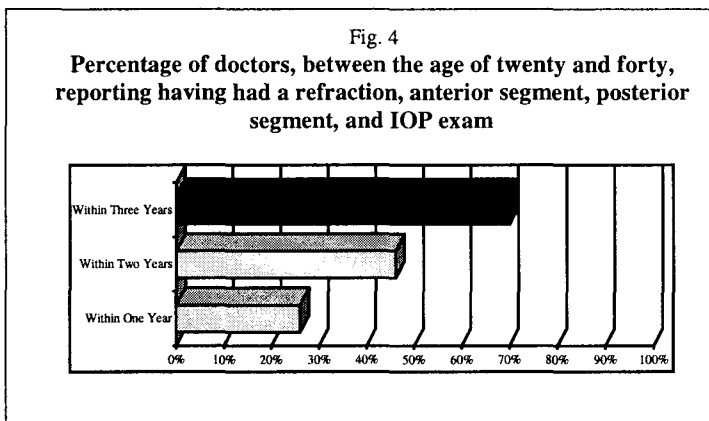


According to the AOA Clinical Practice Guidelines, individuals between the age of twenty and forty with no ocular or medical complications should receive a refraction, anterior segment exam, posterior segment exam, and intraocular check every three years. Of the doctors between the age of twenty and forty, the survey indicated that 86% of the respondents had a refraction, 82% had anterior segment exam, 72% had posterior exam, and 86% had intraocular pressures measured within the past three years (Table 4).

**Table 4**  
**Percentage of doctors, between the age of twenty and forty, who had the following procedures performed**

	Refraction	Anterior Segment	Posterior Segment	Intraocular Pressures
Within One Year	34%	46%	32%	52%
Within Two Years	64%	70%	50%	78%
Within Three Years	86%	82%	72%	86%

Seventy percent of the doctors surveyed, between the age of twenty and forty, have met the AOA guidelines recommendation of having all of the procedures listed performed within the past three years. Almost half of the respondents (46%), between the age of twenty and forty, have had the procedures performed within the last two years (Fig. 4).

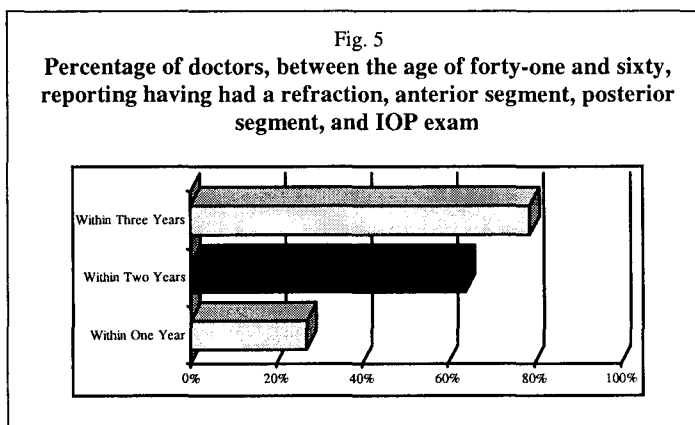


According to the AOA guidelines, individuals between the age of forty-one and sixty, with no ocular or medical complications, should receive a refraction, anterior segment exam, posterior segment exam, and intraocular pressure check every two years. The survey indicates that 94% of the respondents had a refraction, 74% had anterior segment exam, 68% had posterior exam, and 84% had intraocular pressures measured within the past two years (Table 5).

Table 5  
Percentage of doctors, between the age of forty-one and sixty, who had the following procedures performed

	Refraction	Anterior Segment	Posterior Segment	Intraocular Pressures
Within One Year	71%	38%	30%	51%
Within Two Years	94%	74%	68%	84%
Within Three Years	96%	82%	81%	90%

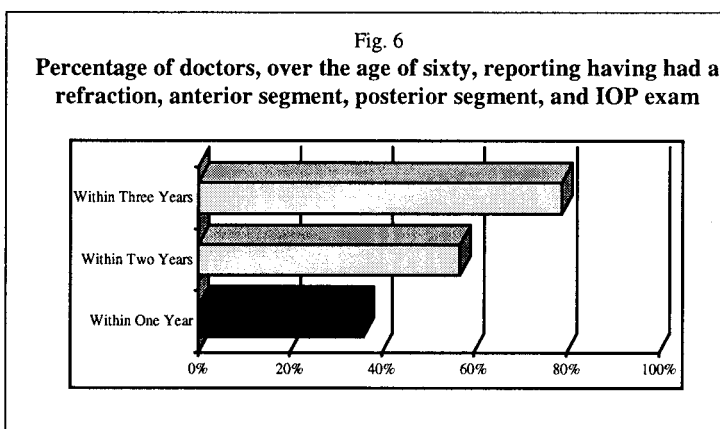
Sixty-four percent of the doctors surveyed, between the age of forty-one and sixty, have met the AOA guidelines recommendation by having all of the procedures listed performed within the past two years (Fig. 5).



According to the AOA guidelines, individuals over the age of sixty, with no ocular or medical complications, should receive a refraction, anterior segment exam, posterior segment exam, and intraocular pressure check annually. The survey indicates that 71% of the respondents had a refraction, 54% had anterior segment exam, 42% had posterior exam, and 62% had intraocular pressures measured within the past year (*Table 6*).

	Refraction	Anterior Segment	Posterior Segment	Intraocular Pressures
<i>Within One Year</i>	71%	54%	42%	62%
<i>Within Two Years</i>	93%	69%	67%	100%
<i>Within Three Years</i>	100%	77%	75%	100%

Thirty-six percent of the doctors surveyed, over the age of sixty, have met the AOA guidelines recommendation by having all of the procedures listed performed within the past year (*Fig. 6*).



### Optometrists preventive recommendations

The survey indicates that for patients, between the age of twenty to forty, ninety-six percent of the doctors surveyed recommended a refraction at least every three years, 95% recommended an anterior segment exam at least every three years, 95% recommended a posterior segment exam at least every three years, and 94% recommended intraocular pressure measurement at least every three years. The three year interval is consistent with the AOA Clinical Practice Guidelines.

With respect to preventive vision care among forty-one to sixty year olds, 90% of the doctors surveyed recommended a refraction every two years, 90% recommended an anterior segment exam every two years, 89% recommended a posterior segment exam every two years, and

89% recommended intraocular pressure measurement every two years. The two year interval is consistent with the AOA guidelines.

For patients over the age of sixty, the survey indicates 35% of the respondents recommended an annual refraction, 40% recommended a annual anterior segment exam, 40% recommended an annual posterior segment exam, and 42% recommended intraocular pressure measurements every year to these patients (*Table 7*). The one year interval is consistent with the AOA Clinical Practice Guidelines.

	Twenty to Forty	Forty-One to Sixty	Over Sixty
<b>Within One Year</b>			
<i>Refraction</i>	5%	15%	35%
<i>Anterior Segment Exam</i>	6%	14%	40%
<i>Posterior Segment Exam</i>	6%	15%	40%
<i>Intraocular Pressures</i>	7%	15%	42%
<i>All Procedures</i>	5%	12%	30%
<b>Within Two Years</b>			
<i>Refraction</i>	71%	90%	98%
<i>Anterior Segment Exam</i>	71%	90%	96%
<i>Posterior Segment Exam</i>	69%	89%	98%
<i>Intraocular Pressures</i>	67%	89%	96%
<i>All Procedures</i>	60%	81%	86%
<b>Within Three Years</b>			
<i>Refraction</i>	96%	100%	100%
<i>Anterior Segment Exam</i>	95%	98%	99%
<i>Posterior Segment Exam</i>	95%	100%	99%
<i>Intraocular Pressures</i>	94%	100%	100%
<i>All Procedures</i>	90%	94%	91%

## *Discussion*

More than half of the younger optometrists are seeking vision care for themselves at intervals consistent with the AOA Guidelines. However, the optometrists over the age of sixty are less successful at meeting the stringent AOA recommendation of an annual exam. A similar trend is noted in optometrists' recommendations to their patients. High percentages of doctors are recommending care intervals consistent with the AOA Guidelines for their twenty to forty year old patients (90%) and for their forty-one to sixty year old patients (81%) than for their patients over the age of sixty (30%). The low frequency of annual exams for the older age group is of concern. Is it a representation of disagreement with the AOA Guidelines, lack of knowledge of the AOA Guidelines, or the influence of external forces, for example insurance benefits or patient expectations? It is likely a combination of all of the above influences.

The data indicate a significant increase in care sought by and recommended for the over sixty age group at the two year interval (86%). It would seem that optometrists are not differentiating a healthy person over the age of sixty from those age forty-one to sixty. All healthy adults are treated the same. The influence of third party payers who designate care intervals by their payment schedules cannot be overlooked. Many insurance companies provide a vision care benefit only every two years.

The research support of the AOA Guidelines clearly defines the benefit of and need for annual exams in the over sixty age group. Optometrists must be diligent in recommending what is medically best for their patients and not be influenced by what will be "covered" by insurance.

It is interesting to note that doctors are recommending refractions, anterior segment exams, posterior segment exams, and intraocular pressure checks at equal frequencies to their patients. This indicates that optometrists are recommending comprehensive vision exams that includes all of these procedures.

Interestingly, there is much more variation in the frequency of the doctors having each of the procedures. In all age groups refraction is the most common procedure and posterior segment evaluation is the least. This indicates that optometrists are likely receiving "spot checks" rather than the more comprehensive exam they recommend to their patients.

The strengths of the survey include its comprehensive and accurate sampling frame, the sample size, the relatively high response rate, and the comprehensive exploration of the data. Its weaknesses include the regional sample that may suggest possible bias associated with differential response. Our analysis was to accurately compare the optometric care sought and recommended by optometrists to the published *AOA Clinical Practice Guidelines for the Comprehensive Adult Eye and Vision Examination*. We concentrated on the four main areas of refraction, anterior segment examination, posterior segment examination, and intraocular pressure measurement. We purposely did not mention the AOA's Clinical Practice Guidelines in the survey so that the optometrist would not be prejudice in any way as to how they responded to the survey. Given that the explicit purpose of guidelines is to use them as a source of information for decision making could compromise their impact. It is also possible that optometrists are not exposed to these

particular guidelines as often as other information sources and that ways of disseminating these guidelines are relatively underdeveloped.

## *Conclusion*

Most optometrists' personal eye care is consistent with *the AOA Optometric Clinical Practice Guidelines*. Most optometrists are recommending to their patients care intervals that are consistent with these guidelines. However, optometrists over the age of sixty are not seeking the standard of vision care recommended by the AOA guidelines and optometrists of all ages are not recommending the AOA guidelines to their patients over the age of sixty. We would recommend that all optometrists be educated as to the reason for the frequency of optometric examinations for themselves as well as for their patients over the age of sixty. These guidelines are a convenient source of advice and good educational tools and are likely to succeed in their goal of improving quality of care. The challenge is to develop strategies that will influence optometrists to read, remember, and utilize the clinical practice guidelines.

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## Additional Reading

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4. Soroka M, Barresi B, Oliver G, Perry C. Guideline Development Process for Optometric Care of the Patient with Diabetes Mellitus *J Am Optom Assoc* 1994;65:573-577.
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Please circle your responses to the questions below or fill in information as required:

Age: 20-40    40-60    >60		Sex: M    F		Year of Graduation: 19 _____		
<b>School Attended:</b>						
IAU	ICO	IU	MCO	NEWENCO	NOVA	NSU
OSU	PCO	PUCO	SCCO	SCO	SUNY	UAB
UCB	UHCO	UM	UMSL	UW		
<b>Primary Practice Location:</b>		OR    WA				
<b>Primary Mode of Practice:</b>		Private	Corporate	Co.-Mgmt Center	Academic	Military
		Retired	HMO			
<b>Are there any other practitioners in your office or clinic?</b>						
Yes    No		If yes, please indicate the number of OD's _____ MD's _____				
<b>Please circle any of the following conditions for which you are under medical care:</b>						
Cardiac Problems		Thyroid Problems		Respiratory Problems		Diabetes
Hypertension		Arthritis		Cancer		Other _____
<b>Please circle any of the following ocular conditions with which you have been diagnosed:</b>						
High Myopia (>4D)		Glaucoma		Cataracts		Strabismus
Retinopathy		Keratoconus		ARMD		Other _____

<b>Approximately how long ago was your most recent..</b>						
Refraction	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Anterior Segment Exam	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Posterior Segment Exam	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Dilated Fundus Exam	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Intraocular Pressure Meas.	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Automated Visual Fields	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
Blood Pressure	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

(over)

At what intervals do you recommend the following to be performed as a preventative basis for your patients? (Assume no medical or ocular complications):

<b>Refraction:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Anterior Segment Exam:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Posterior Segment Exam:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Dilated Fundus Exam:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Intraocular Pressure Measurement:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Automated Visual Fields:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

<b>Blood Pressure:</b>							
Age	20-40	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	40-60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.
	> 60	≤6 mo.	>6 mo. - 1 yr.	>1 - 2 yrs.	>2 - 3 yrs.	>3 - 5 yrs.	>5 yrs.

# Appendix B



January 21, 1998

Renee Allison  
929 NW Garden Valley  
Roseburg OR 97470

Dear Dr. Allison

It is a common belief that a patient's overall satisfaction is the summation of their eye care visit as well as the patient's perception of the optometrist. A patient's perception of an optometrist's attitude toward the optometrist's personal vision care may affect the patient's trust in the doctor.

Do you, a Doctor of Optometry and a primary health care provider, follow the recommended standard of care as a patient?

The purpose of this survey is to consider that question. The data acquired from this survey will be analyzed and will form the basis of our Doctoral thesis at Pacific University College of Optometry.

A survey consisting of fifteen questions and requiring five to ten minutes to complete is enclosed along with a self-addressed return envelope. **Please return the completed survey by February 4, 1998.**

All surveys will be kept confidential. Your complete and accurate responses will enable us to produce credible data for the analysis of optometrists' habits of personal vision care. We greatly appreciate your contribution to this project.

Sincerely,

Melissa M. Bell

Douglas J. Walker

Suzanne D. Scott, O.D.