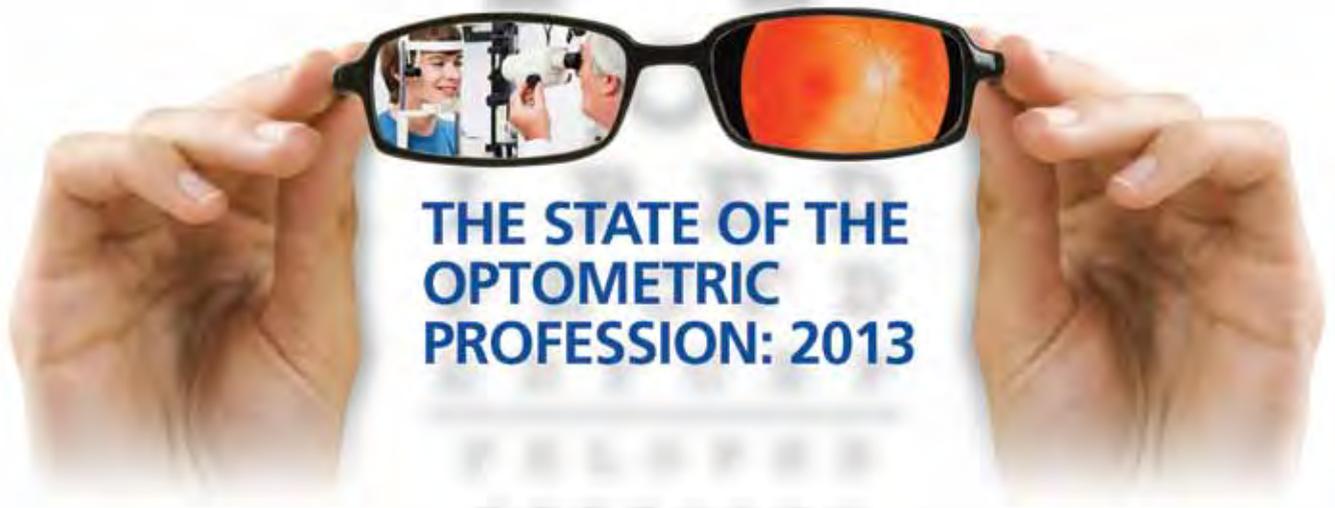


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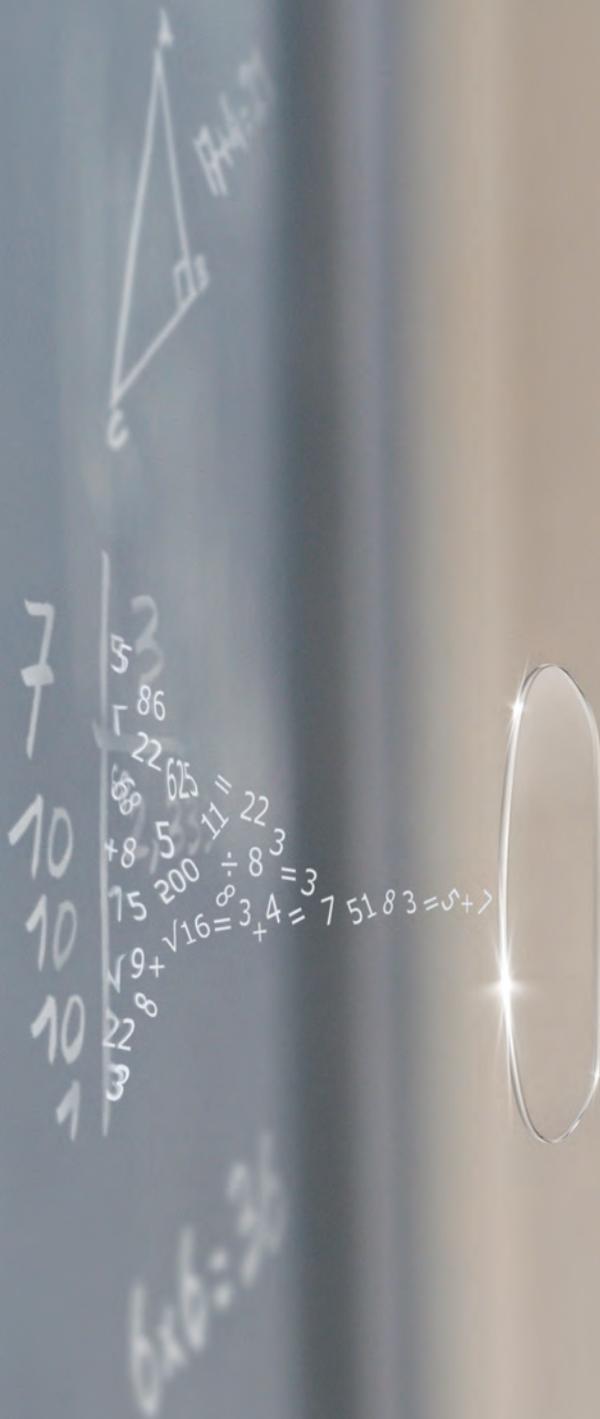


**THE STATE OF THE
OPTOMETRIC
PROFESSION: 2013**

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INTRODUCTION

In preparation for Optometry's Meeting 2013, the American Optometric Association commissioned Jobson Medical Information to review the current status of optometry in the delivery of eyecare to the American public, using all available information resources including AOA's extensive surveys. The analysis encompasses ODs working in all practice settings, including independent practices, corporate affiliated offices, other medical offices and institutions. It considers current trends among eyecare providers and assesses future conditions that will shape optometry's role in vision care.

The analysis is divided into six sections:

- **OUTPUT** Optometry's current annual production – the output of products and services that quantifies ODs' market position.
- **SUPPLY** The supply of eyecare providers that currently exists and will evolve over the next decade.
- **DEMAND** A forecast of patient demand for eyecare over the next decade for each major revenue category.
- **GOVERNMENT** Anticipated changes in government regulation that will affect ODs' scope of practice.
- **PAYERS** Changes anticipated in reimbursements to ODs by third-party payers, as a result of federal health care legislation.
- **TECHNOLOGY** How new diagnostic and information technology is reshaping daily operations in OD practices.

Beyond a description of the eyecare market, the analysis identifies actionable, strategic priorities that ODs must embrace to seize the opportunities in the emerging vision care environment. Thus the report is designed to guide ODs as they develop business plans and establish priorities among development initiatives.

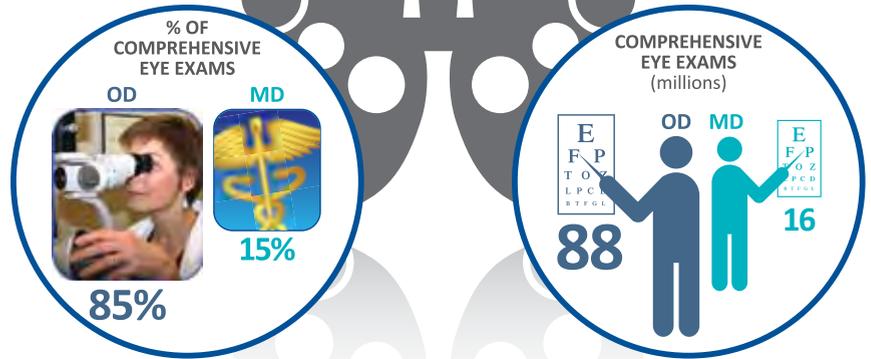


An overwhelming majority of Americans rely on optometrists for primary eyecare. ODs perform an estimated 88 million refractive eye exams annually of the total of 104 million performed by all eyecare professionals, or 85 percent of all comprehensive eye exams. ODs prescribe at least 90 percent of vision correction devices. Optometry's commanding share of the primary eyecare market has steadily increased, as the number of the number of practicing ODs has grown by 1.8 percent annually and the number of practicing ophthalmologists has been stable.

Comprehensive eye exams and sales of corrective devices are the principal sources of OD revenue, typically accounting for 80 percent or more of collected billings among independent practice ODs. Despite ODs' large

annual output of primary eyecare, most ODs have not maximized the frequency of patient visits by achieving high patient compliance with a yearly eye exam regimen. It's estimated that the 198 million people who use vision correction devices receive just 94 million exams annually, equivalent to one exam every 25 months. This occurs even as ODs encourage most patients to have yearly eye exams. If ODs were to reduce the average interval between eye exams from 25 months to 18 months, ODs would perform an additional 34 million eye exams annually, a 39 percent increase.

OD Share of Comprehensive Eye Exams: 2012



Source: PAA estimates
 Note: OD exams include those performed by ODs working in ophthalmology practices.

FREQUENCY OF EYE EXAMS: 2012

VISION CORRECTION POPULATION	198 million
EXAMS PERFORMED FOR VISION CORRECTION POPULATION	94 million
AVERAGE INTERVAL BETWEEN EXAMS	25 months

Source: Vision Watch, PAA estimates

As ODs' scope of practice has broadened, medical eyecare services have become a larger source of OD revenue. Of the 97 million patient visits to offices owned by ODs in 2012, including both independent practice and corporate affiliated offices, nearly 18 million were for medical eyecare services.

Medical eyecare services performed by ODs include monitoring of ocular complications

MEDICAL EYECARE SERVICES HAVE BECOME A LARGER SOURCE OF OD REVENUE, BUT MOST ODs HAVE NOT FULLY DEVELOPED THIS REVENUE SOURCE.



Source: PAA estimates
 Note: Excludes visits to ODs in ophthalmology practices. Excludes follow-up visits related to vision correction devices.

from diabetes and treatment of ocular infection, dry eye, ocular allergies and glaucoma. In the median independent practice OD office, medical eyecare accounts for 17 percent of total patient visits and 17 percent of revenue. Corporate affiliated ODs are somewhat less active in providing medical eye care services than are ODs working in independent practices. It's estimated that 80-85 percent of ODs have some level of involvement with medical eyecare, but in less than 25 percent of practices is this a major source of income. A majority of OD practices have not fully developed this revenue source.

Independent practice ODs dispense 26.5 million pairs of eyeglasses annually, representing 32 percent of total units sold. Commercial providers, primarily optical chains, command a 54 percent market share of eyewear units dispensed. In recent years, independent practice ODs' share of U.S. eyewear revenue has slowly increased.

PRESCRIPTION EYEGLASS UNIT SALES BY CHANNEL: 2012		
	UNIT SALES	%
CORPORATE PROVIDERS (Optical chains, institutions)	44.7	54%
INDEPENDENT PRACTICE ODS	26.5	32%
OPHTHALMOLOGISTS	8.0	10%
INDEPENDENT OPTICIANS	3.3	4%
TOTAL	82.5	100%

Source: Vision Watch, PAA estimates

Because ODs in independent practice settings perform 44 percent of the refractive exams, it's apparent that a significant number of patients of independent practice ODs choose to buy eyewear from commercial providers. It's estimated that independent practice ODs capture just 73 percent of the eyewear purchases of their patients. The walkout represents an annual loss of sales of 9.8 million pairs, with a retail value of \$2.2 billion.

INDEPENDENT PRACTICE OD EYEWEAR CAPTURE RATE	
SHARE OF U.S. EYEWEAR UNIT SALES	32%
<i>divided by</i>	
SHARE OF EYE EXAMS	44%
<i>equals</i>	
EYEWEAR CAPTURE RATE	73% → Walkout of 9.8 million pairs with retail value of \$2.2 billion

ODs' dominance of contact lens dispensing is greater than their dominance of eyewear dispensing. It's estimated that ODs account for nearly 90 percent of the contact lens prescriptions written annually. In part this is because the average age of the patient population in OD offices is typically lower than in ophthalmologist offices, and the average age of contact lens wearers is lower. Independent practice ODs sell nearly half of contact lens units.

Contact lenses have accounted for a steadily increasing share of OD revenue since the 1970s. Contact lens penetration in the U.S. continues to increase and is currently estimated to be 16.1 percent of U.S. adults. Contact lens exams account for 27 percent of the refractive exams performed by ODs.

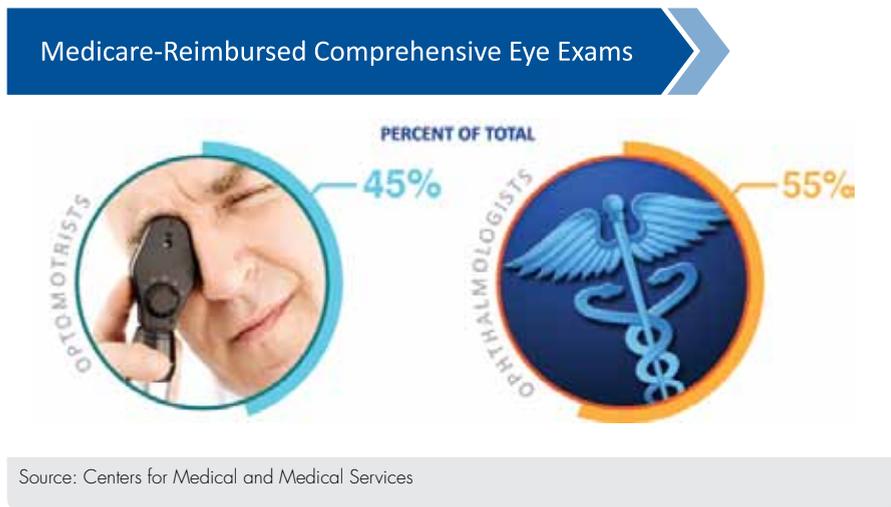
CONTACT LENS USAGE BY U.S. ADULTS		
	% OF ADULTS WEARING CONTACT LENSES	ADULT CONTACT LENS WEARERS (million)
2001	13.1%	27.4
2006	15.4%	34.7
2012	16.1%	38.6

Source: Vision Watch

As with eye exams, medical eyecare and eyewear dispensing, ODs do not realize the full revenue potential of their contact lens wearer bases. Typically, 20 percent of contact lens purchases of patients of independent practice ODs are made with optical chain and Internet sellers. ODs also achieve a relatively low level of patient compliance with lens replacement recommendations, resulting in sub-optimal annual consumption of lenses.

Over the past 10 years, ODs performed an increasing share of the comprehensive eye exams reimbursed by Medicare, reflecting the increased numbers of ODs available to serve the public, relative to the number of ophthalmologists.

ODS PERFORM AN INCREASING SHARE OF THE COMPREHENSIVE EYE EXAMS REIMBURSED BY MEDICARE



ACTIONABLE STRATEGY IMPERATIVES

This overview of ODs’ output and competitive situation identifies several priorities for ODs to improve office processes to increase market share:

- Improve recall processes.** Many ODs invest too few resources to patient recall, ceding control over the timing of exam visits to patients. Less than half of OD independent practices and fewer than 20 percent of corporate affiliated practices pre-appoint patients. Independent practice ODs spend a median of less than \$1 on recall activities for each exam performed. Only half of practices have a staff member assigned responsibility for recall. The result is a longer than desired average interval between exams, weaker patient loyalty and lost revenue. Every practice requires a rigorous recall process.
- Upgrade eyewear purchase experience.** Independent practice ODs experience lower than desired capture rates of patient eyewear purchases, largely because they devote too little management attention to eyewear merchandising. Optical chains have a competitive advantage in eyewear merchandising, which independent practice ODs must work to minimize, if they desire to preserve this revenue source.
- Broaden scope of practice.** There are many benefits that accrue to ODs who operate at the full scope of practice authorized by their licensing state. Providing a broader range of vision and eye health services to patients is an effective practice growth strategy with major potential to expand revenue.

SUPPLY

Number of practicing ODs will grow faster than vision care demand but more slowly than demand for medical eyecare

(The AOA is currently conducting a major workforce study, which is slated for publication in late 2013. The estimates and projections of practicing eyecare professionals in this section are derived from other industry sources including professional associations, manufacturers and publishers. The broad conclusions reached in the current assessment of provider supply are likely to be similar to the workforce study. However, the AOA study will address more issues of supply and demand market conditions.)

The current supply of practicing eyecare professionals is fully adequate to satisfy Americans' demand for vision care. During 2012, there were 58,000 eyecare professionals licensed to perform comprehensive eye exams and in practice in the U.S., including approximately 40,000 ODs and 18,000 ophthalmologists. They serve a vision correction population totaling 202 million, as well as millions of other patients requiring therapeutic and surgical services. There is currently one licensed eyecare professional for every 3,500 people using vision correction. Inasmuch as people requiring correction account for the vast majority of eye doctor visits and visit eye doctors infrequently, current demand for eyecare services is well satisfied by the current base of practicing professionals.

The 40,000 ODs in the U.S. practice in many settings. Fully 57 percent have a primary practice in an independent practice owned by an OD. Another 24 percent have a primary setting as an affiliate of a retail optical chain, either as a franchisee, independent contractor or employee. Further, 8 percent practice in ophthalmology offices. The remaining 11 percent of ODs practice in government and other institutional settings.

U.S. EYE CARE PROFESSIONALS: 2012

	NUMBER IN PRACTICE
OPTOMETRISTS	40,000
OPHTHALMOLOGISTS	18,000
TOTAL	58,000

Source: Jobson Medical Information estimates

ODS BY PRIMARY PRACTICE SETTING

	NUMBER	%
INDEPENDENT PRACTICE	22,800	57%
OPTICAL CHAIN AFFILIATION	9,600	24%
OPHTHALMOLOGY PRACTICE	3,300	8%
OTHER MEDICAL	2,000	5%
GOVERNMENT	1,900	5%
OTHER	400	1%
TOTAL	40,000	

Source: AOA

Over the long term, there has been consolidation of OD independent practices in the U.S. AOA surveys do not yield a precise number of OD independent practice business entities, but it is estimated that there are currently 14,000-16,000 OD businesses with no corporate or institutional affiliation. Economics favor continuing consolidation. ODs in independent practices with two or more ODs earn higher net income than ODs operating alone. Larger practices enjoy efficiencies in staff, space and equipment utilization. They have greater buying power. Management hours can be spread across a larger revenue base. Larger practices are able to offer longer business hours – an important patient convenience.

Available information suggests that the number of practicing optometrists will grow approximately 2 percent annually through 2020 and reach 46,300 in that year. The net increase will occur as an average of approximately 1,550 ODs graduate and enter practice annually and about 750 ODs retire. Over the same time period, the number of practicing ophthalmologists is expected to be stable. At the end of 2012, ODs accounted for 69 percent of eyecare professionals in practice; by 2020 they will account for 72 percent.

EYECARE PROFESSIONALS: 2012-2022

	2012 NUMBER	2022 NUMBER	NET CHANGE
Optometrists	40,000	46,300	+6,300
Ophthalmologists	18,000	18,000	No change
Total	58,000	64,300	+6,300

Source: Jobson Medical Information estimates

Jobson projects that the number of practicing eye care professionals will grow 11 percent (CAGR = +1.5 percent) through 2020. Over the same period, the U.S. vision correction population is expected to grow by just 8 percent (CAGR = +0.9 percent). These projections suggest that there will be a more than adequate supply of eyecare providers for routine vision care services in the U.S., although local shortages may exist. The projection suggests it is unlikely that MDs will grow more active in dispensing corrective devices, because the static number of MD hours available will be needed to satisfy the rapidly growing demand for treatment of ocular disease and refractive surgeries. Also, the flat supply of ophthalmologists creates a substantial opportunity for optometrists to expand provision of medical eyecare.

Over the next 10 years, 65 percent of new ODs entering practice will be women and 90 percent of retiring ODs will be men. This will change the gender ratio of practicing ODs, a trend that has been developing over several decades. Currently the male/female split among practicing ODs is 61/39 percent. In 2022 it is likely to be 48/52 percent.

GENDER OF PRACTICING ODS: 2012-2022

	MALE	FEMALE
2012	61%	39%
2020	49%	51%

Source: Jobson Medical Information estimates

Among OD students who will graduate in 2014, some 80 percent will enter practice with \$100,000 or more of student loan debt, which will impact their career decisions. Most graduating ODs aspire to work in independent OD practices and to be self-employed, even as many recognize this is not a realistic near term goal. Given the job opportunities likely to be available over the next decade, many more graduating ODs will be corporate affiliated than currently plan to pursue this career path.

Non-OD staff members working in OD offices represent an important eyecare supply component, inasmuch as staff performs a host of clinical, dispensing and administrative duties to deliver eye care to the population. Based on AOA surveys, it is estimated that OD independent practices currently employ 80,000 staff members. An additional 24,000 people work in corporate affiliated OD offices, including those compensated by the optical chain hosts.

Management & Business Academy analyses reveal that among larger OD independent practices a higher ratio of staff hours to OD hours worked exists, indicative of a higher level of delegation of routine clinical and administrative tasks. The continuing consolidation of OD independent practices is increasing the ratio of staff hours to OD hours in independent OD practices overall.

A consequence of the more than adequate supply of ODs in the U.S. will be that many individual ODs will feel pressure to find new revenue sources.

GRADUATING OD CAREER ASPIRATIONS

Immediately after graduation:

- 65 percent expect to work in an independent OD practice
- 9 percent expect to be affiliated with a retail optical chain
- 48 percent expect to be self-employed

Five years after graduation:

- 84 percent expect to work in an independent OD practice
- 1 percent expect to be affiliated with a retail optical chain
- 81 percent expect to be self-employed

Source: AOA 2013 Student Survey

NON-OD STAFF HOURS PER OD HOUR IN OD INDEPENDENT PRACTICES (MEDIAN)

3.9	2.4	3.1	3.8	3.8	4.4	4.1	4.3	4.1	4.2	4.5
MBA MEDIAN	\$356	\$580	\$698	\$823	\$947	\$1,106	\$1,300	\$1,532	\$1,852	\$2,950
ANNUAL GROSS REVENUE (\$000)										

Source: Management & Business Academy

Despite an increasing proportion of patients enrolled in vision and medical insurance plans offering vision benefits, there has been no increase in annual per capita utilization of OD services over the past 15 years. AOA member surveys show that the average number of comprehensive eye exams ODs perform per hour has not changed and is just 1.1 per hour. Surveys conducted by the Management & Business Academy reveal a similar benchmark, but show that highly productive practices achieve exam per OD ratio of 1.5 or more. This supports a conclusion that many ODs have capacity to see additional patients for either vision or medical eyecare.

ACTIONABLE STRATEGY IMPERATIVES

This overview of the OD supply situation identifies several priorities for ODs to respond to in a business environment with increased numbers of eyecare providers:

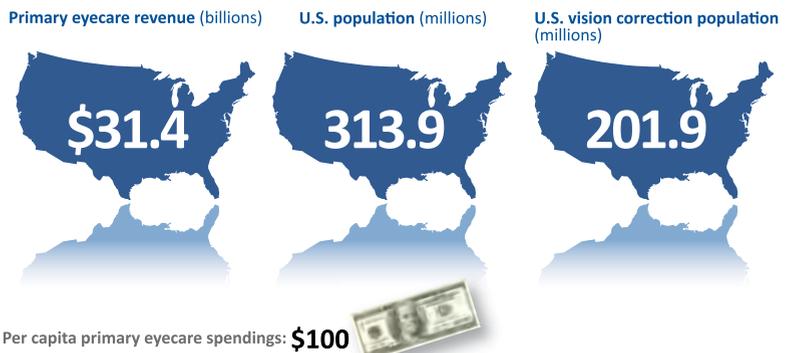
- **Differentiate the practice value proposition.** With a more than adequate supply of ODs to satisfy primary eyecare demand, prosperity will flow to providers who successfully differentiate their services from competitors and fill in gap in access to medical eyecare created by lack of growth in supply of ophthalmologists. For independent ODs, a patient loyalty strategy, based on providing highly personalized care, is likely to be an effective differentiator.
- **Increase hourly production.** A plentiful supply of ODs will aggravate the current situation in which available OD hours are underutilized in many practices. To prosper, ODs can focus on achieving high hourly productivity through maximum delegation to staff and more disciplined patient flow management.

DEMAND

Optometry's largest opportunity is to increase eyecare demand among existing patients, expanding care to elderly and other populations at risk to treatable eye diseases

Primary eyecare is a huge market in which a majority of Americans participate. Currently it is estimated that more than 200 million Americans wear some type of vision correction device – nearly 65 percent of the total U.S. population. This vast audience drives demand for primary eyecare services, which includes refractive eye exams and device sales but excludes refractive surgery and medical eyecare. In 2012 the primary eyecare market was estimated to total \$31.4 billion. This represented per capita spending of \$100 for primary eyecare. By comparison, per capita spending for dental care is estimated by be \$269 annually.

U.S. Primary Eyecare Market: 2012



Note: Primary eyecare includes refractive eye exams and vision correction device sales. It excludes plano sunglass sales, cataract and refractive surgery and medical eyecare.

Source: Vision Watch, PAA estimates, U.S. Census Bureau

The broad penetration of vision correction devices in the U.S. population makes the primary eyecare market large. But the growth rate of the market is not robust. Over the past decade, as the U.S. population expanded 0.9 percent annually, the vision correction population grew at the same rate. Most people who could benefit from vision correction devices currently wear them. Over the past decade, primary eyecare spending per capita increased 0.7 percent annually. This reflects a slow rise in the average eyecare spending among consumers. But the growth rate in eyecare spending was much lower than total consumer expenditures for health care, which grew 4.4 percent annually over the same time period. The combination of slow population growth and relatively stable per capita spending caused the primary eye care market to advance just 1.6 percent annually since 2001.

U.S. PRIMARY EYECARE MARKET GROWTH: 2001-2012			
	2001	2012	2001-2012 CAGR
U.S. POPULATION (million)	285.1	313.9	0.88%
VISION CORRECTION POPULATION (million)	182.8	201.9	0.91%
PRIMARY EYECARE MARKET (\$ billion)	\$26.4	\$31.4	1.61%
PER CAPITA PRIMARY EYECARE SPENDING	\$92.60	\$100.03	0.70%
PER CAPITA HEALTH CARE SPENDING*	\$844	\$1,361	4.44%

Source: Vision Watch, PAA estimates, U.S. Census Bureau, U.S. Bureau of Labor Statistics
 *Consumer spending only. Excludes employer contributions to medical insurance premiums and government assistance.

New refractive surgery technologies have not revolutionized vision correction as some early pundits had predicted. Most of the vision correction population remains reluctant to undergo a refractive surgical procedure. Since 1996, it is estimated that 13 million Americans have had refractive surgery – 4 percent of the total population and 6 percent of the current vision correction population. Currently about 1 million people a year are undergoing initial refractive surgery.

For the first five years after having surgery, 60 percent of patients stop buying vision correction devices but continue to have eye exams with the same frequency as the general population. This means that about 582,000 people a year are dropping out of the vision correction population as a result of having surgery – a minor depressant on primary eyecare demand, with a modest long term effect.

REFRACTIVE SURGERY IMPACT ON PRIMARY EYECARE MARKET	
Cumulative number of Americans undergoing a refractive surgery procedure	13 million
2012 initial refractive surgery patients	970,490
Annual number of surgery patients who stop purchasing vision correction devices	582,000

Source: Vision Watch, PAA estimates

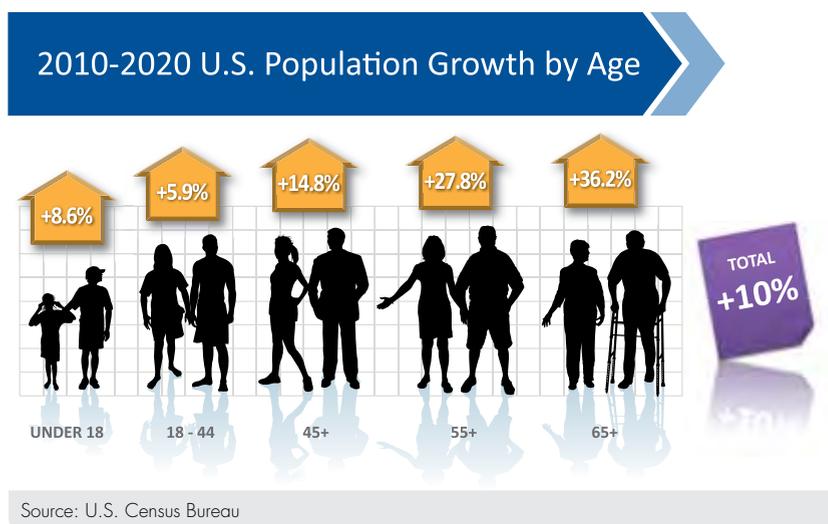
There is no basis to project a stronger growth in primary eyecare demand over the next decade than has occurred in the recent past. The vision correction population is projected to grow 0.9 percent annually as will the number of refractive eye exams. Through 2020 it is projected that sales of vision correction devices will increase 1.6 percent annually, including 0.7 percent annual growth in eyewear sales and 5.0 percent growth in contact lens sales.

U.S. PRIMARY EYECARE MARKET PROJECTION: 2012-2020

	2012	2020	CAGR
U.S. POPULATION (million)	313.9	341.4	1.06%
VISION CORRECTION POPULATION (million)	201.9	217.1	0.91%
TOTAL CORRECTIVE DEVICE SALES (\$ million)	\$23,626	\$26,813	+1.6
EYEWEAR SALES (\$ million)	\$19,226	\$20,313	+0.7%
CONTACT LENS SALES (\$ million)	\$4,400	\$6,500	+5.0%

Source: Vision Watch, PAA estimates, U.S. Census Bureau

Although demand for corrective devices is likely to be sluggish over the next decade, demand for therapeutic eyecare services will increase more rapidly as the large Baby Boom generation ages. The Census Bureau projects that the population over 55 years of age will increase by 28 percent between 2010 and 2020, as the total population grows by 10 percent. This generational bulge in the older population will result in two percent annual increases in the number of patients with diabetes, cataracts, glaucoma, macular degeneration and other age-related ocular conditions.



The size of the eyecare market is ultimately rooted in the incidence of ocular conditions among different age groups and in household incomes and spending priorities. From one perspective, eyecare providers compete with every other product and service category for a share of consumer spending. In the affluent American society, most households have discretionary income and are free to decide how to allocate available funds among spending priorities. As consumers make spending decisions, they make personal judgments about the relative value of different options. Through education, eyecare professionals can influence patients' value perceptions of eyecare goods and services and can expand demand for primary eyecare among patients at a much faster rate than the overall market has grown in the recent past.

U.S. POPULATION WITH OCULAR CONDITIONS: 2000-2020

	2000	2010	(million) 2020	2010-2020 CAGR
CATARACTS	20.48	24.41	30.52	+2.3%
DIABETIC RETINOPATHY	4.06	7.69	9.21	+1.8%
OPEN ANGLE GLAUCOMA	2.23	2.72	3.26	+1.8%
AGE-RELATED MACULAR DEGENERATION	1.65	2.07	2.48	+1.8%

Source: 2000-2010 estimates from Prevent Blindness America. PAA projection to 2020 assumes disease incidence by age group will remain constant. For diabetic retinopathy, it is likely the incidence of the disease will increase, and this projection understates the population with the condition in 2020.

Optometric practices which are effective educators are able to realize significantly higher revenue per patient visit. For example, data collected by the Management & Business Academy show that the median independent OD practice collects \$306 for each comprehensive eye exam performed, including both professional fees and product sales. Among the 20 percent of practices achieving the highest revenue per exam, the average is greater than \$400. The median OD practice receives an average of \$227 per eyewear sale. The average eyewear sale among the top performing 20 percent of practices is over \$300. The average months elapsed between patient eye exams for all eye care professionals is 25 months, but some practices reduce this to 18 months.

INDEPENDENT OD DEMAND PER PATIENT			
	Actual	Potential	Actual % of Potential
AVERAGE REVENUE PER COMPLETE EXAM	\$306	\$400	77%
AVERAGE EYEWEAR SALE	\$227	\$300	76%
AVERAGE ANNUAL CONTACT LENS SALES PER CONTACT LENS EXAM	\$152	\$240	63%
AVERAGE MONTHS ELAPSED BETWEEN EYE EXAMS	25	18	72%

Source: Management & Business Academy

The Affordable Care Act of 2010, which will begin to be implemented in 2014, will increase demand for vision care services by increasing the number of people with medical insurance coverage, which includes vision benefits for children. By 2020, the number of Medicare beneficiaries will increase by 10 million. Over the next few years, the number of people eligible for Medicaid benefits will increase by 17 million people, including nearly 4 million youth whose primary vision care will be covered. And the number of people enrolled by medical insurance plans will increase by 11 million.

ACTIONABLE STRATEGY IMPERATIVES

This overview of demand for eyecare identifies several priorities for ODs to increase patient demand for vision care products and services:

- IMPROVE PATIENT EDUCATION TO INCREASE CONSUMPTION OF EYECARE GOODS AND SERVICES.** Demographic and consumer spending trends will produce only modest growth in primary eyecare demand in the years ahead. Apart from expanding medical eyecare services, the greatest growth potential for ODs is to educate patients about the benefits of regular eye exams and of new eyewear and contact lens technologies.
- MARKET MEDICAL EYECARE SERVICES.** Medical eyecare is the largest undeveloped revenue opportunity in many OD practices, particularly among ODs in independent practice who already offer services. To capture the potential, every office needs a process to identify candidates for diagnosis and treatment and to make these patients aware of the range of services available. Many OD offices are capable of more than doubling current medical eyecare revenue.
- CAPTURE NEW DEMAND FROM EXPANDED POPULATION WITH EYECARE BENEFITS.** Expansion in the number of patients enrolled in government and independent health insurance programs will not automatically translate to growth of an OD's patient base or in increased patient visits. ODs must become accredited to gain access to newly covered patients and must adopt technology to comply with insurer reporting requirements. ODs must also educate existing patients, who may not be aware of their eligibility for expanded benefits.

The scope of optometric practice has grown steadily over the past century. Major milestones in the advance of optometry's scope of service include:

- **1897** first bill introduced to license optometrists in New York
- **1901** first law licensing optometrists enacted in Minnesota
- **1921** last state law licensing optometrists enacted in Texas (D.C. enacted in 1924)
- **1923** Pennsylvania College of Optometry awarded first Doctor of Optometry degree
- **1971** first state law allowing use of diagnostic drugs enacted in Rhode Island
- **1976** first state law allowing Rx of legend drugs enacted in West Virginia (and on a veto override!)
- **1976** first state law authorizing Tx of glaucoma enacted in West Virginia
- **1977** first state law authorizing Rx of oral drugs enacted in North Carolina
- **1997** last state law authorizing Rx of legend drugs enacted in Massachusetts (D.C. in 1998)
- **1998** authority to use therapeutic lasers enacted in Oklahoma
- **2011** Kentucky legislature becomes the first state to repeal a statutory prohibition on the performance of surgery by optometrists and the second state to authorize the use of therapeutic lasers

Building on 45 years of success, the state association affiliates and AOA remain active with scope-expansion activities and by educating legislators, both at the state and national level, about how optometrists are able to provide high-quality, cost-effective eye health and vision care. The AOA is optimistic that state governments will continue to approve expansion of OD scope of practice in the future, as the supply of ophthalmologists fails to expand at the pace of demand for medical eyecare services, as the number of primary care physicians declines and as pressure mounts to contain growth in health care costs.

As a result of AOA legislative activity, in February 2013, the U.S. Department of Health and Human Services announced final regulations that define an essential pediatric vision benefit as a yearly eye exam and materials. Millions of youth who will become eligible for Medicaid benefits in 2014 and whose families enroll in new small group and individual health plans, as a result of the Affordable Care Act of 2010, will have increased access to OD offices to take advantage of these benefits.

Currently, the state affiliates and the AOA are working together to assure that medical eyecare services provided by ODs are included as primary benefits in state regulated insurance health plan offerings.

Equally important are state laws that address access, reimbursement, and non discrimination. Many states have strong laws in this area, and the AOA will continue to support this type of patient-centered legislation. An example can be found in Texas where a new law will prohibit insurers from contractually obligating ODs to discount products and services not covered by health plans.

OD STRATEGY IMPERATIVES

To enable continued expansion of ODs' scope of practice, it is critical that ODs:

- **MAINTAIN A STRONG STATE ASSOCIATION AND A STRONG AOA.** Optometrists are the only professionals advocating for optometry and our patients. It is imperative that we maintain strong state and national advocacy efforts and that starts with membership. There is no better return on investment than seeing your dues dollars used to protect and expand patient access to optometrists.
- **THE PURSUIT OF LIFE LONG LEARNING.** Only through pursuing a commitment to life long learning will ODs be able to offer the broadest scope of services to patients, as allowed by law.

PAYERS

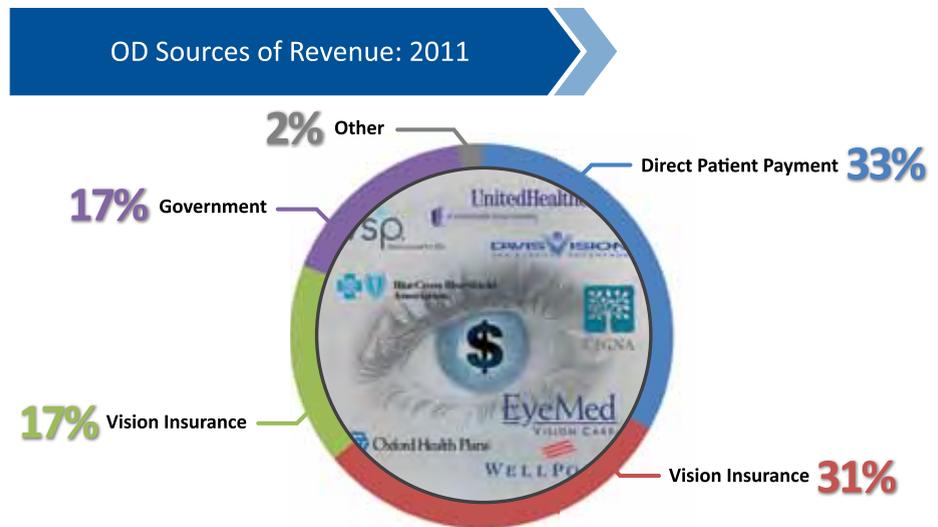
Third-party reimbursement accounts form a growing share of OD revenue

Over the past several decades, ODs have become increasingly dependent on third-party revenue sources, as direct patient payments produce a steadily declining share of revenue in most practices. As a result, ODs have lost much of the latitude they formerly exercised in setting fees for services.

For 2011, ODs reported that two-thirds of revenue comes from third-party payers and one third from direct patient payments. Only a very small minority of practices does not accept managed care patients. Reimbursements from vision insurance

plans accounted for 31 percent of revenue in 2011, private medical insurers for 17 percent, and government reimbursements for an additional 17 percent. A Jobson survey indicated that 48 percent of U.S. adults were enrolled in vision plans during 2012.

ODs estimate that they discounted 61 percent of the eye exams they performed in 2011, as part of a managed care benefit program. In 1999, less than half of exams were discounted. In 2011, ODs discounted 54 percent of eyewear purchases and 39 percent of contact lens purchases, under a managed care program.



Source: AOA 2012 Survey of Optometric Practice

% OF PATIENTS RECEIVING THIRD-PARTY DISCOUNTED SERVICES: 1999-2011

	1999	2011
EYE EXAMS	48%	61%
EYEWEAR	40%	54%
CONTACT LENSES	23%	39%

Source: AOA 2012 Survey of Optometric Practice, 2000 Third-Party/Managed Care Survey

Nearly all independent practice ODs accept Medicare reimbursement. Some 88 percent of ODs are accredited by one or more medical insurance plans, and 93 percent are accredited by vision plans.

OD INSURANCE PLAN ACCREDITATION: 2011

	% OF ODS ACCREDITED	MEDIAN PLANS ACCREDITED
MEDICAL INSURANCE	88%	7
VISION INSURANCE	93%	5

Source: AOA 2012 Survey of Optometric Practice

The Affordable Care Act of 2010 is likely to precipitate further shifts in reimbursement for services received by ODs. The new federal law will expand the number of Americans with health insurance by mandating purchase to avoid penalty and by relaxing Medicaid eligibility requirements. Some employers are projected to stop funding health benefits, shifting the burden to their employees. This may result in a decline in the number of employers funding vision benefits. This could be offset by more aggressive consumer marketing of vision insurance by the major insurers. As health care costs mount, there will be growing pressure on government, insurers and vision plans to limit reimbursements to healthcare providers. This is likely to cap allowances and reduce inflation adjusted revenue per managed care patient.

A 2012 Jobson survey indicated that 48 percent of U.S. adults were enrolled in a vision insurance plan, offered by 17 vision insurance companies. Three-quarters of vision plan members were enrolled in standalone plans during 2009, offering benefits for both exams and materials. Most standalone plan members paid some portion of the annual cost of coverage. In a given year, approximately one-in-three standalone vision plan members has an eye exam.

VISION PLAN MEMBERSHIP BY TYPE	
Standalone	72%
Bundled	14%
Medicare/Medicaid	14%

Source: National Association of Vision Plans, Vision Exam Utilization Study 2009. Includes only plan enrollees managed by vision insurance providers.

Medicare payments to ODs account for an increasing share of revenue. During 2013, it is anticipated that Medicare will disburse nearly \$1.1 billion to ODs. That represents an increase of 74 percent compared to 2004, and a compound annual growth rate of 6.3 percent. Over the same time period, Medicare payments to ophthalmologists increased 32 percent, or 3.1 percent annually. During 2011, ODs served 5.7 million Medicare patients – about 12 percent of all Medicare beneficiaries.

MEDICARE PAYMENTS TO EYECARE PROFESSIONALS: 2004-2013 (\$ MILLION)				
	2004	2013	% CHANGE	CAGR
OPTOMETRISTS	\$611	\$1,061	+73.6%	+6.3%
OPHTHALMOLOGISTS	\$4,291	\$5,645	+31.6%	+3.1

Source: Centers for Medicare and Medicaid

MEDICARE BENEFICIARIES SERVED: 2011	
OPTOMETRISTS	5.7 million
OPHTHALMOLOGISTS	10.9 million

Source: Centers for Medicare and Medicaid

As the Baby Boom generation ages, Medicare beneficiaries will expand rapidly.

The number of people eligible for Medicaid benefits is expected to grow by nearly 17 million beginning in 2014, under new guidelines enacted under the Affordable Care Act of 2010.

An important emerging development in healthcare is the formation of Accountable Care Organizations (ACOs) – large groups of medical professionals, combining generalists and specialists, which provide a full range of healthcare services to defined populations. The ACO concept is being promoted both by the Centers for Medicare and Medicaid Services and by major medical insurance companies. An ACO receives a per capita sum annually based on treatment outcomes for its enrolled population. This provides a powerful incentive to the ACO to adopt or reject treatment regimens based on outcomes and to reduce costs. The AOA is acting to incorporate ODs into ACOs to assure continued access to this growing patient base. It is certain that a condition of participation in an ACO will be achieving meaningful use of EHR.

MEDICARE BENEFICIARIES (MILLION)	
2010	46
2015	53
2020	61
2025	70
2030	77

Source: Medicare Chart Book, the Henry J. Kaiser Family Foundation

MEDICAID ENROLLED POPULATION (MILLION)

	TOTAL	CHILDREN	ADULTS
BEFORE AFFORDABLE CARE ACT (2010)	42.9	27.6	15.3
AFTER AFFORDABLE CARE ACT (2014)	59.7	31.3	28.4
INCREASE	16.8	3.7	13.1

Source: Urban Institute

ACTIONABLE STRATEGY IMPERATIVES

This overview identifies several priorities for ODs to deal with changes occurring in sources of payments, including:

- **UNDERSTAND CONTRACTING.** The power of your pen has never meant more. As new contracting arrangements are developed, it is imperative that ODs understand the terms of every contract being offered, with the goal of ensuring that only those most advantageous to the practice are accepted. The AOA has tools to help in this area. You are the best judge of what is best for your business!
- **UNDERSTAND THE CHANGING MARKETPLACE.** With health reform comes new payment models and downward pressure on reimbursements from both vision and health plans. Understanding this, as well as your own costs, will help you determine which plans to accept and which to reject and when to negotiate better terms.
- **UNDERSTAND THE OPPORTUNITIES.** Optometry is the number one source of primary eyecare in this country. Now more than ever ODs must develop positive working relationships with other health care providers, most importantly the nation's primary care physicians. Health reform has created opportunities for collaborative working relationships that have never before been available. It is up to each and every OD to take advantage of these opportunities. The AOA has developed Rethink Eyecare and tools for getting involved in new payment modes such as Accountable Care Organizations.

TECHNOLOGY

New digital technologies will expand diagnostic capabilities and improve patient management and communications

Over the past decade, ODs have acquired a new range of diagnostic instruments, enabling them to more accurately and quickly diagnose and manage ocular disorders and to prescribe appropriate therapies. New instrument technologies continue to be introduced. Since 2003, penetration of digital fundus cameras, pachymeters and scanning laser ophthalmoscopes among ODs has become widespread. Although advanced instrumentation is commonplace in OD offices, most ODs report that they have not yet interfaced their diagnostic instruments with their EHR systems to simplify record keeping, reporting and claims management.

DIAGNOSTIC INSTRUMENT PENETRATION: 2003-2012 (% OF ODS USING)

	2003	2012
AUTOMATED PERIMETER	91%	90%
AUTOREFRACTOR/AUTOKERATOMETER	68%	79%
FUNDUS PHOTOGRAPHY	58%	73%
PACHYMETER	38%	66%
SCANNING LASER OPHTHALMOSCOPE	6%	48%
AUTOMATED REFRACTING LANE	12%	18%
A/B SCAN ULTRASOUND/IOL MASTER	10%	17%

Source: AOA New Technology and EHR Survey

As of 2012, some 49 percent of ODs reported using an electronic health records system in their primary practice, up from 41 percent in 2011. An additional 18 percent of ODs indicated they plan to add EHR during the current year.

EHR PENETRATION: 2011-2012 (% OF ODS IN PRIMARY PRACTICE)

	2011	2012
CURRENTLY USING EHR	41%	49%
PLAN TO INSTALL EHR DURING CURRENT YEAR	--	18%

Source: AOA 2012 New Technology and EHR Survey

In 2011, the Medicare program began paying incentives to medical professionals, including ODs, to adopt and use EHR, as a means to lower health care costs and improve outcomes. As of early 2013, some 11,939 ODs, or 37 percent of those eligible for incentive payments had registered in the program. A total of 6,007 ODs have received an aggregate of nearly \$100 million in incentives for meeting Stage 1 meaningful use requirements. To date, ODs have not taken full advantage of government incentives to participate in PQRS.

In 2015, Medicare will begin to deduct a penalty from claim payments for ODs not certified as Stage 2 meaningful users of EHR. To avoid penalties, ODs must demonstrate that their EHR communicates with that of other providers and with the government system and has the capability of sharing imaging with other providers.

Many ODs have no current plan to adopt EHR, citing cost or the imminence of retirement as reasons for not adopting. It is likely that many non-adopters do not understand the potential risk of loss of access to patients, nor the negative impact of non-adoption on practice valuation.

ODs who have installed imaging devices and who achieve Stage 2 EHR meaningful use requirements will be well positioned to become the primary source of ocular imaging among all healthcare providers. Other providers will be required to use the imaging previously performed by ODs for co-managed patients.

During 2012, some 26 percent of the pharmaceutical Rxes written by ODs were e-prescriptions. Handwritten Rxes continued to dominate but will rapidly become obsolete. As patients come to prefer the convenience of e-prescriptions, they may favor providers who offer this service.

E-PRESCRIPTION USAGE: 2012 (% OF ODS)

	2011	2012
E-PRESCRIPTIONS % OF TOTAL OD RXES	15%	26%
PERCENT OF ODS E-PRESCRIBING ANY RXES	--	42%

Source: AOA 2012 New Technology and EHR Survey

Corporate-affiliated ODs as a group have been slower to adopt EHR, avoiding the large start-up costs and sometimes relying on the software systems of their hosts. As a group, corporate-affiliated ODs achieve a lower share of revenue from third-party payers and from medical eyecare services. Some corporate-affiliated ODs conceive their limited role as providing refractive services to customers of their host company's optical store. The significant changes occurring in managed visioncare and in reporting requirements of all medical professionals pose a threat to corporate affiliated ODs who fail to adopt EHR or to provide medical eyecare and imaging services. These ODs face limited access to a growing population with insurance benefits.

Although a minority of OD practices could be labeled as sophisticated users of electronic media for patient communications, digital communication by ODs is growing rapidly. Some 69 percent of practices have a website; among independent practices the proportion is 80 percent or higher. A recent Jobson survey among ECPs indicated that just 13 percent rate their practice website as "very sophisticated/technologically advanced." About half of private practice ODs use an outside service to manage their website. ODs who manage their own sites tend to neglect them and to infrequently update content. Just one-in-three OD websites have appointment scheduling functionality and just one-in five enable patients to order products online.

A total of 42 percent of practices use their EHR system to generate patient communications, other than recall notices – up from 30 percent

in 2003. Approximately half of OD practices have a social media presence for their business.

An important current trend in digital communications is the rapid spread of mobile devices with Internet access among U.S. consumers. As of late 2012, over half of U.S. adults used a mobile device, including 45 percent of adults who use a smartphone and 31 percent who use a tablet computer. Mobile devices are used for an increasing share of the total time consumers spend accessing the Internet. Mobile devices greatly increase the ability of consumers to find information about service provider performance and to compare product prices at any time of day, from any location. The growth in penetration of smartphones and tablet computers among eye care patients will result in increasing use of mobile devices to communicate with OD practices and schedule appointments. It's likely that mobile applications in eye care will proliferate in the years ahead.

Another key trend is the rapid adoption of cloud-based platforms for practice management and EHR systems. There are compelling reasons to maximize the use of these systems by moving to cloud-based platforms. First, cloud-based systems are upgraded from the source; you have no need to download and install upgrades, which eliminates a tedious step, staff time and can reduce costs. Further, you have increased freedom and flexibility, since you can store information in the cloud and then access it from mobile or offsite devices, often with enhanced security controls. Finally, with cloud-based platforms, you can more easily integrate with other software solutions, all in service of providing improved care to your patients.

However, EHRs in isolation from a secure connectivity solution will be a little help in expanding co-management and referrals with other health providers. Optometrists will need to seek a health information exchange service to achieve community connectivity and the ability to contribute to clinical registries and other population data service. These connectivity solutions will be critical to allow ODs to participate in ACO and other forms of pay for performance systems to be used by government and commercial insurance payers.

ACTIONABLE STRATEGY IMPERATIVES

This overview of OD technology adoption identifies several priorities for ODs to take advantage of emerging technologies, including:

- **ADOPT EHR AND FULL SUITE OF HEALTH IT.** As government and large insurers become more important sources of OD revenue, it will soon be mandatory for practices to have EHR systems and full suite of HIT connectivity solutions in place to file claims and report on outcomes. If ODs fail to comply with reporting requirements, they will face penalties and may be denied access to enrolled patients.
- **EXPAND DIGITAL COMMUNICATION WITH PATIENTS.** Most ODs have an opportunity to upgrade their practice website to attract new patients and increase retention of current patients. New services are available to ODs to facilitate email communications with patients, a cost effective way to maintain contact during the long interval between office visits. Social media are becoming increasingly important in shaping reputations of medical practices and can be used as a source of new patients.

CONCLUSION

The healthcare business environment in which ODs work is undergoing significant changes that will impact how ODs practice in the years ahead. Among the most significant environmental developments:

- An aging U.S. population will increase demand for therapeutic eyecare services at a faster rate than demand for corrective devices will grow.
- An increasing proportion of the U.S. population will rely on ODs for refractive and medical eyecare services, as the number of ODs grows 2.2 percent annually and the supply of ophthalmologists and primary care physicians does not keep pace with demand growth.
- The Affordable Health Care Act of 2010 will transform the insurance industry and will expand the number of people covered under government and private insurance programs. The result will be a larger number of patients seeking eyecare and a greater pressure on third-party payers to contain costs of reimbursements to providers.
- The underlying market dynamics favor a continuing expansion in the scope of OD practice, which the AOA affiliated state associations and AOA will continue to advocate to legislatures.
- Adopting EHR and the full range of health IT solutions will become mandatory for all health care providers, both to avoid penalties for non-compliance with reporting standards and as a condition of accreditation to insurance plans.
- Digital media, particularly mobile devices, will transform how health care providers communicate with patients and how patients select providers and purchase products.

These seismic shifts in the business climate suggest critical priorities for ODs:

- ODs are able to optimize practice growth through efforts to stimulate greater demand for refractive services and corrective devices among existing patient bases. A significant reduction in the average interval between eye exams is possible by adopting more rigorous recall processes, including use of new digital technology. Average revenue per patient visit can be increased through more effective product education and merchandising.
- Expanding medical eyecare services remains a significant growth opportunity for most ODs, requiring systematic processes to identify candidates, market services to candidates and deal with insurers. The expanding number of people who will be covered by government and private insurance will not automatically seek ODs for services. ODs must identify patients with coverage and market services to them. ODs must also meet the credentials from insurers and comply with reporting requirements, making meaningful use of EHR and the full range of health information technology.
- The increasing number of patients served, coupled with reimbursement limits, will require maximum efficiency in service delivery by ODs. This means comprehensive delegation of routine clinical and administrative tasks, greater attention to patient flow through the office and better OD time management.

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