American Optometric Association Research & Information Center

EXECUTIVE SUMMARY

August 2012

New Technology & EHR Usage Among Optometrists

2012 New Technology & EHR Survey

The *2012 New Technology & EHR Survey* was conducted in the first quarter of 2012 to gather data on the current usage and awareness of technologies available for the optometry practice. The survey collected information on the clinical use of technology, practice management use of technology, meaningful use of electronic health record systems (EHR), and use of internet technology by practicing optometrists. Respondents answered questions based on the current use of technology within their primary practice, or their intent to acquire technology for the practice within the upcoming year.

The *2012 New Technology & EHR Survey* was sent to a random stratified sample of professionally active optometrists in January 2012. The sample was drawn from AOA membership records, state board of optometry license files, and the National Provider Index database. A reminder postcard was mailed to survey recipients one month after initial distribution, and data collection was completed in March 2012. Survey participants were provided the option of completing the survey on the paper form or using an electronic invitation code to complete the survey online. The sample was adjusted by removing optometrists who were retired, deceased, or not locatable. The final adjusted overall response rate was 12% with an error level of 4% at the 95% confidence interval.

The full report, *New Technology & EHR Usage Among Optometrists, 2012* provides descriptive statistics on the use of technology and EHR systems by optometrists in 2012. Equipment usage and components of practice management software utilized by optometrists is compared to utilization reported in previous surveys conducted between 2003 and 2011. Meaningful use of EHR is compared to data reported on the 2010 and 2011 New Technology & EHR Surveys. The full report may be obtained by contacting the AOA Order Department or by visiting the web site at: www.aoa.org/store.

Electronic Systems Used by Optometrists

Almost half of responding optometrists have adopted EHR (49%) in their primary practice, a significant increase from 41% in 2011. Members of the AOA are significantly more likely to be using a complete EHR (55%) than optometrists who are not currently AOA members (41%).

Survey participants were asked which electronic system they currently use in their primary practice. Electronic systems were identified as:

1. *Practice management systems* - electronic software packages that track and maintain information such as: patient demographics, scheduling, billing, insurance, and recall;
2. *Patient health information systems* - electronic software packages that maintain health information such as: exam data, testing, images and prescriptions; and
3. *Complete EHR* - electronic system comprised of **both** practice management and patient health information systems.

Practice management systems continue to be the electronic system used by 35% of optometrists, patient health information systems are utilized by 3%, and 13% of respondents are not using any of the three electronic systems. Male optometrists are more likely to not use an electronic system than their female counterparts (16% compared to 7%). Optometrists who have been practicing for more than 30 years are also more likely to not use an electronic system in their practice (22%) than those who have been in practice less than thirty years. A significantly higher proportion of non-solo owner optometrists (63%) reported use of a complete EHR in 2012 than solo owners (40%) and non-owner optometrists (47%).

Just over a third of optometrists who have not adopted EHR (35%) reported plans to acquire and implement a system in 2012 and another 33% expect to acquire in more than a year. One out of six optometrists (16%) reported that they do not have plans to acquire a complete EHR. The cost to purchase and implement an EHR was the number one reason doctors were not planning to adopt EHR.

Meaningful Use of EHR

Eligible providers participating in the Centers for Medicare & Medicaid Services (CMS) EHR incentive program must attest to using certified EHR technology in a meaningful way to qualify for incentive payments. Meaningful use refers to the use of an EHR that leads to improvements in health care and furthers the goals of information exchange among health care professionals. To become "meaningful users," providers need to demonstrate they are using certified EHR technology in ways that can be measured significantly in quantity and in quality. The CMS EHR incentive program consists of three stages of implementation and is currently in stage 1. Meaningful use criteria contain 25 objectives; 15 core objectives and ten menu objectives. Eligible providers must meet all 15 core objectives and five of the ten menu set objectives outlined in the Stage 1 criteria to participate in the incentive programs. Survey participants were presented with 14 of the 15 core objectives and all ten menu objectives.

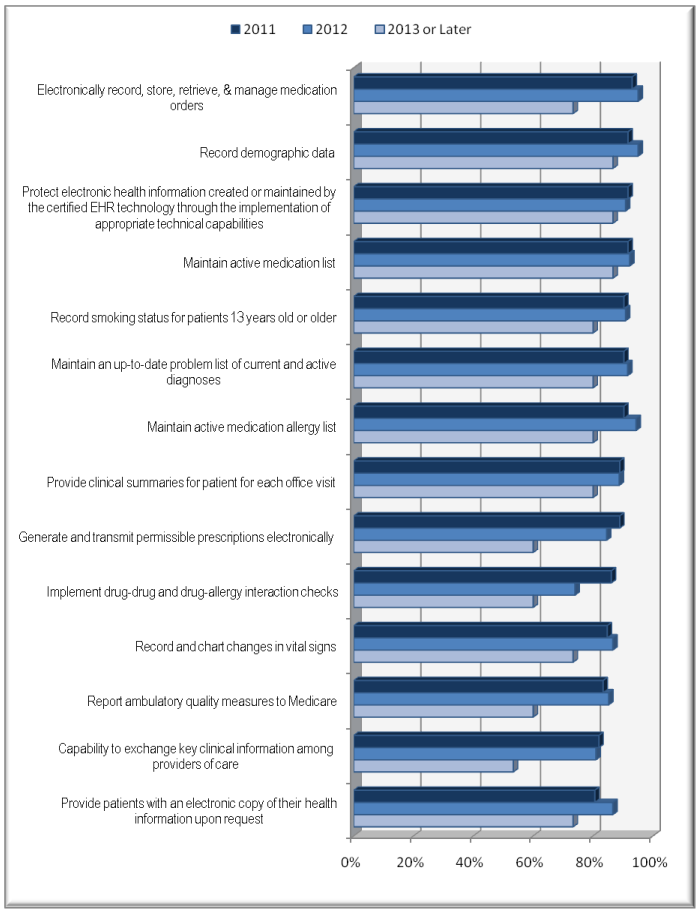
77% of responding EHR users confirmed their EHR system is certified. One in four optometrists (24%) reported achieving meaningful use and attesting in 2011 for the CMS EHR incentive programs, 48% of EHR users plan to achieve meaningful use and attest in 2012 and 5% plan to achieve meaningful use in 2013 or later. Figure 1 graphs the percentage of optometrists in each of these groups that have confirmed their current EHR has the capability to meet the core objective listed.

One in six EHR users reported use of their system to meet all 14 core objectives included on the survey. The median number of core objectives being used by optometrists was 11. Four out of five doctors were using their system (80%) to maintain active medication allergy lists, maintain active medication lists, and to record demographic data. Three out of four optometrists reported EHR use (76%) to maintain an up-to-date problem list of current and active diagnoses and to record smoking status for patients 13 years or older. Using the EHR to record and chart changes in vital signs and to exchange key clinical information among providers of care were the least used core objectives with only 45% of respondents reporting use in 2012. More than 70% of respondents confirmed their system had the capability to perform each of the core objectives. The inability for EHR systems to implement drug-drug and drug-allergy interaction checks was reported by 14% of optometrists and 17% of doctors were unsure whether this capability was available or not.

The median number of menu objectives being used was four, and 6% of respondents reported using EHR to perform all ten menu objectives. The most frequently reported objective in use was sending reminders to patients per patient preference for preventative/ follow up care, reported by 59% of optometrists. While only three of the core objectives were used by less than 50% of optometrists, only three menu objectives were used by more than 50% of doctors. Almost a third of optometrists reported their EHR system did not have the capability to submit electronic data to immunization registries (28%) or to submit electronic surveillance data to public health agencies (30%) and one in four doctors reported they did not know if their system was capable of performing either of these objectives (24%).

October 3, 2012 is the last day to begin a 90-day attestation period and achieve meaningful use in 2012. Survey results suggest there is much work that still needs to be done by optometrists planning to attest this year in order to achieve meaningful use. Only 14% of these doctors reported they were using EHR to meet all 14 core objectives and the median number of core objectives being used by this group was ten. Five menu objectives must be met in addition to the core objectives. The median number of menu objectives in use among optometrists planning to attest in 2012 is four.

Figure 1: EHR Capability to Meet Core Objectives by Year Optometrist Plans to Achieve meaningful Use



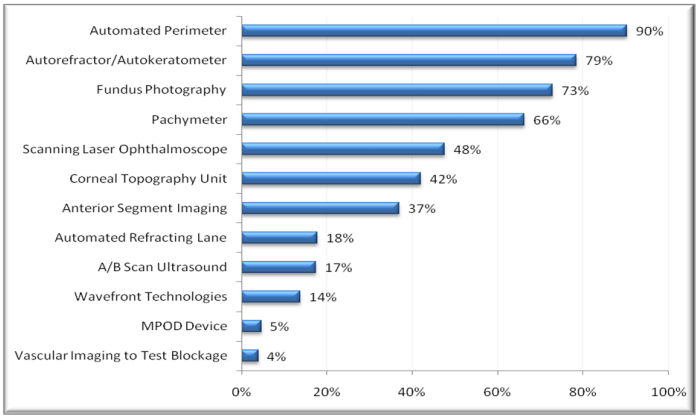
Clinical Use of Technology

Nine out of ten optometrists currently use automated perimetry in their primary practice, this isn't surprising since automated perimetry has become the gold standard for visual field screening. Advancements in ophthalmic equipment have allowed for increased zooming capabilities and higher resolution photographs from scopes, cameras, and refractors. In 2012, 79% of optometrists were using a combined autorefractor/autokeratometer and 73% were using a fundus camera. Fundus photography is becoming a "must have" in the optometry practice for the management of glaucoma, and 22% of doctors who do not currently have a fundus camera plan to acquire the equipment in 2012.

Use of scanning laser ophthalmoscopes has experienced the largest growth over the last ten years, from 6% of optometrists using this equipment in 2003 to 48% in 2012. Growth is expected to continue as 10% of optometrists who do not currently have this equipment plan to acquire in 2012. As seen in Figure 2, newer technologies such as the MPOD (Macular Pigment Optical Density) device and vascular imaging to test blockage are slowly making their way into the optometry practice.

Survey results show that optometrists who are members of the AOA are more likely to use advanced equipment than non-AOA members. The largest difference is seen for pachymetry use with 75% of AOA members currently using compared to only 51% of non-members. Optometrists who have already adopted EHR were also more likely to use advanced ophthalmic equipment than non-EHR users. The greatest difference in equipment usage was reported for scanning laser ophthalmoscopes which were used by 62% of optometrists who have adopted EHR and only 32% of non-EHR users. Less than a third of EHR users with a scanning laser ophthalmoscope reported the equipment interfaces with their current EHR system (30%).

Figure 2: Equipment Use among Optometrists, 2012



Practice Management Use of Technology

Optometrists continue to use electronic software to perform routine tasks and activities necessary to keep their practice running smoothly. In the last ten years, use of technology to electronically schedule and track patient appointments has increased by 28 percentage points (a 150% increase in use) from 56% of optometrists in 2003 to 84% in 2012. Practice management software components are used by 83% of optometrists to perform billing activities within their office, and 78% report using practice management software to process claims electronically. Use of practice management software to manage inventory was reported by 45% of optometrists in 2012, an increase of 14 percentage points from the 31% of optometrists who used technology to manage inventory in 2003. Among optometrists who do not currently use practice management software for inventory, 15% expect to acquire inventory components in 2012.

EHR users were more likely to embrace technology for practice management activities than non-EHR users, and 31% reported that the practice management software used in their practice is their EHR.

Prescribing Medications

Four out of five optometrists handwrote a medication prescription and handed it to a patient, but only 42% of optometrists reported electronically prescribing at least one medication prescription in the last year. Although the majority of optometrists continue to provide handwritten medication prescriptions, the percentage of total medication prescriptions handwritten by optometrists has decreased by 3 percentage points in the last year, from 60% of total medication prescriptions provided by optometrists to 57%. Electronic prescriptions have increased 170% during this time (11 percentage points) from 15% of total prescriptions provided by optometrists in 2011 to 26% in 2012.

EHR users are significantly more likely to electronically prescribe medications than non-EHR users. EHR users reported electronically prescribing 42% of total medication prescriptions in the last year compared to non-EHR users who electronically prescribed 10% of total prescriptions provided.

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