American Optometric Association Research & Information Center

EXECUTIVE SUMMARY

New Technology & EHR Usage Among AOA Member Optometrists

2011 New Technology & EHR Survey

The 2011 New Technology & EHR Survey was conducted in the first quarter of 2011 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 member 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 2011 New Technology & EHR Survey was sent to a random stratified sample of professionally active AOA member optometrists in January 2011. The sample was drawn from the AOA membership records which include the names and addresses of professionally active members in the United States. A reminder was posted in AOA First Look in February and data collection was completed in March 2011. The sample was adjusted by removing optometrists who were retired, deceased, or not locatable. The final adjusted overall response rate was 14% with an error level of 4% at the 95% confidence interval.

Electronic Systems Utilized in Primary Practice of Optometrists

Electronic systems available for use in the optometric practice 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.

Slightly less than half (49%) of responding optometrists continue to use practice management systems only and 2% use patient health information systems only. 41% of respondents use a complete EHR system in their primary practice, and 8% do not currently use any of these systems. 21% of optometrists not currently using a complete EHR plan to acquire within the next six months, 27% plan to acquire in six to twelve months, 41% plan to acquire in more than a year and 11% do not plan to acquire at all. The costs associated with acquisition and implementation was the most frequently reported reason for not planning to acquire a complete EHR at all with 38% of optometrists reporting. Another 34% will not acquire an EHR because they plan to retire before EHRs are mandatory. 13% of optometrists said the decision to acquire an EHR is not theirs to make.

A significantly higher percentage (49%) of respondents in the Western region of the U.S. reported using complete EHRs compared to those in the Midwest and Northeastern regions. (See Figure 1 on next page.)

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Reported EHR usage was highest among optometrists between the ages of 30 and 39 years. A smaller percentage of optometrists in corporate practice (21%) reported using EHRs compared to those in private practices (43%). A significantly higher percentage of optometrists in non-solo private practice (43%) are using EHRs compared to those in solo private practice (31%).
Clinical Use of Technology

Equipment

The majority of responding optometrists (90%) reported use of an automated perimeter in their primary practice. Approximately three-fourths of respondents utilize fundus photography (79%), auto refractor/autokeratometer (78%), and pachymeter (75%). Since 2007, fundus photography and anterior segment imaging have seen a 10% increase in usage among member optometrists. Wavefront technologies/ analyzers, though increasing steadily over the last five years continue to be the least utilized equipment in the primary practice.
Components of Patient Care

Electronic documentation of patient care information was reported by more than 90% of EHR and patient health information system users. The majority of users (97%) indicated documentation of history, chief complaint and review of systems, and recording examination data (i.e. pretesting, acuity, etc.). Documentation of medication prescriptions electronically was reported by 87% of users and only 1% indicated they do not use any of the electronic components of patient care documentation.

Medication Prescriptions

Survey results show that while the majority of respondents (77%) continue to handwrite and hand patients some medication prescriptions, the percent of optometrists e-prescribing has increased from 22% to 27% over the last year. Figure 3 shows that while the majority of respondents still handwrite prescriptions, only 60% of total prescriptions provided by optometrists were handwritten and handed to the patient.

Practice Management Use of Technology

Technology use in the optometric practice can help keep the practice organized and working efficiently. Practice management software in the optometry practice can be used for daily tasks such as appointments, billing, and various other administrative tasks necessary to keep the practice running. Survey results indicate that optometrists understand the importance of utilizing technology to manage their practice with 85% of respondents using practice management software to support billing activities. More than three-fourths of responding optometrists use practice management software to support appointments and scheduling (84%), patient recall (82%), and electronic claims processing (81%). As seen in Table 1, less than half of respondents use practice management software to support inventory (45%), patient communications (40%), and marketing activities (37%).

Meaningful Use of EHRs

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 EHR technology in ways that can be measured significantly in quantity and in quality. Stage 1 meaningful use criteria contain 25 objectives; eligible providers must meet all 15 core objectives and 5 of the 10 menu set objectives outlined in the Stage 1 criteria. The 2011 New Technology & EHR Survey asked respondents currently using a complete EHR to indicate usage of their system to meet 13 of the 15 core set of objectives and 6 of the 10 menu set. 4% of current EHR users indicated usage of all core set objectives included and 8% indicated usage of all core set objectives except providing patients an electronic copy of their health information upon request and the exchange of key clinical information with other healthcare providers electronically.

The majority of EHR users record patient demographic data (93%) and 82% currently record smoking status for patients over age 13. Approximately two-thirds of respondents indicate use of EHRs to electronically record, store, retrieve and manage orders such as medications, laboratory and imaging (69%) and to maintain an up-to-date “problem list” of current and active diagnoses (65%). Figure 4 graphs the percent of EHR respondents that currently use their system to meet each of the stage 1 objectives addressed on this survey.
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Slightly less than three-fourths (74%) of respondents were practicing in major metropolitan areas, 15% were practicing in micropolitan areas (population more than 10,000 but less than 50,000) and 11% were practicing in rural areas. About two-thirds (69%) of respondents were male and 31% were female. Geographically – 34% of respondents were located in the Midwest, 14% in the Northeast, 27% in the South and 25% in the West. The majority of respondents (77%) indicated their primary practice type was private practice, 8% were in corporate practices and 15% were in other practice types such as employees of ophthalmologists, hospitals or educational institutions. The majority of optometrists in private practice (89%) were owner optometrists and 11% were employees. Optometrists who have been in practice for more than 25 years accounted for 48% of respondents, 29% have been in practice for 11 to 24 years, 10% have been in practice for 6 to 10 years and 13% of respondents have been in practice for less than 5 years. The average age of respondents was 50 years and the average number of years in practice was 23 years.

About this Survey

The full report, New Technology & EHR Usage Among Optometrists, 2011 provides descriptive statistics on the use of technology and EHRs by AOA member optometrists in 2011. Equipment usage and components of practice management software utilized by optometrists is compared to utilization reported in previous New Technology Surveys conducted between 2003 and 2009. Meaningful use of EHRs is compared with 2010 data reported on the 2010 EHR survey. The full report may be obtained by contacting the AOA Order Department or by visiting the web site at: www.aoa.org/store.

Several limitations of this study should be noted: (1) AOA member optometrists were invited to complete the paper survey which was distributed by the U.S. Postal Service. Incorrect addresses or delays in delivering the survey instrument may have excluded doctors from participating in, or receiving, the survey. (2) Member optometrists who chose to participate in this survey were self-selected, which may mean that the survey attracted responses from optometrists who are more technologically advanced and/or those that are aware of the current EHR incentives and are currently using an EHR. (3) Only AOA members were invited to participate in this survey and therefore results of this study may not be generalizable to the entire profession of optometry.

For questions about this survey, or other surveys conducted by the AOA, please contact the Research & Information Center at RIC@aoa.org.

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