

Electronic Health Records: Status, Needs and Lessons

2011 Report Based on 2010 Data

Snapshot of an Infrastructure under Construction

Research funded by PNC Bank



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Introduction

The number of medical practices and other organizations using electronic health record (EHR) systems in the United States has increased measurably over the past decade, but use of this technology remains far from universal. The Centers for Disease Control's National Center for Health Statistics estimates that only a small fraction of the 43.9 percent of office-based physicians using an EHR in 2009 had fully functional systems with the capability to record clinical notes, prescriptions, laboratory results, and imaging results.

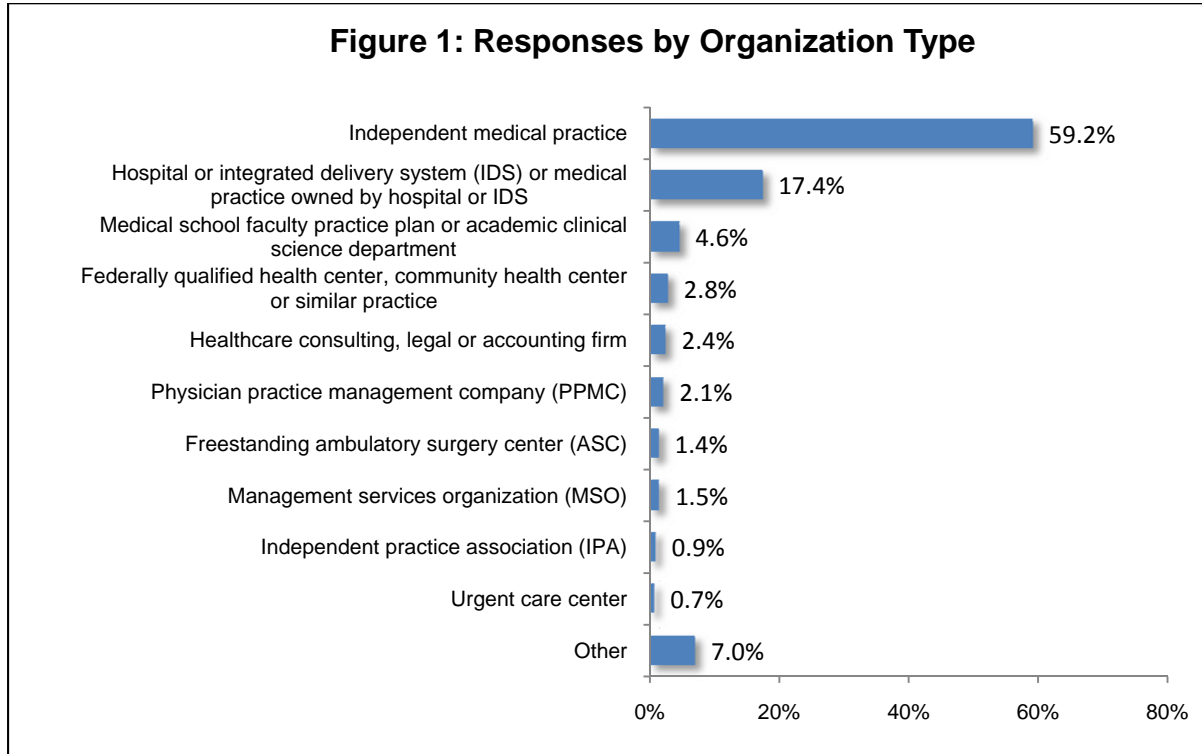
To better understand the current state of EHR use by physicians, the Medical Group Management Association (MGMA) undertook a study in 2010 to explore the barriers to EHR adoption and the experiences of health care organizations that have progressed through the implementation process and optimized use of their EHRs. This study was funded by PNC Bank. The timing of this study gains greater urgency as it was completed shortly before the January 2011 introduction of monetary incentives to physicians and hospitals through the federal Health Information Technology for Economic and Clinical Health (HITECH) Act — part of the American Recovery and Reinvestment Act (ARRA) of 2009.

MGMA queried its members and customers, asking them about the use of EHR and other information technology in their organizations. Data was collected between Oct. 1 and Nov. 9, 2010, and this report examines the information reported by the 4,588 healthcare organizations that responded to the survey. The responses came from a wide variety of organizations (see Figure 1: Responses by Organization Type) and represent the aggregate experience of more than 120,000 physicians in medical practice.

What we are learning about how physicians and organizations successfully adopt and optimize the use of EHR technology may bring more clarity to barriers that have, so far, prevented wide use of this technology.

Investigation method

In reaching these conclusions, we analyzed questionnaire responses from independent medical practices (59.2 percent of respondents) and medical practices with hospital or IDS ownership (17.4 percent of respondents). Additional responses came from medical school faculty practice plans or academic clinical departments (4.6 percent), federally qualified or community health centers (2.8 percent), and other types of organizations.



Analysis approach

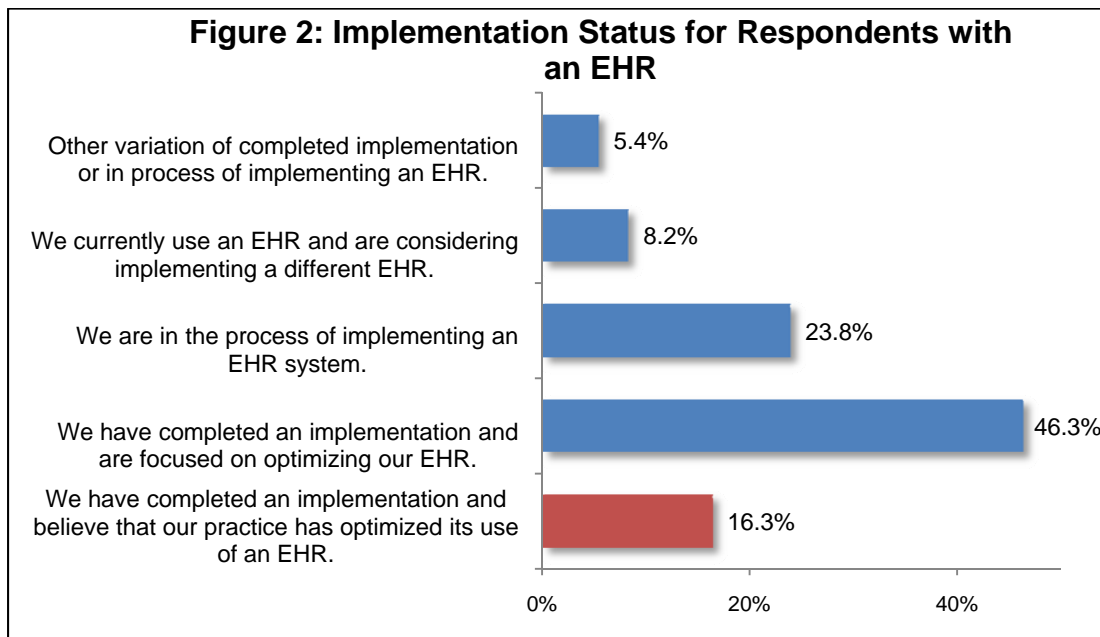
The survey utilized a convenience sample method that limits its ability to describe the extent of EHR adoption among medical practices. However, the method permits an analysis of specific segments of the respondents, such as by stage of EHR implementation. With this focused snapshot, we hope to provide a deeper, qualitative look at the use of EHR technology at the inception of the federal government’s multi-billion dollar effort (HITECH Act) to promote widespread use of EHR.

About our analysis. While some observers of EHR adoption may focus on practice size, our study also sheds light on another influential factor: practice ownership. As fewer physicians are opting for independent practice and more are employed by hospitals and IDSs, an analysis of the differences in EHR implementation and use by practice owner is increasingly important. Therefore we describe several of our findings by practice ownership type; in particular, we focus on contrasts between independent physician practices and those owned by a hospital or IDS.

EHR adoption

We first determined the health record storage method used by respondents. More than half (52.3 percent) said they used an EHR, while 35.8 percent stored records and charts on paper. A small portion (5.5 percent) used a document information management system (DIMS) in which paper records and charts are scanned and the images are filed electronically. These percentages should **not** be viewed as representative of the health profession at large but rather a portrait of those organizations involved in this study.

Next, for those practices that have an EHR, we classified these selected medical practices according to the stage of their EHR implementation (Figure 2).



Viewing respondents in this way allows us to consider the experiences of full-fledged users — those who have implemented **and** optimized their systems (16.3 percent) — in contrast to EHR users at other stages of the adoption process (the blue bars in Figure 2).

Examining EHR users’ perceptions and experiences at different stages of adoption (as well as those of paper records users) may provide helpful knowledge as the federal government initiates its multi-billion dollar investment to promote widespread use of EHRs. The HITECH provisions of ARRA set aside up to \$20 billion in incentive payments to physicians and certain others who make ‘meaningful use’ of EHRs.

The HITECH Act’s incentives of up to \$44,000 per eligible provider treating Medicare patients (\$64,750 for those treating Medicaid patients) will prompt many more physician practices to purchase EHRs. Indeed, 72 percent of the respondents in our study said they planned to participate in the HITECH incentive program.

HITECH Act motivates many paper record users. We found that 62.9 percent of the respondents who currently use paper medical records plan to seek the HITECH incentives. It remains to be seen whether all of these practices can successfully make the transition from a paper record to the meaningful use of an EHR demanded by the HITECH incentives because just 26.8 percent of those currently using paper medical records said they were in the process of implementing an EHR system. Less than a third (29.6 percent) said they were in the process of selecting an EHR system and 22.7 percent said they planned to implement an EHR within 24 months but had not begun the selection process.

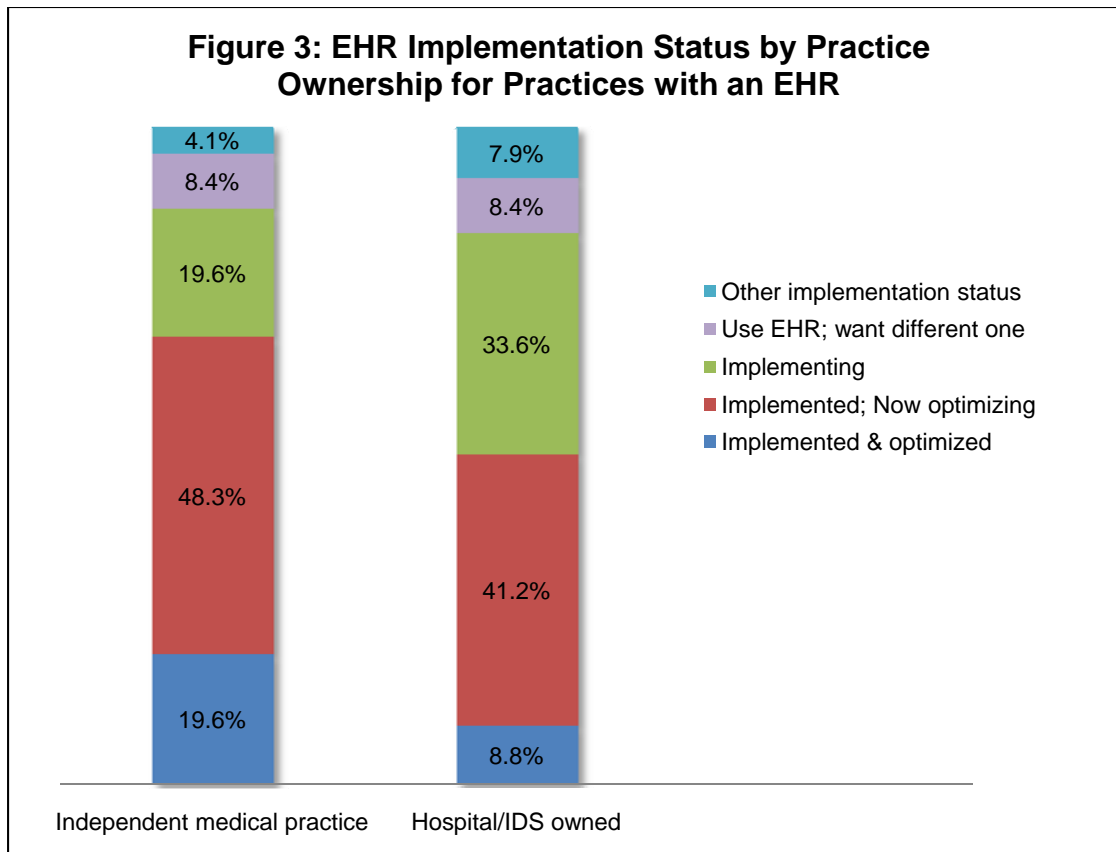
Just under half (45 percent) of those intending to purchase an EHR within 24 months said they also planned to participate in the HITECH program. These numbers indicate that the HITECH incentives are a factor motivating some, though not all, users of paper records to purchase an EHR.

Practice ownership may affect EHR adoption. When we looked at the degree of EHR implementation and adoption by the type of practice ownership, we found notable contrasts between independent medical practices and those owned by a hospital or IDS (Figure 3); namely, practices that are part of IDS systems lag independent practices in both implementation and optimization of their EHR systems.

- Almost one in five (19.6 percent) of responding independent medical practices that owned an EHR felt they had optimized their use of it.
- Just 8.8 percent of responding hospital- or IDS-owned practices with EHRs had optimized their use of the EHR.
- Almost half (48.3 percent) of independent practices with an EHR were now focused on optimizing its use.
- Slightly more than 41 percent of IDS- or hospital-owned practices with an EHR were now focused on optimizing its use.
- Only 19.6 percent of independent practices with an EHR were in the implementation stage, while 33.6 percent of the IDS practices with an EHR were in this beginning stage of EHR adoption.

Finding independent practices further along in EHR optimization than IDS- and hospital-owned practices might seem surprising at first glance. As components of larger systems with greater access to financial and technical resources and expertise, IDS- and hospital-owned practices would seem more likely to lead rather than trail independent practices in EHR adoption. Yet, aspects of hospital and IDS-ownership may slow EHR adoption; it also may slow integration of EHR with other technologies (see Figure 10: EHR & PMS Integration by Practice Ownership). Hospital systems and IDSs frequently include numerous departments that offer an array of specialty services in different settings. Selecting, integrating and optimizing an EHR and other technologies across these internal boundaries can be a steep challenge. Cost also has been cited as a factor causing hospitals (including those that may own medical practices) to be slow in adopting EHR.¹

¹ Harvard School of Public Health: "Study Finds U.S. Hospitals Extremely Slow to Adopt Electronic Health Records, Citing Cost." News Release March 25, 2009. Accessed January 16, 2011: <http://www.hsph.harvard.edu/news/press-releases/2009-releases/us-hospitals-extremely-slow-to-adopt-electronic-health-records.html> [regarding: Ashish K. Jha, Catherine M. DesRoches, et al. "The Use of Electronic Health Records in U.S. Hospitals," *New England Journal of Medicine*, online March 25, 2009]

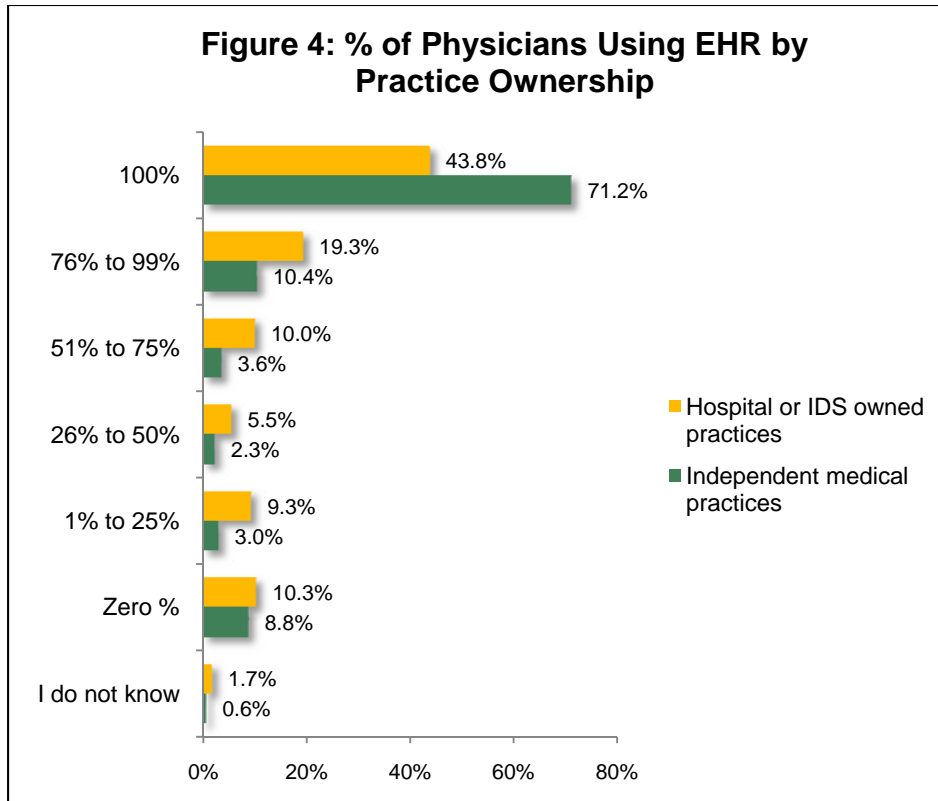


Getting physicians on board. Our study indicates that getting all physicians in an organization to use an EHR may be a large hurdle in optimizing a system. Of the practices that had implemented an EHR or were in the process of doing so, 18 percent said that half or fewer of their physicians used it. This percentage varied considerably by practice ownership. For IDS-owned practices with an EHR, only 43.8 percent reported that all physicians used the system; in contrast, 71.2 percent of the independent medical groups reported that all of their physicians used the EHR (Figure 4).

When we examine physician EHR utilization rates by ownership, we found a pattern similar to the EHR adoption results shown in Figure 3. As Figure 4 shows, independent medical practices have a greater percentage of physicians using their EHR systems compared with hospital- and IDS-owned practices. This lead in EHR utilization rates may be temporary. It is possible that the scale of implementing an EHR across a large, diverse organization slows the speed of implementation. One respondent from a large healthcare organization commented:

“Our organization is implementing EMR by division. Currently all PCP, Internal Med, Pediatrics, OB/GYN are on EMR. Specialty practices are still about 50/50.”

Another respondent’s comment reflected the impact of working in multiple settings on physician use of EHR: “Hospitalists and Intensivists do not (use EHR) because the hospital does not have an EHR.”



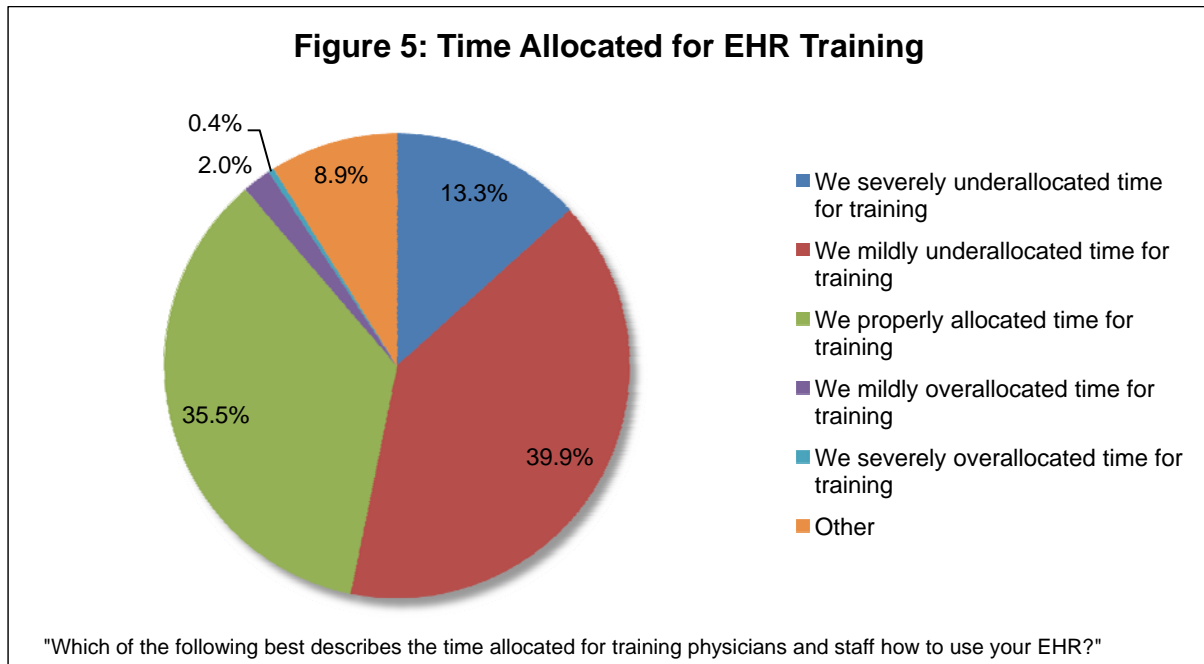
Many of the responding organizations commented that they had not reached 100 percent usage because they were still training and bringing physicians on board. Several indicated go-live dates intended to coincide with the opportunity to begin participating in the HITECH incentive program in 2011 (HITECH requires eligible Medicare providers to attest to three months of meaningful use of an EHR during 2011).

Physician resistance may play a role in organizations that own EHRs but do not have 100 percent utilization. More typical were the respondents who explained in comments that implementation in their organization was in process and that all physicians would be expected to use the system once it was fully implemented.

Even respondents who said all their full-time-equivalent (FTE) physicians used the EHR made comments revealing variety in *how* physicians actually used the systems. For example: “Two docs use but at different levels of use,” and “Theoretically all, but many have developed some ingenious workarounds.” Another commenter said, “They all use it but not for all patients, it causes them to get behind and they fall back to paper on occasion.” These comments indicate even where 100 percent utilization is claimed, not all physicians are necessarily using the EHR for all patients.

Finally, most organizations appear to be working toward 100 percent utilization, some by persuasion, and others by a firmer approach evident in the comment, “There is no option not to use the EHR at this practice.”

Many concerned about training. One clear hurdle in reaching optimization of any new technology is adequately training new users. Indeed, we found that more than half — 53.2 percent of respondents — felt that they either ‘mildly’ or ‘severely’ under-allocated the training time needed to implement their EHR system. Only 2.4 percent of respondents felt that they had ‘mildly’ or ‘severely’ over-allocated the training time needed.



When comments submitted by respondents were examined, many cited the challenge of training physicians who had busy schedules. Notable comments included:

- “Patient demand doesn't drop because schedules are reduced.”
- “We weren't able to provide as much time as we would have liked because patients needed care.”
- “It's difficult to train personnel and still keep our clinic open and running.”

Getting physicians to attend training sessions scheduled outside of office hours also proved a challenge. Some EHR users recommended online classes while others suggested off-site training for physicians, training “super users” for each practice site, or physician-led training. Of the latter approach, one respondent said, “If another physician is leading the training, they listen better.”

More than a few, including several physicians completing the questionnaire, faulted physicians for training lapses that led to underperformance once the EHR went live. Comments in this area included:

- “Doctors felt like they didn't need much training However, when they went live they wished they had trained for more scenarios.”
- “Physician time commitment for training was too optional. Several of them had to learn as they went.”

When asked for further comments on training users, respondents’ suggestions included:

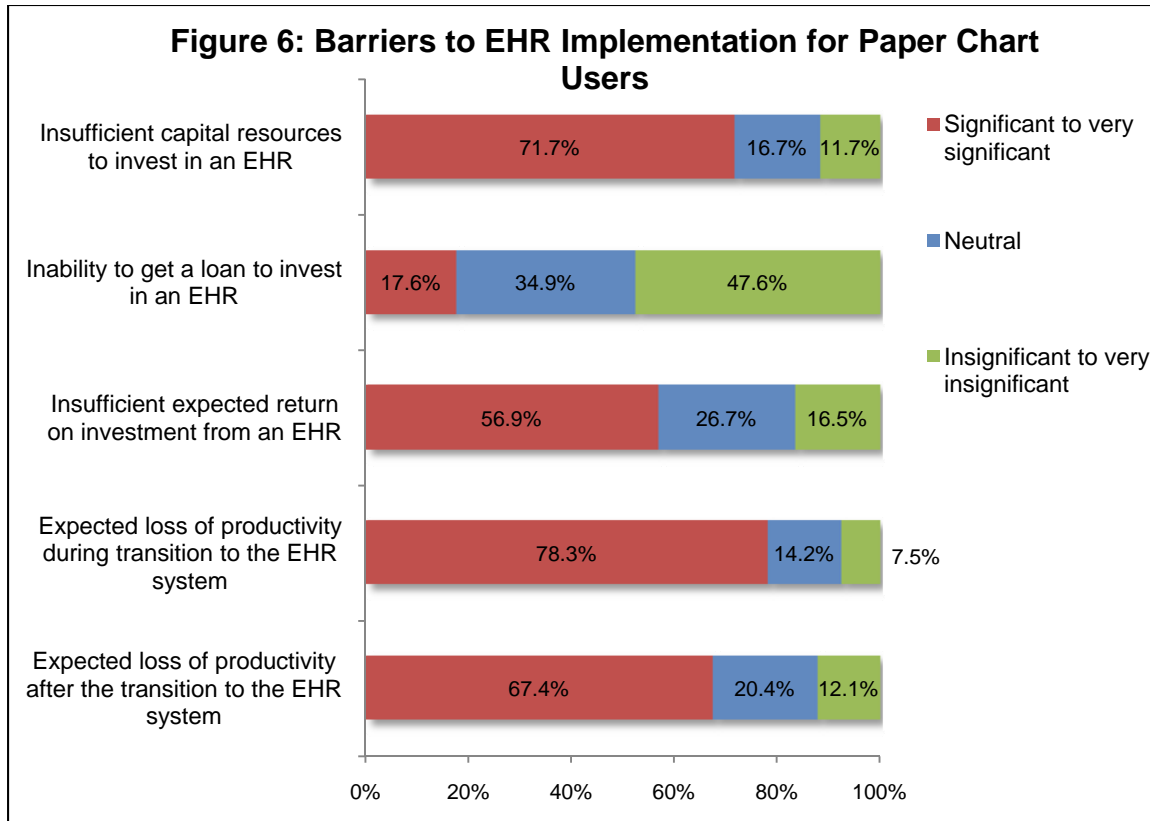
- “More hands-on training with the computer vs. through presentations on a screen.”
- “Separate training for physicians, billing, nursing and front staff. Focus intensely on what they use daily.”
- “I think the train the trainer method works best with an initially decreased workload.”
- “Training closer to go live. Better ‘sandbox’ play areas.”

Some respondents faulted the quality of the training provided by their EHRs’ vendors. Others lamented that they did not make better use of their vendors’ training programs, including the respondent who wrote, “(Training) was available; we just didn't use it!”

Paper medical record users have concerns

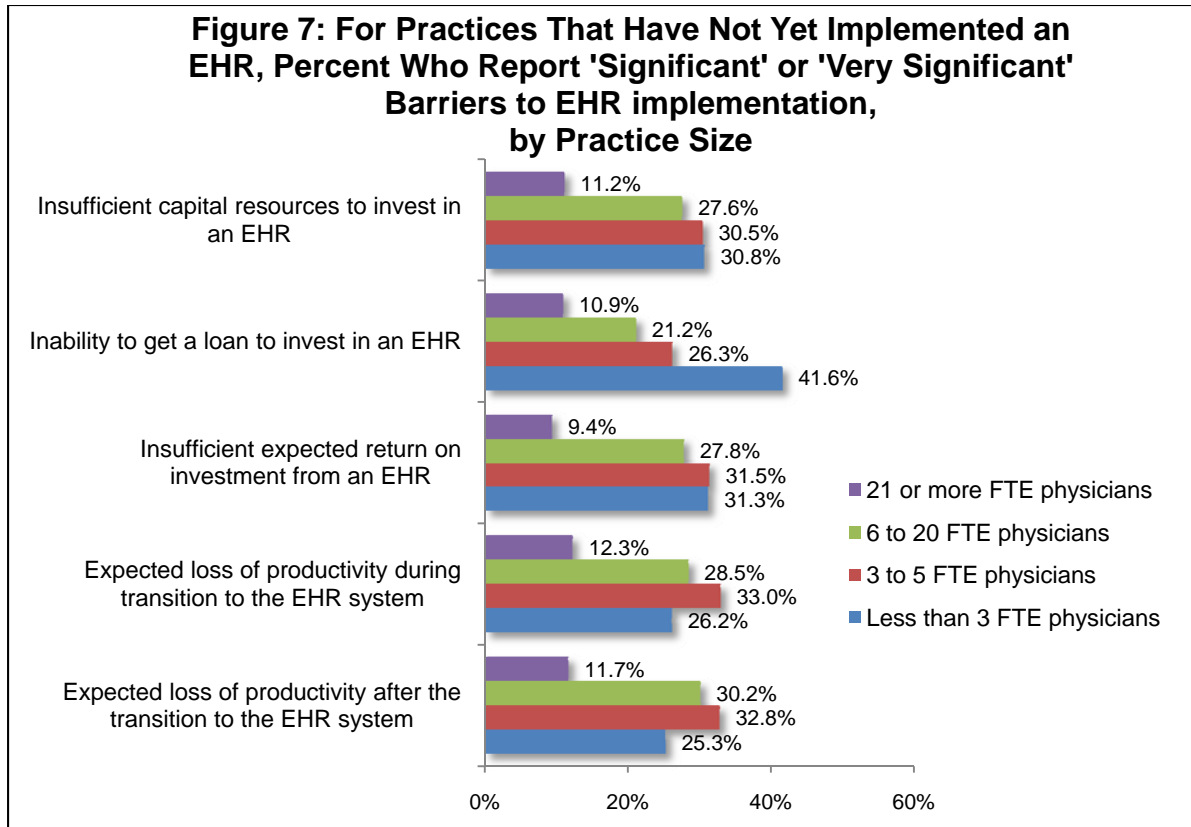
There can be many reasons medical practices continue to use paper medical records. In addition to physician resistance, financial concerns loom large. Figure 6 shows how practices that currently store health information on paper medical charts ranked the most often-expressed concerns about EHR financing, return on investment and provider productivity.

More than four out of five users of paper records (78.3 percent) felt that there would be a ‘significant’ to ‘very significant’ loss of provider productivity during implementation. Two-thirds (67.4 percent) of the paper record users had similar concerns about the loss of physician productivity *after* the EHR transition period. Those concerns also occurred, but at lower rates, among practices that were electronically scanning their paper records into computer files but not using an EHR.



When respondents that had yet to implement an EHR were questioned about their perceptions, it became clear that smaller practices perceive many barriers to purchasing and implementing an EHR (Figure 7)

Figure 7 shows only practices that have not yet implemented an EHR. It displays the proportion of respondents by practice size category who answered ‘significant’ or ‘very significant’ when asked about the influence of capital resources, financing and productivity in their decision to invest in an EHR. Practices smaller than 21 full-time-equivalent (FTE) physicians were more likely to be concerned about these barriers than larger practices.



Based upon a 5-point scale where 1=Very insignificant, 2=Insignificant, 3=Neutral, 4=Significant, and 5=Very significant.

EHR Integration with other systems

Many EHR purchasers have a practice management system (PMS) in place at the time of purchase. The level of integration between the two systems can be a factor in the successful optimization of the EHR. Integration with a PMS may also enhance the EHR’s ability to provide the efficiencies that can reduce practice costs and improve revenue. We asked the study’s respondents to describe the status of integration between their EHR and their PMS (Figure 8).

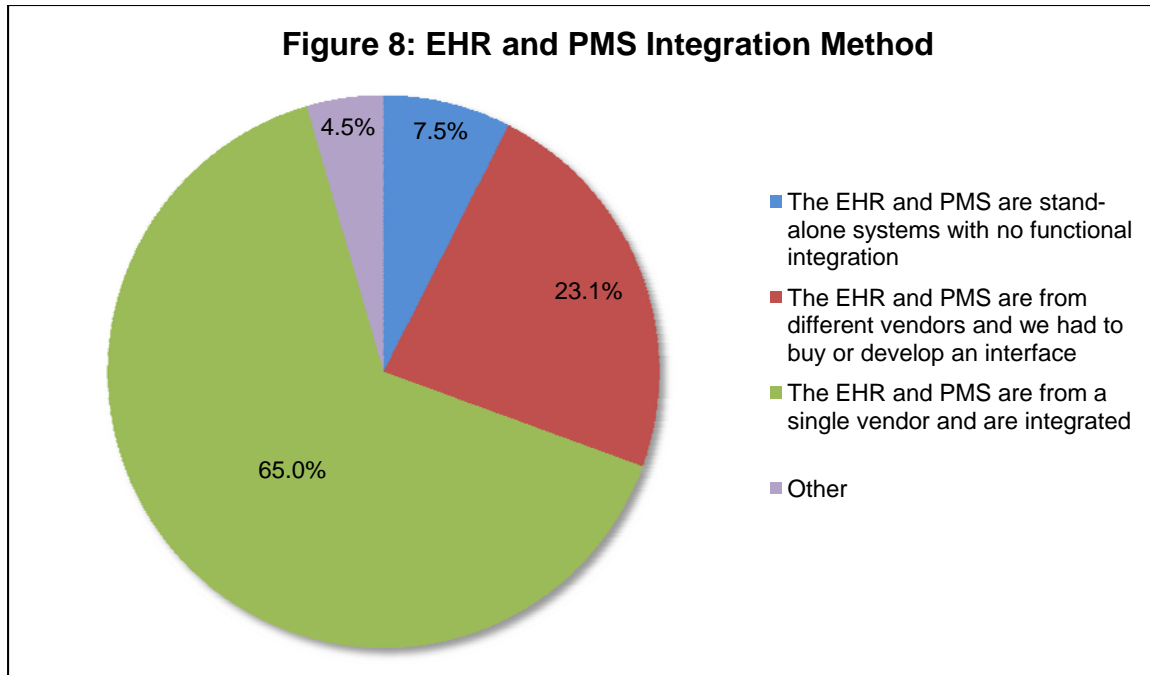
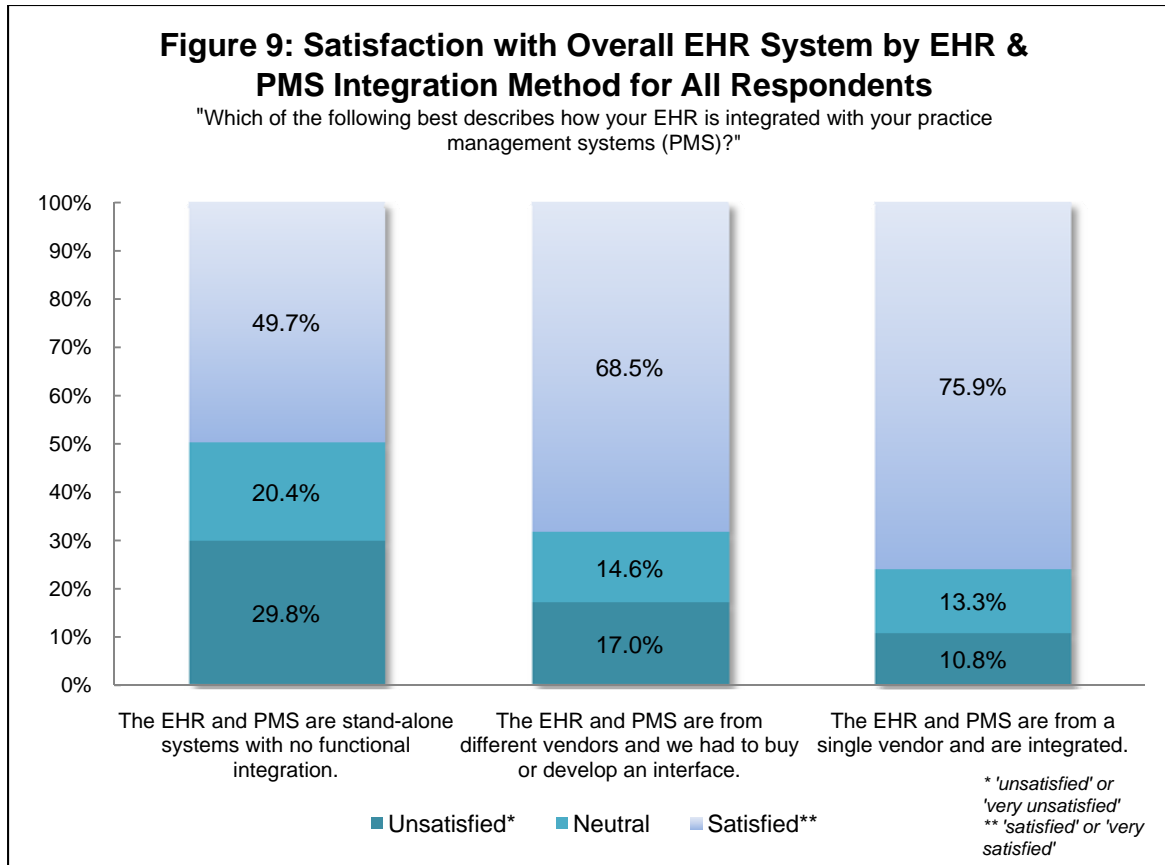


Figure 8 indicates that a large percentage of the respondents have fully integrated EHR and PMS systems purchased from the same vendor. To better understand the impact of these types of integration we looked at overall EHR system satisfaction for respondents at different levels of EHR/PMS integration (Figure 9).

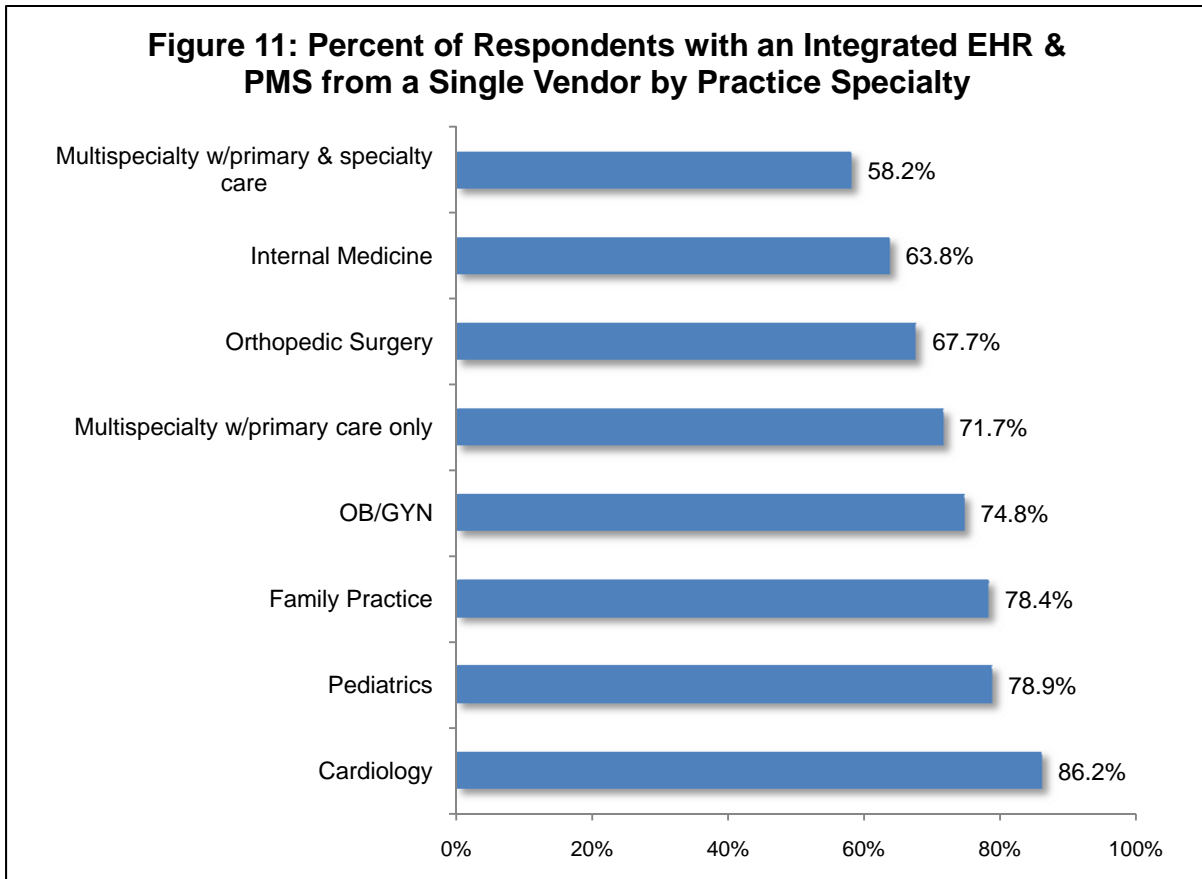
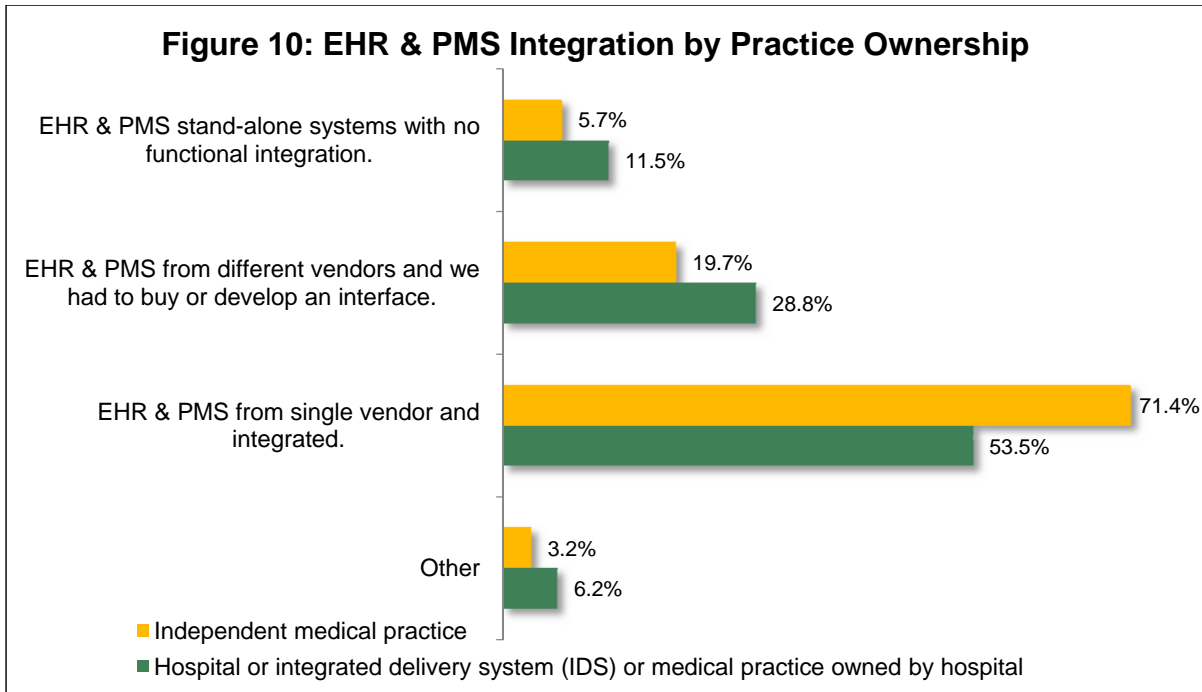
Figure 9 indicates a relationship between integration method and overall satisfaction with an EHR system. Those with an integrated EHR and PMS from the same vendor expressed the greatest levels of satisfaction (75.9 percent of respondents were ‘satisfied’ or ‘very satisfied’). Those with systems from different vendors but with an integrated interface that they bought or developed represented the middle ground, yet more than two-thirds of this group (68.5 percent) expressed satisfaction with their EHR systems. Less than half of those whose EHR and PMS systems had no functional integration were satisfied with their EHR and 29.8 percent were unsatisfied. This indicates a relationship between the degree of EHR and PMS integration and overall satisfaction with an EHR.



Based upon a 5-point scale where 1=Very unsatisfied, 2=Unsatisfied, 3=Neutral, 4=Satisfied, and 5=Very satisfied.

Many factors individual to an organization may go into a decision about the method of integrating an EHR with a practice management system. To explore the potential influences on these decisions, we looked at EHR/PMS integration method by ownership to see what patterns emerged. As Figure 10 shows, independent medical practices are much more likely to own integrated systems from one vendor than IDS- or hospital-owned practices.

A comparison of integration methods between responding single-specialty groups and multispecialty groups with primary and specialty care also gives support to organizational complexity as a factor in systems integration, or the lack of it (see Figure 11). A multispecialty group may have already invested in powerful billing and practice management systems that cannot easily be replaced, which would be an economic factor hindering their ability to opt for a full replacement of the practice management system at the time an EHR is purchased.



Satisfaction with EHR abilities

When EHR users at all levels of implementation were asked about their overall system, most (71.8 percent) gave a positive response of ‘satisfied’ or ‘very satisfied’ on a 5-point scale. Only 13.7 percent reported being ‘unsatisfied’ or ‘very unsatisfied’ with their overall EHR system.

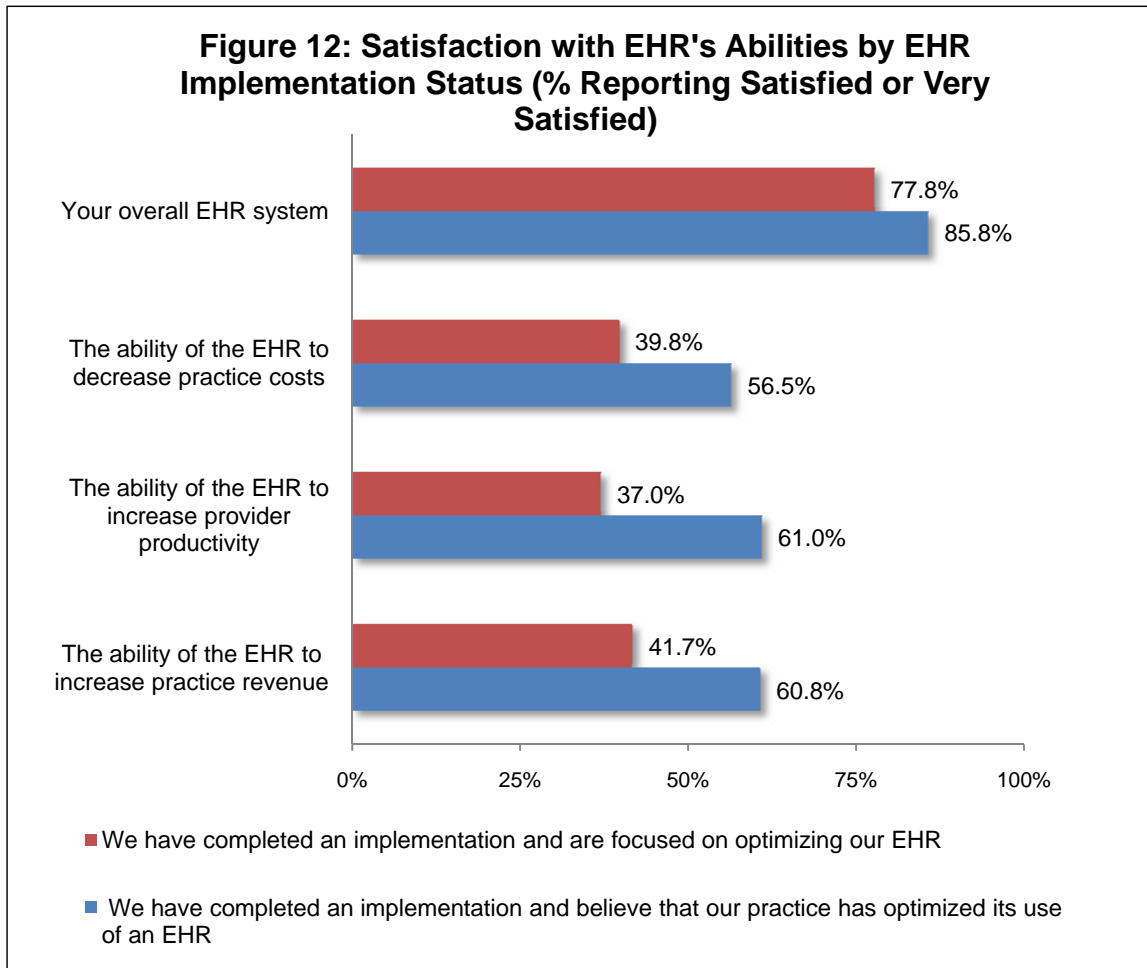
EHR users at all levels also expressed satisfaction with the ability of their systems to:

- Integrate with their practice management system (68.8 percent);
- Increase the quality of care to patients (65.6 percent); and
- Enhance patient safety (66.7 percent).

The comparative feelings of overall satisfaction or dissatisfaction did not vary greatly by the size of practice or type of practice ownership; however, there were differences based on the stage of implementation. We looked at the satisfaction scores of EHR users who had optimized or were in the process of optimizing their systems — presumably, these users had moved beyond initial implementation stages and were beginning to see results. We combined those who rated themselves as ‘satisfied’ and ‘very satisfied’ and compared them in key categories according to their level of EHR implementation (Figure 12).

Those who considered their practices’ use of EHR fully optimized were the most satisfied across the board with their systems’ abilities, rating their systems higher compared with practices still optimizing their systems. The findings include:

- Ability of EHR to decrease practice cost: 56.5 percent of optimized users satisfied vs. 39.8 percent of users who have implemented but are still optimizing their EHRs;
- Ability of EHR to increase provider productivity: 61 percent vs. 37 percent; and
- Ability of EHR to increase practice revenue: 60.8 percent vs. 41.7 percent.



Based upon a 5-point scale where 1=Very unsatisfied, 2=Unsatisfied, 3=Neutral, 4=Satisfied, and 5=Very satisfied.

These data indicate that EHR users find reaching full optimization of their system produces benefits, and that they are more likely to perceive these benefits than other users. Efforts to optimize an EHR implementation are likely to produce tangible benefits for a majority of EHR users.

Vendors

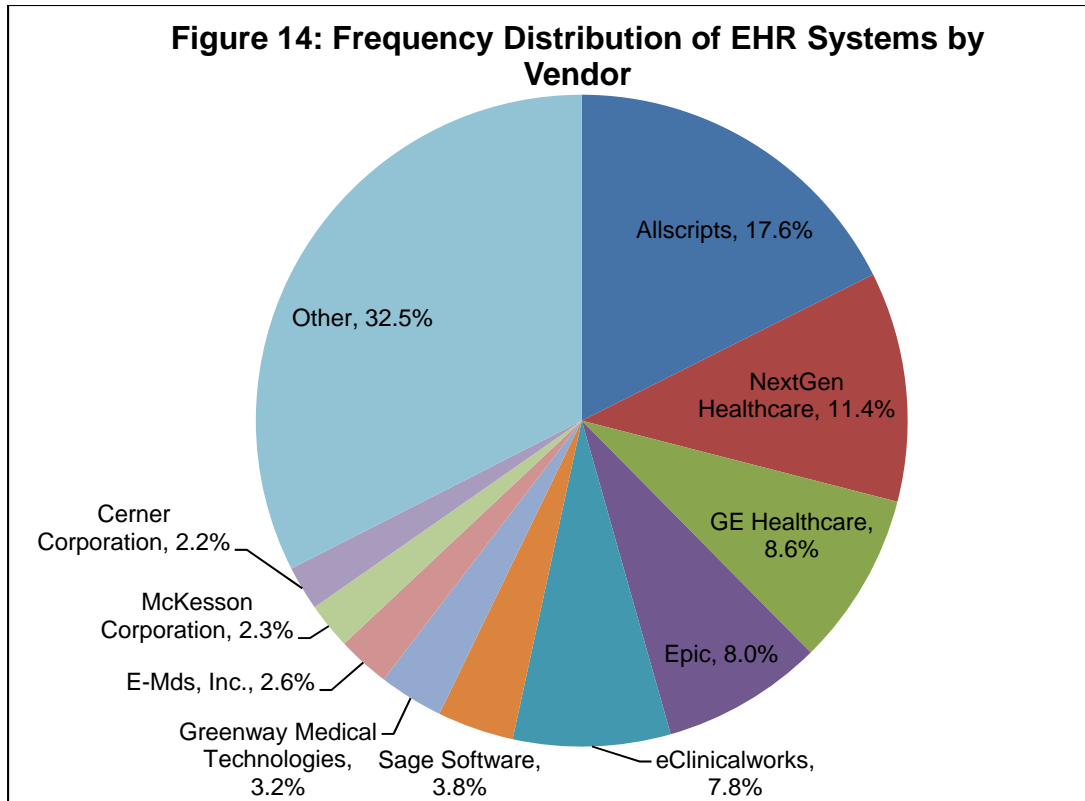
In an industry with more than 300 system vendors, it was no surprise to see a broadly diverse list of systems in use. This profusion of choices would indicate a buyer's market; however, the sheer number of choices available may confuse and even lengthen the purchasing process. To help make this study's findings more relevant to EHR users and potential purchasers in today's marketplace, we asked our respondents which EHR system they used. The broad array of systems on the market is reflected in the responses we received (Figure13).

Figure 13: Frequency Distribution of EHR Systems

System	% of respondents using
NextGen Ambulatory EHR By NextGen Healthcare	11.4%
Centricity By GE Healthcare	8.6
EpicCare Ambulatory EMR By Epic	8.0
Allscripts Professional EHR By Allscripts	7.9
eClinicalWorks By eClinicalworks	7.6
Allscripts Enterprise By Allscripts	6.7
PrimeSuite 2011 By Greenway Medical Technologies	3.2
e-MDs Solution Series By E-Mds, Inc.	2.6
Practice Partner By Practice Partner/McKesson Corporation	2.3
Intergy EHR by Sage By Sage Software	2.3
Millenium PowerChart/PowerWorks by Cerner Corporation	2.2
athenaClinicals By athenahealth, Inc.	1.8
Misys EMR by Allscripts	1.6
Sage Intergy EHR By Sage Software	1.3
MEDENT By Community Computer Service Inc.	1.2
Other	31.3

The most frequently reported system in our study (which was not designed to accurately measure market share), NextGen Ambulatory EHR by NextGen Healthcare, accounted for fewer than 12 percent of the responses and 15 systems had 1 percent or more of the responses. To put the profusion of EHR products in perspective, 133 different EHR systems account for the 31.3 percent in the “Other” category in Figure 13.

The products in use can also be illustrated by looking at the frequency distribution of EHR systems by EHR vendor. Two vendors (Allscripts and NextGen Healthcare) accounted for 29 percent of the EHR products. (Figure 14)



Some EHR owners seek replacement

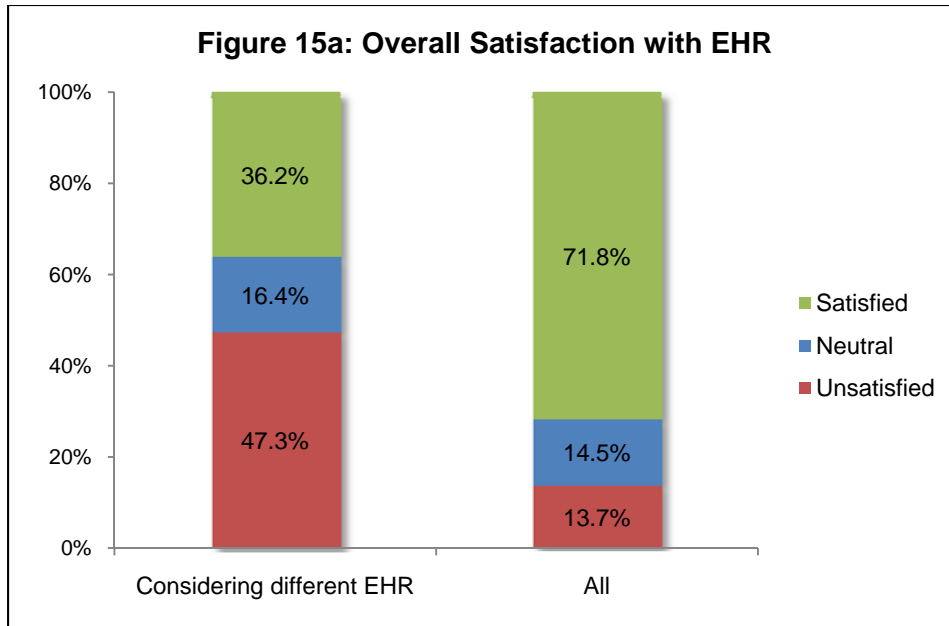
Those who owned an EHR but planned to implement a different one represented 8.2 percent of all EHR users in our study. We dug into this category of user to determine whether their responses were the result of a failed implementation or simply a desire to replace an older system that was no longer fulfilling the need.

We found that a large portion of these ‘replacers’ (47.3 percent) rated themselves ‘unsatisfied’ to ‘very unsatisfied’ with their current system. A sampling of comments from these respondents indicates disappointment with the EHR’s impact on physician productivity:

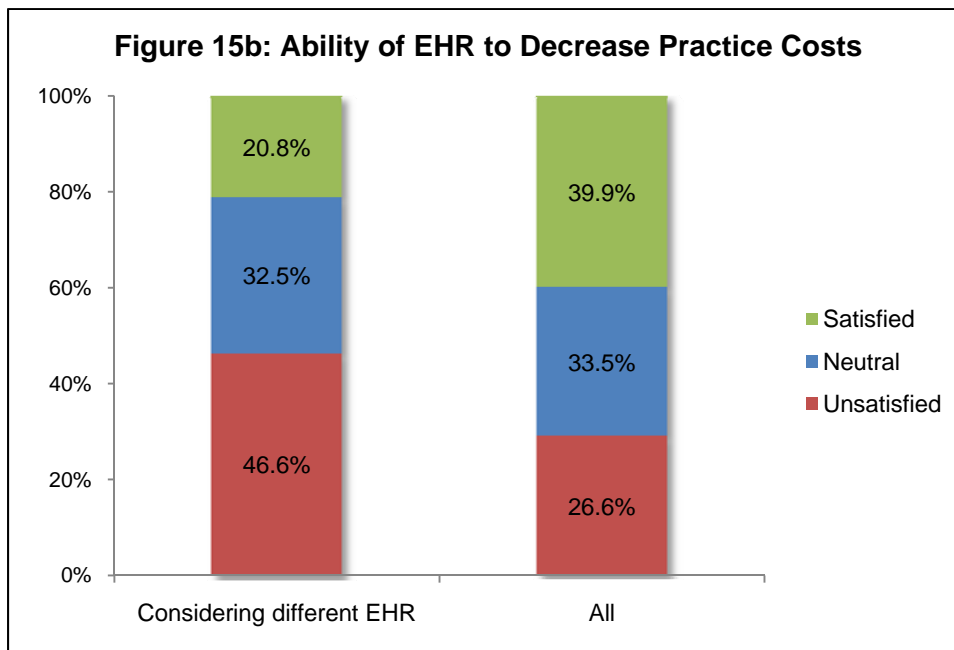
- “EHR has slowed down our providers and caused some providers to leave the practice.”
- “After a year, more providers are at 50-60% productivity.”
- “Physicians see one to two patients fewer per day than when they used paper charts.”

These comments raise the issue of whether the EHR system is to blame or if the practice has not optimized the implementation by designing new work flows and processes.

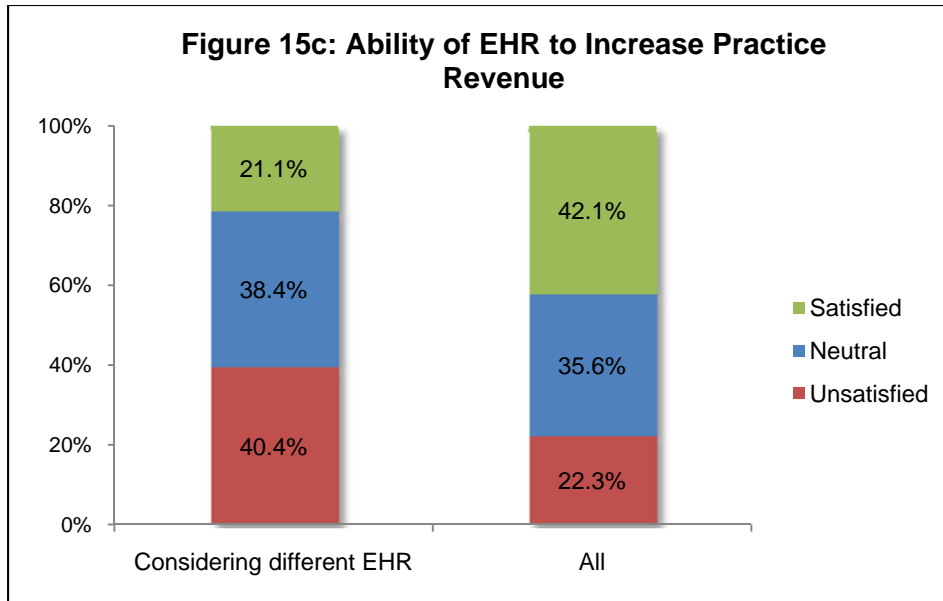
Figures 15a through 15d compare those who are considering replacing their EHR system with all respondents to this study. As one might expect, the dissatisfaction runs across several categories of EHR abilities.



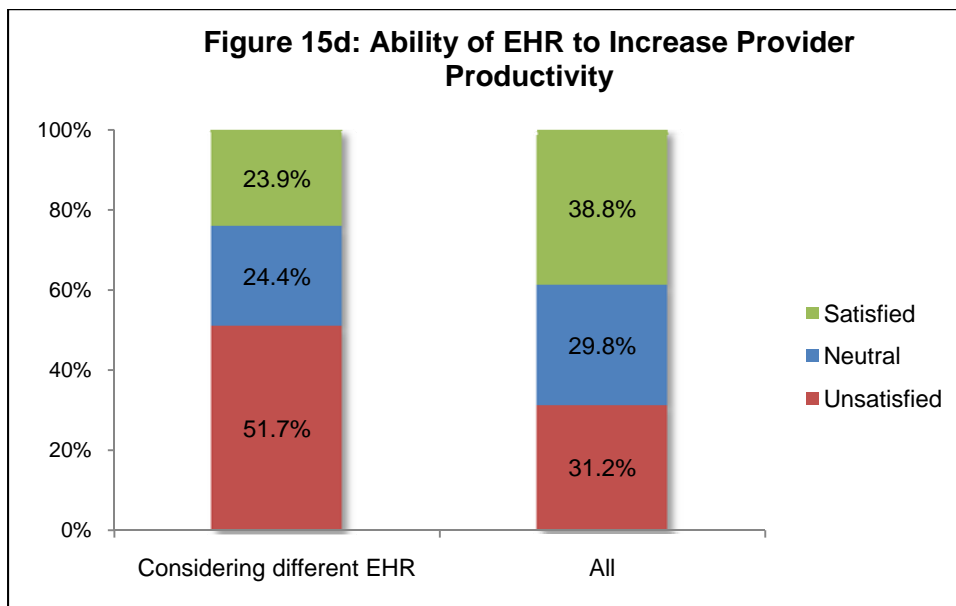
Based upon a 5-point scale where 1=Very unsatisfied, 2=Unsatisfied, 3=Neutral, 4=Satisfied, and 5=Very satisfied. The green satisfied sections above are the sum of satisfied and very satisfied. The rust unsatisfied sections above are the sum of very unsatisfied and unsatisfied.



Based upon a 5-point scale where 1=Very unsatisfied, 2=Unsatisfied, 3=Neutral, 4=Satisfied, and 5=Very satisfied. The green satisfied sections above are the sum of satisfied and very satisfied. The rust unsatisfied sections above are the sum of very unsatisfied and unsatisfied.



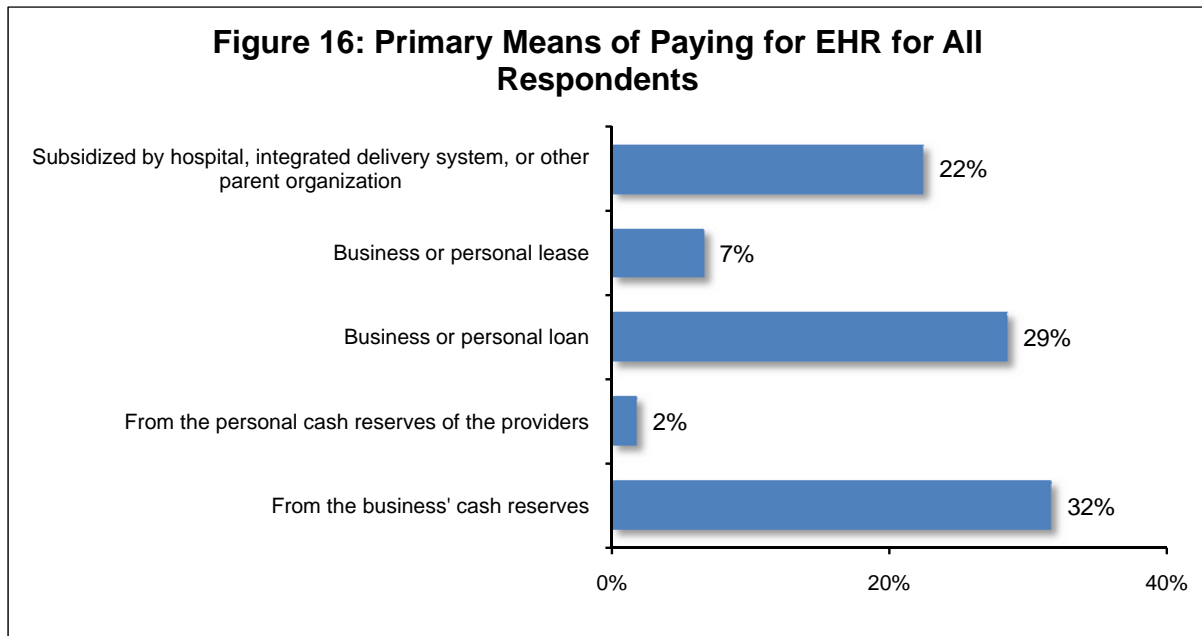
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Financing poses challenge to small practices

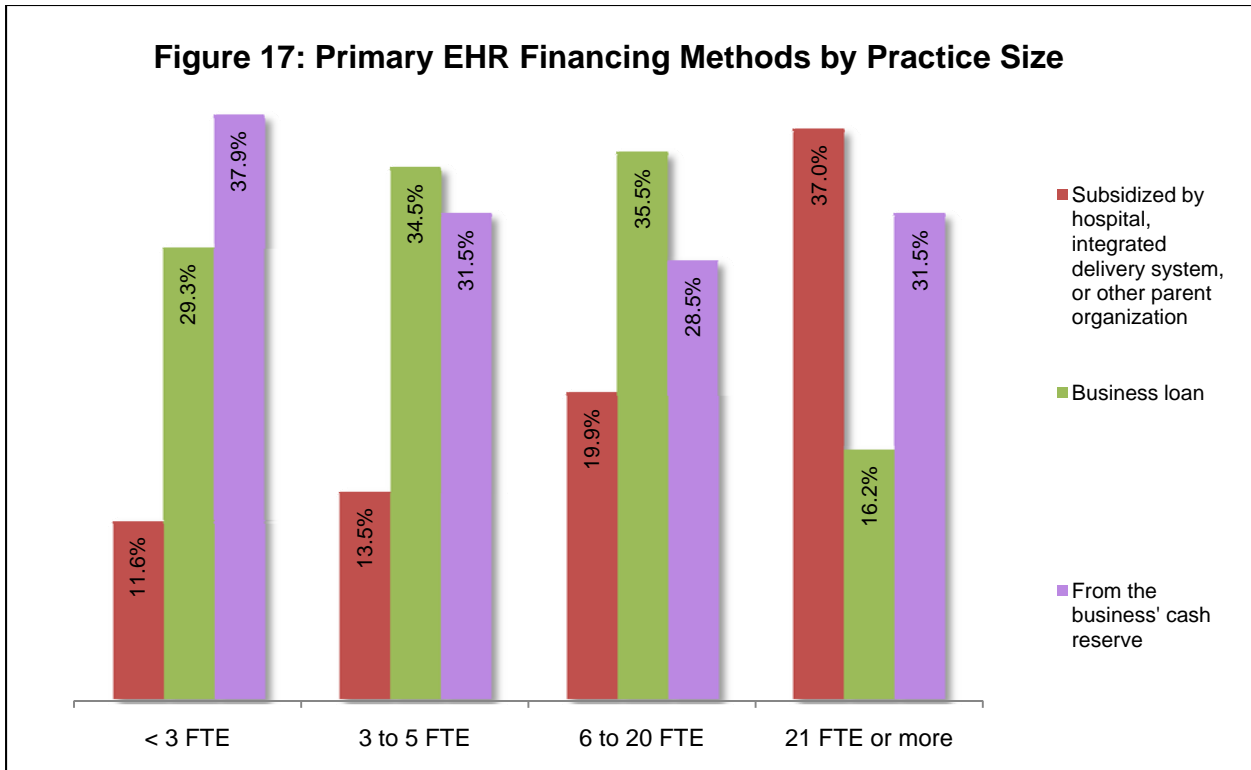
The resistance to purchasing and using an EHR may have several causes based upon practice size and practice ownership. Small independent practices may have fewer cash reserves and more limited access to outside capital sources, such as loans, than larger practices or those owned by a hospital or IDS. We asked respondents the primary method their practice used to pay for their EHR (Figure 16). Then we compared the use of various financial sources by size of practice as measured by number of FTE physicians (Figure 17) and by ownership of practice (Figure 18a and Figure 18b).



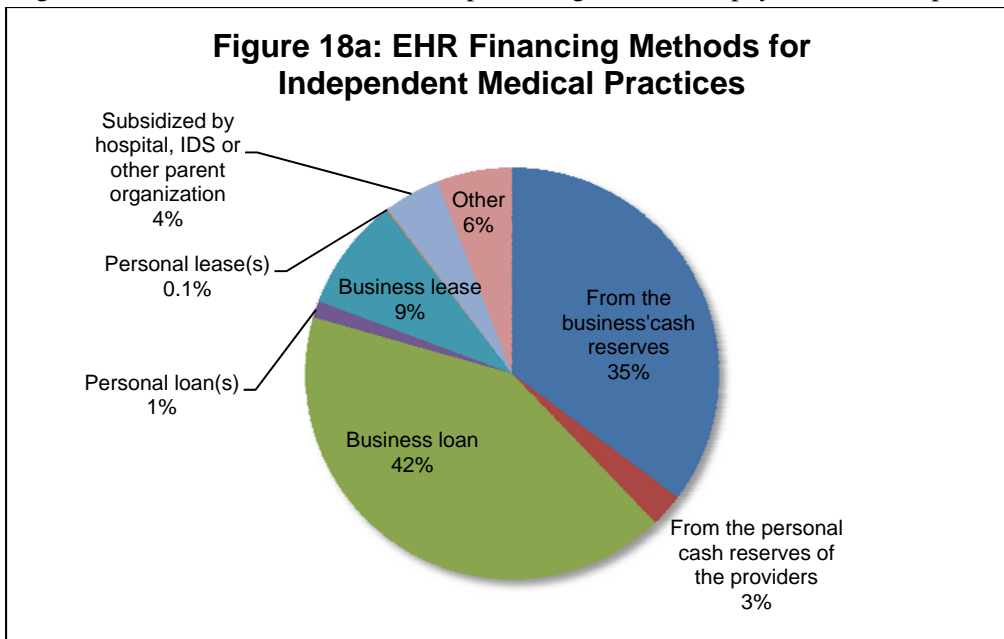
As might be expected, smaller practices showed a different pattern of financing for EHR purchases than larger practices. Smaller practices were more likely to use the business' cash reserves than larger practices.

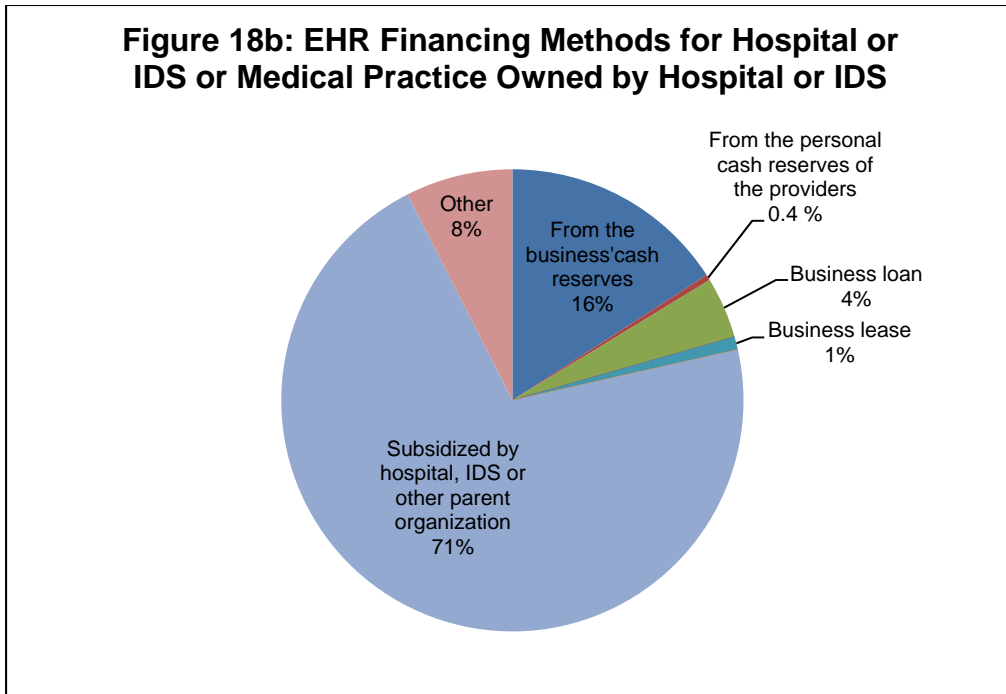
The most commonly cited financing sources for EHR purchases (Figure 17) were:

- Business cash reserves;
- Business loans; and
- Subsidization by a parent organization.



Examining EHR financing methods based on ownership revealed a different perspective. Independent medical practices (Figure 18a) used business cash reserves more than twice as often and were much more likely to lease EHRs than hospital- or IDS-owned practices. Most hospital- or IDS owned practices (Figure 18b) relied on subsidies from a parent organization to pay for the EHR purchase.





Return on investment: Expectations and reality

Our study found that most EHR owners either experienced an increase or no change in practice operating costs and either a decrease or no change in provider productivity. Comparing those who felt they had optimized their EHRs with the study responses as a whole found notable differences in judging a system's return on investment. Figure 19 shows responses about total practice operating costs and Figure 20 shows responses about physician productivity.

Just over a quarter (26.5 percent) of all respondents in the study said physician productivity increased, while (25.9 percent) of all respondents said total practice operating costs decreased following implementation and familiarization with their EHR. More respondents reported the opposite results occurred: physician productivity decreased (30.6 percent) and practice operating costs increased (38.4 percent).

Figure 19: Allowing enough time after implementation for physicians and staff to become familiar with the EHR, what happened to total practice operating costs?

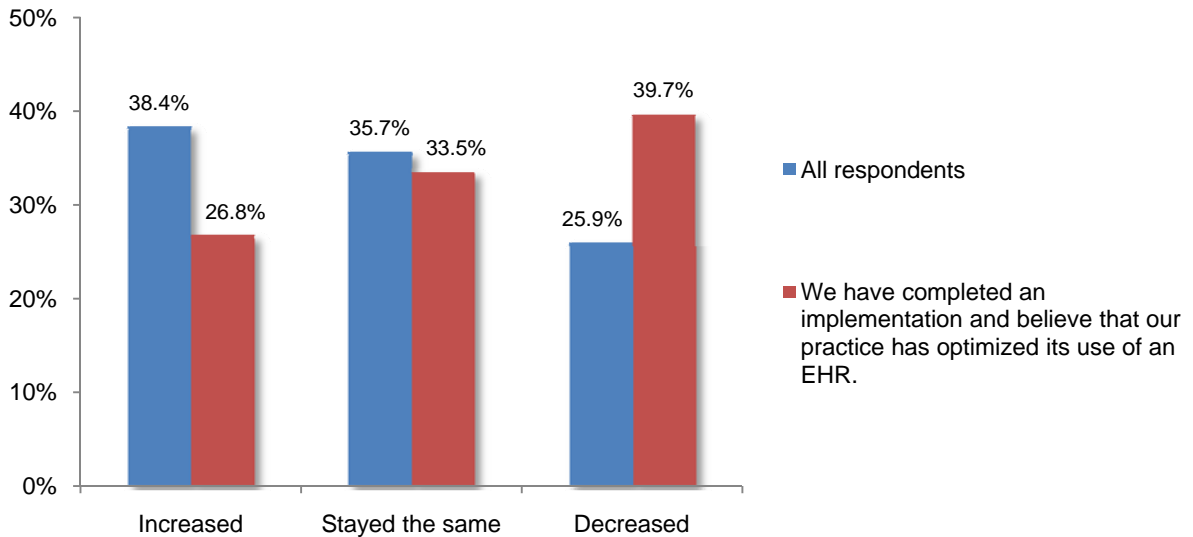
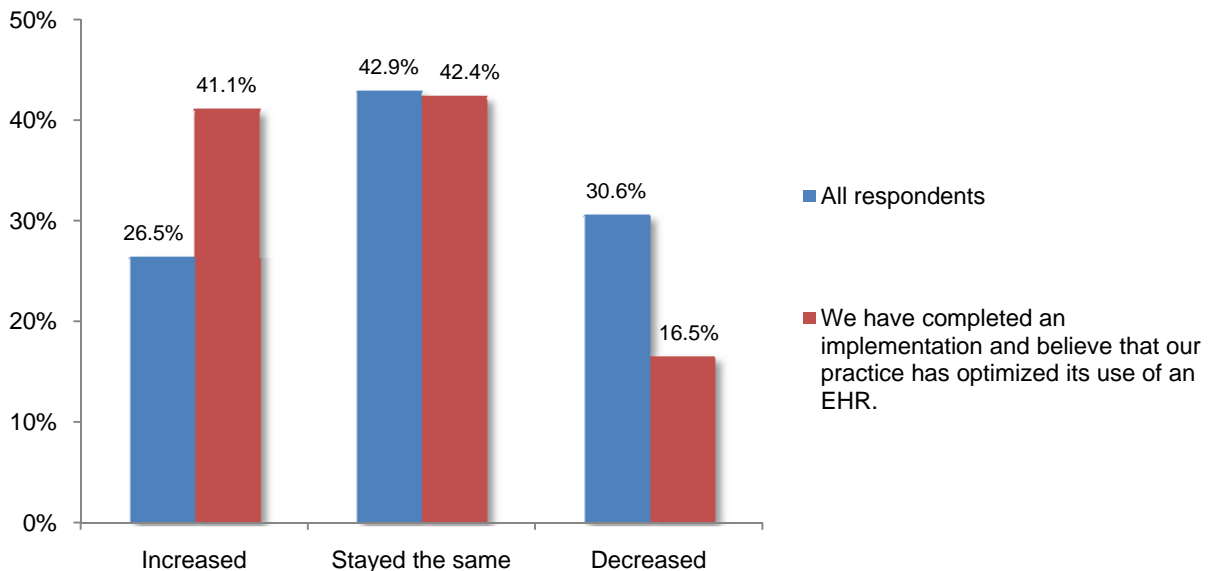


Figure 20: Allowing enough time after implementation for physicians and staff to become familiar with the EHR, what happened to physician productivity?



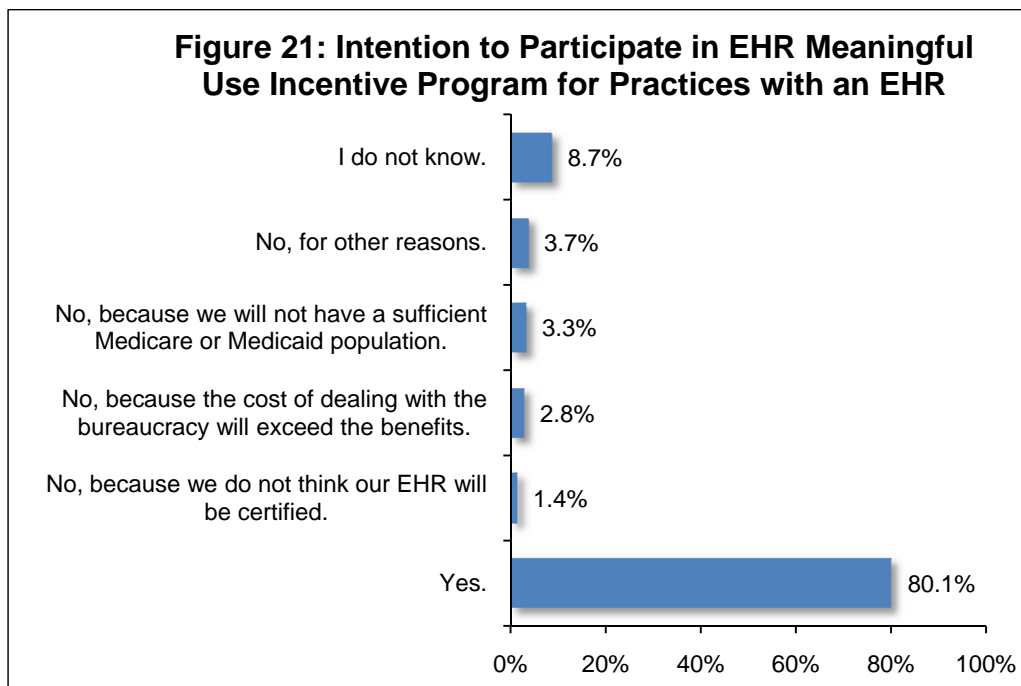
Respondents who indicated that their practice had optimized its use of an EHR reported very different performance:

- Operating costs decreased: 39.7 percent
- Productivity increased: 41.1 percent
- Operating costs increased: 26.8 percent
- Productivity decreased: 16.5 percent

These data indicate that optimizing use of an EHR is an essential step in realizing the technology’s beneficial impact on productivity and operating cost. Considering that there were still sizable minorities of optimized EHR users who had **not** received these benefits, the lesson may be that picking the right EHR for one’s practice can make a difference. Alternately, the lesson may be that some who said they had optimized their systems have reached a false summit and are still in the middle stages of optimization.

Many intend to apply for HITECH incentives

We examined the responses of those who said they already stored health records for a majority of their patients in an EHR and found that 80.1 percent of this group planned to participate in the EHR meaningful use incentive payment program (Figure 21). The next largest response from this segment of respondents came for those who did not know their practices’ plans (8.7 percent). About 11 percent said their practice does not plan to participate for various reasons.



Among our respondents, the most common reasons for a practice with an EHR to state that it does not plan to participate in the EHR meaningful use incentive payment program were:

- The cost of dealing with the bureaucracy will exceed the benefits (2.8 percent);
- We will not have a sufficient Medicare or Medicaid population (3.3 percent);
- We do not think our EHR will be certified (1.4 percent); and
- No, for other reasons (3.7 percent).

One ingredient in the success of the government’s EHR initiative will be whether substantial numbers of physicians feel that the program’s monetary rewards are sufficient. To examine this issue, we asked respondents to list their EHR capital cost per FTE physician and monthly operating cost. The responses we received are evidence that, among this group at least, the amount of the HITECH incentive payments appear appropriately targeted. Physicians treating Medicare patients qualifying for the full HITECH incentive amount for meaningful use of EHR would receive payments totaling \$44,000 between 2011 and 2016. That amount would be enough to cover the median cost of an EHR purchase and the median system operating costs for two years (Figure 22).

Figure 22: EHR Capital and Operating Costs	Median Cost	24-month cost
EHR capital cost per FTE physician	\$30,000	\$30,000
EHR operating cost per FTE physician per month	550	\$13,200
Notes: What was the total purchase cost for your EHR system (software, hardware, cabling, telecommunications upgrades, building modifications, training, etc.) divided by your practice's number of full-time-equivalent (FTE) physicians? What is the approximate software and hardware maintenance cost per FTE physician per month for your current EHR system? (If you use an ASP model EHR, report your monthly cost per FTE physician.)		

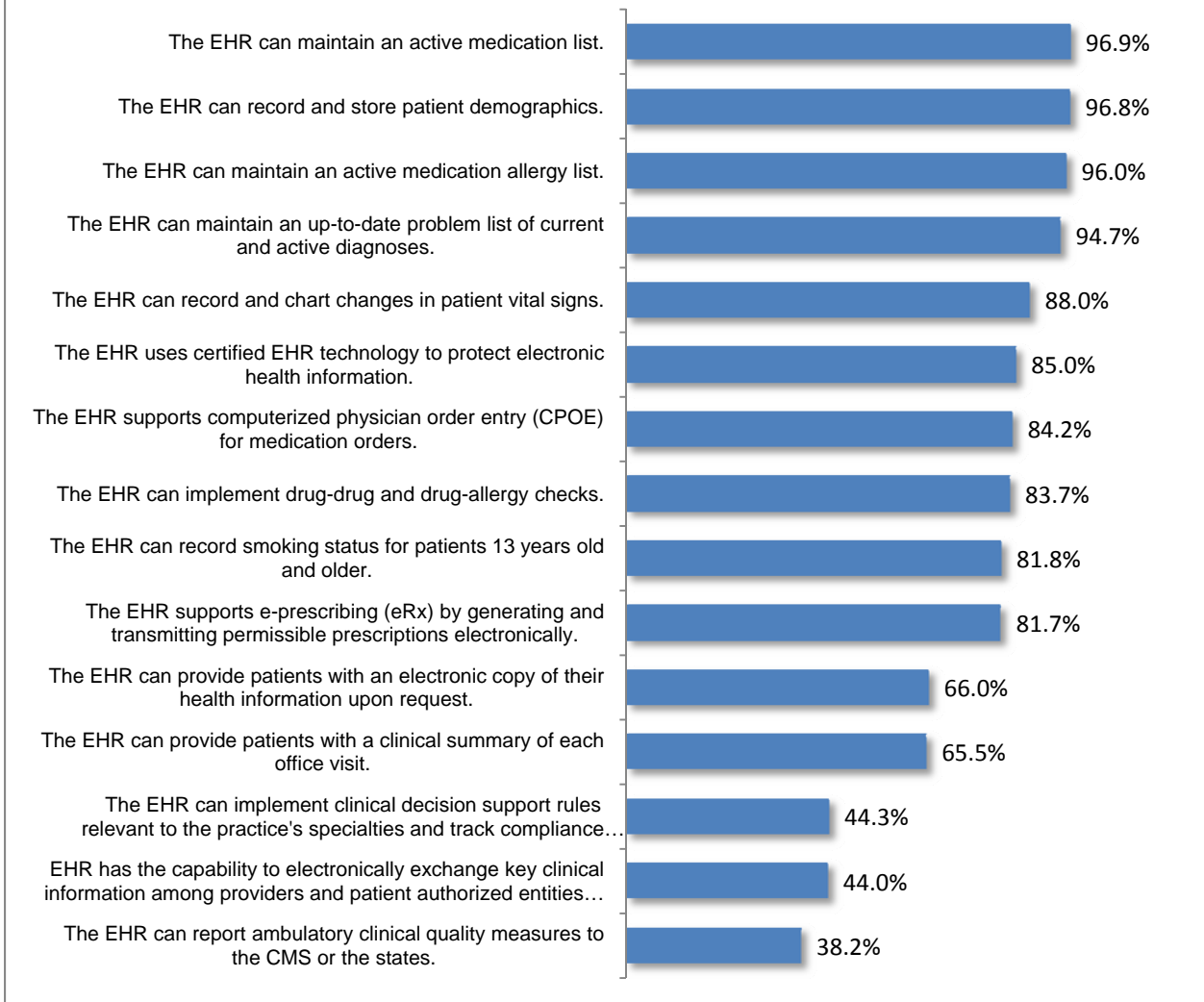
Meaningful use: When we examined the 15 core criteria for meaningful use as a whole, 13.6 percent of practices with an EHR that plan to apply for the CMS meaningful use incentives indicated that their EHR has the features necessary to meet all of them and that some or all of the physicians were using the features. Another 13.9 percent indicated that while their EHRs have the functional capability to meet meaningful use criteria, none of their physicians currently utilize all of the functions required for meaningful use.

EHRs and meaningful use: We asked respondents to indicate whether their EHRs could perform the functions necessary for meaningful use. We also asked whether physicians were using those features. To gain a view of how prepared medical practices were at the time of our study (Fall 2010) to participate successfully in the EHR incentive program, we looked at only those practices that had optimized their use of an EHR or had completed implementation and were in the process of optimizing the system’s use (Figure 23).

This segment of our respondents represents an important group for the success of the federal incentive program as it, presumably, should be in the best position to reap the potential rewards and avoid the Medicare reimbursement penalties that are to take effect after 2016 for those who do not demonstrate meaningful use of a certified EHR.

As Figure 23 indicates, not all of the physicians in the practices with EHRs that have been implemented would meet the meaningful use objectives as of fall 2010, shortly before the incentives program's first year of operation. It is possible that some physicians may seek the several exemptions to meaningful use requirements because those objectives do not apply to their specialty or to the patients they treat, and, in some cases, respondents had not reached the stage of the optimization process where all of their EHR's features had been activated.

Figure 23: Meaningful Use 15 Core Objectives Status for Practices That Have Completed EHR Implementation
 (% reporting "Our EHR has this feature and all or some of our physicians use it")



Conclusion

The data from this research suggest that some physician practices that have historically operated in a fee-for-service environment are not yet convinced that adoption of EHRs makes sense from a business perspective. This study found that 67.4 percent of medical practices that currently use paper medical records feel that the expected loss of productivity after the transition to an EHR system is a ‘significant’ or ‘very significant’ barrier to EHR implementation. This may be an important explanation for why physician practices have been slow to implement EHRs and why the federal government feels that incentives are necessary to persuade practices to adopt EHRs.

Our research, however, presents some evidence that even in a fee-for-service world, an EHR can make financial sense for those practices that have figured out how to change their internal business processes and work flows to take advantage of the EHR’s potential and capabilities. For practices that feel they have optimized the EHR implementation process, 41.1 percent report that physician productivity increased and 39.7 percent report that total practice operating costs have decreased.

This study also highlights the fact that a significant percentage of physician practices will attempt to take advantage of the federal government’s EHR incentive program. Further research will be needed, however, to determine the ability of physician practices to meet Stages 1, 2 and 3 of the meaningful use requirements and to ascertain how effective this incentive program has been at increasing the number of organizations adopting EHR technology.

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