

ELECTRONIC HEALTH RECORDS

A User-Satisfaction Survey

If you already use an electronic health record system, here's your chance to help your colleagues who haven't yet made the leap.

Kenneth G. Adler, MD, MMM, and Robert L. Edsall

Family Practice Management has published the results from three surveys of vendors of electronic medical record systems, or electronic health record systems (EHRs), as they have been called more recently. The most recent of these reports appeared four years ago, however,¹ and all had the inherent weakness of providing information self-reported by vendors who might reasonably be expected to be biased.

A survey of users of EHRs could have avoided that potential for bias, but finding enough family physicians who use EHRs to make such a survey worthwhile would have been difficult four years ago. Enough practices have adopted EHR technology in recent years, however, that the time for such a survey appears to have arrived. The AAFP's Center for Health Information Technology estimates that 10 percent to 15 percent of AAFP members now use EHRs.

In this issue, *FPM* is publishing an EHR user survey – not the results yet, but the survey form itself, as a means of data collection. The survey instrument was developed in cooperation between the editors of *FPM* and Kenneth G. Adler, MD, MMM. The survey is modified and greatly expanded from the EHR demonstration rating form included in Adler's article in this issue, "How to Pick an EHR," page 55.

The intent of this survey is not to arrive at a picture of the current state of EHR use among family physicians. Rather it is to collect satisfaction data from as many family-physician users of as many different EHR systems as possible and, by publishing system-specific results in an upcoming issue of *FPM*, to help future purchasers of EHR systems make sound choices for their practices.

The survey project will succeed in direct proportion to the number of family physicians who respond. Certainly having one response from a group practice where six family physicians use the same EHR is not enough, since all

six are likely to have different opinions of the system. The ideal is to obtain a response from every family physician who uses a commercially available EHR system. That said, the broadcast nature of this survey requires some validation of responses – some provision to guarantee that respondents are indeed family physicians, that no one is submitting multiple responses to the survey, etc. While not ideal, the most practical means of validation available seems to be verification of AAFP membership; consequently, the survey asks for your membership number. Only responses from AAFP members will be tabulated.

Completing the survey

We realize that this comprehensive survey will take time out of your already busy day. We want to thank you in advance for responding. By doing so you will likely help many of your fellow family physicians and provide feedback to vendors that further spurs improvements in EHR technology. In order to maximize the number of valid responses and to make it as convenient as possible to respond, *FPM* is publishing the survey instrument both in this issue of *FPM* and online through the *FPM* Web site. The easiest way to submit a survey is to go online to www.aafp.org/ehrsurvey.xml. By providing your responses electronically, you will facilitate the analysis process. Alternatively, you can copy the survey pages in this issue, complete them by hand, and send the results to *FPM* either by fax at 913-906-6010 or by mail at *Family Practice Management*, 11400 Tomahawk Creek Pkwy, Leawood, KS 66211. ►

Send comments to fpmedit@aafp.org.

1. Rehm S, Kraft S. Electronic medical records: the *FPM* vendor survey. *Fam Pract Manage*. January 2001:45-54.

Electronic Health Record Systems User Rating Survey

EHR product name and version number:

Your name:

Date of evaluation:

Your title or role:

Years in practice:

Your AAFP membership number (only member responses can be accepted):

Your e-mail address (optional):

Date the EHR went into use in your organization:

How long have you yourself used this EHR in months?

Name and version number of your practice management system:

Disclosure

Please select one:

- A. Neither I nor any member of my immediate family has a significant financial interest in or affiliation with the manufacturer or vendor of the EHR system I am evaluating here.
- B. I and/or one or more members of my immediate family have a significant financial interest in or affiliation with the manufacturer or vendor of the EHR system I am evaluating here.

If you selected B, please explain: _____

Instructions

In answering the following questions, please evaluate your EHR based on your personal experience.

1. FUNCTIONALITY

	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Function not installed	Function installed but not used
How satisfied are you with the way your EHR allows you to perform the following <i>chart review</i> functions?							
Obtain and review lab results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtain and review radiology reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtain and review other test results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create and review scanned documents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review progress notes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review prior vital signs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitor current and past meds and med refills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review data in flowchart form on demand (e.g. vital signs, lipids, growth curves)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review chart information (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How satisfied are you with the way your EHR allows you to perform the following <i>documentation</i> functions?							
Create notes using only "point and click technology" (no typing, transcription or voice recognition)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create "free-form" notes from transcription, typing or voice recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create notes using a combination of point-and-click and free-form technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customize templates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create telephone messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create and maintain problem lists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create and maintain medication lists	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify allergies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cite portions of the chart in the note	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Document patient care (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How satisfied are you with the way your EHR allows you to perform the following <i>preventive-care tracking</i> functions?							
Monitor immunizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Track health maintenance items (e.g., Pap, mammogram, colonoscopy)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receive alerts on health maintenance deficiencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Track preventive care (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied Function not installed Function installed but not used

How satisfied are you with the way your EHR allows you to perform the following *prescription writing* functions?

Receive drug-interaction alerts when writing prescriptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receive drug-allergy alerts when writing prescriptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receive drug formulary information and alerts when writing prescriptions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connect electronically or by e-fax to pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage prescription writing (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *order entry* functions?

Enter lab orders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter radiology orders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter orders for other tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter orders (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *referral management* functions?

Identify providers covered on a patient's insurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage referrals (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *communications and remote access* functions?

Send e-faxes to outside physicians	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access records remotely (e.g., chart access from home or remote transcriptionist access)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicate electronically with office staff regarding patient management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicate electronically with office staff regarding practice management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-mail patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communications and remote access (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *patient education* functions?

Provide high-quality information relevant to patient's diagnosed problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offer patients Web access to part or all of their chart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide patient education (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *security* function?

Maintain security related to patient information (e.g., password protection, audit trails)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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How satisfied are you with the way your EHR allows you to perform the following *coding and charge-capture* functions?

Receive E&M coding advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capture appropriate charges automatically from the note	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coding and charge capture (overall)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


How satisfied are you with the way your EHR allows you to perform the following *practice analysis* functions?

Analyze outcomes of care (e.g., average A1c levels of patients with diabetes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Find patients with certain characteristics (e.g., all patients on a recalled drug)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How satisfied are you with the way your EHR allows you to perform the following *paperless workflow* function?

Work without paper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Comments:

continued 

2. SOFTWARE INTERFACES

For each software interface (electronic interface) between your EHR and another system, how satisfied are you with the way the interface works?

	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Interface not present
Practice management system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laboratory system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radiology system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commercial pharmacies (e.g., SureScripts software)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospital information system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

In the following sections, please indicate the extent to which you agree or disagree with each statement.

3. OVERALL EASE OF USE AND FLEXIBILITY

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
This EHR allows individual user-specific customization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This EHR minimizes user data input.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This EHR offers multiple note creation options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This EHR is fast (minimal wait between screens, minimal boot-up time, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

4. COST

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
This EHR cost more than it's worth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This EHR has saved or will save my practice money over its first five years of use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Our estimated total cost for this EHR per physician per year is:

(Note: Cost should include software purchase and maintenance fees, implementation fees, information technology staff costs, equipment costs, network costs, etc. Figure the average cost per year over the first five years.)

\$ _____

Comments:

5. IMPLEMENTATION

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
Implementation of our EHR went smoothly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our EHR company provided excellent support during implementation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The interface between our practice management system and EHR works well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our implementation occurred on schedule. (Please comment below on how long it took.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

6. ONGOING SERVICE AND SUPPORT

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
Our EHR company provides excellent ongoing support and service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our EHR comes out with at least one significant upgrade per year.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our EHR company assists with ongoing training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

7. OVERALL SATISFACTION

	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
Given the opportunity to pick an EHR system again, I would pick the same EHR.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I could go back to paper-based records with no financial penalties, I would do so.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this EHR to physicians in solo or small group practices (1 to 5 physicians).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this EHR to physicians in mid-size practices (6 to 30 physicians).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this EHR to physicians in large group practices (more than 30 physicians).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this EHR to any physician.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

8. PRACTICE CHARACTERISTICS

In the following questions, "your organization" means the corporation, partnership or other legal entity that has installed the electronic health record system you evaluated above. The organization may operate one or more practice sites. The EHR system in question may be used by all or only by some of the physicians and other providers in the organization.

In your organization, how many physicians of all specialties see patients?	
How many of those physicians are family physicians?	
In your organization, how many non-physician providers (for instance, NPs and PAs) see patients?	
What percentage of the following groups in your organization use your EHR system?	
Physicians	
Family physicians	
Non-physician providers (for instance, NPs and PAs)	
How many non-provider users in your organization (e.g., MAs, receptionists, billers and medical records personnel) use the EHR?	
How many full-time equivalent personnel does your organization have for computer support in total?	
How many full-time personnel does your organization have for EHR support specifically?	

9. YOUR ATTITUDES AND EXPERIENCE

	Novice		Average user		Expert	
In general, and not just in terms of this EHR system, how would you rate yourself as a computer user?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How involved were you in the decision to select this EHR system for your organization?

- A. I made the final decision
- B. I had significant input but did not make the final decision.
- C. I was relatively uninvolved in the decision process.
- D. I had no input whatsoever.

How would you describe your attitude toward adoption of this EHR system in your organization?

- A. I favored this system initially and continue to consider it a good choice.
- B. I favored this system initially but now believe it was a bad choice
- C. I opposed this system initially and continue to believe it was a bad choice.
- D. I opposed this system initially but now believe it was a good choice.

Thank you for your input. Your response will help many of your colleagues make the tough decisions involved in selecting an EHR system. If you have completed the print version of this survey, you can submit your responses by fax to 913-906-6010 or by mail to *FPM*, 11400 Tomahawk Creek Pkwy, Leawood KS 66211. If you would prefer to submit your responses online, you'll find an interactive version of this survey on the *FPM* Web site at www.aafp.org/ehrsurvey.xml. Results will be published in a future issue of *FPM*. 