Massachusetts Survey of Physicians and Computer Technology

Instructions

This survey asks about your medical practice and factors related to the use of certain computer technology, particularly electronic health records (EHRs; also called electronic medical records). It will take about 15 minutes to complete.

All responses are private and confidential. Results will be analyzed only in the aggregate and individual responses will not be reported.

Section I. Practice Characteristics

In this section, we ask you questions about your outpatient practice.

- 1. In a typical week, in how many different outpatient offices do you see patients?

 - □₂ Two
 - \square_{3} Three or more
 - \square_4 None, I do not see any outpatients (**SKIP** to Question 30 on Page 7)

For the remainder of the survey, please keep in mind the office practice site where you spend the most time, your **main** practice.

- 2. What percent of your outpatient clinical time is spent at your (main) practice?
 - - Less than 25% of outpatient time 25%-49% of outpatient time

 - \Box_3 50% 75% of outpatient time
 - \square_4 More than 75% of outpatient time
- 3. How would you best characterize your practice? (Please check only one)
 - \Box_1 Solo primary care practice
 - \Box_2 Solo specialty care practice
 - \square_{3} Primary care group or partnership
 - **G**₄ Single specialty group or partnership
 - **D**₅ Multi-specialty group or partnership (including staff or group model HMOs)
- 4. How long have you been associated with your practice group?

____ years

- 5. Are you a
 - - Full-owner Part-owner
 - Part-owner
 - □₃ Not an owner of the practice

6. Considering all full- and part-time clinicians at your main practice, including yourself, how many are

Physicians: ____ ___

Nurse practitioners or physician assistants: ____ ___

- 7. Have any residents or students been present in your practice within the past year?
 - □₁ Yes
- 8. Please estimate the number of outpatient visits you have in a typical week in your practice.

_ ___ outpatient visits

9. Please estimate approximately what percentage of the patients you see in a typical week are of each race/ethnicity:

a)	Asian	 %	
b)	American Indian or Alaska Native	 %	
c)	Black or African American, non-Hispanic	 %	should total
d)	Native Hawaiian or Other Pacific Islander	 %	> 100%
e)	White, non-Hispanic	 %	
f)	Hispanic or Latino	 %	
g)	Other	 %)

10. With your current medical record system (paper and/or electronic), how easy would it be for you or your staff to generate the following information about your patients?

	List of potients by diagnosis or bealth	Very Easy	Somewhat Easy	Somewhat difficult	Very Difficult	Cannot Generate
a)	List of patients by diagnosis or health risk (e.g., diabetes)					
b)	List of patients by laboratory results (e.g., patients with abnormal hematocrit levels)			□,		
c)	List of patients by medications they currently take (e.g., patients on warfarin)			 ₃		

11. Thinking of your main practice, please indicate how much of a problem each of the following is for you: (Check only **one** for each item.)

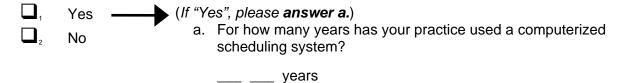
	Not a Problem	Slight Problem	Moderate Problem	Serious Problem
a) Isolation from colleagues				
b) Personal or professional stress				
 Having to work long hours to meet practice demands 				
 Feeling demoralized about the state of medical practice in general 				

- 12. Overall, how satisfied are you with your current practice situation?
 - □ Very satisfied
 - \Box_2 Generally satisfied
 - \square_{3} Somewhat dissatisfied
 - \Box_4 Very dissatisfied

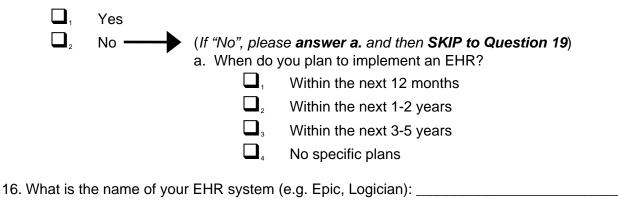
Section II: Health Information Technology

The next set of questions will ask you about the computers and health information technology in your main office practice. Please select the answer that best describes your practice.

13. Does your practice use a computerized scheduling system?



- 14. Upon completing a typical office visit, how do you generate medication prescriptions?
 - \Box_1 Computerized, with decision support (e.g., drug interaction alerts)
 - **L**₂ Computerized, no decision support
 - □₃ Handwritten
 - □₄ Other (Describe:_____
- 15. Does your main practice have components of any electronic health record (EHR), that is, an integrated clinical information system that tracks patient health data, and may include such functions as visit notes, prescriptions, lab orders, etc?



17. Please indicate when your practice first began using an EHR:

____ / ____ (month / year)

18. Please indicate all **features of the EHR** that you **have available** in your practice. For those features that you have, indicate the extent to which **you use** them:

		A	vailal	ble	le Use		
							l use most
				Don't	l do	l use some	or all of
Fea	atures of your EHR	Yes	No	Know	<u>not</u> use	of the time	the time
a)	Laboratory test results						
b)	Laboratory order entry						
c)	Radiology test results						
d)	Radiology order entry						
e)	Electronic visit notes						
f)	Reminders for care activities (e.g. overdue health maintenance)						
g)	Electronic medication lists of what each patient takes						
h)	Electronic problem list						
i)	Can transmit prescriptions to pharmacy electronically or via electronic faxing						
j)	Electronic referrals or clinical messaging (secure e-mailing between providers)						

19. How much of a barrier is each of the following to beginning or expanding the use of computer technology in your main practice?

		Not a barrier	Minor barrier	Major barrier
a)	Computer skills of you and/or colleagues/staff			
b)	Computer technical support			
c)	Lack of time to acquire knowledge about systems			
d)	Start-up financial costs			D ₃
e)	Ongoing financial costs			
f)	Training and productivity loss			
g)	Physician skepticism			
h)	Privacy or security concerns			
i)	Lack of uniform standards within industry (e.g., having to use multiple systems used by different providers and plans)			
j)	Technical limitations of systems			

20. How much of a role do/did each of the following organizations play in deciding whether to adopt a new electronic health record system in your practice?

	Very much	Some what	Very little	Not at all	N/A or don't know
a) Your practice group(s)					
 b) Physician Hospital Organization(s) (PHOs) or Independent Practice Association(s) (IPAs) 					
 c) Integrated Delivery System(s) (IDS) (e.g. Baystate, Partners) 					
d) Managed care plans you work with					
e) Massachusetts Medical Society					
f) Your specialty's professional society (e.g., AAP, AAFP, ACP, ACS, etc.)					
g) MassPRO or DOQ-IT					
h) Massachusetts e-Health Collaborative					
i) The LeapFrog Group					D ₅
j) Other (i. specify:)					D ₅

Section III. Personal Computer Experience

- 21. How often do you use the Internet for personal and/or professional use, including e-mail from home, work, or another location? (*Please check only one*)
 - \Box_1 Several times a day
 - \Box_2 Daily
 - \Box_{3} Weekly
 - □_₄ Monthly
 - $\square_{\rm s}$ Less than monthly or not at all
- 22. What type of Internet connection do you have at your main practice? (Please check only one)
 - \Box_1 Do not have an Internet connection at work
 - \square_2 Dial-up modem connection
 - **D**₃ Broadband (i.e., DSL or cable modem) or faster connection (e.g. T1 or T3 line)
 - Don't know
- 23. Does your practice have email?

 - D₂ No

Section IV: Computers and Health Care

24. For each outcome listed below, indicate whether you think the effect of computers is, or would be, very positive, somewhat positive, no effect, somewhat negative, or very negative:

Effect of computers on	Very Positive	Somewhat Positive	No Effect	Somewhat Negative	Very Negative
a) Controlling costs of health care					
b) Quality of health care					
 c) Interactions within the health care team 					D ₅
d) Patient-physician communication					
e) Patient privacy					
f) Clinicians' access to up-to-date knowledge					D ₅
g) Efficiency of providing care					
h) Medication errors					

Section V: Financial Considerations

25. Please indicate below whether the following factors (through bonuses, returned withholds, or other incentive payments) contribute to **either** your **practice's income**, or **your personal earnings**?

	Pract Inco	tice's ome		sonal nings
	Yes	No	Yes	No
 Types of electronic information systems you have (e.g., EHRs, e- prescribing) 				
b) The amount you use electronic information systems				
c) Patient survey results (e.g. satisfaction)				
d) Clinical quality (e.g., "pay for performance")				

- 26. Approximately what percent of your 2004 clinical practice income was earned in the form of bonuses, returned withholds, or other incentive payments based on the use of electronic health record systems or electronic prescribing?
 - \Box_1 0% of income
 - \Box_2 1 5% of income
 - **D**₃ 6 10% of income
 - \square_4 more than 10% of income
 - □₅ Not sure
- 27. Practices vary with respect to the capital they have available for expansion and improvement. What financial resources does your main practice have for expansion or improvements of any kind?
 - \Box_1 Extensive resources
 - \square_2 Moderate resources
 - □₃ Limited resources
 - □₄ No resources

28. If you decided that a new computer system would improve health care quality and was worth the financial investment, how difficult would it be for your practice to purchase such a system if the cost was...

		Not at all Difficult	Somewhat Difficult	Very Difficult	Impossible
a)	Less than \$10,000 per physician				
b)	\$10,000 - \$25,000 per physician				
c)	Greater than \$25,000 per physician				

Section VI: The Office Practice Environment

29. Please indicate your agreement or disagreement with the following statements, considering your main office practice:

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
a) The office staff are innovative					
b) The physician(s) are innovative					
 c) Among my colleagues, I am usually one of the first to find out about a new diagnostic test or treatment 					
 We are actively doing things to improve quality of care 					
 e) After we make changes to improve quality, we evaluate their effectiveness 					
f) We have quality problems in our practice					D ₅
 g) Our procedures and systems are good at preventing errors from occurring 			□ ₃		

Section VII: Personal Characteristics

We would like to end this survey by asking about general background information that may help us interpret survey findings and determine how representative our sample is.

30. In what year did you graduate from medical school?

____ year graduated

31. In what year were you born?

____ year

32. Are you

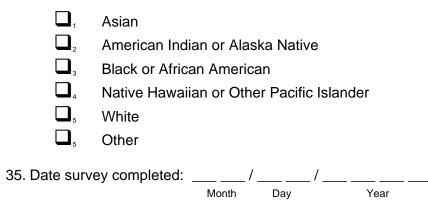
□₁ Male

[MD_ID]

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33. Are you of Hispanic or Latino origin?

- $\Box_1 \qquad \text{Yes} \\ \Box_2 \qquad \text{No}$
- 34. Please answer this question whether or not you are Hispanic or Latino. What is your race? **Select one or more** of the following -



Please return the survey in the stamped return envelope to (Atlantic to insert):

Thank you for your help!