Health Information Technology and Workflow

Clinician and Office Staff Survey

Instructions

We appreciate the time you are taking to complete this survey and hope that the information will help us better understand how new technology influences the work people do in physician practices.

This is a survey about health information technology such as:

- **Electronic Health Records** (EHR or EMR, such as Allscripts, EPIC, EHS, Greenway);

- **Health Information Exchange** (HIE: A system that transfers patient health information electronically between two or more hospitals or other healthcare providers.);

- **Patient Portal** (sometimes referred to as [electronic] personal health records or PHRs; allows patients to view portions of their medical records [e.g., laboratory test results] and supports other health-related tasks such as making appointments or requesting medication refills. Some patient portal applications exist as stand-alone Web sites; other portal applications are integrated into an existing EHR system);

- **Secure Messaging with patients** (use of secure e-mail between patients and clinicians, typically using the secure messaging functionality in the EHR and/or patient portal);

- **e-forms** (surveys that are administered using computerized media [e.g., tablets, laptops] to collect information from patients using pre-formatted forms before or during patient visits).

When completing the survey, you can leave blank any questions that you do not want to answer. Your responses will be kept confidential to the extent permitted by law, including Section 944(c) of the Public Health Service Act. 42 U.S.C. 299c-3(c). That law requires that information collected for research conducted or supported by AHRQ that identifies individuals or establishments be used only for the purpose for which it was supplied.   This survey has been designed to gather information about the work you do, the technology you use, and how the technology you use impacts how you do your work. Please try to answer all of the questions.

To answer the questions, check the appropriate box on the scale. For example:

	Never			**It varies**			**Always**
Secure messaging has a negative impact on patient care.	$\square_1$	$\square_2$	$\boxtimes_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$

Some questions will require answers similar to the scale above, while other questions will require different responses. Please try to be as accurate as possible.

Section A. About your job

1. Please check your <u>current</u> job position:
(For respondents who have multiple jobs: please answer the question for the job position that you have spent most of your time in the last 6 months)

☐$_1$ Physician   ☐$_2$ Specialist
☐$_3$ Physician Assistant   ☐$_4$ Nurse
☐$_5$ Nurse Practitioner   ☐$_6$ Medical Assistant
☐$_7$ Receptionist/Scheduler   ☐$_8$ Lab or X-ray Technician
☐$_9$ Other (specify) _____

2. How long have you been in your current position?   _____ years   _____ months

3. How many hours do you work at your job in an **average** week?   _____ hours per week

4. Do you use (please check all that apply):

☐$_1$ Electronic Health Records (EHR or EMR, such as Allscripts, EPIC, EHS, Greenway)

☐$_3$ Health Information Exchange (HIE, a technology that connects EHRs from different hospitals and practices)

☐$_2$ Patient portal (sometimes referred to as [electronic] personal health records or PHRs; allows patients to view portions of their medical records [e.g., laboratory test results] and supports other health-related tasks such as making appointments or requesting medication refills. Some patient portal applications exist as stand-alone Web sites; other portal applications are integrated into an existing EHR system)

☐$_4$ Secure messaging with patients (use of secure e-mail between patients and clinicians, typically using the secure messaging functionality in the EHR and/or patient portal)

☐$_5$ e-forms (surveys that are administered using computerized media [e.g., tablets, laptops] to collect information from patients using pre-formatted forms before or during patient visits)

5. For which of the following health IT applications did you receive training:

    ☐$_1$ Electronic Health Records (EHR)

    ☐$_2$ Health Information Exchange (HIE)

    ☐$_3$ Patient Portal

    ☐$_2$ Secure Messaging with patients

    ☐$_2$ e-forms

Section B. About organizational readiness for change

Please indicate your agreement or disagreement with the following statements, considering your practice:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. Among my colleagues, I am usually one of the first to find out about a new care process, diagnostic test, or treatment.	☐$_1$	☐$_2$	☐$_3$	☐$_4$	☐$_5$
2. After we make changes to improve quality, we evaluate their effectiveness.	☐$_1$	☐$_2$	☐$_3$	☐$_4$	☐$_5$
3. Our procedures and systems are good at	☐$_1$	☐$_2$	☐$_3$	☐$_4$	☐$_5$

preventing errors from occurring.

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
4.　We are innovative.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$

C. About the patient portal

Patient Portals, which are sometimes referred to as [electronic] personal health records or PHRs, allow patients to view portions of their medical records (e.g., view laboratory test results) and support other health-related tasks such as making appointments or requesting medication refills. Some patient portal applications exist as stand-alone Web sites; other portal applications are integrated into an existing EHR system.

1. Does the practice you work in use patient portals (Web sites that allow patients to view portions of their medical records)?

    $\square_1$ Yes
    $\square_2$ No *(go to Section D)*

If you provide **direct care** (physicians, physician assistants, nurse practitioners, nurses, and medical assistants), please fill out the questions in Table **A** below.

If you **do not provide direct care** (receptionist, scheduler, technician), please fill out the question in Table **B**.

How much do you agree or disagree with the following statements about the patient portal?

TABLE A: Clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree
1.　The patient portal makes communication with patients more efficient.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
2.　Overall, the patient portal saves me time.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
3.　The patient portal has a negative impact on patient care.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
4.　The patient portal has a negative effect on my workflow.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
5.　The patient portal has a positive effect on patient-clinician communication.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
6.　The information I receive from the patient portal makes an impact on my decision-making.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
7.　The patient portal reduces my workload.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
8.　The patient portal reduces patient care errors.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
9.　The patient portal improves the quality of patient care.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
10. The information I get from the patient portal make my work easier.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
11. The patient portal has a positive impact on patient satisfaction	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
12. Overall, I am satisfied with the patient portal.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$

How much do you agree or disagree with the following statements about the patient portal?

TABLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not applicable
1. The patient portal makes communication with patients more efficient.	□1	□2	□3	□4	□5	□9
2. Overall, the patient portal saves me time.	□1	□2	□3	□4	□5	□9
3. The patient portal has a negative effect on my workflow.	□1	□2	□3	□4	□5	□9
4. The patient portal reduces my workload.	□1	□2	□3	□4	□5	□9
5. The patient portal improves the quality of patient care.	□1	□2	□3	□4	□5	□9
6. The information I get from the patient portal makes my work easier.	□1	□2	□3	□4	□5	□9
7. The patient portal has a positive impact on patient satisfaction.	□1	□2	□3	□4	□5	□9
8. Overall, I am satisfied with the patient portal.	□1	□2	□3	□4	□5	□9

Section D. About secure messaging

Secure messaging refers to use of secure e-mail between patients and clinicians, typically using the secure messaging functionality in the EHR and patient portal.

1. Do you use secure messaging (secure e-mails between patients and clinicians)?

   □1 Yes
   □2 No *(go to Section E)*

If you provide **direct care** (physicians, physician assistants, nurse practitioners, nurses, and medical assistants) please fill out question **2** and the questions in Table **A** below.

If you **do not provide direct care** (receptionist, scheduler, technician), please fill out the question in Table **B**.

2. With what percentage of your patients do you communicate by secure messaging?

   □1 1-10%   □2 11-25%   □3 26-50%   □4 More than 50%

How much do you agree or disagree with the following statements about secure messaging?

TABLE A: Clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree
1. Secure messaging makes communication with patients more efficient.	□1	□2	□3	□4	□5
2. Overall, secure messaging saves me time.	□1	□2	□3	□4	□5

TABLE A: Clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree
3. Secure messaging has a negative impact on patient care.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
4. Secure messaging has a negative effect on my workflow.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
5. Secure messaging has a positive effect on patient-clinician communication.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
6. The information I receive from secure messaging makes an impact on my decisionmaking.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
7. Secure messaging reduces my workload.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
8. Secure messaging reduces patient care errors.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
9. Secure messaging improves the quality of patient care.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
10. The information I get from secure messaging makes my work easier.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
11. Secure messaging has a positive impact on patient satisfaction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
12. Overall, I am satisfied with secure messaging.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$

How much do you agree or disagree with the following statements about secure messaging?

TABLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not Applicable
1. Secure messaging makes communication with patients more efficient.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
2. Overall, secure messaging saves me time.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
3. Secure messaging has a negative effect on my workflow.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
4. Secure messaging reduces my workload.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
5. Secure messaging improves the quality of patient care.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
6. The information I get from secure messaging makes my work easier.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
7. Secure messaging has a positive impact on patient satisfaction.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$
8. Overall, I am satisfied with secure messaging.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_9$

Section E. About e-forms

Does the practice you work in use *e-forms?* E-forms are surveys that are administered using computerized media (e.g., tablets, laptops) to collect information from patients using pre-formatted forms before or during patient visits.

    ☐₁ Yes
    ☐₂ No *(go to Section F)*

If you provide **direct care** (physicians, physician assistants, nurse practitioners, nurses, and medical assistants), please fill out the questions in Table **A** below.

If you **do not provide direct care** (receptionist, scheduler, technician), please fill out the question in Table **B**.

How much do you agree or disagree with the following statements about e-forms?

TABLE A: Clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree
1. e-forms make communication with patients more efficient.	☐₁	☐₂	☐₃	☐₄	☐₅
2. Overall, e-forms save me time.	☐₁	☐₂	☐₃	☐₄	☐₅
3. e-forms have a negative impact on patient care.	☐₁	☐₂	☐₃	☐₄	☐₅
4. e-forms have a negative effect on my workflow.	☐₁	☐₂	☐₃	☐₄	☐₅
5. e-forms have a positive effect on patient-clinician communication.	☐₁	☐₂	☐₃	☐₄	☐₅
6. The information I retrieve from e-forms makes an impact on my decisionmaking.	☐₁	☐₂	☐₃	☐₄	☐₅
7. e-forms reduce my workload.	☐₁	☐₂	☐₃	☐₄	☐₅
8. e-forms reduce patient care errors.	☐₁	☐₂	☐₃	☐₄	☐₅
9. e-forms improve the quality of patient care.	☐₁	☐₂	☐₃	☐₄	☐₅
10. The information I get from e-forms makes my work easier.	☐₁	☐₂	☐₃	☐₄	☐₅
11. e-forms have a positive impact on patient satisfaction.	☐₁	☐₂	☐₃	☐₄	☐₅
12. Overall, I am satisfied with e-forms.	☐₁	☐₂	☐₃	☐₄	☐₅

TABLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not Applicable
1. e-forms make communication with patients more efficient.	☐₁	☐₂	☐₃	☐₄	☐₅	☐₉
2. Overall, e-forms save me time.	☐₁	☐₂	☐₃	☐₄	☐₅	☐₉
3. e-forms have a negative effect on my workflow.	☐₁	☐₂	☐₃	☐₄	☐₅	☐₉
4. e-forms reduce my workload.	☐₁	☐₂	☐₃	☐₄	☐₅	☐₉
5. e-forms improve the quality of patient care.	☐₁	☐₂	☐₃	☐₄	☐₅	☐₉

TABLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not Applicable
6. The information I get from e-forms make my work easier.	□1	□2	□3	□4	□5	□9
7. e-forms have a positive impact on patient satisfaction.	□1	□2	□3	□4	□5	□9
8. Overall, I am satisfied with e-forms.	□1	□2	□3	□4	□5	□9

Section F. Barriers to using health IT in your work

How much of a barrier is each of the following to the use of health information technology (EHR, HIE, patient portal, secure messaging, e-forms) in your practice?

	Not a barrier	Minor barrier	Major barrier
1. Computer skills of you and/or colleagues/staff	□1	□2	□3
2. Computer technical support	□1	□2	□3
3. Lack of time to acquire knowledge about technology	□1	□2	□3
4. Start-up financial costs	□1	□2	□3
5. Ongoing financial costs	□1	□2	□3
6. Training and productivity loss	□1	□2	□3
7. Physician skepticism	□1	□2	□3
8. Privacy or security concerns	□1	□2	□3
9. Lack of uniform standards within industry (e.g., having to use multiple systems used by different providers and health systems/providers)	□1	□2	□3
10. Technical limitations of health information technology	□1	□2	□3
11. Staff skepticism	□1	□2	□3
12. Workflow changes	□1	□2	□3

Section G. About your perceptions of work

1. How satisfied are you with the care provided at your practice?	**Totally dissatisfied**	$\square_1$ $\square_2$ $\square_3$ $\square_4$ $\square_5$ $\square_6$ $\square_7$	**Completely satisfied**
2. How would you rate the quality of care provided at your practice?	**Lowest**	$\square_1$ $\square_2$ $\square_3$ $\square_4$ $\square_5$ $\square_6$ $\square_7$	**Highest**

The following questions deal with the workload that you experience in your job. Please put an 'X' on each of the following six scales at the point that matches your overall experience of workload.

Low   **High**

3. **Mental demand.** How much mental activity is required to perform your job (thinking, deciding, calculating, remembering, looking, searching, etc…)?

4. **Physical demand.** How much physical activity is required to perform your job (e.g., pushing, pulling, turning, controlling, activating, etc.)?

5. **Temporal demand.** How much time pressure do you feel due to the rate or pace at which the tasks or task elements occurred?

6. **Effort.** How hard do you have to work (mentally and physically) to accomplish your level of performance?

7. **Performance.** How satisfied are you with your performance at your job?

8. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about your job?

9. All in all, how satisfied would you say you are with your job?

Not at all satisfied	Not too satisfied	Somewhat satisfied	Very satisfied
$\square_1$	$\square_2$	$\square_3$	$\square_4$

10. How likely is it that you will actively look for a new job in the next year?

Not at all likely		Somewhat likely		Quite likely		Extremely likely
$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$

	Never	A few times a year or less, almost never	Once a month or less, rarely	A few times a month, some-times	Once a week, rather often	A few times a week, nearly all the time	Every day
11. I feel emotionally drained from my work.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$
12. I feel used up at the end of the workday.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$
13. I feel fatigued when I get up in the morning and have to face another day on the job.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$
14. Working all day is really a strain for me.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$
15. I feel burned out from my work.	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$	$\square_6$	$\square_7$

Section H. About you

1. What is your gender?   ☐₁ Male   ☐₂ Female

2. What is the highest level of education you have completed?

    ☐₁ High school/GED
    ☐₂ Some college
    ☐₃ 2-year college degree (Associate)
    ☐₄ 4-year college degree (Bachelor, BA, BS, BSN, etc.)
    ☐₅ Master's degree (MA, MS)
    ☐₆ Professional degree (MD, PharmD)
    ☐₇ Doctoral degree (PhD, DNP, etc)

3. How old are you?   ☐₁ 34 or less   ☐₂ 35-44   ☐₃ 45-54   ☐₄ 55+

4. Are you of Hispanic or Latino origin?   ☐₁ Yes   ☐₂ No

5. What is your racial background? (Check all that apply)

    ☐₁ American Indian / Alaska Native
    ☐₂ Asian
    ☐₃ Native Hawaiian or Other Pacific Islander
    ☐₄ Black / African American
    ☐₅ White
    ☐₆ Other (please specify):_____

6. What description does best describe the level of your computer skills?

    ☐₁ **Novice user** (You just started using computers)
    ☐₂ **Average user** (You use word processors, spreadsheets, e-mail, surf the Web, etc.)
    ☐₃ **Advanced user** (You can install software, setup configurations, etc.)
    ☐₄ **Expert user** (You can setup operating systems; know some computer programming languages, etc.)

7. How many years of computer experience do you have?   _____ years

Please write any comments you may want to share with the research team.

Thank you very much for your participation in this study.