Appendix M: Web-based Survey

Form Approved OMB No. 0935-0212 Exp. Date 07/31/2016

Health Information Technology and Workflow Clinician and Office Staff Survey

Public reporting burden for this collection of information is estimated to average 15 minutes per response, the estimated time required to complete the survey. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: AHRQ Reports Clearance Officer Attention: PRA, Paperwork Reduction Project (0935-0212) AHRQ, 540 Gaither Road, Room # 5036, Rockville, MD 20850.

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.

	Ne	ever		It varies			Always		
Secure messaging has a negative impact on patient care.	\Box_1	\square_2	×.	\square_4	\Box_5		\Box_7		

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

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 chec	k your <u>current</u> jo	ob position:						
(For responden	ts who have mul	tiple jobs: pleas	se answer the	question for th	he job position	n that you hav	ve spent mosi	of your time

in ine iasi o mo	mins)		
□ ₁ Physician		\square_2 Specialist	
\square_3 Physician A		□ ₄ Nurse	
□ ₅ Nurse Pract		\square_6 Medical Assistant	
□ ₇ Receptionis		□ ₈ Lab or X-ray Tech	nician
\square_9 Other (spec	ıfy)		
2. How long	have you been in your current position?	years	months
3. How many	hours do you work at your job in an averag	ge week?	hours per week
4. Do you use	e (please check all that apply):		
□ ₁ Electronic l	Health Records (EHR or EMR, such as Allse	cripts, EPIC, EHS, Gree	enway)
□ ₃ Health Info	rmation Exchange (HIE, a technology that c	onnects EHRs from dif	ferent hospitals and practices)
of their medica or requesting n	al (sometimes referred to as [electronic] per l records [e.g., laboratory test results] and su nedication refills. Some patient portal applic nto an existing EHR system)	ipports other health-rela	ated tasks such as making appointments
	saging with patients (use of secure e-mail be tionality in the EHR and/or patient portal)	etween patients and clin	nicians, typically using the secure
	rveys that are administered using computeriore-formatted forms before or during patient		, laptops] to collect information from
5. For which	of the following health IT applications did y	ou receive training:	
□ ₁ Ele	ctronic Health Records (EHR)		
□ ₂ Hea	alth Information Exchange (HIE)		
\square_3 Pat	ient Portal		
\square_2 Sec	ure Messaging with patients		
\square_2 e-fo	orms		
Section B. Abo	out 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.		\square_2	\square_3	\square_4	\square_5
2. After we make changes to improve quality, we evaluate their effectiveness.	\square_1	\square_2	\square_3	\square_4	\square_5
3. Our procedures and systems are good at preventing errors from occurring.		\square_2	\square_3	\square_4	\square_5
4. We are innovative.	\square_1	\square_2	\square_3	\Box_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 a patient portal?

 \square_1 Yes

 \square_2 No (go to Section D)

If you provide **direct care** (physicians, PAs,NPs, nurses, and MAs), 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?

TA	BLE 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	□₄	
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_2	\square_3	\square_4	
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_3	\square_4	\square_5
8.	The patient portal reduces patient care errors.	\Box_1	\square_2	\square_3	\square_4	\square_5
9.	The patient portal improves the quality of patient care.			\Box_3	\Box_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				\Box_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?

TAB	BLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not applicable
	The patient portal makes communication with patients more efficient.	\square_1	\square_2	□3	□₄	\square_5	□9
2. (Overall, the patient portal saves me time.	\square_1	\square_2	\square_3	\square_4	\square_5	0,
	The patient portal has a negative effect on my workflow.	\square_1	\square_2	\square_3	□₄	\square_5	□9
4.	The patient portal reduces my workload.	\square_1	\square_2	\square_3	\square_4	\square_5	
	The patient portal improves the quality of patient care.	\square_1	\square_2	\square_3	□₄	\square_5	و□
	The information I get from the patient portal makes my work easier.	\square_1	\square_2	\square_3	\square_4	\square_5	09
	The patient portal has a positive impact on patient satisfaction.	\square_1	\square_2	\square_3	□4	\square_5	 9
8. (Overall, I am satisfied with the patient portal.	\square_1	\square_2	\square_3	\square_4	\square_5	Π,

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.

4	T	. /	• • •	1 .	1	1
	LIO MOII HEA CACHTA	maccoming to	cacura a maile	hatwaan	nationte and	Cliniciane V
1.	Do you use secure	micosaging to	Secure e-mans	DCLWCCII	Datients and	. Chillicians i :
					P	, .

 \square_1 Yes \square_2 No (go to Section E)

If you provide **direct care** (MDs, PAs, NPs, nurses and MAs) 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?

□₁1-10%

 \square_2 11-25%

 \square_3 26-50%

 \square_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. Secur effici	re messaging makes communication with patients more ent.	\square_1	\square_2	\square_3	□₄	
2. Overa	all, secure messaging saves me time.	\Box_1	\square_2	\square_3	\square_4	\square_5
3. Secur	re messaging has a negative impact on patient care.	\square_1	\square_2	\square_3	\square_4	\square_5
4. Secur	re messaging has a negative effect on my workflow.	\square_1	\square_2	\square_3	\square_4	\square_5
1	re messaging has a positive effect on patient-clinician nunication.	\square_1	\square_2	\square_3	□₄	\square_5
	nformation I receive from secure messaging makes an et on my decisionmaking.	\square_1	\square_2	\square_3	\square_4	\square_5
7. Secur	re messaging reduces my workload.	\square_1	\square_2	\square_3	\square_4	\square_5
8. Secur	re messaging reduces patient care errors.	\square_1	\square_2	\square_3	\square_4	\square_5
9. Secur	re messaging improves the quality of patient care.		\square_2	\square_3	\square_4	\square_5
10. The interest easier	nformation I get from secure messaging makes my work r.	\square_1	\square_2	\square_3	\square_4	\square_5
11. Secur	re messaging has a positive impact on patient satisfaction.	\square_1	\square_2	\square_3	\square_4	\square_5
12. Overa	all, 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 messa patients more	ging makes communication with efficient.		\square_2	\square_3	\square_4	\square_5	□ 9
2. Overall, secur	re messaging saves me time.		\square_2	\square_3	\square_4	\square_5	□ 9
3. Secure messa workflow.	ging has a negative effect on my	\square_1	\square_2	\square_3	\square_4		□,
4. Secure messa	ging reduces my workload.		\square_2	\square_3	\square_4	\square_5	□ 9
5. Secure messa patient care.	ging improves the quality of	\square_1	\square_2	\square_3	\square_4		□ 9
6. The informati makes my wo	on I get from secure messaging rk easier.	\square_1	\square_2	\square_3	\square_4		□,
7. Secure messa patient satisfa	ging has a positive impact on ction.		\square_2	□3	\square_4		□,
8. Overall, I am	satisfied with secure messaging.		\square_2	\square_3	\square_4	\square_5	□ 9

Section E. About e-forms

Does the practice you work in use <i>e-forms</i> ?	E-forms are surveys that ar	re administered using con	nputerized media (e.g.,
tablets, laptops) to collect information from	patients using pre-formatte	ed forms before or during	patient visits.

 \square_1 Yes \square_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.	\square_1	\square_2	\square_3	\square_4	\square_5
2. Overall, e-forms save me time.	\square_1	\square_2	\square_3	\square_4	\square_5
3. e-forms have a negative impact on patient care.		\square_2	\square_3	\square_4	\square_5
4. e-forms have a negative effect on my workflow.	\square_1	\square_2	\square_3	\square_4	\square_5
5. e-forms have a positive effect on patient-clinician communication.	\square_1	\square_2	\square_3	\square_4	\square_5
6. The information I retrieve from e-forms makes an impact on my decisionmaking.	\square_1	\square_2	\square_3	\square_4	\square_5
7. e-forms reduce my workload.	\square_1	\square_2	\square_3	\square_4	\square_5
8. e-forms reduce patient care errors.	\square_1	\square_2	\square_3	\square_4	\square_5
9. e-forms improve the quality of patient care.		\square_2	\square_3	\square_4	\square_5
10. The information I get from e-forms makes my work easier.	\square_1	\square_2	\square_3	\square_4	\square_5
11. e-forms have a positive impact on patient satisfaction.	\square_1	\square_2	\square_3	\square_4	\square_5
12. Overall, I am satisfied with e-forms.	\square_1	\square_2	\square_3	\square_4	\square_5

TA	ABLE B: Non-clinicians	Strongly disagree	Disagree	Neither	Agree	Strongly agree	Not Applicable
1.	e-forms make communication with patients more efficient.		\square_2	\square_3	\square_4		□,
2.	Overall, e-forms save me time.	\Box_1	\square_2	\square_3	\square_4	□5	□9
3.	e-forms have a negative effect on my workflow.	\square_1	\square_2	\square_3	\square_4	\square_5	□ 9
4.	e-forms reduce my workload.	\square_1	\square_2	\square_3	\square_4	\square_5	□9
5.	e-forms improve the quality of patient care.	\Box_1	\square_2	\square_3	\square_4	\square_5	□ 9
6.	The information I get from e-forms make my work easier.	\square_1	\square_2	\square_3	\Box_4	\square_5	Π9
7.	e-forms have a positive impact on patient satisfaction.	\square_1	\square_2	\square_3	□4	\square_5	□9
8.	Overall, I am satisfied with e-forms.	\Box_1	\square_2	\square_3	\square_4	\square_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	\square_1	\square_2	\square_3
2. Computer technical support	\square_1	\square_2	\square_3
3. Lack of time to acquire knowledge about technology	\square_1	\square_2	\square_3
4. Start-up financial costs	\square_1	\square_2	\square_3
5. Ongoing financial costs		\square_2	\square_3
6. Training and productivity loss	\square_1	\square_2	\square_3
7. Physician skepticism		\square_2	\square_3
8. Privacy or security concerns	\square_1	\square_2	\square_3
9. Lack of uniform standards within industry (e.g., having to use multiple systems used by different providers and health systems/providers)		\square_2	\square_3
10. Technical limitations of health information technology	\square_1	\square_2	\square_3
11. Staff skepticism		\square_2	\square_3
12. Workflow changes		\square_2	\square_3

15. I feel burned out from my work.

Se	ction G. About your perce	ptions of work									
1.	How satisfied are you with your practice?	n the care provided at	Totally dissatisfi	ied 🗖	\square_2	\square_3	\square_4		\square_6		Completely satisfied
2.	How would you rate the que provided at your practice?	uality of care	Lowest		\square_2	\square_3	□4	\square_5			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.										
							Lo	w			High
3.	Mental demand. How mu (thinking, deciding, calculated)					ob	با	Ш	Ш	Щ	
4.	Physical demand. How m (e.g., pushing, pulling, turn				m you	r job	_ _ _	Ш	Ш	ШШ	
5.	Temporal demand. How at which the tasks or task e	•	you feel o	lue to the	e rate o	or pace		Ш	Ш	ШШ	السلسا
6.	Effort. How hard do you he your level of performance		and physi	cally) to	accon	plish		Ш	Ш	Щ	
7.	Performance. How satisfi	ed are you with your p	performanc	e at you	job?		L	Ш	Ш	بليلن	
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 □ ₁	Not too satisfie □2	ed	Somewhat satisfie		ied		Very satisfied □4			
10. How likely is it that you will actively look for a new job in the next year?											
No	et at all likely	Somewhat likely		Quite likely		ly		like		Extremely likely	
	\square_1 \square_2	\square_3	\square_4			\square_5			\beth_6		\square_7
			Never	A few times a year or less almos never	a Or t, mo	ice a onth less, rely	A few times month some times	a O 1, v - r	once a veek, ather	A few times week nearl all the	a , , , y e Every
11	. I feel emotionally drained	from my work.			1	\beth_3					
12	12. I feel used up at the end of the workday.			\square_2		\beth_3			\square_5		
13	13. I feel fatigued when I get up in the morning and have to face another day on the job.		\square_1	\square_2		\beth_3	\square_4		\square_5	\square_6	\square_7
14. Working all day is really a strain for me.		\Box_1			\beth_3	\square_4		\square_5	\Box_6	\square_7	

 \square_1

 \square_2

 \square_3

 \square_4

 \square_5

 \square_6

 \square_7

Sec	ction H. About you
1.	What is your gender? \square_1 Male \square_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) □₃ Doctoral degree (PhD, DNP, etc)
3.	How old are you? \square_1 34 or less \square_2 35-44 \square_3 45-54 \square_4 55+
4.	Are you of Hispanic or Latino origin? \square_1 Yes \square_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. I	How many years of computer experience do you have? years
Ple	ase write any comments you may want to share with the research team.

Thank you very much for your participation in this study.