

Clinician Survey

We appreciate the time you are taking to complete this questionnaire and hope that the information will help us better understand how new technology influences people.

Instructions

Please try to answer all of the questions. However, when completing the questionnaire, you can leave blank any questions that you do not want to answer. Remember that your responses are strictly confidential and will be closely guarded. This questionnaire has been designed to gather information about the work you do, the technology you use, and your quality of working life.

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

	Never		It varies		Always		
Overall, <i>KeyHIE</i> saves me time.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input checked="" type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> 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. Where do you currently work?

(For respondents who have multiple jobs: please answer the question for the location where you have spent most of your time during the last 6 months)

- | | |
|---|---|
| <input type="checkbox"/> ₁ Hospital ED | <input type="checkbox"/> ₂ Hospital inpatient unit |
| <input type="checkbox"/> ₃ Physician's office | <input type="checkbox"/> ₄ Rehab Facility |
| <input type="checkbox"/> ₅ Nursing Home (SNF) | <input type="checkbox"/> ₆ Home-Health Agency |
| <input type="checkbox"/> ₇ Case Management Organization | <input type="checkbox"/> ₈ Pharmacy |
| <input type="checkbox"/> ₉ EMS or Other Emergency Response | <input type="checkbox"/> ₁₀ Other (specify) _____ |

2. Please check your current 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)

- | | |
|--|--|
| <input type="checkbox"/> ₁ Case Manager, Care Coordinator, Social Worker or Discharge Planner | <input type="checkbox"/> ₂ Medical Assistant or Clerk |
| <input type="checkbox"/> ₃ Clinic Manager | <input type="checkbox"/> ₄ Primary Care Nurse Practitioner or Physician Assistant |
| <input type="checkbox"/> ₅ ED Physician | <input type="checkbox"/> ₆ Primary Care Physician |
| <input type="checkbox"/> ₇ ED Nurse or Physician Assistant | <input type="checkbox"/> ₈ Pharmacist |
| <input type="checkbox"/> ₉ First Responder | <input type="checkbox"/> ₁₀ Specialist/Sub-specialist Physician |
| <input type="checkbox"/> ₁₁ Hospital Nurse Practitioner or Physician Assistant | <input type="checkbox"/> ₁₂ Technician |
| <input type="checkbox"/> ₁₃ Nurse | <input type="checkbox"/> ₁₄ Therapist |
| <input type="checkbox"/> ₁₅ Other (specify) _____ | |

3. Do you personally provide patient care?

- ₁ Yes
₂ No (Please go to Section C.)

4. How long have you been in your current position?

_____ years _____ months

5. Does your organization use (please check all that apply):

- | | | |
|---|--|---|
| <input type="checkbox"/> ₁ Electronic Health Records (EHR) | <input type="checkbox"/> ₂ e-Mail with patients | <input type="checkbox"/> ₃ e-Prescribing |
| <input type="checkbox"/> ₄ Patient Health Record (PHR) | <input type="checkbox"/> ₅ Health Information Exchange (such as KeyHIE) | |

6. With what proportion of your patients do you communicate by e-mail?

- | | | | | |
|--|---|--|--|---|
| <input type="checkbox"/> ₁ None | <input type="checkbox"/> ₂ 1 - 10% | <input type="checkbox"/> ₃ 11-25% | <input type="checkbox"/> ₄ 26-50% | <input type="checkbox"/> ₅ More than 50% |
|--|---|--|--|---|

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

Section B. About the Health Information Exchange (KeyHIE)...

Please read this first!

This part of the survey is about the Keystone Beacon Community Health Information Exchange (KeyHIE). KeyHIE is information technology that allows clinicians to access patient information from hospital and clinics *outside their own hospital's or clinic's Electronic Health Record (EHR: EPIC, Allscript, Chartlink, Greenway, I-Med, Medent, etc.)*.

You may know this technology as Health Information Exchange (HIE), KeyHIE or as the Exchange, but in this survey we will use the official name: **KeyHIE**.

For the purposes of answering these questions, our **definition of KeyHIE is the ability for clinicians to share a core set of clinical patient data across practices and entities**. For example, a patient whose Primary Care Provider (PCP) is in Selinsgrove, PA, goes to Lewisburg to the Emergency Room (ER) – her laboratory and radiology results would be retrievable in the Lewisburg ER department if her PCP office and the hospital have both implemented KeyHIE.

The ability to share patient data *within* an office group or practice does **not** qualify as HIE, **nor** does the ability to fax/email/mail patient information to other entities.

	Never (Go to B2)	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
B1 How often do you use KeyHIE?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇

B2 Why do you not use KeyHIE (Please check all that apply)?

a. I was never informed about KeyHIE	<input type="checkbox"/> ₁
b. I do not think that then information is very useful for me	<input type="checkbox"/> ₂
c. KeyHIE is too complicated to use	<input type="checkbox"/> ₃
d. I do not have enough time to use KeyHIE	<input type="checkbox"/> ₄
e. KeyHIE does not fit into my workflow	<input type="checkbox"/> ₅
f. Other...	

→ If you never have used KeyHIE, please go to SECTION C
→

	Years	Months			
B3. How long have <i>you</i> used KeyHIE?			
B4. Did you receive training in the use of KeyHIE? B4)	<input type="checkbox"/> ₁ Yes	<input type="checkbox"/> ₂ No (go to Question			
	Poor	Fair	Good	Very good	Excellent
B5. Overall, how would you rate the training you received?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

The next questions are about use of regional health information exchange (KeyHIE) and its usefulness

B6. When your own paper or electronic records do not contain all the information you need about a patient, how do you find what you need? (Please check all that apply)

- Telephone other physicians or facilities.
- Request other physician or facility paper records/faxes
- Link to a Health Information Exchange (e.g. KeyHIE)
- Link directly into another physician or facility EHR
- Proceed with whatever information the patient, family or others can provide
- Other (specify)_____

	<10%	11-25%	26-50%	51-75%	76-90%	>90%
B7. For what percent of patients do you check KeyHIE for records?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆
B8. For what percent of those patients that you locate in KeyHIE do you find <i>useful</i> patient information?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆

B9. Please check the box that best reflects your acceptance of KeyHIE:

Dislike very much and don't want to use

Like very much and eager to use

<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀
---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	--

B10. How much of a barrier is each of the following to the use of **KeyHIE**?

	Not a barrier	Minor barrier	Major barrier
a) Computer skills (yours, your colleagues, or your staff)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b) Computer technical support	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c) Lack of time to learn about KeyHIE	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
d) Training and productivity loss	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
e) Physician skepticism	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
f) Staff skepticism	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
g) Having to use many different information systems	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
h) Patient privacy or information security concerns	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
i) Fitting KeyHIE into your regular work	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
j) Organizational commitment and support	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

Please rate the following characteristics of KeyHIE.

B11. Learning to operate the system	Difficult	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Easy
12. Exploring new features by trial and error	Difficult	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Easy
13. Remembering names and use of commands	Difficult	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Easy
14. Help messages on screen	Unhelpful	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Helpful
15. Supplemental reference/training materials	Confusing	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Clear
16. Experienced and inexperienced users' needs are taken into consideration	Never	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Always
17. Correcting your mistakes	Difficult	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇	<input type="checkbox"/> ₈	<input type="checkbox"/> ₉	<input type="checkbox"/> ₁₀	Easy

The following questions ask specifically about KeyHIE. Based on your experience, please indicate whether the following statements about KeyHIE are true.

	Never			It varies			Always
18. KeyHIE is reliable.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
19. KeyHIE has a negative impact on patient care.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
20. KeyHIE reduces patient care errors.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
21. KeyHIE is easy to use.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
22. KeyHIE improves the quality of patient care.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
23. System response time on KeyHIE is slow.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
24. I feel that I can benefit from refresher classes on KeyHIE.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
25. When I need help on KeyHIE, I can find it.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
26. Overall, KeyHIE saves me time.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
27. Data I retrieve from KeyHIE does make an impact on my decision-making	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇
28. Overall, I am satisfied with KeyHIE.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆	<input type="checkbox"/> ₇

29. Currently, the KeyHIE Website for clinicians contains different kinds of information. How often do you use the different kinds of information?

	Hardly or never use it	Use it sometimes	Use it very often	Not applicable
a. Patient's History and Physicals (H&Ps)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
b. Discharge Summaries	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
c. Lab Results	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
d. Radiology Reports	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
e. Patient Demographics	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
f. Outpatient Notes	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
g. Medication List	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
h. ED Summaries	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
i. Nursing home assessments	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
j. Allergies	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
k. Problem list	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

	Usually Incomplete	It varies	Usually Complete	Do not know
30. What do you think about the <u>completeness</u> of the information in KeyHIE?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

	Very Inaccurate	It varies	Very Accurate	Do not know
31. What do you think about the <u>accuracy</u> of the information in KeyHIE?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

32. What information would you like to have about patients who are in post-acute care (nursing homes, home health), and how easy is it to get this information?

	Not important/important			Easy/difficult		
	Not important	Somewhat important	Very Important	Very easy	Somewhat easy	Difficult
a. Functional status	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b. Activities of daily living	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c. Advance directives	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
d. Medications	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

33. The KeyHIE Website for **patients** (MyKeyCare) does also contain different kinds of information and services. How important are that information and services to you, as a clinician?

	Not Important	Somewhat Important	Very Important
a. Secure e-Mail	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b. Patient access to their electronic healthcare records	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c. The patient being able to enter data in KeyHIE (for example, their medication list)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

34. What are the three things you like most about *KeyHIE*?

35. What are the three things you would like to change about *KeyHIE* to make it better?

Section C. About case management...

The following questions are about your experiences with Keystone Beacon Community (KBC or Beacon) case management. KBC case managers are helpful in the transition(s) of care and provide patients with *Congestive Heart Failure (CHF)* and *Chronic Obstructive Pulmonary Disease (COPD)* with information about their (chronic) condition, help them with their medications, referrals, and help them to better manage their medical condition. The term "care transitions" refers to the movement patients make between health care providers and settings as their condition and care needs change during the course of a chronic or acute illness.

1. Do you have a Keystone Beacon Community (KBC) case manager in your practice?

- ₁ Yes (If yes [and QA1 = 3], please answer the following questions)
₂ No (Please go to Section D)

	Very helpful	Somewhat helpful	Neither	Somewhat unhelpful	Very unhelpful
2. How helpful is the KBC case manager in your location in providing care to COPD and CHF patients?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
3. How helpful is the KBC case manager in collecting and sharing information about patients among all providers?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
4. How helpful are KBC case managers in providing patients with information and instructions about their chronic conditions?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
5. How helpful is the KBC case manager with explaining the medication to their patients?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
6. How helpful are KBC case managers with medication reconciliation?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
7. How helpful are KBC case managers with making a patient's appointment with their primary care provider?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
8. How helpful are KBC care managers with making other referrals (home health, etc.) for patients?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
9. Overall, how helpful are KBC case managers in making transitions of care easier?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
10. How helpful would you find this type of case management for other patients with chronic illnesses such as patients with diabetes?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

The following questions are about the impact that KBC case management may have on patients.

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
11. KBC COPD and CHF patients are better informed about their medical condition than non-KBC COPD and CHF patients	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
12. COPD and CHF patients that receive KBC care management can better manage their chronic condition than other COPD and CHF patients	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
13. KBC care management has improved communication between different healthcare providers (in- and outpatient physicians, nurses, nurse assistants, physician assistants, social workers, discharge planners, etc.)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

The following questions are about the impact of KBC case management on clinical outcomes.

	Definitely no improvement	Possibly no improvement	Unsure	Possibly improved	Definitely improved
14. How much does KBC case management improve the <i>clinical outcomes</i> of your patients with <i>CHF</i> ?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
15. How much does KBC case management improve the <i>clinical outcomes</i> of your patients with <i>COPD</i> ?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

	Definitely no reduction	Possibly no reduction	Unsure	Possibly reduced	Definitely reduced
16. How much does KBC case management <i>reduce readmissions</i> to emergency departments or hospitals of <i>CHF</i> patients?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
17. How much does KBC case management <i>reduce readmissions</i> to emergency departments or hospitals of <i>COPD</i> patients?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

In general, how much do you think that the following KBC case management activities improve patient outcomes?

	None	Some	A lot
18. Medication reconciliation	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
19. Patient education	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
20. Patient-specific action plan for acute care exacerbation management	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
21. Help with referrals to the primary care provider (PCP)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
22. Help with other referrals (home health, physical therapy, etc.)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

The following questions are about satisfaction of others (families, physicians, etc.) with KBC case management services

	Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
23. How satisfied do you think that <i>patient's families</i> are with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
24. How satisfied do you think that <i>physicians</i> are with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
25. How satisfied do you think that <i>nurses</i> are with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
26. Overall, how satisfied are <i>you</i> with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
27. How satisfied do you think that <i>COPD patients</i> are with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
28. How satisfied do you think that <i>CHF patients</i> are with case management?	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

29. All in all, how satisfied would you say you are with KBC case management?			
Not at all satisfied	Not too satisfied	Somewhat satisfied	Very satisfied
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

30. What do you like most about KBC case management?

31. What do you like least about KBC case management?

Section D. About your perceptions of work and quality of working life...

1. How satisfied are you with the care you provide?	Totally dissatisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely satisfied
2. How would you rate the quality of care you provide?	Lowest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Never	A few times a year or less, almost never	Once a month or less, rarely	A few times a month, sometimes	Once a week, rather often	A few times a week, nearly all the time	Every day
11. I feel emotionally drained from my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I feel used up at the end of the workday.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel fatigued when I get up in the morning and have to face another day on the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Working all day is really a strain for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I feel burned out from my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section E. About you...

1. What is your gender? ₁ Male ₂ Female

What is the highest level of education you have completed?

- High school/GED
- Some college
- 2-year college degree (Associate)
- 4-year college degree (Bachelor, BA, BS, BSN, etc.)
- Master's degree (MA, MS)
- Professional degree (MD, PharmD)
- 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?

- Novice user** (You just started using computers)
- Average user** (You use word processors, spreadsheets, e-mail, surf the Web, etc.)
- Advanced user** (You can install software, setup configurations, etc.)
- 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.

When utilizing this document please cite:

1. Hoonakker, P.L., Alyousef, B., Kianfar, S., Carayon, P. Cartmill, R.S., Hassol, Hundt, A.S., Ladd, I., Yule, C., Chaundy, K., Honicker, M., Younkin, J., & Walker, J. (2013c). Assessment of use, usability, and clinicians' satisfaction with the Keystone Health Information Exchange. Poster presented at the Human Factors and Ergonomics Society (HFES) Symposium on Health Care, Baltimore, MD.