



# Effective Health Care Evaluating Quality of Patient Care Using Electronic Health Records Nomination Summary Document

## Results of Topic Selection Process & Next Steps

- Evaluating quality of patient care using electronic health records (EHR) was found to be addressed by two in-process AHRQ reports. Given that the in-process reports cover this nomination, no further activity will be undertaken on this topic.
  - In-process report: *Enabling Patient-Centered Care through Health Information Technology*. A review protocol with background information, draft key questions, and potential scope is available at: <http://www.ahrq.gov/clinic/tp/pcchittp.htm>.
  - In-process report: *Enabling Health Care Decision Making through the Use of Health Information Technology*. A review protocol with background information, draft key questions, and potential scope is available at: <http://www.ahrq.gov/clinic/tp/knowmgttp.htm>.
- To sign up for notification when these and other AHRQ Evidence-based Practice Center Program topics are posted, please go to [https://subscriptions.ahrq.gov/service/multi\\_subscribe.html?code=USAHRQ](https://subscriptions.ahrq.gov/service/multi_subscribe.html?code=USAHRQ).

## Topic Description

**Nominator:** Individual

**Nomination Summary:** The nominator is concerned with the effectiveness and quality of patient care when using an electronic health record system.

### Staff-Generated PICO

**Population(s):** All patients, especially those with chronic conditions

**Intervention(s):** Physician practices with EHR systems

**Comparator(s):** Practices using paper health records

**Outcome(s):** Meaningful use criteria, health-related benefits, quality of care, and care management

**Key Questions from Nominator:**

1. How does use of an EHR by a physician's practice provide improved care to patients?
2. What are the barriers to adoption of EHRs from a workflow perspective?
3. What is the necessary education and use of an EHR to achieve improved delivery of care?

## Considerations

- This topic was found to be addressed by two in-process AHRQ reports.
- The in-process report titled *Enabling Patient-Centered Care through Health Information Technology* has significant overlap with the nomination as it will look specifically at quality of life for patients, patient satisfaction, and health care process outcomes. Draft key questions for the report include:
  1. What evidence exists that health IT applications which enable clinicians to provide patient-centered care or patients to elicit patient-centered care are effective in improving:
    - a. Clinical outcomes for patients (including quality of life)?
    - b. Health care process outcomes (e.g., receiving appropriate treatment)?
    - c. Intermediate outcomes such as patients' improved health knowledge, health behaviors and physiologic measures, patient satisfaction, and reduced costs?
    - d. Responsiveness to the needs and preferences of individual patients?
    - e. Improving shared decision-making between patients, their families, and providers, clinician communication, or providing patients and clinicians access to medical information?
    - f. How does the impact on improving clinical, health care process, intermediate, or responsiveness outcomes vary by type of health IT application?
  2. What are barriers, drivers or facilitators that clinicians, developers, and their families or caregivers encounter that may impact implementation and use of health IT applications to enable patient-centered care?
    - a. How do these barriers, drivers or facilitators vary by type of health IT application?
  3. What knowledge or evidence deficits exist regarding needed information to support estimates of cost, benefit, impact, sustainability, and net value with regard to enabling patient-centered care through health IT? Discuss gaps in research, including specific areas that should be addressed and suggest possible public and private organizational types to perform the research and/or analysis.
  4. What critical information regarding the impact of health IT applications implemented to enable patient-centered care is needed in order to give consumers, their families, clinicians, and developers a clear understanding of the value proposition particular to them?
- The in-process report titled *Enabling Health Care Decision Making through the Use of Health Information Technology* has overlap with the nomination as it will look at what knowledge can be integrated into electronic knowledge management and other health IT to improve health care quality. Draft key questions from the report include:
  1. What evidence-based study designs can be used to determine the clinical effectiveness of clinical decision support systems (CDSS)?
  2. What contextual factors/features influence the implementation and use of electronic knowledge management and CDSS?
  3. What is the impact of introducing electronic knowledge management and CDSS?
    - a. Changes in the organization of health care delivery.
    - b. Changes in the workload and efficiency for the user.
    - c. Changes in process and clinical outcomes.
  4. What generalizable knowledge can be integrated into electronic knowledge management and CDSS to improve health care quality?

- a. Knowledge from published evidence about electronic knowledge management and CDSS to improve health care quality based on different types of measures (health care process, relationship-centered, clinical, economic).
  - b. How a clinicians' expertise/proficiency/informatics competency using the electronic knowledge management and CDSS effect patient outcomes (one type of measure)?
- The following in-process AHRQ health IT report may also be of interest: *Enabling Medication Management through Health IT*. A review protocol, including draft key questions, background information, and scope of the review, is available at: <http://www.ahrq.gov/clinic/tp/pcchittp.htm>.