

Use of Electronic Health Records for Addressing Overweight and Obesity in Primary Care

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Organization:	Brigham and Women's Hospital
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Summary: Obesity is widely recognized as a critical public health concern and is associated with increased risk of diabetes, cardiovascular disease, cancer, and all-cause mortality. Electronic health records (EHRs) have the potential to improve diagnosis and treatment of obesity by primary care clinicians. However, very few EHR-based tools have been developed or evaluated for this purpose.

The objectives of this research study are to develop and evaluate EHR-based tools for identification, diagnosis, and treatment of overweight and obese patients. This includes reminders, clinical decision support (CDS), and information for clinicians and patients. After these tools are developed and tested, a cluster-randomized controlled trial will be conducted in 12 diverse ambulatory clinics in the Boston, Massachusetts area to assess the effectiveness of the EHR-based tools in the identification, evaluation, and treatment of overweight and obese individuals in the primary care setting.

Specific Aims:

- Develop EHR-based tools to help primary care clinicians identify, evaluate, and treat patients who are overweight or obese. **(Ongoing)**
- Conduct a cluster-randomized controlled trial to assess the effectiveness of EHR-based tools for the identification, evaluation, and treatment of overweight and obesity in primary care. **(Upcoming)**

In addition to the specific research aims, as part of this Mentored Research Scientist Research Career Development Award, Dr. Baer, the Principal Investigator, is working toward the following long-term career goals: 1) to develop a multidisciplinary research program dedicated to developing and evaluating strategies to address obesity and other modifiable risk factors in the clinical setting; and 2) to teach and mentor individuals who wish to pursue careers in clinical epidemiology or health services research.

2011 Activities: The CDS tools for obesity were further developed in terms of specification of the components through review of other CDS tools and obesity research and the technical programming throughout 2011 in preparation for the cluster-randomized controlled trial. The research team completed a needs assessment of current clinical practice guidelines on the identification, evaluation, and management of overweight and obesity diagnosis. Based on this assessment, they developed detailed specifications for the design and content of the new tools within the EHR. An expert panel including primary care clinicians, nutritionists, and informaticians, reviewed and provided feedback on the proposed design and content of the new tools. The panel met twice in March and September 2011.

Dr. Baer presented to the practice leadership team in October to get the buy-in and support for primary care practices to participate in a randomized study of the EHR-based tools for obesity treatment. A survey was distributed to all participating providers to assess baseline data on their approach to weight management. A second survey on the same topic will be completed by providers once intervention is implemented.

The first stage of the evaluation process began in December 2011. Primary care clinics were randomized to the intervention group, which will have access to the new EHR-based tools, or the control group, which will receive care as usual. In the same month, reminders on height and weight were added to the EHR. These reminders are available to all of the clinicians in the intervention group. The research team planned how data that will be abstracted from the EHR and from other data sources for evaluation purposes, with most coming directly from the EHR (i.e., documentation of height and weight, weight management, and changes in clinical outcomes). In May 2012, additional features will be added to the EHR, including a screen that gives the provider options for weight management.

Preliminary Impact and Findings: A baseline survey of providers on their attitudes towards weight management was completed in fall 2011. Provider attitudes are an intermediate outcome of the research study. The survey was sent to 152 clinicians and completed by 85, for a response rate of 55.9 percent. Among respondents, 50.6 percent said that they always or often assess overweight and obese patients' motivation to lose weight, and 48.8 percent said that they always or often help motivated patients set a weight loss goal. Only 27.7 percent said that it was easy to access information about local resources for helping patients to lose weight. The vast majority (89.3 percent) said that they would like more help creating an appropriate weight loss plan for their patients.

Target Population: Adults, Obesity, Chronic Care*

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation

** This target population is one of AHRQ's priority populations.*