

Integration of a Mobile-Integrated Therapy with Electronic Health Records: Lessons Learned

Malinda M. Peeples, M.S., R.N.,¹ Anand K. Iyer, Ph.D., M.B.A.,¹ and Joshua L. Cohen, M.D.²

Abstract

Background:

Responses to the chronic disease epidemic have predominantly been standardized in their approach to date. Barriers to better health outcomes remain, and effective management requires patient-specific data and disease state knowledge be presented in methods that foster clinical decision-making and patient self-management.

Mobile technology provides a new platform for data collection and patient-provider communication. The mobile device represents a personalized platform that is available to the patient on a 24/7 basis. Mobile-integrated therapy (MIT) is the convergence of mobile technology, clinical and behavioral science, and scientifically validated clinical outcomes. In this article, we highlight the lessons learned from functional integration of a Food and Drug Administration-cleared type 2 diabetes MIT into the electronic health record (EHR) of a multiphysician practice within a large, urban, academic medical center.

Methods:

In-depth interviews were conducted with integration stakeholder groups: mobile and EHR software and information technology teams, clinical end users, project managers, and business analysts. Interviews were summarized and categorized into lessons learned using the Architecture for Integrated Mobility[®] framework.

Results:

Findings from the diverse stakeholder group of a MIT-EHR integration project indicate that user workflow, software system persistence, environment configuration, device connectivity and security, organizational processes, and data exchange heuristics are key issues that must be addressed.

Conclusions:

Mobile-integrated therapy that integrates patient self-management data with medical record data provides the opportunity to understand the potential benefits of bidirectional data sharing and reporting that are most valuable in advancing better health and better care in a cost-effective way that is scalable for all chronic diseases.

J Diabetes Sci Technol 2013;7(3):602–611

Author Affiliations: ¹WellDoc, Inc., Baltimore, Maryland; and ²The George Washington University School of Medicine and Health Sciences, Washington, DC

Abbreviations: (AIM) Architecture for Integrated Mobility, (EHR) electronic health record, (FDA) Food and Drug Administration, (HIPAA) Health Insurance Portability and Accountability Act, (IT) information technology, (MIT) mobile-integrated therapy

Keywords: architecture-integrated mobility, clinical decision support, electronic health record, electronic medical record, meaningful use, mobile health, mHealth, mobile-integrated therapy, mobile medical device, self-management, self-management support, type 2 diabetes

Corresponding Author: Malinda Peeples, M.S., R.N., WellDoc, 1501 St. Paul St., Suite 118, Baltimore, MD 21202; email address mpeeples@welldocinc.com