

<b>Project Title:</b>	Holomua Project Improving Transitional Care in Hawai'i
<b>Principal Investigator:</b>	Sakuda, Christine, M.B.A.
<b>Organization:</b>	Hawaii Primary Care Association
<b>Mechanism:</b>	RFA: HS05-013: Limited Competition for AHRQ Transforming Healthcare Quality through Information Technology (THQIT)
<b>Grant Number:</b>	UC1 HS 016160
<b>Project Period:</b>	09/05 – 09/09, Including No-Cost Extension
<b>AHRQ Funding Amount:</b>	\$1,476,200
<b>Summary Status as of:</b>	December 2008

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**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:** Implementation and Use

**Summary:** The Holomua Project brings together the Hawaii Primary Care Association, the Kalihi-Palama Health Center, Kokua Kalihi Valley Health Center, Hawaii Pacific Health, and the Queens Medical Center in an approach to information sharing during transitional care. The nearly completed project consists of both technological and non-technological solutions to the problem of transitional care. The technological solution involves the development and implementation of a Holomua Master Visit Registry (HMVR), developed and implemented with vendor Sun Microsystems, as a means of sharing health information from pre-existing electronic health records (EHRs) between systems. The non-technological solutions involve charting workflow related to transitional care, policies and procedures relative to transitional care, and using dialogue and communication to facilitate transitional care. The technological method was chosen as it represents a scalable, interoperable solution that takes into account the disparate resources of all the partner organizations. The non-technological methods are based on abundant research that illustrates the necessity of attending to the human side of information to ensure success of implementation efforts.

The implementation plan will assist the Holomua partners in achieving the ultimate project goal of increasing patient safety, quality, and continuity of care during transitional care for vulnerable populations in Hawaii through improving the flow of information between patients/families, community health centers and hospitals using health information technology (IT). With goals of reducing medical errors, eliminating duplication of procedures and tests, and improving the relationship of patients and their families to their care, this project will explore the ways in which health IT can be used to improve patient care and safety

### Specific Aims

- Complete privacy and security contract documents needed for health information exchange. **(Ongoing)**
- Complete production, implementation and support phases of health information exchange, known as HMVR. **(Ongoing)**
- Increase accuracy and timeliness of shared patient information during transitional care between primary care and tertiary care facilities. **(Ongoing)**
- Increase participation and involvement in decisionmaking by patients or family on health related matters. **(Ongoing)**

- Determine mechanisms by which information resources, information systems, and other IT initiatives and/or networks in Hawaii can best support both short- and long-term implementation activities of the Holomua Project. **(Ongoing)**
- Begin use of HMVR. **(Ongoing)**
- Reduce incidence of medical errors that may occur due to linguistic and/or cultural barriers between patients and medical providers that prevent accurate communication of health information such as previous medical history and treatment, medication, and referrals. **(Upcoming)**
- Reduce occurrences of duplicated diagnostic procedures performed on patients due to lack of communication between primary care and tertiary care facilities. **(Upcoming)**

**2008 Activities:** In 2008, a major milestone was achieved in that all partner institutions agreed on a common data set for the health information exchange. The first two data extracts from all four health care systems were completed during the development and testing phase of the HMVR. The project also finalized the extensive testing of the four-screen HMVR application with the software developer, finalized the preparation of end-user training materials and scheduled demonstrations of the HMVR application at all partner sites. The project identified over 200 potential end-users at each of the partner institutions, and all institutions completed an initial review of the data sharing agreement. Pre-HMVR provider, patient, and community member focus groups were completed but qualitative data analysis has been delayed until full Institutional Review Board (IRB) approval is reinstated. New study protocols and informed consent forms are in the process of being completed for resubmission in the middle of 2009.

**Preliminary Impact and Findings:** Continual and consistent “buy-in” from all of the partner institutions’ executive committee members has been very important in the continuing success of the project. The current perception of the project is that it will yield only limited data, mostly demographic in nature, offering only one piece of clinical information, the diagnosis code. However, most end-users and executive committee members understand that this project is the beginning of a bigger plan to create a regional health information organization (RHIO). Each institution has its own perceptions, agenda, and ideas of how to improve the transitional care of their shared patients during the hand-off process: some may be focused more on non-technical solutions and may not be prepared to cover the costs of technical solutions, while others may be focused on and prepared to cover the costs of the more technical solutions.

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### **Selected Outputs**

Chin BJ, Sakuda CM, Balaraman V. Improving transitional care in Hawaii: opening communication between community-based and tertiary-care healthcare providers. *J Healthc Inf Manag* 2009;23(1):46-9.

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**Grantee’s Most Recent Self-Reported Quarterly Status:** The major hurdle the project has faced is the development of the HMVR software, which has been significantly and repeatedly delayed. Negotiations of the multi-institutional data sharing agreement and privacy and security policy and procedures have also been complicated and, therefore, lengthy. The Holomua Executive Committee is also finalizing discussions about liability coverage and indemnity for each of the partner institutions, and the possibility of obtaining additional insurance coverage for potential privacy and security breaches for possible non-intended usage of the HMVR, which has caused delays. Problems with IRB approval in 2008 also caused research-related activities to be placed on hold. Lastly, multiple internal staff changes over the course of the project and within the last year have contributed to some of the delays. However, project staff positions have been filled and the team is now fully functioning.

**Milestones:** Progress is on track in some respects but not others.

**Budget:** Spending is roughly on target.