

## **HIT AND HSR FOR ACTIONABLE KNOWLEDGE: DESCRIPTION OF PARTNERING HEALTH SYSTEMS**

### **PARTNER: Palo Alto Medical Foundation**

#### History, Structure, and Size

The Palo Alto Medical Foundation for Health Care, Research, and Education (PAMF) is a non-profit multi-specialty group medical practice of more than 900 physicians serving over 600,000 patients in Alameda, Santa Clara, Santa Cruz and San Mateo counties in Northern California. Founded in 1930 as the Palo Alto Medical Clinic, the organization became PAMF in 1981. PAMF became affiliated with Sutter Health, a network of non-profit hospitals and physician organizations that share resources and expertise, in 1993. At the start of 2008, PAMF merged its three separate, geographically-based medical groups (Camino Medical Group, Palo Alto Medical Clinic, and Santa Cruz Medical Clinic) into a single organization.

#### HIT Systems

Part of the integration into a single medical group has been the adoption of single, networked EHR that can be accessed from any PAMF facility using software from Epic Systems first implemented in 2000. PAMF also uses IDX Software to support scheduling, billing, and managed care. Other systems are employed as well, e.g., for pathology and oncology. The full range of types of data collected by PAMF are: billing, scheduling, managed care, patient encounters, vital signs, lab results, medication orders, pathology, and oncology. Of these, all can be leveraged for research. (Active use of the electronic data bases for research has increased in just the last year.) Within PAMF, data reside in warehouses at both the department and enterprise level at both PAMF and Sutter Health System. Other important features of PAMF's HIT capabilities include: a patient portal, PAMFOnLine, used by over 176,000 patients to securely access aspects of their medical record and allowing those who pay a nominal fee to securely e-mail their clinicians.

#### Organization of Research Functions

PAMF has maintained a research institute (PAMFRI) since 1950 which is currently comprised of three major departments. The Clinical Research supports relatively small scale clinical trials both initiated at PAMF and externally. The Department of Health Services Research conducts behavioral health research, typically with randomized, but not double blinded methods, focused on understanding and reshaping high-risk behavior among individuals and on motivating providers to try new approaches to patient care. The Department of Health Policy Research conducts a wide range of observational studies, using methods ranging from ethnography to econometrics, focusing mostly on improving the quality and reducing the cost of health care delivery. Research analytic support is provided both centrally and within specific projects. Central staff have expertise in using PAMF's data systems and in applying various economic, epidemiologic, and other methods.

Most of the projects undertaken at the Research Institute are externally funded through federal and foundation grants. The Research Institute receives some funding that enables it to respond to internal PAMF requests. These functions are relatively new and are in a growth phase. In the past year, these efforts included 40% time of a senior clinician with extensive industry experience in IT, three full-time information analysts (with 70 years collective experience) and partial support of a physician expert in using episode-grouping software, a clinical epidemiologist with extensive experience in using routinely collected data to monitor outcomes and a health economist. To date, requests have rarely been formal, but rather have grown out of the Director's active involvement on various PAMF committees and the identification of opportunities in which RI personnel can be of assistance. It is expected that the RI efforts will lead to potentially publishable papers, and it is hoped that the involvement leads to collaborations capable of garnering external funding.

Applications of HIT (i.e. ways your organization describes utilization of electronically generated data)

Examples of projects currently underway or recently completed include:

- Using information technology to promote evidence-based care. In particular, each physician has a set of dashboards available that highlights their performance on a number of key metrics. These metrics include P4P-type measures as well as schedule availability and patient satisfaction measures. An AHRQ-funded Task Order project examined the impact of attaching physician-specific financial incentives to some of the measures.
- Evaluating novel payment strategies for providers that foster better disease prevention and care coordination. In particular, PAMF is currently working on evaluating alternatives to the existing volume (RVU) based compensation for primary care physicians. Measures of panel size with adjustments for clinical severity are being evaluated. For example, work by RI staff has shown that there are better ways of estimating the number people currently on a panel than has been used by PAMF, and that extensive condition-specific measures add nothing to age-sex adjustment of panel size with respect to primary care work effort. HIT plays a role in this project by enabling the analysis of actual panel size/severity and the testing of different factors that measure panel size.
- Finding ways to prevent the development of chronic illnesses such as heart disease, diabetes, and depression. In particular, PAMF has active efforts underway to understand how race and ethnicity impact the onset and treatment of chronic illness, especially among Asian subgroups. Researchers assisted in the design of a routinely collected form on race/ethnicity and language that now allows a focus on the six major Asian subgroups who account for over 25% of PAMF's patients. HIT plays a role in this project by allowing the routine collection of patient-volunteered data and its linkage with clinical measures, providing a platform of historical data to support the retrospective research.

Plans for the future include better linkage of pharmacy-fill data with prescriptions-written data in the EHR, implementation of tools to collect patient reports of functional status and symptoms, and exploration of “date-stamp” information in the EHR to track work processes.