



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

LOCATION:
Rockville, MD, US

ORGANIZATION:
Indian Health Service

YEAR:
2011

ORGANIZATION URL:
<http://www.ihs.gov>

STATUS:
Laureate

PROJECT NAME:
The Indian Health Service's Population Management Tool – iCare

CATEGORY:
Health

PROJECT OVERVIEW

The Indian Health Service (IHS) is the principal federal health care provider for American Indians and Alaska Natives (AI/AN). Many of the people served by the IHS live in some of the most remote and poverty-stricken areas of the country and these health services represent their only source of health care. The agency's health IT platforms must support the full set of clinical, public health, regulation, risk management, and patient education functions that this unique agency and health system requires to effectively manage the health care problems that confront this population. As the country moves toward more universal healthcare reforms and models for patient-centered care, the IHS experience in providing appropriate, proactive population management is a bellwether of how to deliver high-quality care in a cost-efficient way. In response to requests from its providers, the IHS's Office of Information Technology (OIT) has developed a system called iCare, that focuses providers on the real-time identification and management of patient populations in addition to the treatment of individual patients. iCare is an open-source, windows-based graphical user interface (GUI) component of the IHS's decentralized electronic health information system, RPMS, and is part of the Clinical Decision Support suite of applications. iCare gives providers the ability to view their own patients' data in a population-centric way that assists in the early identification of trends in care and can increase awareness of the services that patients need by highlighting the status of key clinical prevention and treatment measures. Features include:

- An intuitive interface allowing for quick identification of groups (populations) of patients who share characteristics. (e.g. diagnoses, communities, upcoming appointments, providers, age, or gender). See Appendix 1
- The ability to easily review data related to clinical reminders, meaningful use and quality performance measures for populations and individual patients, enabling improvement in the quality of healthcare delivery. See Appendix 2
- The ability to view, add and edit display diverse patient data elements in an intuitive, integrated view thereby facilitating the care of the "whole" patient.
- The ability to view traditional healthcare information from the perspectives of the individual, the provider, the population, the family and the community.



Anonymous Community Alerts related to the incidence of communicable diseases (CDC Nationally Notifiable Diseases) and suicidal behavior in the surrounding geographical area. This serves to promote early awareness of public health concerns providing an opportunity for early intervention and/or prevention of widespread outbreak. • An electronic tracking tool providing the structure for tracking a variety of screening and diagnostic procedures and tests that have been done at the site through to completion. See Appendix 3 iCare was first released in 2007 and is continually enhanced with new features with each release, most recently in February 2011. The IHS uses an iterative approach to synthesize and adjust functional and technical requirements within each iCare development phase. The functional and technical staffs work as an integrated team with subject matter experts to provide the most responsive product for end users, within schedule and scope constraints.

SOCIETAL BENEFITS

This population management tool improves clinicians' ability to identify and proactively manage patient panels by leveraging powerful underlying clinical decision support logic. It is a model for how health IT can be the fulcrum of efforts to implement health reform initiatives and the transition to new models of healthcare delivery.

PROJECT BENEFIT EXAMPLE

Excerpts of comments from various facilities in the IHS network: iCare is a great tool to identify whole populations of patients who need care but might not be scheduled for an appointment in our clinic. Used in conjunction with other IT tools such as the patient's Electronic Health Record, it creates in a powerful combination of tools for tracking improvement trends, system weakness & strengths, targeting populations and meeting needs that result in increased preventive screens and positive long term outcomes. Primary care providers: We wanted to shift from an "emergent care" like setting and create some sort of ownership and accountability as well as build a provider patient relationship. Every Monday morning we created a panel that looked at the provider schedules Performance Reporting: Close to the end of the last year we had two benchmarks that were difficult to make, Diabetic Retinopathy and Depression. We were able to use iCare to identify all the patients needing a diabetic retinopathy and/or Depression screen and proactively get them scheduled at the appropriate clinic(s). Village clinics: when ever providers travel to villages for care we use iCare to appreciate all sorts of data related to immunizations, flu outbreaks, routine cancer screening, diabetic care, etc. This can be replicated anywhere that providers travel. We use iCare for many reports that we need to proactively manage our patients and track our progress towards providing quality care to American Indians/ Alaska Natives. Some examples are: • Identify which patients are assigned to which providers • Identify groups of patients who share commonalities such as diagnosis • Identify patients who either need Cancer Screening or who have had all the screening they require • Track progress towards achieving comprehensive care for patients with chronic disease such as Diabetes • Identify pediatric patients who need Fluoride treatment

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes