

Empowering Population Health Management

CASE STUDY

Health Data Management & Analytics



iCare – Providing Insight to Enable Health Intervention Strategies, Preventive Treatments and Quality Care

iCare

- ✓ Provides a single accessible view into the diverse patient data elements of the Electronic Health Record (EHR)
- ✓ Enables proactive identification and management of different patient populations who share user-defined characteristics (e.g. diabetes, cardiovascular disease, high blood pressure)
- ✓ Simplifies the review of complex quality of care prevention and treatment measures. Providers can identify trends in care and increase awareness of the services that their patients need

Challenge: Providers Need a Single Tool for Identifying and Displaying Data

The Indian Health Service (IHS), an agency within the U.S. Department of Health and Human Services, provides health services to American Indians and Alaska Natives. The population it serves has one of the highest disease burdens of any group in the United States. IHS's electronic health information system, the Resource and Patient Management System (RPMS), is comprised of more than 60 integrated software components containing clinical, administrative and financial information for 2 million IHS patients.

Because RPMS is made up of integrated but separate components, IHS healthcare providers needed a single tool for identifying and displaying a broad spectrum of data related to groups (populations) of patients. To empower providers to improve the level of care for their patient population, a dashboard view based on provider-defined patient subsets was needed.

Solution: Creating an Integrated Picture of Patient, Population and Community Health

Working closely with IHS, General Dynamics Health Solutions managed the design, development and deployment of the iCare Population Management Graphical User Interface. iCare retrieves patient information from various underlying components of the IHS electronic health system, presenting an integrated view of diverse patient data elements for populations as well as individuals via a single intuitive interface.

iCare facilitates viewing patient data in a "population-centric" way. User-defined patient panels are easily created, sorted and filtered. Physician-validated quality measures can be



used to give care providers the ability to spot care trends.

For maximum responsiveness, iCare incorporates the use of nightly and weekly background jobs to ensure even the most complex measures running against the largest EHR systems can be presented quickly and accurately. Security and privacy are maintained by integrating into the existing authentication system and incorporating multiple role-defined access levels to ensure the protection of health data.



MANAGE population health. IDENTIFY community health trends. IMPROVE quality of care. REDUCE treatment costs.

iCare Functionality and Results

- Includes user-specified criteria and customized panel layouts to help healthcare providers easily create and manage patient lists and panels that match their treatment needs and focus. Selection options include diagnosis tags, lab and medication taxonomies, scheduled appointments and numerous other options.
- Proposes one or more clinical diagnoses for patients with data meeting the tag definitions (e.g. diabetes, asthma, etc.). These tags can then be either “accepted” or “not accepted” by the provider.
- Displays the patient adherence status for each performance measure, including Government Performance and Results Act performance report and Healthcare Effectiveness Data and Information Set (HEDIS®) in a patient list grid that can be sorted and filtered in the application display. Alternatively, all data can be exported if desired into external tools like Microsoft® Excel for additional analysis.
- Displays user-selected health maintenance and/or condition-specific reminders in a patient list grid that can be sorted, filtered and exported into external tools.
- Presents aggregated views for both Performance Measures and Reminders to provide an overall trend analysis of a patient panel related to key clinical quality criteria.
- Displays specific visit data from any view by clicking on a date link.
- Displays performance information against measures designated by the Centers for Medicare and Medicaid Services (CMS) for Meaningful Use. Meaningful Use is a national health improvement initiative. Eligible healthcare providers who demonstrate Meaningful Use of certified EHR technology are awarded incentive payments by CMS. Reporting function and calculation of quality and utilization metrics for the Patient Centered Medical Home initiative.

Our end-to-end health solutions – which expand insight, improve outcomes, drive efficiency and reduce risk – include:



About General Dynamics Information Technology

As a trusted systems integrator for more than 50 years, General Dynamics Information Technology provides information technology (IT), systems engineering, professional services and simulation and training to customers in the defense, federal civilian government, health, homeland security, intelligence, state and local government and commercial sectors. Headquartered in Fairfax, Va., with major offices worldwide, the company delivers IT enterprise solutions, manages large-scale, mission-critical IT programs and provides mission support services. General Dynamics Information Technology is one of four business units of the General Dynamics Information Systems and Technology business segment.

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