Remote monitoring solution for diabetics results in improved outcome for patients

**Client**
A healthcare technology company

**Industry**
Healthcare

**Business need addressed**
- Engage patients in positive behavioral change
- Help doctors provide real-time treatment recommendations
- Reduce time to make improvements to patient care

**Genpact solution**
- Integrated with Electronic Health Records (EHR) to pull patient data
- Facilitated real-time patient monitoring and decision-making for physicians
- Health device connections via Bluetooth
- Automotive collaboration to provide real-time health notifications and alerts while driving

**Business impact**
- Improved patient health by facilitating a 1.9% drop in blood glucose (A1C) levels for app users
- Strengthened brand reach and image in the course of more than 5,000 deployments of the application
- Increased patient loyalty, with 92% of customers active weekly
A leading healthcare technology company, which leverages next-generation technologies to support and engage patients in chronic disease management, chose Genpact to develop the Diabetes Manager Platform. With a 75% user-acceptance rate, this modular disease-management platform is the first mobile prescription therapy of its kind cleared by the FDA for adults with Type 2 Diabetes. The application, which include a personalized virtual coach, enables patients to access their medical records anytime, anywhere. The app not only improved patient health outcomes but also boosted patient loyalty, with 92% repeat visitors every week.

**Genpact solution**

A Lean Digital\textsuperscript{SM} approach that leveraged design thinking and advanced digital technologies to help create an innovative solution that addressed the key outcomes - empower physicians with uninterrupted access to patient data, and give them the ability to provide coaching and feedback to patients in real time to support health and drive patient adoption and loyalty.

The solution improves the delivery of care by enabling patients to better understand their own illness. Patients input personal health information, such as medication, diet, exercise, and glucose levels, using a mobile phone; they then receive immediate, real-time feedback from physicians and case managers via the mobile app, which is personalized to the specific needs of their condition. Also, instead of waiting for a health emergency to occur, the platform scans the continuous input of information and performs pattern-matching to predict and prevent such events. For instance, if a patient has been taking the maximum dose of efficacious oral medications, yet is unable to control their sugar level, the system suggests the patient...
begin taking insulin. The system utilizes OpenNMS based proprietary algorithms, which dynamically update patient data, and then leverage it to perform pattern-matching.

More than 50 different rules, working in cohesion, were formulated to bring this solution to life. The system can monitor patient health over a period of time, suggest medication changes, and even spot discrepancies in care and treatment plans. Doctors access this data to monitor and communicate with their patients. Thus, this engages patients in positive behavioral change and helps doctors provide real-time treatment recommendations apart from office visits. In this way, the feedback-to-behavior-change cycle is substantially improved.

Some highlights of the solution include:

- Enterprise mobile strategy/assessment
- HIPAA and FDA compliant design—the first mobile prescription therapy of its kind cleared by the FDA
- Human factors study to cater to the specific needs of a diverse demographic user set, facilitating user-friendly experiences
- Connected solution with AllScript and SureScript for electronic health records and clinical decision support systems
- Offline clinical coach and algorithms
- HL7-based integration interface
- Collaboration with a leading automobile manufacturer for in-car personalized cloud-based solution to provide patients with asthma and diabetes real-time patient coaching, behavioral education and medication adherence support
- Made for iPhone (MFI) compliant hardware connection for glucometer via Bluetooth

The application impacts the coordination of care on many levels, but the critical areas of importance are illustrated in Figure 1.
Business impact

The solution resulted in the following outcomes:

- Dramatically improved feedback-to-behavior-change cycle
- 1.9% drop in blood glucose (A1C) levels among patients using the application
- Wide user-acceptance with 75% of invited patients signing up for the Diabetes Manager App (5,000+ deployments), strengthening the client’s brand image
- Increased patient loyalty with 92% of users engaging with the application several times per week
- 501(k) clearance from the FDA for the app, meaning it is approved for use as a viable alternative for treating diabetes

About Genpact

Genpact (NYSE: G) stands for “generating business impact.” We architect the Lean Digital™ enterprise through a unique approach based on our patented Smart Enterprise Processes (SEPM™) framework that reimagines our clients’ middle and back offices to generate growth, cost efficiency, and business agility. Our hundreds of long-term clients include more than one-fourth of the Fortune Global 500. We have grown to over 70,000 people in 25 countries, with key management and a corporate office in New York City. We believe we are able to generate impact quickly and power Intelligent Operations™ for our clients because of our business domain expertise and experience running complex operations, driving our unbiased focus on what works and making technology-enabled transformation sustainable. Behind our passion for technology, process, and operational excellence is the heritage of a former General Electric division that has served GE businesses since 1998.

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