



## CASE STUDY

## Developing a Web-based Data Collection Portal To Meet HEDIS Compliance and NCQA Accreditation

**BlueCross BlueShield  
of Illinois**

Obtaining and processing the needed patient health status data via CD's, paper and desktop technologies had become burdensome and inefficient for the company and for its medical group participants

## Background

MXOtech was hired by Blue Cross and Blue Shield of Illinois, one of the nation's largest health insurance companies to develop a web based portal to collect data for disease management, preventive care, and wellness management to meet HEDIS compliance and NCQA accreditation.

The company collects patients' health history and follow-up treatment data on an ongoing basis. The data monitored includes patients' follow-up treatment and their own adherence to a more healthy lifestyle, which enables fewer lengthy hospital stays. The process of obtaining and processing the needed patient health status data via CD's, paper and desktop technologies had become burdensome and inefficient for the company and for its medical group participants. Information was not available in real time and the process was often very manual. Submitted data was not available for confirmation once verified by the health insurance carrier. Furthermore, the insurance company was mailing its reports, resulting in a slow and costly process.

## The Approach

MXOtech transformed the existing desktop and paper-based program into a completely automated, easy-to-use and to-track electronic system. Working with the company staff, MXOtech used question branching logic to develop an electronic format for all HMO surveys for chronic disease patients. This enabled the insurance company to assure that patients are receiving preventive treatment to avoid lengthy and costly hospital stays.

MXOtech was able to establish new lines of communication and develop a basis of trust. The new, user-friendly and responsive system streamlined the work flow and more directly met the company's needs, creating better relationships between carrier and providers.

All reports are now available online instantly. Medical groups can now download their own data during an open event. The insurance carrier can also upload any additional reports and files to share directly with its respective medical group.

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## Results

Today the surveys are 100% electronic and enable the company to keep its information flow up-to-date

All patient data is stored in a secure data warehouse and available for additional complex reporting as needed.

Enhanced data collection efficiency to meet HEDIS and NCQA requirements.

Today the surveys are 100% electronic and enable the company to keep its information flow up-to-date and meet its reporting requirements for HEDIS. The collected data shows, for example, which children have been immunized in a timely fashion, as required by the insurance carrier to meet HEDIS and NCQA requirements.

All patient data is stored in a secure data warehouse and available for additional complex reporting as needed.

## Method

Projects were developed through the Agile Software Development Process, with extensive creation of Use-Case scenarios.

## Technology

- **Unifying Portal Website:** Built on a SharePoint Server foundation, with significant enhancements via C# Web Parts and Custom Event Handlers. In particular, the SharePoint survey system was customized allowing its use as a responsive data-entry system.
- **Central data system:** A Microsoft SQL hosted system made up of several hundred gigs of database tables and OLAP cubes.
- **Reporting system:** A series of .NET web applications built on SQL Reporting Services, allowing multiple-format report delivery.
- **HIPAA compliance:** Met by securing the report website through Windows® authentication. Hard-copy format reports are downloaded through SSL encryption. Remote medical sites are able to submit their patient data through a combination of SSL uploads and PGP encryption.

