

Capturx Case Study

Samueli Institute

capturxTM
FOR HEALTH OUTCOMES RESEARCH



Summary

Background: Samueli Institute provides medical research for the DoD and VHA to improve health and wellness for soldiers and veterans.

Challenge: Large volumes of paper-based data from the field is manually entered, slow process delays study results and completion.

Solution: Capturx for SharePoint to automate forms data entry with digital pens and paper forms.

Results: Researchers process data 40% faster without cumbersome mobile computers.

Samueli Institute Cuts Health Research Data Capture and Validation Time by 40%

The Department of Defense (DoD) and the Veterans Health Administration (VHA) are committed to improving the health and wellness of soldiers and veterans. To measure and improve their clinical delivery and outcomes, the DoD and VHA work with medical research experts like Samueli Institute, which take a scientific approach to observations, interviews, investigations, and analysis for improving patient care and healthful living. That research involves capturing a great deal of data about veterans and soldiers all over the world. Samueli Institute enters all the data into their Electronic Data Capture (EDC) System, which enables the robust tracking and analysis required to make recommendations and improve outcomes. To streamline the data capture and validation, Samueli Institute selected mobile forms solution Capturx for SharePoint.

Challenge:

Samueli Institute research teams work on a variety of projects collecting data in face-to-face interviews, focus groups, hospitals, and in the field. They need flexible tools to collect data where the forms and environments change depending on the study. Data integrity is critical, so Samueli Institute dedicates their time and staff resources to enter the data twice into separate EDC databases. They compare the data to ensure accuracy before passing it to other teams for statistical analysis. As a result, completing studies can take up to three months.

Researchers were looking for ways to minimize the paperwork processing, so they could focus more time and effort on the research, analysis, and expediting the publication of results. Of course, they needed to maintain data integrity while also keeping within their timelines and budgets. Data capture using pen and paper had been easiest for researchers to use in the field since it is simple, reliable, forms change frequently, and computers can get in the way of interactions between researchers and subjects.

Solution: Capturx for Microsoft SharePoint

To streamline data processing while maintaining data integrity, Samueli Institute deployed Capturx for SharePoint and Anoto digital pens. Capturx is a mobile forms solution that enables field teams to easily collect data on paper using digital pens, which instantly scan and integrate the data into industry-standard tools like Microsoft SharePoint.

"We're always looking for new ways to keep processes efficient, so our teams can focus on results and analysis, by deploying Capturx Software and digital pens we've achieved significant time and cost savings of as much as 40%."

WILLIAM BECKNER

Senior Director, Health Information Technology & Data Management,
Samueli Institute

With Capturx, research teams can use office printers to print forms on normal paper, which can be filled out easily by researchers or the subjects themselves using digital pens. The forms are printed from Microsoft SharePoint which creates a unique digital watermark enabling the form to be tracked by the digital pen. As research or military teams write on the form with the digital pen, a normal ink record of the data collected is created on paper while a digital copy is also created and stored in the pen's memory. Each stroke of the pen on the paper form creates new digitized data. When the pen is connected to a PC or laptop, the study data is automatically sent and integrated into Microsoft SharePoint.

Capturx for SharePoint performs character recognition on the data while retaining a permanent copy of the original handwriting. Teams can review and edit the converted data, while always retaining a direct link to an image file of the original handwriting for auditing and record keeping. Once reviewed and approved, the converted data is simply imported into their EDC system for analysis. There is no new technology to learn or data to re-enter.

Results

More Time Available for Research & Analysis

With Capturx, research staff no longer need to transcribe study data from paper. They have cut data processing time by 40%, freeing more hours for research, analysis, and sharing results.

"We're always looking for new ways to keep processes efficient, so our teams can focus on analysis and results, by deploying Capturx Software and digital pens we've achieved significant time and cost savings of as much as 40%," said William Beckner, Senior Director of Health Information Technology and Data Management at Samueli Institute.

Faster Access to Data and Results

The reduced data processing time also means that research teams can complete studies faster. The sooner results are published, the sooner they can be turned into positive healthcare and wellness outcomes.

Works the Way They Work

Capturx automates the data entry process without changing their simple and reliable data collection method of pen and paper. The pen is durable and easy to carry and use in the varied environments where study data is collected, whether it be out in the field at an exercise, or at scheduled interviews and focus groups. Mobile computers can get in the way of interactions between researchers and subjects, in addition to the high training, support, and purchase costs. Pen and paper fit the interview setting better, while requiring no training. When the pen is docked to a PC, the data is instantly available for editing or upload into SharePoint and EDC systems.