CASE STUDY

Northeast Georgia Health System Uses Data to Speed Up Medical Research

How IPC Global's integrated data platform transformed clinical research at NGHS

700+	1,200+	50+	36,000+
Total Beds	Medical Staff Members	Medical Specialties	Patients in Study

THE CHALLENGE

Large-scale health systems hold the responsibility of addressing health concerns specific to their regions and providing diverse patient populations with access to new medical advances. With over 700 beds and more than 1,200 medical staff members representing over 50 specialties, Northeast Georgia Health System (NGHS) felt a duty to accelerate their ability to discover new scientific innovations to improve the health and quality of life of the people of Northeast Georgia. However, several obstacles hindered the speed and effectiveness of their research processes.

Dr. Shravan Kethireddy, System Director for Medical Intensive Care at NGHS, had made efforts in the past to use healthcare data to build a more sustainable approach to medical research. But he was set back by conflicts between IT-driven enterprise solutions, legacy systems, and clinician-led researcher innovations. Previous data investments, in his words, *"just did not meet the needs that we needed to satisfy in our rapid clinical environment."*

NGHS needed to collect multiscale time-variant data that would integrate easily with project collaborators in a data environment that could grow and adapt to new sources, types of data, and computational needs. To drive future efficiency, they also needed to automate the time-consuming and error-prone steps in the research process — all while operating on a user-friendly interface accessible to researchers not accustomed to complex data systems.

THE SOLUTION

IPC Global, a data and analytics consulting solutions firm specializing in healthcare and higher education, identified NGHS's need for a user-friendly interface capable of completing complex data functions. IPC Global brought together Amazon Web Services Cloud and VizLib with Qlik Sense and their proprietary InProcess Research platform.

These technologies together supported the ability to pull data from multiple data sources in near real time. IPC Global's data processing and validation innovations paved the way to quality data objects which could be used to reliably support findings and repeatable results — enabling NGHS researchers to quickly develop hypotheses, run research models, and create quality outcomes.

> *"A Principle Investigator will come up with an idea, discover information about it, see if grant funding may be available to support that finding and then turn that into an automated way to model that data and validate that model so that we can engineer those results and then from there produce results that turn into actual published findings."*
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> **— Mark Meersman, Founder & Managing Partner, IPC Global**

THE RESULTS

With the new data-driven research on-demand platform, NGHS was able to procure funding and produce a complete, peer-reviewed research publication within a single year. This included narrowing down a patient population of over 36,000 patients across more than 40 million encounters to find an appropriate cohort for the study.

As healthcare systems face increasing pressure to respond to public health issues in the areas they serve, it's critical to keep the medical research process reliable and efficient. NGHS's investment in data integration has demonstrated that modern data solutions have the potential to accelerate research in an increasingly complex healthcare environment. Through quantifiable results, data interoperability can bring automation and scalability to research processes.