



# “ Data Analytics



## **Make Accurate Decisions For Healthcare Quality Improvement**

Ventech Solutions advanced analytics team leverages data to help our customers move up the information value chain by deriving actionable insights, developing reliable predictions, and increasing the transparency behind their data-supported decisions.

We apply cutting-edge data science methodologies, including advanced statistical methods, machine learning and artificial intelligence to help support healthcare process improvements and policy decisions. We also embed these sophisticated methods into data platforms and IT systems that help our business partners make reliable predictions,

automate high-volume administrative tasks, boost efficiency and reduce costs.

## **Team With Healthcare Data Experts**

Our healthcare analytics team has more than 20 years' experience in leveraging statistical and data science methods to develop quality measures, inform public policies, design and deploy nationwide surveys and improve hospital clinical outcomes and cost efficiencies.

We use a combined method of applying advanced analytics while engaging with subject matter expertise to provide our customers with innovative products and solutions for their data needs. Our methods include:

## Statistical Methods

- Longitudinal Design and Analysis Strategies
- Clustered Sampling Design and Analysis Strategies
- Creative Design and Analysis Strategies for complex data with Spatial/Temporal Correlation Structures
- Methods for Combining Data Sources with differing levels of spatial/temporal resolution and/or aggregation
- Analysis Methods for Missing Data

## Machine Learning and Artificial Intelligence

- Machine Learning and Algorithm Development for Predictive Analytics
- Image Analysis and Interpretation
  - Text and handwriting analytics
  - Medical Imaging Applications
  - Feature recognition in static images and real-time video feeds

- General Biostatistical/Epidemiological Design and Analysis Methods
- Quantitative and Qualitative Program Evaluation Methods
- Validation Sampling and Designed Missingness
- Integrated data-driven program/process evaluation and improvement methods
- Generalized Mixed Model and Hierarchical Bayesian Analysis Methods

- Semantic and Cognitive Processing of Unstructured Text Data (Advanced Natural Language Processing)
- Deep Learning and Artificial Intelligence Applications

Ventech Solutions is a healthcare solutions provider who has expertise in end-to-end information technology life cycles and data solutions. Across its offices, teams combine passion, experience and technical expertise with superior process and delivery knowledge to provide high-quality IT products and services that align with our key strength areas. Ventech Solutions proudly provides mission critical initiatives for the U.S. government. For more information, visit [www.ventechsolutions.com](http://www.ventechsolutions.com).