Resultant

From Silos to Strategy: **Health Data Interoperability in a State Department of Health**

ABOUT THE CLIENT

This statewide public health agency works to protect and improve the well-being of communities through prevention, data-informed policy, and cross-sector collaboration. Its vision is to help all residents achieve better health, regardless of where they live, learn, work, or play.

Automation saves **more than two full workweeks per year** formerly spent manually processing data.

Unification and consistent formatting enables **cross-program data integration**.

Delivered weekly and quarterly, **standardized trauma datasets** enable faster, flexible reporting for internal and external stakeholders.

STORY HIGHLIGHTS

- **Faster, smarter public health responses**
  Automating trauma data delivery gives analysts more time to focus on insights, accelerating public health decision-making.
- **Meaningful cross-program collaboration**
  Standardized data enables trauma data integration with other health datasets, revealing trends that inform statewide strategies.
- **Foundation for long-term public health innovation**
  Infrastructure sets the stage for future interoperability, helping the department realize a more connected, proactive health system.

Challenge:
From manual strain to modern solutions

Trauma data pertains to patients with injuries from accidents, gunshot wounds, and other life-threatening incidents. It helps the state improve emergency response systems and public health planning.

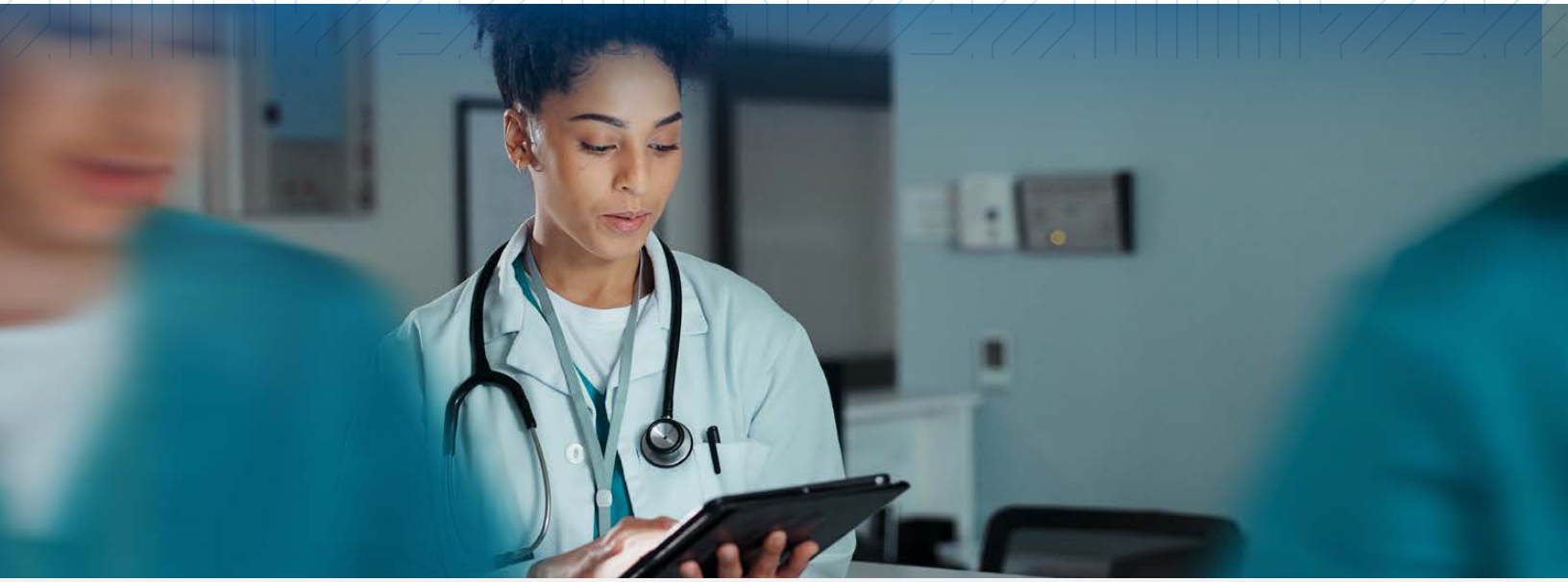
This state department of health sought to move from limited, reactive reporting to predictive data analytics capabilities supporting a more proactive health response.

- Reporting delays impeded timely, effective public health responses.
- Manual data processes cost analysts and epidemiologists valuable time.
- Legacy system limitations hampered fulfillment of trauma data requests.

The department's ImageTrend platform processed trauma data opaquely, limiting insight and control before extraction. Additionally, its data:

- Required manual processes
- Had rigid query capabilities
- Lacked standardized formatting

The state needed a solution that would give them ownership of their data and free their team to focus on what matters most: identifying trends, developing solutions, and taking action to improve public health outcomes.



Solution:
Automating insight, empowering analysts

Resultant's collaborative research environment (CoRE) platform enables multiple agencies to perform analysis on anonymized data in a secure, collaborative IT ecosystem.

To shift from black-box limitations to transparent automation, we partnered with the trauma team to map workflows and deploy a modern data architecture.

ImageTrend data now flows directly into Resultant's CoRE platform and the state's secure analytics environment and is:

- Curated
- Census-standardized
- Automatically delivered weekly and quarterly

The team no longer wrangles data; they act on it.

KEY TECHNOLOGIES:

CoRE

Azure Data Factory

Azure Synapse Data Warehouse

Results:
From static reporting to real-world health impact

As a direct result of this collaborative work, for the first time, trauma data is **standardized and compatible with other datasets** across the agency like those from:

- Hospital discharge
- Infectious disease
- Wastewater surveillance
- Poison control

The automated, curated datasets delivered free up hours of manual effort each week equating to nearly two and a half workweeks annually. Analysts who once spent their time wrangling data now use that time to identify patterns, explore root causes, and collaborate across departments to drive public health strategy, enabling insights that were previously impossible.

LOOKING AHEAD:
A foundation for smarter public health

This project fundamentally changed how the agency thinks about data: not as a burden, but as an asset that can drive real-world outcomes, improve treatment protocols, and inform statewide health interventions.