VitalData
TECHNOLOGY

Supporting Health Plans in Michigan with Predictive Data Science & Advanced Analytics

Health plans in Michigan face persistent challenges in providing timely and effective mental and physical health services across a large and complex population. Vital Data Technology is engaged in implementing a multi-phased solution addressing these issues using cutting-edge predictive data science, AI-driven intelligent automation and support of more timely data transfer.

The Challenge:

Providing whole-person mental health care was hindered by several key challenges:

- **Fragmented data:** Member profiles lacked integration of social determinants of health (SDOH), physical health data, and unconventional data sources, limiting holistic decision-making.

- **Data Timeliness:** Available data had a 60-90 day time lag, decreasing the ability to be proactive and support time sensitive member issues

- **Disconnected workflows:** Data insights were not integrated into day-to-day operations, resulting in delays in action.

- **Underutilization of operational data:** Insights into CM/UM/QI processes were not leveraged to improve outcomes.

The Solution:

Vital Data Technology designed and deployed advanced predictive models to enhance member care. The models were developed to identify high-risk individuals who were currently **undiagnosed** and deliver real-time, actionable insights directly into care management workflows.

Key features of the solution included:

- **Proactive Risk Stratification:** Daily/weekly predictive/analytic outputs highlighted members at risk for high costs, substance use disorders, and undiagnosed anxiety or depression.

- **Real-Time Automation:** Insights auto-triggered next-best actions aligned with care guidelines, such as automated referrals to mental health providers or member outreach communications.

- **Integrated Workflows:** Whole-person analytics were embedded into existing workflows, enabling faster and more coordinated interventions.

Use Case Results:

Health Plan A

Sample Predictive Models:
Depression 17+ 720 day; Depression Under 21 360 day; Psych Hospital Admit 360 day; SUD Basic 720 day

Types of measures that were missed:
FUH7, FUH30, FUM30, IETA, IETB, APP, AMM2, AMM3

79	1,850	$30.8M
undetected care gaps missed	total undiagnosed members identified	total claims dollars members identified

Health Plan B

Sample Predictive Models:
Depression 17+ 720 day; Depression Under 21 360 day; Psych Hospital Admit 360 day; SUD Basic 720 day

Types of measures that were missed:
FUH7, FUH30, FUM30, IETA, IETB, APP, AMM2, AMM3

1,744	5,874	$71.8M
undetected care gaps missed	total undiagnosed members identified	total claims dollars members identified

Health Plan C

Sample Predictive Models:
Depression 17+ 720 day; Depression Under 21 360 day; Psych Hospital Admit 360 day; SUD Basic 720 day

Types of measures that were missed:
FUH7, FUH30, FUM30, IETA, IETB, APP, AMM2, AMM3

493	1,185	$22.2M
undetected care gaps missed	total undiagnosed members identified	total claims dollars members identified

By leveraging Vital Data Technology's predictive analytics and real-time advanced automation, health plans can overcome systemic barriers in mental and physical health care delivery.

This collaboration exemplifies how advanced, data-driven solutions can revolutionize care, ensuring better outcomes while controlling costs.