Armed with Analytics:
UNC Health Uses Data Governance to Deliver a Coordinated Response to COVID-19

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Rachini Ahmadi-Moosavi
Executive Director of Analytical Services & Data Governance, UNC Health

<table>
<thead>
<tr>
<th>Goals</th>
<th>Solution</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bring awareness of patient screening results for COVID-19 and the demand for medical resource needs to aid executive decision-making</td>
<td>Build a new data warehouse using SAP HANA called the Carolina Data Warehouse for Health 3.0 to provide data for analytics and executive dashboards</td>
<td>Delivered the first executive dashboard in a weekend, enabling the health system to begin to assess and manage resources for the COVID-19 pandemic. Ten other dashboards were released within two weeks</td>
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<td>Empower employees and partners to promote UNC Health's mission and vision by effectively managing patient and health care data as an asset</td>
<td>Use Informatica Axon Data Governance, rebranded as Empower, to give users a collaborative, shared view of data assets</td>
<td>Empower and EDC provides support for business users to find information and metrics, ask questions about patient and health care data assets, and improve patient care and analytics maturity.</td>
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<td>Promote data literacy, data utilization, and data quality throughout the organization</td>
<td>Catalog data assets with Informatica Enterprise Data Catalog, integrating with Empower to make cataloged data available</td>
<td>Allows data analysts, developers, and architects to view health care data to easily understand data lineage and expedite impact analysis</td>
</tr>
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Informatica and UNC Health
Informatica Success Story: UNC Health

With the COVID-19 pandemic transforming the healthcare landscape, UNC Health demonstrated how advanced analytics can help improve patient outcomes by getting insights into the right decision-makers’ hands at the right time. But getting there required a new approach to data governance.

With hospitals and clinics spread across North Carolina, UNC Health’s Data Governance Office began by driving data governance through three defined delivery channels:

1. Operational Reporting & Business Intelligence teams (ORBITs), which curated and delivered foundational aspects of the data governance program to functional/clinical areas, like revenue cycle analytics, pharmacy analytics, and hospital quality analytics;
2. Its enterprise data warehouse; and
3. Executive dashboards

UNC Health believed that sufficient business context for analytics lives in the business, and that governing that data would enable sources of truth and transparency. Therefore, the three delivery channels promote self-service analytics and embrace an analytics model of both federated and centralized analytics teams.

“UNC Health has a strong data-driven culture, and we wanted advanced analytics capabilities, but data governance had to come too,” says Rachini Ahmadi-Moosavi, Executive Director of Analytical Services and Data Governance at UNC Health. “To succeed on our analytics journey, we had to reinvent how we were bringing data governance to UNC Health.”

Empowering employees with data governance

Months before COVID-19 hit, UNC Health replaced its legacy data warehouse with a new virtual solution called the Carolina Data Warehouse for Health 3.0. It was a compelling event, giving UNC Health the momentum it needed to formally catalyze its data governance efforts. UNC Health developed a data stewardship framework, including data stewards, owners, custodians, and consumers. Then, it used Informatica Axon Data Governance, rebranded as Empower, to build a user-facing portal.

“We felt that providing users with clear information about sources of truth, definitions, data assets, and how to use them would empower users, so we rebranded our data governance interface as Empower,” explains Moosavi.
UNC Health also deployed Informatica Enterprise Data Catalog, which automatically catalogs enterprise data and integrates with Informatica Axon Data Governance to make it available from Empower. Informatica Enterprise Data Catalog also allows data analysts, developers, and architects to view enterprise data in tables and columns so they can easily understand data lineage and expedite impact analysis.

The Empower portal gives business users a collaborative, shared view of the organization, allowing them to discover, deliver, and endorse the value of analytical assets via context, planning, projects, and stewardship. They can trace the lifecycle of information and connect with a broad community of stakeholders, all with clearly defined responsibilities.

"With data governance, we are working to add tremendous value to the organization by providing the right data to answer the right questions for decision-makers, while reducing the time they spend looking for it," says Sonya Jordan, Enterprise Analytics Manager, Data Governance at UNC Health. "Our data stewards, owners, custodians, and consumers can collaborate and re-use data instead of perpetuating data silos."

Executive dashboards aid the response to COVID-19

By putting systems and processes in place to support data governance, cataloging, and analytics, UNC Health was better prepared when the COVID-19 pandemic reached North Carolina. The analytics and data governance teams sprang into action, populating executive dashboards with pertinent information, including system-wide patient overview trending, a geographical map showing the spread of the disease, and a real-time, in-house census of infected patients.

"We actually turned around our first executive dashboard in a weekend," says Ahmadi-Moosavi. "When COVID-19 reached North Carolina, we called our top people across multiple departments into a war room type setting. We had the first dashboard published by the end of Sunday night for our board to be able to review. Then, over the next week, we established four more dashboards to help paint a clear picture of what stakeholders needed to see to help them make decisions."

By empowering executives and state leaders with up-to-date information, they were able to make more informed decisions about medical supplies and personal protective equipment based on the current landscape. "Having the right tools to enhance data and data governance really helped our health system understand the impact of COVID-19, and provide clear and concise information to help facilitate decision-making," says Ahmadi-Moosavi.
Sowing the seeds of success

UNC Health is providing a central resource for business users to find information and metrics, ask questions about data assets, and improve analytics maturity. With a defined data architecture that enables source of truth definition, it can continue to build trust in data throughout the health care system.

“The data governance seeds we planted are taking root and becoming embedded into our operations,” says Jordan. “We’re closer to top-down data governance than we’ve ever been before, and many more senior executives are engaging with us and want our help going forward.”

Inside The Solution:

- Informatica Axon Data Governance
- Informatica Enterprise Data Catalog

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