

# Transforming Analytics

## Group 3

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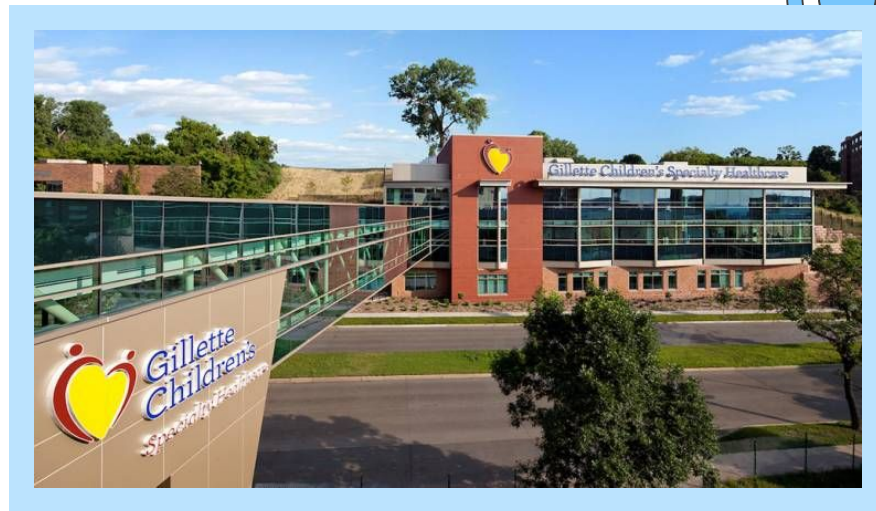
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# Agenda

1. Hospital Overview
2. Transformation Framework
3. Analytics Gap and Strategy
4. Pipeline of Demonstration Projects
5. Top Risks and Mitigation Strategies
6. Analytic Leadership Profile: Chief Analytics Officer



# Hospital Overview



## Gillette Children's:

Specializes in pediatric treatment for rare, complex, traumatic conditions

## Problem

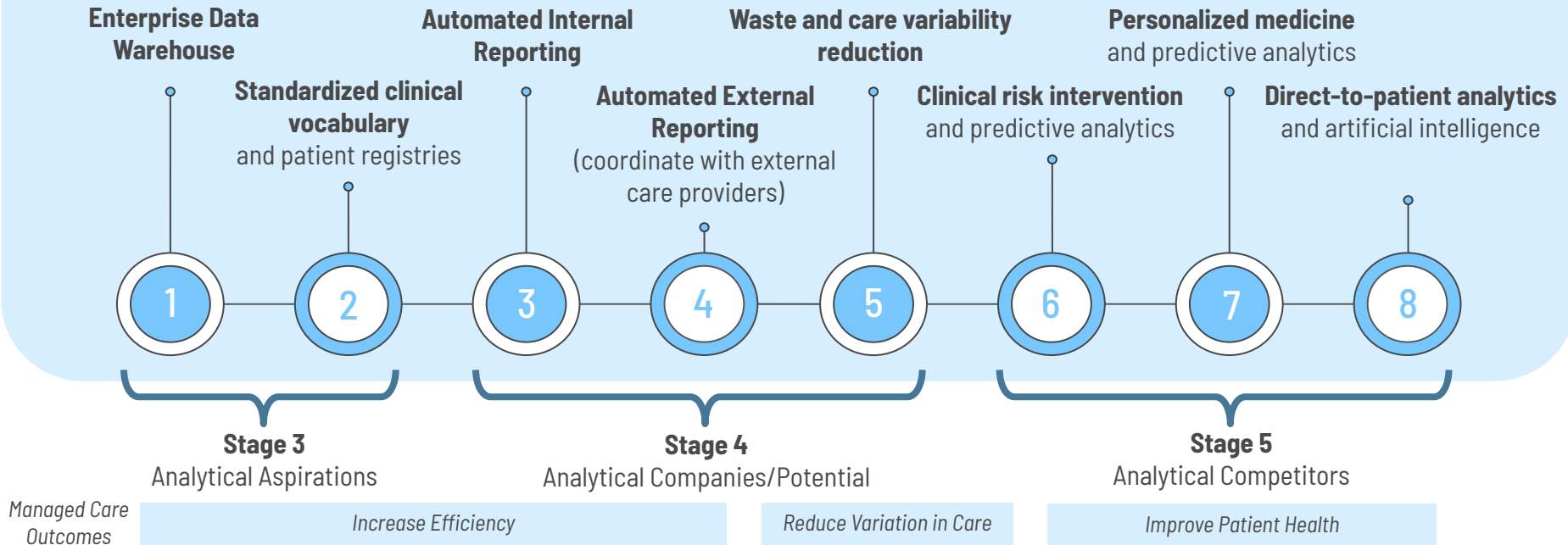
Clinical data is siloed across the enterprise and managed in spreadsheets

## Current Analytic Maturity assessment:

"Flying Blind"

# Transformation Framework

## Analytics Initiatives



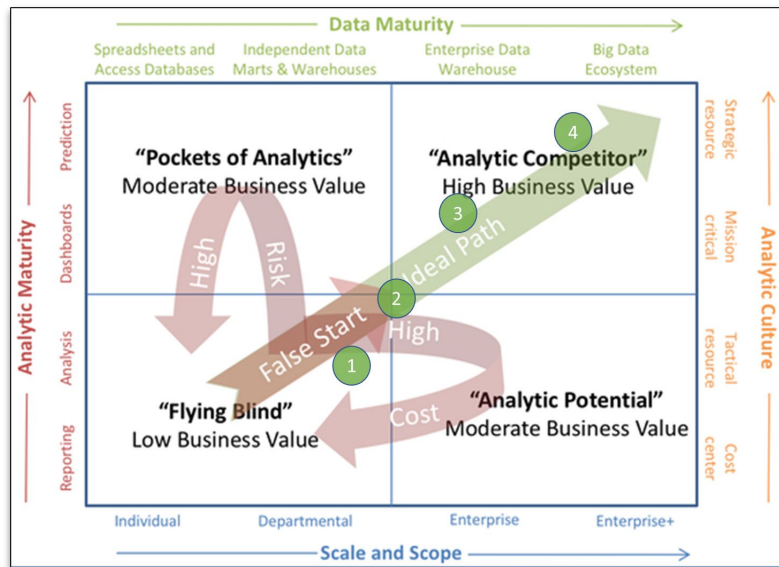
## Analytical Maturity & Goals

Source: Adapted from 2021 Health Catalyst presentation

# Analytics Gap and Strategy

## Current Value

Analytic efforts exist primarily in operations and financial reporting. Using Eckerson's transformation framework, the hospital comes up as providing low business value.



## Leadership

Bringing in leadership focused on analytics culture will complete the transformation into a hospital where analytics are a critical strategic resource.

## Dashboards & Modeling

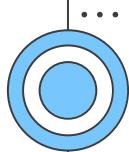
Turning that data into dashboards and predictive models will increase our analytic maturity.

## Scale & Scope

Capturing more clinical data will increase the scale and scope of the data. Expanding that data across more departments will advance our data maturity.

## Costs & Outcomes

Improving analytics and expanding into the clinical data will improve decision making, reduce variation and costs, and improve patient outcomes.



# Pipeline of Demonstration Projects: Applications



## Creation of Hospital-wide Data Warehouse

Data Warehouse is foundation for what is to come



## Clinical Practice Dashboards

Take that clinical data from warehouse and use it to create clinically relevant dashboards



## Modeling Care Outcomes

Model the outcomes of different care practices for each cohort of patients



## Creating Care Plans

Use the models to inform Care Plans for each cohort. Care Plans will evolve as our models do.

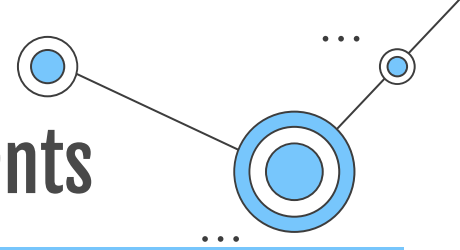


## Future Projects Utilizing Data

Mobile applications for remote patient monitoring, improved communication platforms for faculty, cloud-linked point of care devices.



# People and Technology Infrastructure Investments



## Technologies

### Azure SQL Server

Most of our data will be hosted as SQL tables within one or many SQL Server databases.

### Data Factory

This will be the foundation of the system. Everything from data ingestion to model training will be driven here

### Power BI

This will handle reporting needs - it can build dashboards and other reports from data that is collected

### Reporting Apps or Data Platform

This will be used to replace excel reporting - Power BI and custom reporting may be needed as well.

## Data Team and Hospital Support Staff

### Data Analyst

Help work with the data being collected during the build out of the system, and provide support on reporting after the system is built out

### Data Engineer / Scientist

The specialist responsible for building data pipelines and ensuring that data from many different sources is flowing seamlessly into the system

### Project Manager

Will own and oversee the project and lead implementation of various phases (Power BI reporting, Care Plan)

### BI Developer

Responsibilities will include building Dashboards and other reports for hospital staff and executives.

### Hospital Staff

Responsible for translating the clinical workflow, and to create processes for realistic data entry at the point of care.

# Top Risks and Mitigation Strategies



## Data Culture

Going from using data as means-to-an-end to centering data as part of the organization is necessary to motivate others, secure funding for technology, and mature analytically

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### **Mitigation:**

an analytical leader needs to show the organization the importance of data and convince them to believe in this goal



## Talent Risk

Talent is needed for an analytical transformation. The difficulty lies in obtaining the talent and the transition to working together on projects

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### **Mitigation:**

A persuasive and enthusiastic leader in a data-centered culture with a promise/plan for results can secure funding. Implementing buffer time to get new talent acquainted with current staff can help their content understanding and collaboration skills.



## Regulatory Changes

The Centers for Medicare and Medicaid (CMS) can impose new documentation requirements for billing

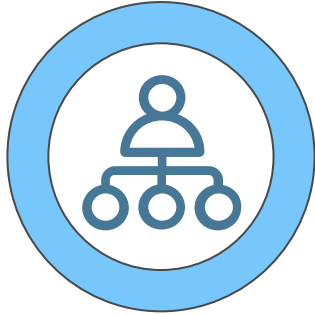
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### **Mitigation:**

Monitor CMS documentation and make flexible changes to an Agile Warehouse to abide by guidelines



# Analytic Leadership Profile



## Chief Analytics Officer

### Leadership Style

- **Adaptive:** has technical and adaptive challenges, "Get on the Balcony" approach, Clinical employees required to undergo changes to workflows
- **Transformational:** Charismatic, motivational, individualized consideration of analytic team

### Responsibilities

- Develop analytic roadmap and create vision
- Develop data culture
- Secure executive sponsorship and commitment to analytic transformation



Questions?

