

# Defining your organization's path in analytics

Creating an Analytics Center of Excellence

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Milliman MedInsight®



# Introductions



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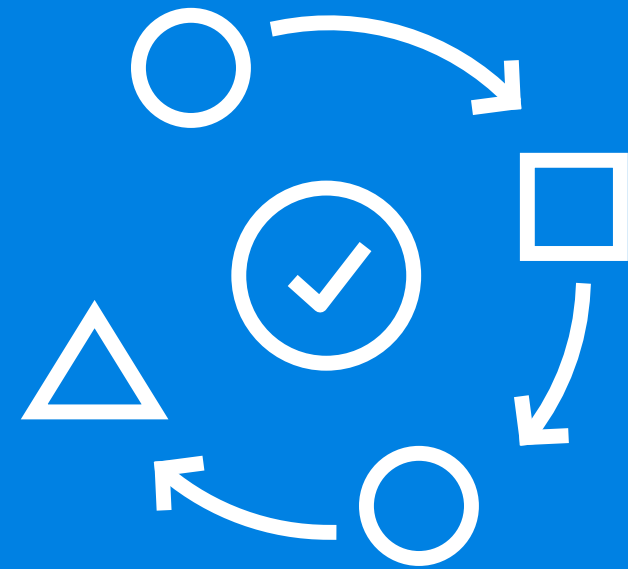
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Craff M and Fox W. How to create a data analytics center of excellence in healthcare - Building the framework for effective & agile decision-making. May 2022.  
<https://us.milliman.com/en/insight/how-to-create-a-data-analytics-center-of-excellence-in-healthcare>

## Our purpose

**To empower  
easy data-driven  
decision-making  
on important  
healthcare questions**



# Today's agenda topics



# What is an analytics center of excellence?

A framework for thinking about data and creating a culture of using analytics

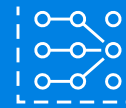
## People and processes to innovate & engage

'Personalized adaptive care' story:  
\$2k reduction in costs per patient & increased capacity of case managers



## Technology to facilitate insights

'Speed and integration' story:  
Responsive web portal + integration allowed automated reporting & analytics



## Data fluency for everyone

'Job satisfaction & career growth' story:  
Up to 12% productivity gains through upskilling and training



## Training for as many people who want to learn

'Accidentally everyone' story:  
\$0.5B incremental value per year & reduced product development time



## Cross-functional input to improve outcomes

68 days & 5 tries to find the right mental health provider / service



## Outside perspective for objectivity & context

'COVID disparities' story:  
ED, PCP, preventive, Rx, telehealth, mental health



## Why culture is crucial

Despite the value offered, nurturing a data-driven culture isn't easy.

### Disappointing results from survey of 64 C-level executives of very large firms like American Express, Ford Motor, General Electric, General Motors, and Johnson & Johnson.

- Rather than seeing an increase in the number of data-driven companies over the past three years, the study showed a 16.4% drop from 2017 to 2019.
  - Only **7.5%** of these executives cite technology as the challenge.
  - Main underestimated difficulties were holistic – people (**62.5%**) and process (**30.0%**).
  - **40%** identified lack of organization alignment and **24%** cited cultural resistance.

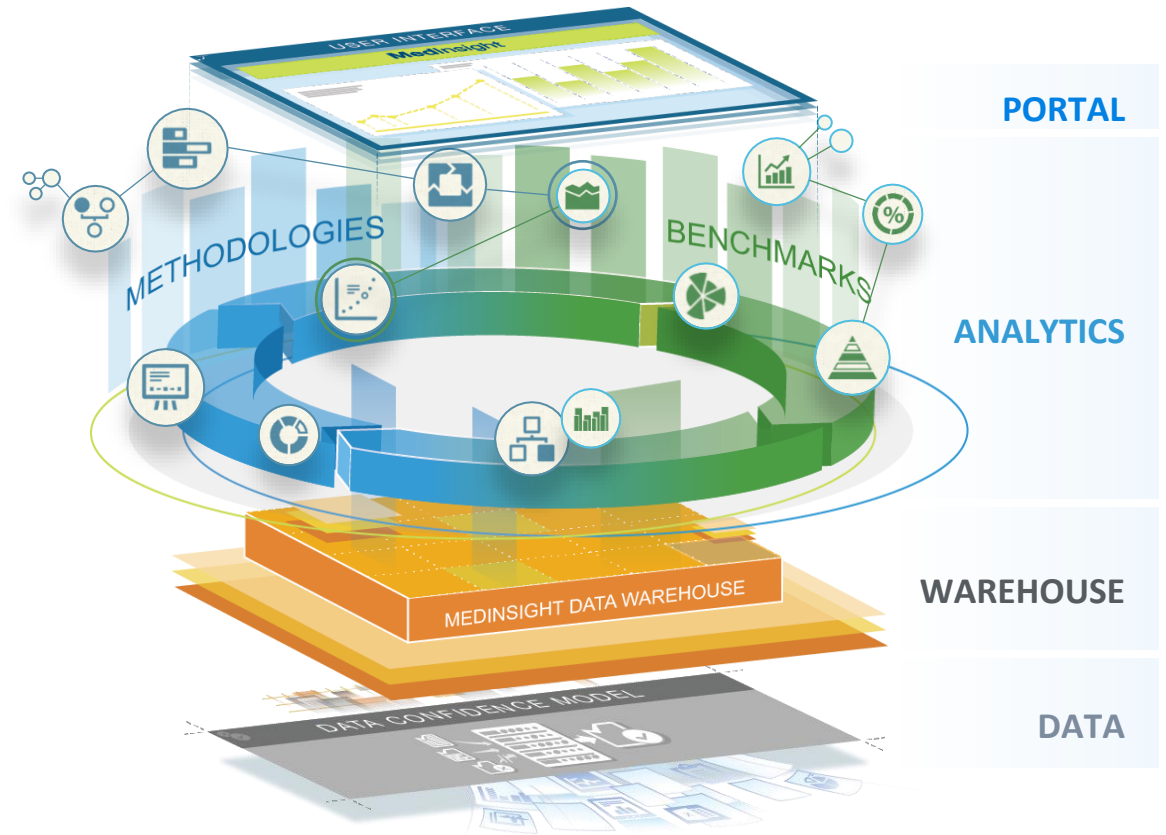


# Challenges along the way



# Database quality assurance

- Adaptable business intelligence platform
- Comprehensive and flexible
- Established analytic methodologies
- Data reliability – correctly formatted and stored, completeness, duplicates removal
- Data Confidence Model – process-oriented data intake, robust quality audits, data certification, rigorous peer review





# Question 1

Which types of analytics are you using to inform your business decisions?

## A. Descriptive What happened?

- Historical reporting
- Financial, operational
- Transactional

## B. Diagnostic Why is this happening?

- Performance measurement
- Competitive analysis
- Benchmarking
- Real-time analytics
- Early indicators / monitoring

## C. Predictive What will happen?

- Likely outcomes
- Trend insights
- Forecasting
- Predictive models
- Correlation analysis

## D. Prescriptive What actions are best?

- Outcomes analysis
- Scenario analysis
- Rapid feedback loops
- Small tests of change

# The value of widespread data fluency

To make information accessible, quickly reveal insights, and avoid silos

- Risk management
- Revenue cycle management
- Cost management
- Value based contracting
- Strategic initiatives



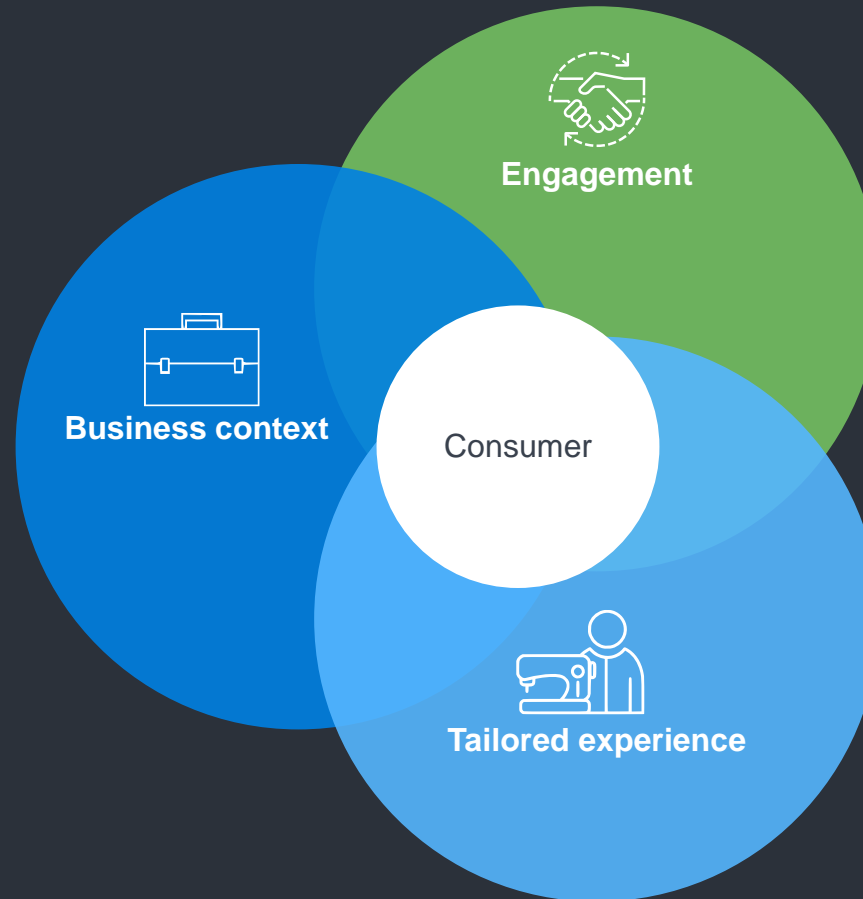
- Staffing / Human resources
- Supply chain / inventory
- Information security / privacy
- Performance improvement
- Community partnerships

- Outreach to high-risk patients
- Chronic condition management
- Wellness / preventative care
- Patient education
- Telehealth

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# Evaluating the current state

Score each category to make this actionable – identify strengths and gaps



## Right tools and data sets

Awareness of tools to manage / process / analyze your data  
Common language



## Right mix of talent

Skills to translate analytics into insights and answers to key questions  
Interdisciplinary collaboration



## Setting goals & measuring progress

Small sprints, deliver value early, pivot as needed



## Immersive training

Formal and informal training  
Techniques, tips and tricks



## Compelling storytelling

Setting, expectation, problem / gap, innovation, proposed resolution  
Use analytic insights to describe each of these



## Communicating outcomes

Sharing what was learned along the way





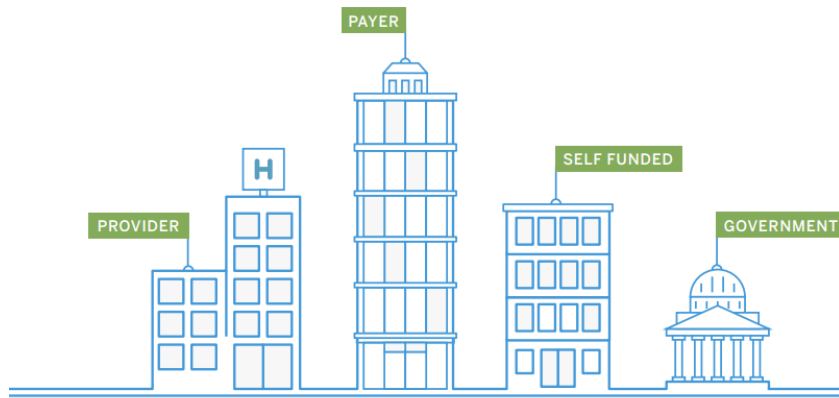
## Question 2

The process to optimizing analytics is evolutionary and occurs in stages. Some departments or business entities may be ahead of others. How might your employees score their current access to analytics capabilities, on average?

Stage	Characteristic	Objective
<b>Stage 1</b> Analytically Impaired	The organization is plagued by missing or poor-quality data, multiple definitions of its data, and poorly integrated systems.	Get accurate data to improve operations.
<b>Stage 2</b> Localized Analytics	The organization collects transaction data efficiently but often lacks the right data for better decision making.	Use analytics to improve one or more functional activities.
<b>Stage 3</b> Analytical Aspirations	The organization has a proliferations of business intelligence tools and data marts, but most data remains un-integrated, non-standardized, and inaccessible.	Use analytics to improve a distinctive capability.
<b>Stage 4</b> Analytical Company	The organization has high-quality data, an enterprise-wide analytical plan, IT processes and governance principles, and some embedded or automated analytics	Build broad analytic capability — analytics for differentiation.
<b>Stage 5</b> Analytical Leader	The organization has a full-fledged analytical architecture that is enterprise-wide, fully automated and integrated into processes, and highly sophisticated.	Analytical master — organization has a cohesive analytical flow.

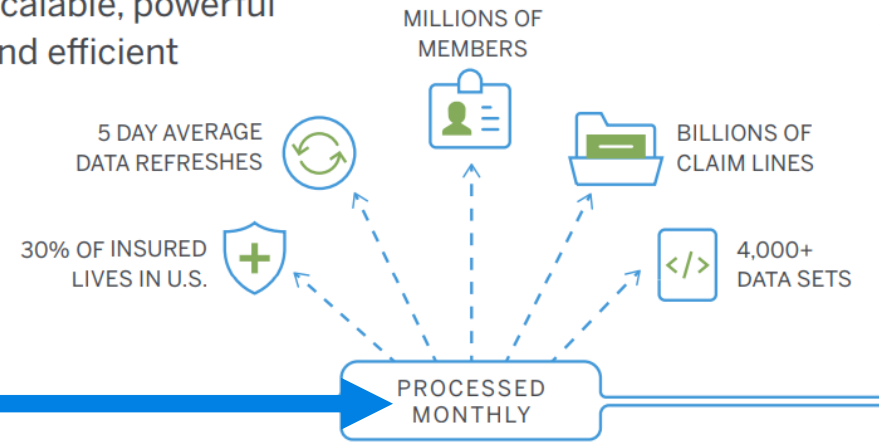
# Technology example – The MedInsight ecosystem

Achieving Integrated Analytics



- BENCHMARKS
- POPULATION HEALTH
- WASTE IDENTIFICATION
- COST & UTILIZATION

Scalable, powerful and efficient



## Data Confidence Model

INDUSTRY'S MOST RELIABLE PROCESS FOR DATA INTAKE AND ONGOING DATA MANAGEMENT



- 100 AUTOMATED AUDITS
- 60 STRINGENT DATA TESTS
- FASTEST REFRESHES
- HIGHEST QUALITY DATA
- MILLIMAN PEER REVIEW
- TIES TO FINANCIALS

## Industry Recognition

Best in KLAS Software & Services Awards

**Ranked #1 in Payer Quality Analytics, 2019, 2020, 2021, 2022**

Seattle Business Magazine

**2019 Achievement in Digital Health Award**

IDC MarketScape

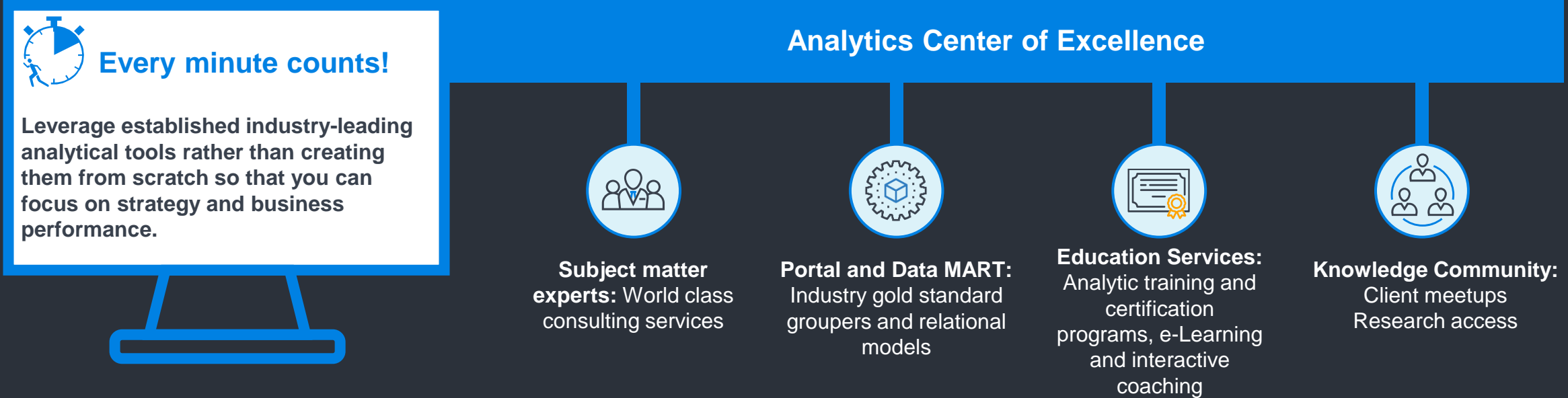
**Leader in the U.S. Payer Data Analytics Vendor Assessment**

IDC MarketScape

**Major Player in the U.S. Population Health Analytics Vendor Assessment**

# Simplify, accelerate and focus

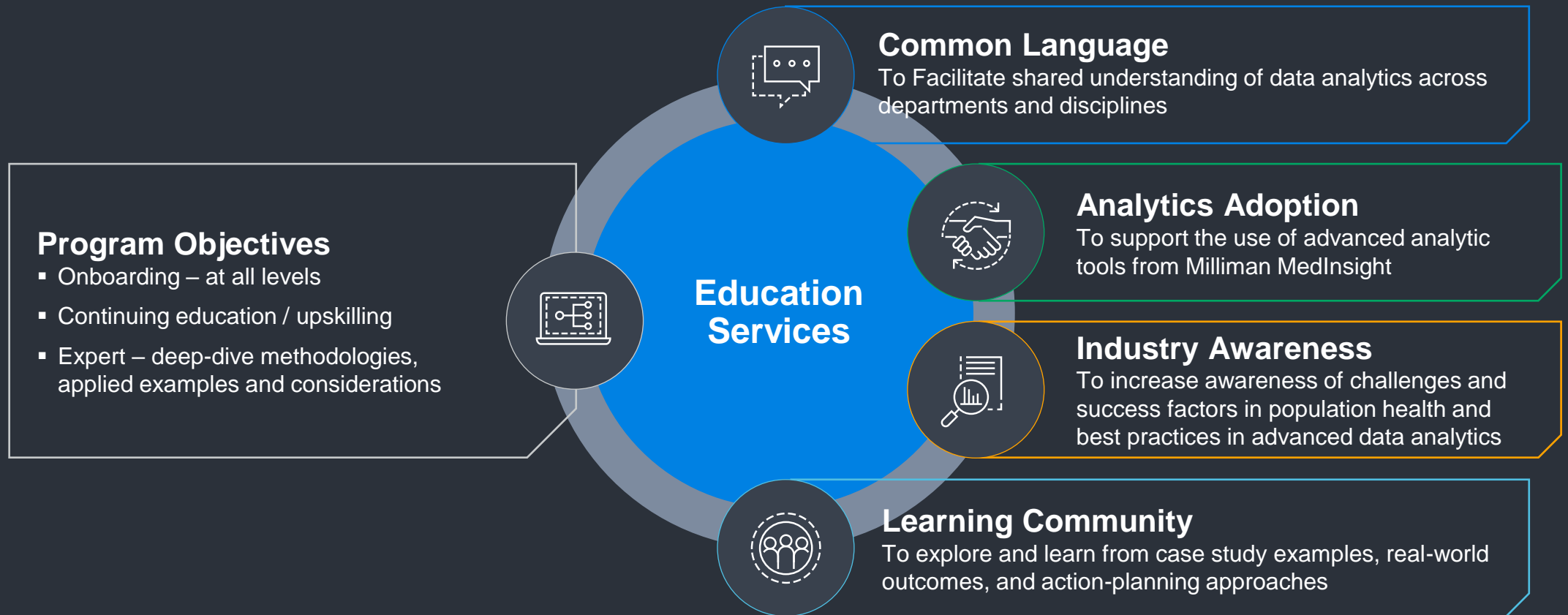
The objective is to increase usage of analytics in a self-service manner



- Outsourcing is a key strategy – it is difficult to hire every role you need, or build every function from scratch
- Unbiased 3rd party to provide a cost analysis framework – data quality has to be scored and managed
- 3rd party benchmarks for each aspect of your key business drivers
- Aim to deliver ROI in phases – rapid cycle improvement, agile sprints
- Knowledge transfer to the community needs a strategy and maintenance

# Continuing education programs

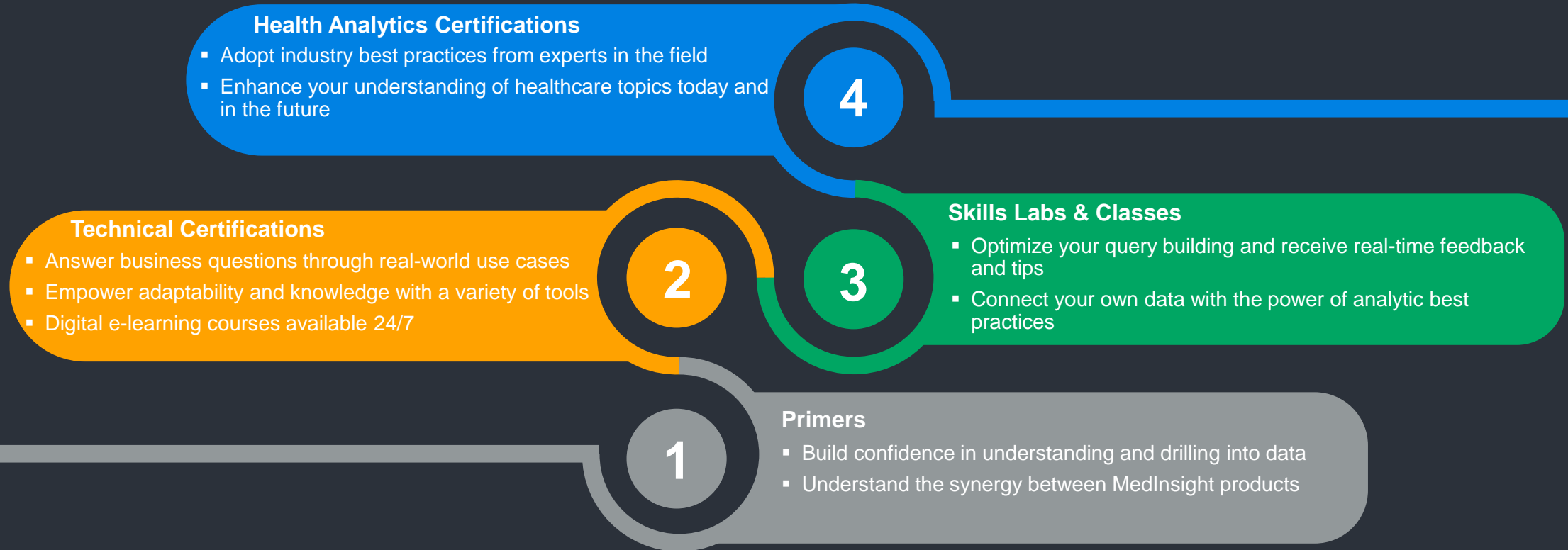
Integrating analytics into problem-solving and decision-making





# Education services

On-demand, custom training tailored to your needs



Additional new content is continually being developed, based on both client requests and industry trends.

# Education services



## Implementation Training

- Portal Navigation
  - User Defined Dimensions and User Defined Fields
  - Query Tools
  - Dashboards
- Client Support
  - Data refreshes
  - Data quality audits
  - Ticketing System
- Continuing Education
  - Documentation
  - Training Videos
- Newsletter Updates



## Digital Courses

- Financial Performance
  - 102: Healthcare Finance: Health Claims Data
  - 103-4: Analytics Basics: Cost Management and Efficiency
  - 201: Health Cost Guidelines Grouper
  - 301-306: Advanced Health Data Analytics
- Care Management
  - 105: Analytic Basics: Data Driven Care Management
  - 203: Chronic Conditions Hierarchical Groups
  - 206: Guideline Analytics
  - 401-406: Population Health Analytics series
- Evaluating Value and Quality of Care
  - 204: Health Waste Calculator
  - 205: Evidence Based Measures



## Instructor-Led Skills Labs

- Cost and Utilization
- Health Waste Analysis
- Utilization Management
- Provider Comparison
- Site of Care
- Quality of Care
- Custom topic as requested



## Certification

- Personal progress
  - % completion
  - Assigned courses
  - Transcript
  - Course certificates
- Managerial reports
  - Course completion
  - Users by group
  - Average % score
- Evaluation
  - User feedback



## Self-Service Materials

- Monthly webinars, such as:
  - [The Drive to Value-Based Results with MedInsight](#)
  - [Top 5 ways to leverage Milliman data assets for strategic healthcare market analysis](#)
- Training Studio
- Research & Innovation
  - Research databases
  - Data integration
- Brief navigation videos, e.g.:
  - [Navigating Your MedInsight Portal](#)
- Use cases and Q&A

## Question 3

What stands in the way of becoming data-driven in your business?

### What are the barriers?

**A lack of:**

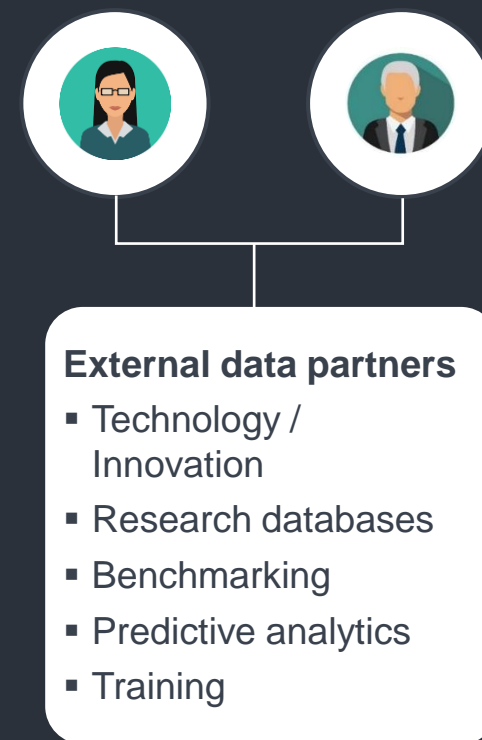
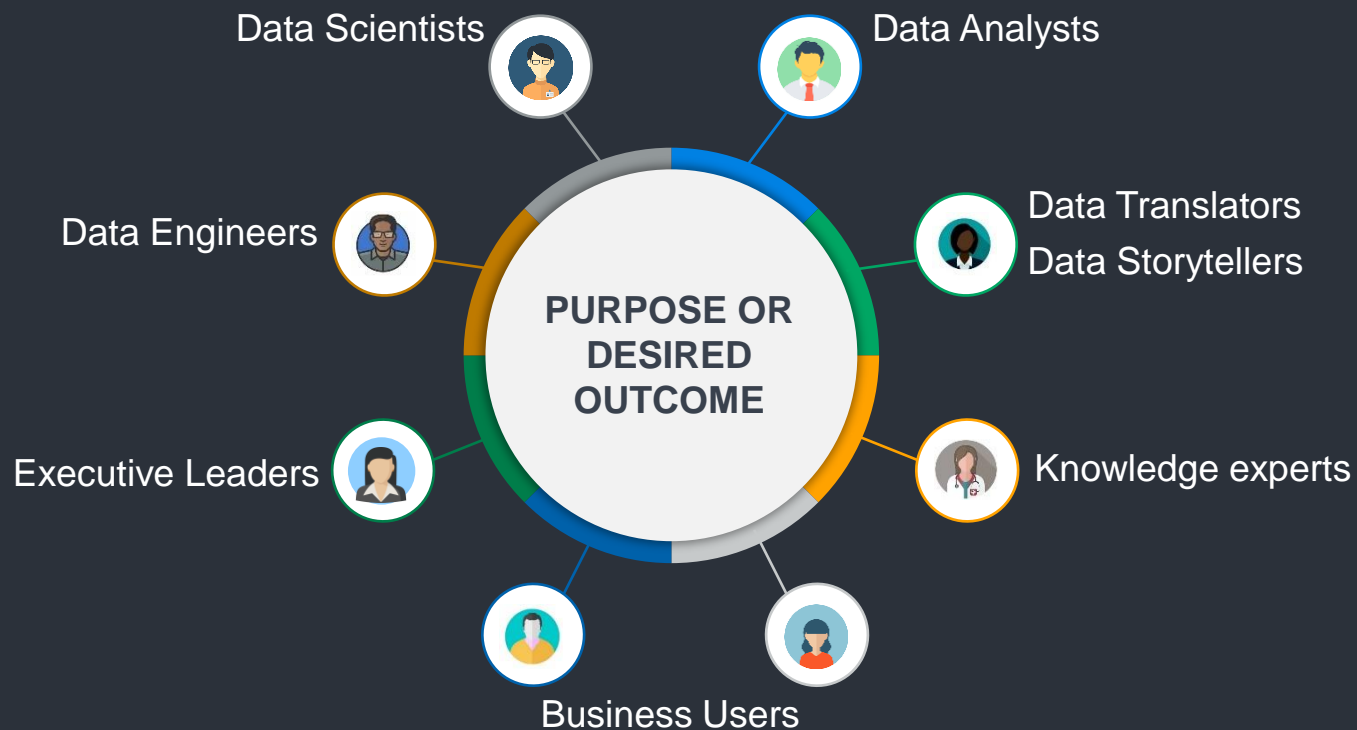
- Time or budget
- Skills
- Data
- Tools / technology
- Strategy alignment

### What would make it easier?

- Analytics technologies
- Business interpretation
- Data fluency / training
- Organizational / Leadership commitment

# Assembling the data team

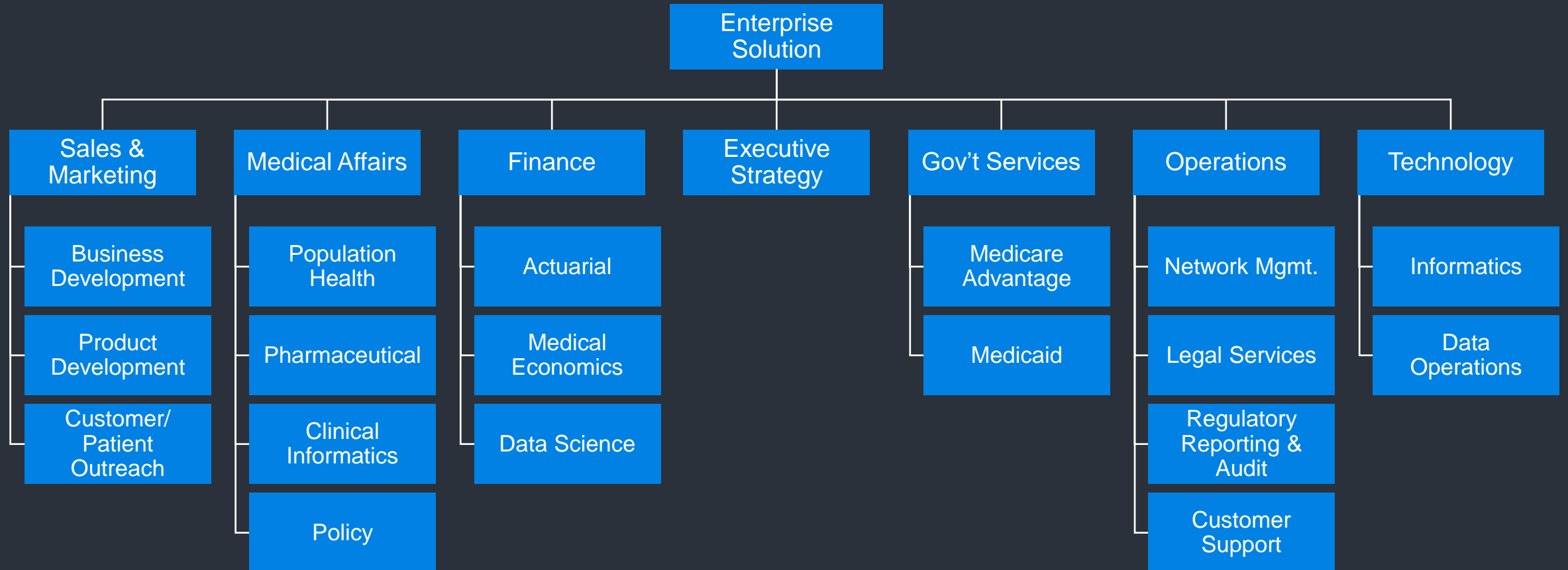
Cross-functional use of data analytics and integration into problem-solving and decision-making





# Vision for enterprise adoption

Each department has their own level of analytic maturity, so outline a strategy to speed up analytic synergies between them all and plan a roadmap for adoption



# Manage the flywheel of success



## Benefits in action

CEO wants to know what drove trend of 10% for ACA Individual but only 5% for Group

**Malik (Analyst) can easily anchor to PMPMs for current and prior year that everyone agrees on and then can quickly and efficiently evaluate changes in membership (age/sex and morbidity), utilization vs unit price, changes by service category and chronic condition.**

- Hospital unit price trends were **20%** for ACA and **3.6%** for Group
- No material differences in other drivers

**Malik can then quickly show the results by hospital and compare ACA vs Group**

- ACA unit prices were **25%** below Group but gap is narrowing
- One large system had a **32%** increase but there were larger ACA increases for many hospitals

**Malik then reviews filed ACA rates and can show that competitors have not increased rates as much, and this is disadvantaging our competitive position. Meeting set with Provider Network team to determine what resources they need to improve hospital contracting outcomes, CEO is involved, and they agree to create more VBCs for ACA.**



# A few examples of success

## Affordability

**Compare** the 58 measures of low value care tracked by Health Waste Calculator to geographical overutilization trends

**Achieve** PMPM reduction & quality improvement using evidence-based measures & HWC

**Evaluate** hospital contracting using GRVUs and Medicare repricer to identify opportunities

## Cost Drivers

**Understand** how quality, access, use, and cost vary geographically between providers and compare to benchmarks / trends

**Measure** referral patterns, length of stay, follow-up after discharge, readmission using provider scorecards – acute & post-acute

## Risk Management

**Consolidate** internal reporting capabilities with a single source of truth that can be reconciled to your financial systems

**Use** individual & aggregated risk scores by payer type, impact-ability scores, & integrate social determinants of health factors



## Care Management

**Rapidly** identify patients who are heavy utilizers, avoidable ED visits, and risk-adjusted readmissions

**Inform** care intervention using chronic condition hierarchical groupers, & identify comorbidities to manage patients more holistically

## Optimizing Wellness

**3-5 year** strategic plan to manage a pre-diabetic population proactively

**Identify** primary care spend, outcomes & leakage to specialists

**Determine** how to address the gap in ambulatory care and unavoidable ED care among Medicaid enrollees and dual-eligible patients



# Pitfalls to avoid and key success factors



## Pitfalls

- Don't wait months or years for perfection
- Don't create an amazing resource that no one knows how to use
- Don't let departments argue about which data is correct
- Don't skimp on talent, resources and authority for the team
- If the user can't get results out quickly, they will create more focused solutions
- Failing to shut down department-specific datamarts



## Key success factors

- Make sure it is usable right away
- Start with a core group of super users and train them well
- Have clear reconciliation to financials and other foundational data
- Need to be able to add dimensions and metrics quickly and efficiently so departments don't do it on their own
- Leadership supports data analytics and a single source of truth

# Building your analytics center of excellence

No two organizations are exactly alike – here are some best practices to keep in mind along the way

A well-honed analytics strategy can be used to build trust in health data that leads to optimized healthcare delivery and better patient outcomes.

## The right mix of talent

- Emphasizing the cross-functional skills and perspectives to achieve key insights & accessible answers

## Training for excellence

- Data fluency training & best practices to accelerate practical use of information for competitive advantage

## Making use of the right tools & data sets

- Timely insights, improved data quality, scalable disciplined data structure, and simple tools.

## Setting goals & measuring progress

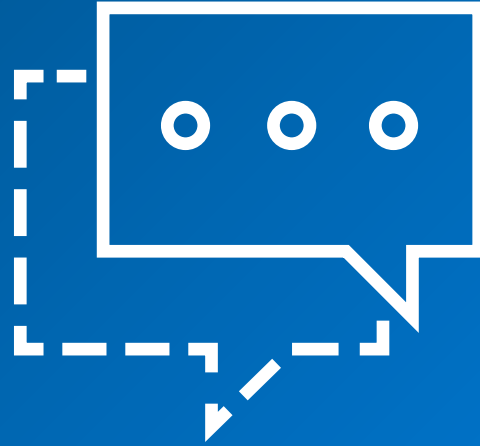
- A phased plan can help you communicate the larger narrative of the benefits of analytics excellence

## Using analytics to tell a story

- The right analytics can deliver powerful stories, with layers of information and insights

## Strategic outsourcing to maximize your team

- Agile sprints can deliver repeat value within a short period of time to build and sustain momentum



# Q&A

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# Thank you

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