

# Healthcare Data Expertise

Qualifications

June 2025

# The perspective McKinsey brings...

- McKinsey is a “**power user**” of **CMS data** – we hold 25+ seats within the Virtual Resource Data Center (VRDC), have licensed limited data set (LDS) and qualified entity (QE) files, and regularly ingest publicly available CMS files (e.g., Medicare Advantage enrollment and plan data)
- Our experience building data products from CMS claims files – e.g., a deduplicated claims dataset for Dual Eligible beneficiaries – gives us a **broad knowledge of data quality issues and potential improvements** CMS could pursue
- We have **deep expertise standardizing and interpreting data**, rooted in a proprietary data model and data enrichments used for both CMS-provided and other datasets (e.g., commercial claims data, EHR data) licensed from third parties
- We **understand the needs of a diverse set of healthcare entities**, given our experience building tools for payers, health services firms, and healthcare providers – including value-based payment model participants
- Our secure data platform enables consistent analyses for **shorter-term, sprint-style projects and research that reveal insights** for users

# SHaPE Tech is McKinsey's healthcare product and technology unit



## Proprietary cloud-based platform

Nebula – our proprietary HIPAA- and HITRUST-compliant cloud-based big data analytics platform – provides infrastructure, DevSecOps, and product and design excellence for thousands of users across the portfolio

**1.5 PB**

data currently handled by HIPAA-ready and HITRUST certified platform



## Industry-leading data lake

Comprehensive data lake built around multi-sourced, closed claims data integrated for longitudinal studies and linkable to other patient level data  
Leading proprietary enrichments accelerate insights across use cases

**~220 M** annual lives

of payer-complete third-party claims data spanning all lines of business



## World class tech and data science talent

To develop and support these products we have built an analogous tech company within McKinsey with dedicated colleagues and leadership across product, engineering, data science, delivery operations and security

**~250**

full-time FTEs dedicated to product portfolio build



## Insights Workspace offerings

Direct-access tools that address the most challenging industry issues

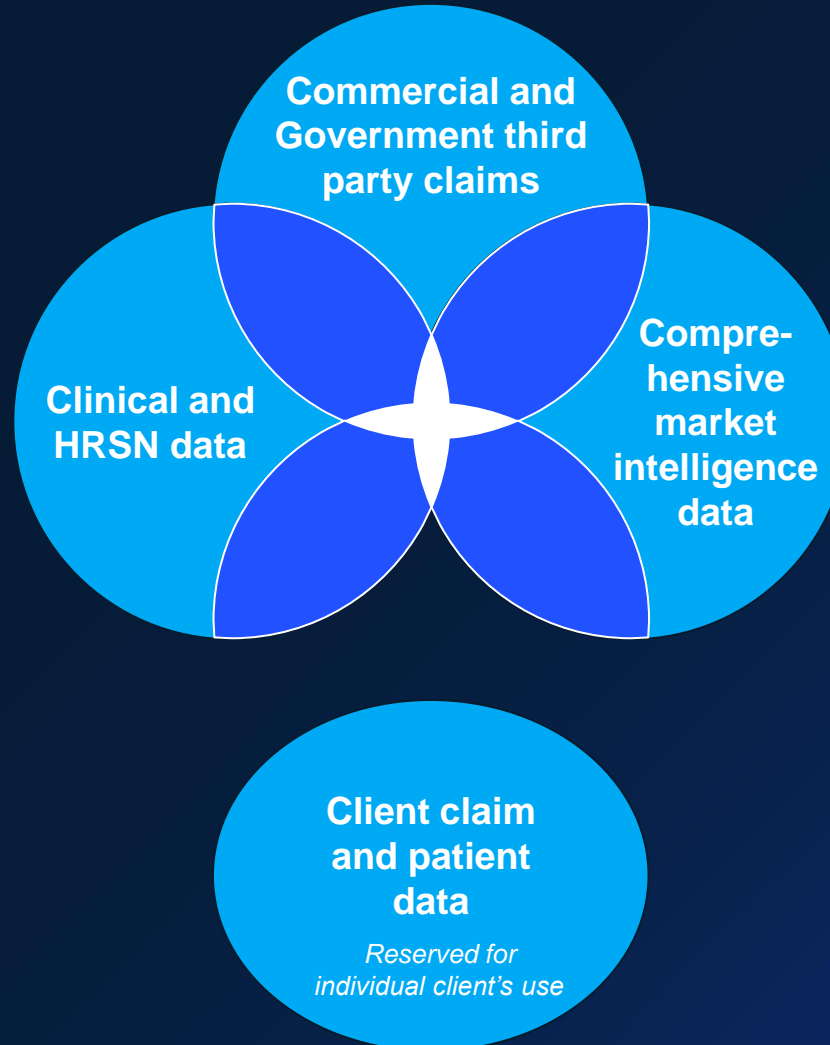
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signature products

# McKinsey has created a foundational US Healthcare data lake that is curated to fuel insights across the value chain

## Broad and deep foundational datasets

- >219 million covered lives for all lines of business of closed claims data
  - 100% of Medicare FFS, Medicare Advantage, and part D claims through CMS VRDC program
  - 100% of Medicaid and CHIP claims through CMS VRDC program
  - Meaningful market coverage for all geographies with identifiable providers
- >200 million patients across all lines of business from open claims data
  - Low latency intelligence (updated bi-weekly) for emerging trends
  - Integrated with ambulatory EMR for clinical enrichment



## Core reference sources, including market intelligence and projection models

- Clinical risk score and patient segmentation models
- Affiliation data for all providers nationally
- Facility intelligence across continuum of care
- Detailed member enrollment data at the county and payer level for all lines of business nationally
- Market forecasts of service line growth, enrollment projections and demographic shifts

## Breadth of use-cases enabled via critical data sources

- Healthcare value analytics
- Population health analytics
- Provider productivity
- Clinical operations
- Market intelligence
- Market growth

# McKinsey's proprietary and comprehensive common library of enhancements accelerates time to distinctive insight and value

**Enrichments and customizations** improve quality, accessibility, and distinctiveness of analytic outputs, including:

## Intuitive Groupings



### Clinical concept library

Allows for categorization of all procedure, diagnosis and pharmacy codes



### Encounter Logic

Grouping of all claims into distinct patient interactions with the healthcare system



### Service Lines

Categorization of service based on claims-level clinical and cost fields

## Provider & Member Enrichment



### Provider Scope

Machine Learning powered identifying physician specialties



### Provider Affiliation

Health system and group practice affiliations for all providers in the US



### Risk scores & segmentation

Risk score models and grouping into clinically relevant segments

## Distinctive Insights



### Journey Analytics

Generating distinct patient journeys to better understand care patterns



### Standard Episodes

Gain insight into specific conditions with clinical, cost, and care perspective



### Health Related Social Need

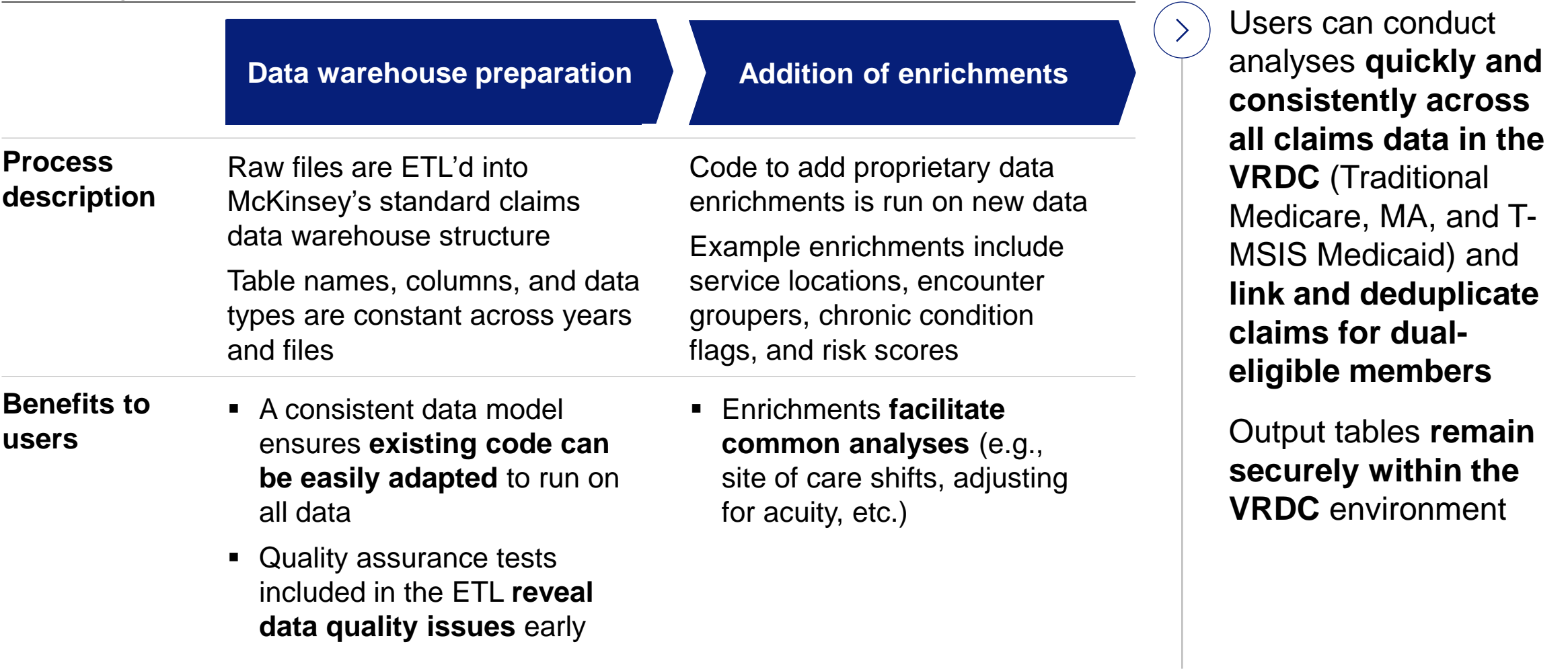
Augment member risk profiles with socioeconomic models

Our proprietary enrichments were conceived and prototyped together **with real-world healthcare organizations** from day one, and ensure that our analytics generate **truly actionable insights and interventions**

Capabilities can be deployed in a stand-alone fashion via container, API, or other method to support direct on-prem analytics

# Within the VRDC, McKinsey transforms “raw” CMS claims files using a standard data model and enriches data for simplified, consistent analysis

## McKinsey’s claims data transformation and enrichment process





# McKinsey has a range of core healthcare analytic products built on our data platform and deployable into external environments

 [Details Follow](#)

## Product overview

## Functional use case

**Healthcare Market Intelligence** – Drill-down into geographic to see information about population and healthcare trends

Market exploration (demographics, healthcare providers/payers); population projections

**Self-serve Business Intelligence Tool** – Drag-and-drop interface for manipulating third-party claims data

Answer utilization questions and patterns, PMPM costs by chronic condition/service location

**Benchmark to Value (BTV)** – comprehensive “value finder” across five key sources of value

Medical cost opportunity identification; provider insights

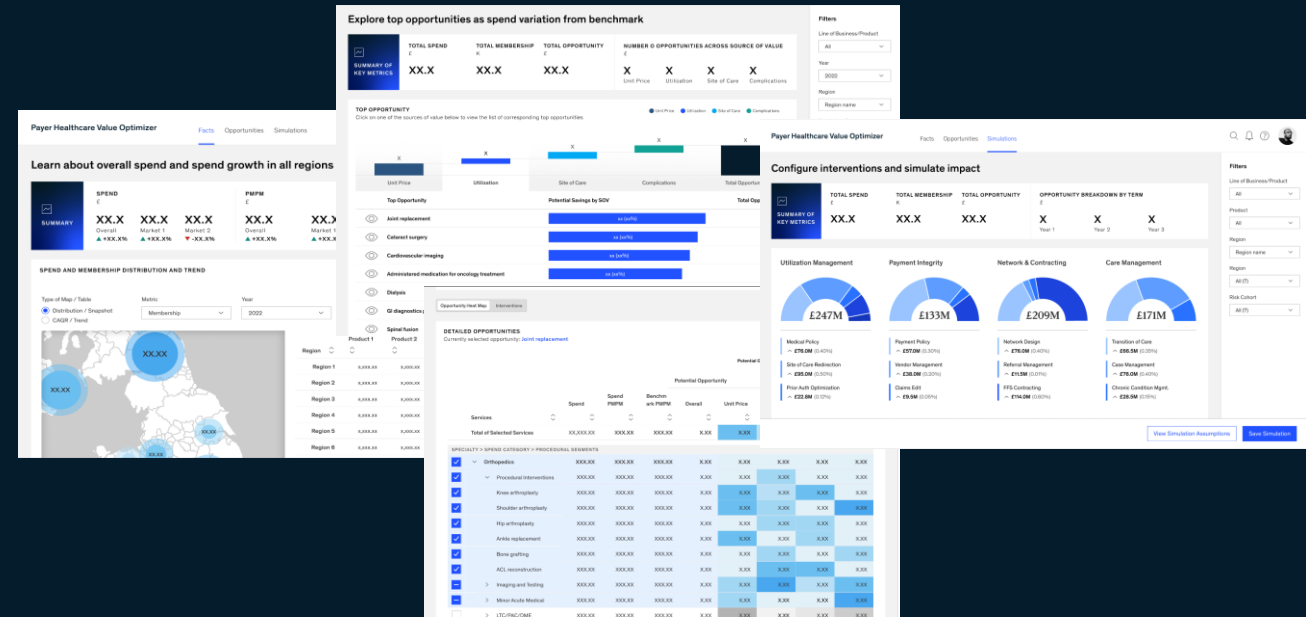
**Referral Mapping Insights** – complete longitudinal view of physician referral pattern dynamics across US

Provider strategy; provider growth

**CareCUBE**– helps providers understand the opportunity to improve quality of care, and reduce cost of care, while transitioning to VBC

Value based care opportunity identification

# BTV is a web-based application that can be delivered in the payer environment to facilitate decision making for medical cost optimization



## Unprecedented insight into medical value

Get a comprehensive view of **medical cost performance relative to benchmarks** and **rapidly identify the key cost of care drivers** that directly translate into opportunities for improvement



## Data to action

Turn insights into action by understanding drivers of performance: leverage **timeseries data**, **drillable metrics** and **provider / procedure level insights** to create go-forward plans



## On prem delivery

End-to-end pipeline **automated in payer environment** while connected to payer data lake for **easy refresh with up-to-date information** and opportunity to expand and integrate with other analytics use cases



# Benchmark to Value: How it works

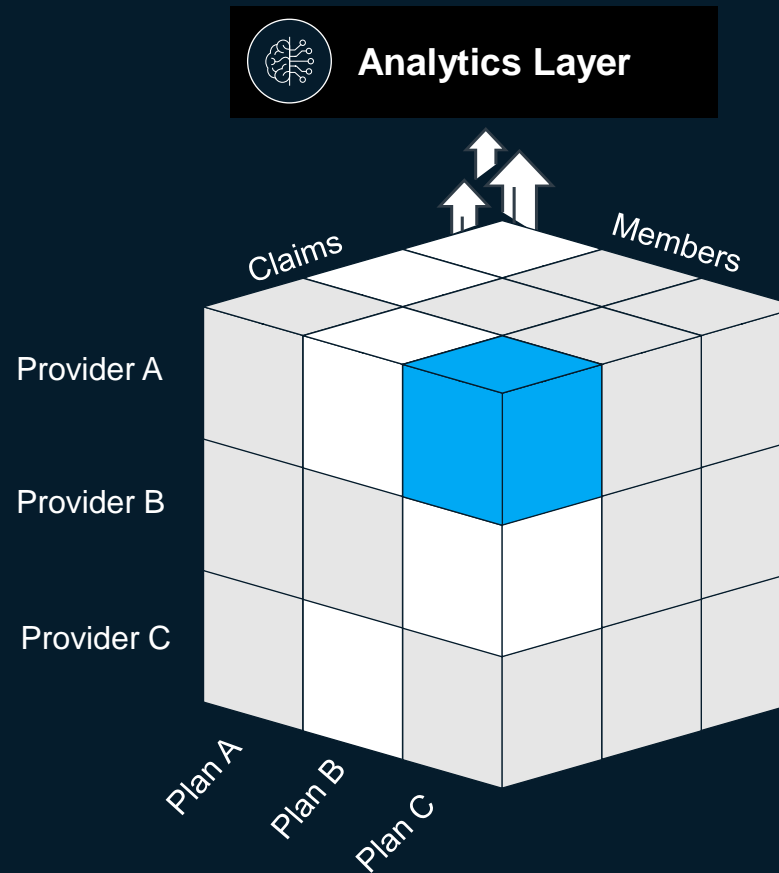
## 1 Combine & interlink key datasets

- Claims
- Membership
- Billing Groupers
- Claims risk classification
- Policy coverage
- Agents

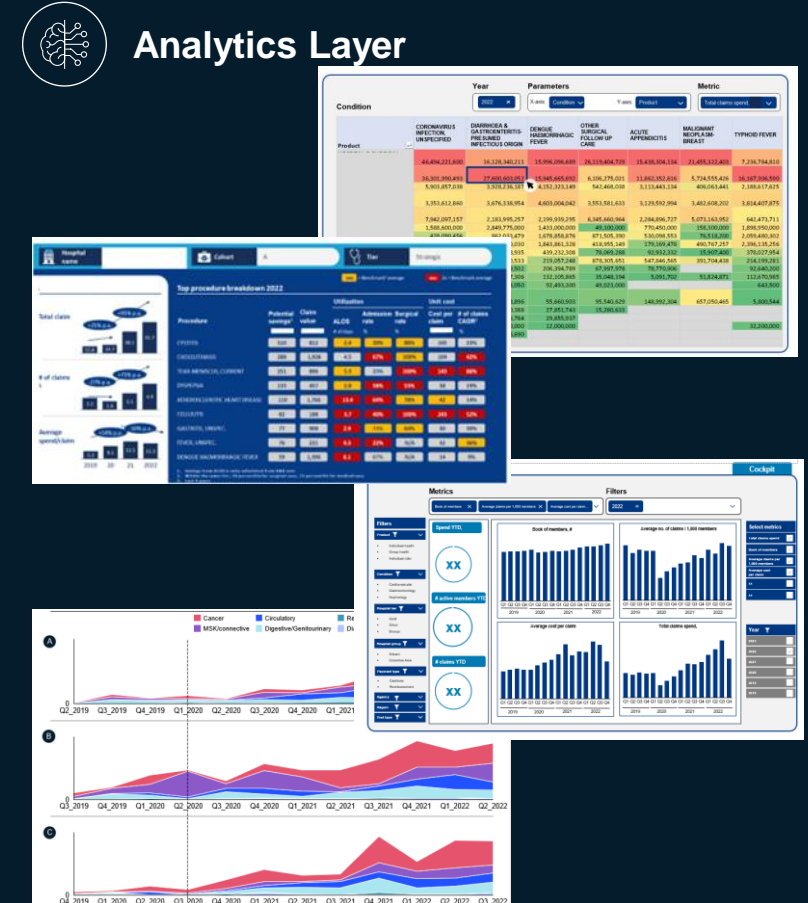
## 2 Apply enrichments (details follow)

- McKinsey Clinical Concept Classification
- Member risk segments
- Provider cohorts
- Diagnosis Grouping
- Readmissions tagging
- Create most important indices (Unit Price, Surgical, ALOS)

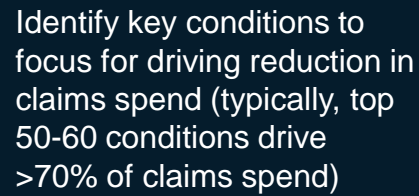
## 3 Build core spend cube to enable multi dimensional analysis



## 4 Run concepts in analytics layer to evaluate spend & size potential



## Condition type



E.g., Which conditions are driving majority of the claims spend?

Are there major variations in spend across conditions for IP vs. OP care?

Benchmark providers to identify key preferred providers with high quality of care, as well as optimal utilization and unit cost

E.g., Which providers are driving higher IP admissions for conditions typically observed under OP elsewhere?

Which providers are over charging across R&B, drug costs, physician fee etc.?

Which are the key markets within the country for deep dive

Conduct regional analysis to enable recognition of patterns of performance variation that may have region-specific implications

E.g., Which regions are driving majority spend – how can we optimize spend by driving patient channeling to preferred providers in these regions?

Compare performance by member cohort (such as defined by health status or chronic condition profile)

- Identify claims spend by product to alter product policies and benefits as needed

E.g., Are there specific members/ products that are not analogous with the rest of the cohort?

Compare performance by agents and identify potential FWA activity by select agents

E.g., Are there specific agents driving inordinately high spend?

Are there combinations of agents, providers and members that are driving regular claims spend indicating potential for further analysis?

# Care Cube helps VBC operators understand the total opportunity associated with value-based care and how to act on those insights

A web-based tool that helps providers understand the opportunity to improve quality of care, and reduce cost of care, while transitioning to value-based payment

Designed to deliver **quality, revenue, and cost transparency**; insights and anomaly detection; and **500+ analyses** that inform the detailed scenario planning required to run a sophisticated VBC strategy

## Giving VBC operators



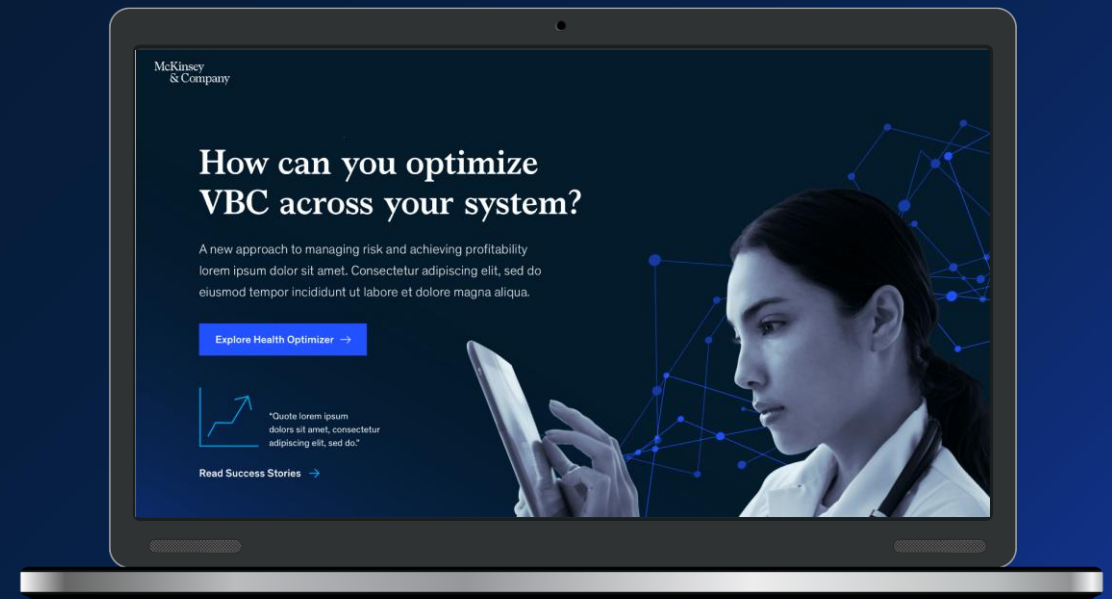
**Transparency**  
one integrated source of truth for clinical spend



**Control and accountability** through direct integration into data feeds, scenario planning, total view of spend



**Greater clinical impact.** The right patient. The right care plan. Find the inefficiencies to fuel the growth



# Healthcare organizations use CareCUBE to power insights across multiple use cases and sources of value

## CareCUBE can help ...

1

Understand where your care model is today and where there are opportunities to improve

2

Diagnose root causes and detailed specifics within each of those opportunities

3

Generate patient specific, real-time insights and Next Best Actions for on-the-ground care teams to carry out care model changes

## Across the following sources of value...



### Improve quality performance

Close care gaps and Improve performance on HEDIS and CMS Stars measures, and commercial quality programs



### Deliver care in the appropriate settings

Shift care appropriately to cost-effective settings, incl. home care (SNF to HH, IP to ED, OP to ASC, etc.)



### Reduce preventable complications

Reduce avoidable hospital readmissions, preventable exacerbations (e.g., COPD, asthma), and injuries/falls



### Optimize capacity

Unlock capacity by shifting lower acuity visits to appropriate channels



### Advance health equity

Highlight health-related social needs and address gaps in care



### Boost patient retention

Grow and retain members

CareCUBE has multiple service offerings to accelerate your care model innovation and transformation efforts

## Product

Analytics and workflow platform that provides a **comprehensive assessment** of care model opportunities, delivering **actionable insights** across multiple organizational levels, including **real-time patient-level recommendations** for next-best actions

## Advisory

CareCUBE insights that can be integrated into a **broader enterprise strategic effort**, supported by collaborative **thought partners with extensive experience** in business and care models across payers, providers, MSOs, tech enablers, and public agencies

## Support

Comprehensive approach that encompasses **intervention design, implementation, performance management**, and **product support** to drive consistent value realization across the entire organization

# Additional products available “as a Service”

## Non-exhaustive

### Asset and capability overview

**Episode analytics** – episodic algorithms covering 30+ patient journey pathways

### Impact and how it plugs into workflow

Enables the ability to make fair comparisons across providers including specialist-driven and facility-based episodes

**USD 45 M in savings** over 3 years through implementation of a broad episode program

### Claims predictive volume

Forecasts the claims volume by site of care, clinical categories, demographics accounting for utilization shifts, population growth, ageing, change in payor mix and other trends

### Service line analytics

Claims based utilization and market sizing by key demographics (e.g., year, state, MSA) and/or clinical information (specialty, service location, service line)

### Consumer activation

Understand how consumers are choosing providers; predictively model the impact of their choices; design interventions to influence behavior

### Care-at-home analytics

Detailed breakdown of opportunities and feasibility of changing site of care to home

### Payer G&A benchmarking

Holistic assessment of cost and operational performance across functional areas. Includes trend and peer analysis, as well KPI assessment.

### Future of Payer

View of payor’s potential future state through operational and organizational transformation,

**Medical cost- pharmacy opportunity** (TEDS, biosimilars, reference based pricing)

Opportunity analysis for pharmacy spend, including biosimilars and reference based pricing

### Profit pools

Comprehensive, proprietary model analyzing current and evolving healthcare revenue & profit pools across five verticals (payer, provider, manufacturers, pharmacy & tech services)

### Enrollment projection

Forecast enrollment changes at county level and by LOBs (commercial, Medicare, Medicaid etc.)

### ACA analytics

Database of all ACA networks, products, benefits, pricing, financials etc. Also estimate price elasticity for ACA carriers and estimate market share impacts

### Claims predictive volume & claims market sizing

Predict claims utilization by clinical categories and site of care by line of business and state; size Claims based market by key demographics (e.g., year, state, MSA, age) and/or clinical information (specialty, service location, service line, disease/condition)

### Denials excellence tool

Identify denials

### Provider price benchmarking

Assess competitiveness of negotiated rates and identify drivers of variability