

Bending the Surgical Cost Curve: Engaging surgeons with actionable analytics

Leon Salvail, CEO Gevity Consulting Inc.

Valerie Lukac, Health System Optimization Lead, Gevity Consulting Inc.

David Ball, Head of Operations AnalysisWorks

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Jason Goto

Jason is the founder and president of AnalysisWorks Inc, a Vancouver, BC based management consultancy that helps organization use analytics to drive positive change. AnalysisWorks is recognized as one of Vancouver's Top 100 Fastest Growing Companies. With an industry focus in healthcare Jason uses analytical tools and effective consultation to pinpoint root causes to problems and identify actionable solutions. Driven by his passion to make a difference, Jason is frequently involved in supporting organizations through transformational change. Jason holds an Engineering degree from the University of Waterloo, and a Masters of Science in Management Science from UBC. In 2010 he was recognized as one of Business in Vancouver's Top 40 Under 40.



David Ball

Head of Operations for AnalysisWorks. David helps organizations translate advanced analytics into practical and effective action. David has over ten years of experience in various consulting roles.



Leon Salvail has provided strategic direction and day-to-day executive leadership as President and CEO of Gevity Consulting Inc. since the company's inception in 1995.

As Chairman of the Company's Board of Directors, Leon collaborates to ensure Gevity's domestic and international expansion is successful, including branch offices in the Philippines and Singapore, with more planned growth across the Middle East, Europe, and the United States.

Outside of his work at Gevity, Leon is a member of the COACH board of directors, and currently it's Vice-President. He is also a member of Infoway's Clinical Interoperability Steering Committee, CHIEF's Advisory Committee, and numerous professional organizations where he works to advance health informatics understanding and adoption.



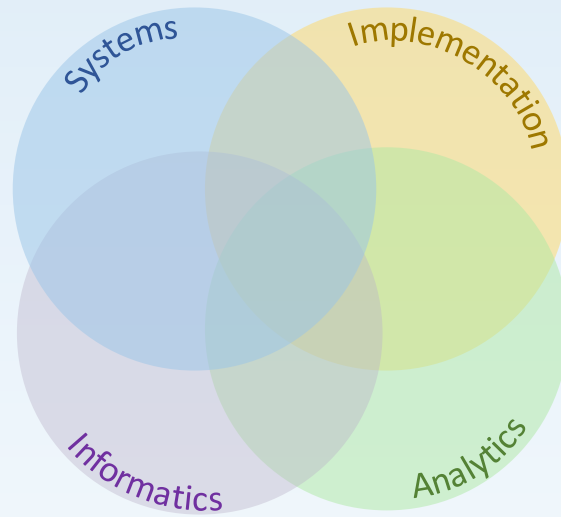
Valerie Lukac

Experienced in strategic planning, system transformation, academic health center redevelopment, investment programs and innovative initiatives, over a career spanning over 15 years in healthcare.

Valerie currently leads the Health System Optimization practice at Gevity Consulting where she is also an Associate Managing Partner.



GEVITY



 ANALYSISWORKS

Systems

Consulting

Implementation

Informatics

Analytics



Who is AnalysisWorks?

We are a **Canadian consulting firm** that specializes in **actionable evidence-based results**

Advanced Analytics + Stakeholder engagement = **Measurable change**

Founded in 2000 with 17 team members

- Serving Health Systems, Academic and Community Hospitals in ON, SK, AB, BC



Who is Gevity?

- We are an **international consulting firm** focused on the unique informatics needs of the Health Care, Life Science and Social Services markets
- The mission of health care and the opportunity that integrated information systems – when well designed and well deployed – can positively impact the health of people and their communities
- Our audacious long term goal is to:

“Be the global centre of excellence in informatics, supporting healthier lives through connected systems”

Learning objectives

- The challenge:
 - controlling costs and putting the health system on a more sustainable financial footing
 - compounded by social and technological changes that are increasing the need for and cost of health services.
- Case study: the Edmonton Zone of AHS

Context

- Health care costs are increasing
- An aging population increases the overall health system financial burden
- Surgical costs represent the highest \$ potential to optimize within acute care facilities
 - Cost of equipment and inventory/supplies
 - OR time
 - Highly qualified personnel
- Surgical wait times contribute to the overall health system cost burden
 - Productivity loss
 - Worsening conditions

CASE STUDY

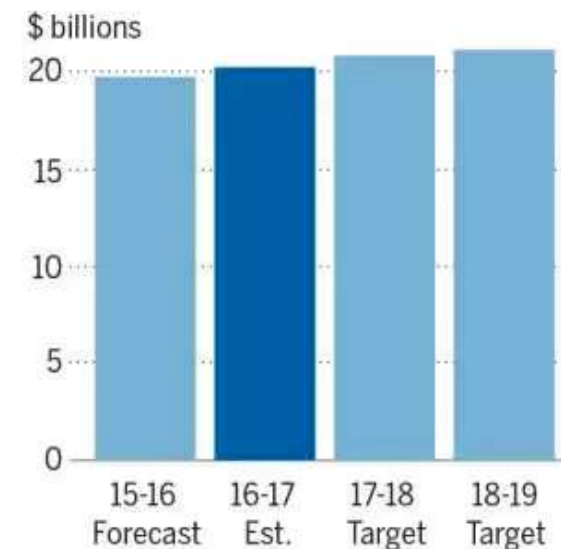
Case study context

- Alberta health spending rises over \$20 billion, even as province tries to 'bend the cost curve'
- Hoffman has said her government's efforts to "bend the cost curve" on health spending over time is particularly focused on three big expenses: doctors, hospitals and drugs.

Source: Edmonton Journal April 15, 2016

HEALTH

\$20.4 billion,
39.9% of total
expenditures



SOURCE: ALBERTA FINANCE

Harnessing the power of data and information to bend the cost curve

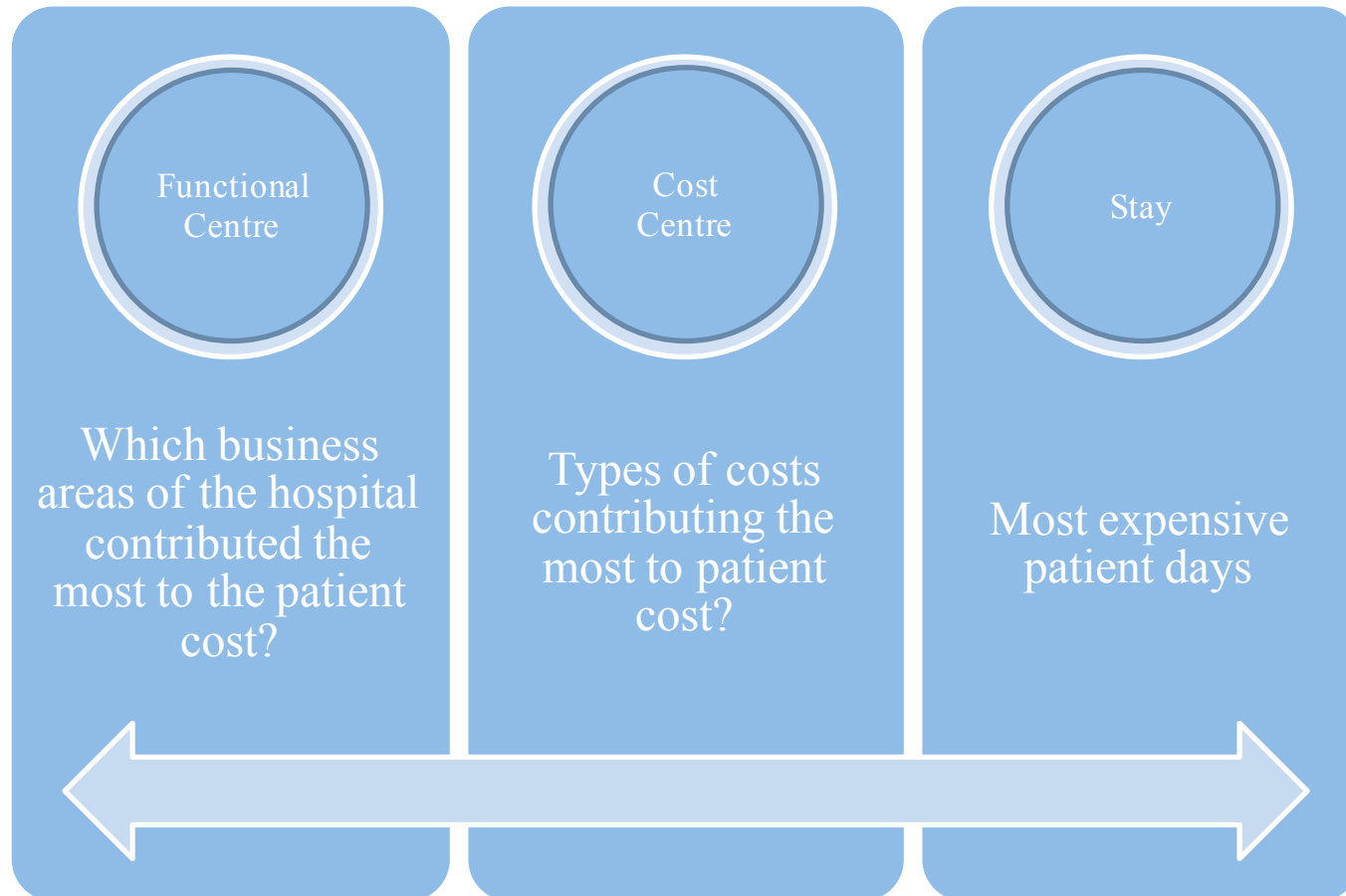


Various approaches:

- Case costing
 - What did it really cost?
- Cost assignment
 - Averaging



Contributors to hospital costing data



Optimization Framework

Core Principles

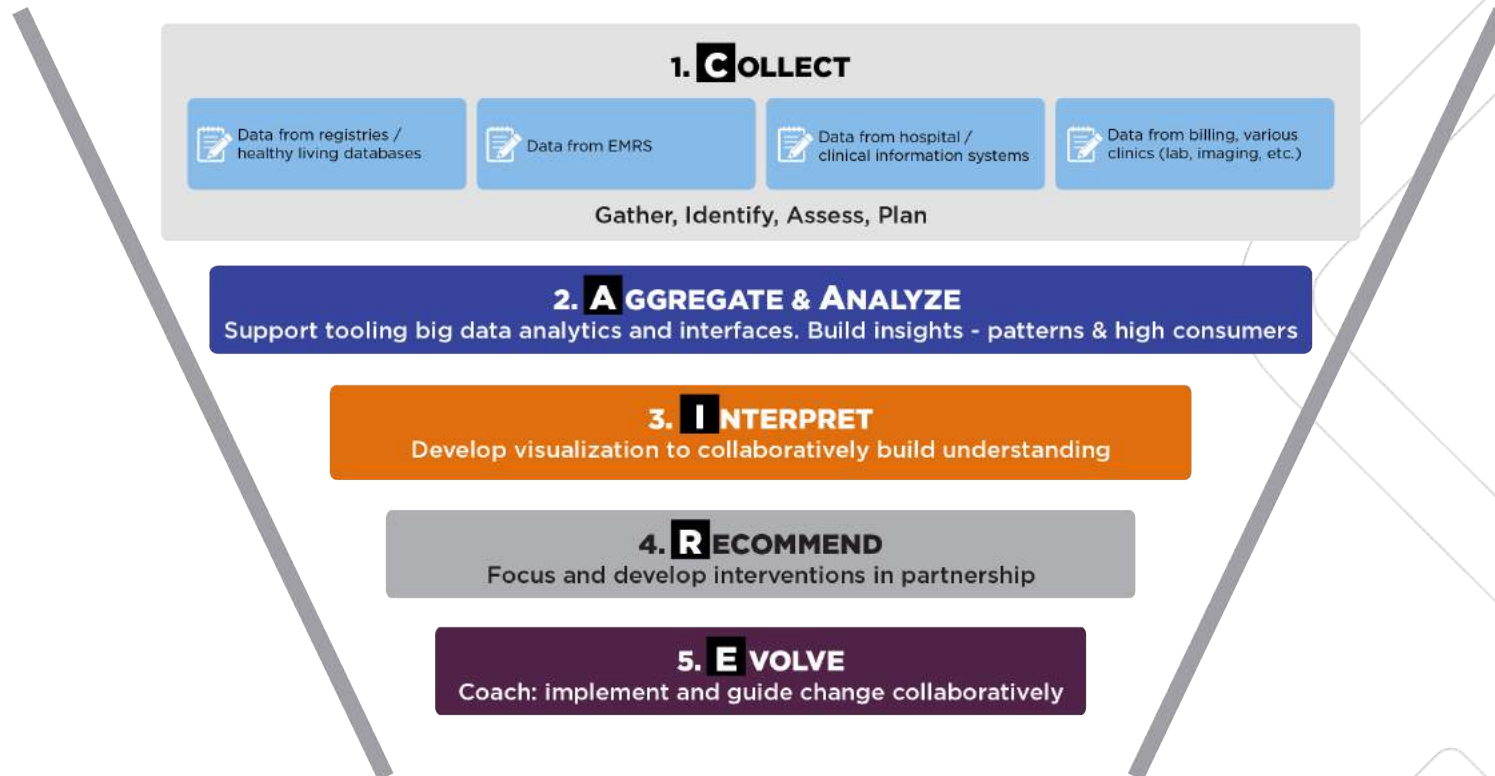
This 5 CAIRE step framework, is driven by the recognition of three core principles:

- To be **meaningful**:
 - Minimum baseline of objective, quantifiable data;
- To be **achievable**:
 - Analysis and interpretation of data in a manner that is sensitive to the organizational context (mission, values, and stakeholders);
- To be **sustainable**:
 - Collaborative and mentor-driven approach to change

Optimization @ Gevity



Gevity CAIRE Optimization Funnel™



CAIRETM Optimization Approach



C	Collect	The process of quantitative data collection occurs in parallel and harmony with interviews and other engagement mechanisms.
A	Aggregate & Analyze	Aggregation and analysis activities are focused on building <u>insights</u> . What are the flow patterns? Who are the high resource consumers? Are there demand to service mismatches?
I	Interpret	Interpretation rests on the development of visualization to collaboratively build understanding.
R	Recommend	Triangulation on and refinement of interventions occurs in partnership.
E	Evolve	Changes are implemented and guided in collaboration. Timeframes may demand <u>rapid</u> Evolution, but the core principle of joint engagement is sacrosanct for change to be durable.

Case Study



The Edmonton Zone of AHS was facing increasing pressure to manage surgical costs, while maximizing access to care.

Healthcare leaders are tasked with maximizing access to care however they have extremely limited tools for monitoring costs at a surgical division, surgeon or procedure level.

The Edmonton Zone was committed to adopting a new approach to cost management.



Informatics for a healthier world

Bending the Surgical Cost Curve

A case study in engaging surgeons with actionable analytics

David Ball

Head of Operations, AnalysisWorks

Jason Goto

President, AnalysisWorks



How did we get started?

Delivered on the implementation of a region-wide
Bed Allocation Methodology

Faced adversity in the implementation of a region-
wide Surgical Resource Allocation Methodology

The Health Region recognized that we work in
partnership with them to get things done,
leveraging our analytical and change
management tools

Q and A (round 1)

What part of the health care system has the most discretionary cost variability?



Q and A (round 2)

**Who has the
greatest influence
on surgical costs?**



Q and A (round 3)

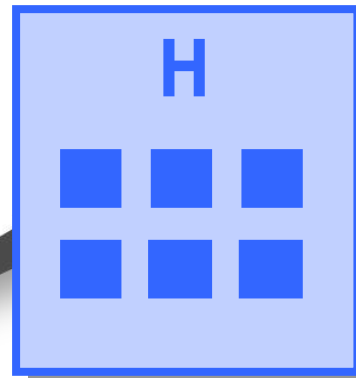
What tools are available to help manage the multi-million dollar surgical budget?



Q and A (round 4)

Which organization has better cost management tools?

\$2M budget



\$50M budget

Q and A (round 5)

**Isn't this
crazy?**

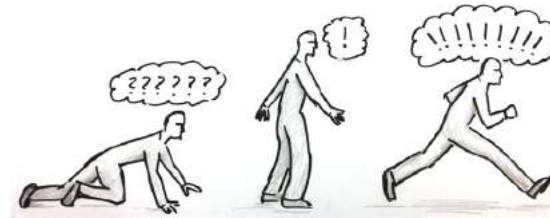


so many possibilities ...
... how to get started?

Iterating towards success

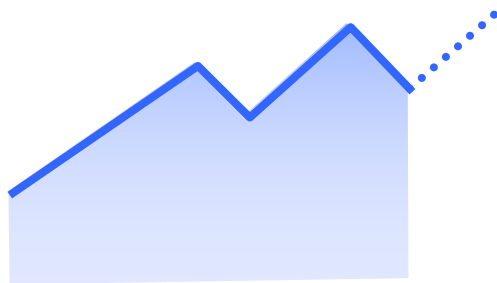
Getting started

Thinking “crawl walk run”



Starting to understand where the costs are

Starting to understand variability in practice



- ✓ Initial awareness
- ✓ Starting to structure our approach
- ✓ Starting to ask the right questions

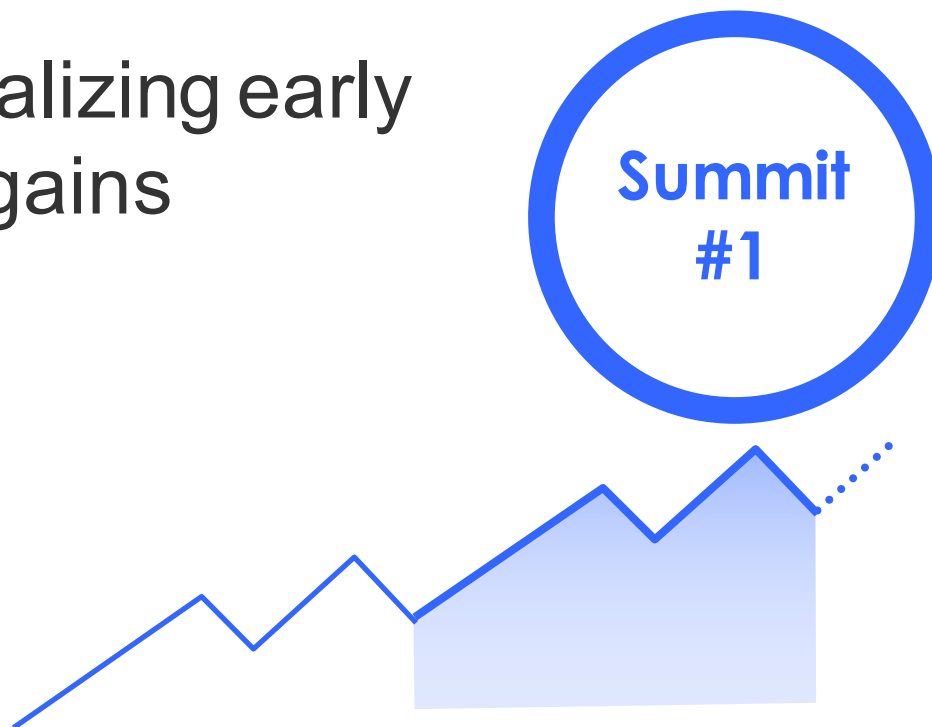
Iterating towards success

Hitting a stride

Engaging surgeons in understanding the problem

Showing surgeons “what’s in it for them”

Realizing early gains



- ✓ Asking better questions (“Why?”)
- ✓ Refining the framework
- ✓ Interplay of cost management and access to care

Iterating towards success

Preparing for the long term

Building the systems and processes

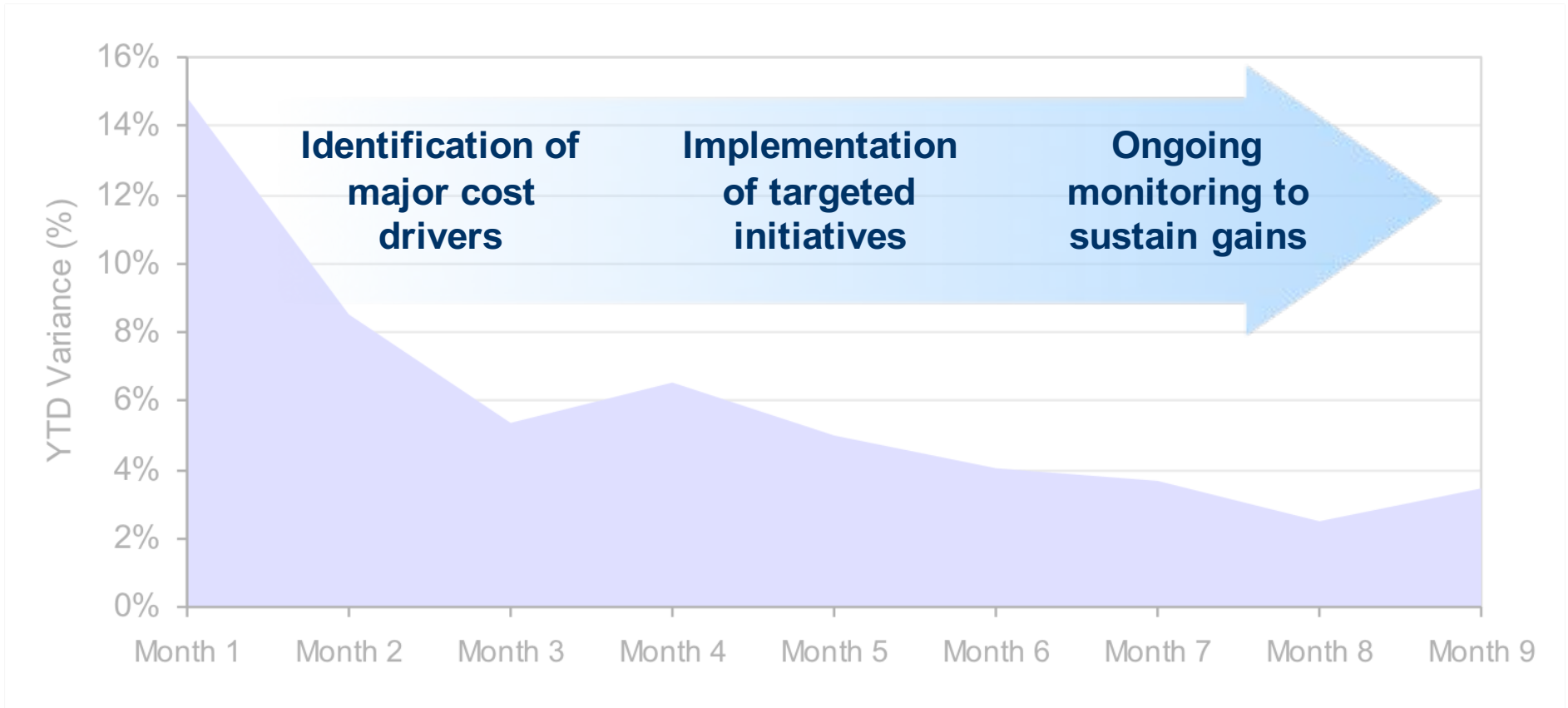
Supporting internal
champions

Figuring out
sustainable
support options



- ✓ Shifting from service-based to software as a service (with support)
- ✓ Expanding the scope to inpatient care

Bending the cost curve



Scalability and Sustainability

Mutual recognition that there was ...

Value in the work

Potential for demand in other organizations

A need to make it be more affordable

AnalysisWorks invested time and dollars to building the Software as a Service

The Health Region is our flagship organization

We call it LightHouse

LightHouse is:

An operations management solution that is scalable and sustainable

It includes consulting support and software

It's for complex healthcare organizations with imperfect data that are driven to improve



What is LightHouse?

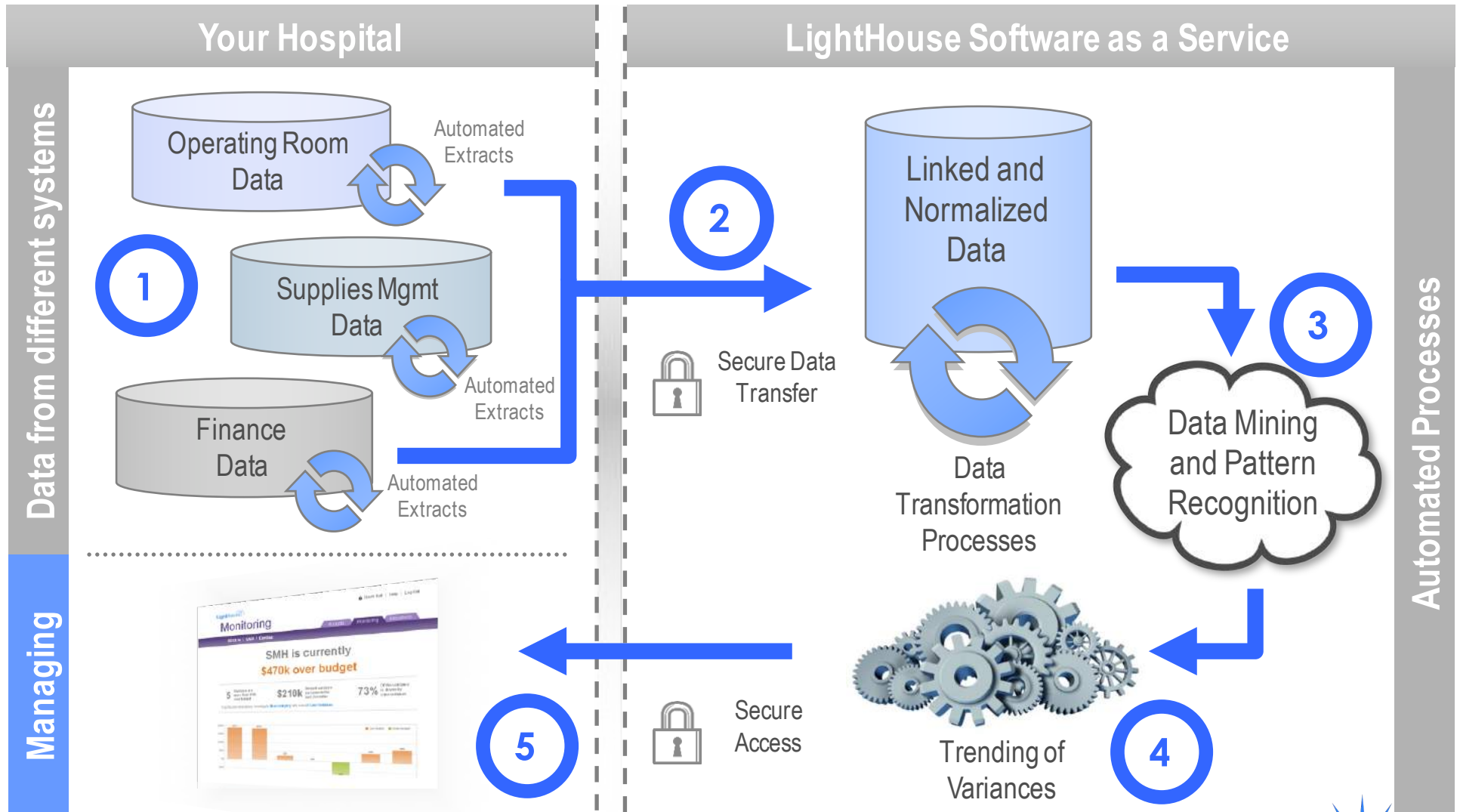
Layers of information in one dashboard:

- ✓ Budget Management
- ✓ Surgical Volumes
- ✓ Case Mix
- ✓ Wait Times
- ✓ Case Costing

X

- ✓ Operating Room
- ✓ Surgical Sections
- ✓ Surgeon
- ✓ Procedure

LightHouse In Use



What questions can be answered?

Why have our costs changed since last year?

If I have extra OR time, who should I give it to?

What would it cost to achieve our access targets?

What does variation in practice cost us?

What questions can be answered?

Are high volume surgeons more efficient?

How much opportunity can be gained from improving turn-around times?

Is the laparoscopic approach actually cheaper on the inpatient stay?



Lessons Learned

What we learned
from working with
many surgeons
at many hospitals



Take Away Message

**It is possible to
engage surgeons
in bending the
cost curve ...**

... they want to be
part of the solution



Discussion and questions

**What resonates with
you?**

**Is there anything
you like to know
more about?**



CONCLUDING REMARKS