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# Transformative Cost Reduction in Healthcare

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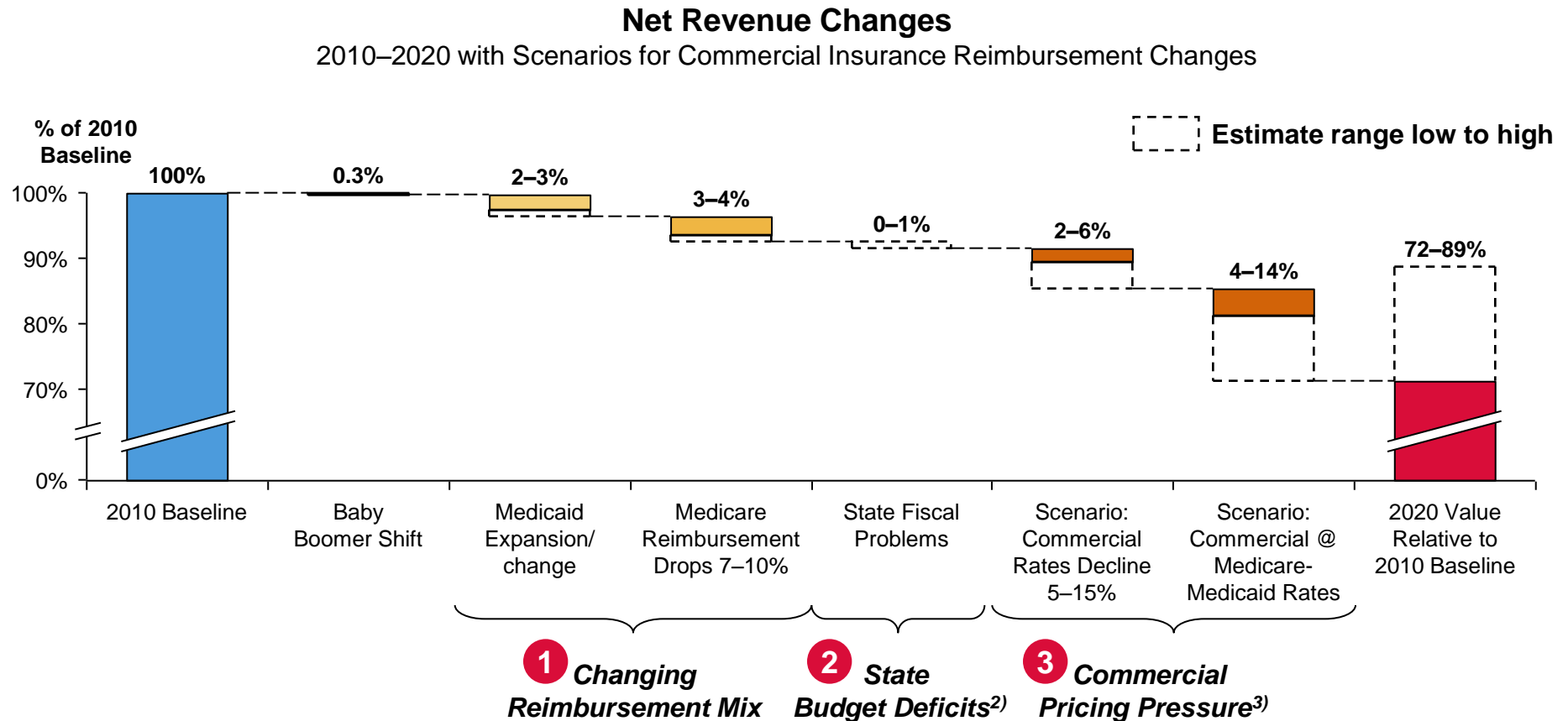
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## Today's topics:

- Context for cost reduction
- Obstacles to sustainable change in hospital cost structures
- Approaches that we have found successful

# Healthcare trends will drive significant reductions in hospital net revenue, particularly as commercial cuts take effect



1) Overall, impact of inflation on charges is assumed to be fully passed through in pricing increases, keeping reimbursements as a % of charges constant during the timeframe

2) Medicaid rates dropping up to 5% as states budget constraints force slowing or freezing Medicaid spending

3) Potential of Medium and Large commercial group succumbing to pricing pressures and declining 5%-15% (Likely), or to Medicaid or Medicare rates (Possible)

Source: Trendwatch Chartbook 2010; AHA; "Why hospital cost shifting is no longer a viable option," Milliman Healthcare Reform Briefing Paper, June 2010; Goldman Sachs Equity Research, Jan 4 2011; CBO Reform Impact Report; Kaiser Employer Health Benefits Survey (2008); US Department of Health and Human Services; Social Security Administration; US Census; CBO; Booz & Company analysis

# Why now?

## Respond to Market Pressures

- Get ahead of reimbursement pressures
- Make costs more variable – reduce risk of changes in volume
- Release cash for re-investment
- Make transparency work for you
- Avoid reactive cost cutting by taking action now

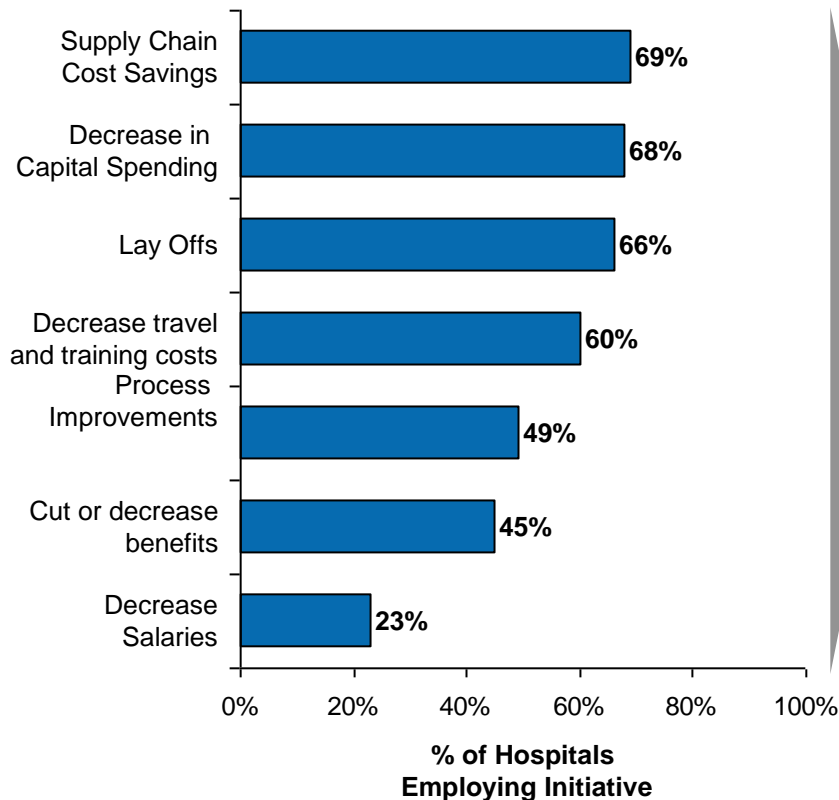


## Seize an Opportunity

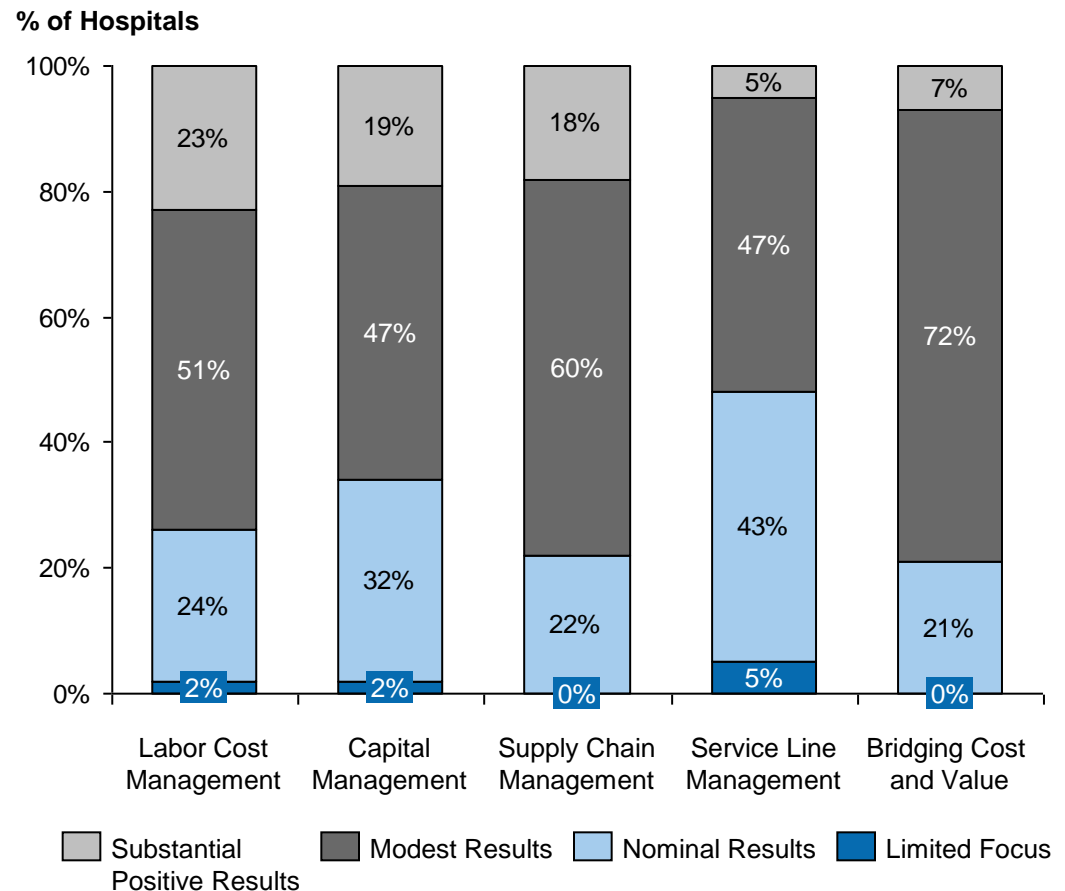
- “Never let a good crisis go to waste”
- No other activity can contribute as much to the bottom line
- Forces standardization necessary to reliably deliver “medical value”
- Build organization’s capacity for continuous improvement

# In the past healthcare has relied on tactical cost cutting efforts which don't yield enough savings and are not sustainable

**Common Cost Reduction Initiatives Utilized by Hospitals**



**The Effectiveness of Hospital Initiatives**



Sources: HealthCare Financial Pulse; HFMA; Hospital Response to difficult Economic Times; HFMA, May 2010; Booz and Company analysis

# In contrast to other industries, most hospitals and health systems haven't developed the competency for large-scale cost reduction

## Healthcare Experience

- Administrators and clinicians are not trained in industrial engineering
- Past experience tends to be tactical improvement or turn-around situations
- Recent forays into off the shelf methods (lean, six sigma) have been largely disappointing ...
- ... Or too slow to suit current pace of change in healthcare
- Other industries view cost take-out as a core competency and crucial to competitiveness

## Recent Cross-Industry Cost Reduction Programs

Company	Annual Savings
AVON	\$100 million
Walgreens	\$1 billion
KRAFT	\$100 million
IKEA	\$1 billion
P&G	\$800 million
BOEING®	\$1 billion
Quest Diagnostics®	10%+

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# Proactive redesign of health system operations can yield more than 15%-20% in savings without negatively effecting patient care

- Healthcare has been shielded from the waves of operational improvement typical of other industries (e.g. automotive, banking, airlines)
- Ample room for redesigning administrative operations and care delivery provided there is a willingness to take a fresh look at how the work is done
- Cost savings through operational redesign tends to be neutral or positive to access, quality, and patient satisfaction
- Our experience in other systems demonstrates that total savings of greater than 15% are achievable over a 2-3 year implementation period
- Doesn't require big investments in the physical plant or unplanned investments in information systems

# In contrast to tactical approaches, Transformative Cost Reduction delivers more significant and sustainable results

## Comparative Approaches to Cost Reduction



### Tactical Cost Trimming

- Incremental savings – typically 3–7%
- Opportunities developed bottoms-up
- Mono-functional
- Focuses on cost pools
- Optimizes existing ways of working
- Independent initiatives
- Lower risk/lower impact
- Execution embedded into departments
- Achievable using current skills



### Transformative Cost Reduction

- Step-wise gains –savings of 15%+
- Targets set top-down and ...
- ...Opportunities found bottoms-up
- Cross-functional
- Focuses on cost drivers
- Encourages rethinking the system
- Integrated program
- Requires concerted change management
- Requires developing new skills



# The effort's scope drives the savings potential

Department / Function	Facility-based	Cross-Facility Shared Services	System Integration	System Portfolio Rationalization	Optimization Across Continuum
<ul style="list-style-type: none"> <li>▪ <i>Savings Range:</i> <b>3%-5%</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Cumulative Savings:</i> <b>12%-16%</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Cumulative Savings</i> <b>14%-20%</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Cumulative Savings:</i> <b>15%-24%</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Cumulative Savings:</i> <b>17%-27%</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Value Creation:</i> <b>10+%</b></li> </ul>
<ul style="list-style-type: none"> <li>▪ Individual departments or functional areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Entire facility</li> </ul>	<ul style="list-style-type: none"> <li>▪ Support functions across facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Integrate care delivery across facilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Viability of system assets</li> </ul>	<ul style="list-style-type: none"> <li>▪ Medical value creation</li> </ul>
<ul style="list-style-type: none"> <li>▪ Example: <ul style="list-style-type: none"> <li>– Perioperative</li> <li>– Supply-chain</li> <li>– Labor Productivity</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Example: <ul style="list-style-type: none"> <li>– Resource and clinical utilization</li> <li>– Managerial spans and layers</li> <li>– Facilities footprint redesign</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Example: <ul style="list-style-type: none"> <li>– Centralization</li> <li>– Outsourcing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Example: <ul style="list-style-type: none"> <li>– Clinical standards</li> <li>– System-wide coordinated bed and procedure scheduling</li> <li>– Flexing clinical and support staff across sites</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Example: <ul style="list-style-type: none"> <li>– Close non-performing assets</li> <li>– Decanting</li> <li>– Service line priorities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Example <ul style="list-style-type: none"> <li>– Episode-based care redesign</li> <li>– Payment innovation</li> <li>– Shifting care to lower-cost settings</li> <li>– Remove non-value added payor-facing functions</li> </ul> </li> </ul>

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# The difficulty lies in solving both for the “technical” and the “emotional” parts of the problem

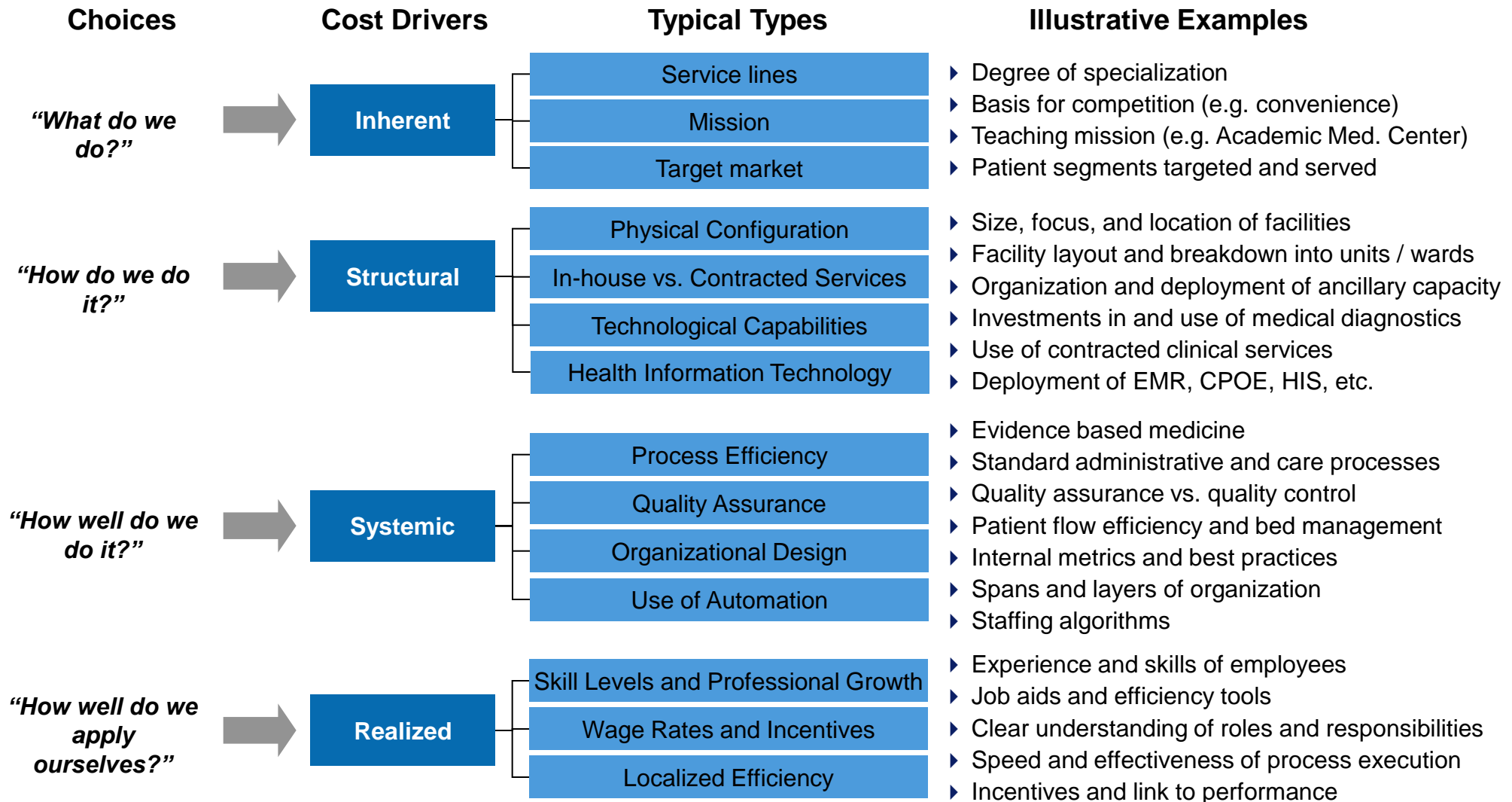
## Technical Challenge

- Complex, multi-disciplinary processes
- Significant interdependencies across activities
- Stringent regulatory environment
- Must design processes to very high tolerances

## Emotional Challenge

- Most healthcare leaders find cost reduction distasteful
- Cuts against the grain of empathy and community inherent in most hospitals
- Senior leaders, middle management, and physicians will undermine the effort ...
- ... Unless the process wins their commitment

# Understanding *cost drivers* yields new insight into how changing the operations will sustainably reduce the costs



# Savings opportunities abound ...

## Redesign Care Delivery Processes End-to-End

- Complete re-think of how care is delivered – most effective when applied holistically across the enterprise and not applied piecemeal to individual departments or facilities
- Includes restructuring teams and departments, removing redundant and non-value-added work, automation, changing processes, and ensuring everyone is working “top of license”

## Tighten Labor and Asset Utilization

- Tightly match capacity (staff, beds, procedure rooms, equipment, and facilities) to true demand for services across the system
- Includes consolidating or decommissioning underutilized operations and facilities, optimizing placement of services, and employing more sophisticated workforce management practices

## Restructure Overhead Functions

- Re-organize and redesign overhead service delivery across the system
- Centralize for scale and expertise; use shared services to align internal demand and supply; outsource services that cannot be delivered cost effectively or at target SLA
- Includes process redesign, standardization, workflow automation, and demand management

## Standardize Care Practices

- Reduce variation in care and remove care that has no clinical value
- Includes avoiding unnecessary diagnostic tests and therapies, consistent placement of patients in the right setting, cutting unnecessary inpatient days, reducing open-but-not-used supplies, tidying up preference cards, and identifying substitutes for expensive tests, implants, and surgical supplies

## Pursue Care Delivery Model innovation

- Transitioning from fee-for-service to pay for value by integrating across the continuum to improve value and reduce variation in cost, quality, and the patient experience
- Includes medical homes, transitionalist programs, and “productized” care for specific episodes with standardized care delivery processes and lower administrative burden

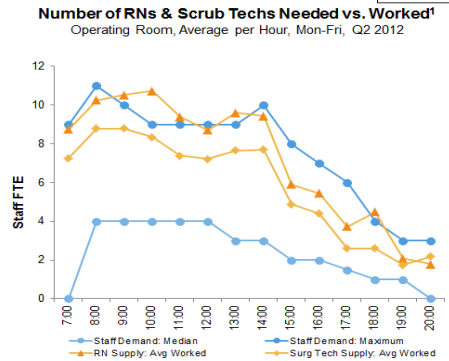
# ... But require detailed substantiation by middle management ...

## EXAMPLE – Excerpts from Opportunity Assessment Documentation

### Staff Utilization and Demand Analysis

Certain procedural departments face overstaffing despite aggressive productivity management

- Current State**
- Procedural areas (e.g., Operating Room) manage their staff aggressively to productivity targets, but are over-staffed at certain times for certain reasons
    - Significant, but incomplete flexing of resources (e.g., reduction in count through same-day cancels based on census)
    - Rooms regularly staffed based on patient or surgeon schedule requirements, but schedules are frequently not followed accurately (e.g., surgeon block under-utilization, patient cancellations)
  - As a result, average hours worked by case-related staff often exceed their median workload and sometimes exceed their maximum workload



### Aligning CRNAs to Block Grids

Matching CRNA schedules to the block grid generate \$0.5-0.7M in savings

CRNA and OR RN Average Scheduled Hours per Weekday						
	Monday	Tuesday	Wednesday	Thursday	Friday	Weekday Total
CRNA average scheduled hours / day	159	162	170	163	120	774
Remote block hours / day	(14)	(0)	(13)	(6)	(0)	(33)
Hours removed from opportunity for post-anesthesia evaluation	(8)	(8)	(8)	(8)	(8)	(40)
Adjusted CRNA average scheduled hours / day	137	154	149	149	112	701
OR RN Average scheduled hours / day	132	160	148	136	108	684
Heart covered by RNs, but not CRNAs	(16)	(16)	(16)	(16)	(16)	(80)
Adjusted OR RN Average scheduled hours / day	116	144	132	120	92	604
Potential difference in CRNA & RN staffing hours	21	10	17	29	20	97
Potential CRNA scheduled hours	138	152	153	134	100	677

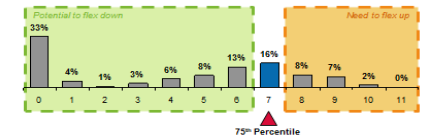
Estimated Savings (\$ Thousands)		
	Current State	Future State
Ave. CRNA Scheduled hours / week	774	637-677
Avg. CRNA Salary + Benefits <sup>1)</sup>	\$194	
Total Cost	\$3,754	\$3,283-\$3,094
FTE Impact	2.5-3.5	
Potential Savings <sup>2)</sup>	-	\$470-\$660

### Dynamic Flex Staffing to Match Demand

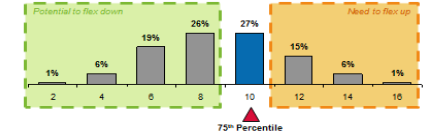
A flexible, demand-driven approach to staffing will increase utilization by aligning resources more closely with workload

- Proposed Future State**
- Schedule staff based on 75<sup>th</sup> percentile of workload within each area per hour or shift per day
    - Flex staffing levels upward or downward as needed throughout the day based on actual demand
  - Additional resources must be added to these staffing models in response to specific needs that are not driven directly by workload, such as:
    - 1 team in OR for Level 2 Trauma Center requirement
    - Additional RNs in PACU for activities not dependent on recovering patients (e.g., post-discharge calls)
    - 24/7 ED coverage for X-Ray staff

75<sup>th</sup> Percentile among Distribution of Surgical Staff Demand<sup>1</sup>  
Example: Operating Room, Thu at 7-11am, Q1-Q2 2012



75<sup>th</sup> Percentile among Distribution of Surgical Staff Demand<sup>1</sup>  
Example: PreOp & PACU, Thu at 7:30-11:30am, Q1-Q2 2012



### Matching CRNA Schedules to Caseload

Matching CRNA supply to demand and staffing on an hourly basis in response to caseload will yield \$1.0M in savings






















Operating Room Staffing Model: CRNA  
Staff per Hour per Day, Based on 75<sup>th</sup> Percentile of OR Caseload

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0:00	1	1	1	1	1	1	1
1:00	1	1	1	1	1	1	1
2:00	1	1	1	1	1	1	1
3:00	1	1	1	1	1	1	1
4:00	1	1	1	1	1	1	1
5:00	1	1	1	1	1	1	1
6:00	1	1	1	1	1	1	1
7:00	7	7	7	8	5	1	1
8:00	7	7	7	8	5	1	1
9:00	7	7	7	8	5	1	1
10:00	8	9	9	8	6	1	1
11:00	7	9	9	9	6	1	1
12:00	7	8	8	8	5	1	1
13:00	7	8	7	8	5	1	1
14:00	7	8	7	8	5	1	1
15:00	7	8	7	8	5	1	1
16:00	6	7	6	6	5	1	1
17:00	5	6	5	6	4	1	1
18:00	4	6	4	5	3	1	1
19:00	4	5	4	4	3	1	1
20:00	3	4	3	2	3	1	1
21:00	2	3	3	1	2	1	1
22:00	1	3	1	1	2	1	1
23:00	1	2	2	1	2	1	1

Estimated Savings (\$ Thousands, Except Hourly Wage)	
<b>Wage Savings</b>	
FTE Recommended	17.4
FTE Currently Worked	22.2
Change in FTE	4.9
Average Hourly Wage	\$75.96
Subtotal	\$770
<b>Benefit Savings</b>	
Associated Headcount Reduction	5-8
Benefit Cost per Full-time Headcount	~\$33
Subtotal	\$165-265
<b>Total</b>	<b>\$935-1,050</b>

## ... to secure sign-off by senior management

### EXAMPLE - Executive Summary of Opportunities Ready for “Go / No Go” Sign Off

Category	Opportunity	Description	Expected Benefits		Func Owner / Exec Leader	Potential Risk	Potential for Transfer
			Low	High			
Staffing	1 Integration, optimization & right-sizing of Main OR & SDS	If we consolidate Same-Day Surgery into our new Main OR facility while aligning staffing more closely with workload and right-sizing our payroll to staffing needs, we can eliminate a number of redundant, fixed costs while capturing the scale benefits of larger labor pools	\$4.1M	\$4.9M			
	2 Optimization & right-sizing of stand-alone Main OR & SDS	If we align staffing more closely with work load and right-size our payroll to staffing needs with Main OR and SDS as stand-alone units, we can still reduce significant overstaffing and unnecessary labor costs	(\$2.9M)	(\$4.0M)			
Operating Environment	3 Unprofitable procedures	If we limit the delivery of unprofitable outpatient procedures while working deliberately and systematically to minimize associated costs and maximize associated reimbursements, we can avoid significant costs from additional losses	\$0.4M	\$1.2M			
Utilization & Productivity	4 PreOp process design & labor productivity	If we re-design the PreOp process, we can reduce the time needed to prepare patients for surgery and associated labor cost – while re-enforcing our operating room performance	\$0.3M	\$0.7M			
	5 Operating room utilization & labor productivity	If we improve scheduling and make our case process more efficient, we can increase room utilization and reduce case times as well as the associated labor costs	\$0.4M				
	6 PACU process design & labor productivity	If we re-design the PACU process and enhance the skill mix, we can reduce the cost associated with recovering and discharging patients after surgery	\$0.1M				
	7 Central sterile labor productivity	If we re-design the Central Sterile staffing model, we can reduce the cost associated with decontaminating, sterilizing and stocking instruments	\$0.1M				

# The emotional obstacles to cost reduction ...

## Typical Barriers

### Senior Management

- *“We have too much else going on”*
- *“This will just be another ‘haircut’ ”*
- *“Savings will begin immediately with no transition plans or fleshed out designs”*
- *“My budget will be decremented by the savings identified, regardless of what is actually achieved”*

### Team Members

- *My boss doesn’t want her budget cut and will censure me for helping to do so”*
- *“If I come up with cost savings, it will badly effect my friends and colleagues by putting their jobs at risk”*
- *“Cost reductions could effect my positions – I could be cutting my own job!”*

### Middle Management

- *“Senior leadership won’t see this through the 2-3 year implementation”*
- *“This won’t change to how work is done – we will just have to make do with less”*
- *“There is no fat more to cut – if we cut more it will be muscle”*
- *There are no savings in my departments – we run a tight ship!”*

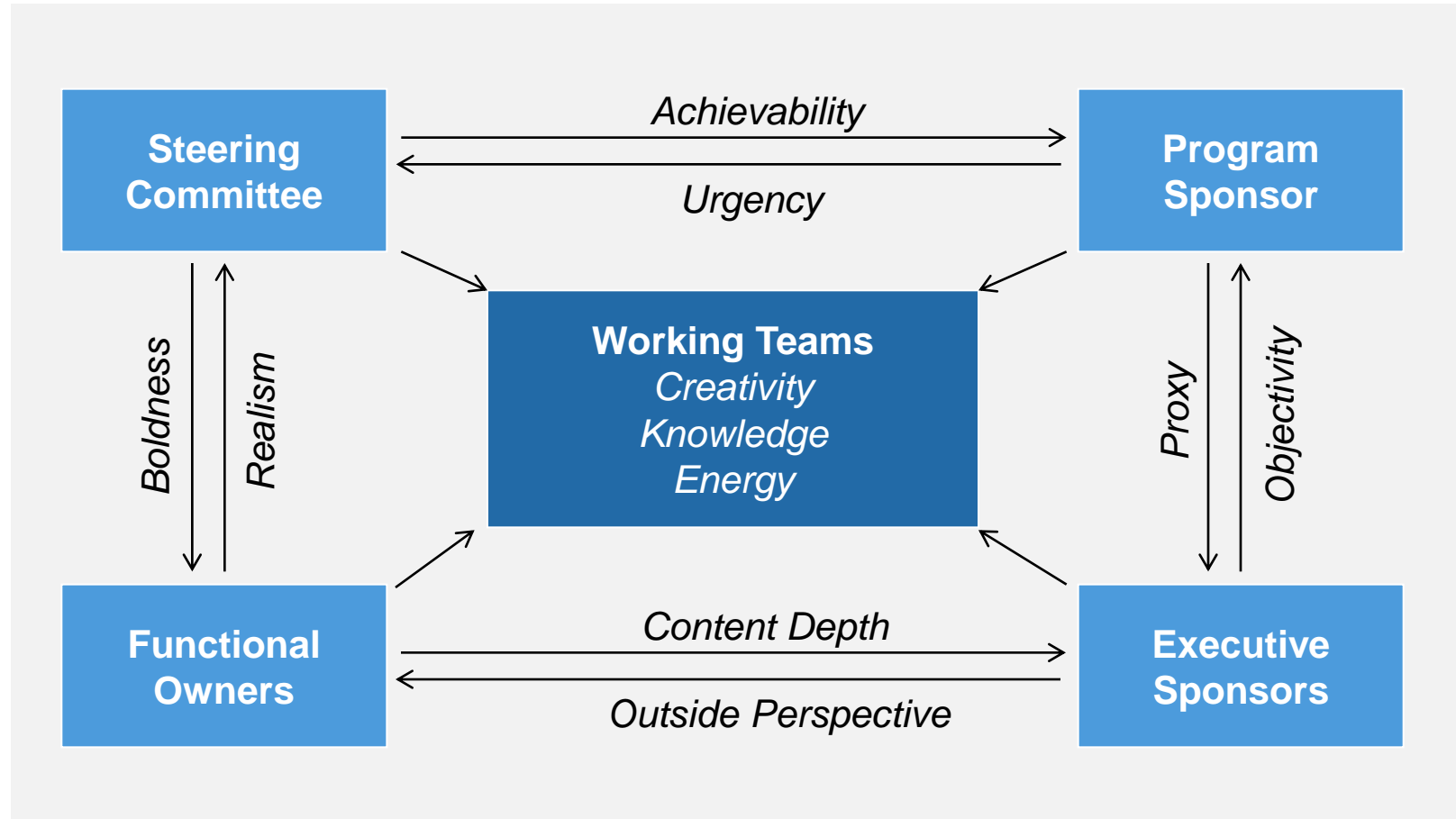
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## ... Will drive the shape of the program

- Goals set top down by the CEO and echoed by the management team
- Governance structure of checks and balances to ensure boldness and objectivity
- Team-based, collaborative effort that heavily involves middle management
- Human capital planning that provides a safety net for surplus employees
- Structured, three phase process that shows everyone the path ahead (diagnostic, detail design, implementation)
- Create a journey of discovery that proves to all that the costs can and should come out
- Get the physicians involved up-front
- Demand rigorous, bottoms-up substantiation of opportunities
- Use this as an opportunity to build capacity for continuous improvement
- Install program management to guide the effort

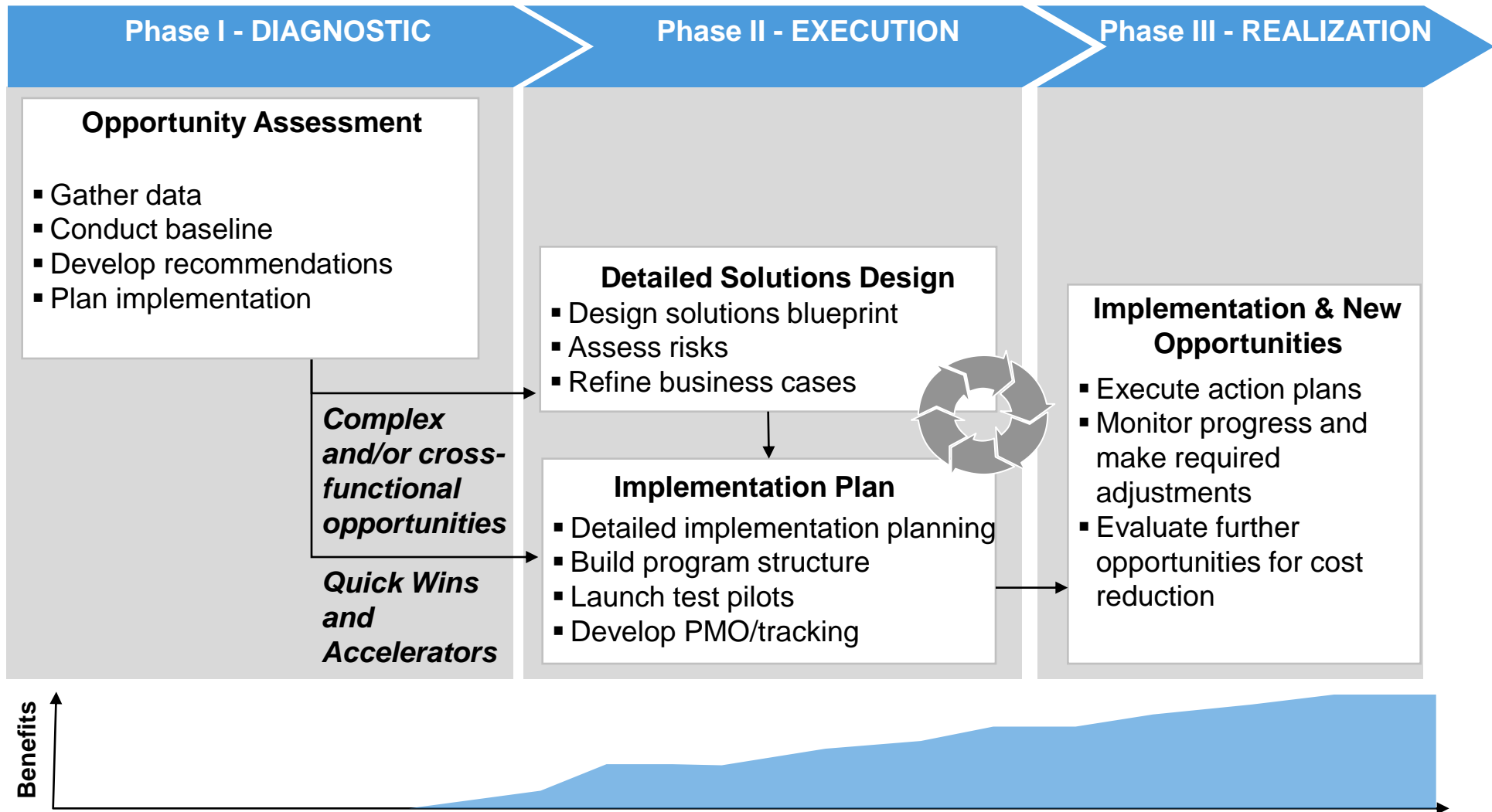


# Program governance ensures objectivity, creativity, and boldness with an interlocking set of checks and balances



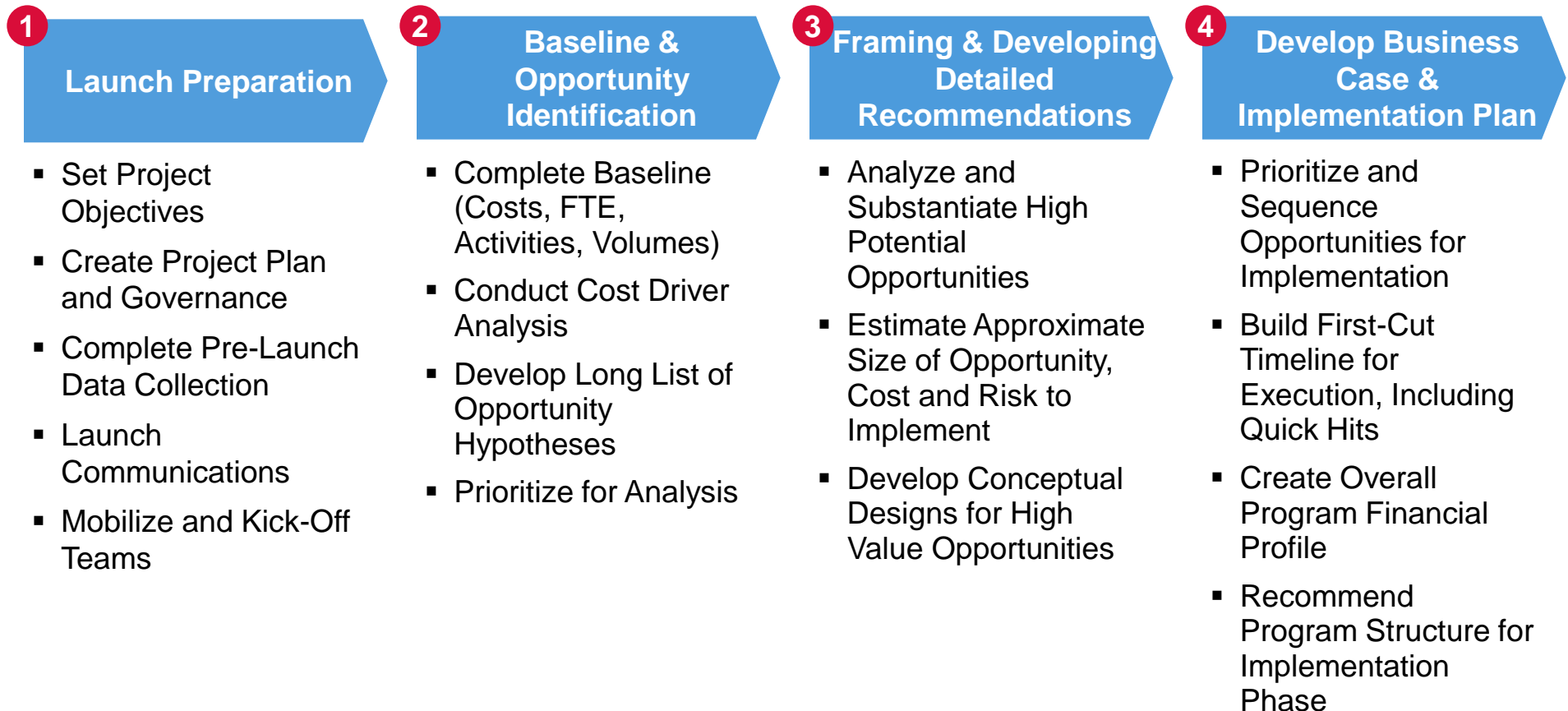
# Most efforts have three phases and last 24-36 months

## Timeline



# Start with an assessment that creates a portfolio of opportunities for management review and approval

## Phase 1 Opportunity Assessment Approach - Example



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# Critical success factors

- ***Don't underestimate the scope.*** Resizing the cost base and reallocating resources is akin to gutting your home, changing the floor plan, and redesigning the plumbing. It's not an agenda item. It requires a distinct program.
- ***Commit the necessary time and attention.*** This effort will take 24 to 36 months. It will require your ongoing attention, and must be a top priority. Your leadership must be highly visible and unwavering.
- ***Set aggressive targets and stick to them.*** Do not rely on benchmarks to set targets. These merely compare your current cost structure to underperforming peers in a rapidly changing industry. Instead, set the target needed to achieve strong financial results and fund new capabilities in a fundamentally more austere reimbursement environment.
- ***Set an example by thinking boldly.*** Change of this magnitude will be uncomfortable for many. The natural tendency is to avoid difficult decisions, but don't allow the organization to shy away from disrupting the status quo.
- ***Engage physicians from the start.*** Doctors have the clinical expertise necessary to redesign how care gets delivered. Their behaviour is hugely influential and can determine the success or failure of a cost reduction program.

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## Critical success factors

- **Create a program office.** This dedicated office can coordinate the effort. Create teams to tackle different elements of the cost structure. Assign your best and brightest.
- **Think ahead.** Launch the cost reduction effort before margin compression hits. Reactive cost reduction tends to be indiscriminate and even destructive. Proactive cost reduction reinforces the organization's priorities and strategy.
- **Eliminate positions carefully.** Create a human capital plan that integrates all hiring and terminations. Create transparency so employees whose positions are being eliminated can apply for other positions within the organization. Use attrition and avoid reductions if possible.
- **Change performance objectives.** Make sure the incentives for senior leadership align with the goals of the program.
- **Communicate.** Nothing hurts morale, diverts attention, and undermines success more than a rumour mill, especially when big change is afoot and jobs are on the line.
- **Execute relentlessly.** Keep a laser-like focus on objectives and hold the correct people consistently accountable for meeting those objectives.