Session 37:

Reducing Unwarranted Clinical Variation Saves Tens of Millions of Dollars

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Agenda

- What’s the problem?
- Create a process.
- Complete opportunity analysis.
- Complete financial analysis.
- Develop charter.
- Implement.

Learning Objectives

Demonstrate the benefits of a standardized approach to clinical variation.

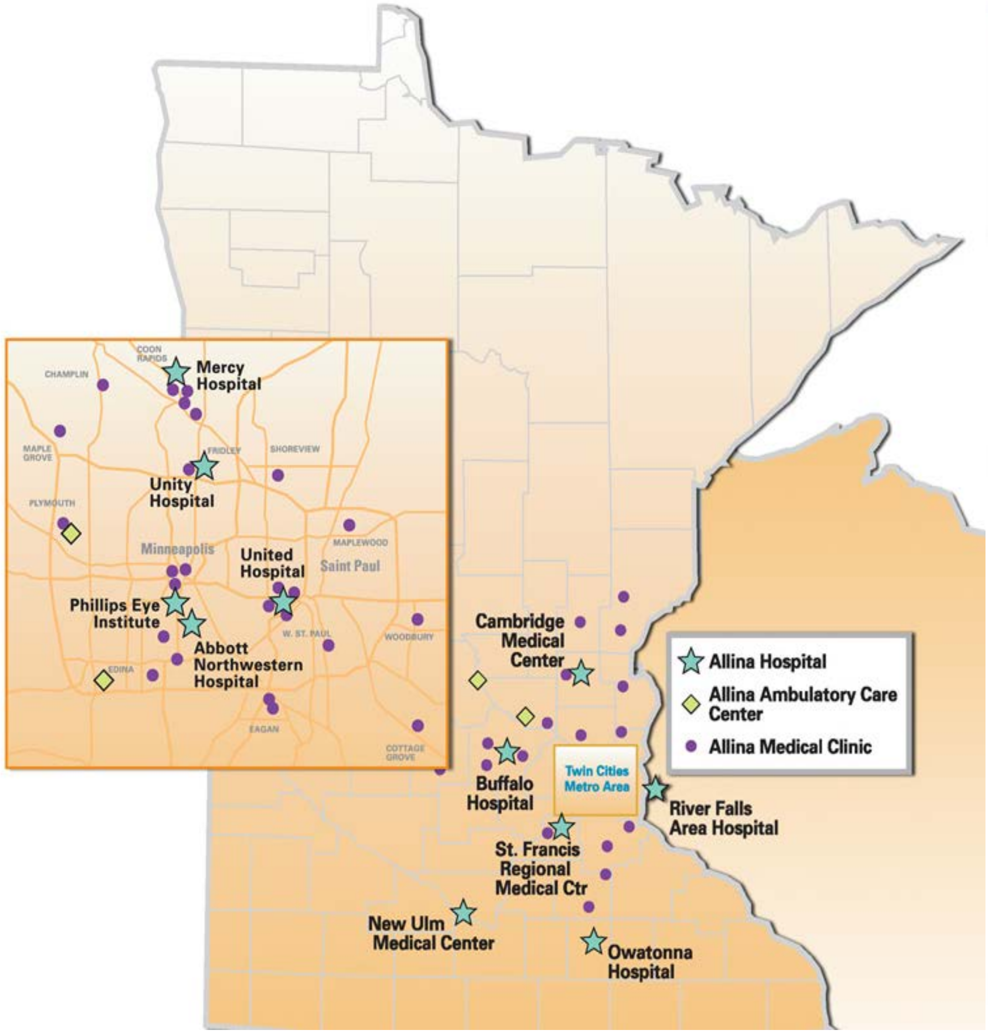
Learn how to identify clinical variation in your organization.

Learn how to measure the impact of clinical variation on your organization's financials.

Allina Health Is the Minnesota Region's Broadest Care System

About Allina:

- **85** clinic sites and ambulatory care centers.
- **5,000** physicians.
- **3.0** million+ clinic visits.
- **12** hospitals.
- **103,000+** inpatient hospital admissions.
- **$4B** in revenue.
- **31%** Twin Cities inpatient market share.



Background Information

Unwarranted variation in clinical care is costly.	Improving quality requires executive and board leadership.	Standardizing work in a large organization with limited resources is challenging.	Improvement work must be prioritized across the system.
$30 million of actionable savings opportunity for a typical organization.	Must foster an organizational culture that's dedicated to ensuring patients receive needed care without risk of harm.	Need to reduce variation to impact outcomes and reduce costs.	Requires a comprehensive plan to optimize outcomes, cost, and appropriateness of clinical processes.

Poll Question #1

How would you rate your organization’s process for identifying clinical variation?

a) Not evident
b) Beginning
c) Effective
d) Mature
e) Advanced
f) Unsure or not applicable

Quarterly Opportunity Analysis Process Steps

iCV Kickoff

- Meet with Analyst team to select and assign areas of focus.
- Areas of focus could be service lines, facilities, types of services or events, literature reviews, or a specific areas of interest.
- Lead Analyst facilitates meeting.

First Pass Analysis Check-In #1

Week +1

- Analyst team reconvenes to review and critique a draft of each opportunity analysis.
- Suggestions made on areas to dig deeper into, methodology, & relevant clinical resources to get input from.
- Lead Analyst facilitates meeting.

Second Pass Analysis Check-In #2

Week +3

- Analyst has reviewed their analysis with appropriate clinical leaders to get input on areas to drill into and refine the analysis.
- Analyst team reviews and critiques each opportunity analysis.
- Focus on consistency in analysis techniques and formatting.
- Lead analyst facilitates meeting.

Final Walk Thru

Week +4

- Analyst team rehearses delivery and makes final edits.
- Lead analyst facilitates meeting.
- Opportunity analyses are emailed to clinical leaders for review a week before the presentation meeting.

Presentation To Clinical Leadership

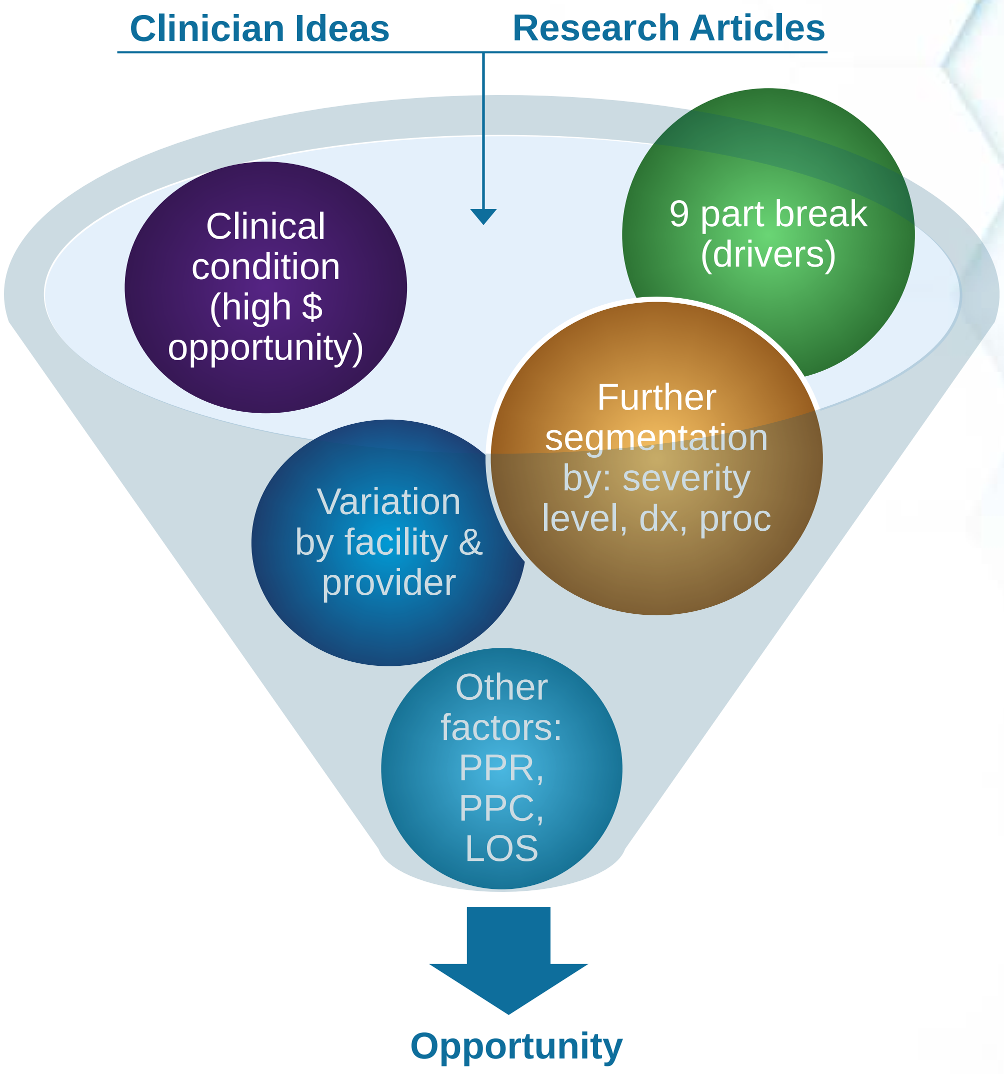
Week +5

- Analysis opportunities presented to Core Clinical Value team + clinical leaders from each relevant area.
- Recommendations for next steps are determined (e.g. further analysis is needed, the appropriate program committee to bring the opportunity to, etc.).
- Opportunity added to portfolio.

Opportunity Identification

Analysis Approach

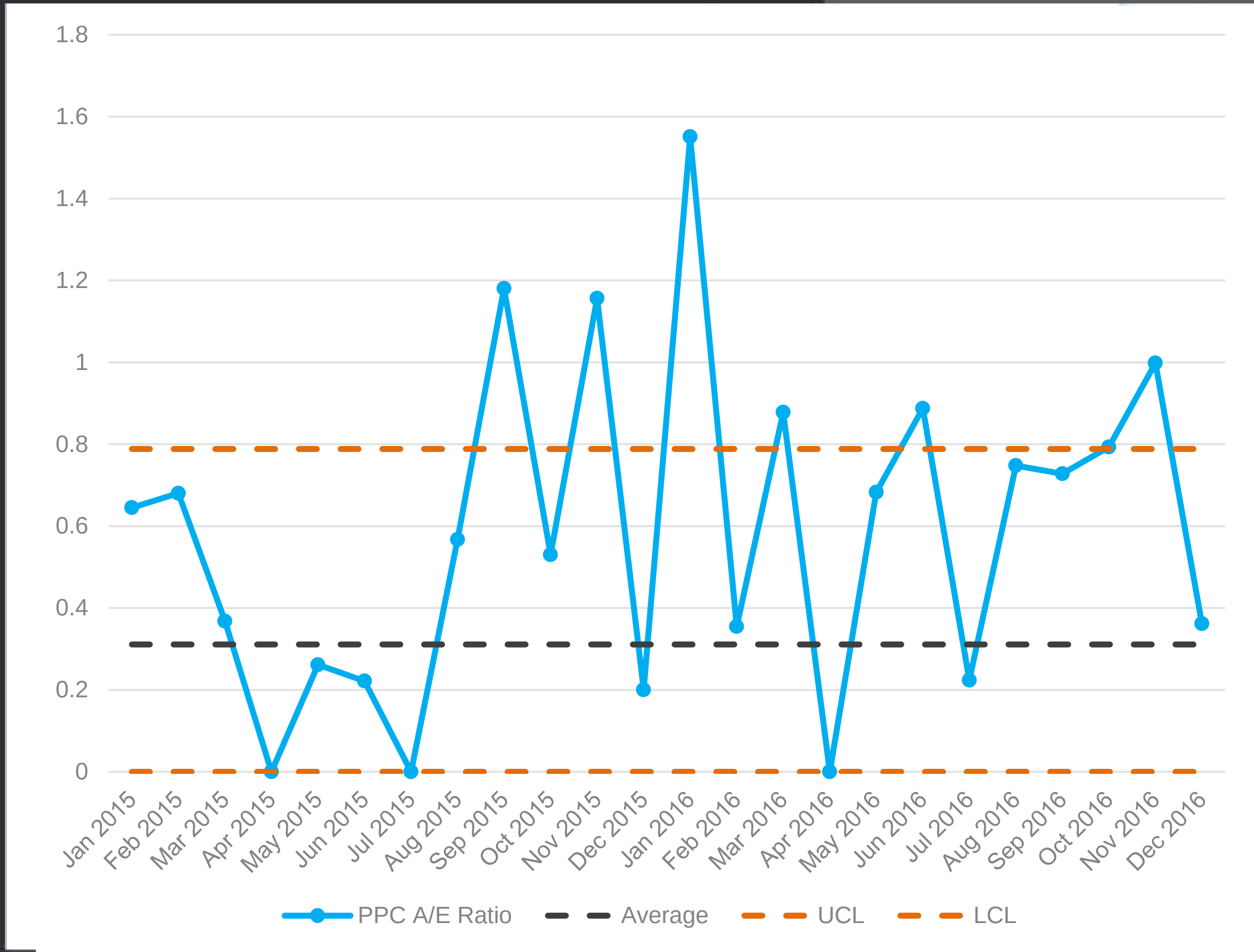
- Focus on clinical areas with high cost & high variation; starting point can be vertical (e.g. clinical service lines) or horizontal (services that cut across; e.g. lab, drugs, readmissions, network leakage).
- Look for the drivers of cost by 9 part cost break (room, supplies, OR, drugs, lab, radiology, therapy, respiratory, other). Explore deeper levels of detail (29 part break, rev code, etc.).
- Examine variation by facility and/or provider.
- Drill down to homogeneous patient populations by segmenting on severity, diagnoses, procedures.
- Analyze the impact of other factors, such as LOS, PPRs, PPCs, etc.



Graphical Interpretations

Control Chart

- As we identify the population, we can review variation in overall care and variation over time. The control charts allow us to see if outcomes are "out of control."
- In the control chart below, you can see that we have several data points going above the upper control limit (UCL), indicating that care is not being delivered consistently and we should examine this population and the drivers more closely.



Graphical Interpretations

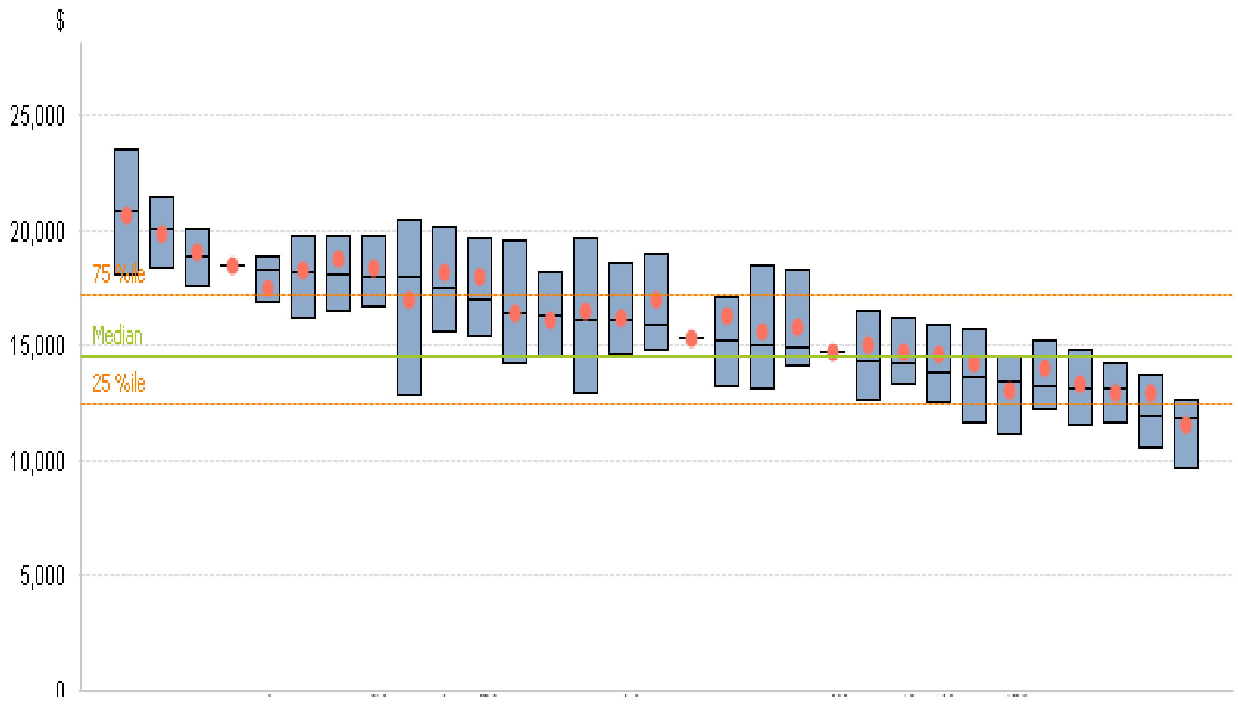
Bubble Graph

- We leverage bubble graphs to highlight the volume, cost, and variation within each location or provider.
- In the example graph, there is a large cluster of providers near the average cost and overall group coefficient of variation. However, there are several providers in the high cost/low variation area, indicating they consistently cost more.

Graphical Interpretations

Box Plot

- We leverage box plots to highlight the range of variation within each location or provider and also highlight over all percentiles to compare across categories.
- In the example, there are several providers above the overall 75th percentile, indicating opportunity for improvement.



Scoping the Population and the Financial Impact

Allina Finance, Analytics Partners, and Care Teams Collaborate to Scale the Project

How is the care model changing? What steps are we taking to actually drive results? And how can we track those steps?

What changes in care will affect out financials? Either positive or negative.

How much of this population is in our ACO/Shared Savings Population?

Could this project be eligible for a pay for performance (P4P) program?

Based on assumptions the group agrees on, Allina Finance creates a model to predict the impact to our bottom line.

Poll Question #2

On a scale of 1 to 5, how successful is your organization at creating accurate financial models?

a) 1-Not at all successful
b) 2-Somewhat successful
c) 3-Moderately successful
d) 4-Very successful
e) 5-Extremely successful
f) Unsure or not applicable

Spine PPC Example

All Spine PPCs → 4 APRDRG with wider variation

PPR Reduction 8.6% → PPR Reduction 3.6%

We will pursue a P4P incentive program with payers.

A/E Ratio 8.3 → A/E Ratio 7.2

Mortality 1%→ 0%

Spine Surgical Care Model: Reduce LOS, Mortality, and PPRs

		Yes	No
Charter AIM Statement/Financial Background:	Is this Budgeted work?	X	

By introducing a new spine surgical care model, Allina Health will reduce Potentially Preventable Complications (PPCs) in 4 large APRGRG populations from a baseline 0.83 A/E Ratio to a target 0.72 A/E ratio by the end of 2016. This PPC reduction will improve patient care by reducing LOS, Mortality and PPRs. Although this PPC shift reduction will immediately reduce Allina's net patient revenue and contribtion margin, we have enrolled in a P4P model to mitigate the financial risk and potentially gain an even greater operating margin.

Population Make-up	[Baseline]	[New]	New vs Baseline	New vs Baseline (%)
Spine PPC A/E Ratio	8.35	7.2	(1)	-13.8%
Spine PPC Case Reduction	348	300	(48)	-13.8%
Spine PPR Reduction	4	2	(2)	-50.0%
Total	**348**	**300**	**(48)**	-13.8%
New Services	**[Baseline]**	**[New]**	**New vs Baseline**	**New vs Baseline (%)**
Spine P4P Program	-	2,028,000	2,028,000	

Charter Information:	
Proposed Start Date	1/1/2016
Proposed End Date	12/31/2016
Site(s) Impacted	ANW, MCY, UTY, UTD, STF
Has a pilot been done?	No
Confidence Factor	90

Contribution Margin Impact	Baseline	New	Change
PPC Red. Vol. Impact	348	300	(48)
PPC Red. Rev. Impact	15,602,389	15,092,135	(510,254)
PPC Red. Var. Cost Impact	8,304,972	7,961,136	343,835
Net Contribution Margin	**7,297,417**	**7,130,999**	**(166,419)**
PPR Red. Vol. Impact	4	2	(2)
PPR Red. Rev Impact	64,675	32,338	(32,338)
PPR Red. Var. Cost Impact	33,000	16,500	16,500
Net Contribution Margin	**31,676**	**15,838**	**(48,838)**
New Service/Program Costs/Investments to Program			
FTEs Required	-	-	-
New Revenue	-	2,028,000	2,028,000
New Costs		-	-
Net Cost of New Services	**-**	**2,028,000**	**2,028,000**
Net Financial Impact Prior to TCOC / ACO Considerations:			
Revenues	15,667,065	15,124,473	1,485,408
Costs	8,337,971	7,977,636	360,335
Contribution Margin	**7,329,093**	**7,146,837**	**1,845,743**

Population Breakout - Total Contribution Margin	ACO	Non ACO/TCOC	Total
	20%	80%	100%
PPC Red. Vol. Impact	(10)	(38)	(48)
PPC Red. Rev. Impact	(102,051)	(408,203)	(510,254)
PPC Red. Var. Cost Impact	68,767	275,068	343,835
Net Contribution Margin	**(33,284)**	**(133,135)**	**(166,419)**
PPR Red. Vol. Impact	(0)	(2)	(2)
PPR Red. Rev Impact	(6,468)	(25,870)	(32,338)
PPR Red. Var. Cost Impact	3,300	13,200	16,500
Net Contribution Margin	**(3,168)**	**(12,670)**	**(48,838)**
FTEs Required	-	-	-
New Revenue	405,600	1,622,400	2,028,000
New Costs	-	-	-
Net Contribution Margin	**405,600**	**1,622,400**	**2,028,000**
Net Contribtuion Margin Impact by Population			
Revenues	297,082	1,188,327	1,485,408
Costs	72,067	288,268	360,335
Contribution Margin	**225,015**	**900,058**	**1,845,743**
		Net Total Allina Impact:	**1,845,743**

Next Steps

Implement new care model to drive change across the system.

Get P4P dollars Budgeted.

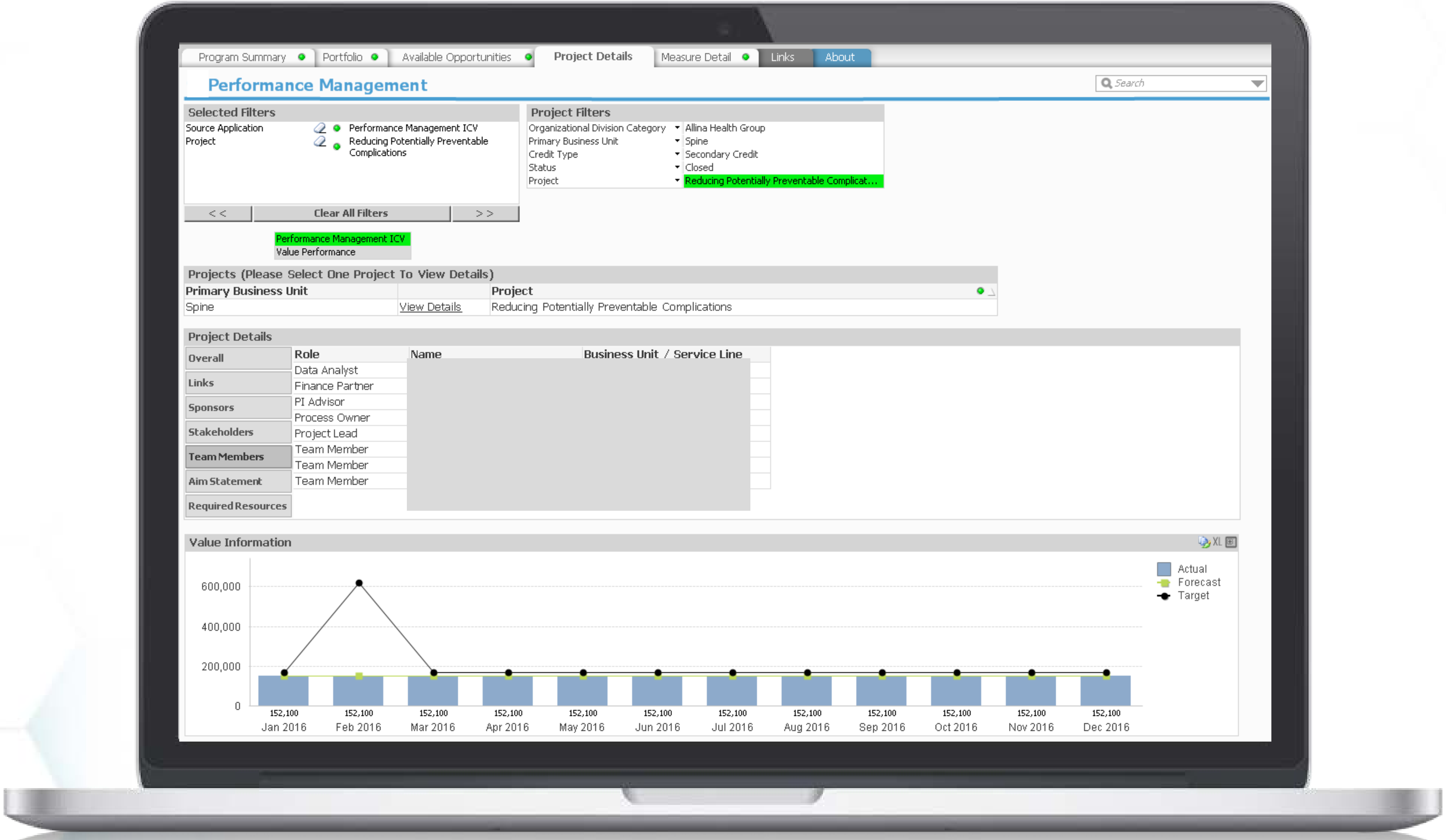
All P4P opportunities are budgeted at a percentage of the total P4P contract to be conservative.

- Budgeted this project at 70% of expected value ($1.29M).

Track both financial and quality metrics on a monthly basis to track the success of the care interventions.

- Monthly Status Reports.
- Performance Management Dashboard.

Monitor Performance and Compliance



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Spine Surgical Care Model: PPCs Impact on P4P Incentive

	Yes	No
Is this Budgeted work?	X	

Charter AIM Statement/Financial Background:

After introducing a new spine surgical care model, Allina Health reduced Potentially Preventable Complications (PPCs) in 4 large APRGRG populations from a baseline 0.83 A/E Ratio to a 0.55 A/E ratio by the end of 2016. Although this PPC shift directly reduced Allina's net patient revenue, we hit 90% of our P4P goal and had a $1.2M positive increase to our contribution margin

Population Make-up	**[Baseline]**	**[New]**	**New vs Baseline**	**New vs Baseline (%)**
Spine PPC A/E Ratio	8.4	7.2	(1)	-13.8%
Spine PPC Case Reduction	348	230	(118)	-33.9%
Spine PPR Reduction	10	4	(6)	-58.1%
Total	**348**	**230**	**(118)**	-33.9%
New Services	**[Baseline]**	**[New]**	**New vs Baseline**	**New vs Baseline (%)**
Spine P4P Program	-	1,825,200	1,825,200	

Charter Information:	
Proposed Start Date	1/1/2016
Proposed End Date	12/31/2016
Site(s) Impacted	ANW, MCY, UTY, UTD, STF
Has a pilot been done?	No
Confidence Factor	90

Contribution Margin Impact

	Baseline	**New**	**Change**
PPC Red. Vol. Impact	348	230	(118)
PPC Red. Rev. Impact	15,602,389	14,348,014	(1,254,375)
PPC Red. Var. Cost Impact	8,304,972	7,459,710	845,262
Net Contribution Margin	**7,297,417**	**6,888,305**	**(409,113)**
PPR Red. Vol. Impact	10	4	(6)
PPR Red. Rev Impact	164,082	68,685	(95,396)
PPR Red. Var. Cost Impact	83,720	35,046	(48,674)
Net Contribution Margin	**80,362**	**33,640**	**(46,722)**
New Service/Program Costs/Investments to Program			
FTEs Required	-	-	-
New Revenue	-	1,825,200	1,825,200
New Costs		-	-
Net Cost of New Services	**-**	**1,825,200**	**1,825,200**
Net Financial Impact Prior to TCOC / ACO Considerations:			
Revenues	15,766,471	14,416,700	475,429
Costs	8,388,692	7,494,755	796,588
Contribution Margin	**7,377,779**	**6,921,945**	**1,272,017**

Population Breakout - Total Contribution Margin

	ACO	**Non ACO/TCOC**	**Total**
	35%	65%	100%
PPC Red. Vol. Impact	(41)	(77)	(118)
PPC Red. Rev. Impact	(439,031)	(815,344)	(1,254,375)
PPC Red. Var. Cost Impact	295,842	549,420	845,262
Net Contribution Margin	**(143,189)**	**(265,923)**	**(409,113)**
PPR Red. Vol. Impact	(2)	(4)	(6)
PPR Red. Rev Impact	(33,389)	(62,008)	(95,396)
PPR Red. Var. Cost Impact	(17,036)	(31,638)	(48,674)
Net Contribution Margin	**(16,353)**	**(30,369)**	**(46,722)**
FTEs Required	-	-	-
New Revenue	638,820	1,186,380	1,825,200
New Costs	-	-	-
Net Contribution Margin	**638,820**	**1,186,380**	**1,825,200**
Net Contribtuion Margin Impact by Population			
Revenues	166,400	309,029	475,429
Costs	278,806	517,782	796,588
Contribution Margin	**(112,406)**	**(208,753)**	**1,272,017**
		Net Total Allina Impact:	**1,272,017**

Results of the Clinical Value Program

$32.7 Million

Savings validated by implementing 71 projects within the first two years of the program.

$1.1 Million

Savings achieved in less than one year by adopting a minimalist approach to transcatheter aortic valve replacement. This change also reduced LOS by 31% and achieved a 17.4% relative reduction in median procedure time.

$210,000

Increased revenue due to improved access in the women's health clinic. The redesigned workflow also reduced the no-show rate by 20.8%, and increased available ultrasound appointments by 20%.

$378,000

Room cost savings achieved by reducing care variation between specialist and hospitalist which was impacting LOS for patients with epilepsy.

Lessons and Recommendations

Use a standardized approach - standard process/repetition along with the right tools.

Involve clinicians to encourage buy-in.

Understand your cost accounting data.

Questions and Answers

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