

Critical Access Hospital and Rural Health Clinic Conference Focusing on the Quadruple Aim

Strategic Financial Planning:
Addressing the Realities
of Value-Based Care

May 3, 2017

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AGENDA

- Population Health and the Movement
Toward Clinical Integration –
An Overview
- Consumerism
- The “Quadruple Aim” Introduced
- Critical Imperatives for Small Rural
Health Systems Under This New Reality –
How to Prepare



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Preparing Now for What Is to Come

Discussion Objectives

- To understand the business trends facing health care providers today—**Population Health** is emerging
- To evaluate how clinical integration is changing the care delivery process and the movement toward the **“Quadruple Aim”**
- To understand how to prepare for this new reality as a small rural provider through **data-driven planning** efforts



Population Health Is Emerging

Transforming the Care Delivery Process Through Clinically Integrated Systems of Care

“Clinical Integration” Is Changing the Focus of Health Care

What Is Clinical Integration?

Coordination of patient care across conditions, providers, settings, and time in order to achieve care that is safe, timely, effective, efficient, equitable, and patient focused.

An organization-wide quality infrastructure.

The goal is to coordinate patient care and position participants for success by leveraging quality.

Source: AHA description of clinical integration

“Clinical Integration” Is Changing the Focus of Health Care

The Changing Health Care Landscape

The shift to “accountable care” and value-based reimbursement is tied to the performance of services and management of patients with an expected quality outcome.

To address this reality, clinically integrated networks (CINs) are forming with the goal of bringing down health care costs with the promise of high-quality care focused on patients’ specific needs.



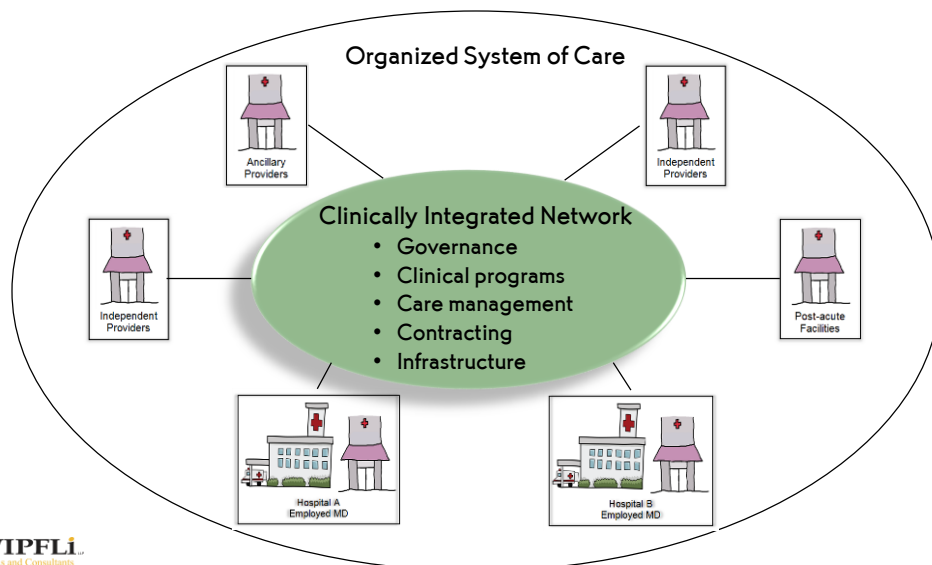
“Clinical Integration” Is Changing the Focus of Health Care

The World as We Know it Is Changing

- Health care provider revenue stream equals service volume (and service mix) multiplied by reimbursement rates for services. Clinical integration is placing downward pressure on both *service volumes* and *reimbursement rates*.
- Clinical integration is adding a *quality (and outcome) expectation* to the service delivery model.
- Provider and staff burnout are at an all-time high, creating shortages and turnover, which can significantly disrupt the service/quality you promise your patients.

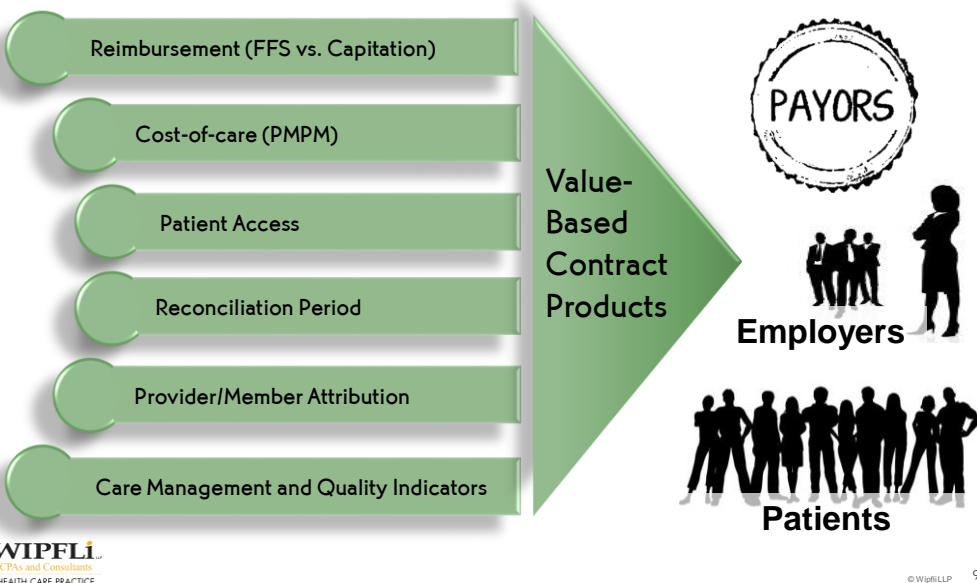
“Clinical Integration” Is Changing the Focus of Health Care

Merging the Delivery and Payment Systems



“Clinical Integration” Is Changing the Focus of Health Care

Key Drivers: Merging the Delivery and Payment Systems



The Care Delivery Process Is Changing

Accountability for Care



What to watch for . . .

- CINs are adding financial incentives (or penalties) to provide the appropriate level of care; therefore, volumes may shift downward as a result. We are seeing that health systems (and hospitals) are often willing to take on the downside risk, with the upside benefit accruing to physicians in the CIN.
- Unless the reduction in volumes is offset by market share increases, health care organizations may be negatively impacted.
- The “fight” for market share is becoming significant. Patients in your networks will be key—particularly “narrow networks.”

The Care Delivery Process Is Changing

Patients are Placed Into Care Categories:

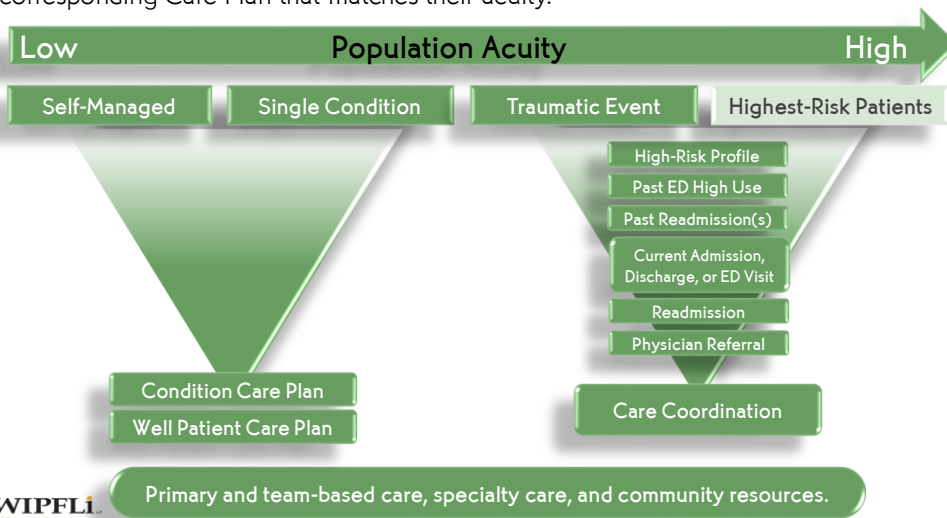
- Well
- Rising risk
- Chronic care

What to watch for . . .

- Reimbursement systems are shifting to include a “per member, per month” payment for a care team to manage the care of a population (or for chronic conditions only) in addition to fee-for-service payments.
- “Welcome to Medicare” visits may be done by an RN/social worker or other ancillary providers.
- Medicare is increasing opportunities for provider reimbursement for management of transitional care and chronic care to help fund these services.

The Care Delivery Process Is Changing

Stratifying patients by risk will allow CINs to target the most acute patients. Ultimately, all patients within the system will have a Comprehensive Health Profile and corresponding Care Plan that matches their acuity.



The Care Delivery Process Is Changing

End-of-Life Care Is Redefined

What to watch for . . .

- Volume reductions in inpatient hospital care are occurring.
- Health systems are creating “SNF-ist” programs (trained primary care physicians and care teams who manage patients’ care in SNFs)—moving the SNF to a medical model of care with clinical outcomes is expected. We believe the percentage of patients dying in the hospital will decrease over time.

The Care Delivery Process Is Changing

Patient Care Protocols and Expectations Are Changing

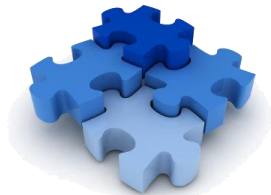
What to watch for . . .

- Care may be done in the home via e-monitoring systems, etc.
- Nonclinical providers may be doing portions of the care.
- E-visits are taking hold.



The Care Delivery Process Is Changing

Integration: Shifting Volume to Value



What to watch for . . .

- Non-value-based care will be challenged and care in the wrong settings (inpatient vs. outpatient vs. home-based) may be denied.
- Claim denials create a potential liability for the health care organization—watch for denial trends, percent of denials, and if any pending claim denials should be allowed for at year-end.
- Physician education will be required to understand the changing landscape.

Based on our review of critical access hospital (CAH) claims, we see a substantial portion of inpatient cases admitted for what Medicare considers "ambulatory sensitive conditions"—risk of future inpatient volumes!

Value-Based Care Will Change Reimbursement Methods

Value-Based Contracting

- Value-based contracting = Accountability for *cost* and *quality*
- Value-based contract goals:
 - Deliver a CIN of providers
 - Assume accountability for patients (members) within the contract
 - Manage patients around the total cost of care
 - Use quality metrics to drive outcome improvement

Value-Based Care Will Change Reimbursement Methods

Value-Based Payment Models

Fee-for-Service	Pay-for-Performance	Value-Based Purchasing	Bundled Payments	Shared Savings	Global Payments
Fee-for-Service Providers are paid a specified amount for each service provided.	Pay-for-Performance Incentives for higher quality are measured by evidence-based standards.	Value-Based Purchasing Percentage reimbursement at risk, earned back by high-quality outcomes.	Bundled Payments Single payment for episodes of treatment, shared by hospital and physicians.	Shared Savings Percentage of savings from reduced cost of care shared with hospitals and physicians.	Global Payments All services compensated in one payment that manages the patient across the delivery system.

- Consumers
- Employers
- Health Plans
- Government Payors


➔ Risk Shift ➔

- Physicians
- Medical Groups
- Hospitals
- Other Providers

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Source: HFMA 2010 The Advisory Board 2010
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Value-Based Care Will Change Reimbursement Methods

Fee-for-Service Models Are Changing



What to watch for . . .

- More fixed payments for outpatient and other services in contracts.
- Percent-of-charge contracts are shifting to fixed payment rates for some or all outpatient services. As providers, you will need to carefully validate estimated reimbursement on accounts receivable. Historical trends may be only marginally useful in this period of change.

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Value-Based Care Will Change Reimbursement Methods

Pay for Performance - With Upside and Downside Risk



What to watch for . . .

- Need to understand upside and downside contract risk and its impact on reimbursement by payor. These settlements (and analysis of contract performance) should be monitored throughout the contract year—need to consider the potential of a loss contingency.
- We are seeing that the CIN downside risk may be absorbed entirely by the health system rather than by individual physicians or physician groups within the CIN.

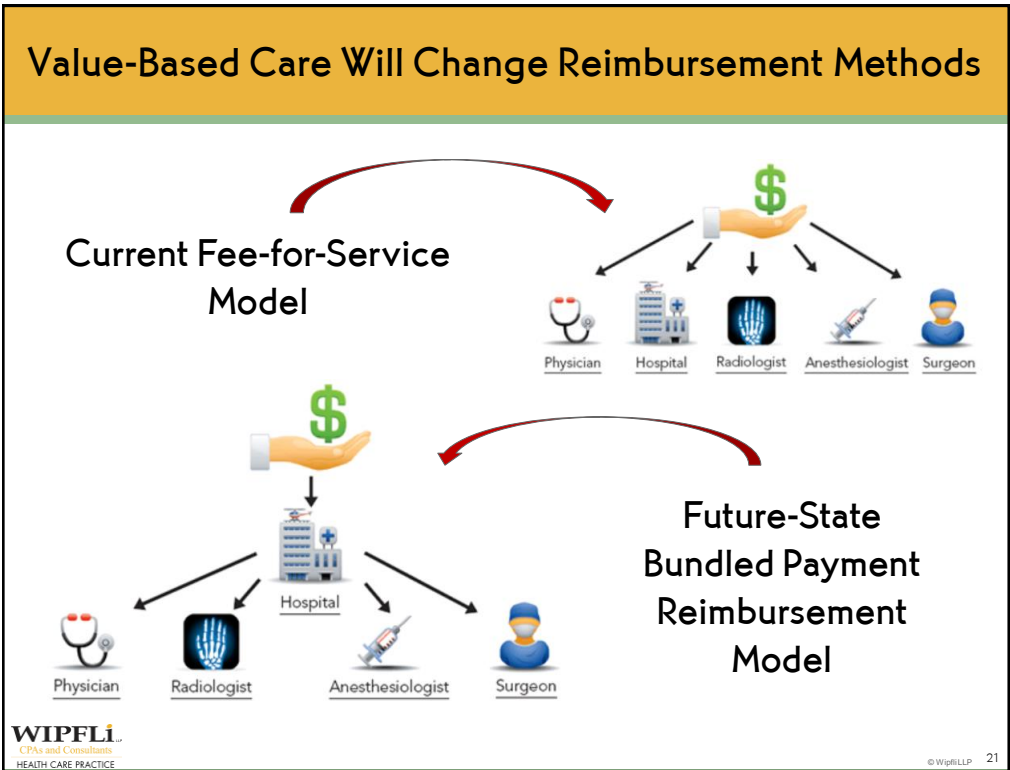
Value-Based Care Will Change Reimbursement Methods

Bundled Payments Across Providers




What to watch for . . .

- Bundled payment models are changing the way care is paid for by insurers and Medicare (in larger markets). For example, a typical orthopedic bundle reimburses a fixed price for hip surgery to encompass the surgeon, anesthesia provider, hospital, rehab provider, and possibly more providers involved during the post-surgery period.
- CMS's pilot program for the orthopedic bundle in larger markets has been successful, and new bundles are being rolled out as a result (cardiac bundle, etc.).
- Impact to you as a CAH could be dramatic.



Value-Based Care Will Change Reimbursement Methods

Movement Toward a Percent of Premium
 (a more mature system)



What to watch for . . .

Providers are assuming clinical care risk (may not contract for “insurance risk”—which is not controllable) under these contract types. Actuarial estimates may be required to estimate the portion of liability associated with total cost of care for services not provided within a CIN (out-of-network care).

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Value-Based Care Will Change Reimbursement Methods

Health Exchange Product Rates

(May be Close to Medicare Rates or Less)



What to watch for . . .

Depending on your region and the number of lives covered, these plans may have increased patient volumes at your facility with “Medicare like” rates or Medicaid rates (in the case of Medicaid expansion states). However, this may be better than uninsured rates, which may be close to no reimbursement. Future state—to be determined!

Data Is Being Transformed Into Information

Quality Metrics Are Expanding



What to watch for . . .

- Electronic health records are now being used to track care and “quality” with greater transparency (e.g., CMS’s HospitalCompare, Nursing Home Compare).
- Medicare Beneficiary Quality Improvement Reporting is getting rolled out for CAHs.
- PQRS is moving to MIPS and MACRA, providing opportunities for enhanced reimbursement (or reimbursement reductions), depending on quality improvement initiatives.

Data Is Being Transformed Into Information

Care Processes Are Being Analyzed With a Shift to Predictive Analytics



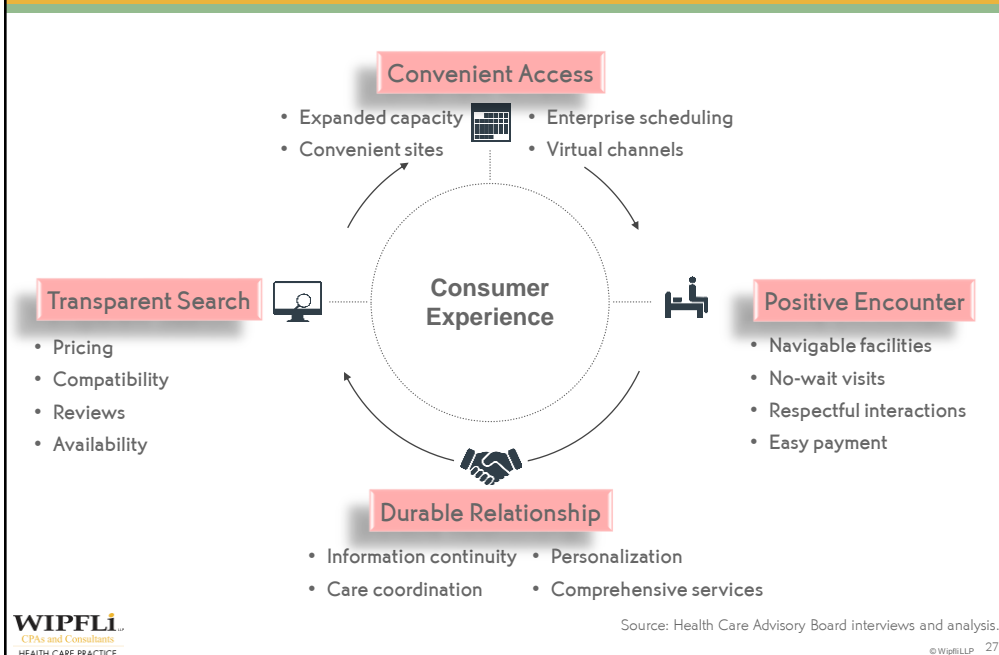
What to watch for . . .

- Medicare reimbursement penalties are now in place for “poor” quality metrics.
- Care will be *predicted* in the future based on historical clinical data at the patient level and the probability that care intervention will impact potential care outcomes.
- Higher-level analytical tools are also being rolled out to support Medicare Chronic Care Management Code billing requirements.



Consumerism - It Is All About the Customer (Experience and Cost)

The Customer Experience (Patient Satisfaction)



Consumerism Is Placing Downward Pressure on Price

Price Transparency



What to watch for . . .

- Potential need for strategic pricing study to adjust price-sensitive services (e.g., imaging/lab). Nonurgent outpatient care is shifting to lower-price options (MRI/CT, etc.) for patients with high-deductible plans.
- Insurers are recommending where services should be provided based on "cost" to the consumer (reimbursement rates to the provider), likely due to the shift of volumes to imaging centers or other lower-cost providers.

Consumerism Is Placing Downward Pressure on Price

Retail Medicine



What to watch for . . .

- For people with no chronic conditions, there is a shift toward fixed-price, urgent care services (from Walgreens and other market players), using this as a “loss leader” for higher-margin pharmacy sales.
- This shift could erode ambulatory service volumes in traditional health care organizations, particularly for younger patients and patients without a chronic condition.

Consumerism Is Placing Downward Pressure on Price

Insurance Coverage and High-Deductible Plans



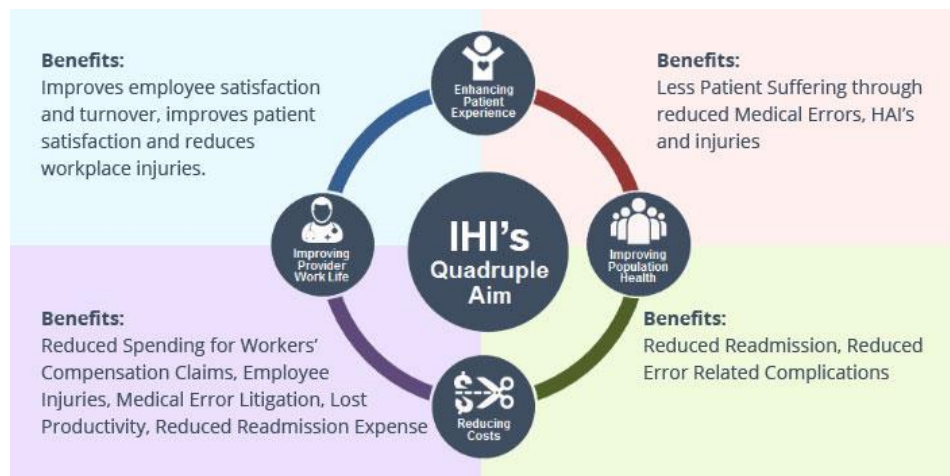
What to watch for . . .

- High-deductible plans create a shift from commercial insurance to self-pay accounts, which may require an increase in revenue allowance amounts for health care providers.
- Be careful to accurately value your receivables. Are these dollars in commercial accounts, or have they been reclassified to self-pay?
- Given high-deductible plans, reimbursement from commercial insurers in aggregate may be less than Medicare rates, considering patient responsibility that, in turn, often results in bad debts.



We Are Really Talking About the “Quadruple Aim”

The Quadruple Aim



Source: Institute for Healthcare Improvement

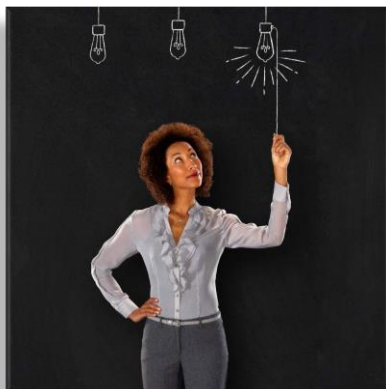
The Quadruple Aim

Proving Our Value to the Market in a Financially Sustainable Way the "Quadruple Aim"

- Access and Patient Satisfaction: What does great service look like?
- Clinical Quality: What does great quality look like?
- Service Delivery Process: What does a high-performing care process look like? How does this align with provider and staff satisfaction?
- Cost: What steps to take to manage care at the population level?



These concepts will be discussed in detail through the Leadership Track during this conference.

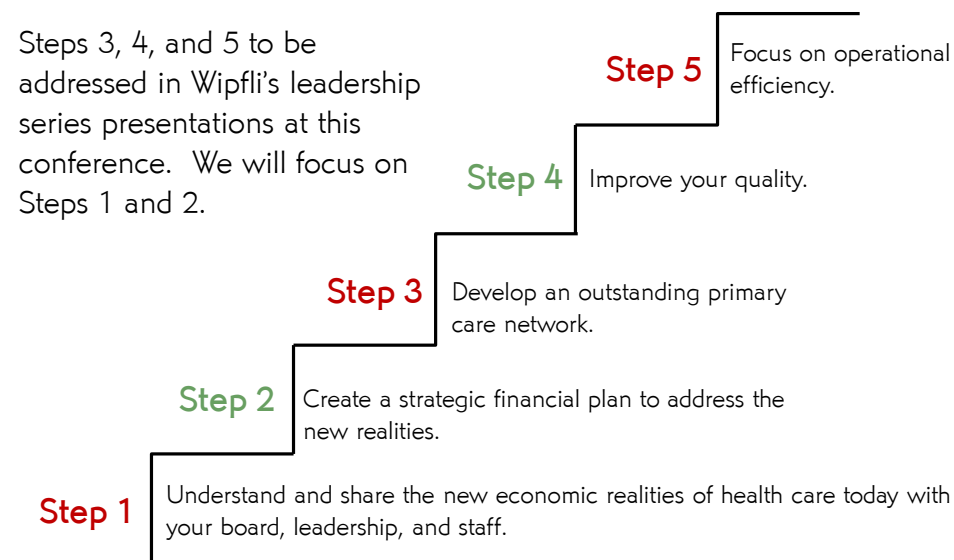


Critical Imperatives for Small and Rural Health Systems

How to Plan Using
Financially Driven Data

How to Prepare

Steps 3, 4, and 5 to be addressed in Wipfli's leadership series presentations at this conference. We will focus on Steps 1 and 2.



How to Prepare

Step 1: Understand and share the new economic realities of health care today with your board, leadership, and staff.

- Understand the future trends in mix of services, volumes, reimbursement, and the potential impact on your organization.
- Understand organizational capabilities (people, processes, technology, facilities).
- Understand potential risks to your organization.
- Understand how your organization fits into the local health care market.
- Prepare for a formal planning process and determine what resources are needed.

Assess board capabilities to deal with these new realities.

How to Prepare

Step 2: Create a strategic plan to address the new realities.



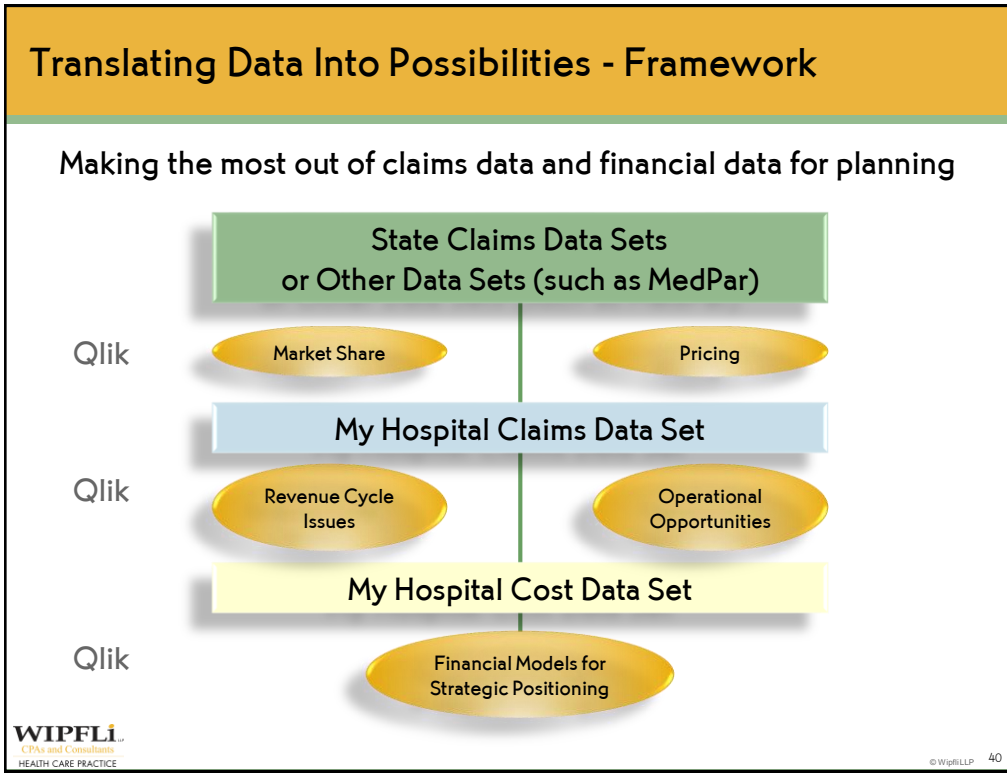
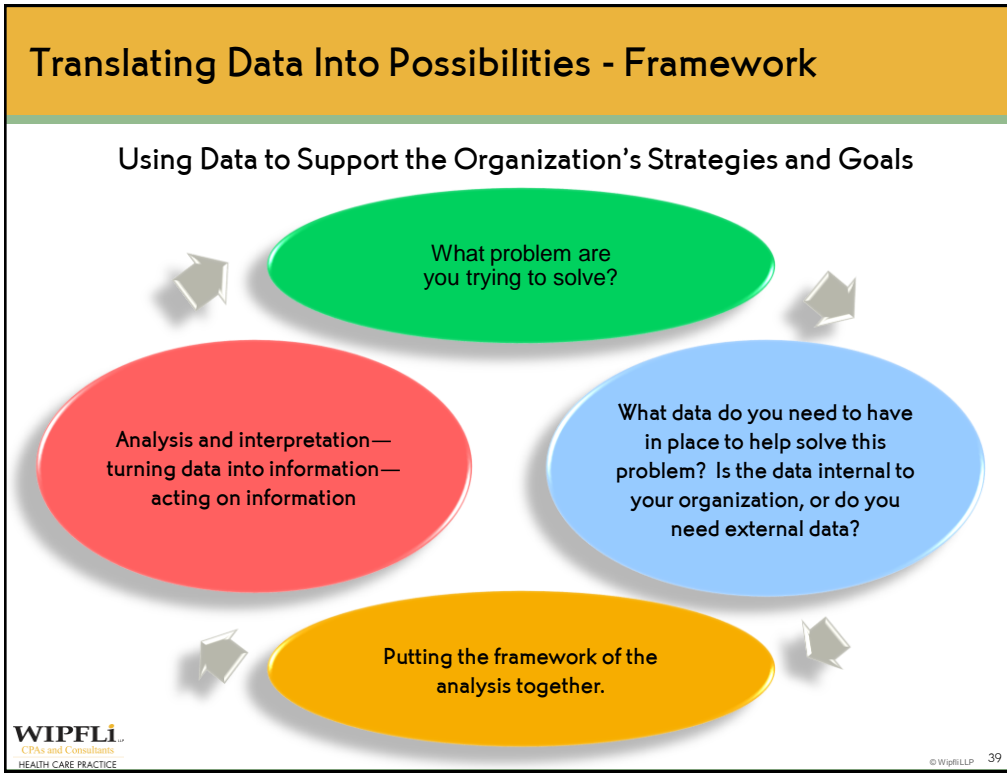
Translating Data Into Possibilities

General Discussion: What do we see? What do you see?

- As a small health system/hospital, how do you use available data today?
- What do you see as emerging use of available data?
- What are the barriers to using data appropriately?

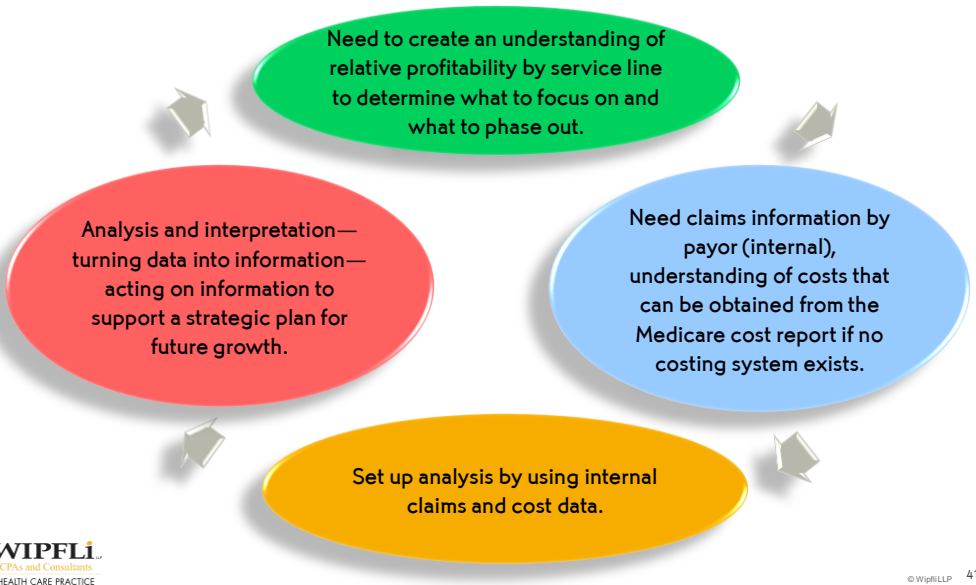
Strategy Space: Examples to Discuss

- Understanding your service lines—volumes, payor mix, profitability.
- Understanding your market position.
- Understanding new service possibilities.
- Understanding your pricing.



Problem: What Service Lines Should We Focus On?

Using Data to Support the Organization's Strategies and Goals



Understanding Your Service Lines - Inpatient

Sample Hospital FY 2015 Financial Contribution by Service Line - Inpatients						
Service Line	Charges	Reimbursement	Direct Cost	Contribution Margin	Total Margin	Margin % of Reimbursement
Diseases of the Musculoskeletal System	3,384,133	2,066,927	1,303,724	763,202	(263,582)	-13%
Pregnancy, Childbirth, and the Puerperium	2,617,953	1,993,909	1,003,297	990,612	(230,553)	-12%
Diseases of the Respiratory System	2,561,947	2,119,141	1,218,488	900,653	(522,100)	-25%
Diseases of the Digestive System	1,956,556	1,448,436	792,967	655,470	(247,774)	-17%
Diseases of the Circulatory System	1,586,228	1,229,407	672,043	557,365	(233,821)	-19%
Newborn	821,503	646,270	131,182	515,088	284,014	44%
Diseases of Genitourinary System	677,802	566,444	303,012	263,432	(93,888)	-17%
Diseases of the Skin and Subcutaneous Tissue	525,136	473,139	240,710	232,429	(60,637)	-13%
Certain Infectious and Parasitic Diseases	479,620	349,575	208,085	141,490	(99,356)	-28%
All Other	2,243,146	1,761,415	1,031,919	729,495	(500,077)	-28%
Totals	\$ 16,854,025	\$ 12,654,664	\$ 6,905,427	\$ 5,749,236	\$ (1,967,774)	-16%

Inpatient services reflect 24% of hospital billed charges. From a financial perspective, the Sample Hospital reported a loss on its inpatient services due, in part, to the significant amount of overhead costs associated with inpatient care. From a contribution margin perspective, it generated over \$5.7 million to help support overhead costs.

Understanding Your Service Lines - Outpatient

Sample Hospital						
FY 2015 Financial Contribution by Service Line - Outpatients						
Service Line	Charges	Reimbursement	Direct Cost	Contribution Margin	Total Margin	Margin % of Reimbursement
Symptoms, Signs, and Abnormal Clinical and Laboratory Findings	\$ 11,401,770	\$ 6,121,320	\$ 2,759,740	\$ 3,361,581	\$ 1,388,355	23%
Diseases of the Musculoskeletal System and Connective Tissue	7,260,273	4,101,196	1,617,619	2,483,577	1,262,525	31%
Diseases of the Digestive System	6,082,403	3,405,743	1,635,729	1,770,013	601,852	18%
Diseases of Genitourinary System	4,314,574	2,431,702	1,165,639	1,266,063	432,967	18%
Injury, Poisoning, and Certain Other Consequences of External Causes	4,148,683	2,172,426	1,049,749	1,122,677	465,148	21%
Diseases of the Respiratory System	3,883,535	2,101,039	1,180,262	920,776	66,478	3%
Diseases of the Circulatory System	3,413,801	1,879,334	946,501	932,832	261,534	14%
Factors Influencing Health Status and Contact with Health Services	2,224,605	1,449,231	752,928	696,303	(114,541)	-8%
Diseases of Nervous System and Sense Organs	2,217,321	1,189,602	622,235	567,367	134,410	11%
Neoplasms	1,930,383	1,028,573	429,946	598,627	297,480	29%
Mental, Behavioral and Neurodevelopmental Disorders	1,117,437	433,321	346,429	86,892	(180,279)	-42%
Pregnancy, Childbirth, and the Puerperium	943,247	473,237	228,693	244,544	39,444	8%
Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders	764,481	374,009	210,191	163,818	4,559	1%
All Other	2,772,833	1,475,303	773,513	701,789	131,576	9%
Totals	\$ 52,475,346	\$ 28,636,034	\$ 13,719,175	\$ 14,916,860	\$ 4,791,507	17%

Outpatient services provided a positive total margin for the Sample Hospital of almost \$4.8 million. Like most small hospitals, this outpatient margin helped to offset the inpatient loss to generate an overall positive margin for the Sample Hospital.

Understanding Your Service Lines - Total Hospital

Sample Hospital						
FY 2015 Financial Contribution by Service Line - Total Hospital						
Service Line	Charges	Reimbursement	Direct Cost	Contribution Margin	Total Margin	Margin % of Reimbursement
Symptoms, Signs, and Abnormal Clinical and Laboratory Findings	\$ 11,873,059	\$ 6,468,897	\$ 2,956,880	\$ 3,512,017	\$ 1,308,835	20%
Diseases of the Musculoskeletal System and Connective Tissue	10,644,406	6,168,122	2,921,343	3,246,780	998,943	16%
Diseases of the Digestive System	8,038,959	4,854,179	2,428,696	2,425,483	354,078	7%
Diseases of the Respiratory System	6,445,482	4,220,180	2,398,750	1,821,430	(455,622)	-11%
Diseases of the Circulatory System	5,000,029	3,108,741	1,618,544	1,490,197	27,713	1%
Diseases of Genitourinary System	4,992,376	2,998,146	1,468,651	1,529,495	339,079	11%
Injury, Poisoning, and Certain Other Consequences of External Causes	4,395,258	2,388,247	1,164,717	1,223,529	436,256	18%
Pregnancy, Childbirth, and the Puerperium	3,561,201	2,467,146	1,231,991	1,235,155	(191,109)	-8%
Factors Influencing Health Status and Contact with Health Services	2,395,659	1,630,928	867,862	763,065	(215,315)	-13%
Neoplasms	2,367,274	1,332,191	587,397	744,794	273,712	21%
Diseases of Nervous System and Sense Organs	2,293,716	1,275,328	658,707	616,621	135,449	11%
Mental, Behavioral and Neurodevelopmental Disorders	1,405,738	665,385	497,403	167,982	(275,044)	-41%
Diseases of the Skin and Subcutaneous Tissue	1,207,771	828,266	438,224	390,042	(41,156)	-5%
Certain Infectious and Parasitic Diseases	1,030,269	618,741	356,436	262,305	(90,263)	-15%
Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders	1,001,866	585,373	321,007	264,366	(23,281)	-4%
Newborn	822,050	646,803	131,301	515,502	284,304	44%
All Other	1,854,259	1,034,025	576,693	457,332	(42,846)	-4%
Totals	\$ 69,329,370	\$ 41,290,698	\$ 20,624,602	\$ 20,666,096	\$ 2,823,734	7%

In total, the Sample Hospital generated a 7% margin on hospital services. However, when combining this result with its loss on clinic-related activities and post-acute care services, its overall margin was 3%.

Sample Hospital Patient Days by Service Line

Sample Hospital FY 2015 Inpatient Days and Discharges by Service Line		
Service Line	Inpatient Days	Discharges
Diseases of the Respiratory System	458	163
Pregnancy, Childbirth, and the Puerperium	377	177
Newborn	366	170
Diseases of the Digestive System	288	89
Diseases of the Circulatory System	257	96
Diseases of the Musculoskeletal System and Connective Tissue	130	87
Diseases of Genitourinary System	119	46
Diseases of the Skin and Subcutaneous Tissue	93	32
Certain Infectious and Parasitic Diseases	87	26
Symptoms, Signs, and Abnormal Clinical and Laboratory Findings	68	33
Mental, Behavioral and Neurodevelopmental Disorders	61	22
Factors Influencing Health Status and Contact with Health Services	50	11
Neoplasms	47	13
Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders	44	17
Endocrine, Nutritional, and Metabolic Diseases	42	7
Injury, Poisoning, and Certain Other Consequences of External Causes	41	13
Diseases of Nervous System and Sense Organs	17	6
Disease of the Blood and Blood-Forming Organs	13	5
Certain Conditions Originating in the Perinatal Period	6	4
Diseases of the Ear and Mastoid Process	4	1
Totals	2,568	1,018

Inpatient days are concentrated in the shaded service lines. Services are focused on the obstetrical service line, as well as services that are heavily weighted toward Medicare-eligible patients (i.e., diseases of the respiratory and circulatory systems).

Sample Hospital Length of Stay Information

Length of Stay Analysis - Actual Compared to the Medicare Geometric Average Length of Stay			
Service Line	Actual LOS	Geometric LOS	Variance
Overall Hospital Average	2.5	3.7	-33%
Diseases of the Ear and Mastoid Process	4.0	2.1	93%
Diseases of Nervous System and Sense Organs	2.8	2.9	-4%
Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders	2.6	3.0	-14%
Injury, Poisoning, and Certain Other Consequences of External Causes	2.9	3.0	-3%
Pregnancy, Childbirth, and the Puerperium	2.1	3.1	-30%
Certain Conditions Originating in the Perinatal Period	1.5	3.1	-51%
Disease of the Blood and Blood-Forming Organs	2.6	3.3	-21%
Diseases of the Circulatory System	2.6	3.4	-24%
Endocrine, Nutritional, and Metabolic Diseases	6.0	3.4	78%
Diseases of the Musculoskeletal System and Connective Tissue	1.5	3.4	-57%
Symptoms, Signs, and Abnormal Clinical and Laboratory Findings	1.9	3.4	-43%
Diseases of the Skin and Subcutaneous Tissue	2.9	3.6	-19%
Mental, Behavioral and Neurodevelopmental Disorders	2.5	3.6	-30%
Diseases of Genitourinary System	2.5	3.6	-30%
Diseases of the Respiratory System	2.8	3.7	-24%
Diseases of the Digestive System	3.2	4.0	-18%
Certain Infectious and Parasitic Diseases	3.2	4.1	-21%
Neoplasms	3.4	5.0	-33%
Factors Influencing Health Status and Contact with Health Services	4.2	5.7	-27%
Newborn	2.2	6.6	-67%

Overall, the Sample Hospital's average length of stay is significantly less than the Medicare reported geometric length of stay (GLOS) by DRG. However, two service lines reported average length of stay data higher than the Medicare GLOS (endocrine, nutritional and metabolic diseases and diseases of the ear and mastoid process).

Sample Hospital's Expirations in the Hospital Setting

Sample Hospital - End of Life Care (Patients Expired in the Hospital Setting)			
Discharge Disposition	DRG	Inpatient Days	Discharges
Expired	084 TRAUMATIC STUPOR & COMA, COMA >1 HR W/O CC/MCC	3	1
Expired	191 CHRONIC OBSTRUCTIVE PULMONARY DISEASE W CC	3	1
Expired	312 SYNCOPES & COLLAPSE	1	1
Expired (did not recover - Christian Science patient)	178 RESPIRATORY INFECTIONS & INFLAMMATIONS W CC	3	1
Expired (did not recover - Christian Science patient)	291 HEART FAILURE & SHOCK W MCC	1	1
Expired (did not recover - Christian Science patient)	292 HEART FAILURE & SHOCK W CC	3	1
Expired (did not recover - Christian Science patient)	394 OTHER DIGESTIVE SYSTEM DIAGNOSES W CC	1	1
Expired (did not recover - Christian Science patient)	683 RENAL FAILURE W CC	1	1
Expired (did not recover - Christian Science patient)	690 KIDNEY & URINARY TRACT INFECTIONS W/O MCC	3	1
Total		19	9
Percent of total		1%	1%
Totals		2,568	1,018

Management of patients at the end of life is important to monitor moving into a population health and value-based model of care. The Sample Hospital reported very few expirations while in the hospital setting, some of which were related to religious beliefs.

Understanding Your Service Lines

What Did We Learn and What Decisions Were Made?

- The Sample Hospital's overall margin from orthopedic services was the most significant for a distinct service line. While orthopedic inpatient activity reflected an overall loss, it funded a significant amount of overhead. Outpatient activity, including surgical services and significant downstream services, made it a choice to focus on for the future.
- The next step in the analysis included understanding if more orthopedic surgical support could be secured that would provide incremental margin for the organization. (Would the investment be less than the potential financial gain?)
- The Sample Hospital also studied market share potential, payor mix/reimbursement rates, and other key variables before any decision was made to more heavily invest in this service.

More analysis to come.

Understanding New Service Possibilities

Orthopedic and Musculoskeletal Services Example

Sample Hospital Orthopedic Services

Sample Hospital FY 2015 Diseases of the Musculoskeletal System by Patient Type									
Patient Type	Charges	Percent of Total	Reimbursement	Direct Cost	Contribution Margin	Percent Contribution Margin	Total Cost	Total Margin	Margin Percent of Reimbursement
Inpatient	\$3,384,133	32%	\$2,066,927	\$1,303,724	\$763,202	37%	\$2,330,509	(\$263,582)	-13%
Outpatient	7,260,273	68%	4,101,196	1,617,619	2,483,577	61%	2,838,671	1,262,525	31%
Totals	\$10,644,406	100%	\$ 6,168,122	\$ 2,921,343	\$ 3,246,780	53%	\$ 5,169,180	\$ 998,943	16%

Musculoskeletal system services, which include orthopedic services by patient type, reveal the significance of outpatient services to this service line.

Sample Hospital Orthopedic Services

Sample Hospital									
FY 2015 Diseases of the Musculoskeletal System by Type of Service - Outpatient									
Type of Service	Medical Service	Charges	Reimbursement	Direct Cost	Contribution Margin	% Contribution Margin	Total Cost	Total Margin	Margin % of Reimbursement
Emergency	Emergency Medicine	1,836,926	879,642	469,788	409,854	47%	764,594	115,048	13%
Outpatient	.	1,706,313	937,450	342,313	595,136	63%	585,486	351,964	38%
Outpatient	MRI	1,381,492	857,344	202,693	654,651	76%	306,483	550,860	64%
Day Surgery	Day Surgery	\$601,780	\$442,010	\$182,339	\$259,671	59%	\$298,875	\$143,135	32%
Recurring Outpatient	Rehabilitation - PT	382,170	266,078	136,832	129,246	49%	308,396	(42,319)	-16%
Outpatient	Pain Clinic	322,919	191,436	41,787	149,649	78%	150,493	40,943	21%
Observation	Med-Surg	319,551	153,939	95,796	58,143	38%	175,188	(21,249)	-14%
Emergency	Urgent Care	181,611	95,543	43,095	52,448	55%	67,966	27,577	29%
Outpatient	CT	132,010	66,477	19,013	47,463	71%	29,882	36,595	55%
Outpatient	Multiple Outpatient	113,792	60,277	16,588	43,689	72%	25,429	34,848	58%
Other	Other	281,709	150,999	67,373	83,624	55%	125,876	25,123	17%
Totals		\$ 7,260,273	\$ 4,101,196	\$ 1,617,619	\$ 2,483,577	61%	\$ 2,838,671	\$ 1,262,525	31%

The musculoskeletal outpatient services by hospital type of service are shown above. Patients classified as emergency patients generated the most significant amount of revenue for the Sample Hospital. From a total margin perspective, day surgery, MRI, emergency, and unclassified services provided the most significant margin.

Sample Hospital Orthopedic Services

Sample Hospital								
FY 2015 Diseases of the Musculoskeletal System Services by Patient Zip Code - All Patients								
Patient Zip Code	Charges	Reimbursement	Direct Cost	Contribution Margin	% Contribution Margin	Total Cost	Total Margin	Margin % of Reimbursement
XXXXX	\$5,245,751	\$3,027,786	\$1,392,181	\$1,635,605	54%	\$2,484,419	\$543,367	18%
XXXXX	717,049	418,519	200,832	217,686	52%	348,982	69,537	17%
XXXXX	698,269	490,696	198,744	291,953	59%	344,074	146,622	30%
XXXXX	523,206	278,019	152,069	125,950	45%	275,890	21,129	1%
XXXXX	442,270	240,120	140,620	99,501	41%	247,889	(7,769)	-3%
XXXXX	321,316	172,488	93,000	79,487	46%	160,115	12,373	7%
XXXXX	247,817	139,761	73,112	66,649	48%	126,113	13,648	10%
XXXXX	236,424	135,990	58,480	77,509	57%	107,351	28,639	21%
XXXXX	188,828	111,538	37,074	74,464	67%	70,205	41,333	37%
XXXXX	176,768	126,071	49,986	76,085	60%	91,649	34,422	27%
XXXXX	149,068	57,261	43,878	13,383	23%	75,262	(18,000)	-31%
XXXXX	134,067	59,429	37,129	22,300	38%	62,747	(3,318)	-6%
XXXXX	112,244	41,341	32,887	8,454	20%	56,548	(15,207)	-37%
XXXXX	105,513	55,708	20,642	35,066	63%	41,607	14,101	25%
XXXXX	103,572	69,727	35,251	34,476	49%	60,983	8,744	13%
	1,242,244	743,671	355,456	388,214	52%	615,342	126,323	17%
Totals	\$ 10,644,406	\$ 6,168,122	\$ 2,921,343	\$ 3,246,780	53%	\$ 5,169,180	\$ 998,943	16%

Patient origin for musculoskeletal system services, with over 80% of the total margin for this service, are concentrated in five ZIP code regions. A deeper dive suggests that outpatient diagnostics and therapies are most profitable for the Sample Hospital. The Sample Hospital is currently working with a large acute care center within the region to enable patients to come to this small CAH for outpatient follow-up care.

Sample Hospital Orthopedic Services

2015 Knee Replacement (ICD 9 81.54) and Hip Replacement (ICD 9 81.51) Activity from the Sample Hospital Zip Code Region				
Facility Name	Total Charges	% of Total Charges	Claims	% of Total Claims
Major Medical Center 1	\$1,707,596	37.54%	51	39.84%
SAMPLE HOSPITAL	\$1,331,340	29.26%	34	26.56%
Major Medical Center 2	\$672,136	14.77%	22	17.19%
CAH	\$324,797	7.14%	9	7.03%
Major Medical Center 3	\$196,531	4.32%	3	2.34%
CAH	\$63,485	1.40%	1	0.78%
Major Medical Center 4	\$60,952	1.34%	2	1.56%
Boutique Hospital	\$60,750	1.34%	2	1.56%
Major Medical Center 5	\$41,309	0.91%	1	0.78%
Major Medical Center 6	\$36,767	0.81%	1	0.78%
Major Medical Center 7	\$28,924	0.64%	1	0.78%
Regional Surgery Center	\$24,754	0.54%	1	0.78%
Totals	\$4,549,340	100.00%	128	100.00%

This slide reflects the state's claims-based data to help us understand the total volume of services with the ICD-9 procedure codes related to knee and hip procedures in 2015, specifically from the Sample Hospital ZIP code region. You will note that the Sample Hospital captured 26% of total cases for this procedure, with Major Medical Center 1 reporting almost 40% of cases. This suggests a market opportunity for the Sample Hospital.

Sample Hospital Orthopedic Services

What If?

What if orthopedic volumes increased 20% from current state, which the Sample Hospital believes is possible based on market potential with an investment in more orthopedic physician resources?

Sample Hospital Orthopedic Services

Orthopedic Expansion Possibility					
Orthopedic Cases - Inpatient		Market Potential (Cases)	Orthopedic Cases - Outpatient Revenue		Market Potential (Dollars)
Competitor 1		40	Competitor 1		\$ 950,000
Competitor 2		11	Competitor 2		261,250
Competitor 3		10	Competitor 3		237,500
Competitor 4		8	Competitor 4		190,000
Competitor 5		7	Competitor 5		166,250
Competitor 6		3	Competitor 6		71,250
Total possible cases		79	Total possible charges		\$ 1,876,250
Incremental margin per case (based on service line model)		8,772	Total possible reimbursement at 80%		1,501,000
Incremental reimbursement loss on cost based payers (per case)		(350)	Incremental cost assuming overall cost to charge ratio of 50%		938,125
Potential inpatient impact per case		8,422	Total incremental value outpatient orthopedic expansion		\$ 562,875
Total incremental value inpatient orthopedic expansion		\$ 665,338			
Total incremental value of hospital services		\$ 1,228,213			

Sample Hospital Orthopedic Services

Orthopedic Expansion Possibility			
Expected Incremental Activity		What if Volumes are 50% of Expected?	
Incremental margin (carried forward)	\$ 1,228,213	Incremental margin (carried forward)	\$ 614,107
What physician resources are needed for this service expansion?		What physician resources are needed for this service expansion?	
Incremental surgical cases (inpatient)	79	Incremental surgical cases (inpatient)	40
Incremental surgical cases (outpatient)	237	Incremental surgical cases (outpatient)	119
Total incremental cases	316	Total incremental cases	158
Contract rate per day (assume guaranteed rate per day)	(4,000)	Contract rate per day (assume guaranteed rate per day)	(4,000)
Number of days to contract	104	Number of days to contract	52
Total incremental physician cost (net of any reimbursement)	(416,000)	Total incremental physician cost (net of any reimbursement)	(208,000)
Do we need any new equipment to expand services?	Yes	Do we need any new equipment to expand services?	Yes
Do we need any space renovation to support services?	No	Do we need any space renovation to support services?	No
Cost of equipment	(500,000)	Cost of equipment	(500,000)
Life (in years)	5	Life (in years)	5
Annual Depreciation	(100,000)	Annual Depreciation	(100,000)
Cost of capital (at 5%)	(25,000)	Cost of capital (at 5%)	(25,000)
Total annual incremental expense	(541,000)	Total annual incremental expense	(333,000)
Incremental annual margin of orthopedic expansion	\$ 687,213	Incremental annual margin of orthopedic expansion	\$ 281,107

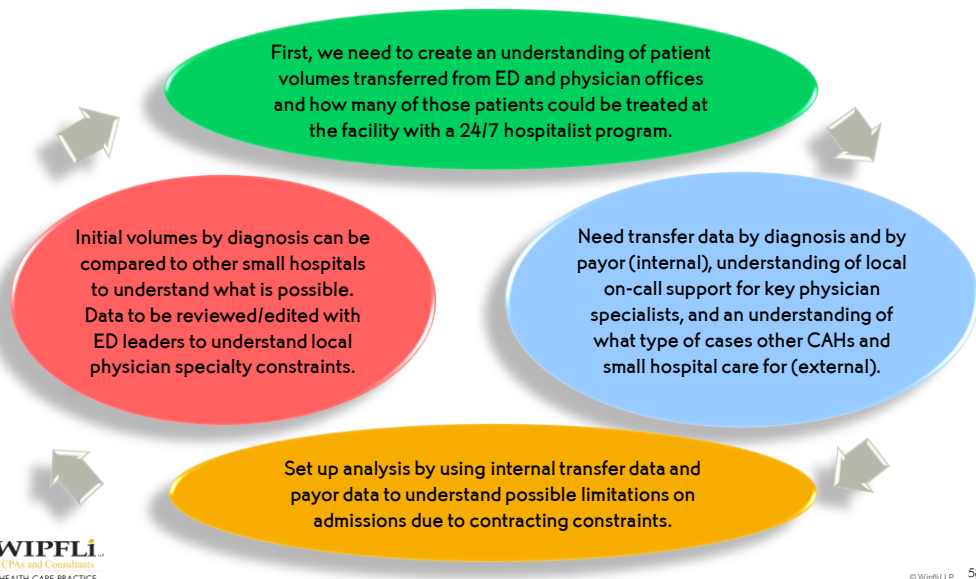
Sample Hospital Orthopedic Services

Turning Data Into Information - What Have We Learned?

- Should we embark on this strategy?
- What other information do we need to make this decision?
 - Clinical
 - Strategic
 - Operational
 - Facility
 - Other

Problem: Should We Create a Hospitalist Program?

Using Data to Support the Organization's Strategies and Goals



Transfer Analysis From Your ED - What Is Leaving Your Facility?

It is important to track transfers from your ED to understand if your facility could support a hospitalist-type program to safely keep patients in the community. The sample data below is an analysis of that strategic possibility.

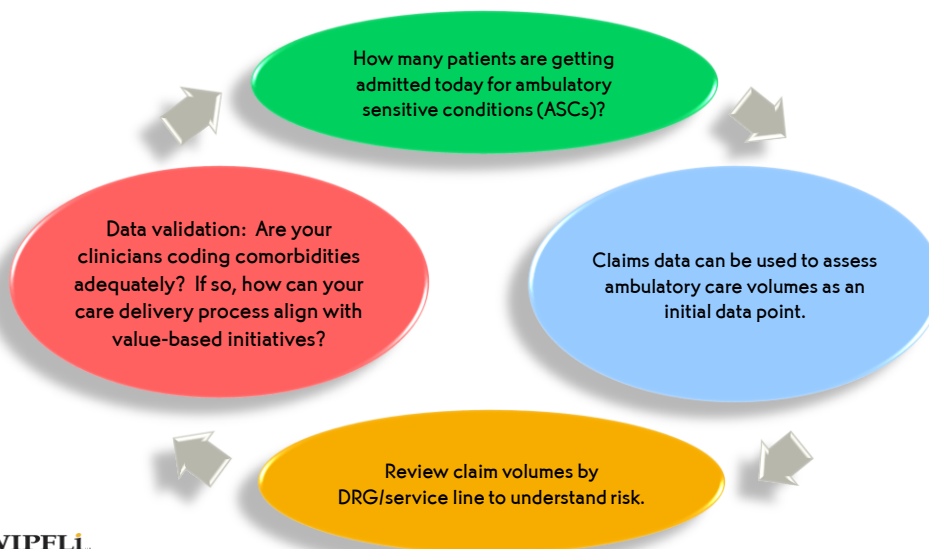
Understanding Sample Hospital ED Transfers			
Major Diagnostic Category	Sample Hospital (assuming 24/7 hospitalist program)		
	Total Cases	Estimated Cases to Stay With Hospitalist Program	Cases Without Insurance Plan Limitations
05 DISEASES & DISORDERS OF THE CIRCULATORY SYSTEM	226	117	100
01 DISEASES & DISORDERS OF THE NERVOUS SYSTEM	89	33	29
06 DISEASES & DISORDERS OF THE DIGESTIVE SYSTEM	75	44	38
04 DISEASES & DISORDERS OF THE RESPIRATORY SYSTEM	66	49	41
08 DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM & CONN TISSUE	55	37	36
11 DISEASES & DISORDERS OF THE KIDNEY & URINARY TRACT	47	0	0
18 INFECTIOUS & PARASITIC DISEASES, SYSTEMIC OR UNSPECIFIED SITES	31	29	25
14 PREGNANCY, CHILDBIRTH & THE PUERPERIUM	28	0	0
10 ENDOCRINE, NUTRITIONAL & METABOLIC DISEASES & DISORDERS	22	22	22
09 DISEASES & DISORDERS OF THE SKIN, SUBCUTANEOUS TISSUE & BREAST	21	8	8
07 DISEASES & DISORDERS OF THE HEPATOBILIARY SYSTEM & PANCREAS	19	18	16
21 INJURIES, POISONINGS & TOXIC EFFECTS OF DRUGS	18	4	2
23 FACTORS INFLUENCING HLTH STAT & OTHR CONTACTS WITH HLTH SVCS	18	4	3
03 DISEASES & DISORDERS OF THE EAR, NOSE, MOUTH & THROAT	17	8	8
All Other	27	0	0
Grand Total	759	373	328

Percent of cases without insurance plan limitations based on Hospital provided information 80%

Key Assumptions: Baseline included cases by diagnosis that were admitted to at least one out of the three small sample hospitals in the past 15 months. Cases were then further adjusted for the specialty support available and not available in the local market region based on feedback from ED Medical Director.
Source: Hospital Emergency Department Transfer Data by diagnosis code for the 12-month period ended XXXX.

What May Happen to Inpatient Volumes as Value-Based Care Matures?

Using Data to Support the Organization's Strategies and Goals



How Many Patients Are Admitted for ASCs?

The Sample Hospital reported 34% of inpatient cases in the respiratory system service line with potential ASCs. What if these cases were treated on an outpatient basis in the future? Were some of these cases “under documented/under coded” as cases without comorbidities or complications?

Sample Hospital		
FY 2015 Diseases of the Respiratory System - Days and Discharges by DRG (Excerpt Only)		
DRG	Inpatient Days	Discharges
194 SIMPLE PNEUMONIA & PLEURISY W/CC	111	37
191 CHRONIC OBSTRUCTIVE PULMONARY DISEASE W CC	81	23
195 SIMPLE PNEUMONIA & PLEURISY W/O CC/MCC	62	25
192 CHRONIC OBSTRUCTIVE PULMONARY DISEASE W/O CC/MCC	50	21
190 CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC	29	9
193 SIMPLE PNEUMONIA & PLEURISY W MCC	27	7
202 BRONCHITIS & ASTHMA W CC/MCC	25	10
179 RESPIRATORY INFECTIONS & INFLAMMATIONS W/O CC/MCC	16	5
203 BRONCHITIS & ASTHMA W/O CC/MCC	16	9
189 PULMONARY EDEMA & RESPIRATORY FAILURE	3	1
206 OTHER RESPIRATORY SYSTEM DIAGNOSES W/O MCC	3	1
Totals	458	163
Ambulatory Sensitive Condition Potential	131	56
	29%	34%

Problem: Is Your Pricing Competitive With Existing/ Emerging Competition?

Using Data to Support the Organization's Strategies and Goals



Understanding Your Pricing - Overview

The health care market is changing. Value-based payments, price transparency, and innovative competitors are forcing traditional hospitals to rethink pricing strategies for certain services.

SAMPLE HOSPITAL Pricing Analysis 2016 (excerpts only)					
Department	Hospital Services			Pricing Change Method	Pricing Value
	Annualized 2016 Revenue and Usage	Proposed Charges	Percent Change based on Current CDM Charge		
Room & Board (including nursing)	12,339,693	13,100,316	6%	change from current	5%
Surgery	24,189,371	25,405,362	5%	change from current	5%
Lab	11,171,689	11,369,510	2%	% of Medicare	1500%
IV Therapy	360,910	374,346	4%	% of Medicare	6500%
Anesthesia	3,526,419	3,702,388	5%	change from current	5%
Radiology	4,250,566	4,138,760	-3%	% of Medicare	1700%
Ultrasound	1,807,959	1,959,028	8%	% of Medicare	11500%
Mammography	1,391,536	1,095,930	-21%	% of Medicare	275%
Nuclear Medicine	1,105,911	1,017,433	-8%	% of Medicare	925%
Vascular Lab	876,150	781,005	-11%	% of Medicare	975%
CT	12,019,765	11,317,418	-6%	% of Medicare	2000%
MRI	8,185,779	7,734,682	-6%	% of Medicare	1750%
Sleep	1,201,789	1,207,483	0%	% of Medicare	700%
Emergency Room	8,823,555	10,224,240	16%	% of Medicare	1217%
Total	105,628,212	108,358,203	3%		

Understanding Your Pricing - Overview

What Did We Learn and What Decisions Were Made?

Sample Hospital's MRI charges were higher than competition. This was deemed to be a price-competitive service with a need to reduce prices and contracted insurance rates to sustain market volumes.

Sample Hospital

Pricing Analysis - Excerpts Only
December 2016

Description	CPT	Revenue Code	Annualized 2016		Competitor 1		Competitor 2		Median as a Percent of Medicare	Medicare Wipe Adj. 2016 Fee Schedule	Proposed Charge with Limited Increase	Percent of Medicare with Limited Increase	Proposed Gross Charges	Percent Change		
			Volume	Charges	Average Charge per Unit	Charge x Volume	Average Charge per Unit	Charge x Volume								
MRI BRAIN W/O CONTRA	70551	611	152	447,640	2,945.00	1,950	296,385	1,795	272,840	1507%	149.26	2,612	1750%	397,024	-11%	
MRI INT AUD CANAL W/	70553	610	18	79,794	4,433.00	3,244	58,388	2,670	48,060	1372%	251.04	4,393	1750%	79,074	-1%	
MRI BRAIN W&WO CONTR	70553	611	120	531,960	4,433.00	3,244	389,256	2,670	320,400	1372%	251.04	4,393	1750%	527,160	-1%	
MRI CERVICAL SPINE	72141	612	158	518,793	3,283.50	2,250	355,563	1,800	284,400	1879%	142.79	2,499	1750%	394,842	-24%	
MRI THORACIC SPINE	72146	612	23	75,221	3,283.50	2,250	51,759	1,800	41,400	1734%	142.79	2,499	1750%	57,477	-24%	
MRI LUMBAR SPINE W/O	72148	612	383	1,257,619	3,283.50	2,250	861,903	1,800	689,400	1948%	141.76	2,481	1750%	950,223	-24%	
MRI LUMBAR SPINE W/O	72158	612	105	510,773	4,864.50	3,274	343,728	2,655	278,775	1376%	252.07	4,411	1750%	463,155	-9%	
MRI LPR EXTR JNT W/O	73221	610	326	1,038,473	3,185.50	1,953	636,743	1,735	565,610	1587%	160.43	2,808	1750%	915,408	-12%	
MRI BIOMET KNEE LEFT	73721	610	167	390,690	2,445.00	1,955	326,518	1,735	289,745	1622%	160.77	2,613	1750%	469,771	20%	
MRI BIOMET KNEE RIGH	73721	610	152	389,935	2,445.00	1,955	297,190	1,735	263,720	1622%	160.77	2,613	1750%	427,576	19%	
MRI LWR EXTR JOINT W	73721	610	626	1,913,257	3,058.00	1,955	1,223,955	1,735	1,086,110	1622%	160.77	2,613	1750%	1,760,938	-8%	
			2,523	8,185,779			\$ 5,379,432		\$ 4,405,855					\$7,734,682	-6%	
							\$ 7,925,612		\$ 7,544,192							
							147%		171%							
							\$ 7,411,558		\$ 6,967,308							
							138%		158%							

Understanding Your Pricing - Overview

What Did We Learn and What Decisions Were Made?

- Sample Hospital's overall charge for orthopedic inpatient care was competitive with its competition. This trend was similar for other types of cases analyzed.
- Sample Hospital's use of nursing incremental charges was an issue with certain payors with the denial of this revenue code. The decision was made to eliminate this charge and increase room and board charges.
- Ancillary charges (surgery, pharmacy, supplies, and implants) were very competitive—used this opportunity to reduce high MRI and CT charges that were more price sensitive in this market.

Sample Hospital
Inpatient Comparison
State Data Q1 & Q2 2016
DRG A70 - Major Joint Replacement

Facility	Room Charges				Nursing 230	Pharmacy 250-260 636-637	Supplies 270-275	Implants 278	Radiology 320-324	Surgery			Average Charge	Number of Claims	Average Length of Stay
	Pvt Room 110-119	Semi- Pvt Room 121-123	Intermediate ICU 206-214							360-361 750	Anesthesia 370	Recovery 710			
Sample Hospital	2,038	3,150			2,624	1,790	1,114	6,758	743	5,766	1,263	1,679	25,745	385	2
Competitor 1						3,605	976	13,776	254	12,290	4,581	285	42,492	12	2
Competitor 2	3,300		142			4,120	1,367	11,709	374	6,772	424	1,941	34,664	514	2
Competitor 3	5,064		71			2,649	3,651	11,709	587	16,114	990	1,939	47,471	364	2
Competitor 4		3,379				2,144	797	11,706	582	17,303	1,148	2,227	41,995	559	2

In Summary: Preparing Now for What Is to Come

Preparing Now for What Is to Come:

- The lives (heads) you are managing are **your real value** to any network-type organization.
- You need to think about ways to improve access, care processes, quality, and provider/staff satisfaction as a means to capture more managed lives in your market area.
- The following sessions in this leadership series will focus on concepts to address these key aspects of the **Quadruple Aim!**



Questions?

Thank you!

Today's Presenter



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