Employee Population Health Management:

a stepping stone for accountable care

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ST. JOSEPH HOSPITAL

Learning to Manage Populations

"Employee health management is an opportunity for hospitals to put their money where their mouths are. When a large employer or payer asks how a hospital plans to manage population health, a successful organization should be able to illustrate that answer by referring to its own workforce."

Becker's Hospital Review, 2012
The New Competitive Edge for Hospitals and ACOs: Employee Health

About Covenant Health

- Covenant Health is a Catholic not-for-profit healthcare system based in Tewksbury, Massachusetts.

- 3 acute care hospitals in addition to nursing homes, assisted living residences and other health and elder services throughout New England

- Facilities in 3 different markets:
  - **St. Joseph Hospital (Nashua, NH)**
  - St. Joseph Healthcare (Bangor, ME)
  - St. Mary's Med. Center (Lewiston, ME)

St. Joseph Hospital, Nashua, NH

Self-Insured Employer

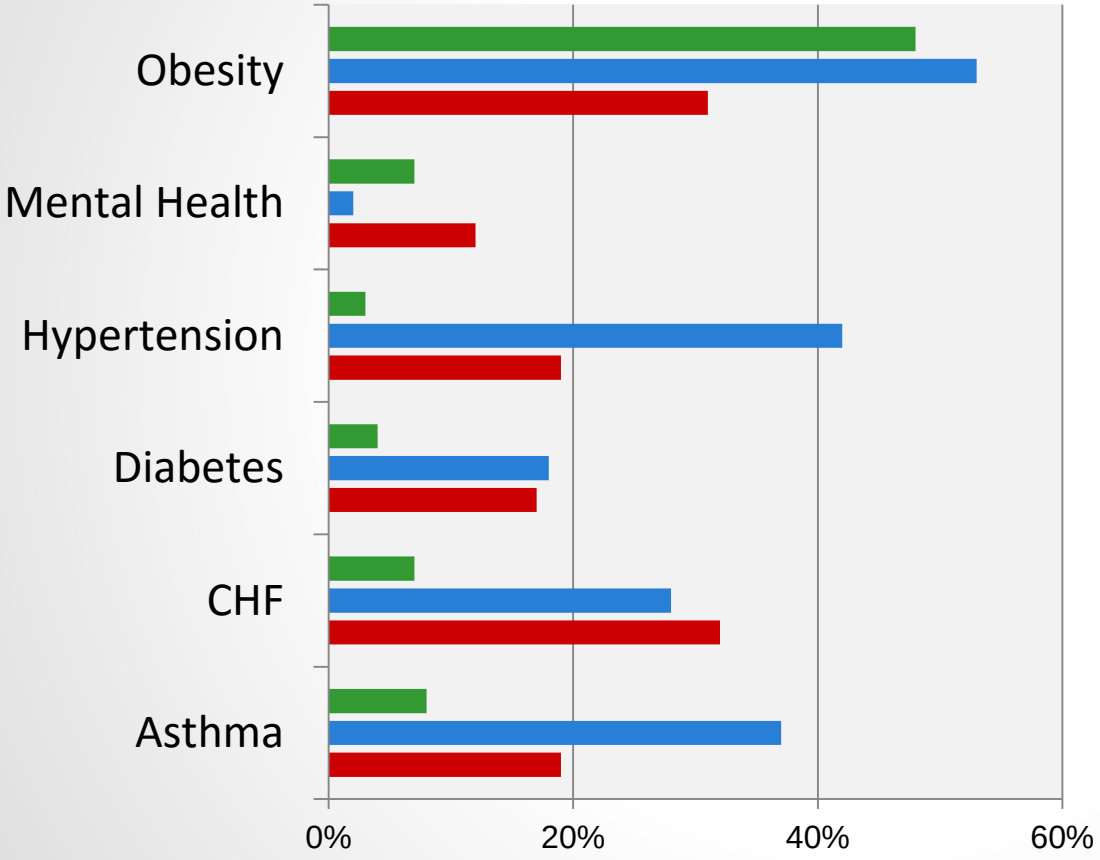
- Approximately 6,000 employees and 15,000 members (employees and dependents) of employee health plan

- 5 different TPAs managing the employee health plan in 3 regional markets:
  - Anthem BCBS NH
  - Anthem BCBS ME
  - Aetna
  - Health Plans, Inc.
  - AHC (pharmacy)

- Each TPA provides a basic level of cost/utilization reporting and medical management services

The Hospital Employee Population

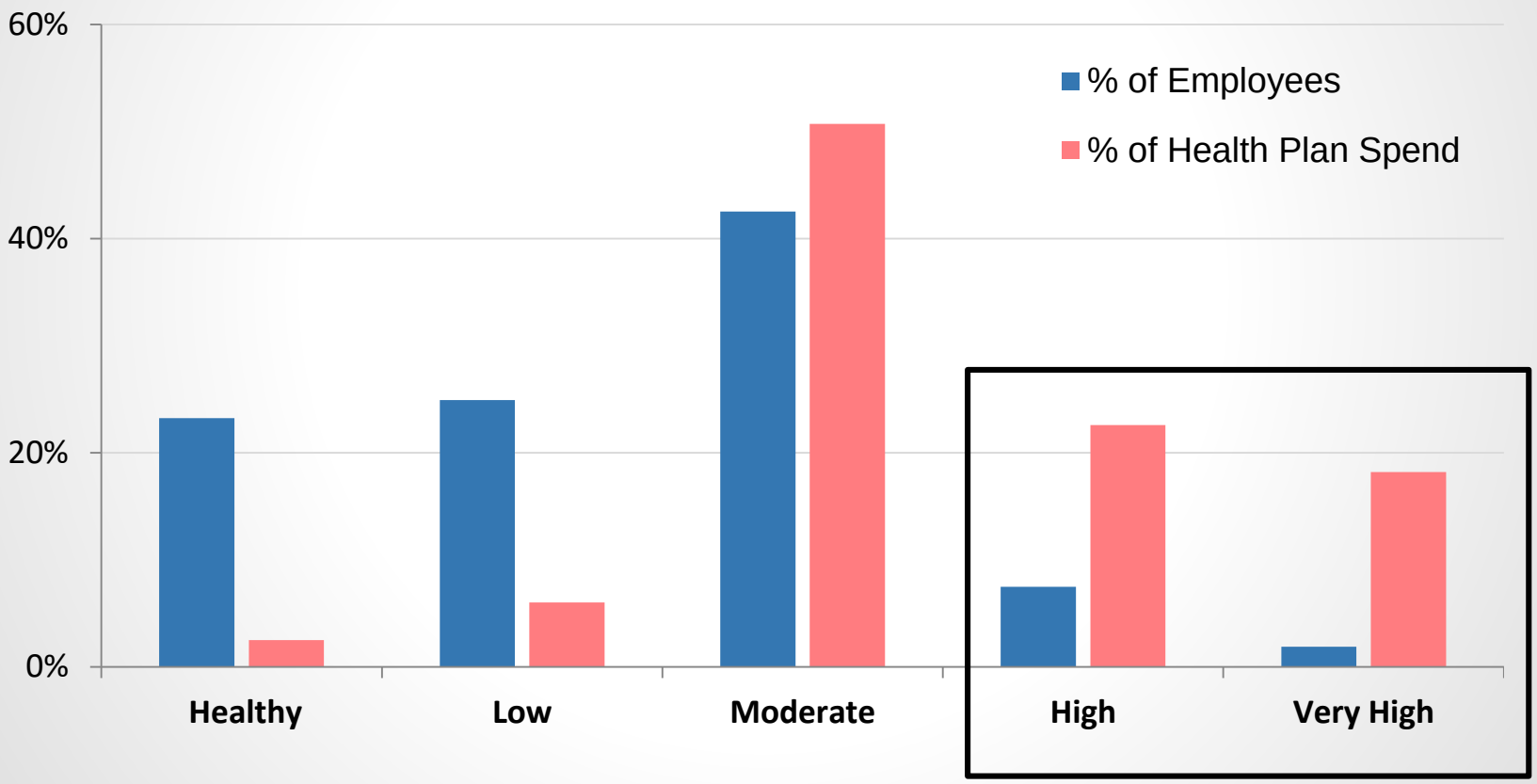
Hospital employee healthcare costs are more than 10% higher



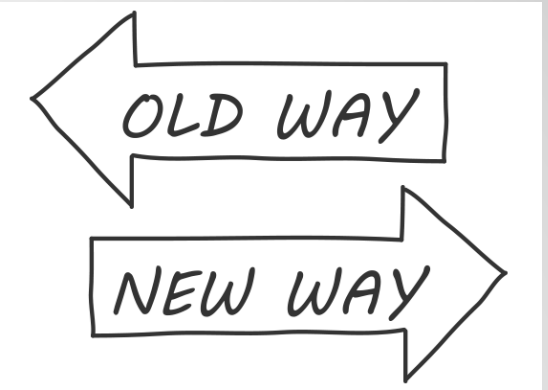
Source: *Truven Health Market Scan*

The Hospital Employee Population

9% of Highest Risk Employees at St. Joseph's Hospital Responsible for 40% of Employee Health Plan Costs

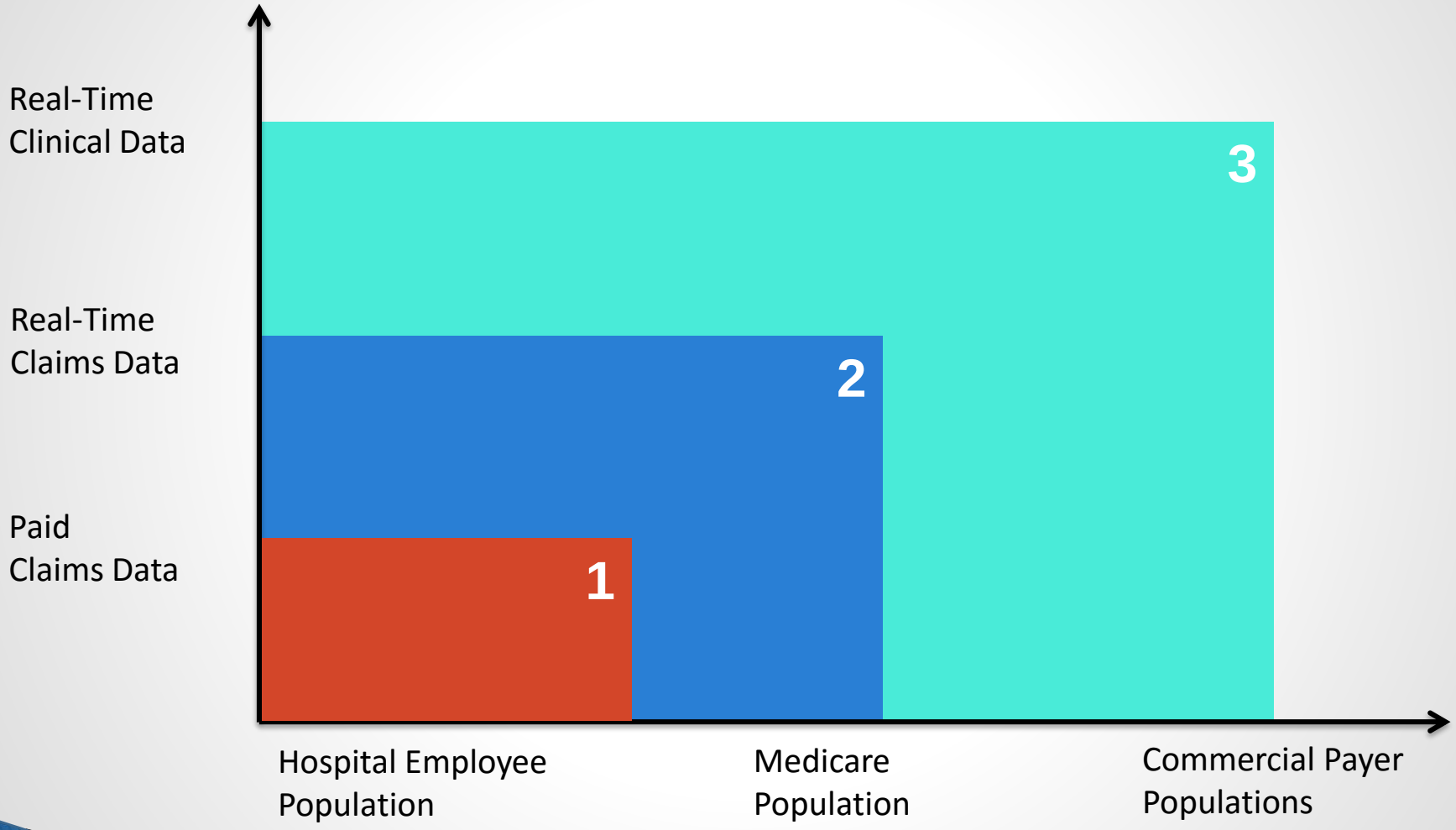


The Need for Change



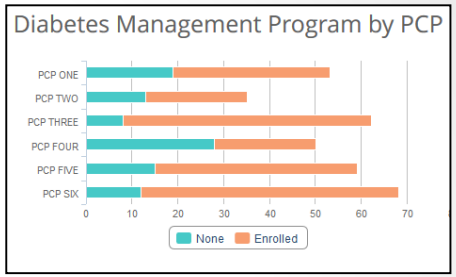
- Rising costs of Covenant employee health plan
- Lacking timely, meaningful performance data from TPAs
  - Annual review of high-level financial metrics
- New risk-based contracts and ACO arrangements
  - Goal of 50% payments based on alternative models by 2018
- Lacking infrastructure and expertise for managing risk
  - Limited experience with actuarial sciences and care management
- Desire to go beyond traditional employee wellness programs

Start Small

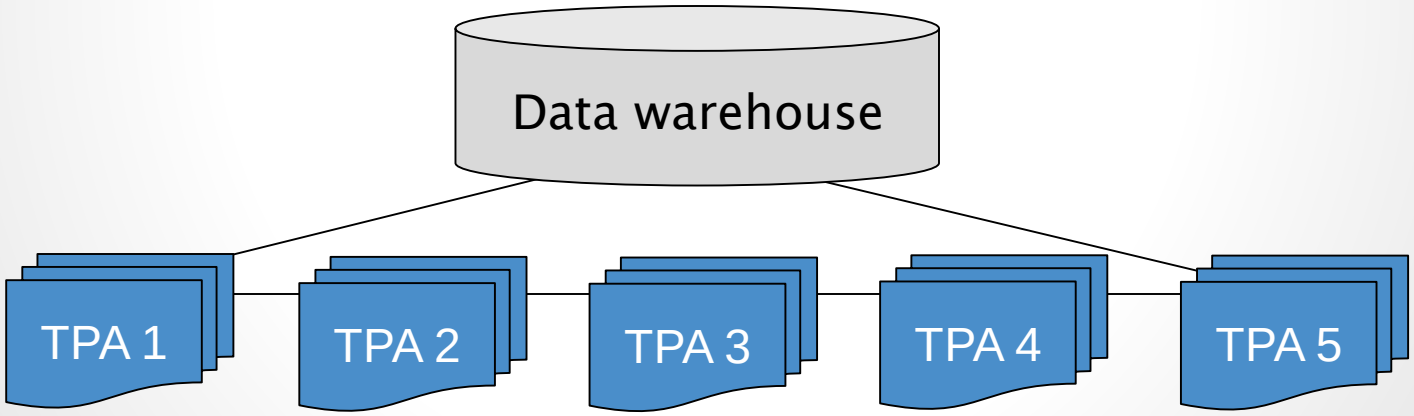

Real-Time
Clinical Data
Real-Time
Claims Data
Paid
Claims Data
3
2
1
Hospital Employee
Population
Medicare
Population
Commercial Payer
Populations

Employee Population Data Warehouse

Metric	Actual	Target	Variance	Prior	Variance
Utilization and Volume					
Unique Members	2,277	N/A	N/A	2,456	-7.3%
Admits / 1000	72.3	62.8	15.1%	75.9	-5.0%
Services / 1000	93.8	85.4	9.8%	95.4	-1.7%
ER Visits / 1000	62.3	60.5	2.9%	64.1	-2.9%
Unplanned 30-Day Readmit Rate	8.50%	5.75%	2.8%	8.80%	-0.3%
ALOS	6.7	4.5	48.9%	6.9	-2.9%
Generic Utilization	64%	72%	-8.0%	61%	3.0%
Network Leakage	7.00%	5.00%	2.0%	6.80%	0.2%
Cost and Use					
Avg PMPM	$307.50	$284.45	8.1%	$320.70	-4.3%
Paid / Admit	$36,075	$29,327	23.0%	$37,926	-5.1%



Risk Stratification | Quality Measures | Cost and Utilization | Network | Benefit Design



Employee Health Plan Data: Medical Claims Pharmacy Claims Plan Eligibility

Employee Population Analytics

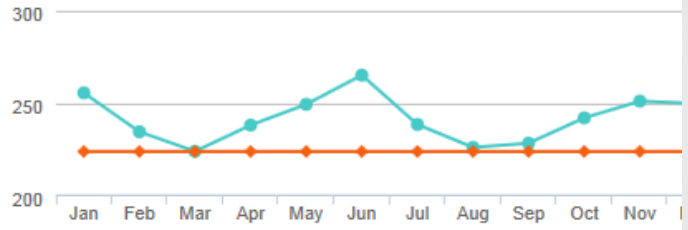
Mede/Analytics

Product PHA | Financial | Performance | Quality | Population | Reference

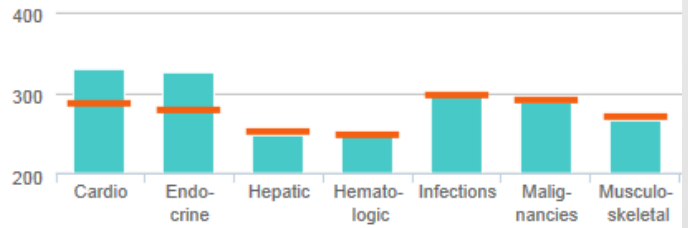
MTD YTD | ACO: All | Disease: All | ACO: All | Facility: All | Target Prior

Metric	Actual	Target	Variance	Prior	Variance
Utilization and Volume					
Unique Members	41,652	N/A	N/A	39,586	✓ 5.2%
Admits / 1000	68.0	57.0	✗ 19.2%	71.3	✓ -4.9%
Services / 1000	78.5	79.1	✗ 0.8%	83.4	✗ 5.9%
ER Visits / 1000	56.5	57.3	✓ 1.4%	58.2	✓ -3%
Unplanned 30-Day Readmit Rate	3.00%	2.80%	✗ 0.2%	3.40%	✓ -0.4%
ALOS	3.25	3.40	✓ -4.4%	3.55	✓ -8.5%
Generic Utilization	73%	72%	✓ 1.0%	68%	✓ 5.0%
Network Leakage	6.50%	5.00%	✗ 1.5%	6.30%	✗ 0.2%
Cost and Use					
Avg PMPM	$246.11	$230.57	✗ 6.7%	$259.29	✓ 5.4%
└ Hospital IP	$82.63	$76.21	✗ 8.4%	$84.25	✗ 2.0%
└ Hospital OP	$66.53	$67.23	✓ -1.0%	$69.57	✗ 4.6%
└ Primary Care	$30.63	$26.32	✗ 16.4%	$34.26	✗ 11.9%
└ Specialty Care	$61.32	$55.31	✗ 10.1%	$65.21	✗ 6.3%
└ Pharmacy	$5.00	$5.50	✓ -0.9%	$5.67	✗ -13.4%
Paid / Admit	$26,349.75	$20,235.85	✗ 30.2%	$28,005.23	✓ -6.3%
Paid / Visit	$290.62	$242.56	✗ 19.8%	$305.27	✓ -4.8%
Paid / Prescription	$25.32	$22.51	✗ 11%	$27.98	✓ -10.5%
Quality					
ACO-Patient Experience	91.2%	92.0%	✗ -0.8%	89.2%	✓ 2.0%

Trend: Avg PMPM



By Disease: Avg PMPM



ACO: Avg PMPM

ACO | Provider | Facility

Employee Benefits Re-Design

- Data analysis showed a surprising number of employees utilizing out-of network providers and high-cost services

- 2015 Employee Benefits Plan Re-Design:
  - Created incentives to keep employees in Covenant narrow network
  - Identified preferred low cost provider network (Tier 1 vs. Tier 2)
  - Focus on brand name vs. generic drug utilization
  - Data analysis showed the changes that would have the largest impact

Chronic Conditions

- Expected that COPD and Chronic Back Pain would be high-impact areas
- Back Pain – analytics showed that these patients were primarily dependents (not employees)
- COPD – analytics showed that costs were associated with 7 patients ($600K)
  - Turned out to be one patient with high utilization costing $550K

Let the data do the talking!

Risk Stratification

- Identify patients who are at highest risk:
  - Chronic Hemodialysis: 6 patients
- Several other patients have the potential to shift into the high risk category:
  - High blood pressure
  - Diabetes
  - Using diuretics (hydrochlorothiazide)
  - Using anti-inflammatory drugs (Motrin)

High risk for chronic kidney disease

- Data analytics and risk stratification enable us be proactive with these early risk indicators

High-Cost Drug Utilization

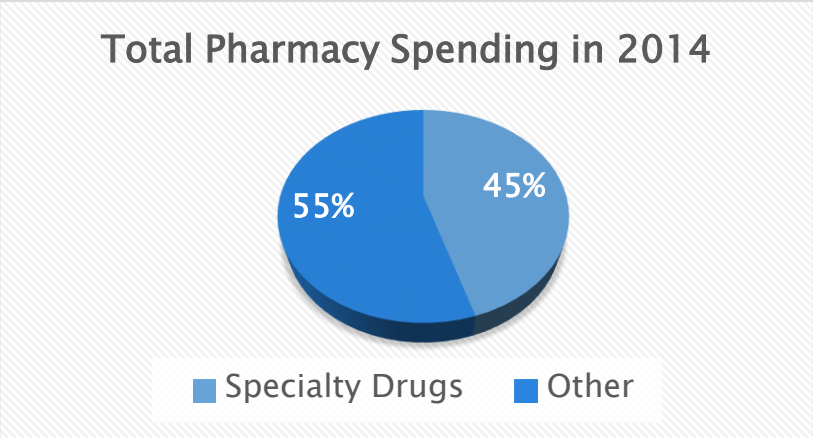
- Review medication profile reports for all patients coming in for physician visit in next month
- Identify high-cost drugs with generic alternatives (using pharmacy analytics)
- Care coordinator consults with PCP to discuss cost and quality implications of prescription.

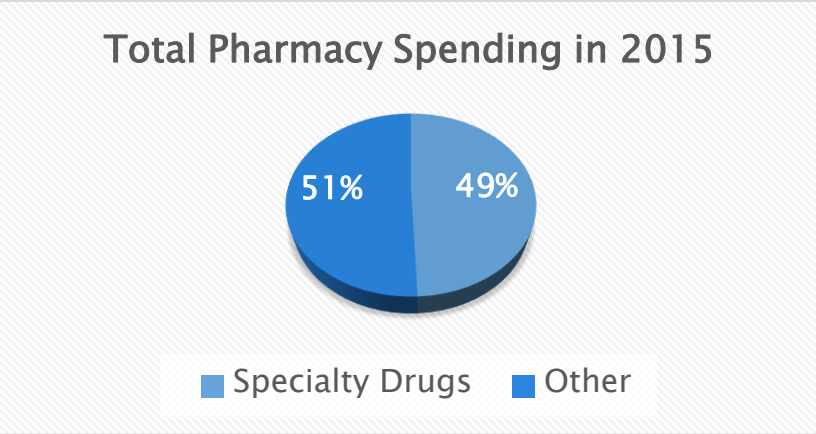
Example:

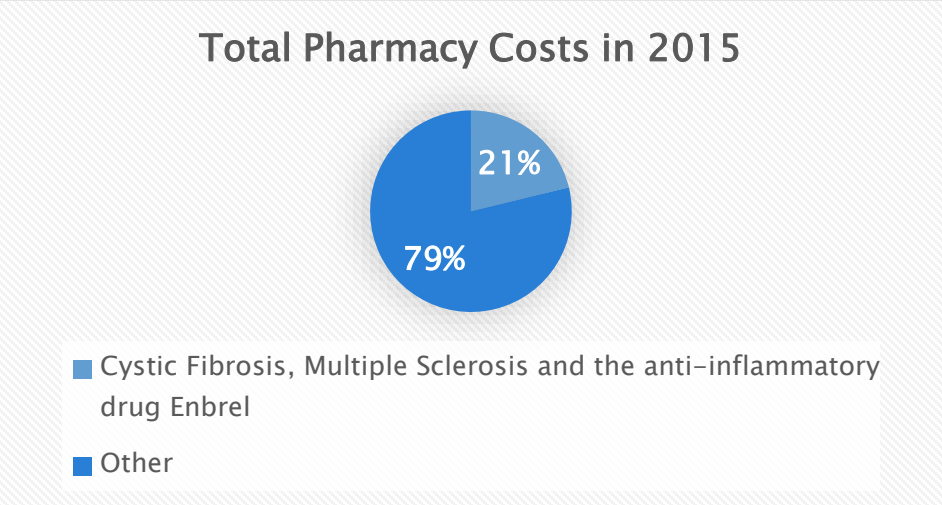
- Patient with $700 cost for 30 day supply of a therapeutic drug
- Care coordinator shared data with PCP
- Potential alternative drug identified with significantly lower cost
- Communication of in-house pharmacy locations

Pharmacy Analysis

Specialty Drugs – An extremely high percentage of the pharmacy spend for both 2014 and 2015 came from Specialty Drugs.







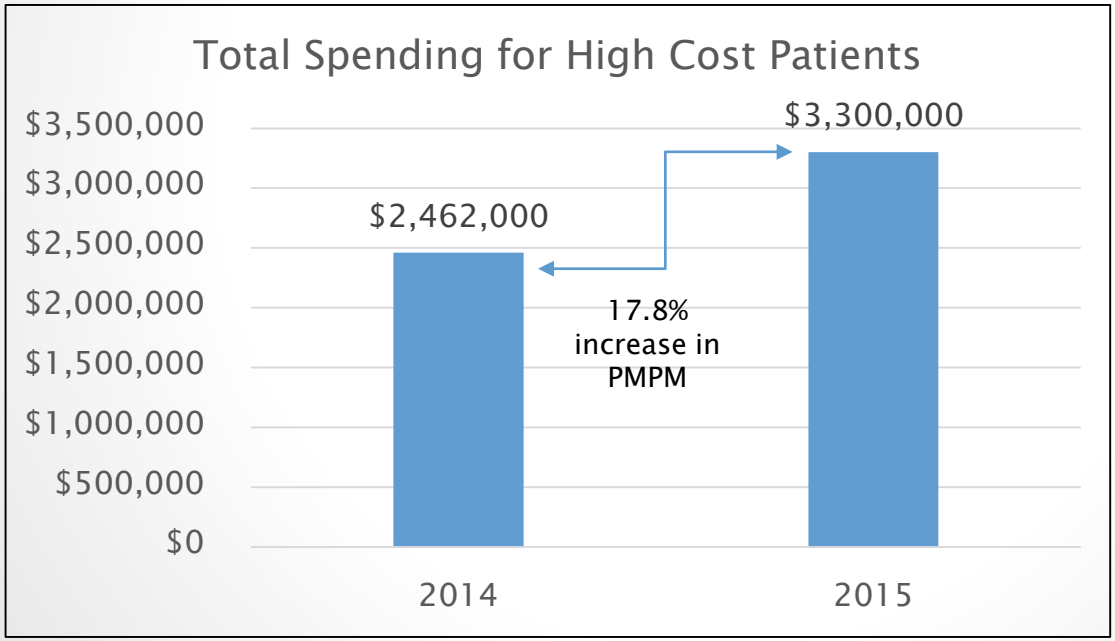
Pharmacy Analysis

Generic Utilization – Generic drug utilization has dropped substantially over the last two years

- Generic drug utilization dropped to under 72% in December 2015. For commercial group population benchmarks, generic drug utilization is well over 80%.
- At least $100k in potential savings identified from generic substitution in three therapeutic classes where generic equivalents are available

High-Cost Member Impact

- 100 members were identified in the top 10% in 2015
- Eleven were classified as 'high cost', incurring $100K or greater in 2015



High-Cost Member Impact

- The overall population saw a slight decrease in overall expenditure, with current 2015 spending 2% lower than 2014 totals. PMPM reductions were seen at 13.8%
- When the high cost group is excluded from analysis, overall spend decreased by nearly 11%, with a paid PMPM decrease of 21.4%
- While the overall population is seeing positive trends from 2014 to 2015, the appeared increase in services and cost can be isolated to a small subgroup of members

Cultural Shift

- Team at St. Joseph's is feeling empowered by data insights
- Learning how to do population health management
- Breeding responsible utilizers of healthcare
- Care coordinators have tools to be more proactive with employee population
- Built a strong foundation (technical and people) to manage new patient populations (Medicare, Commercial)

Lessons Learned

- **Employee health data is particularly sensitive**
  - Learn the HIPAA guidelines and your HR policies
  - Role-based security is essential for HR/Finance vs. Clinical staff
- **Analytics is more than a data warehouse**
  - Making sense of the claims data requires predictive models, gaps in care, quality measure calculations and payer expertise
  - A variety of best-practice models and rules are available to enhance the data (Hopkins, Milliman, Optum, NYU, 3M, etc.)

More Lessons Learned

- **Analytics technology is only part of the solution**
  - Physician engagement is still a cultural and process challenge
  - Building a care management staff/competency is essential
- **A surprising number of patients go out of network**
  - How do we keep our own employees in our hospital /physician network?
  - Payer claims (in/out of network) are needed to see the full picture
- **Start small and build a foundation for population health**
  - Hospital employees are a high-risk population with great opportunities for engagement and significant room for improvement
  - Claims data is available now and provides the core information for population health management