MAY 3, 2018

LVBCH Annual Meeting

Heather Lavoie

Agenda

- **Geneia Data Analysis Services**
- **2018 Updates**
- **Diabetes & Prediabetes**
- **Key Actionable Insights**
- **Q & A**

Geneia Data Analysis Services

Extends the Value of Theon® Care Engager to:

- Uncover complex trends and correlations in Theon ® platform data

- Provide executive-level visualization for easy identification of actionable opportunities

- Enable geographic maps to easily view local and regional factors

- 'Basic' analysis with data visualizations

At Risk Member - Contract Holder vs. Member
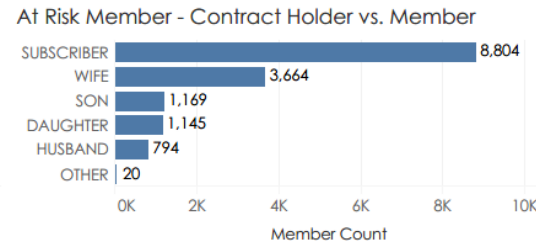
- Geographic data visualizations

Map - Eastern PA
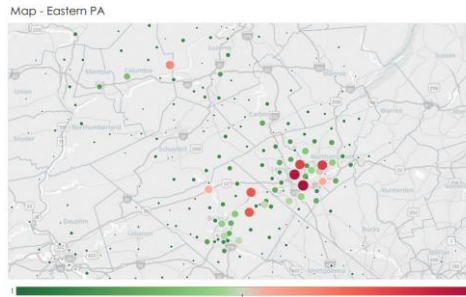
- Analysis to determine statistically significant differences or correlations using a variety of parametric and non-parametric models, and regression models

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Update: Demographics

✓ Population age and contract mix has stayed largely the same as last year.

✓ Average Age:
- LVBCH Instance: 35.77 years
- All LVBCH: 36.72 years

✓ For LVBCH Instance, 50% of contracts are family and 15.66% are parent/child(ren). All LVBCH is 47.7% and 16% respectively.

✓ The average number of members per contract is the same:
- LVBCH Instance: 2.3
- All LVBCH: 2.2

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Actionable Insights

- Enrolled membership about evenly split:
  - Male = 54%
  - Female = 46%

- However, subscribers – employees – predominately male
  - Male = 72%
  - Female = 28%

- **Why does it matter?**
  - US Department of Labor found 85% of healthcare decisions are made by women*
  - Messaging for Health Education topics such as preventive screenings can differ
  - Need to find ways for Health Education information to be shared with non-employee female members

Update: Child/Infant Opportunities

All LVBCH

- Complications of Pregnancy and Childbirth remain in the top 10 conditions driving costs. 6 of the top 10 overall providers of primary care are pediatricians.

- Childhood Immunization Status is showing statistically significant upward trend from previous year.

- The rate of childhood and adolescent well visits have increased over previous year, however, there is still opportunity for improvement in both measures.

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Update: Pharmacy Cost and Utilization

Total Drugs:
Cost: $64.3M
Number of Prescriptions: 820,248
Average Cost per Prescription: $78.41
Retail = 69%; Mail Order = 31%
Generics = 86%, an increase of 1.5%

Non-Specialty Drugs:
Cost: $39.7M = 62% of Cost
Number of Prescriptions: 813,532 = 99.2% of Prescriptions
Average Cost per Prescription: $48.77

'Specialty' Drugs:
Cost: $24.6M = 38% of Cost
Number of Prescriptions: 6,716 = 0.8% of Prescriptions
Average Cost per Prescription: $3,668.93

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Specialty Pharmacy Utilization

Prescribed NDC Description	Therapeutic Class Description	Total Cost Amount	# of Prescriptions Filled	Average Cost of Prescription
HUMIRA PEN	DISEASE-MODIFYING ANTIRHEUMATIC AGENTS	**$3,622,987.90**	693	**$5,227.98**
ENBREL SURECLICK	DISEASE-MODIFYING ANTIRHEUMATIC AGENTS	**$1,865,990.25**	454	**$4,110.11**
HARVONI		$893,261.52	29	**$30,802.12**
TECFIDERA	BIOLOGIC RESPONSE MODIFIERS	$758,144.02	111	**$6,830.13**
STELARA	SKIN AND MUCOUS MEMBRANE AGENTS, MISC.	$737,084.03	83	**$8,880.53**

- Top 5 drugs by total cost are 'Specialty Drugs' with no generics currently available
- Top 2 are for rheumatoid arthritis and related conditions
- Highest average cost per prescription is Harvoni for hepititis C

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Update: Health System Utilization

Attribution

- Of 54,493 active panel in LVBCH Instance, 55% have an attributed health system

Emergency Department & Laboratory

- Geisinger Health
- Lehigh Valley Hospital Network
- Reading Hospital Network
- St Joseph's Medical Center
- St. Luke's Health Network

Top 5 Attributed Health System by Member Count:

- Lehigh Valley Health Network (32% of attributed population)
- Reading Health Partners (19%)
- Other (16%)
- St. Luke's Physician Group Inc. (12%)
- Geisinger Clinic (6.4%)

New Entrants to Top 5 ($$)

- *Hospital:* Children's Hospital of Philadelphia*
- *Radiology:* Surgical Specialty Ctr.

Update: Cost & Use Compared to Benchmarks

✓ **All LVBCH Value-Based Membership:**
205,147 member months in value-based care arrangements (VBC) compared to 182,206 in traditional fee-for-service (nVBC). Approximately 53% of All LVBCH members receive care through a value-based contract.

✓ **PMPM Medical Costs:**
Medical trend for VBC members is significantly lower (3.9% decrease) vs nVBC members (3.1% increase), a difference of 7%.

✓ **Hospital Utilization:**
Emergency department utilization was 8.6% lower for VBC members. Admissions were 4.7% lower for VBC members. Readmissions were 12.9% lower for VBC members.
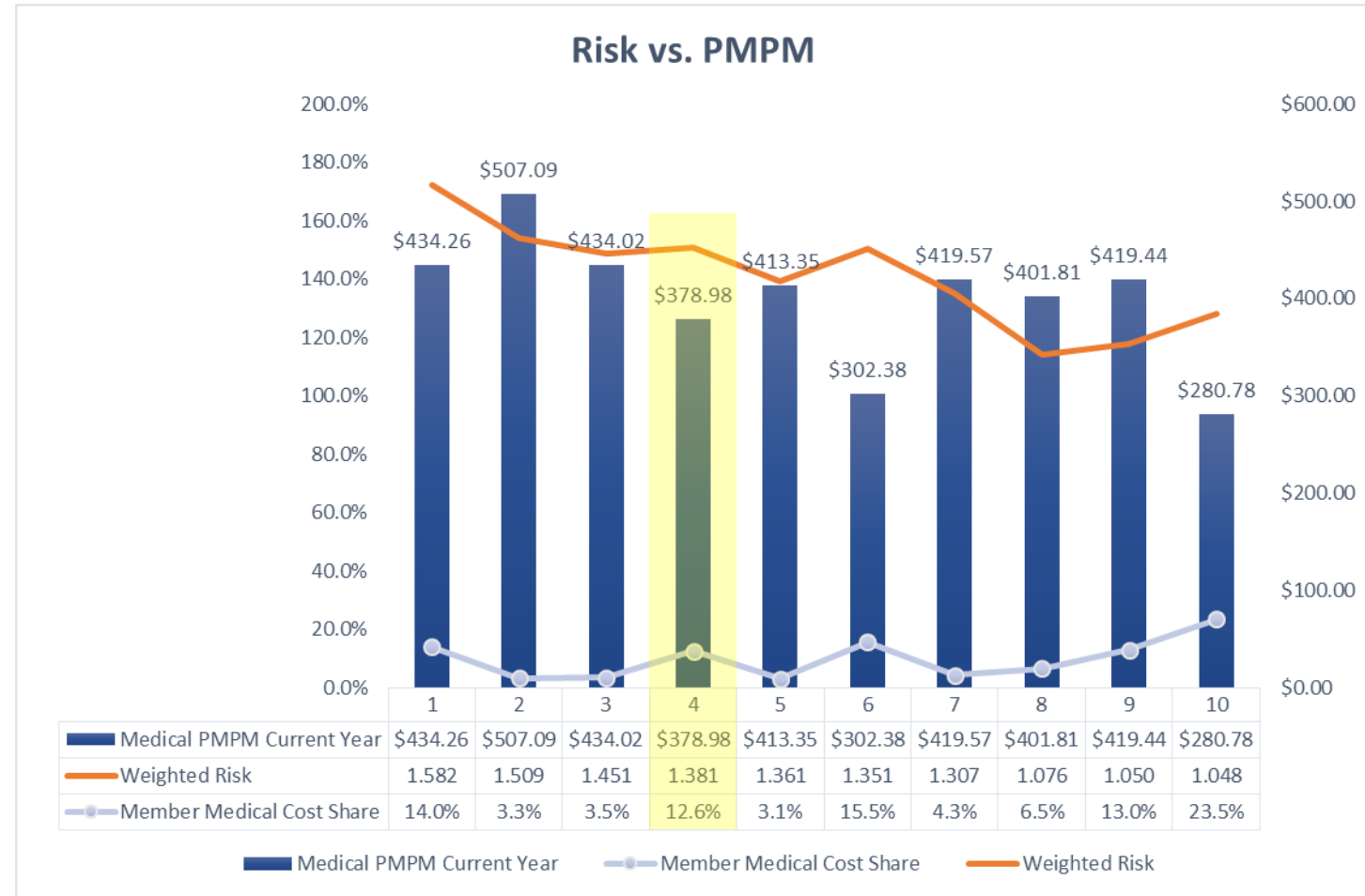
✓ **Risk Score:**
8.7% higher for VBC members.

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Current Year: Weighted Risk vs. Medical PMPM

For the LVBCH Instance, Medical PMPM and Member Medical Cost Share has a statistically significant negative correlation -- the greater the member medical cost share, the lower the medical PMPM.

Risk vs. PMPM

	1	2	3	4	5	6	7	8	9	10
Medical PMPM Current Year	$434.26	$507.09	$434.02	$378.98	$413.35	$302.38	$419.57	$401.81	$419.44	$280.78
Weighted Risk	1.582	1.509	1.451	1.381	1.361	1.351	1.307	1.076	1.050	1.048
Member Medical Cost Share	14.0%	3.3%	3.5%	12.6%	3.1%	15.5%	4.3%	6.5%	13.0%	23.5%

Medical PMPM Current Year   Member Medical Cost Share   Weighted Risk

4 = Theon® Platform norm

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High-Cost Members

$ 93 Members had greater than $200,000 total spend. Of these, 38% are Subscriber/Employee

$ 31% have oncology diagnosis. Breast and cervical cancer screening capture rates remain about the same, however, colorectal cancer screenings have increased 5%.

$ Comorbidity Impact: 35% have less than 50% of their costs related to their Condition Hierarchy category

$ Only 2 of the top 10 highest cost members agreed to participate in payer care management program

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Costly and Prevalent Conditions: All LVBCH

**20% of Members
$11M in Cost
$19.00 PMPM**

- Musculoskeletal System and Connective Tissue Diseases: Back, Neck, Knee, Hip, Wrist, Arthritis
  - 20% of Members and almost $11M in cost

**29.5% of Members
$5.5 M in Cost
$9.96 PMPM**

- Respiratory System Diseases: Asthma, COPD
  - 29.5% of Members and over $5.5M in cost

$3,700,640.78

- Septicemia Diagnosis

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Diabetes and Prediabetes

Prevalence:
- In the LVBCH Instance, 5.07% of members have a diabetes diagnosis.
- Diabetic comorbidities: Only 186 members have zero comorbidities. 1,639 members have 3+ comorbidities. Top comorbidities: hypertension (71%), overweight/obesity (46%), connective tissue disease (36%)

Another 27.29% are at-risk of developing diabetes. Among the at-risk members, the top 3 risk factors are:
- Overweight or obesity (16.3%)
- Hypertension (11.9%)
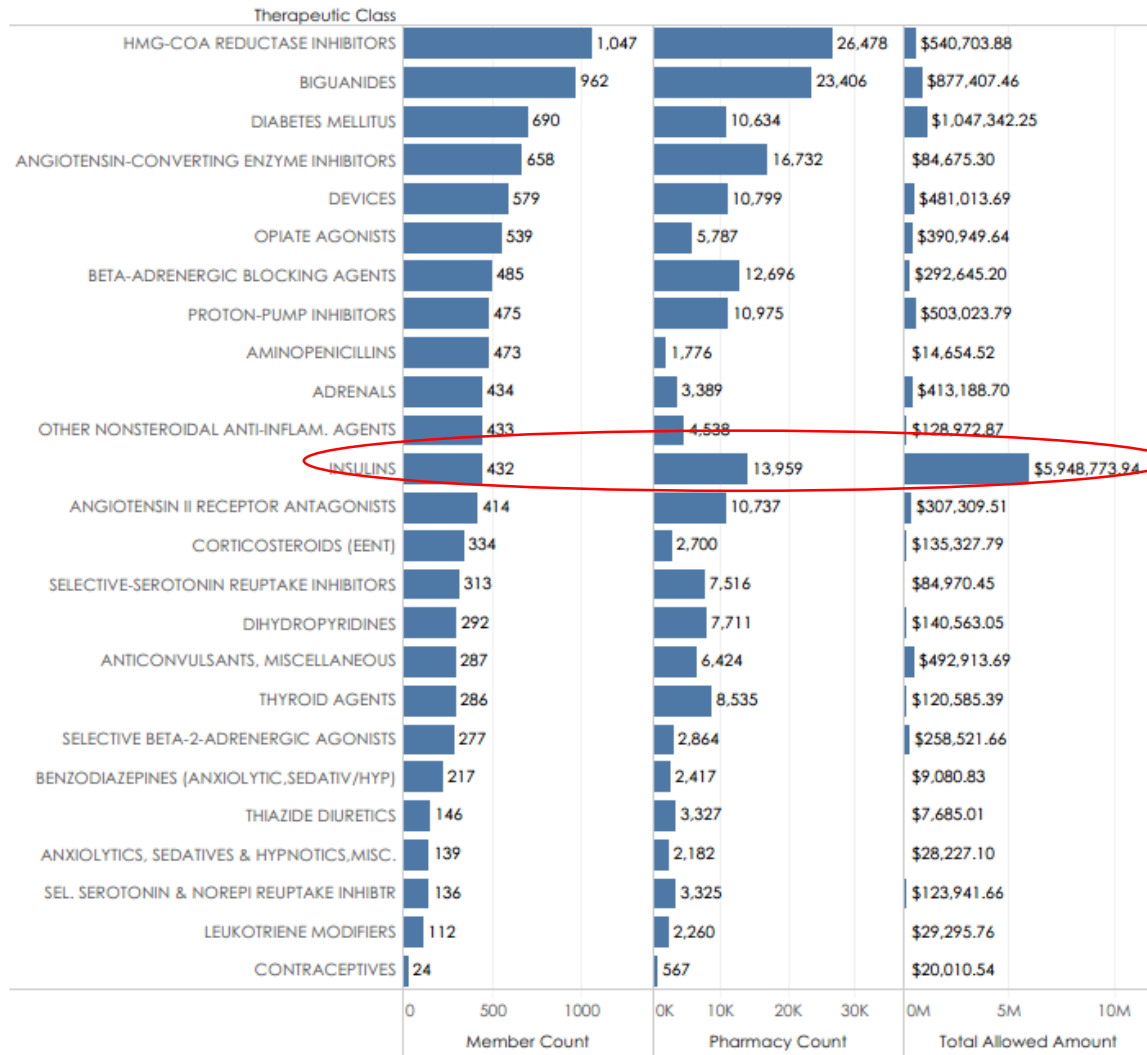- Smoking (6%)

Total Costs:
Diabetic Members:
- Annual medical costs were $83,443,877. Pharmacy costs were $28,116,548.

Prediabetic Members:
- Annual medical costs were $241,313,699. Pharmacy costs were $43,451,399.

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Pharmacy Spend for Diabetic Members*

Diabetic Member - Pharmacy - Top Therapeutic Class

Therapeutic Class	Member Count	Pharmacy Count	Total Allowed Amount
HMG-COA REDUCTASE INHIBITORS	1,047	26,478	$540,703.88
BIGUANIDES	962	23,406	$877,407.46
DIABETES MELLITUS	690	10,634	$1,047,342.25
ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	658	16,732	$84,675.30
DEVICES	579	10,799	$481,013.69
OPIATE AGONISTS	539	5,787	$390,949.64
BETA-ADRENERGIC BLOCKING AGENTS	485	12,696	$292,645.20
PROTON-PUMP INHIBITORS	475	10,975	$503,023.79
AMINOPENICILLINS	473	1,776	$14,654.52
ADRENALS	434	3,389	$413,188.70
OTHER NONSTEROIDAL ANTI-INFLAM. AGENTS	433	4,538	$128,972.87
INSULINS	432	13,959	$5,948,773.94
ANGIOTENSIN II RECEPTOR ANTAGONISTS	414	10,737	$307,309.51
CORTICOSTEROIDS (EENT)	334	2,700	$135,327.79
SELECTIVE-SEROTONIN REUPTAKE INHIBITORS	313	7,516	$84,970.45
DIHYDROPYRIDINES	292	7,711	$140,563.05
ANTICONVULSANTS, MISCELLANEOUS	287	6,424	$492,913.69
THYROID AGENTS	286	8,535	$120,585.39
SELECTIVE BETA-2-ADRENERGIC AGONISTS	277	2,864	$258,521.66
BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	217	2,417	$9,080.83
THIAZIDE DIURETICS	146	3,327	$7,685.01
ANXIOLYTICS, SEDATIVES & HYPNOTICS,MISC.	139	2,182	$28,227.10
SEL. SEROTONIN & NOREPI REUPTAKE INHIBTR	136	3,325	$123,941.66
LEUKOTRIENE MODIFIERS	112	2,260	$29,295.76
CONTRACEPTIVES	24	567	$20,010.54

*Source: LVBCH Theon Care Engager Instance encompassing nine employer groups. Showing Diabetic members only (includes Type I and Type II diabetics)

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Diabetes Learning Collaborative

A very diverse group of stakeholders are working together to address the prevalence of prediabetes and diabetes within the LVBCH population

- LVBCH**

- **Payers**: Capital Blue Cross**, United Concordia

- **Employers:** B Braun Medical Inc.**, CF Martin & Co., City of Bethlehem Health Bureau, City of Allentown Health Bureau, East Penn Manufacturing**, Lehigh University

- **Hospitals:** Lehigh Valley Health Network, St. Luke's University Health Network**

- **Others:** Geneia**, Sanofi

** Have access to Theon® Analytics platform. View depends upon role.

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Inventorying & Coordinating Existing Efforts

LVBCH

Capital BlueCross

- Engage providers in value-based performance arrangements. Providers incented to improve quality metrics
- CBC value-based providers: St. Luke's University Health, Lehigh Valley Health Network, Integrated Medical Group, Sacred Heart Healthcare System
- Make the Theon® Analytics platform available to value-based providers and employers.
- Increasing focus on identification of prediabetics and connecting them with appropriate care management resources

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- Provide, support and train users to maximize value of the Theon® Analytics platform
- Population health consultants work with Capital BlueCross' value-based care provider partners and employers

Inventorying & Coordinating Existing Efforts

Employers

- B. Braun Medical Inc.:
    - 2016 costs: Antidiabetic medication contributed to 2.3% of net drug trend. 417 utilizers with a net cost of $950K and a 30% trend compared to 2015.
    - May 2017: Introduced CVS Caremark Transform Diabetes Care Program.

- East Penn Manufacturing:
    - ESI-Tower Health Pilot Program
    - Novo Nordisk education specialist works with nurse navigators and individual patients

Providers / Hospitals

- St. Luke's University Health Network bundled payments initiative

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What's Next?

- Continue to mine deeper analysis to better understand diabetic and prediabetic population

- Create SMART goals for Learning Collaborative

- Determine action steps for each existing stakeholder

- Implement virtually CDC's National Diabetes Prevention Program

- Quantify impact

- Engage additional stakeholders

- Apply lessons learned and processes to other conditions

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Key Actionable Insights

Non-Utilization of Benefits

Subscribers (Employees)

- Male = 72%
- Female = 28%

Membership:

- Male = 54%
- Female = 46%

Benefit Utilization

- 81% of Members Utilized Benefits
- 19% of Members Did Not

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Emergency Department Utilization

16%
Mondays

15%
Sundays & Fridays

10.2%
PMPM Increase

716
ED Visits

ED PMPM increased 10.2% Year over Year

716 or 6% had a Primary Diagnosis of either Headache, Cough or Unspecified Fever

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The Theon® Care Engager

Roadmap Highlights

- **Reporting**
  - Variable timeframes with auto-recalculations
  - Executive summary dashboard expansion
    - Medical costs including Medical/RX cost share, Plan Paid
    - Cost and membership by major diagnostic category
  - Site of service reporting for high cost medications
  - High cost medications in the medical benefit

- **Predictive Models**
  - ID and stratification enhancements

- **Care Management**
  - Expansion of co-morbid condition reporting
  - Enhancements to engagement rate calculations