Today’s Agenda

• Outline
• LVHN, LVPFO and Populytics Overview
• Population Health Approach
• Population Health Analytics
• Population Health Playbook
• LVHN Case Study Results
• Discussion
Lehigh Valley Health Network (LVHN)

- In Allentown/Bethlehem/Hazleton/Schuylkill/Pocono
- Recognized by U.S. News & World Report, Fortune, Modern Healthcare, Leapfrog, others
- 8 hospital campuses, 16 Health Centers
- 11 ExpressCARE locations
- 163 physician practices
- 17,000+ employees
- Physician Hospital Organization (1100+ member physicians)
70% more surgeries than anyone else in the region
Lehigh Valley Health Network Organization

PATIENT Care

Outpatient
- LVPG Practices
- Express Care Clinics
- Health Centers
- 13th Street Clinics
- Fairgrounds Surgical Center
- Medical Alumni of Lehigh Valley
- Home Care
- OASIS
- Hospice

Inpatient
- Coder Street
- Muhlenberg
- 17th Street
- Pediatrics
- Rheumatology
- Orthopedic
- Rehabilitation at Keystone

Lehigh Valley Physician Group (LVPG)
- LVHN Accountable Care Organization (ACO)
- Health Network Link (HNL)

Lehigh Valley Physician Hospital Organization, Inc.
- Independent Clinician Members
- Lehigh Valley Physician Group (LVPG) Members
- Lehigh Valley

VALLEY Preferred
- Preferred Provider Organization (PPO)

Central Data
Analytics Engine:
ELECTRONIC MEDICAL RECORDS
- Population Health ANALYTICS
- Health Benefits ADMINISTRATION
- INFORMATION Systems / Technology
- PROVIDER Services & Support
- CLINICAL CARE Coordination
- BenefIT & Health Coaching

Ace Achieving Clinical Excellence Incentive Program
- Quality & Value Improvement through Physician Engagement

www.populytics.com
Lehigh Valley Physician Hospital Organization (LVPHO) Mission

To ensure high value, satisfaction, and positive outcomes in health care at an affordable cost.
Established December 2013

Population health management and analytics firm

Integrated services

- Population health analytics
- Clinical care coordination
- Health benefits administration & consulting
- Corporate wellness programs

Expert professionals

- Payer & provider informatics
- Medical management services
- Advanced analytics
- Business development
- Insurance and risk management
We will build on our foundation as a premier academic community health system and become an innovative population health leader that creates superior quality and value for the patients and communities we serve.
Community Integrated Healthcare System 3.0

Community Integrated Healthcare

• Healthy population–centered, population health–focused strategies
• Integrated networks linked to community resources capable of addressing psycho-social/economic needs
• Population-based reimbursement
• Learning organization: capable of rapid deployment of best practices
• Community health integrated
• E-health and telehealth capable

Coordinated Seamless Healthcare System 2.0

Coordinated Seamless Healthcare

• Patient/person centered
• Transparent cost and quality performance
• Accountable provider networks designed around the patient
• Shared financial risk
• Health information technology–integrated
• Focus on care management and preventative care

Acute Care System 1.0

Acute Care

• Episodic healthcare
• Lack of integrated care networks
• Lack of quality & cost performance transparency
• Poorly coordinated chronic care management

LVPHO and LVHN Population Health Playbook

• Mutual accountability
  ▪ Compact
• Aligned incentive plan
• Population Health support
  ▪ Care management strategy
• Prioritized quality improvement
  ▪ Care gap and utilization prioritization
• Populytics data and analytics
Population Health Management Executive Committee

Clinically driven and inclusive of key network leadership

- **Programmatic focus leverages clinical integration and care alignment**
  - Leakage
  - Cardiovascular disease
  - Diabetes
  - Orthopedics (includes Back Care, TJR Pathway)
  - Chronic Kidney Disease
  - Chronic Obstructive Pulmonary Disease

- **Shared KPIs**
  - Clinical pathway (variations)
  - Costs/Spend
  - Inpatient Utilization (includes readmissions)
  - ED Utilization for ASC
  - ED Utilization/1000
  - Pharmacy Costs
  - Select ACE, LVPG, ACO metrics

- **Informs and facilitates concurrent work**
  - Virtual Care
  - Choosing Wisely
  - Patient Activation and Engagement
  - Advanced Care Planning
  - Post Acute Care
Payment Innovation

- Manage commercial, Medicare and Medicaid populations
- Implement and manage shared savings and shared risk contracts
- Identify priority quality and utilization measures
- Align performance measurement on value based contracts
- Implement bundled payments
- Implement joint venture products

Accountable Care Organizations (ACOs)
Product Development
Value-Based Contracts
Bundled Payments
Approach to Value Based Contracts

LVHN champions 30 priority measures using 3 primary tactics:

- Physician Incentive Program – *Achieving Clinical Excellence*
- Analytics based on claims and clinical analytic information
- Consistent care management strategy

Powered by Populytics

Lehigh Valley Health Network
A More Complete Picture

Clinical Analytics
Population Management Analytics
Insurance Analytics

Translating Data into Action

Clinical Pathways
Clinical Initiatives

Physician Outreach
Patient Outreach

Triple Aim

BETTER HEALTH
BETTER COST
BETTER CARE
Foundations for Success: Managing Population Risk

**DATA MANAGEMENT**
Acquisition, integration & maintenance of data critical to the management of populations

**CLINICAL & PHYSICIAN ANALYTICS**
Data-driven review of populations to identify and stratify risk to reveal opportunities and inform providers

**FINANCIAL MANAGEMENT**
Strategy to monitor performance under accountable care arrangements

**CONSULTATIVE SUPPORT**
Leverage the experience of our experts for the benefit of your strategic goals

**Successful population health management to thrive in value-based care models**
Overview of Clinical & Physician Analytics

- Clinical Analytics that use EMR data to identify Gaps in Care, High Risk Patients, etc.
- Risk Analytics that use Claims Data to track prospective costs and stratify risk
- Registries with patient level profiles
- Predictive Analytics
- Easy to use Dashboards

Stakeholders
- Care Coordinator
- Clinicians
- Quality Leadership
- Executive Leadership
Clinical & Physician Analytics

- 11 drillable analytic dashboards to identify achievable opportunities to improve overall population health
- Create customized data segments around demographic, financial and health information to support targeted initiatives including:
  - Clinical pathways dashboards for COPD, oncology, CHF & AFIB
Population Health Dashboards – Drillable to Patient Level

- **Overview of the At-Risk Population**
- **Inpatient Activity:** High utilizers, risk stratification, ACSC, chronic, high cost
- **Emergency Room:** High utilizers, risk stratification, ACSC, chronic, high cost
- **Chronic Care Members**
- **RX:** Review Rx utilization by drug class, brand, generic, high utilization members
- **Care Gaps:** Identification of key care gaps for attributed population
- **Provider/Outmigration:** Outmigration by clinical condition, specialty, PCP
- **Choosing Wisely®**
- **Cancer (collaboration with MSK)**
- **Diabetes, COPD**
- **Dropped HCCs**
Closure of Gaps in Care

- Highlight gaps in care and opportunities for intervention at the individual level
- Align patient intervention strategies with health system programs
- Interface with EPIC for point-of-care management
Targeted Population Health Patient Registries

- **High Risk**: HCC Score > 3 & Likelihood of Hospitalization > 80%
- **High Utilization**: 2 Inpatient Admits or 3 ER visits in a 6 month time period
- **High Cost**: > $100K in a 12 month period
- **High Risk/Low Cost**: HCC Score > 2 & < $15K in a 12 month period
- **Newly Identified Chronic Patients**: Education opportunity
- **Newly Identified High Risk Patients**: Using claims & clinical data
- **Members with No PCP Visits**: Dropped attribution
- **Members with Visits to Multiple Specialists – Same Specialty**: “Doc Shopping”
Aligned Incentive Plan

Achieving Clinical Excellence® (ACE)

- **Semi-Annual Practice-Based Group Incentive Plan:** Designed to provide physicians with incentives to meet the Triple Aim

- **Measurement Categories**
  - Better Care: CG CAHPs participation, Meaningful Use standards
  - Better Cost: Risk Adjusted ALOS, Risk Adjusted Episode Cost, Admissions and Readmissions, ED visits, and generic Rx Utilization
  - Better Health: Evidence-based Quality Measures, QI Projects

- **Funding Sources:** Include employer, payers & shared savings distribution

- **CME Opportunities/Online Modules**
Care Management Strategy

LVHN Integrated Care Management Model
- Community Care Teams
  - Complex Care Coordination
  - High Risk
- Integrated Ambulatory Care Manager
  - Care Transitions
  - Registry Maintenance
  - Chronic Conditions
- Primary Care Management
  - Pre-Visit Planning & Standard work for
  - All Visits Gap in Care Closure
  - Targeted Campaigns
- Preventive Care
  - Physician Portal
  - Patient Portal
  - Tele-health
  - IVR
  - Gaps in Care
  - E-Learning and Telephonic Reminders

PCMH Wellness Programs

Payer Care Management
- Complex Catastrophic Care Management
  - Payer Designated Care Management Team
- Disease Management/Chronic Condition Management
  - Telephonic and Embedded Care Coordinators
- Primary Care Management
  - Referral Management and Pharmacy Benefit Management
- Preventive Care
  - Member Portal
  - Health Risk Assessment Self Management
  - Telephonic Outreach
CASE STUDIES AND EXAMPLES
# Dropped HCC’s Dashboard

## Dropped HCCs in 2015 from Prior Calendar Year (2012 - 2014)

Data through 12/31/2015

<table>
<thead>
<tr>
<th>Filters</th>
<th># Patients</th>
<th># PCPs</th>
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</thead>
<tbody>
<tr>
<td>Claims Payer</td>
<td>(All)</td>
<td>(All)</td>
</tr>
</tbody>
</table>

## Summary

**Dropped HCC Categories**

- Major Depressive/Bipolar/and Paranoid Disor... 1,341
- Vascular Disease                               966
- Breast/Prostate/and Other Cancers and Tum... 834
- Diabetes without Complication                  763
- Coagulation Defects and Other Specified He... 762
- Rheumatoid Arthritis and Inflammatory Con... 662
- Morbid Obesity                                 646
- Specified Heart Arrhythmias                    630
- Chronic Obstructive Pulmonary Disease         516
- Diabetes with Chronic Complications           515
- Congestive Heart Failure                       470
- Other Significant Endocrine and Metabolic D... 334
- Unstable Angina and Other Acute Ischemic...   200

**PCP Practice**

- LVPG - Internal Medicine of the LV: 1,823
- LVPG Internal Medicine - Muhlenberg: 1,566
- LVPG Family Medicine - Trexlertown: 706

**Current PCP**

- HISTORICAL, PROVIDER, 751
- TWADDELE, HUGO, Interna... 285
- LAKATA, THOMAS, Interna... 284
We have achieved \(~28.42\)%!

GOAL – 50% by end of FY 17
SNF Expenditures

Quarterly Reports are based on Rolling Years

Expenditures $ Per Member Per Year

2015 Q1: $962
Q2: $901
Q3: $820
Q4: $771
2016 Q1: $732
Q2: $695

(5.1%)
Choosing Wisely®: Launched in 2012 by ABIM Foundation with coalition of medical specialty societies and Consumer Reports

- Encourages conversations between physicians and patients about overuse in health care
- Supports physician efforts to help patients make smart and effective choices
- Educational modules

Care Pattern Analyzer/Physician Network Assessment:
Review effectiveness & efficiency physician panels

- Episode cost overview with drill down to drivers of variance
- Provider affiliation (group, practice, practitioner)
- Service type (facility, ancillary, professional, pharmacy)
- Benchmarking against peer groups
- Promotes discussion regarding variances in practice patterns
Quality Outcomes

Dashboard / Quality Outcomes

<table>
<thead>
<tr>
<th>Quality Measure Type</th>
<th>Quality Measure</th>
<th>Positive Responses</th>
<th>Total Responses</th>
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<tbody>
<tr>
<td>Diabetes</td>
<td>Diabetes Eye Exam</td>
<td>12</td>
<td>34</td>
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</table>
Key Initiatives to Improve Financial Performance

• Identification of drivers of trend to target key initiatives that improve financial performance in shared risk arrangement
• Maximize performance in quality incentive programs
• Strategies and programs to ensure proper documentation of coding
  ▪ Case Mix Index
  ▪ HCC
• Operationalizing bundled payment arrangements
Financial Management

**Care Cost Review:** Monthly process of monitoring care cost

- Review across all arrangements and drillable to the specific agreement
- Identify opportunities to improve quality and reduce cost
- View progress compared to targets and benchmarks
  - PMPM/Utilization/Cost per Unit
  - Quality Metrics
  - Trending at procedure & episode level
  - MarketScan dataset

*Medical Expense Budget Dashboard*
Populytics Academy: Programs for physicians & administrators to provide education on topics including:

- Insurance metrics
- Clinical support programs
- Population health analytics
- Pay-for-value reimbursement
- Value of population health
Example AllSpire Dashboard
Lehigh Valley Health Network

Employee Health Plan

• Set targeted PMPM as a network goal & tied to employee incentives
• Established initiatives with savings of $3.1M
• Achieved savings of over $5M

<table>
<thead>
<tr>
<th>Category</th>
<th>12 MM Dec 2014</th>
<th>12 MM Dec 2015</th>
<th>Variance</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient PMPM</td>
<td>$ 1,242</td>
<td>$ 969</td>
<td>($ 273)</td>
<td>(22%)</td>
</tr>
<tr>
<td>Outpatient PMPM</td>
<td>$ 1,883</td>
<td>$ 1,712</td>
<td>($ 171)</td>
<td>(9%)</td>
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<tr>
<td>Professional PMPM</td>
<td>$ 1,427</td>
<td>$ 1,264</td>
<td>($ 163)</td>
<td>(11%)</td>
</tr>
<tr>
<td>Total PMPM</td>
<td>$ 5,879</td>
<td>$ 5,281</td>
<td>($ 598)</td>
<td>(10%)</td>
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</table>
Lehigh Valley Health Network

Year 1 MSSP
12 Months ended Dec 2015

- Based on CMS data received through the fourth quarter 2015
- Waiting for final reconciliation from CMS due in August timeframe

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<th>12 MM Dec 2015</th>
<th>Variance</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient PMPM</td>
<td>$3,281</td>
<td>$3,014</td>
<td>($267)</td>
<td>(7%)</td>
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<tr>
<td>Outpatient PMPM</td>
<td>$2,064</td>
<td>$2,023</td>
<td>($41)</td>
<td>(2%)</td>
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<tr>
<td>SNF PMPM</td>
<td>$979</td>
<td>$771</td>
<td>($208)</td>
<td>(21%)</td>
</tr>
<tr>
<td>Total PMPM</td>
<td>$10,180</td>
<td>$9,469</td>
<td>($711)</td>
<td>(7%)</td>
</tr>
<tr>
<td>Readmissions</td>
<td>178/K</td>
<td>163/K</td>
<td>(15/K)</td>
<td>(8%)</td>
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</tbody>
</table>
DISCUSSION