APPLIED INFORMATICS: VISIT FREQUENCY AND PREDICTIVE RISK

August 28, 2018

Michael P. Jeremiah, MD, FAAFP, SVP
Professor and Chair, Department of Family & Community Medicine,
Virginia Tech-Carilion School of Medicine and Carilion Clinic
Senior Medical Director of Population Health, Carilion Clinic

Grant M. Greenberg M.D., M.A., M.H.S.A.
Leonard Parker Pool Endowed Chair, Department of Family Medicine
Clinical Associate Professor, University of South Florida Morsani College of Medicine
Lehigh Valley Health Network

Richard W. Lord Jr., MD
Professor and Chair, Department of Family & Community Medicine,
Wake Forest School of Medicine

Anna Ramanathan
Director of Administration
Department of Family Medicine
Medical College of Georgia at Augusta University
Applied Informatics: Predictive Risk

ADFM Webinar
Michael Jeremiah, MD
August 2018
Health Care Ecosystem
“The only constant is change…”

- High risk focus
- Where are the drivers?
- Tools: Identifi & Jvion
- Can we show Impact?
- Sustainability

- Generics vs. brand?
- Need for admission?
- Length of stay
- Reduce readmissions

Reduce low value care

Patient-centered

Transportation?

Community Resources

Generics vs. brand?
Core Capabilities Required to Succeed in Responding to Market Forces

**Requirements for Fully-Delegated Population Management**

<table>
<thead>
<tr>
<th>Full Delegation of Clinical Operations to Improve Outcomes &amp; Reduce MLR</th>
<th>Provider Engagement and Network Performance Management to Improve Outcomes &amp; Reduce MLR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization Management</td>
<td>Funds Flow/Sub-Capitation</td>
</tr>
<tr>
<td>Care Management</td>
<td>Medical Economics</td>
</tr>
<tr>
<td>Disease Management</td>
<td>Network Initiatives</td>
</tr>
<tr>
<td>Pharmacy Benefit Management</td>
<td>Referral Management</td>
</tr>
</tbody>
</table>

**Technology, Data & Analytics to Optimize Performance and Engagement**

- Data Processing & Sharing
- CM & Practice Workflow Tools
- Actuarial & Analytics
- Reporting Platform

**TPA Services to Enable Greater Control of Financial Performance**

- Claims Payment
- Network Management
- Credentialing
- Member Services
- Appeals & Grievances

**Physician Leadership & Governance, Provider Relations, Legal, Finance, Contracting**
Comparison of Traditional vs Predictive Stratification on Future Medical Expense

**Traditional Stratification (806)**
- Identification Year: $29,024
- Follow-Up Year: $10,828
- Savings: -63%

**Predictive Stratification (576)**
- Identification Year: $8,953
- Follow-Up Year: $26,179
- Increase: +192%

### CLINICAL PROFILE COMPARISON

<table>
<thead>
<tr>
<th>TRADITIONAL STRATIFICATION</th>
<th>PREDICTIVE STRATIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-year old female with diabetes and COPD. Incurred 2 inpatient admissions and 1 ED visit in the prior 12 months, with no PCP visit in the prior 6 months</td>
<td>66-year old female with diabetes and CAD. No inpatient admissions in prior 12 months; 3rd percentile in median income; lives in a food desert; 9 unique medications, including anxiety medication that was never filled</td>
</tr>
</tbody>
</table>
Predictive Model’s c-stat > 0.8 Indicates Stronger Performance Compared to Industry Standards

Models with more focused outcomes performed twice as well as those that attempted to predict general outcomes.

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**Predictive Model Performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>ED Visits c-statistic</th>
<th>Hospitalization c-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johns Hopkins Adjusted Clinical Groups (ACG)</td>
<td>.67</td>
<td>.73</td>
</tr>
<tr>
<td>Chronic Comorbidity Counts (CCC)</td>
<td>.61</td>
<td>.69</td>
</tr>
<tr>
<td>MN Tiering</td>
<td>.66</td>
<td>.71</td>
</tr>
<tr>
<td>Charlson Comorbidity Measure</td>
<td>.59</td>
<td>.68</td>
</tr>
<tr>
<td>Evolent Complex Care Predictive Model</td>
<td>.81</td>
<td>.86</td>
</tr>
</tbody>
</table>

Increasing predictive model performance
Flip a coin?

- The c-stat ranged from 0.50 for case managers, 0.56 for physicians to 0.59 for interns indicating only a slightly better probability than chance*

- physicians overestimate the number of patients that will be readmitted, they also miss almost 40% of patients who are readmitted within 30 days.” **


How do we find patients who are at risk of increased medical spend and impending events?

**DATA SOURCES**
- Administrative claims
- EHR clinical notes and lab values
- Census Bureau
- USDA
- Consumer data

**VARIABLES OF INTEREST**
- Disease “severity”
- Acceleration of services
- “Worsening” of conditions
- Socio-economic status
- Distance to care
- Food deserts

**METHODS**
- Machine learning algorithms
- Natural Language Processing (NLP)
- Geo-spatial Analytics

**OUTCOME OF INTEREST**
- Specific adverse events tied to the clinical intervention
Readmission Work

Best Practices

Diagnostics and Reporting
- Readmit Survey
- Readmission Registry
- Jvion

Transitions

Medication Reconciliation

Patient Education

Penalty Conditions

Specialty Work

Root Cause Analysis

1) Heart Failure
2) CABG
3) Pneumonia
4) MI
5) COPD
6) TKA/THA

Operational Countermeasures

Condition Agnostic

Discharge Best Practice

- AI/Deep machine learning algorithms combined with the EMR
- All relevant CMS databases going back at least a decade
- Census/Census Tract databases
- Consumer databases that gives an understanding of aggregate numbers zip code plus:
  - Salary
  - Education level
  - Technical Fluency
  - Activity within Apps
  - Consumer behavior patterns
  - Transportation
  - Access to pharmacy/groceries/medical care etc.
# Clinical Recommendations:

<table>
<thead>
<tr>
<th>Top Recommendations for All-Cause Readmissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on disease process education including recognition of symptoms, treatment goals and recognition of deterioration/progression/complications</td>
</tr>
<tr>
<td>Encourage daily exercise focusing on weight management goals and path to rehabilitation</td>
</tr>
<tr>
<td>Focus on follow-up appointment coordination with the PCP</td>
</tr>
<tr>
<td>Focus attention on accessibility of prescribed medications and address any obstacles</td>
</tr>
<tr>
<td>Provide patient/caregiver with detailed respiratory teaching, including: symptomatology, rehabilitation, exercise, and nutrition goals. Review prescribed medications and their adverse effects</td>
</tr>
<tr>
<td>Focus particular attention on medication plan, including timing, dosage, route, potential adverse effects and interactions</td>
</tr>
<tr>
<td>Focus on coordination of needed equipment such as walkers, wheelchairs, bedside commodes, and other aids at time of discharge</td>
</tr>
<tr>
<td>Review prescribed diet and nutrition goals including diet logging, if required</td>
</tr>
<tr>
<td>Focus on patient’s understanding of the need to complete prescribed antibiotic schedule</td>
</tr>
<tr>
<td>Provide patient/caregiver with contact information in case of need/change in condition</td>
</tr>
<tr>
<td>Focus on education about disease process, recognition of deterioration/progression/complications, procedures done and treatment and rehabilitation goals</td>
</tr>
<tr>
<td>Focus on patient’s understanding of discharge instructions</td>
</tr>
<tr>
<td>Provide patient/caregiver with printed instructions and confirm understanding prior to discharge</td>
</tr>
<tr>
<td>Focus attention on establishing disease specific diet and nutrition goals</td>
</tr>
<tr>
<td>Focus attention on receipt and understanding of written and oral discharge instructions</td>
</tr>
</tbody>
</table>

“Focus attention on accessibility of prescribed medications and address obstacles.”
Appendix

• Care Management Descriptions:
  – Complex Care
  – Transition Care
  – Advanced Illness Care
Complex Care

Stratification
- More than one diagnosis of chronic disease (COPD, Asthma, CAD, Diabetes, CHF, HTN)
- Additional data sources for variables like socio-economic status, med changes, etc.

Program
- Takes approximately 4 months
- May include social, behavioral, and pharmD interventions
- Remove barriers to care

Your Patient’s experience

Engage
- Work with nurse for in-depth assessment
- Participate in phone calls with nurse every other week
- Can call nurse as needed
- Nurse may meet patient for doctor’s visit

Graduation criteria
- Active role in self-management
- Medication adherence
- Engaged in treatment plan
- Engaged in symptom management
- Seeks care appropriately
- Advanced directives
Transition Care

Your Patient’s experience

Stratification

- Patient is transitioning from the acute care setting to home
- High risk for readmission

Program

- Approximately 30 days, starting 1-2 days post-discharge
- Ensure PCP visit for hospital follow up
- Remove barriers to care

Engage

- Work with nurse for in-depth assessment and medication reconciliation
- Participate in phone calls with nurse each week
- Can call nurse as needed

Graduation criteria

- Active role in self-management
- Medication adherence
- Completed all necessary post-discharge appointments and testing
- Engaged in treatment plan and symptom management
- No readmission in 30 days
Advanced Illness Care

Your Patient’s experience

Stratification
- Chronic, life-limiting conditions
- Not yet in hospice or palliative care

Program
- Approximately 3 – 4 months
- Weekly, bi-weekly calls
- May continue to monitor longer, with at least monthly contacts
- May do a home visit, facility visit, or attend an office visit with the patient when appropriate.

Engage
- Work with nurse for in-depth assessment
- Participate in phone calls with nurse every week or bi-weekly
- Can call nurse as needed
- Nurse may meet patient at home and for medical visit

Graduation criteria
- Understands how to manage a change in symptoms
- POST and Advanced Directive in place
- Care plan to address patient / caregiver needs and goals
- Patient/caregiver verbalize fears, tradeoffs, preferences, and goals of care
Using Informatics To Drive Access

Through attributed Panel Size

Grant M. Greenberg MD MA MHSA

Leonard Parker Pool Endowed Chair of Family Medicine
Lehigh Valley Health Network
Step 1: Calculate Attributed Panel Size

Benchmark Family Medicine Panel Size (Sullivan Kotter): 1786 Physician, 708 APC

*panel size is risk adjusted by age and gender
<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Sum of 18 Month Clinical FTE</th>
<th>Sum of Panel Size</th>
<th>Sum of Benchmark Based on FTE</th>
<th>Sum of Panel Size as a % of Benchmark</th>
<th>Sum of Panel Size/cClinical FTE</th>
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</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>110925.58</td>
<td>21350</td>
<td>114.2%</td>
<td>1108</td>
<td>14000</td>
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<tr>
<td>LVPG Family Medicine</td>
<td>76.74</td>
<td>133523</td>
<td>7522.42</td>
<td>79.1%</td>
<td>1113</td>
</tr>
<tr>
<td>LVPG Family Medicine -</td>
<td>5.35</td>
<td>5953</td>
<td>7683.06</td>
<td>86.6%</td>
<td>1206</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>4.01</td>
<td>7701</td>
<td>8048.94</td>
<td>91.6%</td>
<td>1290</td>
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<td>LVPG Family Medicine -</td>
<td>2.79</td>
<td>6557</td>
<td>7802.94</td>
<td>89.1%</td>
<td>1250</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>1.39</td>
<td>2967</td>
<td>2640.56</td>
<td>29.5%</td>
<td>2135</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>2.09</td>
<td>2687</td>
<td>1479.72</td>
<td>16.4%</td>
<td>1410</td>
</tr>
<tr>
<td>LVPG Family Medicine -</td>
<td>1.47</td>
<td>2673</td>
<td>1379.32</td>
<td>15.3%</td>
<td>1612</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>2.66</td>
<td>4289</td>
<td>3812.1</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>3.04</td>
<td>3367</td>
<td>4804.2</td>
<td>70.1%</td>
<td>1108</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>0.98</td>
<td>1400</td>
<td>1750.28</td>
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<td>1400</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>0.95</td>
<td>212</td>
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<td>LVPG Family Medicine -</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<tr>
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<td>8923</td>
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<td>LVPG Family Medicine -</td>
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<td>1305</td>
<td>1215</td>
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<td>1595</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<td>4928</td>
<td>6466.92</td>
<td>76.2%</td>
<td>1251</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<td>7356.3</td>
<td>103.8%</td>
<td>1435</td>
</tr>
<tr>
<td>LVPG Family Medicine -</td>
<td>5.45</td>
<td>7963</td>
<td>9270.16</td>
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<td>1461</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<td>4887.38</td>
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<tr>
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<td>4366</td>
<td>3214.8</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<td>5878</td>
<td>3982.78</td>
<td>147.6%</td>
<td>2636</td>
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<td>LVPG Family Medicine -</td>
<td>1.8</td>
<td>3950</td>
<td>2406.3</td>
<td>164.2%</td>
<td>2194</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>2.58</td>
<td>4221</td>
<td>3790.86</td>
<td>111.3%</td>
<td>1636</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>2</td>
<td>4555</td>
<td>3572</td>
<td>127.5%</td>
<td>2278</td>
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<tr>
<td>LVPG Family Medicine -</td>
<td>2.26</td>
<td>5456</td>
<td>3314.02</td>
<td>164.6%</td>
<td>2414</td>
</tr>
<tr>
<td>LVPG Family Medicine -</td>
<td>6.31</td>
<td>13700</td>
<td>10696.56</td>
<td>128.1%</td>
<td>2171</td>
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<tr>
<td>LVPG Family Medicine -</td>
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<td>9530</td>
<td>5877.58</td>
<td>162.1%</td>
<td>2100</td>
</tr>
<tr>
<td>LVPG internal Medicine</td>
<td>1</td>
<td>1002</td>
<td>1706</td>
<td>56.1%</td>
<td>1002</td>
</tr>
</tbody>
</table>
# Programmed Scheduling by Panel Size

<table>
<thead>
<tr>
<th></th>
<th>New Patient holds per session</th>
<th>Acute Visit holds per session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel &gt; 115% median:</td>
<td>1</td>
<td>Panel &gt; 115% median:</td>
</tr>
<tr>
<td>Panel 95-114% median:</td>
<td>1-2</td>
<td>Panel 95-114% median:</td>
</tr>
<tr>
<td>Panel &lt; 95% median:</td>
<td>2-3</td>
<td>Panel &lt; 95% median:</td>
</tr>
</tbody>
</table>
Potential Additional Steps

- Staffing, Recruiting, Growth Strategy (started)
- Continuity by Attributed Panel
- Visit frequency by diagnosis by panel
  - Example: Stable HTN patient seen 1-5x annually
    Higher frequency by those with smaller panels (?)
- Embark into predictive analytics: evaluate which patient has better outcomes (visits, demographic, etc)
Questions?

Grant Greenberg MD MA MHSA

Grant.Greenberg@LVHN.org
Wake Forest
Baptist Medical Center

Where is everybody
Population Health/Value Based Care

Unique Structure

Value Contracts with United MA, Humana MA, Cigna, etc

CHESS
- Value Based Contracting
- ACO Creation
- Population Management services for patients in contracts

Wholly owned subsidiary

Population Health Team
Wake Forest

Operationalize Contracts
Identify populations outside of contracts to focus on
Partner with community groups and organizations to impact population health

NextGen ACO with Wake and Catawba

Supporting our 19 county region

Groups joining contracts or MSSP ACO

Health Systems/Physician Groups

NextGen ACO with Wake and Catawba
Informatics Needs data

• We get our attribution list from CHESS
• These need to be entered into registries
• We can pull data from the clinical record
• This only tells part of the story
• Need data from claims
Claims data

• Our data comes through CHESS from the different contracts we are
• We then use this data identify patients who need more touches from our Navigation team and their primary care physicians
Cross-Payer Utilization by Provider

ED Visits per 1,000, Top 20 Providers
Wake Forest Baptist Health
(YTD 2017 through Sept; MSSP, United MA, Humana MA)

ED/K  Attr  Overall ED/K
Cross-Payer Utilization by Provider

Inpatient Admissions per 1,000, Top 20 Providers
Wake Forest Baptist Health
(2017 YTD through Sept; MSSP, United MA, Humana MA)
SNF Analysis
MSSP ACO

<table>
<thead>
<tr>
<th>SNF Facility</th>
<th>SNF Count</th>
<th>SNF %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silas Creek Rehabilitation Center, Winston-Salem (2 Stars)</td>
<td>69</td>
<td>7.5%</td>
</tr>
<tr>
<td>Wilkes Senior Village Care Concepts, North Wilkesboro</td>
<td>58</td>
<td>6.3%</td>
</tr>
<tr>
<td>Bermuda Village, Bermuda Run (2 Stars)</td>
<td>42</td>
<td>4.6%</td>
</tr>
<tr>
<td>Winston Salem Rehabilitation Operations, Winston-Salem (1 Star)</td>
<td>42</td>
<td>4.6%</td>
</tr>
<tr>
<td>Bermuda Commons, Advance (1 Star)</td>
<td>41</td>
<td>4.4%</td>
</tr>
<tr>
<td>Oak Forest Health and Rehabilitation Company, Winston-Salem* (4 Stars)</td>
<td>40</td>
<td>4.3%</td>
</tr>
<tr>
<td>Lutheran Home Trinity Glen, Winston-Salem* (2 Stars)</td>
<td>34</td>
<td>3.7%</td>
</tr>
<tr>
<td>Abernethy Laurels, Newton* (5 Stars)</td>
<td>33</td>
<td>3.6%</td>
</tr>
<tr>
<td>Regency Care of Clemmons, Clemmons</td>
<td>31</td>
<td>3.4%</td>
</tr>
<tr>
<td>Surry Community Health and Rehabilitation Center (2 Stars)</td>
<td>27</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

*Preferred Provider 2017
** Potential Preferred Provider 2018

- Current data presents from 1/1/17 through 8/31/17.
- Facility list contains top 10 SNF facilities.
- Star Ratings as of 10.20.17
MSSP ACO

SNF Utilization

SNF Admissions per 1,000

- Current data presents from 1/1/17 through 8/31/17.
## Quality

### Eligibility (Core) Measures: "Gateway" to Shared Savings or Risk

<table>
<thead>
<tr>
<th>Measure</th>
<th>QBC Points</th>
<th>Target</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
<th>Gaps to Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM HbA1c Test</td>
<td>80%</td>
<td>23.6%</td>
<td>38.3%</td>
<td>50.4%</td>
<td>58.1%</td>
<td>68.4%</td>
<td>80.3%</td>
<td>85.3%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>DM Nephropathy Screening</td>
<td>85%</td>
<td>36.1%</td>
<td>41.3%</td>
<td>47.8%</td>
<td>50.4%</td>
<td>55.6%</td>
<td>65.2%</td>
<td>70.4%</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>CMP, BMP, or Renal Panel</td>
<td>65%</td>
<td>31.5%</td>
<td>52.9%</td>
<td>64.7%</td>
<td>71.5%</td>
<td>79.3%</td>
<td>87.0%</td>
<td>90.2%</td>
<td>0</td>
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</tr>
<tr>
<td>PCP Visit</td>
<td>75%</td>
<td>1.7%</td>
<td>23.6%</td>
<td>44.0%</td>
<td>56.9%</td>
<td>63.3%</td>
<td>72.2%</td>
<td>76.6%</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### QBC HEDIS Measures: Target goals = Increased MLR (see table 1 below)

<table>
<thead>
<tr>
<th>Measure</th>
<th>QBC Points</th>
<th>Target</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
<th>Gaps to Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Cancer Screening</td>
<td>1</td>
<td>74%</td>
<td>71.0%</td>
<td>73.0%</td>
<td>74.0%</td>
<td>75.0%</td>
<td>76.0%</td>
<td>79.0%</td>
<td>79.0%</td>
<td>0</td>
</tr>
<tr>
<td>Colorectal Cancer Screening</td>
<td>1</td>
<td>76%</td>
<td>69.0%</td>
<td>70.0%</td>
<td>71.0%</td>
<td>72.0%</td>
<td>73.0%</td>
<td>75.0%</td>
<td>76.0%</td>
<td>0</td>
</tr>
<tr>
<td>Adult BMI Assessment</td>
<td>1</td>
<td>91%</td>
<td>74.0%</td>
<td>72.0%</td>
<td>72.0%</td>
<td>72.0%</td>
<td>76.0%</td>
<td>78.0%</td>
<td>79.0%</td>
<td>256</td>
</tr>
<tr>
<td>DM HbA1c &lt; 9%</td>
<td>2</td>
<td>80%</td>
<td>8.0%</td>
<td>12.0%</td>
<td>13.0%</td>
<td>15.0%</td>
<td>15.0%</td>
<td>22.0%</td>
<td>25.0%</td>
<td>597</td>
</tr>
<tr>
<td>Diabetic Eye Exam</td>
<td>1</td>
<td>77%</td>
<td>35.0%</td>
<td>36.0%</td>
<td>39.0%</td>
<td>43.0%</td>
<td>48.0%</td>
<td>58.0%</td>
<td>63.0%</td>
<td>148</td>
</tr>
<tr>
<td>Diabetic Kidney Disease Monitoring</td>
<td>1</td>
<td>96%</td>
<td>74.0%</td>
<td>84.0%</td>
<td>87.0%</td>
<td>90.0%</td>
<td>91.0%</td>
<td>94.0%</td>
<td>95.0%</td>
<td>10</td>
</tr>
<tr>
<td>Osteoporosis Mgmt (women) with a Fracture</td>
<td>1</td>
<td>58%</td>
<td>25.0%</td>
<td>30.0%</td>
<td>43.0%</td>
<td>36.0%</td>
<td>37.0%</td>
<td>55.0%</td>
<td>59.0%</td>
<td>0</td>
</tr>
<tr>
<td>Rheumatoid Arthritis Mgmt</td>
<td>1</td>
<td>83%</td>
<td>100.0%</td>
<td>74.0%</td>
<td>81.0%</td>
<td>82.0%</td>
<td>80.0%</td>
<td>80.0%</td>
<td>78.0%</td>
<td>3</td>
</tr>
</tbody>
</table>

### QBC Medication Adherence Measures: Target goals = Increased PMPM

<table>
<thead>
<tr>
<th>Measure</th>
<th>QBC Points</th>
<th>Target</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
<th>Gaps to Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication Adherence for Diabetes Medications</td>
<td>1</td>
<td>83%</td>
<td>93.0%</td>
<td>82.0%</td>
<td>85.0%</td>
<td>86.0%</td>
<td>87.0%</td>
<td>90.0%</td>
<td>81.0%</td>
<td>-</td>
</tr>
<tr>
<td>Medication Adherence for Hypertension (RAS)</td>
<td>1</td>
<td>83%</td>
<td>85.0%</td>
<td>85.0%</td>
<td>86.0%</td>
<td>86.0%</td>
<td>89.0%</td>
<td>91.0%</td>
<td>82.0%</td>
<td>-</td>
</tr>
<tr>
<td>Medication Adherence for Cholesterol (statins)</td>
<td>1</td>
<td>79%</td>
<td>85.0%</td>
<td>85.0%</td>
<td>85.0%</td>
<td>86.0%</td>
<td>86.0%</td>
<td>89.0%</td>
<td>80.0%</td>
<td>-</td>
</tr>
</tbody>
</table>

### Contracted Bonus Utilization Measures (EBC Program)

<table>
<thead>
<tr>
<th>Measure</th>
<th>QBC Points</th>
<th>Target</th>
<th>Feb-17</th>
<th>Mar-17</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
<th>Gaps to Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Admits per 1000</td>
<td>&lt;194.7</td>
<td>288.9</td>
<td>274.8</td>
<td>270.7</td>
<td>268.8</td>
<td>266.2</td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>SNF Admits per 1000</td>
<td>&lt;47.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Readmissions per 1000</td>
<td>&lt;21.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>ER visits per 1000</td>
<td>&lt;462.6</td>
<td>494.0</td>
<td>547.5</td>
<td>572.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Specialist Encounters per 1000</td>
<td>&lt;4910.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>

* Data reflects quality reporting as of 8/31/17
Our Success with using EHR and Claims data

• Have had shared savings in MSSP for 2 out of the 3 years we were in MSSP
• Have had MLR with MA contract of 73% down from 94% when we started
• Can have success without having to spend millions on data solutions
• Need the solutions for predictive analytics
Power of Texting: Tool for Care Gap Closure
July-Oct YoY Fy’17 vs 18: Patient Access and Financial Shortfall was the necessity of innovation

2.62%
Reduction in Patient Vol

10%
Reduced Residents productivity translating into lower patient volume

6%
wRVU shortfall due to OutPt volume reduction & Med/Hospitalist Svc admitting FM Pts
Outreach Basis:

1. CareGap closure was targeted for Primary Care Disease States with largest target population
2. Patient data was gathered & extracted from PPRNET Data Warehouse
3. Payor Focus outreach was included in the effort
4. Follow-up was for patients not seen in the last 90 days and w/o Future Appts
Over 12K text messages in 102 days has yielded 28% success rate with no-show rate lower by 2% compared to avg of 16%
Key Learnings

1. Care Gap Closure
   • Diabetes Patient Population has highest conversion rate with lowest no-show rate
   • Depression Patient Panel has lowest conversion rate with decent no-show rate

2. Follow-Up Appts
   • Patients who leave w/o appts have limited response to text messages for subsequent appts
   • No-Show rate seems to be at average