Increasing Patient Activation to Improve Health and Reduce Costs

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There is great variation in patient activation/engagement in any population group

- To know who needs more support
- To target the types of support and information patients and consumers need
- To evaluate efforts to increase activation
- Marker for quality
Patient Activation Measurement (PAM)

Difficulty Structure of 13 Items

Measurement Properties
• Uni-dimensional
• Interval Level
• Guttman-Like Scale

PAM 13 Question

Level 1
- When all is said and done, I am the person who is responsible for taking care of my health
- Taking an active role in my own health care is the most important thing that affects my health

Level 2
- I am confident I can help prevent or reduce problems associated with my health
- I know what each of my prescribed medications do
- I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself

Level 3
- I am confident that I can follow through on medical treatments I may need to do at home
- I understand my health problems and what causes them.
- I know what treatments are available for my health problems
- I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising

Level 4
- I know how to prevent problems with my health
- I am confident I can figure out solutions when new problems arise with my health.
- I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress.

Also available PAM 6
Activation is developmental

Activation Level is Predictive of Behaviors

Research consistently finds that those who are more activated are:

- Engaged in more preventive behaviors
- Engaged in more healthy behaviors
- Engaged in more disease specific self-management behaviors
- Engaged in more health information seeking behaviors
Level of activation is linked with each behavior

Source: US National sample 2004

Behaviors in Medical Encounter by Activation Level
Insights

- Use activation level to determine what are realistic “next steps” for individuals to take.
- Many of the behaviors we are asking of people are only done by those in highest level of activation.
- When we focus on the more complex and difficult behaviors— we discourage the least activated.
- Start with behaviors more feasible for patients to take on, increases individual’s opportunity to experience success.

When activation changes several behaviors change.

11 of 18 behaviors show significant improvement within the Increased Growth Class compared to the Stable Growth Class.
When we offer new patient programs and services, who shows up?

- Stanford CDSMP
- Patient Portal use (higher activated twice as likely to use portal than lower activated)
- PHR/ patient Portals
  - When we don’t measure, we never know who we are reaching
  - Because low activated are passive, they are unlikely to respond to one-size fits all approaches

Activation/Engagement is important in any situation where the patient has a significant role to play

- If people don’t understand their role, they aren’t going to take action, they aren’t going to look for or take in new information
- If people don’t feel confident, they are less likely to be pro-active
- This appears to be true regardless of condition
Medication Adherence by Level of Activation for Different Conditions

Low activation signals problems (and opportunities)

The MORE ACTIVATED you are in your own health care, the BETTER HEALTH CARE you get...

<table>
<thead>
<tr>
<th>Event</th>
<th>MORE ACTIVATED Patient</th>
<th>LESS ACTIVATED Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readmitted to the hospital within 30 days of discharge</td>
<td>12.8%</td>
<td>28%</td>
</tr>
<tr>
<td>Experienced a medical error</td>
<td>19.2%</td>
<td>35.8%</td>
</tr>
<tr>
<td>Have poor care coordination between health care providers</td>
<td>12.6%</td>
<td>41.8%</td>
</tr>
<tr>
<td>Suffer a health consequence because of poor communication among providers</td>
<td>13.2%</td>
<td>48.6%</td>
</tr>
<tr>
<td>Lose confidence in the health care system</td>
<td>15.1%</td>
<td>59.8%</td>
</tr>
</tbody>
</table>

Source: Adapted from AARP’s “Beyond 50” Patient Survey. Published in AARP Magazine. Study population age 50+ with at least one chronic condition. More Involved=Levels 3 & 4, Less Involved=Levels 1 & 2
Engagement/Activation related to Outcomes and Costs?

- Studies that examine how well activation predicts future outcomes
- Studies that examine the relationship between activation and clinical indicators
- Studies that examine activation and patient costs
- Studies aimed at changing activation—impact on outcomes and costs

Activation can predict utilization and health outcomes two years into the future for diabetics

<table>
<thead>
<tr>
<th></th>
<th>% change for a 1 point change in PAM Score</th>
<th>10 Point Gain in PAM Score 54 (L2) vs. 64(L3)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalization</td>
<td>1.7% decline</td>
<td>17% decreased likelihood of hospitalization</td>
<td>.03</td>
</tr>
<tr>
<td>Good A1c control (HgA1c &lt; 8%)</td>
<td>1.8% gain</td>
<td>18% greater likelihood of good glycemic control</td>
<td>.01</td>
</tr>
<tr>
<td>A1c testing</td>
<td>3.4% gain</td>
<td>34% greater likelihood of testing</td>
<td>.01</td>
</tr>
<tr>
<td>LDL-c testing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carol Remmers. *The Relationship Between the Patient Activation Measure, Future Health Outcomes, and Health Care Utilization Among Patients with Diabetes*. Kaiser Care Management Institute, PhD Dissertation.

Multivariate analysis which controlled for age group, gender, race, comorbidities and number of diabetes-related prescriptions.
## Study Population in Large Delivery System

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>Sample Size</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD)</td>
<td>15,984</td>
<td>50.2 (16.1)</td>
</tr>
<tr>
<td>Female (%)</td>
<td>15,984</td>
<td>52.1</td>
</tr>
<tr>
<td>Chronic Conditions, mean (SD)</td>
<td>15,984</td>
<td>1.0 (1.1)</td>
</tr>
<tr>
<td>Patient Activation, mean (SD)</td>
<td>15,984</td>
<td>66.7 (15.3)</td>
</tr>
</tbody>
</table>

### Higher Activation Scores are Related to Better Outcomes (Regression Coefficients)

<table>
<thead>
<tr>
<th></th>
<th>Prevention</th>
<th>Clinical Indicators in Normal Range</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon Mammograms</td>
<td>.00</td>
<td>.01**</td>
<td></td>
</tr>
<tr>
<td>Pap Smears</td>
<td>.02***</td>
<td>.02***</td>
<td></td>
</tr>
<tr>
<td>Healthy Behaviors</td>
<td>.04***</td>
<td>.01**</td>
<td></td>
</tr>
<tr>
<td>Not Obese</td>
<td>.02***</td>
<td>.01**</td>
<td></td>
</tr>
<tr>
<td>Not Smoking</td>
<td>.00</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Healthy Behaviors</td>
<td>.00***</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Costly Utilization</td>
<td>.01***</td>
<td>.01*</td>
<td></td>
</tr>
<tr>
<td>Lower Hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower ER</td>
<td></td>
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</tbody>
</table>

Controlling for age, income, gender, and chronic diseases
Activation & Selected Outcomes

<table>
<thead>
<tr>
<th>Patient Activation Scores</th>
<th>Predicted Probabilities</th>
<th>Cervical Cancer Screening</th>
<th>HDL in Normal Range</th>
<th>HbA1c in Normal Range</th>
<th>Emergency Department Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>.81</td>
<td>.54</td>
<td>.70</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>.82</td>
<td>.56</td>
<td>.72</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>.82</td>
<td>.58</td>
<td>.73</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>.83</td>
<td>.61</td>
<td>.75</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>.84</td>
<td>.63</td>
<td>.76</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>.85</td>
<td>.65</td>
<td>.78</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

The predicted probabilities are based upon regression models that control for patient age, gender, zip code income, and number of chronic conditions. For ED use, the model also includes the percent of a clinic’s total patient costs that are Fairview costs.

Patient Activation & Total Costs

<table>
<thead>
<tr>
<th>Patient Activation Level</th>
<th>Raw Differences</th>
<th>Adjusted Difference in Median Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 (Reference)</td>
<td>(Reference)</td>
<td>(Reference)</td>
</tr>
<tr>
<td>Level 2</td>
<td>-$1,409*</td>
<td>-3.6%</td>
</tr>
<tr>
<td>Level 3</td>
<td>-$3,442***</td>
<td>-9.4%**</td>
</tr>
<tr>
<td>Level 4</td>
<td>-$5,101***</td>
<td>-10.5%**</td>
</tr>
</tbody>
</table>

*\(p<.05\)  **\(p<.01\)  ***\(p<.001\)

*Adjusted differences were derived from a regression model using log-transformed total costs of Fairview care, controlling for demographics (age, gender, median income of patient’s zip code), Ingenix retrospective risk score, and percent of a clinic’s total patient costs that are Fairview costs.
Study Implications

- Findings highlight the importance of the patient role in outcomes and cost
- As provider payments become more closely linked with patient outcomes, understanding how to increase patient activation will become a priority for payers and providers.

Increases in Activation are Possible

- If we want patients to take ownership we have to make them part of the process.
  - Listen, problem-solve, and collaborate
  - Help them gain the skills and confidence they need
- This represents a major paradigm shift
  - Moving away from simply “telling patients what to do.” Different than “compliance”--
  - There is a focus on developing confidence and skills, and not just the transfer of information.
Patients who get more support for self-management from their Doctors are more activated.

Patient Experience and Patient Satisfaction

- Findings from multiple studies, and with different populations in different settings, indicate that more activated patients get better care, have better experiences with their care, and are more satisfied with their care.

  - Findings from hospital settings and from ambulatory settings. Higher activated report fewer care coordination problems, and better communication with providers.
Increasing Activation

- Tailored coaching
  - Including brief coaching in the clinical setting— with follow-up
- Segmentation approaches and differential allocation of resources
- Care transitions and reducing hospital re-admissions

Tailored Coaching Study

- Intervention group coached based on level of activation. Control group was “usual care” coaching (DM company)
- Examined changes in claims data, clinical indicators, and activation levels
- 6 month Intervention period.
Tailored coaching can improve adherence and reduce costly utilization

Clinical Indicators*

**Medications:** intervention group increased adherence to recommended immunizations and drug regimens to a greater degree than the control group. This included getting influenza vaccine.

**Blood Pressure:** Intervention group had a significantly greater drop in diastolic as compared to control group.

**LDL:** Intervention group had a significantly greater reduction in LDL, as compared to the control group.

**A1c:** Both intervention and control showed improvements in A1c.

*Using repeated measures, and controlling for baseline measures

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PCMH are using a team-based approach to supporting activation

- PAM score is a Vital Sign
- PAM levels shared with all team members.
  - Strategies and approaches to supporting self-management can be consistent and reinforced by all team members
- Allocate resources based on both patient clinical profile and PAM score—providing more help to those patients less able to self-manage
- More efficient use of resources: target those who need more help
Chronic Illness Patients Need both Clinical and Behavioral Interventions

- Activation is more likely to occur if the patient is getting consistent and appropriate messages and support
  - Communications based on activation level (tailoring)
  - Type and amount of support based on activation level (segmenting)

Patient Centered Means...

- Start where the patient is
- Encourage realistic steps—creating opportunities to experience success
- Build on strengths
- Attention to emotions
- Use measurement to assess and to track progress