Driving Patient Engagement through Mobile Care Management

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Speaker Introduction

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Conflict of Interests

Norine Domenge, RN, MSN and Jacob Sattelmair, PhD have no real or apparent conflicts of interest to report.
Agenda

1. Defining patient engagement
2. Overview of mobile care management
3. Goals and approach for rolling out mobile care management
4. Measuring the effectiveness of mobile care management
5. Outcomes observed
6. Lessons learned
Learning Objectives

Describe improvements in **patient engagement outcomes** that result from a mobile care management approach.

Explain additional benefits to **care manager productivity** and **medical cost savings**.

Discuss models for **IT roll-out** and **clinical approach** for mobile care management.
Defining Patient Engagement

For our organizations, patient engagement means achieving and maintaining high metrics across several categories:

- **Self-Management** & feeling in control of one’s health
- **Navigation** of the health care system
- **Connectivity** to clinicians & maintaining open lines of communication
- **Adherence** to care plans & medication regimens
- **Education** & the capacity to learn about additional health resources
How Health IT Benefits Were Realized

When we started with mobile care management, we were hoping to improve Patient Engagement. However, the work enhanced our outcomes across all STEPS categories, most notably:

- **S** Satisfaction
- **P** Patient Engagement and Population Management
- **S** Savings
Challenges in Care Management Today – Industry Wide

- Outdated, high-friction channels for patient engagement
- Care plans not personalized to the patient needs
- High cost to scale programs to reach large proportion of member populations
- Care managers prevented from operating at the top of their license when burdened with other tasks
Overview of Mobile Care Management

Care manager reaches out to patients in need, provides support, and adjusts care program(s) based on novel, real-time insights.

Interactive, personalized Care Program delivered to patients via smartphone or tablet.

Mobile platform prioritizes patients based on clinical need to facilitate an efficient care team workflow.

Patients engage with Care Program, read educational content, and record health status via mobile app.
Comparing Telephonic & Mobile

**TRADITIONAL MODEL**

ONBOARDING PHONE CALL

START

No contact

PHONE CALL

1 month

No contact

PHONE CALL

5 months

**MOBILE MODEL**

ONBOARDING MOBILE APP

START

Sustained Mobile Messages, Reminders, Educational Content and Other Interactions
In 2015, Blue Cross and Blue Shield of Nebraska (BCBSNE) determined it needed a better approach than relying solely on telephonic outreach, which posed significant barriers to patient engagement:

– Missing or dated phone numbers of patients
– Inability to reach patients
– Inability to sustain relationships with patients beyond few conversations
– Limited time with patients, given other responsibilities & high case loads

As a result, patient engagement in self-care and care management was limited.
# Goals for the Rollout of Mobile Care Management

## Innovate
- Core performance measure
- Agile approach
- Continual iteration

## Build on, not disrupt, workflows
- Supplement existing workflows
- Promote asynchronous communication

## Overcome barriers
- Remove challenges from program design & processes

## Improve outcomes
- Patient engagement
- Self-care
- Ease of communication
- Better health outcomes
## Rollout Approach

### Programs
- Discharge Follow Up: first program
- Case Management: a few months later
- Health Coaching: a few months later

### Clinical Design
- Foundational care plans
  - Post Discharge
  - Wellness and Prevention
- Chronic condition care plans
- Supplemental lifestyle content
- Tracking of key biometric measures

### Staffing
- Same staffing – did not add any new nurses
- Held team to mobile metrics for performance evaluation
- Performance discussed with managers in 1:1s

### Workflow
- Once began managing patient in mobile platform, stayed there to avoid double documentation in existing workflow platform
- No integration needed
Customizing Clinical Education

- **Broad** enough to apply to most patients; **specific** enough to feel relevant to all patients
- Example: for post-discharge patients, created two sets of educational content:
  - Those who were hospitalized for surgery
  - Those who were hospitalized for medical cause
- **Customized** care plans through addition of supplemental content, both disease-specific and lifestyle-challenge focused
- Built in content around the organization’s quality improvement initiatives, such as safe acetaminophen dosage
# Measuring Effectiveness

Evaluate opportunities for continual improvement by regularly reviewing robust data sets and qualitative stories from care managers and patients

<table>
<thead>
<tr>
<th>Weekly</th>
<th>Monthly</th>
<th>Quarterly</th>
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<tbody>
<tr>
<td>• Care management productivity</td>
<td>Adding in:</td>
<td>• Responses from qualitative and quantitative patient surveys</td>
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<td>• Patient engagement and care plan adherence</td>
<td>• Other forms of care manager productivity (ex: # of patients/CM)</td>
<td>• Patient satisfaction</td>
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<td>• Communication rates and types</td>
<td>• Patient behavior trends, by program</td>
<td>• Medical costs</td>
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<td>• Utilization patterns</td>
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Patient satisfaction is measured through surveys in the mobile application, including both quantitative and qualitative feedback.

Sample questions:

– Net Promoter Score
– How easy is it to navigate the program?
– How is technology strengthening the connection with your care manager?
Measuring Effectiveness via STEPS

- Patients in different states of health – acute, chronic, at risk, or well – receive clinical educational content each day through the mobile program (care plan)
- Care plan adherence is measured through the app
- The care plan tasks, which are delivered in both short article and video format, are based on national guidelines
- Care plans can be customized by care managers to apply to areas in need of most support for the patient
Measuring Effectiveness via STEPS

- Messaging between patient and care manager is HIPAA-compliant and secure
- Rates/frequency of messaging is measured
- Patient-reported data and patient app interaction is recorded and surfaced for clinical and behavioral insights
- Care managers’ interactions with the clinician dashboard are measured to track productivity as compared to traditional telephonic care management
Measuring Effectiveness via STEPS

- Patient engagement is measured using volume of interaction with the mobile care management program
- Engagement can be measured daily, weekly, monthly, or at any interval to understand trends over time
- Retention shows how long patients stay engaged in the program, which can be compared with telephonic data
We evaluate both medical cost savings and utilization patterns across three groups:

- Patients engaged in mobile care management
- Patients engaged in telephonic care management
- Patients who are not engaged in any care management
# Patient Engagement

<table>
<thead>
<tr>
<th>Telephonic Care Management</th>
<th>Mobile Care Management</th>
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<td>• Patients answered calls from care managers 1-5 times</td>
<td>• 63% average weekly engagement</td>
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<td>• On average, most patients spoke with a care manager twice</td>
<td>• For the patients in the post-discharge program, this</td>
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<td>over the course of the month following hospital discharge</td>
<td>average is even higher</td>
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<td>• This means that nearly 2/3 of patients engaged in their</td>
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<td></td>
<td>care plan each and every week</td>
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<td>• 400% increase in touchpoints</td>
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<td>between care managers and patients</td>
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12 months of data, starting November 2015
Patient Engagement

7.3 / 10 average response

“This program has made me feel more in control of my health.”

7.8 / 10 average response

“This program has made me feel more connected to my care managers.”

Surveys delivered through the mobile app; 12 months of data, starting November 2015
Care Plan Adherence

Patients interact with their care plans on a daily basis:
- 53% medication adherence
- 67% of members review educational content
- 62% complete surveys

53%  
67%  
62%

Med Adherence  Educational Content  Surveys

12 months of data, starting November 2015
Patient Education

10 / 10 average response
“My care manager provided me with the right amount of information/education.”

7.1 / 10 average response
“How likely are you to incorporate the advice from the last month?”

Example:
For the discharge follow-up program, a key educational and quality initiative for patients is safe acetaminophen dosage.

Of patients given educational content about proper dosage, 76.3% of patients answer correctly.
Patient Satisfaction

7.3 / 10  
average response

“How likely are you to recommend the mobile app to a family member or friend?”  
(Net Promoter Score)

8.2 / 10  
average response

“The mobile app is easy to navigate.”
Care Manager Productivity

Time with patients is now used to work through a care plan, rather than collecting data on patient behaviors, since that data is self-reported daily.

*This does not include time saved by avoiding…*

- Phone number look-up
- Missed calls
- Returning patients’ calls

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Care Manager Time Per Patient Interaction

- **Mobile**: 3 minutes
- **Telephonic**: 8.5 minutes
Medical Cost Savings

Telephonic care management reduces the per patient medical spend.

**Control** = members with hospitalizations who did not engage in care management

**Telephonic** = members with hospitalizations enrolled in traditional telephonic care management

**Mobile** = members with hospitalizations enrolled in mobile-enabled care management

Mobile care management saves BCBSNE an additional 35 – 49%

The analysis is done on groups of patients matched for risk score, age, and gender.
CM encourages member to add med reminders

Alert: member takes OTC meds

CM checks re: physician appt and meds

CM notices med non-compliance. Discovers via messaging that patient does not bring pills when she travels away from home. Sends pill box.

Alert: member concerned about weight

CM follows up with healthy eating suggestions, where to find local dietician

Member reports a fall; CM researches plan benefits for PT

Patient Story

Medication Adherence Rate

Survey with alert

Member message

CM message

Days in the program

0 5 10 15 20 25 30

40% 95%

CM discusses appointment

Low med adherence flagged

0% 10% 20% 30%
# Lessons Learned

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<tr>
<th>Topic</th>
<th>Description</th>
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<tr>
<td><strong>Include Innovation in evaluation metrics</strong></td>
<td>Use evaluation metrics to ensure care managers adopt the new technology and are open to innovation</td>
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<td><strong>Partner mindset</strong></td>
<td>Promote partnerships with vendor rather than relying on typical vendor/client mindset</td>
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<td><strong>Rethink workflows</strong></td>
<td>Existing processes may be outdated, and openness to new workflows is needed</td>
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<td><strong>Involve other teams</strong></td>
<td>Patient engagement is not controlled by Care Management alone; needs to be a priority for other teams, such as Customer Service and Marketing</td>
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<td><strong>Care Manager behavior influences patient behavior</strong></td>
<td>Frequency and depth of interaction combined with how care managers introduce mobile care to patients directly correlates with patients' engagement</td>
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<td><strong>Value</strong></td>
<td>Even if not all patients have smartphones or tablets, mobile care management is still valuable even when not universally applicable</td>
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Future Opportunities

- Diversify recruitment channels
- Integrate customer service with care management
- Scale across care management programs, increasing throughput
- Engage broader population in health coaching and navigation services
Questions

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Please complete the online session evaluation! Thank you!