Putting the “IT” in CapITation
Hawai‘i Pacific Health
HIMSS Davies Award Case Study

8/21/2019
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Local Problem: Capitation

Current Value-Based Programs impact ~70% of primary care empaneled patients (~124K lives)

HMSA (Commercial, MA, Medicaid Blue Cross Blue Shield Payor)
- Capitated Payments
- Attribution
- Ambulatory Quality
- Medical Cost Trend

Medicare CPC+
- Capitated Payments
- Attribution
- Performance-Based Incentive Program
- Care Delivery / IT Requirements

All Other Payors
- Mainly fee-for-service
- Some quality programs

Future of our Value-Based Programs → Global Capitation
Local Problem: Population Growth

Hawaiʻi Pacific Health Primary Care
Attributed Lives

- Panel Targets increase from 1800 to 2200
- 3-7% increase in medical cost trend
- Team Based Care and Alternative Visit Models

- 22% increase in attributed lives with minimal change in PCP FTEs (9% growth)
- ~3 visits per patient / year
- More quality metrics
- ~30 minutes of after hours work / day
- Panel goal: 1,800 / PCP FTE
Design and Implementation Strategy

**Steering Committee**
- Define / translate requirements
- Develop goals / tactics

**Prototype (N=16)**
- Pilot workflows
- Provide feedback during rounding
- Escalate issues
- Share best practices at Collaboration Mtgs

**IT Change Management**
- IT builds, testing and implementation
- Prioritize resources and timelines
- Document and implement revisions

**Collaboration Team (N=70)**
- Current v. ideal workflow
- Q&A / discussion w/staff
- Brainstorm the “how” for their clinic

**Physician Leadership Council (N=9 PCP Chiefs)**
- Consolidated workflow
- Approval for full implementation
- Guidelines & best practices

**All Providers (N=90 PCPs, not including staff)**
- Standard care delivery

**Monitoring**
- Optimization / calibration
- Monthly newsletter

**Clinic-Specific Mtgs**
- Feedback
- Fine-tuning

**Physician Champion**
- Clinical expertise and patient voice
- Piloted interventions
- Garnered feedback from peers

**Clinic Operations Project Management**
- “Boots on the ground”
- Organized team, coordinated timelines
- Trained staff
- Collected feedback, escalated issues
- Tracked key metrics

**IT Project Management**
- Innovator and catalyst
- Researched IT tools
- Built, tested, implemented interventions
- Technical support
Design and Implementation Strategy

Foundation of Existing Infrastructure

Hawaii Pacific Health Primary Care
MyChart Encounters and Users

- Users
- MyChart Encounters

<table>
<thead>
<tr>
<th>Year</th>
<th>Users Sent MyChart Encs</th>
<th>MyChart Encounters</th>
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<tbody>
<tr>
<td>FY14</td>
<td>7,500</td>
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<td>FY15</td>
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<td>50,000</td>
</tr>
<tr>
<td>FY19</td>
<td>70,000</td>
<td>70,000</td>
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</table>

CREATING A HEALTHIER HAWAIʻI
Design and Implementation Strategy

Foundation of Existing Infrastructure

Medicare CPC+ Requirements (Applies to all primary care patients)

Episodic Care (PCPs)

Longitudinal Care (NPs, BH, Pharmacist)

Intended Outcomes
- Reduction in annual face-to-face visits
- Reduction in after work hours
- Annual cost savings

EMR Tools
- ED & Hospital Follow-Up
- E-Visits
- ~85% hospital discharges receive follow-up w/in 1 week
- ~1,800 E-Visits to date
- ~65% avoided office or ED visit

• Risk Stratification
• Care Team
• Patient Goals
• Care Coord. Note
• Express Lane
• Track My Health
• Social Needs Screening

- 100% of patients risk stratified
- ~6% of patients on longitudinal care
- ~50% of goals on track / improving
How IT Was Utilized: Acute Care

Previous Workflow

Patient has acute issue

Patient has MyChart?

YES

Patient sends a secure portal message to their provider describing their condition

Provider reads message, calls/messages patient back with any clarifying questions

Provider determines condition warrants a visit?

YES

Provider office schedules patient for a visit or recommends another setting (i.e. Urgent Care or ED)

NO

Customer calls provider office describing their condition

Provider office speaks with patient and asks any clarifying questions

Example of Previous Workflow

PROVIDER NAME

Note

Cough over a week
Getting worse
Prescription zpak
Promethazine codeine cough syrup as needed for cough. Your prescription may cause drowsiness. Please be aware with operation of machinery.

Please call patient
Update ___ if not better 4-5 days
Sooner if worse

PROVIDER NAME

Note

Regarding: Aloha about my cough

----- Message from ______

----- Message from ______

Aloha ______ My cough is starting to sound more wet and I am getting a runny nose. Seems like a common cold, is it safe to say some DayQuil will clear it out? Thanks!

---
How IT Was Utilized: Acute Care

E-Visits

- Intended to address 10 low-acuity, episodic conditions and avoid unnecessary office visits / ED visits
- Patients log into MyChart and answer structured set of questions for selected condition
- Physician reviews questions and dialogues with patient virtually or via phone to triage / treat patient accordingly

Back Pain
Cough • Diarrhea
Fatigue • Headache
Heartburn • Red Eye
Sinus • Urinary Problems
Vaginal Irritation
How IT Was Utilized: Acute Care

E-Visit Workflow

1. Patient has acute issue
2. Patient has MyChart?
   - YES: Patient logs into their MyChart account and sends E-Visit to provider
   - NO: Select applicable condition, Verify medications, allergies, Answer standard questions related to condition
3. Patient calls provider office describing their condition
4. Patient has MyChart?
   - YES: Provider reads message, calls/messages patient back with any clarifying questions
   - NO: Office explains E-Visit to patient
5. Provider determines condition warrants a visit?
   - YES: Provider office schedules patient for a visit or recommends another setting (i.e. Urgent Care or ED)
   - NO: Provider addresses patient’s concern via phone or message
6. Other Features
   - Uploading a picture
   - Provider coverage / out of office
   - Requesting sick notes
   - ~1,800 E-Visits to date
   - ~65% avoided an office / ED visit
   - ~90% of users felt E-Visits were easy to use and was addressed in a timely manner

E-Visit Example

1. Reason For E-Visit
   - Headache
   - Urinary Problems
   - Cough
   - Back Pain
   - Diarrhea
   - Fatigue
   - Sinus Problems
   - Vaginal Discharge/Irritation
   - Red Eye
   - Other

2. Choose a Recipient
   - Patient is selected

3. Select a pharmacy
   - Please select the pharmacy you would like any prescriptions sent to:
   - Other (please specify below)

4. E-Visit for Cough
   - How long have you been coughing?
     - Just today
     - For a few days
     - For a week
     - For one to four weeks
     - For more than a month

   - How would you describe the cough?
     - A cough from a scratchy throat
     - A cough that is part of a cold
     - A cough from congested lungs
     - A deep cough

   - How often are you coughing?
     - Constantly
     - In spasms that come and go
     - Infrequently but steadily
     - None of the above
How IT Was Utilized: Longitudinal Care

**Previous Workflow**

1. Patient
2. Scheduled visit with PCP?
   - NO
   - YES
3. Visit Prep
   - Identifying Patients for Care Management
     - Manual chart review of patient’s:
       - Hospital / ED visits
       - Problem list: chronic and behavioral dx
       - Lab values
       - Current medications
4. Patient not identified for care management or Patient’s progress toward goals is not updated
5. Patient seen by PCP?
   - NO
   - YES
6. Tracking Patients Under Care Management
   - Documented in progress notes for visit:
     - Specialists currently caring for patient
     - Care plans / goals
     - Progress toward goals

**Example of Previous Workflow**

**Problem List**:
- Thrombocytopenia (*)
- Type 2 diabetes mellitus with other diabetic kidney complication, without long-term current use of insulin (*)
- Diabetes mellitus type 2 without retinopathy (*)
- Esophageal varices (*)
- Cirrhosis of liver with ascites, unspecified hepatic cirrhosis type (*)
- Morbid obesity (*)
- Edema
- Diabetes mellitus type II, non insulin dependent (*)

<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>Department</th>
<th>Provider</th>
<th>Description</th>
<th>Disch Date</th>
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<tr>
<td>05/10/2019</td>
<td>ED</td>
<td>WMH - EMERGENCY</td>
<td></td>
<td>Emergency</td>
<td>05/10/2019</td>
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<td>04/28/2019</td>
<td>ED</td>
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<td></td>
<td>Emergency</td>
<td>04/28/2019</td>
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<td>04/26/2019</td>
<td>ED</td>
<td>WMH - EMERGENCY</td>
<td></td>
<td>Emergency</td>
<td>04/26/2019</td>
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<td>04/24/2019</td>
<td>ED</td>
<td>WMH - EMERGENCY</td>
<td></td>
<td>Emergency</td>
<td>04/24/2019</td>
</tr>
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</table>

**Short Term Goal**:
1. Lose 5 pounds in 6 months - starting weight 180# - NEW
2. Incorporate more fruits and vegetables into diet - NEW
3. Walk around complex 10 minutes daily - NEW

**Provider and Patient Long Term Goals**:
- Weight loss

**Barriers to Goals**:
- Lack of motivation

Creating A Healthier Hawai‘i
How IT Was Utilized: Longitudinal Care

IT Intervention

- Identifying Patients for Care Management
  - Risk Stratification Report
  - 2-Step Risk Stratification
  - Social Needs Screening

IT Intervention

- Candidate for Care Management?
- Patient Goals and Track My Health can be updated without a follow-up visit

IT Intervention

- Visit Prep
  - Visit with PCP
    - Seen by PCP
      - Candidate for Care Management?
        - Nurse Practitioner
        - Behaviorist
        - Pharmacist

IT Intervention

- Patient scheduled for visit with PCP
- Patient not on care management

IT Intervention

- Outreach to patient for visit with PCP
- No outreach
How IT Was Utilized: Longitudinal Care

CREATING A HEALTHIER HAWAIʻI

Identifying Patients for Care Management: Risk Stratification

- Chronic Diseases: Diabetes, HTN, COPD, CKD, Dementia, etc.
- Behavioral Health: Depression, Anxiety, Alcohol / Drug Dependence
- Lab Values: A1C, GFR, MALB
- Demographics: Age
- Other: Medication Compliance, Protective Services Involvement

Hawaii Pacific Health Risk Stratification Factors

<table>
<thead>
<tr>
<th>Risk Score Weight</th>
<th>Chronic Diseases</th>
<th>Admits in Last 12 Months</th>
<th>Behavioral Health</th>
<th>ED Visits in Last 6 Months</th>
<th>Current Lab Values</th>
<th>Other</th>
<th>Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26%</td>
<td>23%</td>
<td>15%</td>
<td>14%</td>
<td>9%</td>
<td>7%</td>
<td>3%</td>
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</table>

Patient

Scheduled visit with PCP?

NO

YES

Visit Prep

Identifying Patients for Care Management
- Risk Stratification Report

Candidate for Care Management?

NO

YES

Outreach to patient for visit with PCP

Patient scheduled for visit with PCP

Visit with PCP

Identifying Patients for Care Management
- 2-Step Risk Stratification
- Social Needs Screening

Candidate for Care Management?

NO

YES

Seen by PCP

Nurse Practitioner

Behaviorist

Pharmacist

Tracking Patients Under Care Management
- Patient Care Team
- Care Coordination Note
- Patient Goals
- Express Lane
- Track My Health

Patient Goals and Track My Health can be updated without a follow-up visit
How IT Was Utilized: Longitudinal Care

Identifying Patients for Care Management: Risk Stratification

- Now, 100% of attributed patients are risk stratified
- 2 step risk stratification:
  - System-generated score based on problem list, medications, labs, ED/hospital visits
  - Physician adjustment – physicians able to adjust risk score up/down at any magnitude
- High and Very High Risk patients are candidates for care mgmt
How IT Was Utilized: Longitudinal Care

Identifying Patients for Care Management: Social Needs Screening

Health Leads Psychosocial Assessment

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food?</td>
<td>N</td>
</tr>
<tr>
<td>In the last 12 months, has your utility company shut off your service for not paying your bills?</td>
<td>N</td>
</tr>
<tr>
<td>Are you worried that in the next 2 months, you may not have stable housing?</td>
<td>N</td>
</tr>
<tr>
<td>In the last 12 months, did you skip medications to save money?</td>
<td>N</td>
</tr>
<tr>
<td>In the last 12 months, have you ever had to go without health care because you didn’t have a way to get there?</td>
<td>N</td>
</tr>
<tr>
<td>Do you ever need help reading hospital materials?</td>
<td>N</td>
</tr>
<tr>
<td>Are you afraid you might be hurt in your apartment building or house?</td>
<td>N</td>
</tr>
<tr>
<td>During the last four weeks, have you been actively looking for work?</td>
<td>N</td>
</tr>
</tbody>
</table>

- ~30 completed screenings completed / month
- 11 questions:
  - ~40% have trouble reading hospital materials
  - ~17% skipped medications to save money
- Resources for each question is available within EMR and providers can add contact information for resources to After Visit Summary
How IT Was Utilized: Longitudinal Care

Tracking Patients on Care Management: Patient Care Team

- ~2,300 patients with a primary care Nurse Practitioner, Behaviorist or Pharmacist on their Care Team
- By adding themselves, Care Team members receive notifications regarding patient’s hospitalizations, ED visits, orders and results
How IT Was Utilized: Longitudinal Care

Tracking Patients on Care Management:
Care Coordination Note

Care Teams

Patient Care Coordination Note

- Patient health concerns, goals and self management plans: Patient has a willingness to become compliant. She tells me that she was "scared" after her last emergency department visit and saw how bad her laboratory work was. She understands she needs to manage her diabetes, hypertension and the effects that it is having on her kidney function.

- Interventions and health status evaluations and outcomes: Patient agrees to frequent intern follow-up visits with phone calls and in clinic. She understands and we will be adjusting her medications until we achieve goals of blood pressures at 140/90 or below. And fasting a.m. blood sugars below 180 and postprandial below 150.

- ~500 patients with documented Care Coordination Notes
- Viewable across all settings and by others who access the patient's chart
How IT Was Utilized: Longitudinal Care

- ~5,500 documented patient goals to date
- ~35% of goals are related to controlling BP or A1C
- ~50% of goals are On Track or Improving
- Goals can be patient-stated or chosen from a library
- Updates to Goals are included in After Visit Summary and viewable in patient portal

Tracking Patients on Care Management: Patient Goals

- **Goals**
  - Blood Pressure < 140/90  6/1/2019: 167/72
  - Eat a balanced, healthy diet  4/20/2019: No change
  - HA1C < 8  11/19/2018: 7.7
  - Increase physical activity  4/20/2019: No change
  - Maintain relationships  2/28/2019: No change
  - Record your blood pressure once per day  4/20/2019: On track

AFTER VISIT SUMMARY

- **Patient**: Laurie Adt
- **Orders Placed This Encounter**: HEALTH EDUC / MGMT REFERRAL to Straub
- **Follow up with** in 1 week
- **Today's Visit**
  - Eat less salt
  - Attend Ornish Program
  - Quit using tobacco (cigarettes, smokeless, etc)
  - On track

CREATING A HEALTHIER HAWAI‘I
How IT Was Utilized: Longitudinal Care

- Expedited way to collect information required for Medicare Annual Wellness Visits (~50 questions)
- Patients able to fill out questionnaire via patient portal
- Questions connected to visit and can be reviewed by provider prior to appointment
How IT Was Utilized: Longitudinal Care

- Patients able to check and enter Weight, Glucose, Blood Pressure and Pulse values into MyChart
- Syncs with devices: Apple Health Kit, One Touch Verio (glucose), Omron (Blood Pressure)

Tracking Patients on Care Management: Track My Health

Blood Pressure Tracking

Select number of readings or a date range to view the data you are tracking, and click Apply.
You are pulling in data from 1 fitness tracker accounts.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Systolic (mmHg)</td>
<td>110</td>
<td>111</td>
<td>110</td>
<td>108</td>
<td>114</td>
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<tr>
<td>Diastolic (mmHg)</td>
<td>72</td>
<td>74</td>
<td>77</td>
<td>73</td>
<td>81</td>
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<tr>
<td>Pulse (BPM)</td>
<td>63</td>
<td>61</td>
<td>58</td>
<td>57</td>
<td>55</td>
<td>59</td>
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<tr>
<td>Normal range</td>
<td>Between 40 and 200</td>
<td></td>
<td></td>
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</tbody>
</table>

Health Trends: Details

- Patient Care Team
- Care Coordination Note
- Patient Goals
- Express Lane
- Track My Health

Patient Goals and Track My Health can be updated without a follow-up visit
Value Derived: Process Metrics

Hawaii Pacific Health Primary Care
Care Team, Patient Goals and E-Visits

- **Care Team Members**
  - ~90% attributed to Nurse Practitioners
  - ~10% attributed to Behaviorists

- **Patient Goals**
  - ~35% of goals are related to controlling BP or A1C
  - ~50% of goals are “On Track” or Improving”
  - 70th percentile for Controlling BP and Diabetes A1C Poor Control (>9%)
  - HPH’s CPC+ PBIP Retention: ~70% compared to national avg: ~60%

- **E-Visits**
  - ~$227K payor cost avoidance
  - ~50% avoided face-to-face visits
  - ~16% avoided ED / Urgent Care Visits

CREATING A HEALTHIER HAWAIʻI
Local Problem: Population Growth

Hawai‘i Pacific Health Primary Care Attributed Lives

- Increase in PCP FTEs
- Established PCPs increased panel size from 1,800 to 2,200
Value Derived: Outcomes

Hawaii Pacific Health Primary Care
Patient Experience and Attributed Lives

% of Patients Who Felt They Were Seen in a Timely Manner

<table>
<thead>
<tr>
<th>Year</th>
<th>% of Patients</th>
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<tbody>
<tr>
<td>CY14</td>
<td>60.0%</td>
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<tr>
<td>CY15</td>
<td>63.0%</td>
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<tr>
<td>CY16</td>
<td>70.0%</td>
</tr>
<tr>
<td>CY17</td>
<td>75.0%</td>
</tr>
<tr>
<td>CY18</td>
<td>80.0%</td>
</tr>
<tr>
<td>CY19</td>
<td>85.0%</td>
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</table>

Standardized scheduling protocols
Same Day Appointments
Opened PCP panels

EMR Care Team

E-Visits
Patient Goals

CREATING A HEALTHIER HAWAI‘I
Value Derived: Outcomes

Hawaii Pacific Health Primary Care
Annual Visit Rates per Patient

18% reduction in face-to-face office visits with PCPs
Avg. minutes in EMR after hours reduced from ~30 to 15 mins / day

*CY19 visit rates based on visits from June 2018 thru May 2019
**Other Virtual / Care Team Visits include E-Visits and visits to Nurse Practitioners, Behaviorists and Pharmacists
Value Derived: Outcomes

Hawaii Pacific Health: Primary Care Patient Cohort
Actual v. Predicted Payor Cost
(N = 2,272 patients on longitudinal care, used E-Visits)

*Predicted expenditures are based on a risk stratification model developed by McKesson Risk Manager. This model predicts visit patterns and payor cost based on historical claims data.

Payor cost avoidance: ~$3.8 million / year
• Provider cares for patient and requests a Follow Up Appt or patient calls for an episodic visit

• Patient has multiple access points to care with the appropriate team member
• Care Team is knowledgeable of all aspect of their patient, and their panel population
• Providers have efficient tools to provide care to patients