The Health Resilience Program™:
CareOregon and Community Clinics Partner to Improve Care for High Risk/High Cost Patients
Why the national attention on high risk/high cost strategies?

Those who have financial risk for populations (health plans, payers) recognize:
- 10% of the population in Medicaid accounts for 50% of the expense (US Dep HHS, 2013)
- The majority (nearly 60%) of Medicaid beneficiaries who were among the most expensive 10% in one year remained so in two subsequent years (US Dep HHS, 2013)
- Significant proportion of cost generated is avoidable and underlying risk is modifiable (Joynt, 2013, Rich et al, 2012)

Care providers, especially those serving Medicaid and Uninsured patients recognize:
- “Traditional” medical care – even the best, state of the art medical care, is insufficient to meet key needs of these populations
- High risk patients take a disproportionate amount of clinic and clinician time
- Incentives are shifting….Accountable Care Era

Prevailing hypothesis: If unmet needs can be addressed, patient and system outcomes will improve

Not all “high risk” or “high cost” populations are the same
- Given this, segmentation is critical and our strategies should be designed to match unique subpopulation needs with appropriate “customized” interventions (Brown et al 2012, Hong et al 2014, Porter, 2011)
High Risk Segmentation – Medicaid Adults

Medically Complex

Psychosocial & BH Complexity
- Substance Use Disorder
- PTSD, Anxiety, Depression
- Chronic Pain
- Opiate Dependence

SPMI

Lack of Primary Care Access

Biggest drivers of cost & burden for care teams

Wasn’t a huge driver until ACA expansion
Literature review suggests best practices of successful high risk programs for Medicaid

- Integration with primary care  (Brown, et al, 2012, Hong et al, 2014)
- Target those patients at greatest risk for hospitalization  (Brown et al, 2012)
- Need face-to-face contact with patients, often outside traditional settings  (Brown et al 2012, US Dep HHS, 2013)
- Recognize the impact of addiction and behavioral health conditions, and recruits staff for experience with these issues  (US Dep HHS, 2013, Billings 2013, Neighbors 2013)
- Combination of quantitative and qualitative methods to identify patients  (Hong 2014, US Dep HHS, 2013)
- Care coordination is a key task  (Brown et al 2012, Hong et al 2014)
- Focus on building trusting relationships with patients and their primary care providers  (US Dep HHS, 2013, Hong et al 2014, Brown et al 2012)
- Include intensive medication management  (Brown et al, 2012)
- Intentionally manage across “transitions in sites of care”  (Brown et al, 2012)
- Offer specialized training for team members  (Hong et al 2014, Brown et al 2012)
- Use technology and analytics to bolster efforts  (US Dep HHS, 2013, Hong et al 2014)
Literature Review – Expected Utilization and Cost Impacts of High Risk Programs

- 18 programs studied, 9 involved Medicaid beneficiaries
  - Evidence Rigor:
    - Level 1 = use of well designed RCT = 2 studies
    - Level 2 = use of well designed control group = 2 studies
    - Level 3 = use of time series (pre-post) = 5 studies
  - ED utilization decreases range from 4-58% (most between 18%-35%)
  - Hospital utilization decreases range from 7-70% (most between 15-47%)
  - Decreases in total cost of care vary widely, but most authors agree that its unrealistic to see total cost of care decreases in less than 3 years because of up front investment needed (Hong et al, JAMA, 2014)
  - Two Level 1 studies show significant impact on hospital admissions (up to 44%), and 1 of 2 showed decrease in ED admissions (up to 35%)

- Many similar studies with Medicare population, but rarely include duals so impact of poverty is absent
WHY the Health Resilience Program?

- Highest cost members were not getting needs met with previous approaches
  - Telephonic case management
  - PCR & PC3 – clinic-based care management

- Because they contribute as much as 60% to our annual health care expense, largely driven by ED and Hospital admissions, some of which are avoidable

- Social values

Curtis Peterson, Health Resilience Specialist and Gordon Rasmussen, Client
Learning From “Hot Spotting” Experts

Commonwealth Care Alliance: Boston, MA

Camden Healthcare Coalition: Camden, NJ

INNOVATION PROFILE
A New Care Paradigm Slashes Hospital Use And Nursing Home Stays For The Elderly And The Physically And Mentally Disabled

SYSTEM Commonwealth Care Alliance, a not-for-profit health care system based in Boston, Massachusetts, offering a full spectrum of medical and social services for older people and the physically and mentally disabled.

KEY INNOVATION Providing individualized primary care, coordination, behavioral health, and social support services in the home and community through multidisciplinary teams, thus reducing the need for hospitalization and nursing home placement for the elderly and disabled.

COST SAVINGS Sharply reduced use of nursing homes by eligible older people led to an average growth in total medical spending of just 2.1 percent from 2004 to 2009, sharply below fee-for-service rates. For disabled patients, monthly medical costs were $3,601 in 2008, compared to $5,210 for Medicaid fee-for-service patients.

QUALITY IMPROVEMENT RESULTS In 2009 Commonwealth Care Alliance scored in the ninetieth percentile or above on Healthcare Effectiveness Data and Information Set measures for comprehensive diabetes care, monitoring patients on long-term medication, and access to preventive services.

CHALLENGES The alliance seeks integrated global payments with appropriate risk adjustment from multiple payers; needs to build adequate financial reserves to satisfy insurance regulators; has to shore up struggling primary care physician practices to serve as a foundation for its programs; and struggles to recruit a multilingual, multidisciplinary workforce to serve a multilingual population.
### Data Exploration to Define Regional “High Utilization” Criteria

#### All CareOregon Medicaid Adults (19yrs+) living in TriCounty Area

<table>
<thead>
<tr>
<th>Utilizer Type Groups</th>
<th>% Mbrs</th>
<th>% Paid TOTAL Paid Cost, 12mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>No inpt / 0-1 ED</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>No inpt / 2 - 5 ED visits</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>No inpt / 6+ ED visits</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>1+ OB inpt ONLY</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>1 nonOB inpt / 0 - 5 ED visits</td>
<td>6%</td>
<td>18%</td>
</tr>
<tr>
<td>2+ nonOB inpt OR 1 nonOB inpt/6+ ED visits</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**13% of CareOregon members (6178) = 52% of paid cost**

#### MCHD NE Clinic CareOregon Medicaid Adults (19yrs+) Assigned to MCHD NE

<table>
<thead>
<tr>
<th>Population Segment</th>
<th># Mbrs</th>
<th>% Mbrs</th>
<th>% Paid Cost/ 12 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td>No inpt / 6+ ER visits</td>
<td>81</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>1 nonOB inpt &amp; 0-5 ED visits</td>
<td>97</td>
<td>4%</td>
<td>14%</td>
</tr>
<tr>
<td>2+ nonOB inpt OR 1 nonOB inpt/6+ ED visits</td>
<td>71</td>
<td>3%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>249</strong></td>
<td><strong>10%</strong></td>
<td><strong>51%</strong></td>
<td></td>
</tr>
</tbody>
</table>

**10% of CareOregon members (249) = 51% of paid cost**
In order to change the outcomes, need to understand root cause....

Lisa Pearlstein, HRS and Jeremy Seals
Providers...

Count of Qualitative Themes from PCP Notes

PCP's were asked: What is driving this patient's non-Primary Care utilization?
New Primary Care Workforce and New Clinical Models

Health Resilience Specialists (Master’s level Social Workers) are embedded with primary health homes and specialty practices to enhance the practices’ ability to provide community-oriented individualized ‘high touch’ support to high risk/high cost patients.

- Basic Needs: food, shelter, safety, ADLs
- Supportive relationships
- Trauma recovery
- Hope & Purpose

- Integrated with Primary Care Team
- Care Coordination with Specialists & MH providers

- Health risk behaviors
- Cognitive / coping skills
- Health literacy
Health Resilience Specialist Skillset

- Extensive outreach experience with high risk and vulnerable populations
- Mental health/addictions training
- Understanding of trauma dynamics & trauma informed care
- Ability to work across cultures and systems
- Working knowledge of local social service resources
- Ability to think individually & systemically
- Excellent communication skills and ‘assessment’ skills
- Strong *Motivational Interviewing* aptitude
- Ability to set professional boundaries with compassion
- Exceptional advocacy and interpersonal skills
- Social justice values, extreme empathy, and non-judgmental nature
Health Resilience Program Features

- Clinical & programmatic supervision provided by LCSWs
- Medical guidance provided by clinic-based PCPs and CO/HSO Medical Directors
- Documentation occurs in practice EMRs and in a customized web-based population registry platform (PopIntel)
- Referrals are generated by real-time utilization event reports AND by provider/care teams, community agencies, health plan case managers, etc.
- “Community of Practice” supportive learning environment & competency based staff trainings
  - Weekly case-based huddles
  - Trauma-informed culture
- Data-driven process improvement
Health Resilience Program/CHIPs Clinic Partners + Peer Programs (August 2014)
Current Program Structure

Centralized Infrastructure
- “Community of Practice” – local and national
- Learning System and Peer Support
  - Clinical supervision
  - Data and Evaluation
  - Program Development
- Onboarding, orientation and workforce development
  - Triage
  - Health plan liaison
  - Population view

Primary Care Clinic
- Medical Oversight
- Integration with primary care team & services (multidisciplinary village)
- Continuity of relationship
- Delivery system view
- Hub for patients
- Critical referral sources

Hooper Detox

Specialty Clinic

Primary Care Clinic

Primary Care Clinic
Discussion with Clinic Leadership (Sept 2013)

- Endorsement for combination of centralized support and deployment of staff
- Clinic needs provider champion for high risk population
- HRS program & staff are only successful in a team-oriented model, co-located
  - Weekly huddles a best practice
- Clinical Supervision provided by CO critical element & clinics don’t have capacity to do this
- PopIntel providing key program data; clinic staff requesting access regularly – wish it was integrated with EMR
- Workforce development and community of practice brings new knowledge into the clinic culture
- HRS employed centrally preferred by all clinics
Health Resilience Population Demographics

Compared to the overall CareOregon adult Medicaid and Dual member population…

Members enrolled in the Health Resilience program are more likely to be:

- Older
  
  (48 yrs vs. 42 yrs)

- Female
  
  (68% vs. 62%)

- Black / African American
  
  (26% vs. 11%)

- Have a High Level of Disease Burden:

  - Hypertension: 79% (Health Resilience Program vs. CO Adult Mbrs 33%)
  - Diabetes: 44%
  - CHF: 34%
  - COPD: 34%
  - Ischemic HD: 27%
  - Chronic Renal Failure: 17%
Health Resilience Population Demographics

Compared to the overall CareOregon adult Medicaid and Dual member population… Members enrolled in the Health Resilience program are more likely to experience high disease burden and psycho-social challenges.

<table>
<thead>
<tr>
<th>Condition</th>
<th>CO Adult Mbrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>72%</td>
</tr>
<tr>
<td>Substance Use</td>
<td>60%</td>
</tr>
<tr>
<td>Schizophrenia/Schizo-Affective</td>
<td>23%</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>6%</td>
</tr>
</tbody>
</table>
Health Resilience Clients

Clinical Assessment at Intake  N=275

Active MH Condition

- **No**: 36%
- **Yes**: 64%

MH Condition

- PTSD: 31%
- Anxiety: 51%
- Depression: 75%

Chronic Pain

- **Yes**: 42%
- **No**: 58%

Hx of Trauma

- Unknown: 42%
- Yes: 55%
- No: 3%

Active Trauma

- Unknown: 16%
- No: 30%
- Yes: 54%
Process Metrics

Health Resilience Specialist Mayela Torres and Client Brent Lampa
Notes on Capacity:

- 25-30 clients per worker at any given time; 65 per year (current)
- Peers will increase our capacity and allow the HRS to focus on stabilization
- Clinic care models are shifting to allow better hand-backs and more high risk team roles

Health Resilience Patient Enrollment

1,493 unique Clients served to-date

# Unique Clients Served Each Quarter

124, 204, 285, 438, 598, 597, 575, 648

# New Unique Clients added Each Quarter

110, 151, 295, 270, 187, 163, 193
Health Resilience Program

% of Clients Outreached to who Successfully Engaged

Cumulative # Unique Clients with 1+ Outreach Attempts

Launch of Online Registry = More reliable data collection

- As of Mar 31, 2013: 385 clients, 77% engaged
- As of Jun 30, 2013: 680 clients, 67% engaged
- As of Sept 30, 2013: 952 clients, 66% engaged
- As of Dec 31, 2013: 1,140 clients, 68% engaged
- As of Mar 31, 2014: 1,300 clients, 70% engaged
- As of Jun 30, 2014: 1,493 clients, 70% engaged
Program Outcomes

Health Resilience Specialist Marika Shimkus and Client Mark Baker
ED Utilization Rates for HRP cohort

ED Visits - PMPY

n= 424 clients engaged in program on or before 9/1/13

3 month Intervention Ramp-up

12 mos PRE: 8.5 PMPY
4+ mos POST: 5.6 PMPY
34% ↓

Rate per Member per Year

-12 mos -11 mos -10 mos -9 mos -8 mos -7 mos -6 mos -5 mos -4 mos -3 mos -2 mos -1 mos +1 mos +2 mos +3 mos +4 mos +5 mos +6 mos +7 mos +8 mos +9 mos +10 mos +11 mos +12 mos +13 mos +14 mos +15 mos

Median
Hospital Utilization Rates for HRP cohort

non-OB Inpt Stays PMPY

12 mos PRE: 1.7 PMPY
4+ mos POST: 1.1 PMPY
35% ↓

n= 424 clients engaged in program on or before 9/1/13
Primary Care Visit Rates for HRP cohort

n= 424 clients engaged in program on or before 9/1/13

PCP Visits - PMPY

12 mos PRE: 15.2 PMPY
4+ mos POST: 14.3 PMPY
No Sig. change
Outpatient Behavioral Health Visit Rates for HRP Cohort (excludes Medicare)

Behavior Hlth & Chemical Dependency
OutPt Visits - PMPY

n= 424 clients engaged in program on or before 9/1/13

3 month Intervention
Ramp-up

12 mos PRE: 13.3 PMPY
4+ mos POST: 15.6 PMPY
17%↑
HRP Study Cohort

Minimum enrollment pre period = 8 months; Minimum enrollment post period = 6 months
## Potential Savings vs Program Cost

<table>
<thead>
<tr>
<th></th>
<th>Avg. Paid Cost</th>
<th>Members Engaged in 12 months (Current Scale)</th>
<th>Pre-Period PMPY Rate</th>
<th>Cost Pre-Period</th>
<th>Post-Period PMPY Rate</th>
<th>Total Cost Post Period</th>
<th>Potential Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-OB Inpatient Visit</strong></td>
<td>$8800+</td>
<td>1050</td>
<td>1.7</td>
<td>$15.7M</td>
<td>1.1</td>
<td>$10.2M</td>
<td>$5.5M</td>
</tr>
<tr>
<td><strong>ED Visit</strong></td>
<td>$617+</td>
<td>1050</td>
<td>8.5</td>
<td>$5.5M</td>
<td>5.6</td>
<td>$3.6M</td>
<td>$1.9M</td>
</tr>
</tbody>
</table>

Subtotal Potential Savings = $7.4M in 12 months

Assume 50% regression to the mean = $3.7 M Potential Savings in 12 months

Total Program Cost at current scale, including direct clinical staff, supervision, program infrastructure, workforce training, technology support and overhead = $2.5M

+ Does not include Medicare cost so these are low averages
Patient Reported Health Status for HRP Cohort

<table>
<thead>
<tr>
<th></th>
<th>At Engagement (n=157)</th>
<th>Program Exit (n=54)</th>
<th>6 Months After Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access &amp; Quality</strong></td>
<td></td>
<td></td>
<td>Small Denominators</td>
</tr>
<tr>
<td>Got all the health they needed</td>
<td>40%</td>
<td>56%*</td>
<td></td>
</tr>
<tr>
<td>Got all the dental they needed</td>
<td>43%</td>
<td>64%*</td>
<td></td>
</tr>
<tr>
<td><strong>Social Determinants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Got all the help they needed w/food, housing, or transportation</td>
<td>54%</td>
<td>75%*</td>
<td></td>
</tr>
<tr>
<td><strong>Health &amp; Wellness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated overall health as good, very good, or excellent</td>
<td>38%</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>Reported that health has gotten better over last six months</td>
<td>13%</td>
<td>37%*</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at p < 0.10
Pulmonary Outcomes: St. Georges Respiratory Questionnaire (SGRQ)

Overall Health Assessment (SF5)  \( (n=15) \)

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Baseline</th>
<th>Follow-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good &amp; Good</td>
<td>7%</td>
<td>47%</td>
</tr>
<tr>
<td>Fair</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Very Poor &amp; Poor</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Very Poor &amp; Poor</td>
<td>13%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Improvement of Score at Case Closure  \( (n=15) \)

- Patient A: Improvement of 44%
- Patient B: Improvement of 44%
- Patient C: Improvement of 42%
- Patient C: Improvement of 34%
- Patient D: Improvement of 33%
- Patient E: Improvement of 30%
- Patient F: Improvement of 25%
- Patient G: Improvement of 24%
- Patient H: Improvement of 23%
- Patient I: Improvement of 11%
- 5 Add'l Pts: Improvement of 0%

60% had 20%+ Improvement in Symptoms, Activity, and Psychosocial fxn
On a scale of 1 to 5, with 5 being excellent, how well does the HRS coordinate with their care plan and the rest of the care team?

- Poor: 2
- 3
- 4: 2
- Excellent: 12

From your vantage point, on a scale of 1 to 5 with 5 being excellent, how effective is the HRS in caring for our high need Medicaid patients?

- Poor: 2
- 3
- 4: 2
- Excellent: 12

Do you think the program should be continued?

- All 14 respondents answered yes
The patients get an approach that they have not encountered before and they have engaged the most marginalized patients. I see that the providers feel more supported and more resilient as well in their ability to make an impact in these patients’ lives. This in the long run maybe more important than the decreased utilization.

The HRS has been able to connect with some of our most challenging members. Their involvement has increased the member’s involvement in their own health care. Would really take into effect the impact on the providers and their ability to take care of this complex patient population as I believe that it will be a key factor in preventing burnout and sustaining the ability for them to work with the targeted population.

HRS position is invaluable. To have a team member who goes out to patients in their setting is priceless. She is able to find what barriers exist for patients that we are never able to ascertain in the clinic setting.

Would really take into effect the positive impact on the providers and their ability to take care of this complex patient population as I believe this program is a key factor in preventing burnout and sustaining the ability for them to work with the targeted population.

I cannot emphasize enough that I think one of the main strengths of this program is it is not supervised and developed by Providence. The HRS brings community based expertise and relationships that Providence does not have.
References


- Billings, J., Raven, M.C. (2013). Dispelling an urban legend; Frequent emergency department users have substantial burden of disease. *Health Affairs*, 32 (12), 2099-2107.


