Effective, Scalable Community Health Worker Programs

Division of General Internal Medicine, Perelman School of Medicine
Penn Center for Community Health Workers
University of Pennsylvania

http://chw.upenn.edu/
Improve health in high-risk populations through the effective use of CHWs
Penn Center for Community Health Workers

• Research: Design, test and refine IMPaCT CHW model

• Direct Care: >5000 pts, $2:1 ROI

• Teaching: CHW apprenticeship for medical students

• Training: > 800 organizations
How to build a sustainable CHW program
1. Define outcomes and dollars

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care visits</td>
<td>TCM</td>
</tr>
<tr>
<td>Quality</td>
<td>HCAHPS</td>
</tr>
<tr>
<td>Readmissions</td>
<td>Penalty...</td>
</tr>
</tbody>
</table>

Morga et al AJPH, 2016
2. Map at-risk geography
3. Talk to affected people

“They can give you advice, like here’s the kind of medicine you need. But they don’t really know how it works in the real world.”

Kangovi et al, Health Affairs 2013.
Kangovi et al, JGIM 2013.
4. Learn from history

• Turnover, variability
• Lack of infrastructure
• Disease-specific
• Not integrated
• Low-quality evidence
5. Design...

- Hiring algorithms
- Standardized program
- Patient-centered
- Integrated with clinicians
- RCT evidence
5. Design...

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Intervention</th>
<th>Trait</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients want to be heard and do not want to feel judged</td>
<td>CHW conducts open-ended, strengths-based interview</td>
<td>-Nonjudgmental</td>
<td>Motivational Interviewing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Listens &gt; talks</td>
<td></td>
</tr>
</tbody>
</table>
...or use an evidence-based model!
Care model
Set goals

Support

Connect
Results
Improved care, improved health and lower cost

Randomized Controlled Trial (n=446)

Kangovi et al, JAMA Internal Medicine 2014.
Effects that persist

Preliminary Results, Randomized Controlled Trial (n=302)

Hospital Admissions

<table>
<thead>
<tr>
<th>Program ends</th>
</tr>
</thead>
</table>

Enrollment | 6 months | 1 year |

<table>
<thead>
<tr>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPaCT</td>
</tr>
</tbody>
</table>

Unpublished results, please do not circulate
Sustainability
Use data to build cost savings model

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care visits</td>
<td>TCM</td>
</tr>
<tr>
<td>Quality</td>
<td>HCAHPS</td>
</tr>
<tr>
<td>Readmissions</td>
<td>Penalty...</td>
</tr>
</tbody>
</table>

Morga et al AJPH, 2016
Partnership
Goals

– Launch quickly
– Scale efficiently
– Avoid “reinventing the wheel”
– Achieve financial sustainability
– Evaluate and continuously improve
Partnership program

1. **Plan** target population, budget and timeline
2. **Adapt** evidence-based model for local context
3. **Build** including hiring, training and documentation platform
4. **Ongoing support** including evaluation and learning network
Acknowledgements

- Judith A. Long, MD
- David Grande, MD, MPA
- Jill Feldstein, MPA
- Scott Tornek, MBA
- Garry Scheib, MBA
- Mary White, CHW
- Casey Chanton, MSW
- Robyn Smith, BS
- Raina Kulkarni, BS
- Nandita Mitra, PhD
- Ralph W. Muller, MA
- Tamala Carter, CHW
- Karen Glanz, PhD, MPH
- Joan Doyle, RN, MSN, MBA
- Horace DeLisser, MD
- Roy Rosin, MBA
- Susan Day, MD
- David Asch, MD, MBA
- Josh Metlay, MD
- Katrina Armstrong, MD
Thank you

http://chw.upenn.edu/
Target patients
Target patients

Set goals
Target patients

Set goals

Support
Target patients
Set goals
Support

Connect
Target patients
Set goals
Support
Connect

Measure outcomes
Target patients
Set goals
Support
Connect
Measure outcomes

Infrastructure
Target patients
Set goals
Support
Connect
Measure outcomes

Supervision

IMPACT Workforce Chart

- Director
- Interviewer
- Manager
- Coordinator
- SR CHW
- CHW
Target patients
Set goals
Support
Connect
Measure outcomes

Manuals
Target patients
Set goals
Support
Connect
Measure outcomes

| Technology |

<table>
<thead>
<tr>
<th>Roadmap 1</th>
<th>Next Steps</th>
<th>Resolved: Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change insurance</td>
<td>[ ] chw and pt will pick the Penn provider she wants 9/24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will call Change Center to change insurance plan if pt still wants 9/24</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roadmap 2</th>
<th>Next Steps</th>
<th>Resolved: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make PCC appointment and pt to attend</td>
<td>[ ] chw and pt will call new pcp and schedule apt by 9/29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will put apt on calendars and Outlook</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will make reminder call and attend if available</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roadmap 3</th>
<th>Next Steps</th>
<th>Resolved: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get transportation for apt</td>
<td>[ ] chw and pt will call logistics to schedule notes for pcp apt by 9/29 and ask logistics to fax form over to pcp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will follow up with pcp at apt to make sure all is filled back to logistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will confirm with logistics that they received form</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roadmap 6</th>
<th>Next Steps</th>
<th>Resolved: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invite pt to healthy living support group</td>
<td>[ ] chw will pick up form by 9/29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will talk to pt about healthy living group on 9/29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] If interested, chw will let pm know to add to list by 9/29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will also mail form as a reminder by 9/29</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Roadmap 7</th>
<th>Next Steps</th>
<th>Resolved: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Mainline Health for homecare come out to pt</td>
<td>[ ] chw will call pt on 9/29 to set up home health care and talk to pt about helping to ease transition with a new nurse</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[ ] chw will call pt to make sure nurse came out by 10/1</td>
<td></td>
</tr>
</tbody>
</table>
Clinical Integration

Target patients
Set goals
Support
Connect
Measure outcomes
## Flexible, patient-centered

<table>
<thead>
<tr>
<th>Category</th>
<th>Patient Summary</th>
<th>Goal</th>
<th>Tailored Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosocial</td>
<td>62 year-old socially isolated woman with hospitalized for panic attacks and chest pain.</td>
<td>Find a fun social activity</td>
<td>CHW went with patient to local recreation center. She felt “at home” and plans to go back.</td>
</tr>
<tr>
<td>Resource</td>
<td>53 year-old with schizophrenia who lives in a boarding home that will close in two weeks.</td>
<td>Find housing</td>
<td>CHW worked with patient and family to move him into another community boarding home.</td>
</tr>
<tr>
<td>Navigation</td>
<td>46-y-old patient with hypertensive urgency who could not afford $65 co-pay for discharge meds</td>
<td>Get low-cost prescriptions</td>
<td>CHW and patient asked hospitalist to prescribe generic s with no co-pay</td>
</tr>
</tbody>
</table>