Reforming Care for Patients at Increased Risk of Hospitalization: The Comprehensive Care Physician Model and the Comprehensive Care, Community and Culture Program (C4P)

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Background on CCP

- ACA has promoted delivery system reform to improve population health and reduce total cost of care
- High utilizers account for large fraction of costs and are frequently hospitalized
- Hospital care has come to be dominated by hospitalists vs. traditional PCPs
  - Hospitalists were hoped to improve costs/outcomes but have not produced large benefits
  - Benefits (expertise) vs. costs (discontinuities/loss of Dr-Pt relationship)
  - Hospitalists grew because PCPs did not have enough hospitalized patients to justify daily presence in hospital
- Comprehensive Care Physician (CCP) model seeks to improve care by having CCPs focus practice on patients at high risk of hospitalization
  - Lean approach to care coordination
  - Contrasts with typical care coordination models
  - 2,000 person RCT at UC funded by CMMI starting November 2012
Tailored Approach to General Medical Care

Stratify Patients by Expected Hospital Use

- Low Expected Hospital Use
  - Ambulatory-based Primary Care Physician and Hospitalist
- High Expected Hospital Use
  - Comprehensive Care Physician / Primary Care Hospitalist

Advantages?
- Most frequently hospitalized patients get own doctor in both settings. Continuity:
  - Is valued by patients
  - Decreases unneeded testing/treatment, errors
  - Lowers doctor costs (travel, history taking)
- All hospitalized patients get doctors with significant hospital experience and presence
  - Physicians can be specialists
  - Patient choice restored
  - CCP model can work for physician
  - Patient-centered medical home / bundling / readmission penalties
  - Smaller primary care base can fill hospital

Challenges?
- Are enough patients willing to switch?
- Will doctors let patients switch?
- Will doctors do this job?
- Can it be economically viable?

CMMI Study (2012- )
- Medicare, ~ 1/2 duals, median family income<25K
# Key CMMI Design Elements

<table>
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<tr>
<th>Lessons from Literature</th>
<th>Program Element</th>
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<tr>
<td>Focus on High-Cost Patients</td>
<td>Patients expected to spend &gt;10 days in hospital in next year; up to 40% of general medicine days, annual Medicare costs $100,000 per year; diverse recruitment sources, including resident clinics</td>
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<td>Build Interdisciplinary Team</td>
<td>5 CCPs = 1000 patients. Organize CCP, 0.1 APN, RN, LPN, LCSW, clinic coordinator around common patient medical and psychosocial needs</td>
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<td>Minimize costs (esp. coordination costs)</td>
<td>Small, well-connected teams, provider continuity, daily multidisciplinary rounds</td>
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<td>Focus on care transitions</td>
<td>Post-discharge calls, Health IT</td>
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<td>Financial incentives</td>
<td>Prepare for shared savings (randomized internal controls)</td>
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<td>Sustainable roles and training for care team</td>
<td>Support the team members (group to spread weekend coverage, night coverage, psychosocial support, relevant clinical training (e.g., communication, palliative care), academic development, recognition).</td>
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<td>Rapid cycle innovation</td>
<td>Frequent, data-driven meetings that seek to engage relevant leaders</td>
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<td>Rigorous evaluation</td>
<td>2,000 person RCT, Triple Aim (Better Care Better Health, Lower Costs), survey and Medicare claims data, external and internal evaluators</td>
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Current Status

• Outcomes
  – Better care
    • Overall experience with physician
    • Doctor-patient relationship (knowledge, trust, communication, interpersonal relationship)
    • Attention to emotional health and support in making changes to lifestyle
  – Better health
    • Including mental health
  – Costs
    • Hospitalization, hospital days, readmissions, preventable hospitalization, costs
  – Complete 1-yr f/u by June 2017, 3-yr f/u planned (Donaghue)

• Longer-term issues
  – Financial model for expansion/sustainability
    • Fee for service (revenue maximization, clinical volumes, CCM codes)
    • Risk-based contracts (cost mgt, MA and MSSP/ACO, employer)
    • New populations (cancer, pain, sickle cell (AYA))
  – Partnerships (learning collaborative?) with others interested in CCP
Needs for Improved Engagement

• ~30% patients randomized to CCP do not engage fully despite systematic efforts to reach out to them
  – No appointments
  – Make but not keep appointments
  – Other forms of low engagement would add to this

• All forms of engagement create opportunity to benefit patients, lower costs, provide efficient care
  – Frequently admitted, average costs ~$75-100K/year

• Diverse demographics
  – Young/old, well/sick, low income, little social support
  – History of low engagement
Why do they not engage?

- Likely not one reason or one solution
- As we develop more solutions, reasons for remaining patients change
- Need patient perspective
  - Focus groups problematic
  - Real time opportunistic interviews with unengaged patients when they present to ER or hospital
Patient Perspectives on Engagement

Barriers

- Transportation
  - Too costly
  - Unreliable
  - Not know how to negotiate system
  - Safety
- Mood
  - “Just not feel up to it”
- Childcare

What would help?

- Better transport
  - Free parking
  - “If I had transportation, I wouldn’t have a problem getting up... I don’t know if it’s just depression or what but a lot of times, I just don’t want to be bothered. It’s been like that a lot.”
- Family friendly environment
- Reminders
- Other
  - “Nothing really, its nothing you guys are doing. I just have to get in the right mindset and come in when I need to. I really would prefer to go out and walk or do something different other than spend my time at the doctor.”
Comprehensive Care, Community and Culture Program (C4P)

- Systematic assessment of unmet social needs
- Community Health Worker (CHW) Program
  - Seek to engage patient in community/home to deepen understanding of and address unmet social needs (navigate system, connect to economic and other resources, reminders, assess home environment, engage psychologically), pull out of home, connect to clinical team
  - Community members, not disease-focused, tightly linked to clinical team
  - Working with Sinai Health System
- Artful Living Program (ALP)
  - Engage patients with others and clinical team
    - Music, arts, theater, movies, books, speakers
  - Promote self-efficacy
    - Exercise, cooking, crafts
  - Explore and share values that enhance life, health
    - Narrative (e.g., Stanford Letter Project, photovoice)
- Goals
  - Establish program
  - Pilot/perform RCT to assess effects of SC/CCP/C4P on engagement, triple aim (better care, better health, lower cost), goal attainment
Assessment for Unmet Needs
(A Lot, Some A Little, No, DK, Refuse)

1. Food
2. Housing
3. Money to pay for basic needs, like utilities, coats and shoes, other household needs
4. Employment, education or job training
5. Help applying for public benefits, like food stamps or disability
6. Child care or activities for children you care for
7. Issues with school for children you care for
8. Legal assistance
9. Health insurance or dental insurance for you or your family
10. Transportation
11. Personal safety
12. Mental health or substance abuse treatment
13. Budgeting or financial planning
14. Companionship or social support
15. Engaging in activities you enjoy
16. Healthy eating and physical activity
17. Spiritual or religious support

Domains based on instrument used by Health Leads
### Distribution of Unmet Needs

<table>
<thead>
<tr>
<th># of Unmet Needs</th>
<th># of Respondents</th>
<th>Cumulative % Respondents</th>
<th>Cumulative % Unmet Needs</th>
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50% of respondents have only 0-2 unmet needs, accounting for only 10% of unmet needs.

Other 50% of respondents account for 90% of unmet needs.

29% have 5+ needs, accounting for 68% of unmet needs.
Prevalence of Specific Needs

If we solve top 5 needs, address 50% of all unmet needs

<table>
<thead>
<tr>
<th>Rank</th>
<th>Need</th>
<th>Definition (Per Survey)</th>
<th>All Respondents (N = 195)</th>
<th>Respondents with &gt;2 Unmet Needs (N=98)</th>
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<td>Health Insurance</td>
<td>&quot;For health insurance or dental insurance for you or your family&quot;</td>
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<td>Money</td>
<td>&quot;For money to pay for basic needs, like utilities, coats and shoes, other household needs&quot;</td>
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<td>Engaging in Enjoyable Activities</td>
<td>&quot;For engaging in activities you enjoy&quot;</td>
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<td>Transportation</td>
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<td>Food</td>
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<td>#7</td>
<td>Legal</td>
<td>&quot;For legal assistance&quot;</td>
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<td>Applying for Public Benefits</td>
<td>&quot;For help applying for public benefits, like food stamps or disability&quot;</td>
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<td>Children School Issues</td>
<td>&quot;For issues with school for children you care for&quot;</td>
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If we solve top 5 needs, address 50% of all unmet needs
### Co-Occurrence (% of Top Row Variable)

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<th>Respondents w/ unmet need</th>
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**Clusters:** e.g., **Healthy Eating and Physical Activity** and **Engaging in Enjoyable Activities** (+ Companionship, 67% of persons with need for Treatment for Mental Health or Substance Abuse), Financial Cluster

**Patient centered approaches:** 1) build programming based on clusters, 2) mobilize CHW/SW to address needs jointly at patient level, 3) work to defragment social service support when possible when referral necessary
Changes in Unmet Needs over Time

• Outcome measure
  – e.g., compare changes in unmet needs (number, resolution, development) over time in C4P/CCP/SC (sample size still too small)

• Guidance for program design
  – e.g., development of new needs substantial so need monitoring

• Lessons about causes of unmet needs
  – e.g., persons with more unmet needs less likely to solve needs and more likely to develop new ones likely

<table>
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<th>Unmet Needs after 3 months</th>
<th>Unmet Needs at Baseline</th>
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<tbody>
<tr>
<td></td>
<td>Overall</td>
</tr>
<tr>
<td>Needs Unmet at Baseline</td>
<td>45%</td>
</tr>
<tr>
<td>Needs Met at Baseline</td>
<td>8%</td>
</tr>
</tbody>
</table>
ALP Design Process

- Iterative experimentation
- Faculty and Patient Advisory Groups
- Directly ask patients, esp. least engaged ones
  - “We are also developing new activities that we hope will enrich the lives people in our program and their families, and connect them with new people and experiences they may enjoy. We would love your ideas on what sort activities might interest you enough to attend them. Some suggestions we have gotten from others include..”

- Areas of Interest
  - Family friendly, opportunities to socialize, music / performance (theater, dance), story telling / narrative (life stories, photos), arts / crafts, sports (men), cooking (all)

- Barriers
  - Parking, busy, lack of family interest, psychological
  - “Me. …I have an issue with overthinking things too much. The majority of times, I’m always in my head. I noticed it’s pretty much like that when I’m to myself or alone. I really want to try and get help with that. Also, transportation might make it difficult.”
First Events

• Activities
  – Social/Arts Activities (e.g., cooking class, crafts, Bingo)
  – Social Determinants Lunch and Learns (e.g., transportation, financial planning)

• Participation
  – Up to 20% express interest in a specific event
  – 25-50% show rate (health, weather, transport)
  – Events during clinic day a help
  – Often bring family, friend
  – Building core of attendees
  – Positive feedback: enjoyed, learned, connected to others

• Continue iterative experimentation and wait for program to grow critical mass and CHWs to engage less engaged participants
Sustainability

• Patient engagement
  – Integration of desired activities/services with clinic scheduling
  – Produce crafts, sell, revenues to patients and program

• Use of community resources
  – UC, broader community, patients, neighbors
  – Keeps costs low, encourage integrated delivery
  – Promote patient self-efficacy

• Build business case to payers/health systems
  – Optimize use of existing resources (PACE, navigation)
  – RCT to show cost savings, efficiencies (no shows)

• Sustainable philanthropy
  – Multiple small donors, arts foundations
  – Micro philanthropy (linkage to sales, obituary request, matching)
Thank You!

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