Community-based, Multidisciplinary Care Teams: Optimizing the Return on Investment

L. Allen Dobson, Jr., MD
President and CEO
CCNC Footprint Statewide

- **5,000 primary care providers**
  - 1,800 Practices
  - 90% of PCPs in NC

- **1.5 million Medicaid Patients**
  - 1 million children
  - 500,000 adults
  - 300,000 Aged, Blind, Disabled
  - 150,000 Dually Eligible

All 100 NC Counties

14 Networks

Each network averages:
- 1.4 Medical Directors, 1.0 Psychiatrist
- 42.8 Local Care Managers
- 1.8 Pharmacists
- Multiple disciplines: RN, LCSW, RD, ...
External Evaluation - Bending the cost curve

- 2015 report from the Office of the State Auditor, analysis conducted by Harvard health economist Dr. Michael Chernew
- Every dollar invested in CCNC has generated over $3 in savings to the state
- Total net savings $312 per member per year (9% of Medicaid costs)
- Savings driven by 25% reduction in inpatient admissions
CCNC Performance Relative to 2012 NC Medicaid Benchmarks

**Outcomes - Key Performance Indicators**

- **Total Medicaid Spend Per Member Per Month**: 6% below expected
- **ED Visits Per 1,000 Member Months**: 6.5% below expected
- **Inpatient Admissions Per 1,000 Member Months**: 27% below expected
- **Potentially Preventable Readmissions Per 1,000 Member Months**: 59% below expected
CCNC Care Management Evolution

- Disease Management: Care of Complex Patients
- Focus on High Cost/High Risk: Focus on Most Impactable
- One Size Fits All: Right sizing of intervention to maximize ROI
Under conventional flagging methodology, all of these people might have been flagged; care management would likely have had minimal impact for most of them.
Conditions Themselves Don’t Drive Impactability

Healthy

John is in a Healthy risk group, with no chronic conditions. However, unlike other Healthy individuals, he frequently uses the emergency room for routine matters.

Severe Asthma

Joyce has Severe Asthma. However, she has many more acute exacerbations and hospital visits than most people with Severe Asthma.

Diabetes & Chronic Renal Failure

Mark has both Diabetes and Chronic Renal Failure, and so is expected to be a high utilizer. However, even for patients like him, his cost and utilization is an outlier.
The Sweet Spot: Optimizing ROI requires a focus on impactability.

"Impactability" predicts how much change can be expected through care management intervention.

"Risk" predicts where a person is expected to be in the future.
1.8M Recipients - CCNC’s Targeting Optimizes Care Management ROI
Social Determinants & Need for the Community-Based Care Team

88% of Impactable patients have at least one of the following social risk factors in addition to their medical conditions:

- 77% have mental illness
- 30% lack adequate support system
- 29% lack adequate transportation
- 18% have unstable housing
- 17% have experienced trauma or abuse
- 17% have substance abuse problems
- 16% have unmet nutritional needs
- 14% are illiterate

➢ 58% have more than one of these
➢ 21% have at least 4 or these

Fragmented Care

The most Impactable patients (score ≥ 500) visit an average of

- 14 different billing providers during any given year
- 2.5 different hospitals for acute events in a 12 month period.
  - 70% use more than one hospital
  - 20% use 4 or more hospitals
Savings by Targeting Strategy (Pre-post trend comparison vs. intervention)

Change in Total Spend Relative to Prior 6 Months

Impactability: -$705  
Inpatient Super-users: -$742  
ED Super-users: -$105  
Random: -$17

Regression to the mean

In each case, the darker shaded bar represents the change in spend PMPM in the 6-month follow-up period for those receiving care management, while the lighter shaded bar represents the change in spend for the comparison group.
The same investment in care managing 5,000 patients yields VERY different results depending on who you choose to manage.
Readmission Rate Trends among NC Medicaid Beneficiaries with Multiple Chronic Conditions, 2008-FY2014

This means >2200 fewer readmissions in SFY2014 compared to 2008 performance.
Inpatient Admission Trends among NC Medicaid Beneficiaries with Multiple Chronic Conditions, 2008-FY2014

This means >8,000 fewer inpatient admissions in SFY2014 compared to 2008 performance.