Health Care Reform and Alternative Funding Models:

Beyond Fee for Service

RONALD R. O'DONNELL, PH.D.
DIRECTOR, BEHAVIORAL HEALTH

RODGER KESSLER PH.D.
ASSOCIATE CLINICAL PROFESSOR

Is Fee for Service a Viable Financial Model?

The Nicholas A. Cummings
Doctor of Behavioral Health Program

ASU Health Solutions
ARIZONA STATE UNIVERSITY
Fee for service limitations

Drives volume not quality  
Focus on acute vs. chronic care  
Promotes rules that limit creativity  
No incentive for quality  
Focus on optimizing dollars not quality  
Promotes work around’s not systems change

A new focus on quality driven payment

The Triple Aim is The Driver
The Nicholas A. Cummings
Doctor of Behavioral Health Program

The Accountable Care Organization (ACO)

The Nicholas A. Cummings
Doctor of Behavioral Health Program
ACO’s - The Good

Alternative to FFS- sort of
Links quality of care to payment- sort of
Leaves care decisions local-sort of
Very new
Mixed results
Different from market to market
Profit driven

ACO’s - The Bad

Very new
Mixed results
Different from market to market
Profit driven
ACO’s - The Ugly

- Behavioral Health is often not included
- Behavioral Health cannot produce the data for a compelling case
- There are not yet well established models
- ACO’s have no time and generally no volition and when they do pay attention they seek out simple solutions

ACO P4P financial incentives: What Measures Matter?

- CMS metrics will drive ACO P4P incentive programs
- CMS Quality Measures
  - Patient/caregiver experience
  - Care coordination
  - Patient safety
  - Preventive health
  - At-risk population biometrics
CMS incentive quality performance standards

- At Risk Population
  - Diabetes
    - Hemoglobin A1c Control (< 8%)
    - LDL (< 100)
    - BP (<140/90)
    - Tobacco non-use
    - Aspirin use
    - A1c Poor control (>9%)
  - Hypertension
    - BP control
  - Ischemic vascular disease
    - Complete lipid profile and LDL control < 100 gm/dl
    - Use of aspirin

The Nicholas A. Cummings
Doctor of Behavioral Health Program

In chaos there is opportunity

Chairman Mao

The Nicholas A. Cummings
Doctor of Behavioral Health Program
The cost of chronic conditions

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Costs per burden of illness categories

<table>
<thead>
<tr>
<th>Category</th>
<th>% of Cost</th>
<th>% of Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>6%</td>
<td>44%</td>
</tr>
<tr>
<td>One or More Significant Acute Diseases</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>One Minor Chronic Disease</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Multiple Minor Chronic Diseases</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>One Significant Chronic Disease</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Two Significant Chronic Diseases</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Three or More Significant Chronic Diseases</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Complicated Malignancies</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Catastrophic Conditions</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

10% of Cost
44% of Members

70% of Cost
54% of Members

20% of Cost
2% of Members

BC/BS of Vermont 2014
## Co-existing conditions affect cost

<table>
<thead>
<tr>
<th>Patient Groups</th>
<th>Annual Cost of Care</th>
<th>Illness Prevalence</th>
<th>% with Comorbid Mental Condition*</th>
<th>Annual Cost with Mental Condition</th>
<th>% Increase with Mental Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>All insured</td>
<td>$2,920</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>$5,220</td>
<td>6.6%</td>
<td>36%</td>
<td>$10,170</td>
<td>94%</td>
</tr>
<tr>
<td>Asthma</td>
<td>$3,730</td>
<td>5.9%</td>
<td>35%</td>
<td>$10,030</td>
<td>169%</td>
</tr>
<tr>
<td>Cancer</td>
<td>$11,650</td>
<td>4.3%</td>
<td>37%</td>
<td>$18,870</td>
<td>62%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>$5,480</td>
<td>8.9%</td>
<td>30%</td>
<td>$12,280</td>
<td>124%</td>
</tr>
<tr>
<td>CHF</td>
<td>$9,770</td>
<td>1.3%</td>
<td>40%</td>
<td>$17,200</td>
<td>76%</td>
</tr>
<tr>
<td>Migraine</td>
<td>$4,340</td>
<td>8.2%</td>
<td>43%</td>
<td>$10,810</td>
<td>149%</td>
</tr>
<tr>
<td>COPD</td>
<td>$3,840</td>
<td>8.2%</td>
<td>38%</td>
<td>$10,980</td>
<td>186%</td>
</tr>
</tbody>
</table>

---

**Integrated Behavioral Health (IBH) Treatment Models and Cost Savings**

The Nicholas A. Cummings
Doctor of Behavioral Health Program
IBH interventions - cost savings

- Lifestyle change for cardiovascular risk factors
- Diabetes
- Depression and Anxiety with co-morbid medical conditions
- Somatizers
- Insomnia
- Pain and opioid misuse
- Alcohol abuse

Pathways to IBH Cost Savings

1. Decreased utilization of medical services
2. Avoidance of future medical services
3. Attainment of ACO financial incentives, P4P bonus, etc.
4. Workplace productivity gains
5. Increased revenue related to higher physician productivity
6. Reduce intervention cost to increase ROI
IBH Necessary Components to Achieve Cost Savings

*Primary care-based* IBH
Population Health Management
Treating Multiple Conditions
*Effective* Assessment and Engagement
*Efficient* Behavioral Interventions
eHealth
Outcomes Management System
Practice Management

The Nicholas A. Cummings
Doctor of Behavioral Health Program

---

Treat all comorbidities

- **Medical**
  - Diabetes
  - CHD

- **Behavioral**
  - Depression
  - Anxiety
  - Alcohol abuse

- **Lifestyle**
  - Overeating
  - Poor nutrition
  - Lack of physical activity

The Nicholas A. Cummings
Doctor of Behavioral Health Program

ARIZONA STATE UNIVERSITY
Psychopathology

Cummings & Cummings (2013) *Refocused Psychotherapy*

- Onion-Garlic Classification:
  - Defense mechanisms
  - Personality disorders
  - Family systems

Clarke (2007) *They Can’t Find Anything Wrong*

- Causes of stress illness:
  - Childhood stress, Current stress
  - Stress from traumatic event
  - Depression, Anxiety

Sperry (2014) *Behavioral Health: Integrating Family and Individual Interventions in the Treatment of Medical Conditions*

- Personality and family dynamics

---

Top Ten Reasons YOU SHOULD Try Integrated Care!

1. Like to learn new things
2. High energy
3. Can manage medical AND behavioral cases
4. Can manage many cases well
5. Write and speak clearly and concisely
6. Good at regulating emotions and distress
7. Understand the cultures served by clinic
8. Has lived in the community
9. Can handle constructive suggestions to improve
10. Not tied to special assessment/treatment model

---
Top Ten Reasons YOU SHOULD NOT Try Integrated Care!

1. Belief in lengthy assessment
2. No interest in group therapy
3. Problems with authority figures
4. Problem getting along with others
5. Unhealthy personal lifestyle
6. Concerns over “medical model”
7. Problems seeing many patients in short time
8. Not open to practicing stepped care
9. Difficulty establishing alliance in 10 minutes
10. Negative attitude toward managed care/finance

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Examples

Diabetes prevention program (DPP)

Reduction in subsequent cardiac events

The Nicholas A. Cummings
Doctor of Behavioral Health Program
DPP

• DPP improves patient self management, metabolic control, satisfaction and quality of life

• Relative to a benchmark of a change in HbA1c of 0.5 points as clinically meaningful, meta-analyses of 31 studies evaluating self management effectiveness impact showed a 0.76 point HbA1c differences between intervention and control (Norris et al. 2002)

• Review of 10 studies since 2002 generated an 0.82 point difference (Fisher et al.

The Diabetes Prevention Program
(Diabetes Prevention Program Research Group 2002)

• Multiple trials generated average of 7% loss of body weight with a combination of 150 minutes/week modest physical exercise with behavior change support

• It reduces the incidence of type 2 diabetes by 58%. Metformin reduced incidence by 31%

• Group differences sustained over 10 years

• Risk reduction is similar across all ethnic groups

• Subsequent studies have demonstrated DPP effective with underserved and minority groups especially at risk

• Cost per case prevented was $13,200 for the DPP and $14,300 metformin

• QALY DPP $1100 and Metformin $34,000
Distance Learning Lifestyle Coach Training for National DPP

www.viridianhealthevents.com

http://www.cdc.gov/Diabetes/prevention/

Become a Lifestyle Coach to Deliver the CDC’s National Diabetes Prevention Program
New Distance, Online Classes Starting April & May

Our pilot class for distance, online training to become a Lifestyle Coach to deliver the CDC’s National Diabetes Prevention Program (National DPP) sold out quickly. Therefore, we are pleased to share new class dates with you – registration is now open.

Only Web-based Training for National DPP
This training is the only distance learning, online training offered for Lifestyle Coach Training for the CDC’s National DPP.

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Cognitive Behavioral Therapy to Prevent Recurrent Cardiovascular Events in Patients With Coronary Heart Disease

The Nicholas A. Cummings
Doctor of Behavioral Health Program

ASU Health Solutions
ARIZONA STATE UNIVERSITY
Randomized Controlled Trial of Cognitive Behavioral Therapy vs Standard Treatment to Prevent Recurrent Cardiovascular Events in Patients With Coronary Heart Disease. Mats Gulliksson, *Arch Int Med, 2011*

**Results** During a mean 94 months of follow-up, the intervention group had a 41% lower rate of fatal and nonfatal first recurrent CVD events (hazard ratio [95% confidence interval], 0.59 [0.42–0.83]; *P* = .002), 45% fewer recurrent acute myocardial infarctions (0.55 [0.36–0.85]; *P* = .007), and a nonsignificant 28% lower all-cause mortality (0.72 [0.40–1.30]; *P* = .28) than the reference group after adjustment for other outcome-affecting variables.

What is potential cost savings of 45% reduction in acute MI’s?

• Regional Medical Center X had 135 admissions for acute Myocardial Infarctions, at an average per admission cost of $75,000 per admission in 1 year. In the new ACO model hospitalization is an expense. They calculated that if they implemented the CBT program just described, at an average cost of $900 per patient, there would be a hospitalization reduction. What is the potential cost savings based on this available data?
Calculating the cost savings of improved clinical outcomes

• 135 hospitalizations x $75,000 = pre intervention cost
• 45% of 135 is the number of potential reduced hospitalizations
• Reduced hospitalizations x $75,000 is the reduction in hospitalization cost
Is that the total potential savings to the hospital???
ROI Calculation Based on Reduced Utilization and Costs

Net savings from changes in utilization

\[ \text{ROI} = \frac{\text{Net savings}}{\text{Program costs}} \]

Changes in utilization and costs

- Emergency
- Labs/radiology
- Pharmacy
- Primary Care
- Specialty Care
- Mental Health
- Ambulatory surgery
- Other
- Outpatient total
- Inpatient total

(Katon et al., 2012)
Program Costs

- Calculated based on actual salary and fringe benefits plus 30% overhead (admin + space)
- $79 per nurse visit (avg. 30 minutes)
- $31 per phone consult (avg. 15 minutes)
- 45 minutes of nurse time for each phone consult (recordkeeping, outreach efforts)
- Fixed $100 per patient for costs of physician supervision (supervision of nurse 1x/3-4 weeks per month at hourly cost of $140 per physician)

(Katon et al., 2012)

Recommended ROI Web and books

Care Continuum Alliance
http://www.carecontinuumalliance.org
Disease Management Purchasing Consortium International (DMPC)
http://www.dismgmt.com
Depression ROI and Cost Calculators


Reducing Intervention Costs to Increase ROI

- Medication adherence and ROI
- Lower level staff to conduct interventions
- Behavioral Activation as primary intervention
- eHealth and mHealth as adjunct to treatment
Medication Adherence = Lower Total Healthcare Costs

- Cardiovascular (lower costs)
- Congestive heart failure
- Hypertension
- Diabetes
- Dyslipidemia

Exceptions
(higher costs)

- Depression
- Osteoporosis
- Asthma

(Roebuck et al., 2011)

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Medication adherence = Lower Total Healthcare Costs

- Key drivers of cost savings = reductions in:
  - Hospitalizations
  - Emergency Dept. Visits

- Average annual savings:
  - CHF - $8,881, ROI = 8.4:1
  - Hypertension - $4,337, ROI = 10.1:1
  - Diabetes - $4,413, ROI = 6.7:1
  - Dyslipidemia - $1,860, ROI = 3.1:1

The Nicholas A. Cummings
Doctor of Behavioral Health Program
Slowdown in Growth of Spending for Psychiatric Drugs

- The past high growth in spending for psychotropics has declined significantly

- Decline in average prices due to generics is key driver

- Decline in growth of users

  (Mark et. al, 2012)

Use of Lower Level of Staff to Deliver Collaborative Care

- Chronic care model

- Health care assistant
  - Trained in 2 workshops total 17 hours
  - Depression self-management, communication skills, telephone monitoring and behavioral activation
  - Phone contact 2/week month one, 1x/month remaining 11 months

  (Genisichen et al., 2009)
eHealth and mHealth as Adjunct to Treatment During Follow-up

- Internet, smart-phone, tablet based behavioral treatment programs
- Based on cognitive-behavioral therapy and stages of change
- As effective as in-person treatment for depression, anxiety, panic, substance abuse, and PTSD
- Savings of \textbf{50\% to 80\%} in clinician time
- \textbf{Must have clinician to guide patient}

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Improving ROI by achieving ACO P4P financial incentives: What Measures Matter?

- CMS metrics will drive ACO P4P incentive programs
- CMS Quality Measures
  - Patient/caregiver experience
  - Care coordination
  - Patient safety
  - Preventive health
  - At-risk population biometrics

The Nicholas A. Cummings
Doctor of Behavioral Health Program
CMS incentive quality performance standards

- At Risk Population
  - Diabetes
    - Hemoglobin A1c Control (< 8%)
    - LDL (< 100)
    - BP (<140/90)
    - Tobacco non-use
    - Aspirin use
    - A1c Poor control (>9%)
  - Hypertension
    - BP control
  - Ischemic vascular disease
    - Complete lipid profile and LDL control < 100 gm/dl
    - Use of aspirin

The Nicholas A. Cummings
Doctor of Behavioral Health Program

Resources

The Nicholas A. Cummings
Doctor of Behavioral Health Program
MOODGYM - Internet Depression Treatment
https://moodgym.anu.edu.au/welcome

- MoodGym
- CCBT
- BluePages
- Info website
- Improved symptoms
- 79% completed program
- 60% retained at 12 month follow-up

(MacKinnnon et al, 2007)

Anxiety Online (Free!)

- Internet CBT
  - GAD
  - SAD
  - PTSD
  - Panic Disorder
  - OCD
- Anxiety Online is funded by the Australian Government Department of Health and Ageing under the Telephone Counseling, Self Help and Web-Based Support Programmes measure.

The Nicholas A. Cummings
Doctor of Behavioral Health Program
mHealth Apps for Anxiety

- My Anxiety Coach: Available on Google Play (Free)
- iCounselor: Anxiety: Available on iTunes ($0.99)
- AppCounselor Anxiety: Available on Google Play ($0.99)
- AnxietyCoach: Available on iTunes ($4.99)
- iCBT: Available on iTunes ($4.99)
- Anxiety Psychopharmacology: Available on iTunes, Google Play and BlackBerry ($14.99)

The Nicholas A. Cummings
Doctor of Behavioral Health Program

mHealth Apps for OCD

- AppCounselor OCD: Available on Google Play ($0.99)
- iCounselor: OCD: Available on iTunes ($0.99)
- AnxietyCoach: Available on iTunes ($4.99)
- iCBT: Available on iTunes ($4.99)
- Anxiety Psychopharmacology: Available on iTunes, Google Play and BlackBerry ($14.99)
- OCD Manager: Available on iTunes ($19.99)
- LiveOCD Free: Available on iTunes ($79.99)

The Nicholas A. Cummings
Doctor of Behavioral Health Program
mHealth apps for PTSD

- PTSD Coach: Available on iTunes and Google Play (Free)
- PE Coach: Available on iTunes and Google Play (Free)
- Breathe2Relax: Available on iTunes and Google Play (Free)
- mTBI (Mild Traumatic Brain Injury) Pocket Guide: Available on iTunes and Google Play (Free)
- Tactical Breather: Available on iTunes and Google Play (Free)
- T2 Mood Tracker: Available on iTunes and Google Play (Free)
- PTSD Support for veterans: Available on iTunes and Google Play (Free)

mHealth Apps for Panic disorder

- Stop Panic & Anxiety, Self-Help: Available on Google Play (Free)
- My Anxiety Coach: Available on Google Play (Free)
- Beat Panic: Available on iTunes (~$1.00)
- Let Panic Go: Available on iTunes ($2.99)
- Panic Aid: Available on iTunes (~$3.00)
mHealth apps for phobias

• (FOR CHILDREN) Pablo the Pufferfish (Fear of Needles): Available on iTunes (Free)
• Afraid of Snakes: Available on iTunes (Free)
• Fear of Spiders: Available on iTunes ($2.99)
• Fear of Dentists: Available on iTunes ($2.99)
• Fear of Flying: Available on iTunes ($2.99)
• Fear of Flying App: Available on iTunes ($3.99)
• Flying Without Fear: Available on iTunes ($4.99)

The Nicholas A. Cummings
Doctor of Behavioral Health Program

• Providers that can demonstrate ROI will be highly valued by ACO leadership
• Ample evidence that behavioral interventions can improve health outcomes and decrease cost

Integrated behavioral clinicians have the opportunity to own this turf
Barriers

Training Supervision and Support
Integrated Behavioral Care Training Programs

- Arizona State University, School of Letters and Sciences Doctor of Behavioral Health (DBH) degree (https://chs.asu.edu/dbh)
- Department of Family Medicine and Community Health, University of Massachusetts Medical School Certificate Program in Primary Care Behavioral Health (http://www.integratedprimarycare.com/)
- Fairleigh-Dickinson University Certificate Program in Integrated Behavioral Care (http://integratedcare.fdu.edu/index.html)

Show Me The Money

<table>
<thead>
<tr>
<th>Evaluation and Management (E&amp;M) CPT codes</th>
<th>Case Rates Capitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Behavior (H&amp;B) CPT Codes 96150-96155</td>
<td>Psychiatric Services Codes 90801-90808, 90862, 99241-99245</td>
</tr>
<tr>
<td>Substance Use Screening Codes: 99408 and 99409</td>
<td></td>
</tr>
</tbody>
</table>

The Nicholas A. Cummings
Doctor of Behavioral Health Program
Resistance!

Questions??
Discussion and questions

The Nicholas A. Cummings
Doctor of Behavioral Health Program

ASU Health Solutions
ARIZONA STATE UNIVERSITY