



Integrating Behavioral Health into Primary Care

Public Meeting – May 1, 2015

Agenda

- **Meeting Convened | 10:00 am – 10:15 am**
 - *Opening remarks and CEPAC Introduction by Steve Pearson, MD, President, Institute for Clinical and Economic Review*
- **Topic Overview and Presentation of the Evidence and Economic Modeling, Q&A | 10:15 am – 11:30 am**
 - *Sarah Jane Reed, MSc, Program Director, CEPAC, Institute for Clinical and Economic Review*
 - *Jeffrey A. Tice, MD, Division of General Internal Medicine, Department of Medicine, University of California San Francisco*
 - *Dan Ollendorf, PhD, Chief Review Officer, Institute for Clinical and Economic Review*
- **Discussion and Public Comments | 11:30 – 12:00 pm**
- **Lunch | 12:00 pm– 12:30 pm**
- **CEPAC Q&A with Experts / Deliberation and Votes on Evidence Questions | 12:30 – 2:00 pm**
- **Policy Roundtable Discussion | 2:00 pm – 3:50 pm**
- **Summary and Closing Remarks | 3:55 – 4:00 pm**
- **Meeting Adjourned | 4:00 pm**



New England CEPAC Overview

- Core program of the Institute for Clinical and Economic Review (ICER), an independent non-profit research organization that evaluates scientific evidence on the clinical effectiveness and cost implications of medical interventions
- Goal: To improve the application of evidence to guide practice and policy in New England
- Structure:
 - Evidence review from ICER
 - Deliberation and voting by CEPAC– independent clinicians, methodologists, and leaders in patient engagement and advocacy
- Supported by NESCSO, regional private payers, and regional provider organizations



TOPIC OVERVIEW

Sarah Jane Reed, MSc

Program Director, CEPAC

Institute for Clinical and Economic Review



I have no conflicts of interest.



How Terms Are Used in this Report

- Behavioral health integration (BHI) into primary care addresses both physical health and behavioral health needs in primary care settings through systematic coordination and collaboration among health care providers
 - Behavioral health broadly defined by AHRQ; this report focused on a subset of behavioral health conditions
- Evidence on clinical effectiveness and cost impact generally limited to mental health conditions, but field evolving to include substance use disorder and other conditions
 - Clinical effectiveness review focused on conditions common in primary care (anxiety and depression)



Context

- High prevalence of behavioral health conditions in population, especially among patients with chronic physical health conditions
- Major disparities in access to behavioral health services
- Long history of separate treatment and financing of physical and behavioral health conditions
- Many efforts to integrate behavioral health and primary care over past 20+ years
- Field is evolving – supported by variety of public agencies and private foundations/organizations



Common Features of BHI

- Screening for depression, anxiety, and (sometimes) other behavioral health disorders using validated screening tools
- Team-based care
- Shared information systems
- Standardized use of evidence-based guidelines
- Systematic monitoring of patient response to therapy
- Engagement with broader community services
- Individualized, person-centered care that incorporated family members and other supports into treatment plan



Challenges to BHI in New England



Administrative Complexity

- Administrative complexity:
 - Fragmented care reinforced by separate funding streams and regulations for physical and behavioral health services, usually split across multiple government agencies/departments
 - Purchasing, rate setting, contracting, and licensing delegated across entities



Information Sharing

- HIPAA restrictions on disclosure and use of patient information
 - More stringent federal and state criteria for treatment of substance use disorders and mental health conditions re. sharing data
- Slower adoption of EHRs by behavioral health providers than by physical health treatment providers
- Customization of EHRs and inability to communicate with external providers



Workforce Issues

- Distinct practice cultures between primary care and specialty behavioral health
 - Greater flexibility, shorter appointments for primary care
 - Integrated settings may need to develop schedules/work flows to accommodate real-time consultation and warm hand-offs
- Network capacity: shortage of behavioral health providers and PCPs
- Training: primary care and behavioral health providers are rarely trained in BHI
 - Requires hiring and re-training of existing staff



Purchasing Arrangements/Coverage

- “Carve outs” common – public and private health plans delegate responsibility for behavioral health to MBHOs
 - Often misaligned payment incentives between physical health and behavioral health
 - Provider networks may exclude primary care practices
 - Information exchange is often limited
- 5 out of 6 New England Medicaid programs utilize behavioral health carve outs for some portion of plans
- Also common among regional and national commercial plans



Billing and Reimbursement

- FFS incentives and complex billing rules:
 - Lacking codes for BHI activities
 - Health and Behavioral Assessment and Intervention (HBAI) codes not turned on in all New England states
 - Limitations on the type of practitioner that can bill and receive payment for behavioral health services
 - Requirements for in-person consultation, patient evaluation
 - Lack of coverage for telemedicine
 - Higher co-payments for behavioral health providers under Medicare and some commercial plans



Opportunities for BHI in New England – Payment and Delivery Reforms



Payment and Care Delivery Initiatives

- Accountable care organizations (ACOs)
- Patient-centered medical homes (PCMHs)
- State Innovation Model (SIM) grants
- ACA provisions:
 - Section 2703 waivers: Health Homes
 - Medicaid expansion
 - FQHC expansion
- Telemedicine



Payment Reform in New England

- Massachusetts Primary Care Payment Reform Initiative (PCPRI):
 - Risk-adjusted capitation, quality incentives, and shared savings
 - Receive additional payment based on level of BHI achieved
- BCBS MA Alternative Quality Contract (AQC):
 - Risk-adjusted capitation, shared savings and shared risks, performance bonuses
- Vermont Blueprint for Health:
 - Supplemental PM/PM payment tied to NCQA scores
 - Explicit funding for Community Health Teams



EVIDENCE REVIEW

Jeffrey A. Tice, MD

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I have no conflicts of interest.



Methods

- More than 25 systematic reviews
 - AHRQ 2008
 - Cochrane collaboration 2006, 2012, 2015
- Updated search using Cochrane search criteria
 - Additional publications from same trials



Study selection

- Males and females, any age
- $\geq 50\%$ with anxiety or depression
- Intervention in primary care clinics
- Include studies of patients with chronic medical conditions
 - Diabetes, hypertension, heart disease, pain



Results – Study Description

- 94 randomized trials
 - > 25,000 patients
- 85% in primary care (78/94)
- 73% in the United States
- 100% based on the Collaborative Care Model*
 - No trials of co-location in primary care
 - No studies of integrated, collaborative treatment plan

* Collaborative Care Model (CCM) is an approach that integrates treatment for mood and anxiety disorders into primary care settings and has these components: 1) care coordination and care management, 2) regular/proactive monitoring and treatment to target using validated clinical rating scales, and 3) regular supervision of case manager by a mental health professional.



Results

- System
 - Integrated HMO 30%
 - VA 18%
 - Non-integrated 47%
 - Multiple 5%
- Integrated care
 - Medication management only 38%
 - Psychological therapy only 12%
 - Both 50%



Outcomes: Depression and Anxiety

- Change in score
 - Continuous measure
- Response to therapy
 - $\geq 50\%$ reduction in score
- Remission
 - Reduction in score below threshold
- Adherence to medical therapy



Meta-analysis Outcome

- Standardized mean difference (SMD)
 - Combines continuous outcomes
 - Average change / standard deviation
 - ~ 0.2 is small, 0.5 moderate, 0.8 large



Depression Example

- IMPACT trial: www.impact-uw.org/about/
 - Largest: 18 clinics, 1,801 depressed patients
 - California, Indiana, North Carolina, Texas, Washington
 - HMO, FFS, IPA, VA & inner city public health clinics
 - Randomized by patient
 - Systematic screening + PCP identified
 - Care manager: education, care management, medication management, brief psychotherapy



IMPACT Trial Outcomes at 1 Year

	Integrated	Usual Care	P
Score (SCL-20)	1.7 to 1.0	1.7 to 1.4	<0.001
Response ($\geq 50\%$)	45%	19%	<0.001
Remission	25%	8%	<0.001
Antidepressant use	73%	57%	<0.001
Satisfaction with depression care	76%	47%	<0.001

Depression Summary

- Integrated care improves outcomes (79 studies)
 - SMD 0.28, 95% CI 0.23-0.33
 - Median absolute increase in response: 18.4%
 - Median absolute increase in remission: 16.7%
- High certainty of small net benefit
 - $P < 0.001$, consistent, meta-analysis significant in 2000
 - The effect size is small to moderate



Anxiety Example

- CALM study (modeled on IMPACT study)
 - 17 clinics, 1,004 patients
 - PCPs identified patients
 - Panic disorder, generalized anxiety disorder, social anxiety disorder, posttraumatic stress disorder
 - Randomized by patient
 - Non-expert care managers: education, care management, medication management, brief psychotherapy



CALM Trial Outcomes at 1 Year

	Integrated	Usual Care	P
Score (BSI-12)	16.2 to 8.1	16.3 to 10.8	<0.001
Response ($\geq 50\%$)	64%	45%	<0.001
Remission	51%	33%	<0.001
Appropriate counseling	49%	27%	<0.001
Satisfaction with anxiety care	3.9/5	3.4/5	<0.001

Anxiety Summary

- Integrated care improves outcomes (7 studies)
 - SMD 0.33, 95% CI 0.19-0.47
- Moderate certainty of small net benefit
 - $P < 0.001$, consistent, fewer studies, wider CI
 - The effect size is small to moderate



Other Medical Conditions: Diabetes

- Seven randomized trials
- Depression scores
 - SMD 0.32, 95% CI 0.11 to 0.53
- Hemoglobin A1c decrease
 - 0.33%, 95% CI 0.0% to 0.66%
- **Summary:** Low certainty of a small net benefit among patients with both depression and diabetes because the A1c benefit is of borderline statistical and clinical significance



Other medical conditions

- Pain
 - Mixed results in primary studies (IMPACT, RESPECT)
 - CCM if depression and chronic pain (n=250)
 - Significant improvements in both (26% vs 8%)
- Heart disease
 - In specialty clinics or in studies with diabetes
- Summary: Insufficient evidence



Quality of life (QOL)

- SF12 or SF36
 - SMD 0.20 to 0.26 through 24 months ($p < 0.001$)
- **Summary:** High certainty of a small benefit in mental health QOL



Patient Satisfaction

- 30/34 studies reported higher satisfaction with integrated care (22/34 with $p < 0.05$)
- 10 studies used a continuous measure
 - SMD 0.31, 95% CI 0.13 to 0.49, $p < 0.001$
- Summary: High certainty of small to moderately greater satisfaction with integrated care because of the large number of studies, consistent findings, and low p-value, though the SMD was only 0.31.



Summary of the Evidence

- High certainty of improvements in depression, quality of life, and patient satisfaction with collaborative care compared to usual care
- Low to moderate certainty of improvements in anxiety and in diabetes (in those with depression)
- The magnitude of the net benefit was small to moderate for all outcomes
 - Clinically significant for depression and anxiety
- Limited data beyond collaborative care model



Public Comments Received

- The literature represents the Collaborative Care Model (CCM) with very little on other forms of integration
 - CCM effective with or without co-location and systems integration
- The benefits of the CCM are large
- Data in pediatrics not highlighted
- The literature on the Patient Centered Medical Home not included



CARE VALUE AND HEALTH-SYSTEM VALUE ANALYSIS

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I have no conflicts of interest.



Economic Analysis Components

- Care Value: summarized existing literature on comparative clinical effectiveness, cost-effectiveness, and potential added benefits of BHI
 - Variability in settings, implementation, and intensity precluded development of generalizable BHI model
- Health-System Value:
 - Identified publicly-available resources for estimating planning, implementation, and ongoing costs of BHI
 - Estimated health-system budgetary impact of implementing BHI



Results: Costs and Cost-Effectiveness of BHI

- Evaluated 18 RCT-based economic evaluations, nearly all based on CCM approaches
- BHI consistently more effective than usual care in CCM models, but also more costly over 6 months – 2 years
 - When observed, offsets primarily in specialty mental health services and in inpatient/emergency department care for specific subpopulations (e.g., patients with diabetes)
 - Longer-term studies have demonstrated the potential for cost-neutrality or even overall cost savings, but limited in number/quality
- Estimates of cost-effectiveness have met generally-accepted thresholds for cost-effective interventions in the US (\$15,000 - \$80,000 per QALY gained vs. usual care, 2014 dollars)
 - QALY gains entirely from reduced # days w/depression and resultant QoL benefit (i.e., no increases in survival assumed)



Results: Costs and Cost-Effectiveness of BHI (2)

Author, Year	Sample Size	Incremental S of Integrated Care (2014 \$/Patient)	Cost per QALY Gained (2014 \$)	Comments
Lave, 1998 ¹³⁶	276			No inpatient \$
+Medication		\$1,328 – \$1,494	\$16,292 - \$30,802	
+Psychotherapy		\$1,521 - \$1,960	\$27,644 - \$61,144	
Simon, 2001 (a) ¹³⁷	407	\$1,603 - \$3,935	\$35,200 - \$79,200	
Simon, 2001 (b) ¹³⁸	228	\$568 - \$929	\$31,302 - \$62,605	No inpatient \$; no work-loss \$
Schoenbaum, 2001 ¹³⁹	1,356			No inpatient \$
+Medication		\$666	\$24,530 - \$58,347	
+Psychotherapy		\$771	\$15,165 - \$34,365	
Simon, 2002 ¹⁴⁰	386	\$20 - \$412	\$32,475 - \$65,700	No work-loss \$

Source: Neumeyer-Gromen A, et al. Disease management programs for depression: a systematic review and meta-analysis of randomized controlled trials. Medical Care, 2004;42(12)1211-1221.



Results: Costs and Cost-Effectiveness of BHI (3)

- Observational studies have shown potential for cost savings with BHI over 2-5 years, but studies have quality concerns (e.g., site/provider selection bias, imbalanced intervention and control groups)
- Across all study designs, costs of BHI may be understated
 - Most studies estimated costs of delivering intervention to diagnosed patients but did not include costs of planning and implementation
 - Some studies did not include costs of screening



Cost Categories:

Estimating Budget Impact of BHI

- Planning Costs
 - Current patient flow
 - Current staff salaries, FTEs, fringe percentages, etc.
 - Amount of time spent on BHI planning for each staff type
 - Current direct expenditures, indirect expenses, and overhead
- Start-Up Costs
 - Staff training
 - Administration
 - Fixed costs (e.g., equipment purchases)
 - Overhead
- “Steady State” Costs
 - Percent of staff time devoted to intervention and incremental costs associated with treatment
 - Overhead expenses attributable to BHI
 - New capital expenses and depreciation of existing assets

Sources: Prescription for Health (P4H), Advancing Care Together (ACT), SAMHSA, Advancing Integrated Mental Health Solutions (AIMS), Doodoo MS, Krist AH, Cifuentes M, Green LA. Start-up and incremental practice expenses for behavior changes interventions in primary care. Am J Prev Med. 2008; 35(5S): S423-S430.



Budget Impact Analysis: Assumptions

- Large NE health system (200,000 lives)
- Primarily employed, insured population (3% prevalence of major depression)
- 4 months start-up, remainder of year is implementation/ongoing intervention
- New hires of 40 RN care managers and 10 psychiatrist consultants
- Improvements in throughput and “freeing up” of existing staff time not considered
- Change in job role for medical assistants to conduct depression screening; no additional hires
- Only small modifications of EHR system required, no other major IT expenses
- Additional capital expenditures assumed for workspace for new hires
- All patients in panel assumed to have one screening encounter during year



BHI: Start-up and Ongoing Expense Estimates, 200K Member Health System

Type of Expense	Total Cost (\$)	Total Cost (\$PMPM)
Start-Up Expenses (4 months)		
General startup	\$23,268	\$0.01
Additional training	\$16,261	\$0.01
Total Start-Up Expenses	\$39,529	\$0.02
“Steady State” Expenses (8 months)		
Screening	\$337,652	\$0.14
Direct Staff	\$3,473,280	\$1.45
Overhead	\$2,736,000	\$1.14
Total Ongoing Expenses	\$6,546,932	\$2.73
TOTAL FIRST-YEAR EXPENSES	\$6,586,461	\$2.74

Budget Impact Analysis Summary

- Start-up and screening costs relatively modest
- Direct staff and overhead costs major drivers of increased PMPM
- Incremental estimated PMPM expense of BHI in first year of implementation: \$2.74
 - Likely on higher end of investment given assumed new hires and creation of co-located workspace



Budget Impact Analysis Summary

Measure	Health System Perspective	MassHealth Perspective
Base PMPM	\$26*	\$1,002**
% increase from BHI implementation (\$2.74)	10.5%	0.3%

*Taylor EF, Dale S, Peikes D, et al. Evaluation of the Comprehensive Primary Care Initiative: First annual report. Mathematica Policy Research. 2015.

**Kaiser State Health Facts. Medicaid spending per full-benefit enrollee, Massachusetts, 2011 (updated to 2014 dollars using medical CPI).

‡Based on assumed annual total health care costs of \$8,000 per patient with depression



Economic Analysis Summary

- Care Value:
 - Incremental clinical benefit over usual care but at increased cost
 - BHI interventions fall within generally-acceptable thresholds for cost-effectiveness (\$15-80K per QALY gained vs. usual care)
- Health System Value:
 - Economic studies have shown that BHI interventions increase costs, at least in the short term
 - Evidence on longer-term cost offsets limited to specific subpopulations and/or subject to methodologic concerns
 - Start-up and ongoing costs of BHI, while variable, likely to represent substantial increase in primary care PMPM but more modest change in total health-system costs



Public Comments Received: Model

- Better to target model to populations more severely incapacitated by behavioral health issues – more likely to show cost offsets in these populations
- Summary of existing literature should be clear about what cost components were and were not included in the analyses
- Increase in costs from integration should be considered modest in the broader scheme of things, and likely cost offsets are substantial, particularly in key subpopulations (e.g., complex chronic disease, socioeconomic challenges)



Public Comments



Lunch
12:00 – 12:30





Questions for Deliberation

Integrating Behavioral Health into Primary Care

Comparative *Clinical Effectiveness*

Example Question

Is the evidence “**adequate**” to demonstrate that “**intervention A**” is superior to “**comparator B**” for patients with “**condition X**”?

- Yes
- No



Care Value Example Question

From the perspective of a Medicaid program, what is the care value of “**intervention A**” vs “**comparator B**”?

- A. Low
- B. Reasonable
- C. High



Health System Value Example Question

Assuming baseline pricing and payment mechanisms, what would be the **health system value** of “**intervention A**” for a state Medicaid program?

- A. Low
- B. Reasonable
- C. High



Practice Question

Who should host the 2024 Summer Olympics?

1. Rome, Italy
2. Hamburg, Germany
3. Boston, USA
4. Casablanca, Morocco
5. Nairobi, Kenya
6. Paris, France



CCM vs. Usual Care: Outcomes

Q1a. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care using the **Collaborative Care Model (CCM)** have better outcomes than usual care in terms of **improvement in anxiety and/or depression?**

- Yes
- No



CCM vs. Usual Care: Outcomes

Q1b. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care using the **CCM** have better outcomes than usual care in terms of **intermediate health outcomes in patients with diabetes?**

- Yes
- No



CCM vs. Usual Care: Outcomes

Q1c. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care using the CCM have better outcomes than usual care in terms of improvement in quality of life?

- Yes
- No



Other BHI vs. Usual Care: Outcomes

Q2a. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care other than the CCM have better outcomes than usual care in terms of improvement in anxiety and/or depression?

- Yes
- No



Other BHI vs. Usual Care: Outcomes

Q2b. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care other than the CCM have better outcomes than usual care in terms of intermediate health outcomes in patients with diabetes?

- Yes
- No



Other BHI vs. Usual Care: Outcomes

Q2c. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care other than the CCM have better outcomes than usual care in terms of improvement in quality of life?

- Yes
- No



CCM vs. Usual Care: Patient Satisfaction

Q3. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care using the CCM improve patient satisfaction vs. usual care?

- Yes
- No



Other BHI vs. Usual Care: Patient Satisfaction

Q4. Is the evidence adequate to demonstrate that interventions to integrate behavioral health into primary care other than the CCM improve patient satisfaction vs. usual care?

- Yes
- No



CCM vs. Usual Care: Care Value

Q5. Given the available evidence, what is the care value of the CCM vs. usual care?

- A. Low
- B. Reasonable
- C. High



CCM vs. Usual Care: Health System Value

Q6. Given the available evidence, what is the overall health system value of the CCM?

- A. Low
- B. Reasonable
- C. High



Other BHI vs. Usual Care: Care Value

Q7. Given the available evidence, what is the care value of integration interventions other than the CCM vs. usual care?

- A. Low**
- B. Reasonable**
- C. High**



Other BHI vs. Usual Care: Health System Value

Q8. Given the available evidence, what is the overall health system value of integration interventions other than the CCM?

- A. Low
- B. Reasonable
- C. High



POLICY ROUNDTABLE



Policy Roundtable Participants

- **Stephanie Jordan Brown**, MA, Vice President, Transformation & Integration, Massachusetts Behavioral Health Partnership
- **Nelly Burdette**, PsyD, Director, Integrated Behavioral Health, Providence Community Health Centers
- **Ken Duckworth**, MD, Medical Director, Behavioral Health, Blue Cross Blue Shield of Massachusetts
- **Neil Korsen**, MD, MSc, Medical Director, Behavioral Health Integration, MaineHealth
- **Parinda Khatri**, PhD, Chief Clinical Officer, Cherokee Health Systems
- **Tom Simpatico**, MD, Chief Medical Officer, Vermont Department of Health Access



Meeting Adjourned



Next Steps

- Final Report and accompanying materials:
Expected June 1, 2015
- Meeting materials and outputs:
<http://tinyurl.com/l9wfyea>
- Next topic: Drug therapy for high cholesterol
 - Meeting: October 27, 2015 in Boston MA
 - For more information: cepac.icer-review.org

