Supporting the Medical Home through Effective Behavioral Health Integration in Primary Care Settings: An Overview of the Collaborative Care Model

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Health Management Associates

6th Annual Texas Primary Care and Health Home Summit

April 6, 2018
Rates of Non-Treatment

No Treatment

Primary Care Provider

Mental Health Provider (Psychiatrist and therapists)

Wang P, et al., Twelve-Month Use of Mental Health Services in the United States, Arch Gen Psychiatry, 62, June 2005
# Annual Per Person Cost of Care

## Common Chronic Medical Illnesses with Comorbid Mental Condition

**“Value Opportunities”**

<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></td>
<td>10%-15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>$5,220</td>
<td>6.6%</td>
<td>36%</td>
<td>$10,710</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>

*Percentages and percentages represent the prevalence and percentage increase with mental condition, respectively.

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Cartesian Solutions, Inc.™ -- consolidated health plan claims data

**Melek S et al APA 2013**

[www.psych.org](http://www.psych.org)
“Sweet” Spot: PCPs Manage Mild to Moderate Mental Illnesses

- Issues with depression and substance abuse must be pre-empted, rather than treated once advanced.
- Goal is to detect early and apply early interventions to prevent from getting more severe.
Defining Collaborative Care

• Collaborative Care is a specific type of integrated care that operationalizes the principles of the Wagner Chronic Care Model to improve access to evidence based mental health treatments for patients in medical settings.

• Core Principle of Effective Collaborative Care are:
  – Team-driven collaboration that is Patient-centered
  – Evidence-based and practice-tested
  – Measurement-based treatment to target
  – Population-focused
  – Accountable care

http://aims.uw.edu
A Tipping Point for Measurement-Based Care

John C. Fortney, Ph.D., Jürgen Unützer, M.D., M.P.H., Glenda Wrenn, M.D., M.S.H.P., Jeffrey M. Pyne, M.D., G. Richard Smith, M.D., Michael Schoenbaum, Ph.D., Henry T. Harbin, M.D.

Objective: Measurement-based care involves the systematic administration of symptom rating scales and use of the results to drive clinical decision making at the level of the individual patient. This literature review examined the theoretical and empirical support for measurement-based care.

Methods: Articles were identified through search strategies in PubMed and Google Scholar. Additional citations in the references of retrieved articles were identified, and experts assembled for a focus group conducted by the Kennedy Forum were consulted.

Results: Fifty-one relevant articles were reviewed. There are numerous brief structured symptom rating scales that have strong psychometric properties. Virtually all randomized controlled trials with frequent and timely feedback of patient-reported symptoms to the provider during the medication management and psychotherapy encounters significantly improved outcomes. Ineffective approaches included one-time screening, assessing symptoms infrequently, and feeding back outcomes to providers outside the context of the clinical encounter. In addition to the empirical evidence about efficacy, there is mounting evidence from large-scale pragmatic trials and clinical demonstration projects that measurement-based care is feasible to implement on a large scale and is highly acceptable to patients and providers.

Conclusions: In addition to the primary gains of measurement-based care for individual patients, there are also potential secondary and tertiary gains to be made when individual patient data are aggregated. Specifically, aggregated symptom rating scale data can be used for professional development at the provider level and for quality improvement at the clinic level and to inform payers about the value of mental health services delivered at the health care system level.

Psychiatric Services 2016; 00:1–10; doi: 10.1176/appi.ps.201500439
MBC Concepts

Process:
• Systematic administration of symptom rating scales – use huddle or registry
• Frequently applied
• NOT a substitute for clinical judgement
• Patient rated scales are equivalent to clinician rated scales

Primary Gains
• Use of the results to drive clinical decision making at the patient level
• Use to overcome clinical inertia

Secondary Gains: Aggregate data for
  – Professional development at the provider level – MACRA
  – Quality improvement at the clinic level
  – Inform reimbursement at the health system level

Ineffective Approaches:
• One-time screening
• Assessing symptoms infrequently
• Feeding back outcomes outside the context of the clinical encounter

Fortney et al Psych Serv Sept 2016
Screening – Use Validated Tools

### Mood Disorders
- PHQ-9: Depression
- MDQ: Bipolar disorder
- CIDI: Bipolar disorder

### Anxiety Disorders
- GAD- 7: Anxiety, GAD
- PCL-C: PTSD
- OCD: Young-Brown
- Social Phobia: Mini social phobia

### Psychotic Disorders
- Brief Psychiatric Rating Scale
- Positive and Negative Syndrome Scale

### Substance Use Disorders
- CAGE-AID
- AUDIT

### Cognitive Disorders
- Mini-Cog
- Montreal Cognitive Assessment
Registry: Track Progress, Adjust Treatment

<table>
<thead>
<tr>
<th>View</th>
<th>Treatment Status</th>
<th>Name</th>
<th>Date of Initial Assessment</th>
<th>Date of Most Recent Contact</th>
<th>Number of Follow-up Contacts</th>
<th>Weeks in Treatment</th>
<th>Initial PHQ-9 Score</th>
<th>Last Available PHQ-9 Score</th>
<th>% Change in PHQ-9 Score</th>
<th>Date of Last PHQ-9 Score</th>
<th>Initial GAD-7 Score</th>
<th>Last Available GAD-7 Score</th>
<th>% Change in GAD-7 Score</th>
<th>Date of Last GAD-7 Score</th>
<th>Date of Psychiatric Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>Active</td>
<td>Albert Smith</td>
<td>8/13/2015</td>
<td>12/1/2015</td>
<td>7</td>
<td>29</td>
<td>18</td>
<td>17</td>
<td>-6%</td>
<td>12/2/2016</td>
<td>14</td>
<td>10</td>
<td>-29%</td>
<td>1/2/2015</td>
<td>1/2/2016</td>
</tr>
</tbody>
</table>

FREE UW AIMS Excel® Registry (https://aims.uw.edu/resource-library/patient-tracking-spreadsheet-example-data)

Allows proactive engagement ("no one falls through the cracks") and treatment adjustment
Collaborative Team Approach

- PCP
- BHP/Care Manager
- Consulting Psychiatric Provider
- Other Behavioral Health Clinicians
- Substance Treatment, Vocational Rehabilitation, CMHC, Other Community Resources

New Roles

Core Program

Additional Clinic Resources

Outside Resources

http://aims.uw.edu
The Collaborative Care Model

**Effective Collaboration**

**Informed, Activated Patient**

**PRACTICE SUPPORT**

**PCP supported by Behavioral Health Care Manager**

**Measurement-guided Treat to Target**

**Psychiatric Consultation**

**Caseload-focused Registry review**

**Training**
### PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

**NAME:** John Q. Sample  
**DATE:**

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use “✓” to indicate your answer)

| 1. Little interest or pleasure in doing things | 0 | 1 | ✓ | 3 |
| 2. Feeling down, depressed, or hopeless | 0 | ✓ | 2 | 3 |
| 3. Trouble falling or staying asleep, or sleeping too much | 0 | 1 | ✓ | 3 |
| 4. Feeling tired or having little energy | 0 | 1 | 2 | ✓ |
| 5. Poor appetite or overeating | 0 | ✓ | 2 | 3 |
| 6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down | 0 | 1 | ✓ | 3 |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television | 0 | 1 | ✓ | 3 |
| 8. Moving or speaking so slowly that other people could have noticed, or the opposite—being so fidgety or restless that you have been moving around a lot more than usual | 0 | 1 | ✓ | 3 |

### PHQ 9 > 9

- < 5 – none/remission
- 5 - mild
- 10 - moderate
- 15 - moderate severe
- 20 - severe

**add columns:** 2 + 10 + 3  
**TOTAL:** 15

---

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all
- Somewhat difficult ✓
- Very difficult
- Extremely difficult

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Doubles Effectiveness of Care for Depression

50 % or greater improvement in depression at 12 months

Unützer, Katon et al., JAMA 2002
TEAMcare
Multi-Condition Collaborative Care

- diabetes nurse educators
- Caseload supervision
  - Depression: psychiatrist
  - Diabetes and CAD: family doctor
  - E-Mail to diabetologist for complex cases

Cost Savings $600-1100/pt

How Well Does It Work For Other Disorders?

<table>
<thead>
<tr>
<th>Evidence Base Established</th>
<th>Emerging Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Depression</td>
<td>• Substance Use Disorders</td>
</tr>
<tr>
<td>- Adolescent Depression</td>
<td>• Bipolar Disorder</td>
</tr>
<tr>
<td>- Depression, Diabetes and Heart Disease</td>
<td></td>
</tr>
<tr>
<td>- Depression and Cancer</td>
<td></td>
</tr>
<tr>
<td>- Depression in Women’s Health Care</td>
<td></td>
</tr>
<tr>
<td>• Anxiety</td>
<td></td>
</tr>
<tr>
<td>• Post Traumatic Stress Disorder</td>
<td></td>
</tr>
<tr>
<td>• Chronic Pain</td>
<td></td>
</tr>
<tr>
<td>• Dementia</td>
<td></td>
</tr>
<tr>
<td>• Post Concussion –</td>
<td></td>
</tr>
<tr>
<td>• ADHD</td>
<td></td>
</tr>
</tbody>
</table>
Substance Use Disorders

• Collaborative care has all the elements of SBIRT
  – Screen with AUDIT C or DAST
  – Care manager involvement
  – EB brief intervention – motivational interviewing
  – Track progress – amount, NIAAA safe/risky levels, days of heavy drinking, abstinence
  – Review with psychiatric consultant/other specialist if needed (med recommendation such as naltrexone or acamprosate)
  – Refer if severe or do not improve in the primary care setting
# Business Case: Reduces Health Care Cost (18-24 mos)

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>4-year costs in $</th>
<th>Intervention group cost in $</th>
<th>Usual care group cost in $</th>
<th>Difference in $</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT program cost</td>
<td></td>
<td>522</td>
<td>0</td>
<td>522</td>
</tr>
<tr>
<td>Outpatient mental health costs</td>
<td>661</td>
<td>558</td>
<td>767</td>
<td>-210</td>
</tr>
<tr>
<td>Pharmacy costs</td>
<td>7,284</td>
<td>6,942</td>
<td>7,636</td>
<td>-694</td>
</tr>
<tr>
<td>Other outpatient costs</td>
<td>14,306</td>
<td>14,160</td>
<td>14,456</td>
<td>-296</td>
</tr>
<tr>
<td>Inpatient medical costs</td>
<td>8,452</td>
<td>7,179</td>
<td>9,757</td>
<td>-2578</td>
</tr>
<tr>
<td>Inpatient mental health / substance abuse costs</td>
<td>114</td>
<td>61</td>
<td>169</td>
<td>-108</td>
</tr>
<tr>
<td>Total health care cost</td>
<td><strong>31,082</strong></td>
<td><strong>29,422</strong></td>
<td><strong>32,785</strong></td>
<td><strong>-$3363</strong></td>
</tr>
</tbody>
</table>

Unützer et al., *Am J Managed Care* 2008

Savings

ROI

$6 : $1
Stepped Care Approach

- Uses limited resources to their greatest effect on a population basis
- Different people require different levels of care
- Finding the right level of care often depends on monitoring outcomes
- Increases effectiveness and lowers costs overall

Von Korff et al 2000
Integrated Care: Core Components and Tasks

1. Patient Identification and Diagnosis
2. Engagement in Integrated Care Program
3. Evidence Based Treatment
4. Systematic Follow-up, Treatment Adjustment, Relapse Prevention
5. Communication, Care coordination and Referrals
6. Systematic Case Review and Psychiatric Consultation
7. Program Oversight and Quality Improvement
BHPs/Care Managers- Hire the Right Person

Who are the BHPs/CMs?

- Typically MSW, LCSW, PhD, PsyD, RN, paraprofessional – CHW, MA
- Need brief intervention skills – and must believe brief works!
- Registry Management

What makes a good BHP/CM?

- Organization
- Persistence – frequent FU
- Creativity and flexibility
- Tenacity
- Willingness to be interrupted
- BA, MI, SFBT, PST, DTS, etc

CAUTION:
Prefer traditional approach to therapy
Not willing to be interrupted
Timid, insecure about skills
Task Sharing - Behavioral Health Provider Role

BHP 1.
Paraprofessional Staff

BH Screening
Registry Tracking
Health Promotion

BHP 2.
Paraprofessional Staff with Advance Training

Brief Intervention for Situational Stress and Education on Health Changes

BHP 3.
Licensed Behavioral Health Provider

Diagnostic Clarification
Brief Intervention
Complex BH Needs

Specialty Behavioral Health

Psychiatric Services in Advance, October 1, 2014; doi: 10.1176/appi.ps.201300552)
Evidence-based Brief Interventions

- Motivational Interviewing
- Distress Tolerance Skills
- Behavioral Activation
- Problem Solving Therapy

Frequent, Persistent Follow-up

Bao et al: Psych Serv 2015
Registry: Track Progress, Adjust Treatment

<table>
<thead>
<tr>
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<th>Treatment Status</th>
<th>Name</th>
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<th>Initial GAD-7 Score</th>
<th>Last Available GAD-7 Score</th>
<th>% Change in GAD-7 Score</th>
<th>Date of Last GAD-7 Score</th>
<th>Flag</th>
<th>Most Recent Psychiatric Consultant Note</th>
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</thead>
<tbody>
<tr>
<td>View</td>
<td>Active</td>
<td>Albert Smith</td>
<td>8/13/2015</td>
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<td>10</td>
<td>-29%</td>
<td>1/22/2016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FREE UW AIMS Excel® Registry (https://aims.uw.edu/resource-library/patient-tracking-spreadsheet-example-data)

Allows proactive engagement ("no one falls through the cracks") and treatment adjustment
Psychiatric Consultation: Force Multiplier of CoCM

Availability to Consult Promptly

- Diagnostic dilemmas
- Education about diagnosis or medications
- Complex patients, such as pregnant or medical complicated
- Pattern recognition
- Education
- Build confidence and competence

Caseload Reviews

- Scheduled (ideally weekly)
- Prioritize patients that are not improving – extends psychiatric expertise to more people in need
- Make recommendations – may or may not implement
Registries to Track Progress, Change Treatment

AIMS Center: [http://aims.uw.edu](http://aims.uw.edu)
Psychiatric Consultants Supporting Teams

Care Manager 1

Care Manager 2

Care Manager 3

Care Manager 4

50-80 patients/caseload
2 hrs psych/week/care manager = a lot of patients getting care
Performance Measures: Accountability

• **Process Metrics:**
  – Percent of patients screened for depression
  – Percent with 2 care manager contacts per month
  – Percent not improving that received registry review and psychiatric recommendations
  – Percent treatment plan changed based on advice
  – Percent not improving referred to specialty BH

• **Outcome Metrics**
  – Percent with 50% reduction PHQ-9 at 6 and 12 months  HEDIS
  – Percent reaching remission at 6 and 12 months (PHQ-9 < 5 ) NQF 710 and 711

• **Patient and Provider Satisfaction**
• **Functional –work, school**
• **Utilization/Cost**
  – ED visits, 30 day readmits, overall cost
Two Cultures, One Patient

**PRIMARY CARE**
- Continuity is goal
- Empathy and compassion
- Data shared
- Large panels
- Flexible scheduling
- Fast Paced
- Time is independent
- Flexible Boundaries
- Treatment External ( labs, x-ray, etc)
- Patient not responsible for illness
- 24 hour communication
- Saved lives
- Disease management

**BEHAVIORAL HEALTH**
- Termination is goal – “discharge”
- Professional distance
- Data private
- Small panels
- Fixed scheduling
- Slower pace
- Time is dependent – “50 min hour”
- Firm Boundaries
- Relationship with provider IS tx
- Patient responsible for participating
- Mutual accountability
- Meaningful lives
- Recovery model
Figure 1

Estimated time elapsed between initial assessment and improvement of depression during the first year of treatment at six organizations.

Figure Legend:
Estimated time elapsed between initial assessment and improvement of depression during the first year of treatment at six organizations.
“Secret Sauce” of Effective Implementation

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Implementation Factor</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operating costs of DIAMOND not seen as a barrier</td>
<td>The clinic has adequate coverage or other financial resources for most patients to be able to afford the extra operational costs.</td>
</tr>
<tr>
<td>2</td>
<td>Engaged psychiatrist</td>
<td>The consulting psychiatrist is responsive to the care manager and to all patients, especially those not improving.</td>
</tr>
<tr>
<td>3</td>
<td>Primary care provider (PCP) “buy-in”</td>
<td>Most clinicians in the clinic support the program and refer patients to it.</td>
</tr>
<tr>
<td>4</td>
<td>Strong care manager</td>
<td>The care manager is seen as the right person for this job and works well in the clinic setting.</td>
</tr>
<tr>
<td>5</td>
<td>Warm handoff</td>
<td>Referrals from clinicians to the care manager are usually conducted face-to-face rather than through indirect means.</td>
</tr>
<tr>
<td>6</td>
<td>Strong top leadership support</td>
<td>Clinic and medical group leaders are committed and support the care model.</td>
</tr>
<tr>
<td>7</td>
<td>Strong PCP champion</td>
<td>There is a PCP in the clinic who actively promotes and supports the project.</td>
</tr>
<tr>
<td>8</td>
<td>Care manager role well defined and implemented</td>
<td>The care manager job description is well defined, with appropriate time, support, and a dedicated space.</td>
</tr>
<tr>
<td>9</td>
<td>Care manager on-site and accessible</td>
<td>The care manager is present and visible in the clinic and is available for referrals and patient care problems.</td>
</tr>
</tbody>
</table>

DIAMOND indicates Depression Improvement Across Minnesota—Offering a New Direction.
Recipe for Success

• **The Right TEMP**
  – Team that consists at a minimum of a PCP, BHP and psychiatric consultant
  – Evidence-based behavioral and pharmacologic interventions
  – Measuring care continuously to reach defined targets
  – Population is tracked in a registry for change, engagement, treatment adjustment, quality improvement

• **Key Ingredients**
  – Registry initiation and tracking
  – 2 contacts in first month
  – Measure response at every contact
  – Caseload review with psychiatric consultant and adjust by week 8-12

• **Secret Sauce: Whitebird Brand**
  – Strong leadership support
  – A strong PCP champion and PCP buy-in
  – Well-defined and implemented BHP/Care manager role
  – An engaged psychiatric provider
  – Operating costs are not a barrier
“What works can’t be coded”

- Brief interventions
- Stress/no diagnosis
- Huddles
- Hallway conversations/consultations
- Warm hand-offs
- Curbside consultations with psychiatric consultants
- Phone calls to patients
- Repeating rating scales
- Interdisciplinary team meetings
- Registry management

**Therefore payment approaches are necessary for these services that do not work in a typical FFS environment.**
Reimbursement Options

- All-In-One Budget – VA, DOD, IHS, Kaiser
- Global Capitation – RMHP PRIME pilot, some ACOs
- Case rate – Washington State Medicaid
- Bundled payments – for care management services
- PMPM – DIAMOND, CPC+
- Shared Savings – ACO, etc
- Value-based Payment – specific outcomes and accountability for those outcome
- Pay for performance – Mental Health Integration Project (MHIP)
- Traditional fee for service, Health and Behavior Assessment and Intervention (HABI) codes
- New CPT codes for the Collaborative Care Model of integrated care
CPT Codes for CoCM

G0502 - $143
G0503 - $126
G0504 - $66

Billed once a month by the PCP

• Outreach and engagement by BHP
• Initial assessment of the patient, including administration of validated rating scales
• Entering patient data in a registry and tracking patient follow-up and progress
• Participation in weekly caseload review with the psychiatric consultant
• Provision of brief interventions using evidence-based techniques such as behavioral activation, motivational interviewing, and other focused treatment strategies.
Technology Enabled Behavioral Health in Primary Care

**Patient Guided**
- Self Management

**PCP Capacity Building to Treat BH**
- Decision Supports
- Curbside Consultation
- Project ECHO
- e-Consult
- Collaborative Care

**Virtual Visit**
- Telepsychiatry

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Practice Extenders: apps, text messaging, remote monitoring, fitness, behavioral activation, therapy

Embedded in EHR: timely information at the point of care, prescription and other decision support

Phone Consults: readily available, Child Access Projects (CAPs)

Telementoring: Didactic and presentations, primary care “spokes” and expert “hub”, collaborative learning process, select cases only

Online Consultation Platform: asynchronous, primary care to specialist, all cases with consultation input

Core Elements: curbside consultation, care manager outreach, registry review, telepsychiatry as needed

Virtual Visit provider-patient relationship, some “tele-teamsing”

© Lori Raney, MD
Experiencing with Delivery Telemedicine

Telemedicine-based team:
- Nurse care manager - phone
- Pharmacist – phone
- Psychologist – CBT - televideo
- Psychiatrist – televideo if did not respond to trial to 2 antidepressants
- Weekly – whole team met to make recommendations

FIGURE 1. Adjusted Depression Severity Scores for Patients Receiving Practice-Based or Telemedicine-Based Collaborative Care

PCARE: PC Access, Referral and Eval.

PCARE: RCT, Atlanta, GA: 407 SMI over 1 year

<table>
<thead>
<tr>
<th>Service</th>
<th>Usual Care</th>
<th>Intervention Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive Services</td>
<td>21.8%</td>
<td>57.8%</td>
</tr>
<tr>
<td>Cardiometabolic Interventions</td>
<td>27.7%</td>
<td>34.9%</td>
</tr>
<tr>
<td>Have Primary Care Provider</td>
<td>51.9%</td>
<td>71.2%</td>
</tr>
<tr>
<td>Framingham Risk Index</td>
<td>9.8%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

PCARE: *Care Management* Roles

- RN/LCSW
- Facilitates patient engagement
- Identification and targeting of high-risk individuals
- Monitoring of health status and adherence – tracking outcomes in registries
- Staff and patient education
- Development of treatment guidelines
- Individualized planning with patients
- Tracks care transitions
Randomized Trial of an Integrated Behavioral Health Home: The Health Outcomes Management and Evaluation (HOME) Study

Benjamin G. Druss, M.D., M.P.H., Silke A. von Essenwein, Ph.D., Gretl E. Glick, M.P.H., Emily Deubler, M.S.P.H., Cathy Lally, M.S.P.H., Martha C. Ward, M.D., Kimberly J. Rask, M.D. Ph.D.

Objective: Behavioral health homes provide primary care health services to patients with serious mental illness treated in community mental health settings. The objective of this study was to compare quality and outcomes of care between an integrated behavioral health home and usual care.

Method: The study was a randomized trial of a behavioral health home developed as a partnership between a community mental health center and a Federally Qualified Health Center. A total of 447 patients with serious mental illness and one or more cardiometabolic risk factors were randomly assigned to either the behavioral health home or usual care for 12 months. Participants in the behavioral health home received integrated medical care on-site from a nurse practitioner and a full-time nurse case manager subcontracted through the health center.

Results: Compared with usual care, the behavioral health home was associated with significant improvements in quality of cardiometabolic care, concordance of treatment with the chronic care model, and use of preventive services. For most cardiometabolic and general medical outcomes, both groups demonstrated improvement, although there were no statistically significant differences between the two groups over time.

Conclusions: The results suggest that it is possible, even under challenging real-world conditions, to improve quality of care for patients with serious mental illness and cardiometabolic risk factors. Improving quality of medical care maybe necessary, but not sufficient, to improve the full range of medical outcomes in this vulnerable population.

AIP in Advance: [10.1176/appi.psy.2016.16050570]


Scharf et al Psych Serv 2013
Programs Generally Contain 3 Major Components:

- Primary Care Service
- Care Management and Tracking
- Health Behavior Change

# ADA/APA Guideline Revised for Non-fasting Labs

## Monitoring Protocol For Patients on Atypical Antipsychotics

<table>
<thead>
<tr>
<th>Assessment Parameter</th>
<th>Cut-offs</th>
<th>Baseline</th>
<th>4 wks</th>
<th>8 wks</th>
<th>12 wks</th>
<th>Quarterly</th>
<th>Annually</th>
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<tbody>
<tr>
<td>Medical and Family History, Including CVD</td>
<td>n/a</td>
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<tr>
<td>Weight, BMI (kg/m²)</td>
<td>&gt;7% gain over baseline or &gt;25 kg/m²</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Waist Circumference</td>
<td>Men: 40 in., Women: 35 in.</td>
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<tr>
<td>Hemoglobin A1c</td>
<td>Pre-DM: &gt;5.7%, DM: &gt;6.5%</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>Random Plasma Glucose</td>
<td>Pre-DM: &gt; 140 mg/dL, DM: &gt; 200 mg/dL</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td>Blood Pressure</td>
<td>&gt;140/90 mmHg</td>
<td>x</td>
<td></td>
<td>x</td>
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<tr>
<td>Non-Fasting TC and HDL</td>
<td>Non-HDL: &gt;220mg/dL; or 10-yr risk &gt; 7.5%</td>
<td>x</td>
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# Registry for Tracking and Analyzing

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<th>E</th>
<th>F</th>
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Health Behavior Change – All Staff
## Performance Measures and VBP

<table>
<thead>
<tr>
<th>Standard</th>
<th>National Quality Forum Number</th>
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<tbody>
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<td>BMI Screening and Follow-up Adults</td>
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<td>BMI Screening and Follow-up Children</td>
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<td>Controlling High Blood Pressure</td>
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<td>Tobacco Use Screening and Cessation Intervention</td>
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<td>Diabetes Screening for People with Schizophrenia or Bipolar Disorder who Are Using Antipsychotic Medications</td>
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<td>Diabetes Care for People with Serious Mental Illness: Hemoglobin A1c (HbA1c) Poor Control (&gt;9.0%)</td>
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<td>Metabolic Monitoring for Children and Adolescents on Antipsychotics</td>
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<td>Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia</td>
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Social Determinants of Health
Primary Care and Specialty Behavioral Health
Episodic Specialty Care as Needed
Behavioral Health Telehubs