The Indiana Division of Mental Health and Addiction (DMHA) in collaboration with its integration stakeholder cross agency partners submitted a Technical Transfer Initiative (TTI) grant proposal and was awarded funding from the Substance Abuse and Mental Health Services Administration (SAMHSA) through the National Association of State Mental Health Program Directors (NASMHPD). That grant is supporting today’s training activities.

www.indianaintegration.org
Introduction to Primary and Behavioral Healthcare Integration

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Collaborative Care Consulting
Dolores, CO
Disclosures

Consultant, National Council
Modules

- **Module 1:** Introduction to Primary and Behavioral Health Integration
- **Module 2:** Overview of the Behavioral Health Environment
- **Module 3:** Approach to the Physical Exam and Health Behavior Change
- **Module 4:** Psychopharmacology and Working with Psychiatric Providers
- **Module 5:** Roles for PCPs in the Behavioral Health Environment
Module 1
Introduction to Primary Behavioral Healthcare Integration

• Learning Objectives:
  • Appreciate the reasons for premature mortality
  • Know SMI and GAF definitions
  • Recognize diagnostic features of the major disorders
  • List the current models of care for providing primary care in behavioral health settings
  • Know the Core Principles of Integrated Care
Pre Test Questions

1. The premature mortality seen in the SMI population is:
   1. 25 – 30 years
   2. 20 – 25 years
   3. 15 – 20 years
   4. 10 – 15 years

2. What percent of illness contributing to this early mortality is preventable?
   1. 20%
   2. 40%
   3. 60%
   4. 80%

3. What are the leading illnesses that contribute?
   1. Cardiovascular
   2. Infectious disease
   3. Cancers
   4. All the Above
Overview

- What is the problem?
- Why is this a problem?
- Define the target population
- Specific diagnosis included
- Barriers to treatment
- Cost issues
- What models are out there?
- Spectrum of collaborative care
Why primary care services in mental health populations?

- High rates of physical illness in mentally ill
- Premature mortality
- Patients with mental illness receive a lower quality of care
- High cost of physically ill with mental illness
- Access problems
Multi-State Study Mortality Data: Years of Potential Life Lost

<table>
<thead>
<tr>
<th>Year</th>
<th>AZ</th>
<th>MO</th>
<th>OK</th>
<th>RI</th>
<th>TX</th>
<th>UT</th>
<th>VA (IP only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>26.3</td>
<td>25.1</td>
<td></td>
<td></td>
<td>28.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>27.3</td>
<td>25.1</td>
<td></td>
<td></td>
<td>28.8</td>
<td>29.3</td>
<td>15.5</td>
</tr>
<tr>
<td>1999</td>
<td>32.2</td>
<td>26.8</td>
<td>26.3</td>
<td>29.3</td>
<td>26.9</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>31.8</td>
<td>27.9</td>
<td></td>
<td>24.9</td>
<td></td>
<td></td>
<td>13.5</td>
</tr>
</tbody>
</table>

Compared to the general population, persons with major mental illness typically lose more than 25 years of normal life span

*Colton CW, Manderscheid RW. Prev Chronic Dis [serial online] 2006 Apr*
Cardiovascular Disease Is Primary Cause of Death in Persons with Mental Illness

Decreased Life Span – 15-20 Years

- It is well established that persons with mental illness have a shorter lifespan mortality compared with the general population -
  - Compared to the general population, persons with major mental illness typically lose more than 25 years of normal life span. (Lutterman, 2003)
  - Men with Schizophrenia 15 years earlier, Women 12 years (Crump, 2013, AJP)
  - Persons with mental disorder die on average of 8.2 years earlier than the rest of the population (Druss, 2011)

**Bottom line: the mortality gap has progressively increased from 10-15 years to 15-20 in the past ~30 years

- While suicide and injury account for about 30-40% of excess mortality, 60% of premature deaths in persons with schizophrenia are due to medical conditions such as cardiovascular, pulmonary and infectious diseases. (Parks, 2006)
Life Span with and Without Mental Disorders

- No Mental Disorder
- Any Mental Disorder
  - General Population
  - Public Sector
Serious Mental Illness in the Past Year Among Adults, 18 and Over

Data courtesy of SAMHSA
How This Looks World-Wide – Life Span

NASMHPD 2006 Study: Morbidity and Mortality in People with Serious Mental Illness
Preventable Causes of Death

Health Behaviors, 40%
Genetics, 30%
Social/Environmental, 20%
Health Care, 10%

## Cardiovascular Disease Risk Factors

<table>
<thead>
<tr>
<th>Modifiable Risk Factors</th>
<th>Estimated Prevalence and Relative Risk (RR)</th>
<th>Schizophrenia</th>
<th>Bipolar Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>45–55%, 1.5-2X RR&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td>26%&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td>Smoking</td>
<td>50–80%, 2-3X RR&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td>55%&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td>Diabetes</td>
<td>10–14%, 2X RR&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td>10%&lt;sup&gt;7&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hypertension</td>
<td>≥18%&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td>15%&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>Up to 5X RR&lt;sup&gt;8&lt;/sup&gt;</td>
<td></td>
<td>42%</td>
</tr>
<tr>
<td>Metabolic Syndrome</td>
<td>43%</td>
<td></td>
<td>37%</td>
</tr>
</tbody>
</table>

Cumulative Effect of Many Problems

Modifiable Risk Factors:
- Smoking, Weight and Inactivity

Social isolation/Vulnerability
- Violence

Lack of access to care

Unemployment/Poverty

Medication/Polypharmacy

Separate Silos of care
Non-Treatment of Medical Comorbidity: Discovered prior to start of CATIE trial

<table>
<thead>
<tr>
<th>Condition</th>
<th>Non-Treatment Rate</th>
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</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>30.2%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>62.4%</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>88.0%</td>
</tr>
</tbody>
</table>

Nasrallah HA et al, 2006
Figure Legend:
Percentage of smokers by diagnostic group and year of enrollment\textsuperscript{a}Data are not shown for the bipolar disorder sample prior to 2007 or for the control group (no psychiatric illness) for 2004 because N<10 for each of these years for these groups. Number of persons in each of the other groups, by year, follows. For schizophrenia: 1999, 15; 2000, 21; 2001, 10; 2002, 27; 2003, 34; 2004, 15; 2005, 48; 2006, 21; 2007, 26; 2008, 49; 2009, 77; 2010, 41; 2011, 37. For bipolar disorder: 2007, 15; 2008, 14; 2009, 20; 2010, 30; 2011, 33. For the no-disorder control group: 2002, 71; 2003, 28; 2005, 66; 2006, 35; 2007, 45; 2008, 64; 2009, 61; 2010, 35; 2011, 39
Severe mental disorders were enumerated and operationalized in 1993 by the National Advisory MH Council at the request of the Senate. They were published in the American Journal of Psychiatry 150: pp 1457 ff. They include schizophrenia, schizoaffective disorders, Bipolar DO, Autism, and severe forms of Depression, Panic disorder, and OCD.

Fuller Torrey, MD
Definition: Severe Mental Illness (SMI)

- A mental, behavioral or emotional disorder (excluding substance & developmental disorders)
- Functional disability in areas of social and occupational functioning.
- Serious functional impairment, which substantially interferes with or limits one or more major life activities – GAF <50-60
- ** 1:20 of population with SMI (vs 1:5 for all mental illnesses)

Spollen JJ. Perspectives in Serious Mental Illness. www.medscape.com
Global Assessment of Functioning (GAF) Score

- **61 - 100** No symptoms. Superior functioning in a wide range of activities - Mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning.

- **51 - 60** Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning.

- **41 - 50** Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, ) OR any serious impairment in social, occupational, or school functioning.

- **31 - 40** Some impairment in reality testing or communication (e.g., speech is at times illogical, or irrelevant) OR major impairment in several areas,

- **21 - 30** Behavior is considerably influenced by delusions or hallucinations OR serious impairment, in communication or judgment (e.g., sometimes incoherent, acts inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed, no job).

- **11 - 20** Some danger of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain hygiene, OR gross impairment in communication (e.g., largely incoherent or mute).

- **1 - 10** Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.

DSM-IV TR
The Four Quadrant Clinical Integration Model

Quadrant II

BH ↑ PH ↓

- BH Case Manager w/ responsibility for coordination w/ PCP
- PCP (with standard screening tools and BH practice guidelines)
- Specialty BH
- Residential BH
- Crisis/ER
- Behavioral Health IP
- Other community supports

Quadrant IV

BH ↑ PH ↑

- PCP (with standard screening tools and BH practice guidelines)
- BH Case Manager w/ responsibility for coordination w/ PCP and Disease Mgr
- Care/Disease Manager
- Specialty medical/surgical
- Specialty BH
- Residential BH
- Crisis/ER
- BH and medical/surgical IP
- Other community supports

Quadrant I

BH ↓ PH ↓

- PCP (with standard screening tools and BH practice guidelines)
- PCP-based BH*

Quadrant III

BH ↓ PH ↑

- PCP (with standard screening tools and BH practice guidelines)
- Care/Disease Manager
- Specialty medical/surgical
- PCP-based BH (or in specific specialties)*
- ER
- Medical/surgical IP
- SNF/home based care
- Other community supports

*PCP-based BH provider might work for the PCP organization, a specialty BH provider, or as an individual practitioner, is competent in both MH and SA assessment and treatment.
Most Common Diagnosis in SMI Patients

56-70% Schizophrenia

20-34% Bipolar Disorder

10% Major depression, OCD or Borderline Personality disorder

Schizophrenia - Diagnostic Criteria

- Two or more of the following:
  - **Positive** Symptoms – must have at least 2 and at least one must be hallucinations, delusions or disorganized speech
    - Hallucinations – auditory most common
    - Delusions – paranoid, somatic, grandiose
    - Disorganized Speech
    - Grossly Disorganized or Catatonic Behavior
  - **Negative** Symptoms
    - Flat affect – blank look, lack of expression
    - Lack of motivation/drive/desire to pursue goals
    - Lack of additional, unprompted content seen in normal speech patterns – monotone, monosyllabic
      - **Social/Occupational Dysfunction**

DSM V 2013
Six Common Symptom Clusters

Bipolar DO

- **Bipolar I Disorder** is mainly defined by
  - manic or mixed episodes that last at least seven days
  - manic symptoms that are so severe that the person needs immediate hospital care
  - Usually, the person also has episodes of depression, typically lasting at least two weeks. change from the person's normal behavior.

- **Bipolar II Disorder** is defined by a pattern of
  - Episodes of depression shifting back and forth with hypomanic episodes, but no full-blown manic or mixed episodes.

- **Mania**: high energy, reduced sleep, euphoria, risk taking, irritable, talkative, racing thoughts, grandiose, increased activity

DSM V
Schizoaffective DO

- Schizophrenia + Bipolar DO

- An uninterrupted period of illness where at some point there is either a manic, depressed or mixed episode for the majority of the disorder’s duration after Criteria A for Schizophrenia has been met

DSM V 2013
Borderline Personality Disorder

• *Personality disorder:* A lifelong pattern in the way a person thinks, feels and behaves that is exceptionally rigid, extreme, maladaptive, damaging to self or others and leads to social and/or occupational impairment.
Depression and Anxiety Disorders

Meet criteria for SMI when:

**Depression** complicated by treatment resistant psychosis

**Anxiety** -treatment resistant co-morbid with personality disorder
Barriers to Providing Primary Health Care to Psychiatric Populations

**Cultural**
- Mental health staff and patients not used to incorporating primary care as part of job.

**Financial**
- Very rarely funded.
- Billing medical services challenging
- High no show rate, take extra time

**Motivational**
- Lack of perceived need for care

**Organizational**
- Devoting space, time, and money.
- Specialists do not cross boundaries
- Different languages

**Clinic Location**
- Proximity is crucial.
- Same building is best.
Patient Level Factors

- Lack of motivation, apathy
- Cognitive Impairment
- Fear and Distrust
- Lack of perceived need for health care
- Comorbidity
- Poor social, communication skills
Provider Level Factors

- Lack of Knowledge about specific disorders
- Attribute physical sx to mental illness and miss the problems
- Fear and Distrust
- Discomfort

Why bother? “Just treat the Schizophrenia and leave the rest”.

Lester HE. BMJ, doi:10.1136/bmj.38440.418426.8F 2005

Take too long, high no-show, impacts bottom line
Cost of Health Complexity

**Patient Type**

- **Acute Illness**
  - Self-resolving illness
  - Low grade acute illness

- **Serious Chronic Illness**
  - Chronic diseases
  - Moderate to severe acute illness

**Health Complexity**

- Multiple diagnoses
- Physical & mental health co-morbidity
- High health service use
- Impairment and disability
- Personal, social, financial upheaval
- Health system issues

---adapted from Meier DE, J Pall Med, 7:119-134, 2004
## Typical Days

### PRIMARY CARE

<table>
<thead>
<tr>
<th>Letter</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A1c</td>
</tr>
<tr>
<td>B</td>
<td>Blood Pressure</td>
</tr>
<tr>
<td>C</td>
<td>Cholesterol</td>
</tr>
<tr>
<td>+</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Depression</td>
</tr>
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### MENTAL HEALTH

<table>
<thead>
<tr>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMI</td>
</tr>
<tr>
<td>+</td>
</tr>
<tr>
<td>CHOLESTEROL</td>
</tr>
<tr>
<td>HYPERTENSION</td>
</tr>
<tr>
<td>OBESITY</td>
</tr>
<tr>
<td>DIABETES</td>
</tr>
<tr>
<td>SMOKING</td>
</tr>
</tbody>
</table>
Wagner Chronic Care Model

- Informed, Activated Patient/family
- Productive Interactions
- Improved Outcomes
- Prepared, Proactive, Multidisciplinary Practice Team

- Community
- Resources and Policies
- Self-Management Support

- Health System
- Delivery System Design
- Decision Support

- Health Care Organization
- Clinical Information Systems

- Improved Outcomes
- Productive Interactions

TTI 2013
Experimenting: Some Developing Models

- PCARE study (Druss et al, 2010)
- SAMHSA/HRSA PBHCI 93 Grantees
- Medicaid State Plan Amendments (SPA)
  - Allow for enhanced Medicaid funding (usually case rate) for Health Home if dx with SMI
  - May be located in a community mental health center so sometimes called “behavioral health home”
PCARE
Primary Care Access, Referral and Evaluation

• **PCARE study**: Nurse care managers provided communication and advocacy to overcome barriers to primary medical care. (Druss, 2010)
  - Intervention group received more
    - recommended preventive services,
    - higher proportion of evidence-based services for cardiometabolic conditions,
    - more likely to have a primary care provider (71.2% versus 51.9%).

• **Reduction in Framingham Cardiovascular Risk Index score in intervention group 6.9% compared to usual care 9.8%**
The PBHCI Program
PBHCI Approach

PCP

Psychiatrist

Care Manager

Case Manager

Patient

Other Behavioral Health Clinicians
Substance Treatment, Wellness Coach
Vocational Rehabilitation

Core Team
Change in PBHCI Physical Health Indicators from Baseline to Most Recent Recording - Oct 11, 2012
PBHCI Baseline to Oct 11, 2012: Outcome Improved
PBHCI Baseline to Oct 11, 2012: No longer at risk
State Medicaid Health Home Amendments
Health Home Team Approach – Missouri and Ohio

- **Consultant**
  - PCP

- **Psychiatrist**

- **Nurse Care Manager**

- **CSW/Case Mgr**

- **Patient**

- **PCP**

Other Behavioral Health Clinicians, Substance Tx, Vocational Rehabilitation, Other Community Resources

Core Team

Other Resources

TTI 2013
HbA1c testing provides an estimation of average blood glucose values in people with diabetes. Enrollees in the CCIP program received substantially more HbA1c testing than those not enrolled.
Spectrum of Patient Centered Collaborative Care

Mental Health in Primary Care Settings

Primary Care in Mental Health Settings
Lexicon of Integrated Care Terms

- Patient-Centered Care
- Integrated Care
- Coordinated Care
- Shared Care
- Collaborative Care
- Co-located Care
- Integrated Primary Care or Primary Care Behavioral Health
- Behavioral Health Care
- Patient-Centered Medical Home
- Mental Health Care
- Substance Abuse Care
- Primary Care

Adapted from: Peek, CJ - A family tree of related terms used in behavioral health and primary care integration (http://integrationacademy.ahrq.gov/lexicon)
Levels of Integration

COLLABORATION
We discuss patients, exchange information if needed

CO-LOCATION
We are in the same facility, may share some functions/staffing, discuss patients

INTEGRATION
System – wide transformation, focus on whole health for all patients

Doherty, 1996, Update 2013
Core Principles of Collaborative Care

Patient-Centered Care Teams

• Team-based care: effective collaboration between PCPs and Behavioral Health Providers.

• Nurses, social workers, psychologists, psychiatrists, licensed counselors, pharmacists, and medical assistants can all play an important role.

Population-Based Care

• Behavioral health patients tracked in a registry: no one ‘falls through the cracks’.

Measurement-Based Treatment to Target

• Measurable treatment goals clearly defined and tracked for each patient

• Treatments are actively changed until the clinical goals are achieved

Evidence-Based Care

• Treatments used are ‘evidence-based’

AIMS 2010
Tasks Related to Principles

**Find Patients:**
Screening, identification and determination of medical diagnoses

**Track Patients:**
Systematic follow-up and use of registry

**Treat Patients:**
- Evidence based treatment of medical and mental health conditions
- Heath behavior change
- Timely treatment adjust

**Program Oversight and Quality Improvement:**
Review outcomes, determine priorities, make adjustments
# Roles for PCPs in Behavioral Health Settings

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| Direct Care           | • Chronic Medical Conditions  
                         | • Preventive Care                                                      |
| Collaboration         | • Psychiatric Providers  
                         | • Care Managers, Case Managers,                                        |
| Population Based Care | • Establishing Priorities  
                         | • Track Outcomes, Adjust Care                                          |
| Education             | • Non Medical Staff  
                         | • Patients                                                             |
| Leader                | • Champion Health Care Change  
                         | • Help Shape System of Care                                           |
Post Test Questions

1. The premature mortality seen in the SMI population is:
   1. 25 – 30 years
   2. 20 – 25 years
   3. 15 – 20 years
   4. 10 – 15 years

2. What percent of illness contributing to this early mortality is preventable?
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3. What are the leading illnesses that contribute?
   1. Cardiovascular
   2. Infectious disease
   3. Cancers
   4. All the Above
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   3. 60%
   4. 80%

3. What are the leading illnesses that contribute?
   1. Cardiovascular
   2. Infectious disease
   3. Cancers
   4. All the Above
“Different models must be tested - the cost and suffering of doing nothing is unacceptable.”

Resources and additional training tools will be available on an elearning system at:

www.indianaintegration.org