Bi-Directional Integration: Saving the Lives of Persons with Serious and Persistent Mental Illness
Early Loss of Life

- Persons with serious mental illness (SMI) are dying 25 years earlier than the general population.
- 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 (NASMHPD, 2006).
Causes of Morbidity and Mortality

• Higher rates of modifiable risk factors:
  ✓ Smoking
  ✓ Alcohol consumption
  ✓ Poor nutrition / obesity
  ✓ Lack of exercise
  ✓ “Unsafe” sexual behavior
  ✓ IV drug use
  ✓ Residence in group care facilities and homeless shelters

• Vulnerability due to higher rates of:
  ✓ Homelessness
  ✓ Victimization / trauma
  ✓ Unemployment
  ✓ Poverty
  ✓ Incarceration
  ✓ Social isolation
**Goal:** enhanced integration and coordination of primary, acute, behavioral health (mental health and substance use), and long-term services and supports for persons across the lifespan with chronic illness

**CMS expects that use of the health home service delivery model will result in**

- lowered rates of emergency room use,
- reduction in hospital admissions and re-admissions,
- reduction in health care costs,
- less reliance on long-term care facilities, and
- improved experience of care and quality of care outcomes for the individual
Affordable Care Act – Four Key Strategies

- Insurance Reform
- Coverage Expansion
- Delivery System Redesign
- Payment Reform
Benefits for the Newly Eligible

- Essential benefits include mental health and substance use treatment
- MH and SUD must be offered at parity with medical/surgical benefits

This means...

...Most members of the safety net will have coverage, including mental health and substance use disorders
Behavioral Health is Part of Healthcare
# Prevalence of Psychiatric Disorders in Primary Care

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>No mental disorder</td>
<td>61.4%</td>
</tr>
<tr>
<td>Somatoform</td>
<td>14.6%</td>
</tr>
<tr>
<td>Major Depression</td>
<td>11.5%</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>7.8%</td>
</tr>
<tr>
<td>Minor Depression</td>
<td>6.4%</td>
</tr>
<tr>
<td>Major Depression (partial remission)</td>
<td>7.0%</td>
</tr>
<tr>
<td>Generalized Anxiety</td>
<td>6.3%</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>3.6%</td>
</tr>
<tr>
<td>Other Anxiety Disorder</td>
<td>9.0%</td>
</tr>
<tr>
<td>Alcohol Disorder</td>
<td>5.1%</td>
</tr>
<tr>
<td>Binge Eating</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Prevalence of Psychiatric Disorders in Low-income Primary Care Patients

- 35% of low-income patients with a psychiatric diagnosis saw their PCP in the past 3 months
- 90% of patients preferred integrated care
- Based on findings, authors argue for system change

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Low-Income Patients</th>
<th>General PC Population*</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Least One Psychiatric Dx</td>
<td>51%</td>
<td>28%</td>
</tr>
<tr>
<td>Mood Disorder</td>
<td>33%</td>
<td>16%</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>36%</td>
<td>11%</td>
</tr>
<tr>
<td>Alcohol Abuse</td>
<td>17%</td>
<td>7%</td>
</tr>
<tr>
<td>Eating Disorder</td>
<td>10%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Most PCPs do a good job of diagnosing and beginning treatment for depression (Annals of Internal Medicine, 9/07)
  - 1,131 patients in 45 primary care practices across 13 states
PCPs did less well following up with treatment over time—less than half of patients completed a minimal course of medications or psychotherapy
Lowest quality of care occurred among those with the most serious symptoms, including those with evidence of suicide or substance use
“Right now PCPs don’t have the tools necessary to decide which patients to treat and which to refer on to specialized MH care”
Co-morbidity and Substance Abuse

- Almost 25% of general healthcare patients report they have a co-morbid substance use conditions likely related to the physical sequelae that result from untreated substance misuse and dependency (NSDUH, 2005)

- Substance use conditions often complicate management and treatment of other chronic diseases in primary care such as diabetes, hypertension, asthma and others (PRISM, 2008)
- Inhalant use among 12-17 year olds and depression are increasing;
- Patients in chemical dependency programs are 18 times more likely to have major psychosis, 15 times more likely to have depression and 9 times more likely to have an anxiety disorder;
- Substance use increases the risk for hypertension (x2), congestive heart failure (x9) and pneumonia (x12);
- HIV patients with a substance use disorder are more likely to be non-adherent;
- Medicaid patients with a substance use disorder are more likely to be readmitted to a hospital within 30 days;
Co-morbidity and Substance Abuse

- More than 1.7 million visits to hospital EDs are related to some form of substance misuse or dependency (DAWN, 2006)

- Drug and alcohol disorders are associated with about 3% of hospital stays and $12 billion in costs. (HCUP, 2006, 2007)
Delivery System Redesign – Health Homes (Medical Homes)
8 State’s Plans have been approved:
- Missouri (2) – Behavioral Health and Primary Care
- Rhode Island (2) – adults and children with SMI
- New York – chronic behavioral and physical health
- Oregon
- North Carolina
- Iowa
- Idaho

15 States with Planning Grants:
- Alabama, Arizona, Arkansas, California, District of Columbia, Idaho, Maine, Michigan, Nevada, New Jersey, New Mexico, North Carolina, Washington, West Virginia, and Wisconsin
<table>
<thead>
<tr>
<th>State</th>
<th>Population</th>
<th>Providers</th>
<th>Enrollment</th>
<th>Payment</th>
<th>Geog. Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>SPMI or SED; Diabetes or Asthma; D/A and at risk for another chronic condition</td>
<td>Current Healthy Connections Providers</td>
<td>Self referred or referred by provider; opt out</td>
<td>PMPM for comprehensive care mgmt services</td>
<td>Statewide</td>
</tr>
<tr>
<td>Iowa</td>
<td>Two chronic conditions or one and at risk for another; includes hypertension</td>
<td>All primary care and CMHCs</td>
<td>Opt in at providers office</td>
<td>PMPM with performance based payment in 2013</td>
<td>Statewide</td>
</tr>
<tr>
<td>Missouri</td>
<td>SPMI only and MH or SA plus one chronic condition; MH/SA + tobacco</td>
<td>CMHCs</td>
<td>Auto-assigned with opt out</td>
<td>PMPM</td>
<td>Statewide</td>
</tr>
<tr>
<td>Missouri</td>
<td>Physical Health</td>
<td>Primary care</td>
<td>Auto-assigned with opt out</td>
<td>PMPM</td>
<td>Statewide</td>
</tr>
<tr>
<td>New York</td>
<td>SMI, Chronic Medical and BH conditions</td>
<td>Any providers meeting criteria</td>
<td>Auto-enroll with opt out</td>
<td>PMPM based on regions, case mix</td>
<td>Statewide</td>
</tr>
<tr>
<td>State</td>
<td>Population</td>
<td>Provider</td>
<td>Enrollment</td>
<td>Payment</td>
<td>Geog Area</td>
</tr>
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<td>-------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Two chronic medical conditions or one and at risk for another</td>
<td>Medical Homes</td>
<td>Voluntary through Community Care</td>
<td>Tiered PMPM with add on payments for specialized support</td>
<td>Statewide</td>
</tr>
<tr>
<td>Ohio</td>
<td>SPMI and SED</td>
<td>CBHCs</td>
<td>Opt out</td>
<td>PMPM</td>
<td>Targeted to 5 counties – statewide year 2</td>
</tr>
<tr>
<td>Oregon</td>
<td>Statute based plus Hep C, HIV/AIDS, kidney disease and cancer</td>
<td>PCPCH at Tier 1, 2 or 3 or PCPs meeting state criteria</td>
<td>Opt out</td>
<td>PMPM based on Tier</td>
<td>Statewide</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>SMI or SED; two chronic conditions; or one and at risk of another; specific conditions</td>
<td>CEDARR Family Centers</td>
<td>Voluntary</td>
<td>Alternate payment methodology</td>
<td>Statewide</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>SPMI</td>
<td>7 CMHO and 2 smaller mhp</td>
<td>Auto-assigned with opt out</td>
<td>Case rate</td>
<td>Statewide</td>
</tr>
</tbody>
</table>
Defining the Healthcare Home

Person-Centered Healthcare Home

Superb Access to Care
Patient Engagement in Care
Clinical Information Systems
Care Coordination
Team Care
Patient Feedback
Publicly Available Information
Making the Case for Integration in the Health Home
Impact on Costs

Revenue PMPM
Expense PMPM
Margin PMPM
W/O Intervention
### Missouri Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Period (CY2006)</td>
<td>$1,556</td>
</tr>
<tr>
<td>Expected Trend</td>
<td>16.67%</td>
</tr>
<tr>
<td>Expected Trend with no Intervention</td>
<td>$1,815.81</td>
</tr>
<tr>
<td>Actual PMPM in Performance Period (FY2007)</td>
<td>$1,504.34</td>
</tr>
<tr>
<td>Gross PMPM Cost Savings</td>
<td>$311.47</td>
</tr>
<tr>
<td>Lives</td>
<td>6,757</td>
</tr>
<tr>
<td>Gross Program Savings</td>
<td>$25,254,928</td>
</tr>
<tr>
<td>Vendor Fees</td>
<td>$1,301,560</td>
</tr>
<tr>
<td>Net Program Savings</td>
<td>$23,953,368</td>
</tr>
<tr>
<td>NET PMPM Program Savings</td>
<td>$295.41</td>
</tr>
<tr>
<td>Net Program Savings/(Cost) as percentage of Expected PMPM</td>
<td>16.3%</td>
</tr>
</tbody>
</table>
Consumer Outcomes - Missouri

- Independent Living increased by 33%
- Vocational Activity increased by 44%
- Legal Involvement decreased by 68%
- Psychiatric Hospitalization decreased by 52%
- Illegal Substance use decreased by 52%
- IN ADDITION- Study shows CMHCs services substantially decrease overall medical cost
Models of/for Integration
<table>
<thead>
<tr>
<th>Function</th>
<th>Minimal Collaboration</th>
<th>Basic Collaboration from a Distance</th>
<th>Basic Collaboration On-Site</th>
<th>Close Collaboration/Partly Integrated</th>
<th>Fully Integrated/Merged</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td>Two front doors; consumers go to separate sites and organizations for services</td>
<td>Two front doors; cross system conversations on individual cases with signed releases of information</td>
<td>Separate reception, but accessible at same site; easier collaboration at time of service</td>
<td>Same reception; some joint service provided with two providers with some overlap</td>
<td>One reception area where appointments are scheduled; usually one health record, one visit to address all needs; integrated provider model</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>Separate and distinct services and treatment plans; two physicians prescribing</td>
<td>Separate and distinct services with occasional sharing of treatment plans for Q4 consumers</td>
<td>Two physicians prescribing with consultation; two treatment plans but routine sharing on individual plans, probably in all quadrants</td>
<td>Q1 and Q3 one physician prescribing, with consultation; Q2 &amp; 4 two physicians prescribing some treatment plan integration, but not consistently with all consumers</td>
<td>One treatment plan with all consumers, one site for all services; ongoing consultation and involvement in services; one physician prescribing for Q1, 2, 3, and some 4; two physicians for some Q4: one set of lab work</td>
</tr>
<tr>
<td><strong>Funding</strong></td>
<td>Separate systems and funding sources, no sharing of resources</td>
<td>Separate funding systems; both may contribute to one project</td>
<td>Separate funding, but sharing of some on-site expenses</td>
<td>Separate funding with shared on-site expenses, shared staffing costs and infrastructure</td>
<td>Integrated funding, with resources shared across needs; maximization of billing and support staff; potential new flexibility</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td>Separate systems with little of no collaboration; consumer is left to navigate the chasm</td>
<td>Two governing Boards; line staff work together on individual cases</td>
<td>Two governing Boards with Executive Director collaboration on services for groups of consumers, probably Q4</td>
<td>Two governing Boards that meet together periodically to discuss mutual issues</td>
<td>One Board with equal representation from each partner</td>
</tr>
<tr>
<td><strong>EBP</strong></td>
<td>Individual EBP’s implemented in each system;</td>
<td>Two providers, some sharing of information but responsibility for care cited in one clinic or the other</td>
<td>Some sharing of EBP’s around high utilizers (Q4); some sharing of knowledge across disciplines</td>
<td>Sharing of EBP’s across systems; joint monitoring of health conditions for more quadrants</td>
<td>EBP’s like PHQ9; IDDT, diabetes management; cardiac care provider across populations in all quadrants</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>Separate systems, often paper based, little if any sharing of data</td>
<td>Separate data sets, some discussion with each other of what data shares</td>
<td>Separate data sets; some collaboration on individual cases</td>
<td>Separate data sets, some collaboration around some individual cases; maybe some aggregate data sharing on population groups</td>
<td>Fully integrated, (electronic) health record with information available to all practitioners on need to know basis; data collection from one source</td>
</tr>
</tbody>
</table>
The Four Quadrant Clinical Integration Model

**Quadrant I**
- BH ↓ PH ↓
  - PCP (with standard screening tools and BH practice guidelines)
  - PCP-based BH*

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

**Quadrant III**
- BH ↓ PH ↑
  - PCP (with standard screening tools and BH practice guidelines)
  - Care/Disease Manager
  - Specialty medical/surgical
  - Specialty BH
  - Residential BH
  - Crisis/ ER
  - BH and medical/surgical 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

*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.

Stable SPMI would be served in either setting. Plan for and deliver services based upon the needs of the individual, consumer choice and the specifics of the community and collaboration.
Quadrant I

- **Quadrant I: Low BH/Low PH**
  - PCP (with standard screening tools and BH practice guidelines)
  - PCP-Based BH

- **Interventions**
  - Screening for BH Issues (Annually)
  - Age Specific Prevention Activities
  - Psychiatric Consultation

- **Financing**
  - Primary Care Visits
  - SBIRT Codes for Substance Abuse
• Quadrant III – Low BH/High PH
  ✓ PCP with screening tools
  ✓ Care/Disease Management
  ✓ Specialty Med/Surg
  ✓ PCP based- BH
  ✓ ER

• Interventions
  ✓ BH Ancillary to Medical Diagnosis
  ✓ Group Disease Management
  ✓ Psychiatric Consultation In PC
  ✓ MSW in Primary Care
  ✓ BH Registries in PC (Depression, Bipolar)

• Financing
  ✓ 96000 Series of Health and Behavioral Assessment Codes
  ✓ Two services in one day at an FQHC billable in WV
  ✓ Two Services by two providers is also billable
Quadrant II

- Quadrant II – High BH/Low PH
  - BH Case Manager w/responsibility for coordination w/PCP
  - PCP with tools
  - Specialty BH
  - Residential BH
  - Crisis/ER
  - Behavioral Health IP
  - Other Community Supports

- BH Interventions in Primary Care
  - IMPACT Model for Depression
  - MacArthur Foundation Model
  - Behavioral Health Consultation Model
  - Case Manager in PC
  - Psychiatric Consultation

- PC Interventions CMH
  - NASMHPD Measures
  - Wellness Programs
  - Nurse Practitioner, Physician’s Assistant, Physician in BH

- Financing
  - Disease Management Pilot in Michigan
  - CMH Capitation
  - Two services are billable
Quadrant IV

- Quadrant IV- High BH/High PH
  - PCP with screening tools
  - BH Case Manager with Coordination with Care Management and Disease Management
  - Specialty BH/PH

- Interventions in Primary Care
  - Psychiatric Consultation
  - MSW in Primary Care
  - Case Management
  - Care Coordination

- Interventions in BH
  - Registries for Major PC Issues (Diabetes, COPD, Cardiac Care)
  - NASMPD Disease Measures
  - NP, PA or Physician in BH

- Financing
  - BH Capitation
  - Primary Care Visits
Models/Strategies – Bi-Directional Integration

Behavioral Health – Disease Specific
- IMPACT
- RWJ
- MacArthur Foundation
- Diamond Project
- Hogg Foundation for Mental Health
- Primary Behavioral Healthcare Integration Grantees

Behavioral Health - Systemic Approaches
- Cherokee Health System
- Washtenaw Community Health Organization
- American Association of Pediatrics - Toolkit
- Collaborative Health Care Association
- Health Navigator Training

Physical Health
- TEAMcare
- Diabetes (American Diabetes Assoc)
- Heart Disease
- Integrated Behavioral Health Project – California – FQHCs Integration
- Maine Health Access Foundation – FQHC/CMHC Partnerships
- Virginia Healthcare Foundation – Pharmacy Management
- PCARE – Care Management

Consumer Involvement
- HARP – Stanford
- Health and Wellness Screening – New Jersey (Peggy Swarbrick)
- Peer Support (Larry Fricks)
Funding starting to open up for embedding primary medical care into CBHOs, a critical component of meeting the needs of adults with serious mental illness.
• **Contact Information**

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- [www.integration.samhsa.gov](http://www.integration.samhsa.gov)