The Wellness and Recovery Medicine (WaRM) Center at Massachusetts Mental Health Center:

A Health Home for People with Serious Mental Illness

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Kraft Practitioner Program
Harvard Medical School

DMH Centers of Excellence Conference | March 27th, 2014
Disclosures

We have no financial relationships with commercial entities relevant to the content being presented.
Overview

• Poor health and healthcare of people with serious mental illness
• How Health Homes can help
• The Wellness and Recovery Medicine (WaRM) Center at MMHC
Poor Health and Healthcare
Early Death

On average, adults with serious mental illness die 25 YEARS earlier than Americans overall.

Colton 2006
Years of Potential Life Lost

13-30 years
8 states
DMH
1997-2000
Colton

8.5 - 15 years
Swedish registry Scz and BPAD
2003-09
Crump

8.8 years
MA
DMH 1989-94
Dembling

10 - 16 years
W. Australia
Any MH dx
1985-2005
Lawrence

12 years
London
SMI
2007-09
Chang

14.5 years
Ohio
CMHC
1998-2004
Piatt

22.5 years
Finnish registry Scz
1996-2006
Tiihonen

32 years
Ohio
State hospitals
1998-2002
Miller
Serious Mental Illness and Early Death

Most (60%) of these early deaths are from?

Medical Illness

The #1 cause of death?

Heart Disease

Medical Illness & Mental Illness

• People with mental illness are more likely to
  – Have medical problems
  – Get them at a younger age
  – Die sooner once they have them

Colton 2006, DRC 2006
Why is this important to us?

“Dying from medical illness prevents recovery from mental illness”

Parks 2008
What Causes the Poor Health of People with Mental Illness?

- Mental Illness
- Environment
  - Poor quality of care
- Lifestyle
- Medications

Poor Health Outcomes
What Causes the Poor Health of People with Mental Illness?

Mental Illness

- Environment
  - Poor quality of care
- Lifestyle
- Medications

Poor Health Outcomes
Issues with the Healthcare System

System is fragmented / split into separate silos

Hard to get doctors to talk to each other or share information

Parks 2006 & 2008
Poor Quality of Medical Care

• Often miss out on high quality treatment for medical illness
• Receive fewer of the services that help identify and prevent illness, such as screenings and vaccinations
  – Medical illness is diagnosed at later stages of the illness
• Less likely to be offered diet and exercise advice and help with quitting smoking

Health Homes
Health Home Values

Person-centered

Committed to quality and safety

Comprehensive

Accessible

Coordinated

Patient-Centered Primary Care Collaborative 2013
Health Home Services

- Care management
- Care coordination
- Medical & Mental Health Care
- Community and social support services
- Patient and family support
- Health promotion
- Care between transitions (hospital to community)

CMS 2010
The WaRM Center at MMHC
The Warm Center
Wellness & Recovery Medicine @ MMHC

Integrated Intake Assessment
(Psychiatric assessment & general health screen)

Mental Health Services

WaRM Center (Wellness and Primary Care Services)

Clozapine / Injection / Well-being & Medication Clinics

Primary care services

Help with quitting smoking

Exercise / Nutrition

Health screening (including teeth and eyes)

Preventive care, including vaccines

Chronic illness self-management
# Health and Wellness Snapshot

**MMHC Health and Wellness Snapshot**

**Name:**

**Date of Birth:**

**Sex:**

**Today’s Date:**

**Primary Care Provider & Organization:**

**MMHC Clinic or Psychiatrist:**

### Healthcare History

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>In the last year</th>
<th>1 to 5 years ago</th>
<th>More than 5 years ago</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye exam</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Colonoscopy</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Peas or beans (if female)</td>
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</tr>
</tbody>
</table>

### Medical History

<table>
<thead>
<tr>
<th>Condition</th>
<th>Never</th>
<th>In the Past</th>
<th>Currently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td></td>
<td></td>
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<tr>
<td>Bronchitis/COPD</td>
<td></td>
<td></td>
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<tr>
<td>Chronic pain</td>
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<tr>
<td>Diabetes</td>
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<td></td>
<td></td>
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<tr>
<td>Heart disease</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>High blood pressure</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Stroke</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HIV</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hepatitis</td>
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<td></td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Considering your age, how would you rate your overall health:**

- Poor
- Not Good
- Average
- Good
- Excellent

### Substance Use History

<table>
<thead>
<tr>
<th>Substance</th>
<th>Never</th>
<th>In the Past</th>
<th>Currently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes/Eggs/Red Dynasty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injection (needle) drugs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Vital Signs

- **Date taken:**
- **Done today:**

**Blood Pressure**

**Height (in):**

**Weight (lbs):**

**BMI:**

**Waist Circum (in):**

### Lipid Profile

- **Date of last test:**
- **Drawn today:**

**Total Cholesterol:**

**LDL:**

**HDL:**

**Triglycerides:**

### Hgb A1c (glucose)

- **Date of last test:**
- **Drawn today:**

**Value:**

### Carbon Monoxide (smoking status)

- **Date of last test:**
- **Measured today:**

**Value:**

### Physical Activity and Diet

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate in at least 30 min of moderate physical activity most days of the week (e.g. walking, biking, swimming, etc.)</td>
<td></td>
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</tr>
<tr>
<td>Eat a healthy diet (regular meals, fruits and vegetables, avoiding snacks/junk food)</td>
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</tbody>
</table>

### Interest in MMHC health and wellness services

- **Would you like to receive your primary care services through MMHC?**
  - Yes
  - No
  - Not Sure

- **How many cigarettes per day do you usually smoke?**
- **How many years have you smoked?**

**Alcohol:**

- **How many times in the past year have you had more than four drinks (for women) or five drinks (for men) in a day?**
  - Never
  - 1
  - 2
  - 3
  - 4 or more

**Physical activity:**

- **How many times does exercise:**
  - Never
  - Rarely
  - Sometimes
  - Frequently

**Other health and wellness activities you are interested in:**

- Quitting Smoking
- Diet/Nutrition
- Fitness/Exercise
- Learning to manage
- Other...
# Health and Wellness Snapshot

## Healthcare History

<table>
<thead>
<tr>
<th>When was the last:</th>
<th>Never</th>
<th>In the last year</th>
<th>1 to 5 years ago</th>
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<tr>
<td>Colonoscopy</td>
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<tr>
<td>Pap smear (if fem)</td>
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</tbody>
</table>

## Vital Signs

<table>
<thead>
<tr>
<th>Date taken:</th>
<th>Done today</th>
<th>Blood Pressure:</th>
<th>Height (in):</th>
<th>Weight (lbs):</th>
<th>BMI:</th>
<th>Waist Circumf (in):</th>
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</tbody>
</table>

## Medical History

## Substance Use

<table>
<thead>
<tr>
<th>Do you use any of the following:</th>
<th>Never</th>
<th>In the last year</th>
<th>1 to 5 years ago</th>
<th>More than 5</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes/Cigar</td>
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<tr>
<td>Alcohol</td>
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<tr>
<td>Injection (needle)</td>
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<tr>
<td>How many cigarettes per day</td>
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<tr>
<td>Alcohol: How many drinks (for women: 1 drink = 1 beer, 1 glass wine)</td>
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</tbody>
</table>

## Lipid Profile

<table>
<thead>
<tr>
<th>Date of last test:</th>
<th>Drawn today</th>
<th>Total Cholesterol:</th>
<th>LDL:</th>
<th>HDL:</th>
<th>Triglycerides:</th>
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</table>

## Hgb A1c (glucose)

<table>
<thead>
<tr>
<th>Date of last test:</th>
<th>Drawn today</th>
<th>Value:</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

## Carbon Monoxide (smoking status)

<table>
<thead>
<tr>
<th>Date of last test:</th>
<th>Measured today</th>
<th>Value:</th>
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</thead>
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<tr>
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</tbody>
</table>

## Physical Activity

<table>
<thead>
<tr>
<th>How often do you participate in at least 30 minutes of physical activity on at least days of the week?</th>
<th>Never</th>
<th>In the last year</th>
<th>1 to 5 years ago</th>
<th>More than 5</th>
<th>Don’t Know</th>
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</table>

<table>
<thead>
<tr>
<th>Eat a healthy diet? (regular meals, fruits and vegetables, avoiding snack/junk food)</th>
<th>Never</th>
<th>In the last year</th>
<th>1 to 5 years ago</th>
<th>More than 5</th>
<th>Don’t Know</th>
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</table>
Snapshot Round 1 Results

- Sept and Oct 2013
- Completed 313 snapshots (28% of center’s patients)
- Male: 60%
- Age range: 19 to 84 (avg 47)
How would you rate your overall health?

- Poor/Not good: 10%
- Average: 37%
- Good/Excellent: 53%
How often do you...

Engage in physical activity
N 298

- Frequently: 42%
- Sometimes: 29%
- Never/Rarely: 29%

Eat a healthy diet
N 297

- Frequently: 39%
- Sometimes: 43%
- Never/Rarely: 18%
When was the last time you had a…

- Colonoscopy (50-75) 18% Last 12 mos, 35% > 5 yrs ago
- Pap test (F) 46% Last 12 mos, 23% > 5 yrs ago
- Eye exam 45% Last 12 mos, 5% > 5 yrs ago
- Dental exam 55% Last 12 mos, 5% > 5 yrs ago
- PCP visit 87% Last 12 mos, 3% > 5 yrs ago
What services are you interested in?

- Primary care
- Illness self-management
- Fitness/exercise
- Diet/nutrition

N=288

Yes
Unsure
CHRONIC MEDICAL ILLNESS @ MMHC

- Hypertension 46%
- Asthma 23%
- Bronchitis/COPD 16%
- Chronic pain 27%
- Diabetes 20%

Other:
- Heart Disease 8%
- Hepatitis 7%
- Stroke 3%
Cardiometabolic Risk @ MMHC

**Obesity**
- 47%
- Avg Body Mass Index (BMI) 30.4
  - Range 15.5 to 64.4

**Avg waist circumf (m&f)**
- 42"

**By A1C**
- Diabetes 15%
- Pre-Diabetes 32%

**Abnormal lipids**
- 59%

"Abdominal obesity" = M>40" or F>35"
Smoking @ MMHC

In Massachusetts

16.4% of adults smoke

At MMHC

47% smoke

On average @ MMHC

13.5 cigarettes per day

21.5 years smoked

31 ppm breath CO level (>20 = heavy smoker)

Percent of smokers interested in cessation services

45
How healthy is Massachusetts?

- Obesity: 22.9%, #2
- Smoking: 16.4%, #7
- Diabetes: 8.3%, #10
- Hypertension: 29.2%, #12
- High cholesterol: 34.3%, #2
How healthy is MMHC?

<table>
<thead>
<tr>
<th>Condition</th>
<th>MA</th>
<th>MMHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>22.9</td>
<td>47</td>
</tr>
<tr>
<td>Diabetes</td>
<td>8.3</td>
<td>20</td>
</tr>
<tr>
<td>HTN</td>
<td>29.2</td>
<td>46</td>
</tr>
<tr>
<td>Smoking</td>
<td>16.4</td>
<td>47</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>34.3</td>
<td>59</td>
</tr>
</tbody>
</table>
## Population Health Management

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age</th>
<th>Sex</th>
<th>TotChol</th>
<th>LDL</th>
<th>HDL</th>
<th>Trig</th>
<th>A1C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44</td>
<td>F</td>
<td>251</td>
<td>175</td>
<td>44</td>
<td>160</td>
<td>13.6</td>
</tr>
<tr>
<td>2</td>
<td>54</td>
<td>M</td>
<td>204</td>
<td>104</td>
<td>55</td>
<td>224</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>51</td>
<td>F</td>
<td>135</td>
<td>80</td>
<td>39</td>
<td>78</td>
<td>9.5</td>
</tr>
<tr>
<td>4</td>
<td>43</td>
<td>M</td>
<td>163</td>
<td>84</td>
<td>65</td>
<td>69</td>
<td>9.4</td>
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<tr>
<td>5</td>
<td>56</td>
<td>F</td>
<td>174</td>
<td>88</td>
<td>59</td>
<td>137</td>
<td>8.8</td>
</tr>
<tr>
<td>6</td>
<td>45</td>
<td>M</td>
<td>162</td>
<td>48</td>
<td>24</td>
<td>470</td>
<td>8.7</td>
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<tr>
<td>7</td>
<td>59</td>
<td>M</td>
<td>100</td>
<td>53</td>
<td>23</td>
<td>121</td>
<td>8.4</td>
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<tr>
<td>8</td>
<td>41</td>
<td>M</td>
<td>191</td>
<td>127</td>
<td>47</td>
<td>86</td>
<td>8.1</td>
</tr>
<tr>
<td>9</td>
<td>22</td>
<td>F</td>
<td>166</td>
<td>106</td>
<td>41</td>
<td>93</td>
<td>7.9</td>
</tr>
<tr>
<td>10</td>
<td>62</td>
<td>F</td>
<td>140</td>
<td>55</td>
<td>63</td>
<td>111</td>
<td>7.9</td>
</tr>
</tbody>
</table>

- Identify high risk patients
- Notify care team
- Evaluate care
- Engage patient in personalized interventions (PCP, medication eval, lifestyle modification)
- Monitor outcomes
Challenges

- Limited resources
- Lack of interoperable and robust EHRs
- No show rates
- Recruitment and engagement for wellness programming
- MH provider discomfort with medical issues
Future Directions

• What are the best ways of meeting the needs of our population?
  – Continuous quality improvement
  – Formal health services research, comparative efficacy

• Shared decision making, health education, self-management, engagement/activation

• Unified treatment plans

• Peers as wellness coaches and navigators

• Nurse care managers
Future Directions

- Healthcare reform: MassHealth Health Homes, OneCare
- Grant opportunities: Smoking cessation care management program
- Teaching and training models for mental health and primary care trainees
- Innovative uses of technology:
  - Telehealth, mHealth
- Leverage various data sources to track care utilization, outcomes, cost
Come see us!