IMPACTING PREMATURE MORTALITY AMONG PEOPLE WITH SERIOUS MENTAL ILLNESS

Shaping the Future of Mental Health™

Genesee County Community Mental Health

29 November 2010
Problem/Impact

- People with serious mental illness (SMI) die an average of 25-30 years earlier than individuals in the general population (National Association of State Mental Health Program Directors Medical Directors Council, 2006).

- People with SMI are at risk of weight gain, obesity and the associated adverse outcomes due to sedentary lifestyles, poor diet, metabolic alterations related to psychiatric medications, and tobacco use.

- People with SMI have nearly twice the normal risk of dying from cardiovascular disease (CVD).
• Obesity is twice as prevalent among persons with SMI compared to persons without, placing them at risk for diabetes and CVD.
• CVD is the most common health consequence of obesity and the primary way obesity reduces life expectancy.
• Individuals with SMI are therefore dying primarily because of the preventable medical conditions that result from lifestyle risk factors, especially obesity.
• *Between October 2002 and September 2010, 159 GCCMH consumers with SMI died of CVD. This accounts for 30% of all SMI deaths, and is the most common cause every year.*
GCCMH causes of death, DoD 10/1/02 - 9/13/09

<table>
<thead>
<tr>
<th>Cause</th>
<th>N deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEART DISEASE</td>
<td>159</td>
</tr>
<tr>
<td>CANCER</td>
<td>44</td>
</tr>
<tr>
<td>PNEUMONIA/INFLU.</td>
<td>51</td>
</tr>
<tr>
<td>VASCULAR DISEASE</td>
<td>39</td>
</tr>
<tr>
<td>NEUROLOGICAL</td>
<td>51</td>
</tr>
<tr>
<td>ACCIDENT NOT.</td>
<td>34</td>
</tr>
<tr>
<td>LUNG DISEASE</td>
<td>49</td>
</tr>
<tr>
<td>INFECTION INCL AIDS</td>
<td>25</td>
</tr>
<tr>
<td>DIABETES</td>
<td>11</td>
</tr>
<tr>
<td>PENDING AUTOPSY</td>
<td>21</td>
</tr>
<tr>
<td>KIDNEY DISEASE</td>
<td>19</td>
</tr>
<tr>
<td>SUICIDE</td>
<td>14</td>
</tr>
<tr>
<td>INANITION</td>
<td>6</td>
</tr>
<tr>
<td>ACUTE BOWEL</td>
<td>11</td>
</tr>
<tr>
<td>LIVER DISEASE</td>
<td>76</td>
</tr>
<tr>
<td>ASPERSION</td>
<td>1</td>
</tr>
<tr>
<td>ACCIDENT UNDER.</td>
<td>47</td>
</tr>
<tr>
<td>HOMICIDE</td>
<td>73</td>
</tr>
<tr>
<td>COMPLICATION OF.</td>
<td>8</td>
</tr>
<tr>
<td>ENDOCRINE</td>
<td>23</td>
</tr>
<tr>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>
Frequency distribution: Age at death
All active consumers, FY 2005-partial FY 2010

Age

% consumers
0% 5% 10% 15% 20% 25% 30%

DD (N=177) MI (N=456)
Age at death by gender (SMI only)

- Males (N=227)
- Females (N=229)
Age at death by race: white / minorities (SMI only)
Age at death by gender x race (SMI only)

White males (N=152)
Minority males (N=74)
White females (N=186)
Minority females (N=43)
Mean and 90% C.I. for age at death by gender and minority status for SMI consumers
Initiatives

• GCCMH launched InSHAPE® in August 2009, the only wellness promotion program of its type in Michigan. Two other Michigan MH agencies are in the planning stages.
  • Designed to lengthen life expectancy and improve the quality of life for persons with SMI through a combination of exercise, diet, coaching by a Health Mentor (certified personal trainer), and active use of healthcare services to reduce risk factors contributing to chronic disease and poor health status.

• Created “wellness stations” throughout our facilities across the county to provide health/wellness resources and educational materials, e.g., DVDs, BP machines, etc.

• Recruited peer support specialists to work alongside health mentors.

• Established the GCCMH Community Garden Project.

• Wrote a five year strategic plan that centers on promoting wellness and reducing morbidity and mortality.
InSHAPE Criteria for participation

- 18 years or older
- Have a serious mental illness: bipolar (most common), schizophrenia, major depression
- Currently seeing a CMH Case Manager*
- Have an identified health risk (high blood pressure, high cholesterol, overweight, diabetes, CVD, etc.) and associated high risk health behavior(s)
- Physician clearance to participate
- Acceptance without regard to ability to pay a nominal fee
- Willing to participate

*GCCMH criterion not a part of the NH model
<table>
<thead>
<tr>
<th>Condition</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight/obese</td>
<td>52</td>
</tr>
<tr>
<td>Smokers</td>
<td>33</td>
</tr>
<tr>
<td>Hypertension</td>
<td>32</td>
</tr>
<tr>
<td>Asthma</td>
<td>28</td>
</tr>
<tr>
<td>Diabetes</td>
<td>27</td>
</tr>
<tr>
<td>Angina</td>
<td>27</td>
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<tr>
<td>Allergies</td>
<td>24</td>
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<tr>
<td>High Cholesterol</td>
<td>26</td>
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<tr>
<td>Arthritis</td>
<td>22</td>
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<tr>
<td>Edema</td>
<td>15</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>12</td>
</tr>
<tr>
<td>Heart Palpitations</td>
<td>12</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>7</td>
</tr>
<tr>
<td>Heart Attack Hx</td>
<td>5</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>5</td>
</tr>
<tr>
<td>COPD</td>
<td>4</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>3</td>
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<tr>
<td>Hyperthyroidism</td>
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</tr>
<tr>
<td>Stroke hx</td>
<td>2</td>
</tr>
<tr>
<td>Cancer hx</td>
<td>2</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>1</td>
</tr>
<tr>
<td>Rheumatic Fever</td>
<td>1</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>1</td>
</tr>
</tbody>
</table>
Pilot results – New Hampshire

• The Dartmouth Psychiatric Research Center conducted an 18-month pilot study of InSHAPE’s effects on the health of 98 participants served in original implementation site.

• Findings:
  • InSHAPE is effective in reducing disease risk factors, as well as improving the physical health and quality of life of persons with SMI.
  • InSHAPE participants had significantly increased their exercise level and reduced their average waist circumference (a marker for high risk).
  • Participants also reported significant improvements in mental and emotional functioning and a decrease in the severity of symptoms of schizophrenia.
Results – Genesee County

• As of September, InSHAPE participants (66) have achieved:
  • A combined weight loss of 116.7 pounds
  • A combined decrease of 259.1 cm in waist circumference
  • A combined decrease of 108.75 cm in hip circumference
  • A combined decrease of 39.5 in BMI points
• Average decreases in:
  • BMI: .79 points
  • Weight: 2.33 lbs
  • Waist: 2 in
  • Hip: 1 in
• Compliance overall: 75%

BUT………
Results minus the 2 outliers*!

As of September, InSHAPE participants (64) have achieved:

- A combined weight loss of 179.7 pounds
- A combined decrease of 272.4 cm in waist circumference
- A combined decrease of 128.95 cm in hip circumference
- A combined decrease of 39.50 in BMI points

Average decreases:

- BMI: 1.58 points
- Weight: 9.8 lbs
- Waist: 3.28 in
- Hip: 2.92 in

*One participant got a job as a chef and has unfortunately gained 40 lbs! Another has been extremely noncompliant and gained 35 lbs. Their outcomes dramatically skew the combined statistics on the prior slide.
Collateral benefits of InSHAPE

• In addition to achieving recovery and tools for self-management of lifestyle choices, the program helps participants build **personal pathways** into the community (i.e., social inclusion and integration) and reduce the feeling of **stigma** associated with their mental illness.

• By recruiting local organizations as partners and utilizing accessible facilities/exercise venues in the community (e.g., fitness centers, parks, the Farmers Market), GCCMH is **breaking down barriers** in general for the people we serve.
Future developments

- Collaboration with the UM’s Department of Psychiatry, School of Public Health, and the Prevention Research Center of Michigan to conduct a **comparative effectiveness study** of InSHAPE in Genesee County.
- This study is intended to build upon the Dartmouth Psychiatric Research Center’s findings.
- When the RO1 grant is funded, we will hire ~7 more Mentors to serve 200+.
- Health indicators that are/will be measured include:
  - Weight
  - BMI
  - Waist Circumference
  - Hip Circumference
  - Blood Pressure
  - Cholesterol
  - HbA1c
  - Changes in use of Medication/Substance Use
  - Self-reported changes in mood and sleep patterns
InSHAPE financial sustainability

• Medicaid covers about 56% of Health Mentor costs through inclusion of Community Living Supports goals and objectives in the participant’s IPOS.
• Also rely on support from General Fund, private trusts, and foundations.
• Considerable support from our research partner, the University of Michigan.
Suggested readings on InSHAPE


Peer Support Specialists In Local EDs

- We introduced a Certified Peer Support Specialist in the Emergency Departments of both Flint hospitals (Hurley and McLaren).
- Our peers assist individuals in the midst of a psychiatric crisis through the unfamiliar and often frightening environment of the ED.
- The type of interventions our peers provide individuals during their wait in the ED are:
  - Provide support/assistance,
  - Make calls on an individual’s behalf, or
  - Stay with the individual through the crisis screening process
Urban Garden

• We created a garden in conjunction with the MSU Extension Master Gardeners to teach consumers how to grow their own nutritious food.

• Groups of consumers/staff assist in tending to the needs of the garden in all phases of the project: planting, harvesting, and winterizing the soil for the next season.

• In August, our garden was featured in the Flint Garden Tour and we have been booked to be a tour site again next year.

• Our Health & Wellness Manager is enrolled in the Ruth Mott Foundation Introduction to Urban Gardening Train the Trainer course to assist in continuation of the project.