Tobacco Use in Populations with Mental Illness and/or Substance Use Disorders

Pat McKone, Regional Senior Director
American Lung Association of the Upper Midwest
Tobacco Control Programs and Policy
Adult Tobacco Use in the United States, 2013

Minnesota: 18.0%

Nationwide: 19.0%
Current Smoking among Adults Aged 18 or Older, by Past Month Serious Psychological Distress Status: NHIS, 1997 to 2011

* Difference between estimate and estimate for 2011 is statistically significant at the .05 level.
Prevalence of Tobacco Use by Mental Health or Substance Use Disorder

Persons with a mental health disorder or substance use disorder purchase & consume 30-44% of cigarettes sold in the U.S.

<table>
<thead>
<tr>
<th>Tobacco Use by Diagnosis</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>62-90%</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>51-70%</td>
</tr>
<tr>
<td>Major depression</td>
<td>36-80%</td>
</tr>
<tr>
<td>Anxiety disorders</td>
<td>32-60%</td>
</tr>
<tr>
<td>Post-traumatic stress disorder</td>
<td>45-60%</td>
</tr>
<tr>
<td>Attention deficit/hyperactivity disorder</td>
<td>38-42%</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>34-80%</td>
</tr>
<tr>
<td>Other drug abuse</td>
<td>49-98%</td>
</tr>
</tbody>
</table>

(Beckham et al., 1995; De Leon et al., 1995; Grant et al., 2004; Hughes et al., 1986; Lasser et al., 2000; Morris et al., 2006; Pomerleau et al., 1995; Stark & Campbell, 1993; Ziedonis et al., 1994)

Sources: NCS; Lasser, 2000; NESARC; Grant, 2004; NSDUH; MMWR, 2013
Press to Select: 3/4 of Smokers have a Past or Present Problem with Mental Illness or Addiction.

Lasser et al., 2000; Data from National Comorbidity Study

Sources: NCS; Lasser, 2000; NESARC; Grant, 2004; NSDUH; MMWR, 2013
Who Smokes in Minnesota?

**Smoking Prevalence in Minnesota & Nationally, 1999-2014**

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S.</th>
<th>MN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>23.3</td>
<td>22.1</td>
</tr>
<tr>
<td>2003</td>
<td>21.5</td>
<td>21.1</td>
</tr>
<tr>
<td>2007</td>
<td>19.1</td>
<td>19.7</td>
</tr>
<tr>
<td>2010</td>
<td>17.1</td>
<td>19.4</td>
</tr>
<tr>
<td>2014</td>
<td>14.1</td>
<td>17.3</td>
</tr>
</tbody>
</table>

Sources: Minnesota Adult Tobacco Survey and National Health Interview Survey

**Regional Smoking Rates by Region, 2014**

- Northwest: 15.5%
- Northeast: 18.3%
- West Central: 16.7%
- Central: 17.0%
- Southwest: 13.8%
- South Central: 12.1%
- Southeast: 13.0%
- Metro: 13.6%

*Minnesota Adult Tobacco Survey, 2014 – Minnesota Department of Health*
American Indian Smoking Prevalence

Smoking Prevalence –
Twin Cities Urban American Indian Survey, 2011, and
Overall Minnesota, 2010

American Indian Community Tobacco Project - Adult Tobacco Survey, 2011
Disparities in tobacco use related to mental health status among adults in Minnesota
Smoking and depression among adults in Minnesota: the current trend

Smoking and binge drinking among adults in Minnesota: the current trend

Percent of adults who are current smokers, by binge drinking status, Minnesota, 2011-2014

Percent who used tobacco in past 30 days, by presence or absence of mental health indicator: Minnesota, Grade 11, 2013

Mental Health and Tobacco Use among Minnesota Youth
Percent who used tobacco in past 30 days, by presence or absence of substance use in past 30 days: Minnesota, Grade 11, 2013

Tobacco use and substance use among Minnesota Youth

Source: Minnesota Student Survey 2013
Recent data from several states have found that people with SMI die, on average, 25 years earlier than the general population.

National Association of State Mental Health Program Directors
Medical Directors Council, July 2006; Miller et al., 2006
## Tobacco, Serious Mental Illness and Death

The percentage of deaths due to tobacco were **2.7 times greater** among adults with serious mental illness (SMI) than those without SMI.

Among adults with SMI, adults with a tobacco-related diagnosis had a median age at death **14 years earlier** than those without a tobacco-related diagnosis.

Adults with SMI and a tobacco-related diagnosis had a median age at death **32 years earlier** than adults without SMI and without a tobacco-related diagnosis.

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### Minnesota Health Care Programs (MHCP) Clients Who Were 18 and over at time of Death During 2008-2012
**By Whether they had Tobacco/Nicotine or Serious Mental Illness (SMI) Diagnosis during 3 years prior to death**

<table>
<thead>
<tr>
<th>Tobacco or Nicotine Related Diagnosis</th>
<th>MHCP Non-SMI vs SMI population</th>
<th>Gender</th>
<th>No Tobacco Related Diagnosis</th>
<th>Tobacco related diagnosis</th>
<th>Difference (Negative indicates Tobacco impact)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent of Deaths</strong></td>
<td></td>
<td>Female</td>
<td>84%</td>
<td>16%</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>70%</td>
<td>30%</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>79%</td>
<td>21%</td>
<td>58%</td>
</tr>
<tr>
<td><strong>Median Age at Death</strong></td>
<td></td>
<td>Female</td>
<td>88</td>
<td>65</td>
<td>-23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>81</td>
<td>61</td>
<td>-20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>86</td>
<td>63</td>
<td>-23</td>
</tr>
</tbody>
</table>

### Serious Mental Illness (SMI) includes the diagnoses of Schizophrenia, Schizoaffective or Bi-Polar disorders.

**Note:** MHCP non-SMI populous included 56,227 adults who died during the 5 year period. The MHCP SMI population included 2,326 adults who died during the 5 year period.

Source: Adult Mental Health Division, MN DHS
## Total and Smoking-attributable Deaths - Minnesota, 2007

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>All Deaths</th>
<th>Smoking-attributable Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer* (adult)</td>
<td>4,207</td>
<td>2,447</td>
</tr>
<tr>
<td>Respiratory diseases (adult)</td>
<td>2,268</td>
<td>1,383</td>
</tr>
<tr>
<td>Heart and vascular diseases (adult)</td>
<td>9,840</td>
<td>1,289</td>
</tr>
<tr>
<td>Perinatal conditions (infant)</td>
<td>118</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total Deaths</strong></td>
<td><strong>16,433</strong></td>
<td><strong>5,135</strong></td>
</tr>
</tbody>
</table>

* Includes: Lip, oral cavity, pharynx; esophagus; stomach; pancreas; larynx; trachea, lung, bronchus; cervix uteri; kidney, other urinary; urinary bladder; and acute myeloid leukemia

** Includes: Pneumonia, influenza; bronchitis, emphysema, and chronic airway obstruction

† Includes: Ischemic heart disease; other heart diseases; cerebrovascular disease; atherosclerotic aortic aneurysm; and other arteriosclerotic disease

‡ Includes: Short gestation/low birth weight; respiratory distress syndrome; other respiratory—newborn; and sudden infant death syndrome

This information has been developed using data provided by the state of Minnesota and calculated using a tool developed by the Centers for Disease Control and Prevention to calculate these costs on a state-by-state basis. Totals may not equal sums because of rounding.

## Smoking-attributable Health Care Costs - Minnesota, 2007

<table>
<thead>
<tr>
<th>Cost Component</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing home (adult)</td>
<td>$1,065,000,000</td>
</tr>
<tr>
<td>Physician and other professional services (adult)</td>
<td>$772,000,000</td>
</tr>
<tr>
<td>Hospital care (adult)</td>
<td>$460,000,000</td>
</tr>
<tr>
<td>Other personal health care (adult)</td>
<td>$334,000,000</td>
</tr>
<tr>
<td>Prescription drugs (adult)</td>
<td>$234,000,000</td>
</tr>
<tr>
<td>Neonatal expenditures (infant)</td>
<td>$4,000,000</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td><strong>$2,869,000,000</strong></td>
</tr>
</tbody>
</table>


This information has been developed using data provided by the state of Minnesota and calculated using a tool developed by the Centers for Disease Control and Prevention to calculate these costs on a state-by-state basis.
The Challenge

• Tobacco use has been accepted and even used as an incentive/reward for those being treated for mental or substance use disorders.

• 22% of mental health consumers reported that they started smoking in a psychiatric setting

Massachusetts Department of Mental Health's Metro Suburban Area Survey, Mary Ellen Foti, M.D., 1999-2000
“A year ago, I had a call from the father of a young man who was enrolled in a residential drug abuse treatment program. During his visits, the father noticed that the program gave a carton of cigarettes to residents every two weeks, as a reward for progress.”
Confronting a Mentality

- Indifference
  - Low priority
  - Unrelated to treatment

- Reluctance
  - Too difficult
  - Consumer unwillingness

- Resistance
  - Embrace and encourage tobacco use
Treatment Can Work

• Many patients are interested in quitting
• Most being “heavy” smokers
• Individual issues
  • Including impact of mental illness and mental health system
  • Stress management and weight management
• Limited support for quitting
  • Family / SOs, Financial, Housing / Living with smoker, Employment
• Monitor psychiatric medication blood levels
Tobacco Cessation Approaches That Work Among People with Mental or Substance Use Disorders

• Adopting and implementing a tobacco-free facility/campus policy.

• Providers routinely asking their clients if they use tobacco and providing evidence-based cessation treatments to those who do.

• Evidence-based tobacco cessation treatments are effective with those with mental or substance use disorders. However, they may face challenges in trying to quit, and may benefit from additional counseling, longer use of cessation medications, and monitoring as part of routine care.

• The effectiveness of tobacco cessation treatment can be significantly increased by integrating cessation services into the mental health or addiction treatment program.
Minnesota Model

- 1 day trainings  Free CEU’s
- Followed up with additional training
- Measured “systems” change
- Exhibited at behavioral health conferences
- Raise Awareness of Cessation Services available
- “Mini” in-services
- Leadership Policy Academy (Fall 2015)
- Minnesota Comprehensive Tobacco Control Framework (Spring 2016)
Partnerships/Linkages

• Department of Health and Department of Human Services

• Local tobacco advocates and local mental health / substance abuse providers

• Advocacy groups – NAMI, Homeless, AA, Cessation Leadership, Behavioral Health Council
Thank you!