A Closer Look at Disparities in Tobacco Use Among Ohioans

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Objectives of the Presentation

- To describe prevalence of tobacco use among subgroups of Ohio residents that include:
  - Medicaid subscribers
  - People living in poverty
  - People diagnosed with mental illness
  - Pregnant women

- To discuss state level policy levers to assist these Ohio residents with tobacco cessation
Prevalence of tobacco use
Cigarette smoking is higher in Ohio adults

CDC 2014

Percent

2000 2005 2010 2013

U.S. Ohio

THE OHIO STATE UNIVERSITY
Center of Excellence in Regulatory Tobacco Science
Smoking prevalence over time by gender in Ohio

OMAS 2013

Percent

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2008</td>
<td></td>
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<td></td>
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<tr>
<td>2010</td>
<td></td>
<td></td>
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<tr>
<td>2012</td>
<td></td>
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</tr>
</tbody>
</table>

Overall, Male, Female
Smokeless tobacco and dual use prevalence in Ohio adult males
Youth Current Tobacco Use

CDC 2012

%
Four factors are consistently associated with smoking among adults in Ohio

- Insurance status
- Education
- Income
- Mental health

OMAS 2013
Current smoking according to insurance status in Ohio adults

OMAS 2013

- Medicaid
- None
- Medicaid+ Medicare
- Job-based
- Medicare

%
## Smoking Prevalence in Medicaid Managed Care Service Regions

<table>
<thead>
<tr>
<th>Ohio Region</th>
<th>Medicaid Adults (%)</th>
<th>Non-Medicaid Adults (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest</td>
<td>36.3</td>
<td>20.3</td>
</tr>
<tr>
<td>Northeast</td>
<td>41.8</td>
<td>21.7</td>
</tr>
<tr>
<td>Northeast Central</td>
<td>45.7</td>
<td>29.9</td>
</tr>
<tr>
<td>East Central</td>
<td>47.8</td>
<td>22.3</td>
</tr>
<tr>
<td>Central</td>
<td>51.7</td>
<td>21.2</td>
</tr>
<tr>
<td>West Central</td>
<td>43.8</td>
<td>24.6</td>
</tr>
<tr>
<td>Southwest</td>
<td>47.1</td>
<td>21.4</td>
</tr>
<tr>
<td>Southeast</td>
<td>50.4</td>
<td>32.6</td>
</tr>
</tbody>
</table>

OMAS 2013
Current smoking according to **education** among Ohio adults

OMAS 2013

%
Current smoking according to poverty level among Ohio adults

OMAS 2013

- Below poverty
- > 400% above FPL
Secondhand smoke exposure among children according to poverty level

OMAS 2013

[Bar chart showing the percentage of secondhand smoke exposure among children at different poverty levels.]

- 0-99: 25%
- 100-199: 10%
- 200-399: 9%
- 400+: 0%
Current smoking according to number of *mentally distressed days* for past 30 days among Ohio adults

OMAS 2013

The Ohio State University
Center of Excellence in Regulatory Tobacco Science
Current smoking according to **insurance status and mental distress** among Ohio adults

OMAS 2013

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Medicaid</td>
<td>20%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>50%</td>
</tr>
<tr>
<td>Medicaid + mental distress</td>
<td>60%</td>
</tr>
</tbody>
</table>
Cigarette smoking is higher in Ohio *pregnant women*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoked 3 mo before conception</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke last 3 mo of pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quit during pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resumed after delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CDC PRAMS
Cigarette smoking is higher among pregnant women with Medicaid insurance: 2010

CDC PRAMS

- Smoked 3 mo before conception
- Smoked last 3 mo of pregnancy
- Quit during pregnancy
- Resumed after delivery

Red bars represent Medicaid, and gray bars represent the U.S.
Social factors are related to tobacco use among Ohio women
# Social Characteristics of 570 Ohio Appalachian Women

Sample: Adult women randomly selected from 14 primary care clinics in Ohio Appalachia; Non-pregnant; no history of cancer

<table>
<thead>
<tr>
<th>Variable</th>
<th>Never Smoker</th>
<th>Former Smoker</th>
<th>Current Smoker</th>
</tr>
</thead>
<tbody>
<tr>
<td># Participants (%</td>
<td>297 (52.1)</td>
<td>117 (20.5)</td>
<td>156 (27.4)</td>
</tr>
<tr>
<td>% &lt; High School</td>
<td>4.0</td>
<td>12.0</td>
<td>12.8</td>
</tr>
<tr>
<td>% Unskilled labor</td>
<td>31.1</td>
<td>34.1</td>
<td>49.4</td>
</tr>
<tr>
<td>% Uninsured</td>
<td>11.1</td>
<td>12.3</td>
<td>24.4</td>
</tr>
</tbody>
</table>

Wewers et al. 2012
## Social Risk Factor Characteristics

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Never Smoker</th>
<th>Former Smoker</th>
<th>Current Smoker</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Low SEP (child)</td>
<td>48.8</td>
<td>64.7</td>
<td>68.6</td>
</tr>
<tr>
<td>% Low SEP (adult)</td>
<td>54.5</td>
<td>73.6</td>
<td>87.4</td>
</tr>
<tr>
<td>% CES-D ≥ 16</td>
<td>24.2</td>
<td>23.3</td>
<td>48.7</td>
</tr>
<tr>
<td>% Pregnant &lt; age 20</td>
<td>29.0</td>
<td>40.0</td>
<td>52.3</td>
</tr>
<tr>
<td>% Single mother</td>
<td>6.1</td>
<td>11.9</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Low Socioeconomic Position (child)
Lived with one parent only OR one parent < HS

Low Socioeconomic Position (adult)
≤ HS; OR no health insurance; OR poverty/income ratio < 2

Wewers et al. 2012
Prevalence of Current Smoking by Number of Risk Factors

Risk factors: Low child SEP, Low adult SEP, Pregnant<20, CES-D≥16, Single mom

Wewers et al. 2012
State level policy levers to assist Ohio residents with tobacco cessation
Comprehensive Tobacco Control Elements

- Protect from exposure to second-hand smoke
  - Implement and enforce clean air ordinances
- Restrict tobacco advertising and marketing
  - Counter with mass-media approaches
- Increase tobacco taxes
- Reduce youth access to tobacco products
  - Increase age of purchase
- Provide treatment services

World Health Organization
Tobacco Prevention and Control Funding

- Ohio spends 7% of the CDC recommended funding level

American Lung Association 2015
Protect from exposure to second-hand smoke
Implement and enforce clean air ordinances
Ohio Smoke Free Policy

- **2006 Smoke-Free Workplace Act**
  - Prohibits smoking in public places
  - Prohibits smoking in places of employment
    - Includes restaurants and bars

- **12th state to enact**

- **American Lung Association 2015**

-CDC 2014-
Increase tobacco taxes
Ohio Tobacco Product Excise Taxes

Cigarettes
$1.25/pack
U.S. Range = $0.30 - $4.35
Ohio ranks 29th

Cigars
17% wholesale price/cigar

Little cigars
37% wholesale price/pack of 20

Smokeless tobacco
17% wholesale price
Provide treatment services
Tobacco Dependence Treatment  
USPHS Recommendations 2008

- Behavioral Counseling  
  - Problem Solving  
  - Social Support

- Pharmacotherapy  
  - Varenicline  
  - Bupropion  
  - Nicotine Replacement Therapy
Medicaid Coverage for Tobacco Dependence Treatments in Massachusetts and Associated Decreases in Smoking

Behavioral Counseling + Pharmacotherapy

APC
1/1/1999 to 6/30/2006 = -0.1
7/1/2006 to 12/31/2008 = -15.2*

* Statistically significant at the .05 level

Land et al. 2010
Awareness about treatment options

- Both Medicaid subscribers and health care providers lack awareness about evidence-based treatment options
- Health care providers who are aware are more likely to use pharmacotherapy

McMenamin et al. 2004, 2005
Murphy et al. 2005
Ohio Treatment Options

- **Ohio Department of Health**
  - Ohio Quit Line 1-800-QUIT-NOW (1-800-784-8669)
    Free counseling service and pharmacotherapy
    - Uninsured Ohioans
    - Medicaid enrollees
    - Pregnant women
    - Members of the Ohio Tobacco Collaborative
      - Health plans and employers
  - Ohio QuitLogix Online Program [https://ohio.quitlogix.org](https://ohio.quitlogix.org)

- Tobacco Treatment Specialist Training & Provider Resources

- **Ohio Partners for Smoke Free Families**
  - Perinatal Smoking Cessation Program (5 A’s)
Ohio Treatment Options

- Ohio Department of Medicaid
  - Ohio expanded coverage for tobacco dependence treatment to Medicaid subscribers
    - In 2014 Ohio became one of 19 states to offer behavioral counseling and FDA-approved pharmacotherapy
  - [http://www.healthy.ohio.gov/~/media/HealthyOhio/ASSETS/Files/tobacco%20of%202/CBT/MedicaidBilling_TobaccoCessation.ashx](http://www.healthy.ohio.gov/~/media/HealthyOhio/ASSETS/Files/tobacco%20of%202/CBT/MedicaidBilling_TobaccoCessation.ashx)
Treatment options for those diagnosed with mental illness

- **Depression**
  - Behavioral counseling + psychosocial mood management
  - Bupropion
    - + past depression
    - ± current depression
  
- **Schizophrenia**
  - Psychiatric management
  - Bupropion +
  - Varenicline ±

van der Meer et al. 2013
Tsoi et al. 2013
Conclusions

- Tobacco use among Ohio residents is higher compared to U.S.
- Certain vulnerable groups have higher rates of tobacco use
- The State of Ohio has dedicated limited resources towards tobacco use prevention and control
- State policy levers have been unevenly implemented
- Additional resources will be necessary to confront the tobacco use epidemic that persists in Ohio
Thank you