The Bucket Approach to Treating Tobacco Dependence:

Can You Help?

Wausau Listening Session

April 12, 2017
Our Goals:

I. Provide background about tobacco use by those with mental illness

II. Describe a collaborative tobacco project with Community Treatment Alternatives (CTA) called the “Bucket Approach”

III. Get your guidance
I. Background Information

1. There is a pressing need

2. Myths: People with persistent mental illness want to quit, can quit, and do quit

3. Quitting delivers great benefit

4. Prior work
Tobacco Disparity Populations

2013 = 17.8%
Tobacco Disparity Populations

Trends in Smoking Prevalence, United States, 1965-2005, by Educational Class

- Less than high school graduate
- High school graduate
- Some college
- College graduate
- 9-11 years education
- High school graduate
- Some college
- Undergraduate degree
- Graduate degree

Year
Percentage
45
40
35
30
25
20
15
10
5

Tobacco Disparity Populations

A. Low socio-economic status (SES) (low income, low education, un/under employed, un/under insured, incarcerated) i.e. the “have nots”
B. American Indian
C. Gay/Lesbian/Bi-sexual/Transsexual/Transgender/Queer (GLBTQ)
D. Those with a mental illness and/or other substance use disorder
Those with a mental illness and/or other substance use disorder

- Very elevated prevalence
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.
# Tobacco Use by Diagnosis

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Percentage</th>
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<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>
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<tr>
<td>Anxiety disorders</td>
<td>32-60%</td>
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<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>
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<tr>
<td>Other drug abuse</td>
<td>49-98%</td>
</tr>
</tbody>
</table>

(U.S. Adult Smoking Rate: 19.3%)

(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)
Those with a mental illness and/or other substance use disorder

% Who Are Smokers

No. of Lifetime Psychiatric Diagnoses

Adapted from Lasser, 2000
Those with a mental illness and/or other substance use disorder

- Very elevated prevalence
- This mental illness tobacco gap is getting larger, not smaller
Those with a mental illness and/or other substance use disorder

Trends in Smoking Among Adults with Mental Illness and Association Between Mental Health Treatment and Smoking Cessation Cook et. al. JAMA 2014; 311(2): 172-182
Those with a mental illness and/or other substance use disorder

- Very elevated prevalence
- This mental illness tobacco gap is getting larger, not smaller
- Those with mental illness/SUD consume about 40% of all cigarettes
Figure 1. Any Mental Illness (AMI) or Substance Use Disorder (SUD) in the Past Year among Adults Aged 18 or Older: 2009 to 2011

- No AMI or SUD: 75.2%
- AMI Only: 16.1%
- SUD Only: 4.9%
- AMI and SUD: 3.8%

Figure 2. Percentage of Cigarettes smoked in the Past Month among Adults Aged 18 or Older, by Any Mental Illness (AMI) or Substance Use Disorder (SUD) in the Past Year: 2009 to 2011

- No AMI or SUD: 60.4%
- AMI Only: 21.4%
- SUD Only: 8.7%
- AMI and SUD: 9.5%

Source: 2009 to 2011 National Surveys on Drug Use and Health (NSDUHs). NSDUH is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their places of residence.

The Data Spotlight may be copied without permission. Citation of the source is appreciated. Find this report and those on similar topics online at http://www.samhsa.gov/data/.
Smoking consequences when people with a mental illness smoke

- Additive mortality risks
  - Heart disease is 7X higher than peers and more than 7x the suicide rate.

- Smoking influences development of metabolic syndrome in clients on antipsychotic drugs

- Average loss of life is 24 years
Life expectancy reduction at Age 40 by smoking and SPD status compared to never smoker without SPD

<table>
<thead>
<tr>
<th>Status</th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td>Current smoker, SPD</td>
<td>14.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Current smoker, no SPD</td>
<td>8.6</td>
<td>8.9</td>
</tr>
<tr>
<td>Former smoker, SPD</td>
<td>8.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Former smoker, no SPD</td>
<td>2.9</td>
<td>4</td>
</tr>
<tr>
<td>Never smoker, SPD</td>
<td>5.6</td>
<td>5</td>
</tr>
</tbody>
</table>

SPD: Serious Psychological Distress, National Health Interview Survey
Annual US Deaths

Number of Deaths (thousands)

- AIDS: 17
- Alcohol: 81
- Homicide: 19
- Suicide: 30
- Smoking: 480

Est. 200,000 per year for those with mental illness/SA
What about Wisconsin?

Based on 100 Community Treatment Alternatives (CTA) and Gateway CSP clients in 2015:

- 57% smoke
- 14.3 cigarettes per day on average
- Smoked on 27.4 days of past 30, on average
2. Provider myths?

1. My patients don’t want to quit
Would you like to quit?

- 83.1% of smokers have tried to quit
- 46.7% said this was a good time to quit

- Serious quit attempt: 71%
- Average number of quit attempts: 6
- Reduced smoking in past year: 53%
Provider Myths?

1. My patients don’t want to quit
2. My patients can’t quit
63.5% have known people like themselves who have quit smoking.
Quit rate among smokers with no mental illness: 22.3%
Quit rate among smokers with any mental illness: 18.5%
Quit rate among smokers with psychosis: 12.5%
Clinicians have a special obligation to help this population

- Current smokers: 58.2%
- Ex-smokers: 22.9%
- National - 2010 BRFSS (median state results): 17.3%
We have a special obligation to help this population

![Bar chart showing the percentage of survey respondents and national 2010 BRFSS results for current smokers, ex-smokers, and never smokers.]

- **Survey respondents**
  - Current smokers: 58.2%
  - Ex-smokers: 17.3%
  - Never smokers: 18.8%

- **National - 2010 BRFSS (median state results)**
  - Current smokers: 57.1%
  - Ex-smokers: 22.9%
  - Never smokers: 25.6%
22% of mental health consumers who smoke report that they started while hospitalized.
Provider Myths?

1. My patients don’t want to quit
2. My patients can’t quit
3. Quitting is bad for, or will hurt, my patient
Quitting is bad for, or will hurt, my patient

- It will increase symptoms/destabilize the patient
- It will undue the progress I’ve made
- It will lead to relapse
- It will erode their confidence
- Smoking is one of patient’s very few coping mechanisms
- Now is not the time; we’ll do it later when ... patient is more stable, there is less stress, etc.
- Smoking is one of the few enjoyments they have left
- Smoking is one of the few things they control
- Tobacco addiction is not as important as what I’m treating
3. The Benefits of Quitting

A meta-analysis found that compared to those who did not quit, those that did experienced significant improvements in depression and anxiety and significant reductions in stress.

The amount of reduction in anxiety and depression was equal to or bigger than what would have been expected from medications used to treat anxiety and depression.

Taylor, McNeil, Girling, Farley, Linson-Hawley, Avegard “Change in Mental Health after Smoking Cessation: Systematic Review and Meta-analysis” *BMJ* 2014; 358:g1151
Effect of Smoking Cessation on Mental Health

<table>
<thead>
<tr>
<th>Outcome</th>
<th># of studies</th>
<th>Effect estimate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>4</td>
<td>-0.37 (-0.70 to -0.03)</td>
</tr>
<tr>
<td>Depression</td>
<td>9</td>
<td>-0.29 (-0.42 to -0.15)</td>
</tr>
<tr>
<td>Mixed anxiety and depression</td>
<td>4</td>
<td>-0.36 (-0.58 to -0.14)</td>
</tr>
<tr>
<td>Psychological quality of life</td>
<td>4</td>
<td>0.17 (-0.02 to 0.35)</td>
</tr>
<tr>
<td>Positive affect</td>
<td>1</td>
<td>0.68 (0.24 to 1.12)</td>
</tr>
<tr>
<td>Stress</td>
<td>2</td>
<td>-0.23 (-0.39 to -0.07)</td>
</tr>
</tbody>
</table>

Taylor, McNeil, Girling, Farley, Linson-Hawley, Avegard “Change in Mental Health after Smoking Cessation: Systematic Review and Meta-analysis” *BMJ* 2014; 358:g1151

Populations: general (14), chronic physical condition (3), pregnant women (2), postoperative (1), either chronic condition and/or psychiatric condition (2), psychiatric condition (4)
“Since, I quit all tobacco; including more recently cigars, I have been able to see a marked improvement in my overall mental and physical health. This journey is challenging but far from impossible.”

-Maria
4. Prior Work

Motivating and Preparing Smokers with Severe Mental Illness: A Randomized Control Trial

- Twelve Community Support Programs (CSPs): (Milwaukee-2, Dane-3, Sauk, Juneau, Vernon, Ozaukee, Jefferson, Rock-2)

- This study was supported by the Clinical and Translational Science Award (CTSA) program, through the NIH National Center for Advancing Translational Sciences (NCATS), grant UL1TR000427.
Study Design

- 222 clients not motivated to quit were randomly assigned to one of two conditions
- 48 clients ready to quit formed a comparison group (got no intervention)
- I. Experimental Condition- Four Individual Sessions (20 minutes each):
  - Motivational Counseling – Decisional Balance Worksheet
  - Behavioral Smoking Reduction
  - Practice Quit Attempts
  - Pre-Quit use of patch (delivered by CSP)
- II. Attention Control Group- Four Individual Sessions of the same duration (20 minutes each):
  - In depth discussions of the effects of smoking (health, cost, etc.)
Results

- Call the WTQL: Intervention 9.3%, Control 5.8%, Motivated 12.5%
- Accept four more sessions: Intervention 50.8%, Motivated 21.2%
- Biochemically verified abstinence: Intervention 29.2%, Control 8.5%

1 Intervention > Control, p<.001  
2 Intervention > Motivated, p<.05  
3 Intervention > Control, p=.012  
4 Wisconsin Tobacco Quit Line
In Their Own Voice.....

Real AODA/mental health consumers
What is your tobacco story?
II. Bucket Approach

• Built upon lesson learned: For this population, interventions work best when delivered by trusted person who has a strong relationship with the tobacco user.

• Primary intervention by CSP/CCS clinical staff with substantial, on-sight support from specifically trained tobacco advocate

• Bucket approach w/ reinforcing incentives
Assessment

You know, quitting smoking is one of the best things you can do for your physical health and, in the long run, a very good thing to do for your mental health. So do you want to quit at this time?

Interventions

• Develop quit plan
• Set quit date
• Get rid of all tobacco products
• Mobilize support
• Temporary cue avoidance
• Use medicines
• Develop strategies to cope with urges

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OK, now may not be the best time for you to quit. Do you want to learn how to quit so you are ready when the time is better? Are you willing to cut down or reduce your smoking?

Change Behavior as Preparation

• Smoking journal
• Smoking reduction
• Practice quit attempts
• Pre-quit use of medicines
• Goal setting for behavioral change

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• Goal setting for behavioral change

Only talk

• Motivational Interviewing – the Balance Decision worksheet
• Explore beliefs about smoking and quitting

Change Behavior as Preparation

• Smoking journal
• Smoking reduction
• Practice quit attempts
• Pre-quit use of medicines
• Goal setting for behavioral change

Not Right Now

• Ask again later

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Assessment

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• Set quit date
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• Smoking reduction
• Practice quit attempts
• Pre-quit use of medicines
• Goal setting for behavioral change

Not Right Now

• Ask again later

OK, now may not be the best time for you to quit. Do you want to learn how to quit so you are ready when the time is better? Are you willing to cut down or reduce your smoking?
We asked:

“You know, quitting smoking is one of the best things you can do for your physical health, and in the long run, your mental health as well. So do you want to try and quit at this time?”
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket A- Quit Now!

- Collected smoking history
  - How much currently smoke, have you quit in the past, if so—how did you quit, why did you quit?
- Set a quit date
- Provide NRT product (Nicotine Replacement Therapy)
  - Our most popular products were the patch, gum and lozenge
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s

Bucket A- Quit Now!

- Make a plan to remove tobacco items
  - Ash trays, lighters, cigarettes
- Support/close relationships
  - Identify those close to client to let them know they are quitting and looking for support
  - Let any mental health or clinicians know about clients plan to quit
- Follow up date/encouragement
  - Set a date to meet again to follow up
- Relapse
  - Discuss challenges and barriers, re-try
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket B- Talk and Prepare

We asked:

“Okay, now may not be the best time for you to quit. So are you ready to learn how to quit, so that when the time is better you are ready?”
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket B- Talk and Prepare

- Collect Smoking History
  - How much currently smoke, have you quit in the past, if so—how did you quit, why did you quit?
- Set Goals—Actions
  - Skip habits, AM Delay, Reduce, Take a NRT, Physical Activity, Practice Quit Attempt, Increase Time Between, Journaling

Nicotine patch
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s

Bucket B- Talk and Prepare

- Incentives
  - Cash, grocery store gift cards, Walmart gift cards, lunch, snacks
- Follow up/Encouragement
  - Meet weekly for follow up and set new goals
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket C: Just Talk

We asked:

“Are you at least willing to talk to me about your smoking?”
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket C: Just Talk

- Decisional Balance Worksheet:
  - Good & Bad things about Smoking, Good & Bad things about Quitting
  - Most important for continued smoking vs. quitting, weigh the benefits, tip the scale

<table>
<thead>
<tr>
<th>Decisional Balance Worksheet</th>
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<tbody>
<tr>
<td>Tell me all the good things about continuing to smoke.</td>
</tr>
<tr>
<td>-relaxes me</td>
</tr>
<tr>
<td>-social with friends</td>
</tr>
<tr>
<td>-break at work</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>Tell me all the bad things about quitting.</td>
</tr>
<tr>
<td>-hard</td>
</tr>
<tr>
<td>-stressful</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>4</td>
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</tbody>
</table>
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket C: Just Talk

- Beliefs about Smoking and Smoking History
- Break normalcy

1. What percent of (or how many) people receiving care at this CSP smoke?

2. What percent (or how many) people receiving care at this CSP have already quit?

3. On a scale of 1 to 10, where 1 is very easy and 10 is very hard, how hard would it be for you to quit? (circle)

   1  2  3  4  5  6  7  8  9  10

   Very easy   Very hard
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket C: Just Talk

- Beliefs about Quitting
  - Willpower, Challenge beliefs, Discuss knowledge & beliefs of NRT products, Discuss how quitting affects physical and mental health
- Quit History
  - Congratulate past efforts, lessons learned and challenges/barriers for future quit attempts
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s
Bucket D: Try again

- When clients are fall into Bucket D, let them know that even thought they are not ready to talk at this time about their smoking, that you will ask them again in the future.

- Keep trying!
The NAMI Wisconsin/UW-CTRI tobacco intervention model for CSP’s/CCS’s

- Identify the smokers at your clinic
- Assess their motivation
- Gather smoking and quitting history
- Make a plan using the Bucket system
- Move clients up Buckets until they quit!
- Give support, encouragement and use quit smoking products
- Keep trying! Changes can take lots of practice!
Weekly Smoking Cessation Group (8 weeks)

- Motivation
- Barriers to Quitting
- Tobacco & Health
- Cravings
- Pros & Cons
- Goal Setting
- NRT weekly distribution/check in
- Mindfulness
- Smoking and Mood
- Budget
- Second/Third Hand Smoke
- Social Situations
- Quit Plans
- Quit Kits
- Jeopardy Game
- Assign a buddy
- Congrats/Certificates
“The group made me think about my own health and those around me. I think about heart disease and lung disease and how smoking doesn’t help with that.”

Jerome

“The group helped me to quit chew and I haven’t done it since! I use the lozenges.”

Dean
Results from CTA

Buckets

Percent

Pre Buckets

I'll try to quit 2.3
I'll try something but not try to quit 30.2
I'll only talk about it, nothing else 34.9
Don't ask 32.6

Percent

Wisconsin
Results from CTA

Buckets

I'll try to quit  I'll try something but not try to quit  I'll only talk about it, nothing else  Don't ask

Percent

Pre Buckets  Post Buckets

I'll try to quit 2.3 4.8
I'll try something but not try to quit 30.2
I'll only talk about it, nothing else 34.9 19.5
Don't ask 32.6 17.1
2. Results from CTA

Total cigarettes/day

- Pre Program: 604
- Post Program: 510

15.5% decrease
Results from CTA

And two people quit!
“I liked being around other people who shared their smoking stories, I found that to be helpful.”

Barbara
Client Perspective – Survey Results

- 85% recall CTA staff talking with them
- This occurred all the time (15%) or a lot of the time (44%)
- 73% recalled receiving materials
- 84% saw materials posted on the walls
- 76% want CTA to continue to provide help
Can you help?
“Talking with my peer specialist about smoking has opened my eyes to the potential risks and consequences that smoking plays in my life... now I am working on replacing smoking with daily exercise to keep me busy and better my health”

- Carol
“My own experiences with both mental illness and quitting smoking motivates me to reach out to help others who have a mental illness and who smoke. My story of quitting smokeless tobacco went right alongside my story of mental health and substance abuse recovery.”

Maria
Is helping others with their tobacco dependence compatible with the other roles of certified peer specialists?
What roles could consumers play in addressing tobacco dependence?
In order to be helpful, must a consumer be an ex-smoker?

What if a consumer is a current smoker?
What sort of training is needed to support these roles?
What ongoing support/technical assistance is needed?
What are the barriers preventing consumers from taking active roles?
Relative to your other concerns and interests, how important to you is the tobacco issue?
Other recommendations for us?
THANK YOU!