TOBACCO USE AND SPECIAL POPULATIONS: MENTAL HEALTH DISPARITIES

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PUBLIC HEALTH SIGNIFICANCE

- 40.1% of individuals in U.S. with psychiatric disorder within past 12 months smoked compared to 21.3% of those without disorder
- People with psychiatric disorder within past 12 months represent 31.7% of all current smokers
- Between 2009-2011, 30.9% of all cigarettes smoked were smoked by people with psychiatric disorders
- People with psychiatric disorders smoke more heavily
  - 40% smoke more than 25-30 cigarettes per day vs. 15% in general population controls

Lawrence et al., *BMC Public Health*, 2009; *9*:285; CDC, MMWR; 62; Feb 5, 2013; Lasser et al., *JAMA*, 2000; 284:2606

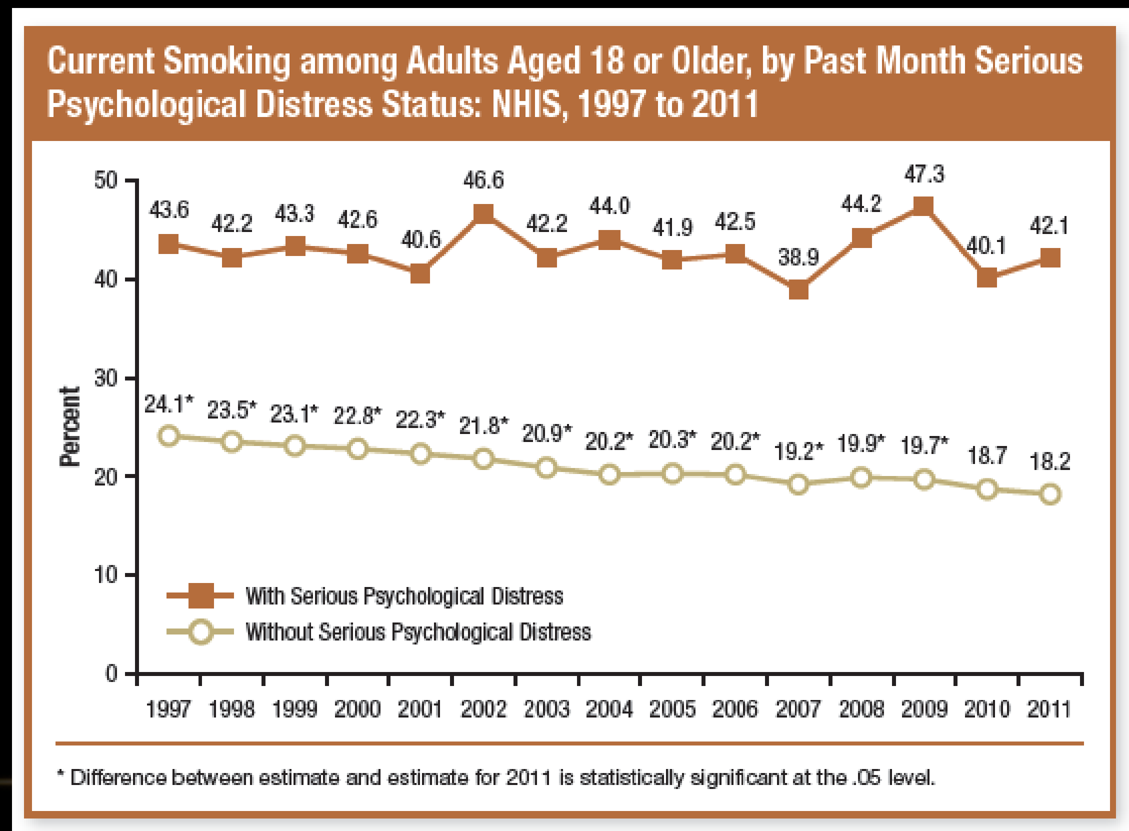
PUBLIC HEALTH SIGNIFICANCE

- In people with serious psychiatric disorders, leading causes of death are similar to general population and are smoking related--cardiovascular disease and cancer
  - But people with serious psychiatric disorders <u>die of these diseases on average 25 years earlier</u>
- Individuals hospitalized for a diagnoses of serious mental disorder from 1990 to 2005—standardized mortality ratios (compared to general population) <u>for tobacco-linked disease:</u>
  - Schizophrenia, SMR = 2.45 (95% CI – 2.41-2.48)
    - Comprised 53% of total deaths
  - Bipolar Disorder, SMR = 1.57 (95% CI – 1.53-1.62)
    - Comprised 48% of total deaths
  - Depressive Disorder, SMR = 1.95 (95% CI – 1.93-1.98)
    - Comprised 50% of total deaths

Colton & Manderscheid, *Prev Chronic Dis*, 2006; 3:A42; Callaghan et al., *J Psychiatric Review*, 2014; 48:102-110

CHANGE IN SMOKING RATE IN PSYCHIATRIC VS. GENERAL POPULATION

- There is evidence that while smoking prevalence is declining in mentally well individuals, it is unchanged in those with comorbid psychiatric disorders



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IMPLICATIONS FOR TOBACCO CONTROL

- Principle components of population health-based smoking cessation efforts—increasing price, education on health consequences, restricting use in public places
  - Have not been tailored to this population
  - May be less relevant or less effective for people dealing with mental illness
- Universal approach in tobacco control may have contributed to accrual of substantial inequalities in benefit within this population of smokers

Lawrence et al., *BMC Public Health,* 2009, 9:285

PSYCHIATRICALLY COMORBID SMOKERS AS A TOBACCO USE DISPARITY GROUP

- In a recent *AJPH* article, Williams et al. (2013) argued that smokers with comorbid psychiatric disorders should be designated as a tobacco use disparity group
- Evidence for Tobacco Use Disparity
  - Disproportionate Tobacco Consumption
  - Disproportionate Health Consequences
  - Disproportionate Economic Burden and Purchasing
  - Targeted Marking by Tobacco Industry
  - Reduced access to cessation services

Williams et al., *Am J Public Health*, 2013; 103(9):1549-1555

PSYCHIATRICALLY COMORBID SMOKERS AS A TOBACCO USE DISPARITY GROUP

- Designation as a priority group could lead to greater scientific funding and evaluation of tailored treatments that may be more effective
- A national plan for addressing disparities in this group is needed, rather than relying on the work of individual researchers

Williams et al., *Am J Public Health*, 2013; 103(9):1549-1555

RECOMMENDATIONS FOR ADDRESSING TOBACCO-RELATED HEALTH DISPARITIES

- Integrate smoking cessation treatments into mental health and addiction treatment settings
  - In line with American Psychiatric Association 2006 practice guidelines
    - Encourages assessment and assistance in quitting with motivational, behavioral and pharmacological treatment

Callaghan et al., *J Psychiatric Review*, 2014; 48:102-110;; Williams, *JAMA Psychiatry*, 2013; 70: 1261-1262; Schroeder & Morris, *Annu. Rev. Public Health*, 2010; 31:297-314; Hall & Prochaska, *Annu Rev Clin Psychol*, 2009; 5:409-431.

INTEGRATED CARE

- Address institutional barriers (e.g., staff training, funding, organizational climate)
    - Promote policies for smoke-free treatment campuses
    - Train mental health workforce in provision of smoking cessation interventions
        - Specialized curricula have been developed and are available (Hudman et al., 2009; Prochaska et al., 2009; Morris et al., 2009; Guydish et al., *Drug Alcohol Dep*, 2012; 121:30-37)
    - Address common misbeliefs
        - "Psychiatric patients do not want to quit." (20% in preparation phase)
        - "Psychiatric conditions may be aggravated by quitting." (not supported by recent studies)
    - Improve treatment centers' strategies for seeking Medicaid and Medicare reimbursement of tobacco treatment services

Callaghan et al., *J Psychiatric Review*, 2014; 48:102-110;; Williams, *JAMA Psychiatry*, 2013; 70: 1261-1262; Schroeder & Morris, *Annu. Rev. Public Health*, 2010; 31:297-314; Hall & Prochaska, *Annu Rev Clin Psychol*, 2009; Kalman et al., *Clin Psych Rev*, 2010; 30:12-24.

INTEGRATED CARE

- Use standard smoking cessation interventions, which are effective
- Review of 8 randomized clinical trials of pharmacological and/or psychological interventions in patients with schizophrenia, schizoaffective, bipolar or delusional disorders
  - Those with serious mental illness able to quit or reduce smoking with these standard treatments
  - Point prevalence abstinence ranged from 3.4% to 22.2% in intervention groups
  - Addition of bupropion resulted in RR = 2.76 (95% CI 1.48-5.16)—comparable to outcome in general population (RR = 1.69 (95% CI 1.53-1.85)
- Varenicline in schizophrenic smokers—12 week double blind placebo controlled trial
  - 7 day point prevalence in varenicline 19.0% vs. placebo (4.7%) at 12 weeks EOT
  - No differences in adverse events or changes in psychiatric symptoms
- Identify new interventions to address mechanisms specific to population

Hall & Prochaska, *Annu Rev Clin Psychol*, 2009; 5:409-431; Williams, *JAMA Psychiatry*, 2013; 70; Hitsman et al., *The Canadian J of* Psychiatry, 2009; 54:368-378; Banham & Gilbody, *Addiction*, 2010; 105:1176-1189; Williams, *J Clin Psychiatry*, 2012; 73:654-660

PRIMARY CARE

- Only 41.1% of individuals with DSM-IV disorder received treatment from any source in 12-month period—data from National Comorbidity Survey Replication
- Suggests treatment provided through mental health services will fail to reach the majority of smokers with mental health disorders
- Clinical Practice Guidelines for treating tobacco dependence
    - Recommend all clinical and health care delivery system systematically assess and treat all tobacco users

Wang et al., *Arch Gen Psych*, 2005; 62: 629-640.

PRIMARY CARE

- Data from 495 general practices in England
  - 49.3% received advice
  - 6.7% received prescription from smoking cessation medication
- Epidemiological survey of individuals seeing primary care provider in U.S. in past year
  - Smokers with substance and mental disorders received smoking cessation counseling at high rate (72.9%) and equal to those without disorders
  - Counseling significantly associated with quitting (31.3% vs. 6.0% no counseling)
- More research is needed

Szatkowski & McNeill, *Addiction,* 2013; 108:1487-1494; Ong et al., *Nic & Tob Res*, 2011; 13:1193-1201

QUITLINES

- Initial studies suggest tailored quitline services may be effective for smokers with mental illness
- Assessment and treatment considerations
  - Add questions to standard intake to assess mental health diagnoses
  - Assess psychiatric stability and access to psychiatric care; provide referrals
  - Assess how mental health symptoms affected by quitting in past
  - Pharmacotherapy
    - Individualized to patient needs
    - Interaction with psychiatric medications
  - Counseling should use problem-solving focus
  - May require extended call length and frequency

Morris et al., *J Amer Psychiatric Nurses Assoc*, 2009;15:32-40

QUITLINES

- Ask-Advise-Connect Approach
  - Has been found effective in increasing enrollment of smokers from primary care and publically funded community health clinics
    - Train nurses to assess smoking status and provide brief advise to quit
    - Offer cessation advise via quitline
    - Directly connect patients willing to accept assistance with quitline via automatic links in the electronic health record
    - Proactive contact of patients by quitline personnel with 48 hours
  - Broad adoption by health care systems could increase reach to smokers with mental health disorders
  - More research needed on quitline approaches tailored for this population

Vidrine et al., *JAMA Intern Med*, 2013; 173:458-464; Vidrine et al., *Am J Prev Med*, 2013; 45:737-741