Smoking Cessation among those with Mental Illness

Judith Prochaska, PhD, MPH
Professor of Medicine
Stanford University

STANFORD PREVENTION RESEARCH CENTER
the science of healthy living

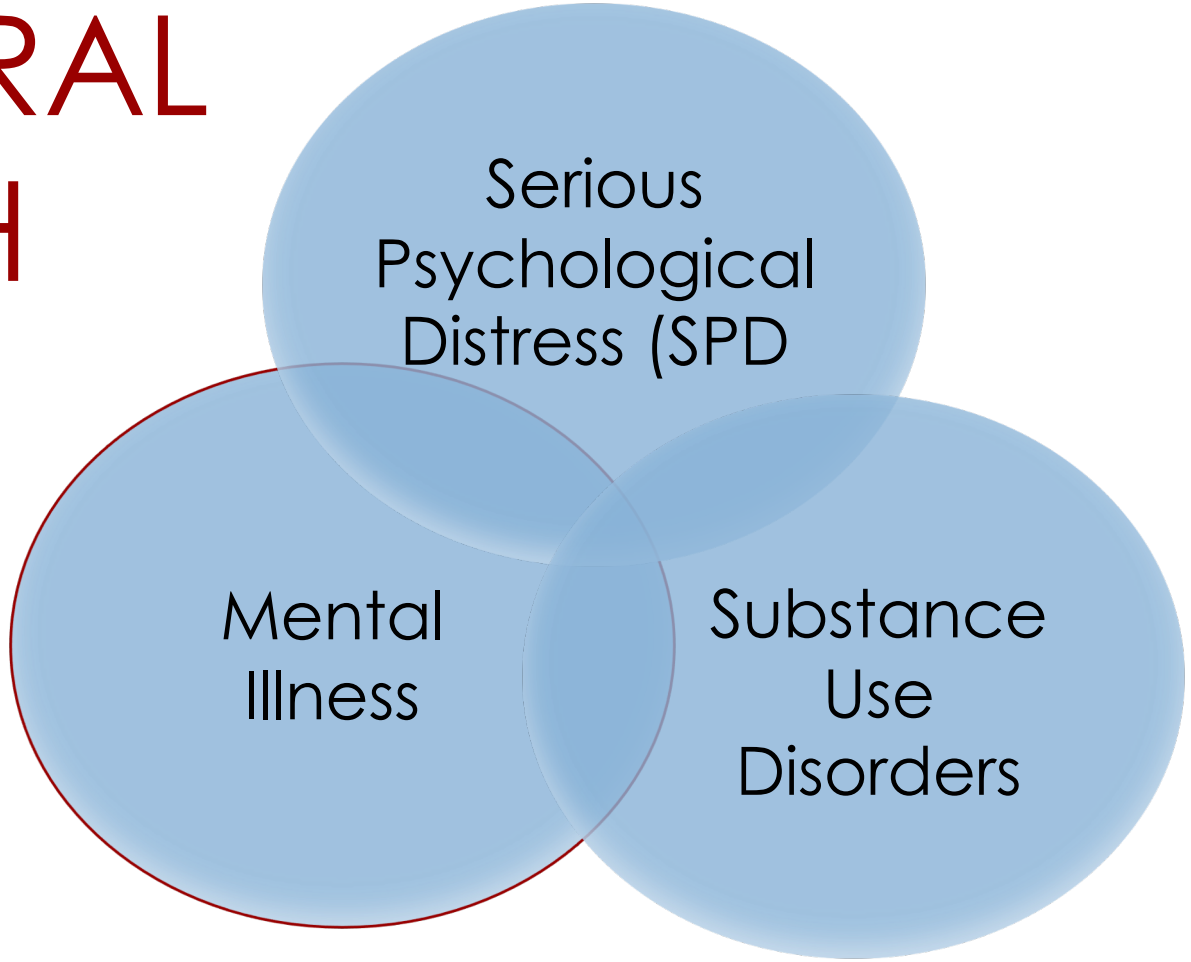
DISCLOSURES

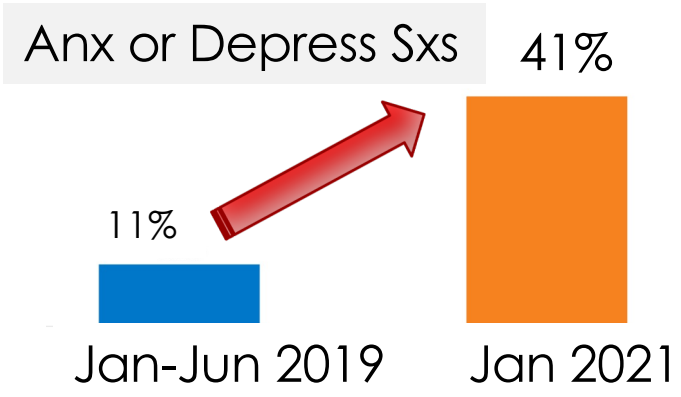
Grant Funding: NIH, State of California

Consulting: WHO, Achieve Life Sciences, Carrot, Merck Manuals, expert witness for plaintiff counsel in litigation against tobacco companies

PERSON. PLACE. PROVIDERS. PRODUCT. PROMOTION. POLICY.

BEHAVIORAL HEALTH



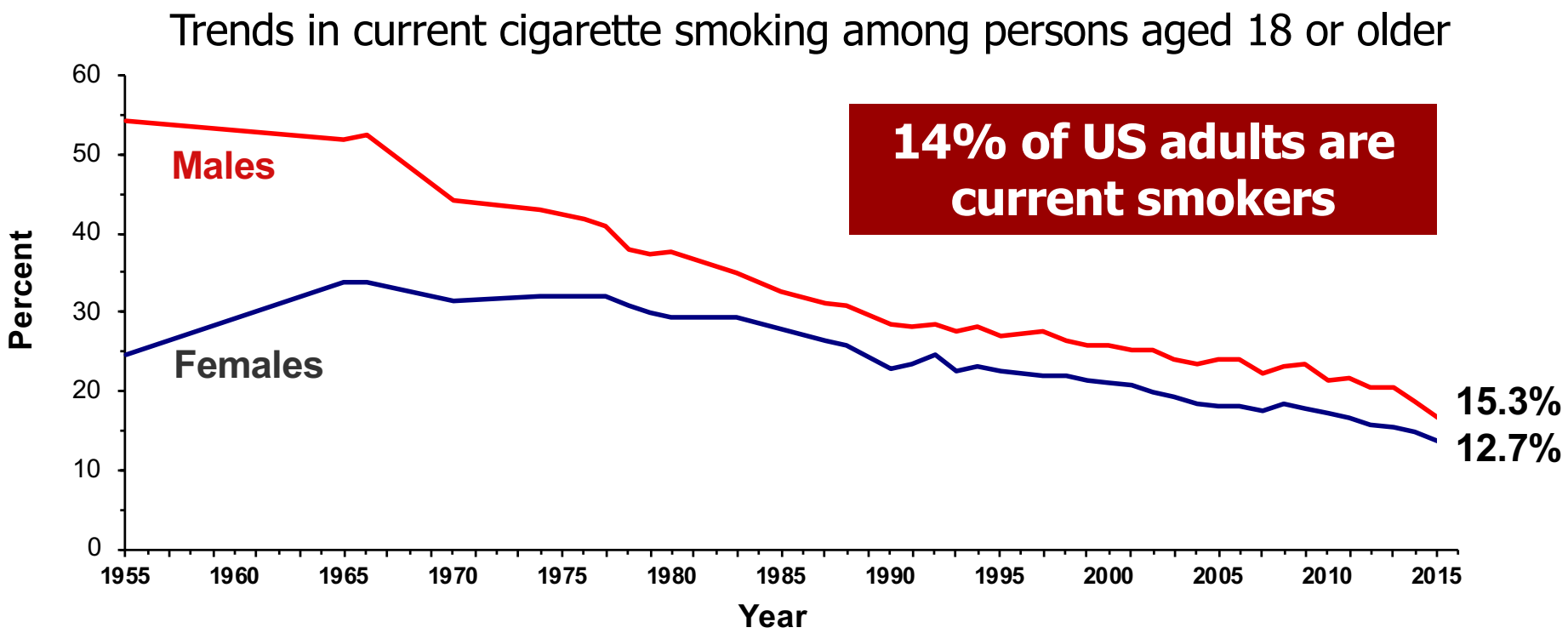


KFF

BEHAVIORAL HEALTH POPULATIONS

- More likely to use tobacco & heavily
  - Consume ~40% of cigarettes sold in the US
    - 175 billion cigarettes
    - $39 billion in annual sales
  - Significant tobacco-related harms
    - Heart disease, cancers, lung disease
    - Premature death

TRENDS in ADULT SMOKING, by SEX—US, 1955–2019

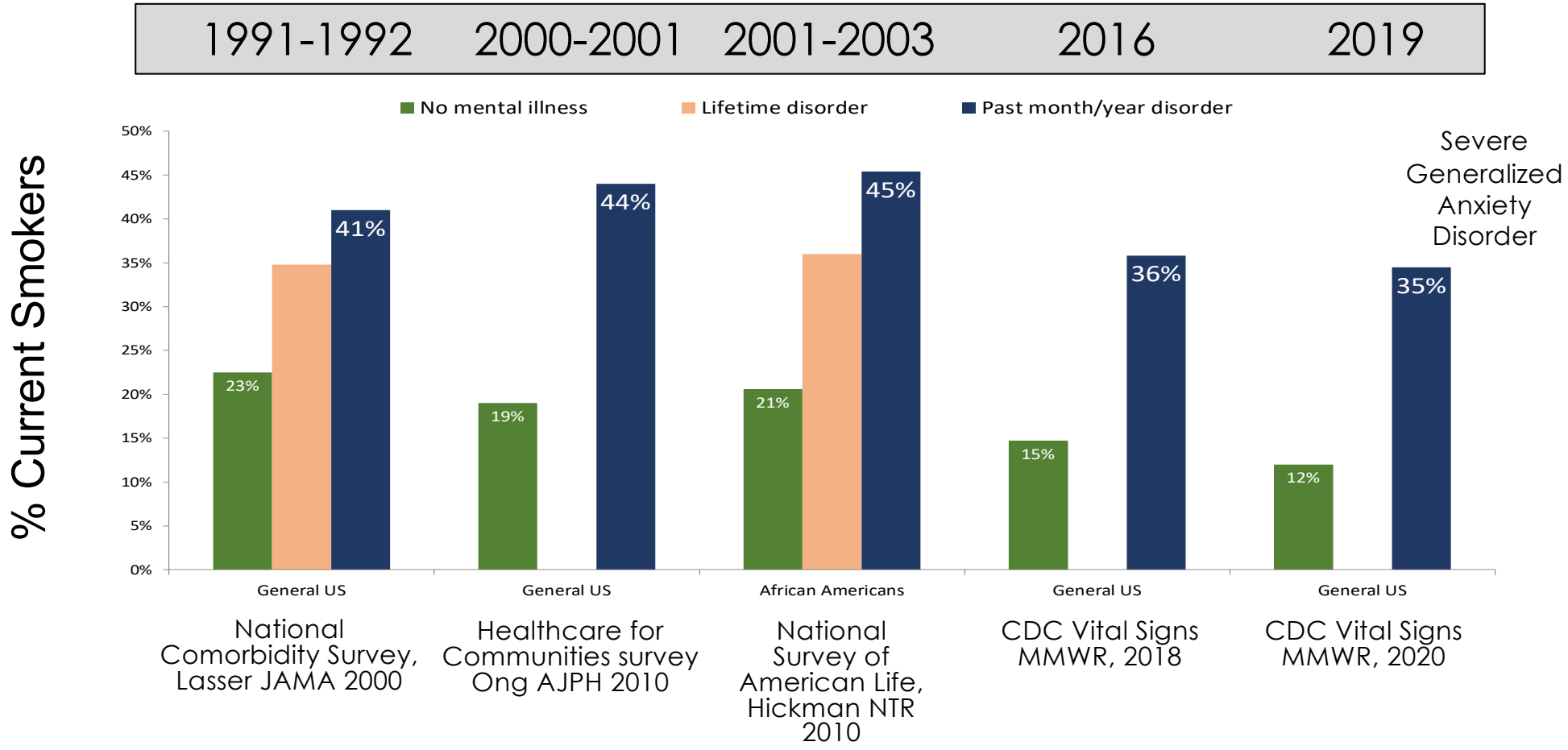


40 Million US Adult Smokers CDC, 2020

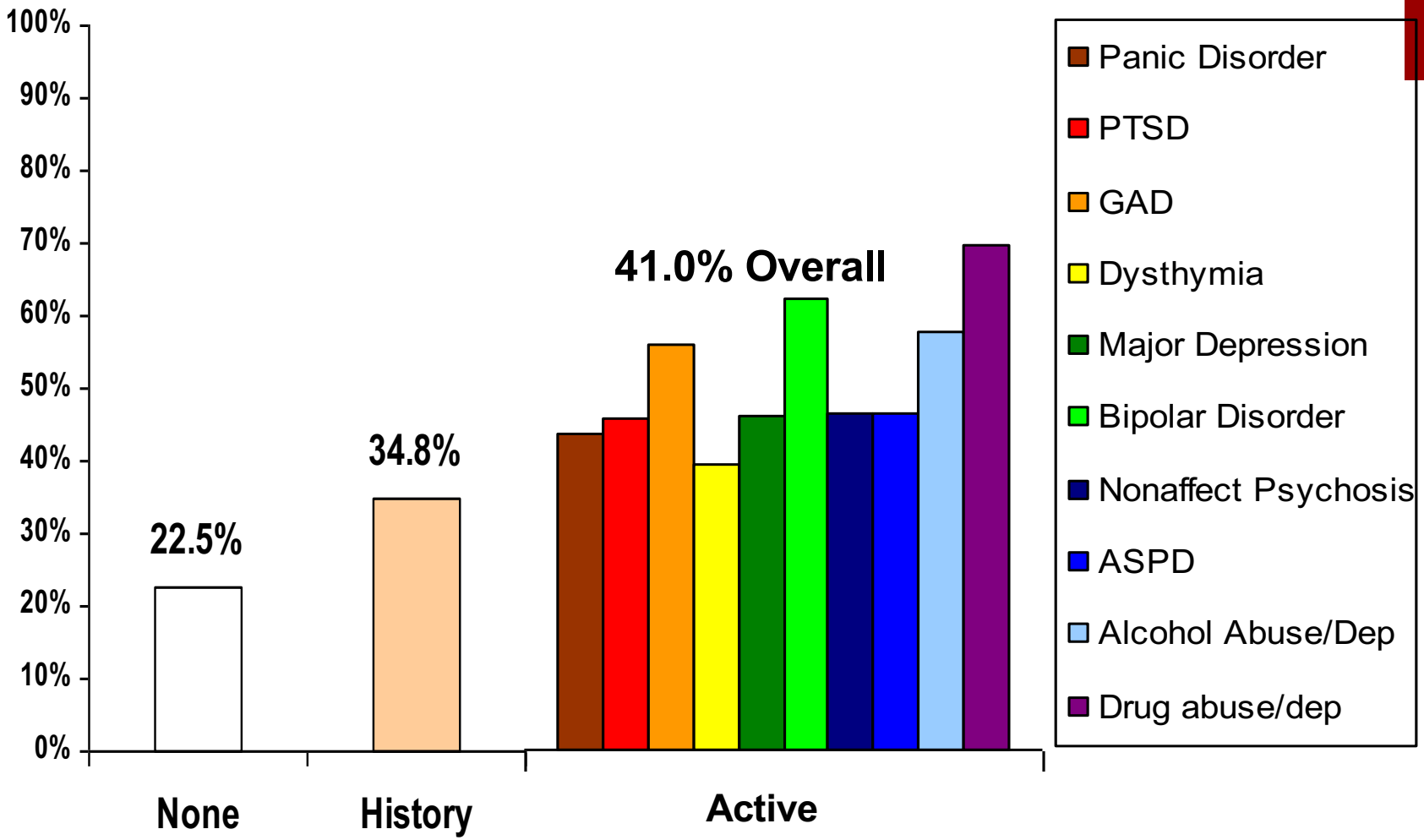
Graph provided by the Centers for Disease Control and Prevention. 1955 Current Population Survey; 1965–2019 NHIS. Estimates since 1992 include some-day smoking.

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

SMOKING PREVALENCE OVER TIME by MENTAL ILLNESS / SPD

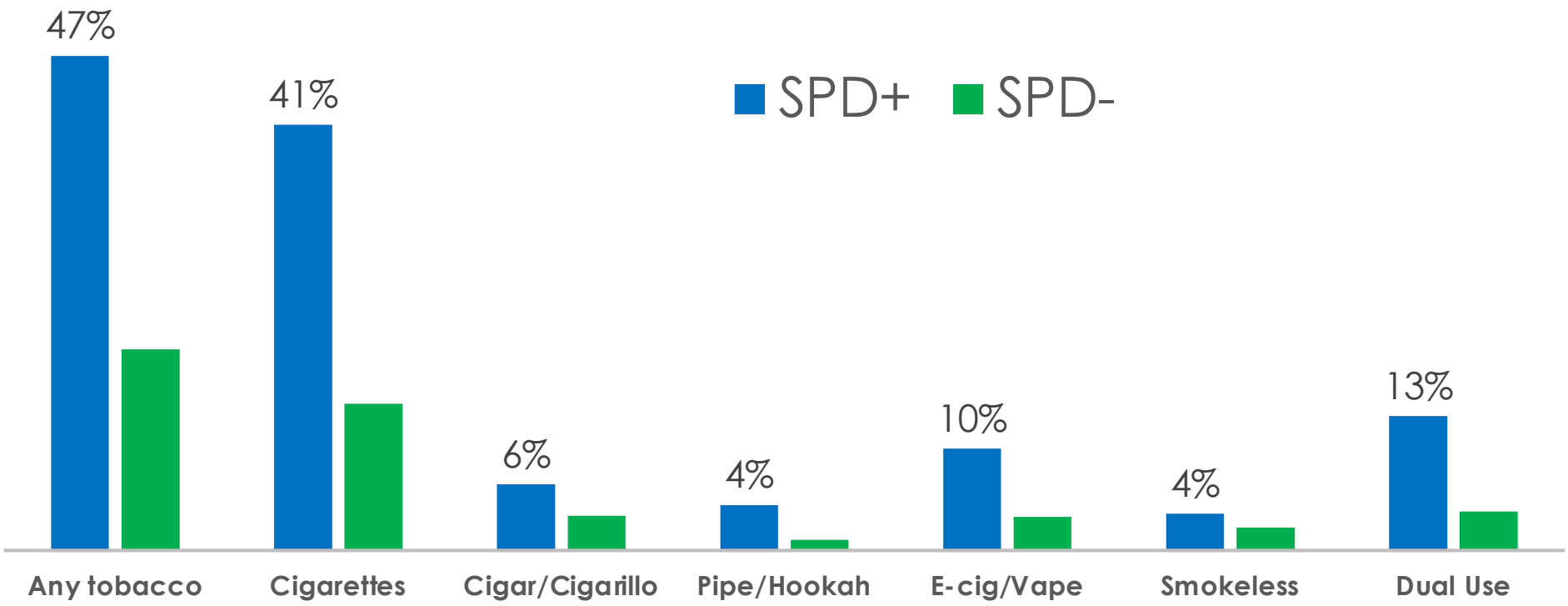


SMOKING PREVALENCE by PSYCHIATRIC HISTORY



National Comorbidity Survey 1991-1992
Source: Lasser et al., 2000 JAMA

TOBACCO PRODUCT USE by SERIOUS PSYCHOLOGICAL DISTRESS (SPD)
NHIS 2015



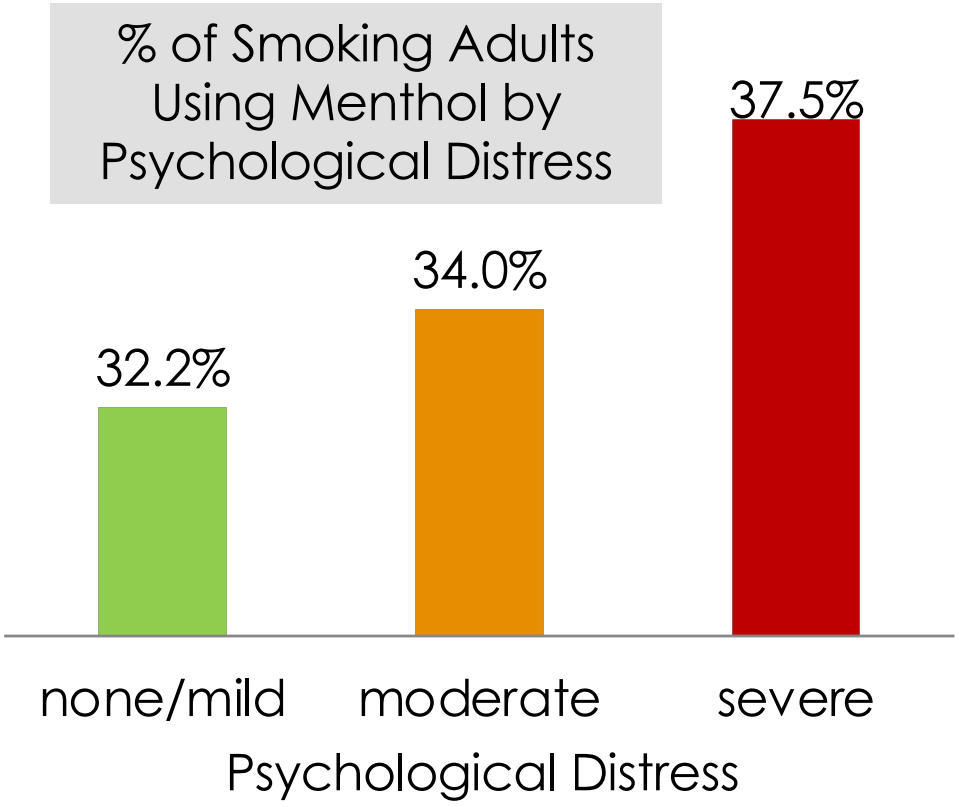
Phillips et al (2017) MMWR

MENTHOL USE & SPD

- 2008-2009 National Survey on Drug Use and Health (NSDUH)
- 24,157 smoking adults
- **SPD associated with menthol use:**

  adj-OR=1.23, p=0.02

  - Controlling for ethnicity, SES, gender, age, education, marital, health insurance, cigarettes / day



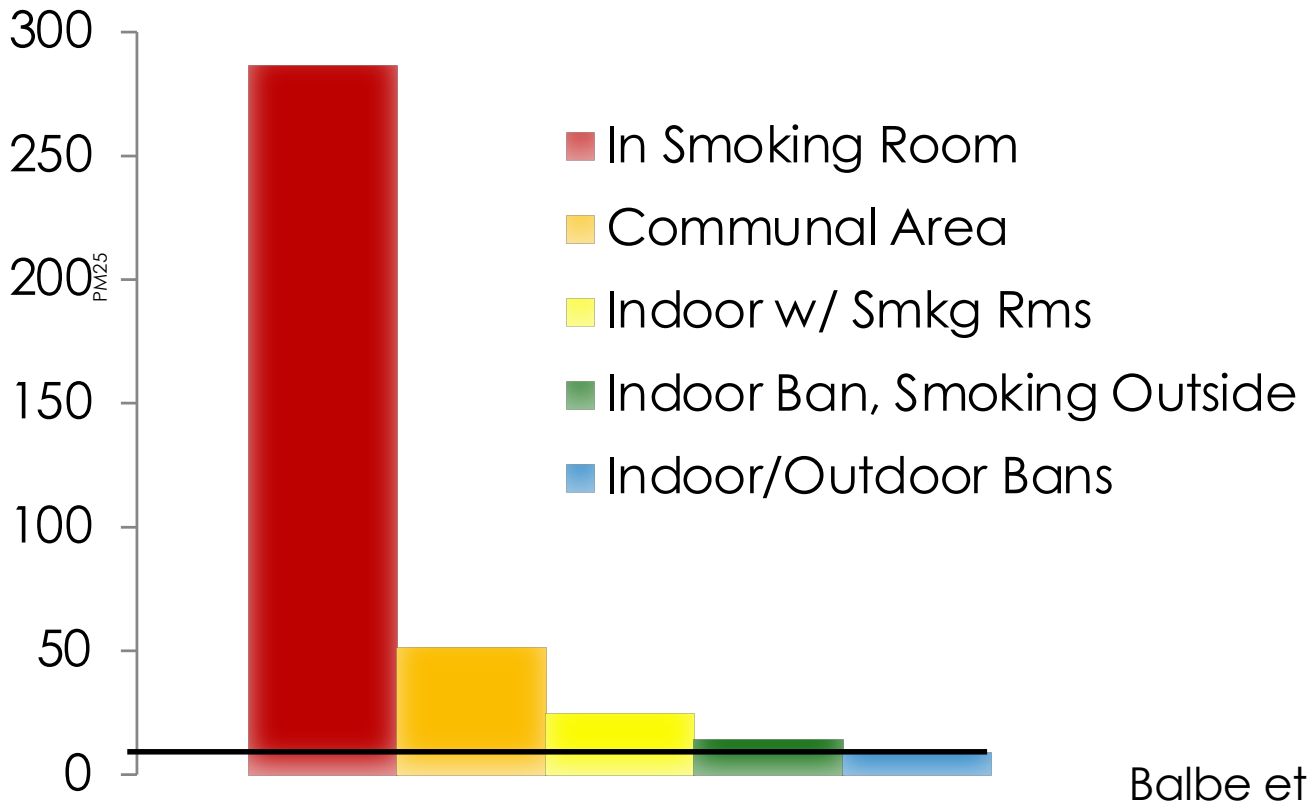
Hickman, Delucchi, Prochaska (2014) Tobacco Control

PLACE & PROVIDERS

How is it that our mental health research and clinical communities focus so exclusively on beneficial effects of smoking in populations who suffer the most from it? -- RA Chambers 2009 Dual Diagnosis

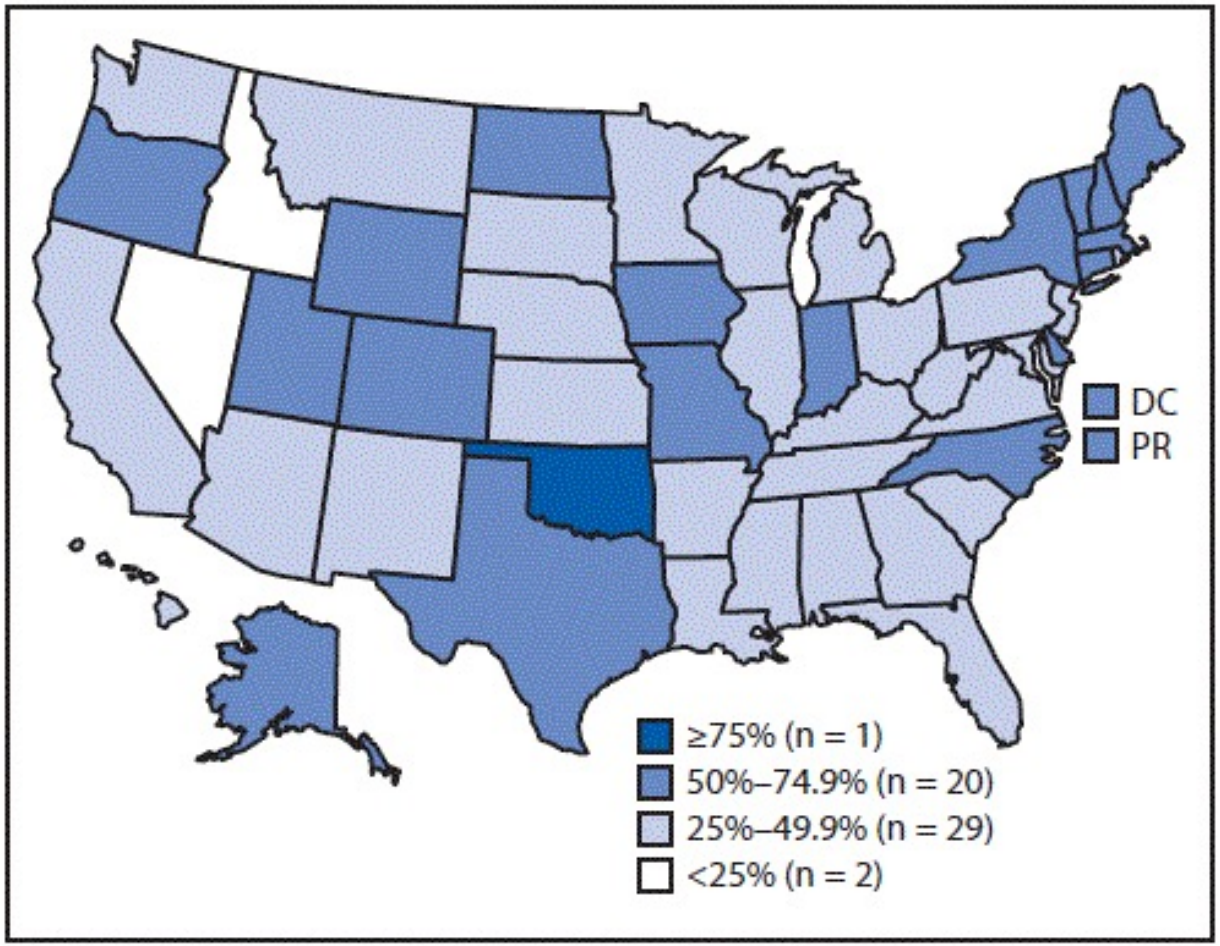
SECONDHAND SMOKE in MH TREATMENT SETTINGS

$PM_{2.5}$ of 10 µg/m^3 is the lowest level at which total cardiopulmonary and lung cancer mortality has been shown to increase in response to long-term exposure (WHO)



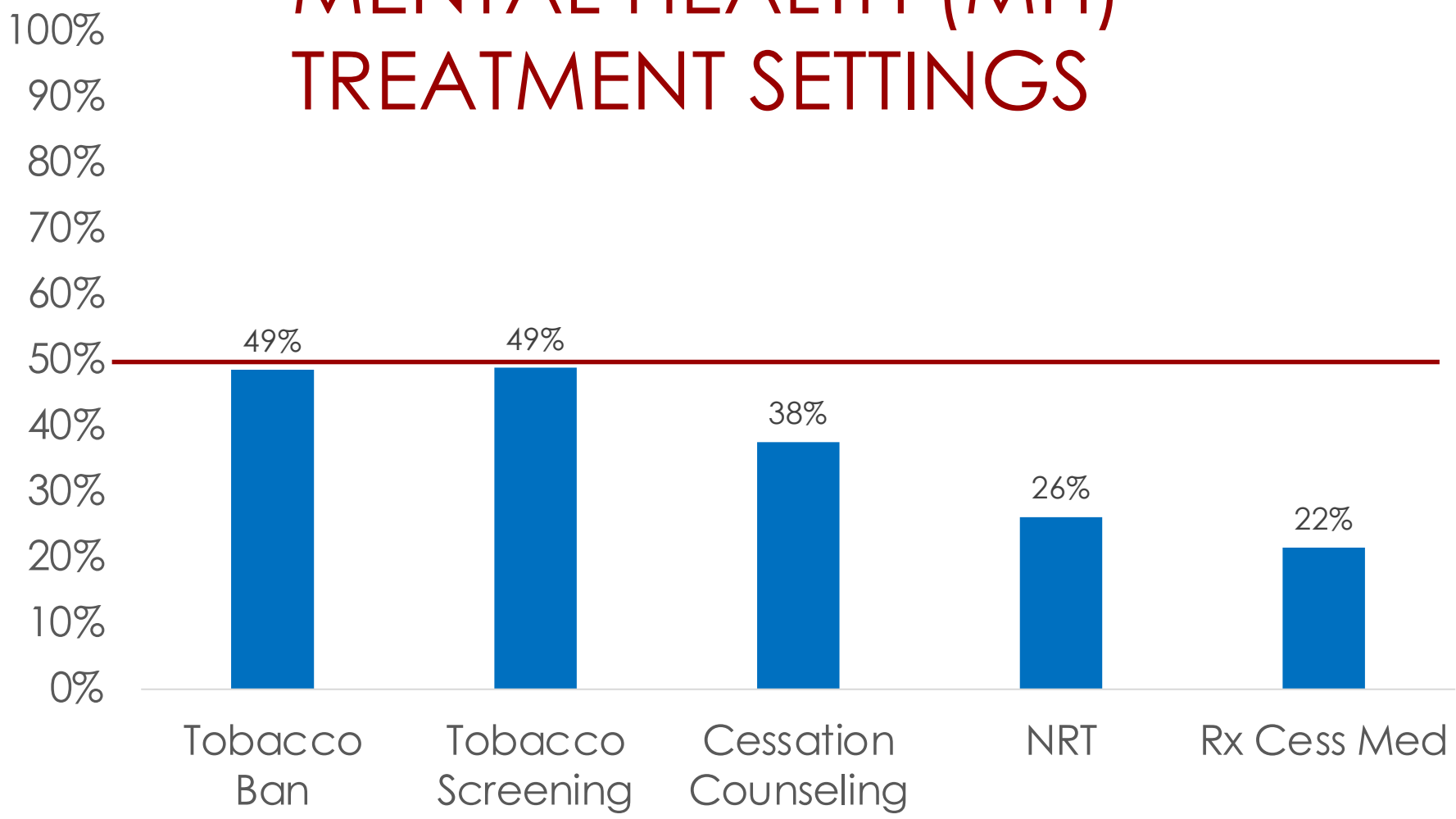
Balbe et al. (2013) Int J Epi

% of MH TREATMENT SETTINGS PROHIBITING SMOKING: INDOORS & OUTDOORS



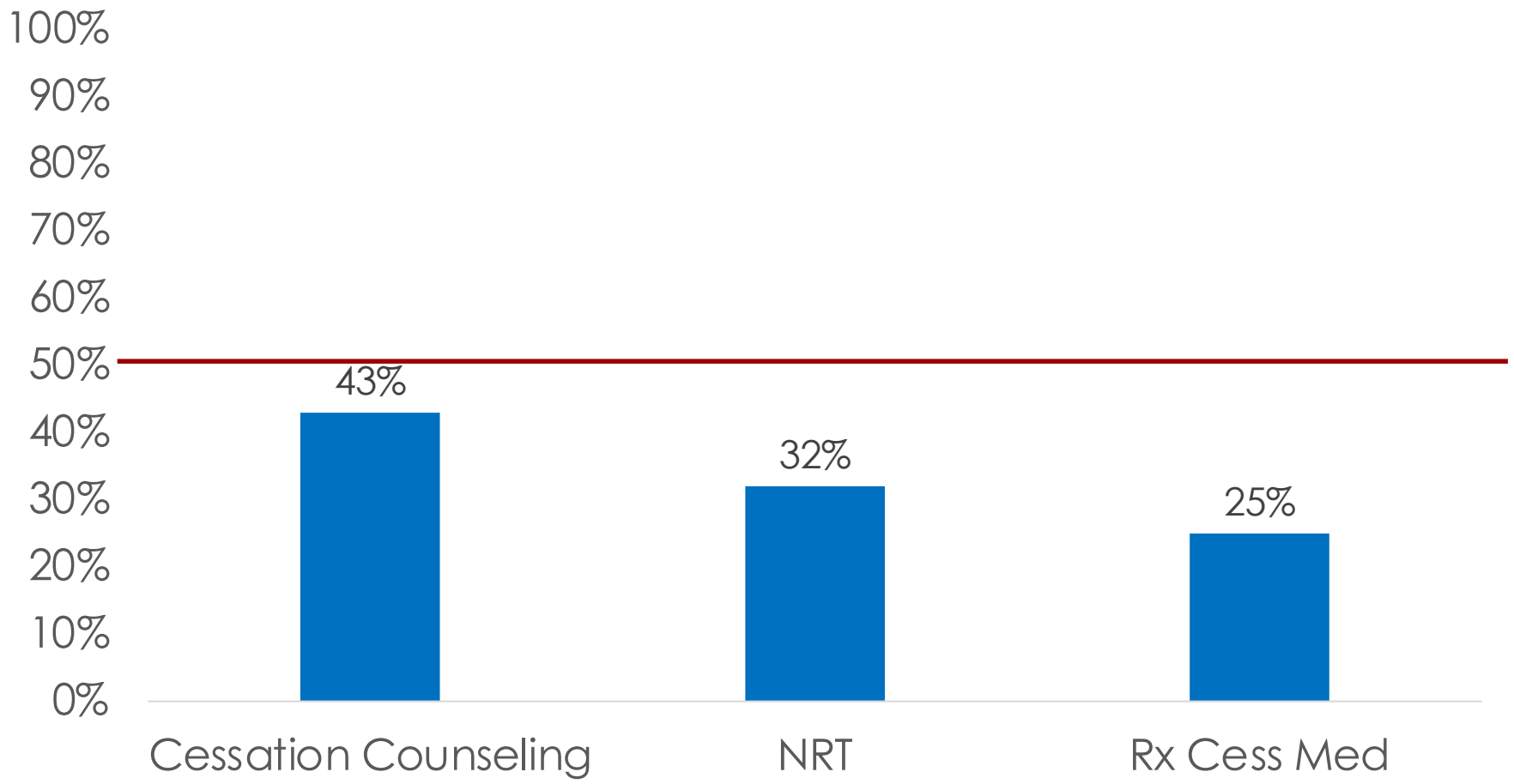
Marynak et al (2018) MMWR

ATTENTION to TOBACCO in MENTAL HEALTH (MH) TREATMENT SETTINGS



Marynak et al (2018) MMWR

TOBACCO TREATMENT SERVICES at **SMOKE-FREE MH TX FACILITIES**



Marynak et al (2018) MMWR

RETURN to SMOKING FOLLOWING A SMOKE-FREE ACUTE PSYCHIATRIC HOSPITALIZATION

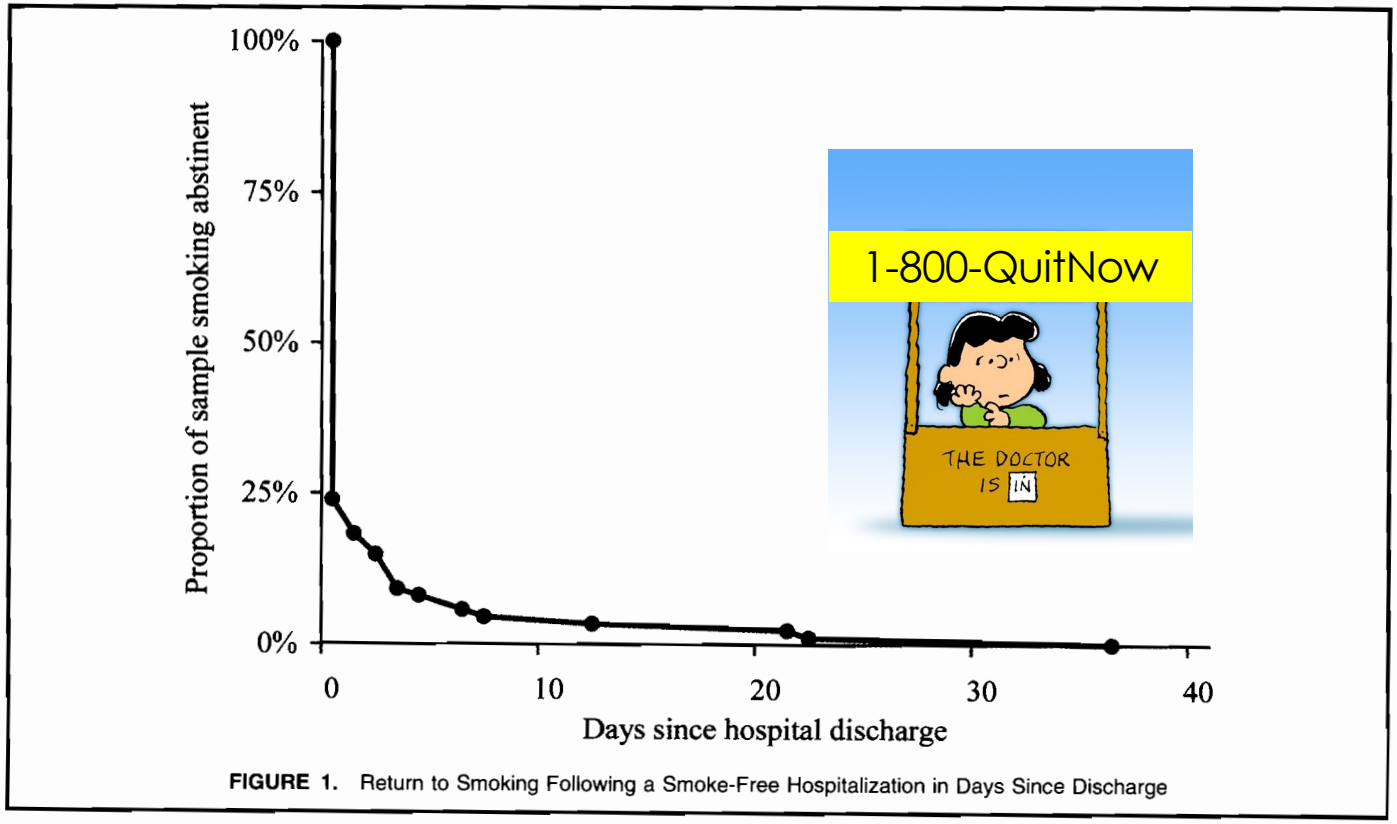


FIGURE 1. Return to Smoking Following a Smoke-Free Hospitalization in Days Since Discharge

Prochaska, Fletcher, Hall & Hall (2006). Am J Addictions

ACCESS to TOBACCO TREATMENT
2006 AAMC SURVEY: 701 PSYCHIATRISTS

- **62%** Ask about tobacco & Advise to quit
- **44%** Assess readiness to quit
- **13-23%** Assist
  - NRT (23%), other Rx (20%), cessation materials (13%)
- **14%** Arrange follow up
- **11%** Refer to others

Psychiatrists least likely to address tobacco use with their patients relative to other specialties (family medicine, internal medicine, OB/GYN)

ADULTS with BIPOLAR DISORDER who SMOKE: ONLINE SURVEY (N=685)

- Few reported a psychiatrist (27%), therapist (18%), or case manager (6%) ever advised them to quit smoking

Several reported *discouragement to quit* from mental health providers

Prochaska, Reyes, Schroeder, et al. (2011). Bipolar Disorders

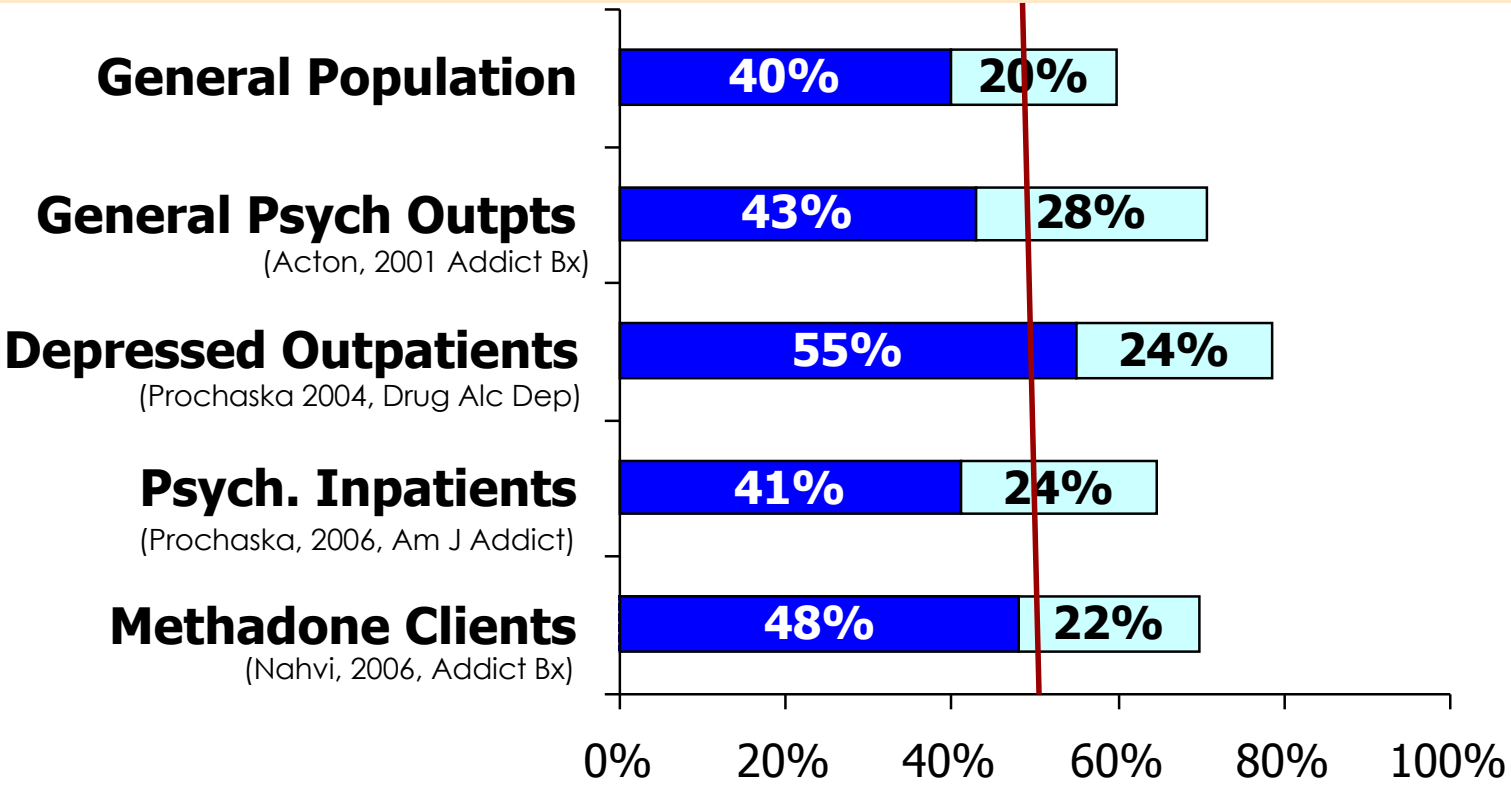
PSYCHIATRIC PROVIDERS' BELIEFS about SMOKING

- Meta-analysis of 38 studies
- 16,369 mental health professionals
- Most common beliefs/attitudes:
  - 51% believe smokers with mental illness **don't want to quit**
  - 45% had **permissive** attitudes toward smoking
  - 42% perceived barriers to treating smoking
  - 41% had negative attitudes toward smoking cessation
  - 38% think quitting smoking is **too stressful** for these patients

Sheals et al (2016) Addiction

DON'T WANT TO QUIT?

ADULTS with BEHAVIORAL HEALTH DISORDERS AS READY to QUIT SMOKING as the GENERAL POPULATION



*** No relationship between psychiatric symptom severity and readiness to quit**

SMOKING induces the metabolism of some psychiatric medications

Drugs that may have a *decreased effect* due to induction of CYP1A2:

- Caffeine
- Clozapine
- Fluvoxamine
- Haloperidol
- Olanzapine
- Phenothiazines
- Propanolol
- Tertiary TCAs
- Other medications: estradiol, naproxen, riluzole, ropinirole, tacrine, theophyline, verapamil, r-warfarin (less active), zolmitriptan

Smoking cessation may reverse the effect

QUITTING TOO STRESSFUL?

Meta-analysis found quitting smoking is associated with long term **reductions in depression, anxiety, and stress** and **improved positive mood** states and quality of life, including among those with poor mental health

(Taylor et al., 2013 BMJ)

PRODUCT & PROMOTION

Schizophrenic.

Other low tars are pretty one-dimensional.
Dull.
But the New Merit is a whole other story: big new taste with lower tar. And that's exciting.
In fact, the New Merit has as much taste as cigarettes with up to 57% more tar. Big taste, lower tar, all in one. For New Merit, having two sides is just normal behavior.

The New Merit. We've got flavor down to a science.

SURGEON GENERAL'S WARNING: Quitting Smoking Now Greatly Reduces Serious Risks to Your Health.

2040270976

TRUTH TOBACCO INDUSTRY DOCUMENTS

- Truth Library http://legacy.library.ucsf.edu

A LEGACY OF DENIAL

- Archive of 14 Million documents created by tobacco companies about their manufacturing, marketing, advertising, scientific research + political activities
- Hosted by the UCSF Library & Center for Knowledge Management

1994, Chief Execs of 7 Major Tobacco Companies Testifying Before Congress
http://www.jeffreywigand.com/7ceos.php

"Let's face facts: Cigarette smoke is biologically active. Nicotine is a potent pharmacological agent. Every toxicologist, physiologist, medical doctor and most chemists know that. It's not a secret."
1982 Memo by Philip Morris researcher Thomas Osdene

SELF-MEDICATION BELIEFS

A search of the Truth Tobacco Industry Library:

- 28 proposals to TI relating to schizophrenia
  - **7 funded, all on self-medicating effects**
  - 21 unfunded, study of the high smoking prevalence, health harms (e.g., cancers, medication interactions), and nicotine withdrawal effects
    - Prochaska et al. (2008) Schizophrenia Bulletin

TOBACCO INDUSTRY'S INTERESTS

- 1950s-1980s: Beliefs that patients with schizophrenia, who smoke at high rates, immune to cancer

PHILIP MORRIS INCORPORATED INTER-OFFICE CORRESPONDENCE

120 PARK AVENUE, NEW YORK, N.Y. 10017

TO: Mr. James C. Bowling DATE: June 29, 1983

FROM: J. E. Lincoln

SUBJECT: Schizophrenics

You will probably recall various anecdotal references to heavy smoking but unusually low lung cancer incidence among schizophrenics. At least one of these references found an even stronger negative correlation among a particular sub-classification of schizophrenics.

Do you think it would be practical and sensible to ask the Menningers if they would attempt to quantify these relationships?

get.

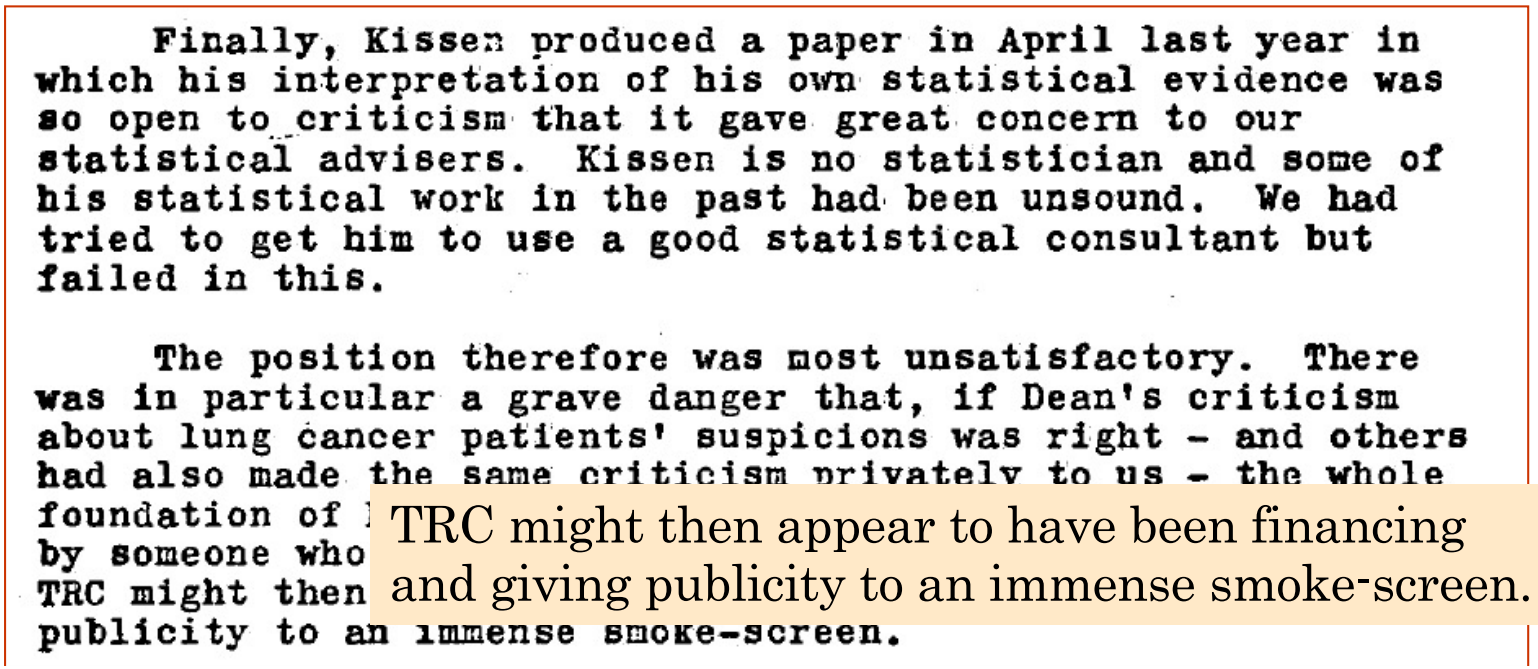
JEL:rg

cc: A. Holtzman ✓

Prochaska, Hall & Bero (2008). *Schizophrenia Bulletin*

TOBACCO INDUSTRY'S INTERESTS

- 1960s–1970s: TI funded research on psychosomatic causes of cancer
  - Proposed those who denied or repressed grief were more likely to develop cancer than those who expressed emotion
    - **"longterm schizophrenics, outwardly calm, have no capacity for the repression of significant emotional events and no need to contain emotional conflict."**
  - Ultimately came under scrutiny for its "scientific integrity"



Finally, Kissen produced a paper in April last year in which his interpretation of his own statistical evidence was so open to criticism that it gave great concern to our statistical advisers. Kissen is no statistician and some of his statistical work in the past had been unsound. We had tried to get him to use a good statistical consultant but failed in this.

The position therefore was most unsatisfactory. There was in particular a grave danger that, if Dean's criticism about lung cancer patients' suspicions was right - and others had also made the same criticism privately to us - the whole foundation of
by someone who
TRC might then
publicity to an immense smoke-screen.

TRC might then appear to have been financing and giving publicity to an immense smoke-screen.

Prochaska, Hall & Bero (2008). Schizophrenia Bulletin

TOBACCO INDUSTRY'S INTERESTS

- 1964 & 1997: TI denied funding of 2 proposals to examine high rates of cancer in smokers with mental illness
  - 1964 proposal "denied in principle but referred to the study group on the psychophysiological aspects of smoking," "for working over"
  - Questioned "whether some other kind of use could profitably be made of his data collection methods"

Prochaska, Hall & Bero (2008). Schizophrenia Bulletin

Re: Research Proposal for July/83 - June/84
"Tobacco Smoking As a Coping Mechanism in Psychiatric Patients: Psychological, Behavioral and Physiological Investigations"
Phase I

These 3 studies, plus the remaining 3 planned for next year promise to bear fruitful findings. It is particularly interesting that the psychiatrists, who are medical professionals, are very aware of the role of tobacco use in patients and are very interested in these studies. If tobacco can be shown to be an efficient form of "self-medication" for these patients then this would be significant bonus for the tobacco industry.

RJR-MACDONALD INC. Research and Development

Dr. Knott has been sponsored by CTMC for some years. Up to last year his own salary was paid by us - so he was totally dependent on CTMC funding. He became, however, a permanent member of the Royal Ottawa Hospital in 1984, and since then we only support the cost of his assistants.

The latest request is addressing the problems that restriction on smoking in the workplace or elsewhere may have on inducing stress on the smoker. Once again he seems to be looking at this from our point of view.

Nicotine: helping those who help themselves?

Chemistry & Industry 6 July 1998

JOHN A ROSECRANS

It's no secret that smokers are addicted to their habit, but what might be surprising are the reasons behind the addiction — could it be self-medication?

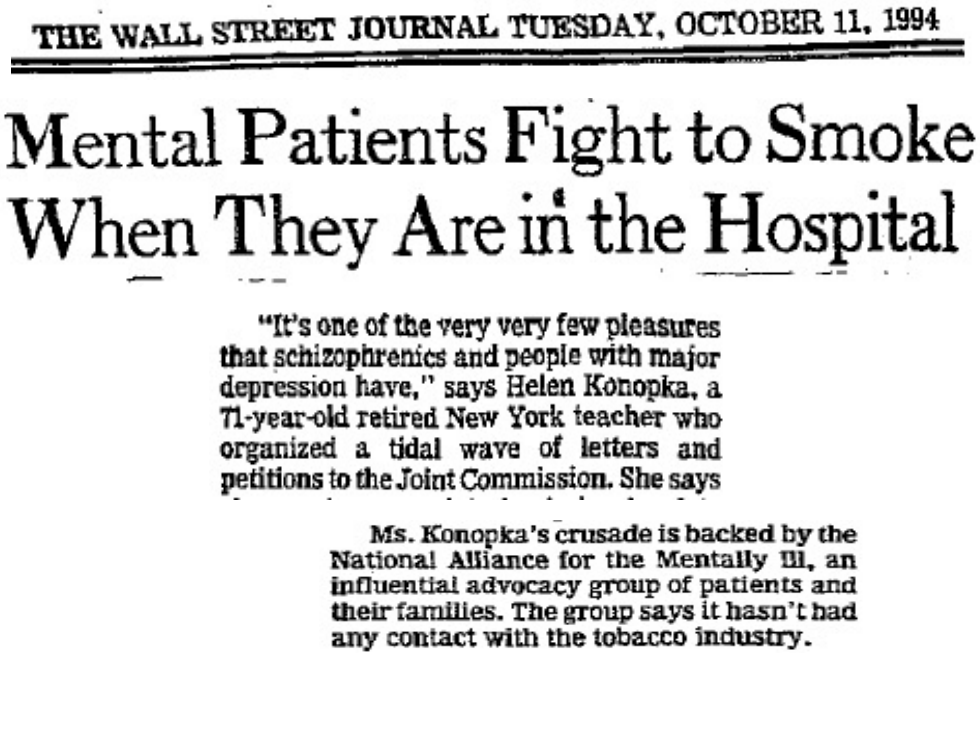
Many people who use tobacco, including smokers, do so because of some potential therapeutic benefit they receive, such as to relieve depression, schizophrenia or pain. While this

Nicotine may have beneficial effects that are 'therapeutic' rather than addictive

Tobacco industry documents indicate the author received funding from CTR and PM from at least 1977-1994 and contributed to papers conceived by PM

Addiction or self-help?

HOSPITAL SMOKING BANS

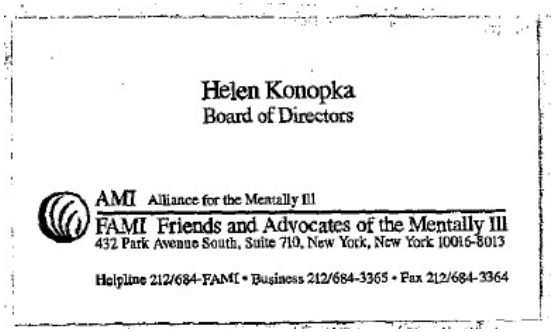


THE WALL STREET JOURNAL TUESDAY, OCTOBER 11, 1994

Mental Patients Fight to Smoke When They Are in the Hospital

"It's one of the very very few pleasures that schizophrenics and people with major depression have," says Helen Konopka, a 71-year-old retired New York teacher who organized a tidal wave of letters and petitions to the Joint Commission. She says

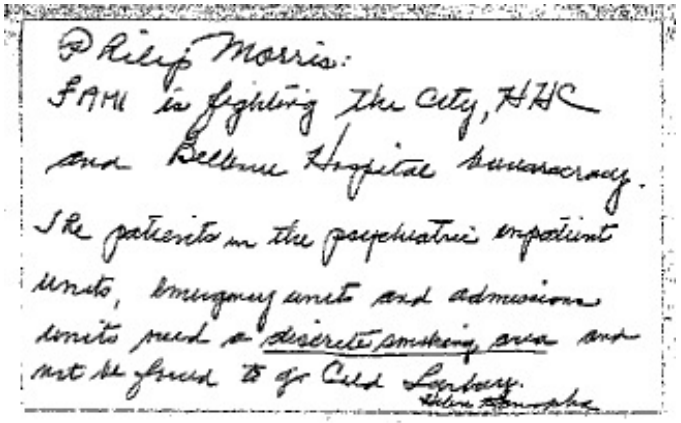
Ms. Konopka's crusade is backed by the National Alliance for the Mentally Ill, an influential advocacy group of patients and their families. The group says it hasn't had any contact with the tobacco industry.



Helen Konopka
Board of Directors

AMI Alliance for the Mentally Ill
FAMI Friends and Advocates of the Mentally Ill
432 Park Avenue South, Suite 710, New York, New York 10016-8013

Helpline 212/684-FAMI • Business 212/684-3365 • Fax 212/684-3364



Dr Rich Morris:
FAMI is fighting the city, HHC and Bellevue Hospital bureaucracy. The patients in the psychiatric inpatient units, emergency units and admissions units need a discrete smoking area and must be found to get Cell Lynbury.
Helen Konopka

The New York Times

SUNDAY, FEBRUARY 19, 1995

JCAHO ultimately "yielded to massive pressure from mental patients and their families, relaxing a policy that called on hospitals to ban smoking."

LAW OFFICES OF
DOYLE & NELSON
150 CAPITOL STREET
P.O. BOX 2709
AUGUSTA, MAINE 04338-2709

JON R. DOYLE
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MAILING ADDRESS
P.O. BOX 2709

TELEPHONE
207-622-6124
800-698-4864
FAX
207-623-1358

March 21, 1991

Smokers Rights of Maine
P.O. Box 2345
Lewiston, ME 04241-2345

Gentlemen:

This letter is to inform you that the smoking in restaurants bill (L.D. 603) is now set for hearing on Wednesday, April 3, 1991, at 9:30 a.m. at the Elks Lodge in Augusta. In fact, the following smoking bills also have been set for hearing on that day:

1. LD 16 - An Act to Ensure Smoke-free Areas in the

LD 463 - An Act to Exempt Substance Abuse and Psychiatric Patients from the Prohibition against Smoking in Hospitals

4. LD 603 - An Act to Amend the Laws Concerning Smoking in Restaurants

5. LD 1134 - An Act to Protect Citizens from the Effects of Environmental Tobacco Smoke

With the above bills all scheduled on one day, it is difficult to know exactly when each of them will be reached. It is vital that you, or a representative, attend the hearing to speak on the legislation and we would appreciate it if you would either give me a call or my paralegal, Susan Mitchell.

Thank you.

Kind regards,

JON R. DOYLE

50760

RJR

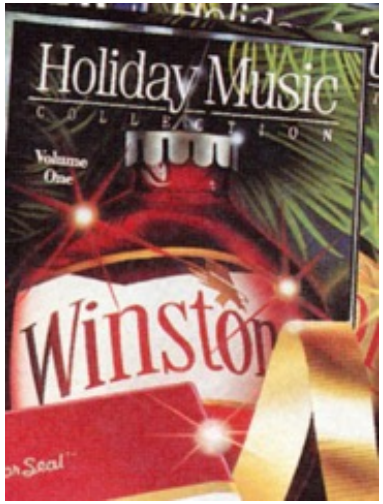
Interoffice Memorandum

Subject: Gratis Request
Operation Santa Claus

Date: November 16, 1984

To: Peter Allan

From: Miriam G. Adams



OK PA 11-20

Attached is a request for cigarettes for Operation Santa Claus. This is an event we have made donation to over the years, and last year we donated 60 cartons.

This is for a worthwhile cause but would have to be charged to CPR as RJRT does not have sufficient budget.

Your comments would be appreciated.

Operation Santa Claus
12,000 cigarettes
to the Forsyth County Residents of
John Umstead & Murdoch Center

Corporate Public Relations

MGA:bkm

Attachment

theguardian

News | US | World | Sports | Comment | Culture | Business | Money

Life & style | Health & wellbeing

Are e-cigarettes good for your mental health?

Patients with mental health problems are far more likely than others to become dependent on cigarettes. Can 'vaping' reduce symptoms without the risks?

Jack Dutton
theguardian.com, Monday 5 May 2014 12.17 EDT

Jump to comments (24)

Ninety per cent of people with schizophrenia are already smokers. Could e-cigarettes help them? Photograph: Peter Macdiarmid/Getty Images

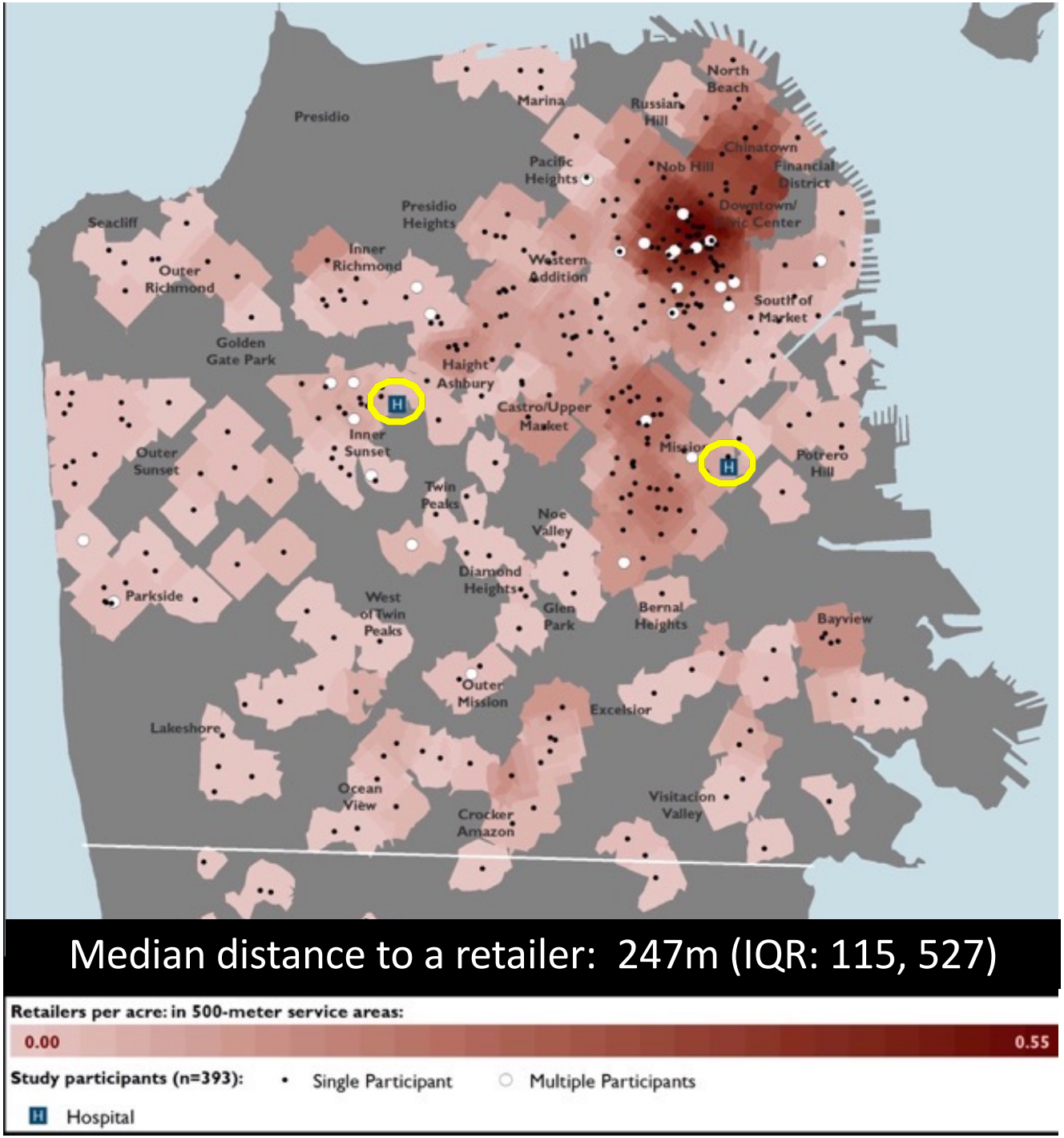
"Giving psychiatric patients access to e-cigarettes, particularly on closed wards, is definitely something to consider."

TOBACCO RETAILER DENSITY

Tobacco retailer density near persons with Serious Mental Illness living in SF Bay Area – 2xs more dense than average

Median of 3 retailers (within 500m) and 12 (within 1km)

Young-Wolf, Henriksen, Delucchi & Prochaska (2015). AJPH



GREATER TOBACCO RETAILER DENSITY associated with…

- Greater:
  - Psychosis 500m: $B = 2.9$, $p < .01$; 1km: B = 2.5, $p = .01$
  - Self-harm 500m: $B = 2.6$, $p = .01$; 1km: $B = 2.1$, $p = .03$
  - Interpersonal problems 500m: $B = 2.0$, $p = .04$
  - Nicotine dependence 500m: $B = 3.0$, $p < .01$
- Lower:
  - Self-efficacy 500m: $B = -2.1$, $p = .01$
  - Motivation/Stage of Change PC vs. C[1], P[2]

[1]500m: $B = 1.5$, $p = .04$; [2]1km: $B = 2.0$, $p = .02$

Young-Wolf, Henriksen, Delucchi & Prochaska (2015). AJPH

COUNTER-MARKETING EFFORTS

CIGARETTES ARE MY GREATEST ENEMY

- Statewide social marketing campaign in California by Billy DeFrank Lesbian and Gay Community Center, the Center OC, & American Legacy Foundation
- Real-life triumphs over adversities to quit smoking

Tobacco industry outspends the states 18:1 in marketing of tobacco

CDC TIPS® From Former Smokers Campaign, 2016

- Nationally representative sample of US adults smoking cigarettes with (MH+, N=777) and without (MH-, N=1806) MH conditions*

	Quit attempt past 3 months (Current Smokers + Recent Quitters)		**Intends to quit** next 30 days (Current Smokers)	
	MH+	MH-	MH+	MH-
Frequency of Exposure to Rebecca Tips® Ad (TV or Digital Video)	**1.25 [1.03 – 1.52] (0.027)**	0.97 [0.83 – 1.14] (0.737)	**1.40 [1.04 – 1.90] (0.027)**	1.17 [0.93 – 1.46] (0.174)
n	772	1,804	694	1,670
	MH+	MH-	MH+	MH-
Frequency of Exposure to Other Tips® Ads (TV or Digital Video)	1.09 [0.88 – 1.35] (0.430)	**1.19 [1.02 – 1.40] (0.032)**	1.22 [0.91 – 1.64] (0.188)	1.14 [0.92 – 1.42] (0.238)
n	775	1,805	695	1,671

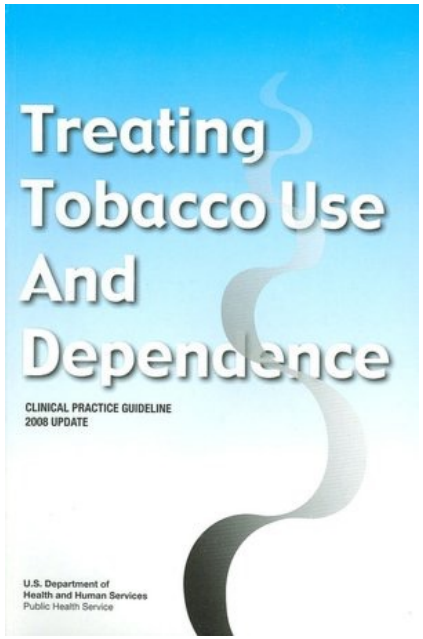
Models control for outcome at baseline, cumulative past quarter *Tips*® campaign gross ratings points at time of follow-up, and baseline values of sex, age, education, race/ethnicity, presence of another smoker in household, children in the household, chronic, general health conditions, and cigarettes per day.

*Self-reported lifetime depression, anxiety disorder, ADHD/ADD, or general mental health condition

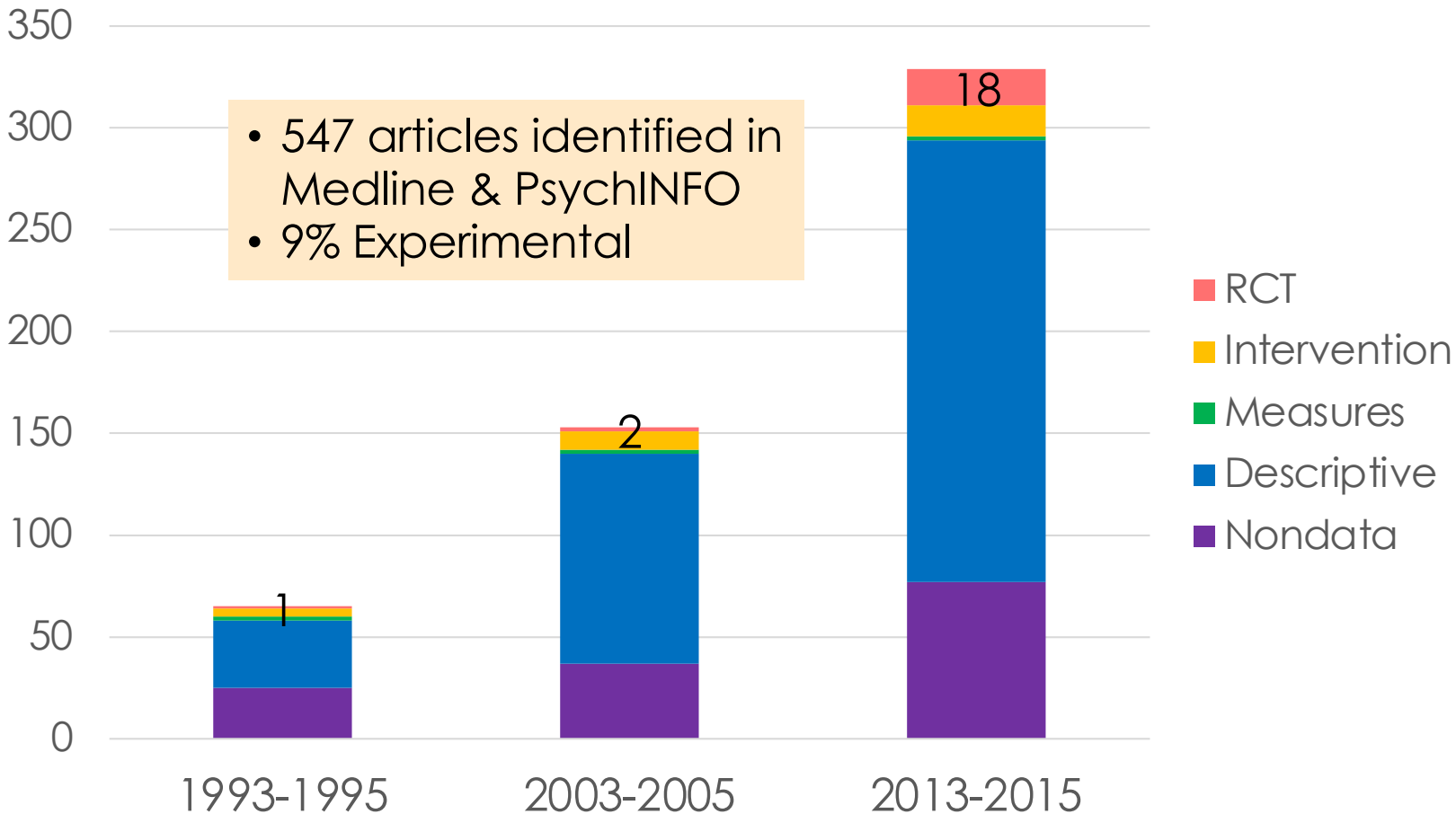
Prochaska, Gates, Davis, Gutierrez, Prutzman & Rodes (2019) NTR

US TOBACCO TREATMENT CLINICAL PRACTICE GUIDELINES

- Literature base of more than 8,700 research articles
- < 30 randomized clinical trials treating tobacco dependence in smokers with mental illness



TOBACCO & MH:
INCREASING RESEARCH BASE



Metse et al. (2017) NTR

CALIFORNIA QUITLINE

- Takes < 3 minutes to Ask, Advise, Refer
- Nearly 1 in 4 callers met criteria for current major depression
- At 2-months, those with depression much less likely to be quit (**19%**) than callers without depression (28%)

Hebert et al. (2011) Am J Prev Med

VA TeleQuitMH COORDINATION PROGRAM EVALUATION

- 2-group RCT: Quitline vs. TeleQuitMH
- TeleQuitMH
  - EMR electronic consult
  - Program marketing to providers
  - Proactive outreach
  - Medication coordination
  - Self-help materials
  - Smoking cessation counseling
    - VA or Quitline w/ warm transfers
  - Follow-up

N=577

- 30-day PPA @ 6 mo FU:
  - **26% TeleQuitMH** vs.
  - 18% Quitline
- Higher satisfaction

Rogers et al. (2013). Addict Sci Clin Practice (Study protocol); Rogers et al. (2016) AJPM

Efficacy of Initiating Tobacco Dependence Treatment in Inpatient Psychiatry: A Randomized Controlled Trial

Judith J. Prochaska, PhD, MPH, Stephen E. Hall, MD, Kevin Delucchi, PhD, and Sharon M. Hall, PhD

Objectives. We evaluated the efficacy of a motivational tobacco cessation treatment combined with nicotine replacement relative to usual care initiated in inpatient psychiatry.

Methods. We randomized participants (n = 224; 79% recruitment rate) recruited from a locked acute psychiatry unit with a 100% smoking ban to intervention or usual care. Prior to hospitalization, participants averaged 19 (SD = 12) cigarettes per day; only 16% intended to quit smoking in the next 30 days.

Results. Verified smoking 7-day point prevalence abstinence was significantly higher for intervention than usual care at month 3 (13.9% vs 3.2%), 6 (14.4% vs 6.5%), 12 (19.4% vs 10.9%), and 18 (20.0% vs 7.7%; odds ratio [OR] = 3.15; 95% confidence interval [CI] = 1.22, 8.14; *P* = .018; retention > 80%). Psychiatric measures did not predict abstinence; measures of motivation and tobacco dependence did. The usual care group had a significantly greater likelihood than the intervention group of psychiatric rehospitalization (adjusted OR = 1.92; 95% CI = 1.06, 3.49).

Conclusions. The findings support initiation of motivationally tailored tobacco cessation treatment during acute psychiatric hospitalization. Psychiatric severity did not moderate treatment efficacy, and cessation treatment appeared to decrease rehospitalization risk, perhaps by providing broader therapeutic benefit. (*Am J Public Health.* Published online ahead of print August 15, 2013: e1–e9. doi:10.2105/AJPH.2013.301403)

Tobacco use among persons with mental illness is 2 to 4 times as great as among the general US population, with costly and deadly consequences.[1–3] Persons with serious mental illness have an average life expectancy 25 years shorter than in the general population; the chief causes of death are chronic tobacco-related diseases such as cardiovascular disease, lung disease, and cancer.[4] Annually, 200 000 of the 435 000 deaths in the United States attributed to smoking are believed to be among individuals with mental illness or addictive disorders.[5]

Despite the significant health effects, smoking remains ignored or—even worse—encouraged in mental health settings.[6,7] A minority of patients with mental illness report that a mental health provider has advised them to quit smoking, and some report active discouragement of quitting.[8,9] Staff at some psychiatric hospitals still smoke with patients, rationalized as effective for building clinician–client rapport.[10]

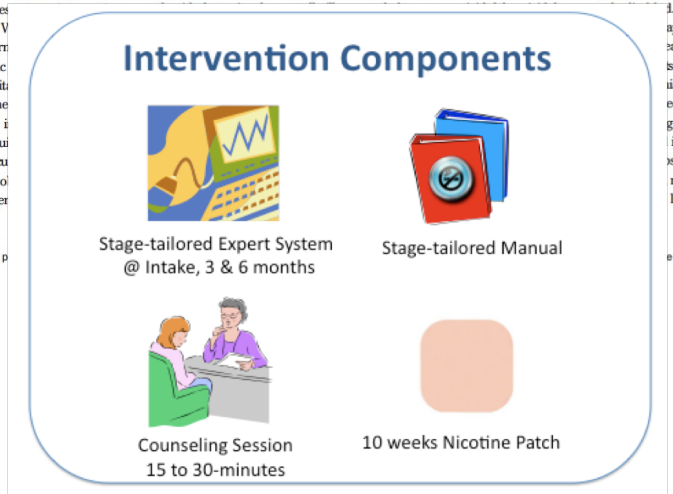
Since 1993, US hospitals have banned tobacco use under mandate of the Joint Commission on the Accreditation of Healthcare Organizations.[11] In response to outcries from patient advocacy groups, however, the commission permitted an exception for inpatient psychiatry; similar policy exemptions have been granted to psychiatric facilities in Europe and Australia.[12–14] Nearly 20 years later, more than half of state inpatient psychiatry units in the United States permit smoking, and half sell cigarettes to patients.[15] Even among hospitals that ban tobacco use, ces… treatment are rare.[15,16] V… almost all patients return… a smoke-free psychiatric… within minutes of hospit… grated treatments are ne…

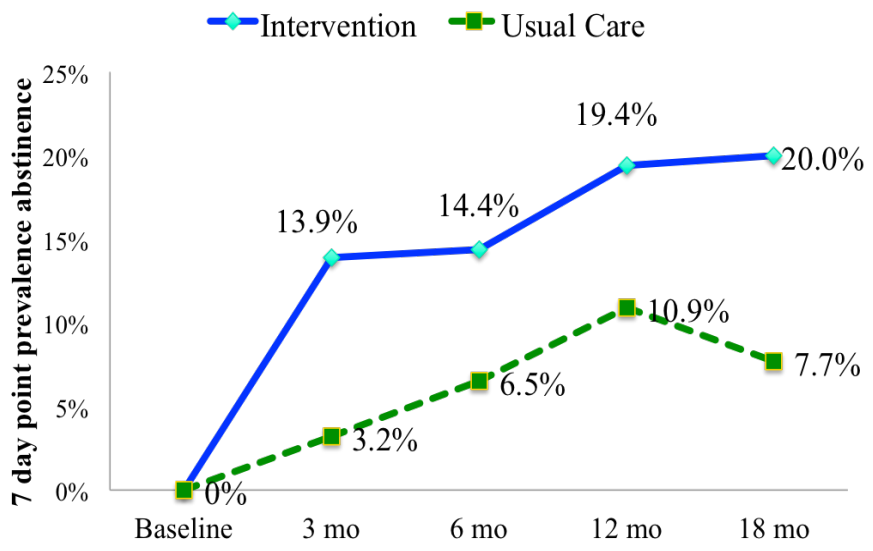
Nearly 8800 studies i… ment clinical practice gui… extensive literature docu… initiating treatment of to… hospital settings with ger…

patients.[18] Yet fewer than 2 dozen randomized clinical trials have treated smoking in persons with current mental illness,[19] and the only published randomized trial examining inpatient psychiatry for initiating tobacco treatment was conducted with adolescents. The intervention group increased in motivation to quit, but the treatment effect on abstinence was not significant.[20] The American Psychiatric Association identifies psychiatric hospitalizations as an ideal opportunity to treat tobacco dependence.[21] Hospital-based tobacco treatment tri…

increase following treatment of tobacco use. Tobacco treatment trials with smokers with clinical depression, posttraumatic stress disorder, and schizophrenia, however, have demonstrated no adverse effect of treating tobacco dependence or of quitting smoking on mental health recovery.[24–29]

Research has not examined the impact of treating tobacco dependence during an acute psychiatric hospitalization on mental health recovery. Patients for whom inpatient psychiatric care is deemed necessary typically present





OR=3.15, p=0.018 for condition in a GEE-based logistic regression

234 rehospitalizations:

140 (UC) vs. 94 (Tx), p=0.036

Incremental cost-effectiveness ratio: **$428 per QALY**

APHA PRESS

	Private	Public
	LPPI	SFGH
N	224	100
Recruitment Rate	79%	71%
Age in years	40 (14)	40 (11)
Female	40%	35%
Ethnicity		
White	63%	**44%**
African American	9%	**27%**
Hispanic	5%	**9%**
Asian American	7%	**11%**
Multiethnic/other	16%	**9%**
Education in years	14 (3)	13 (3)
Income <$20,000	60%	**81%**
Homeless	5%	**39%**
Private/self-pay	53%	**1%**

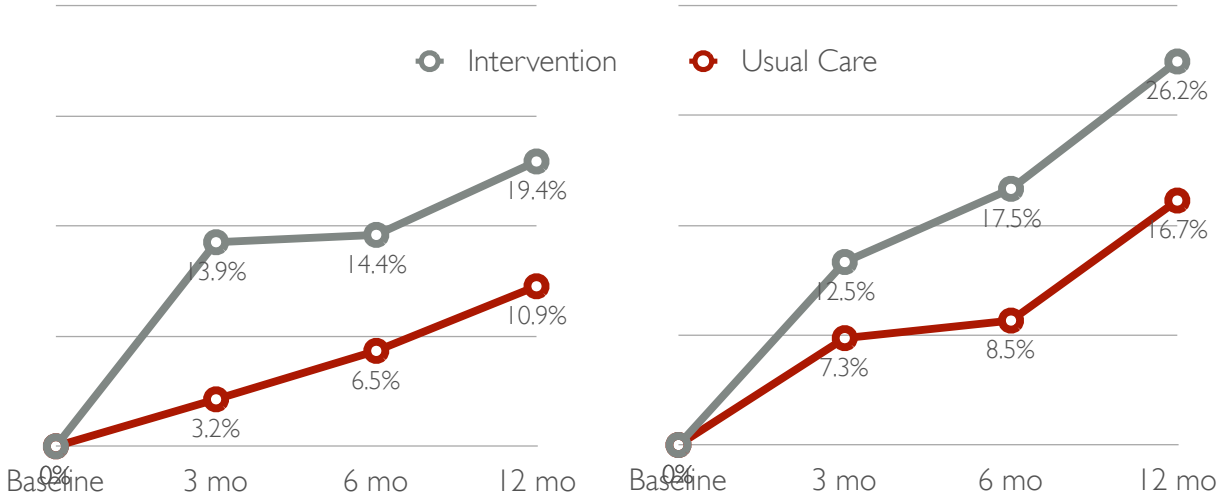
Nicotine & Tobacco Research, 2015, 1012–1021
doi:10.1093/ntr/ntv034
Original investigation

Original investigation

Treating Tobacco Dependence at the Intersection of Diversity, Poverty, and Mental Illness: A Randomized Feasibility and Replication Trial

Norval J. Hickman III PhD, MPH[1], Kevin L. Delucchi PhD[2], Judith J. Prochaska PhD, MPH[3]

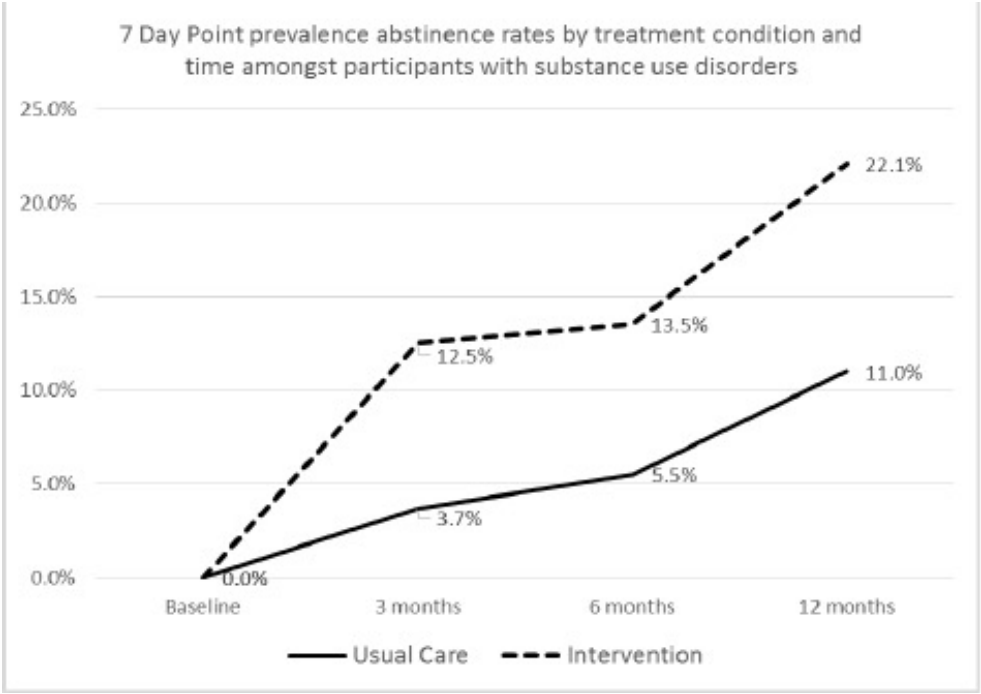
CESSATION OUTCOMES: Private & Public Hospitals



Prochaska et al. 2014 AJPH; Hickman et al. 2015 NTR

DUALLY-DIAGNOSED (N=216)

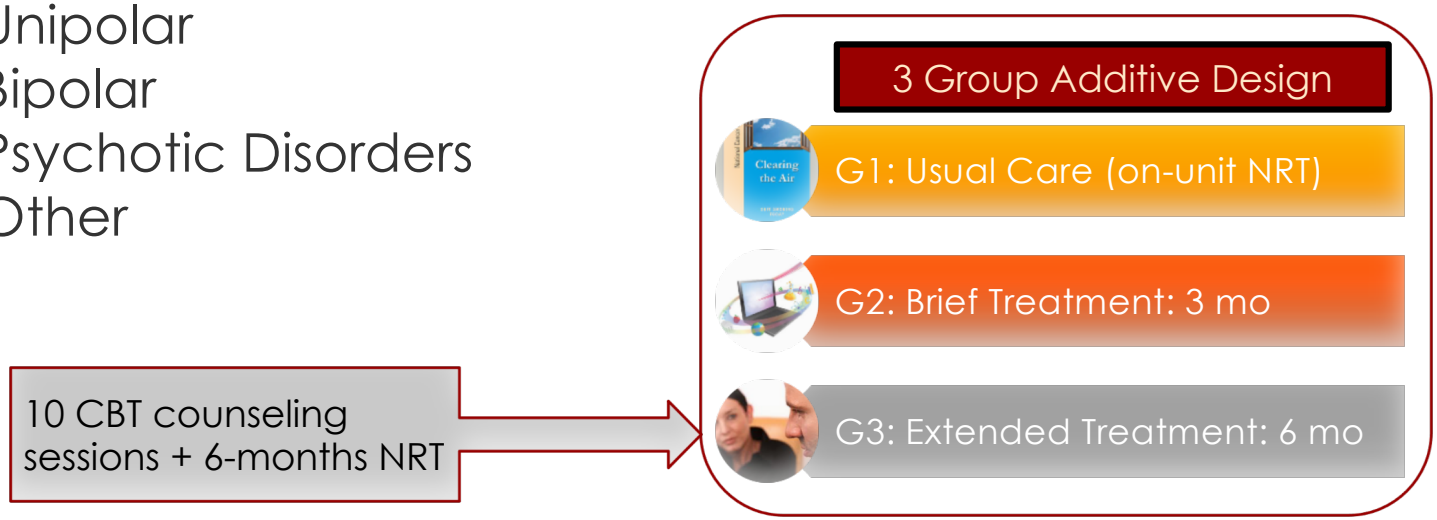
- Significant difference in smoking status by treatment group:
  - **12 month tobacco abstinence:** 22% TX group vs. 11% UC group (RR=2.01, 95% CI 1.05-3.83)
  - GEE model of treatment effect over time, OR=2.30;
    95% CI=1.08-4.90



Das, Hickman, & Prochaska (2017) J Addiction Med

STAR Study (N=956)

- Would 6-mo extended counseling + combination NRT (patch + gum/lozenge) be of interest and outperform our brief treatment?
- Would quit rates differ by diagnosis?
  - Unipolar
  - Bipolar
  - Psychotic Disorders
  - Other



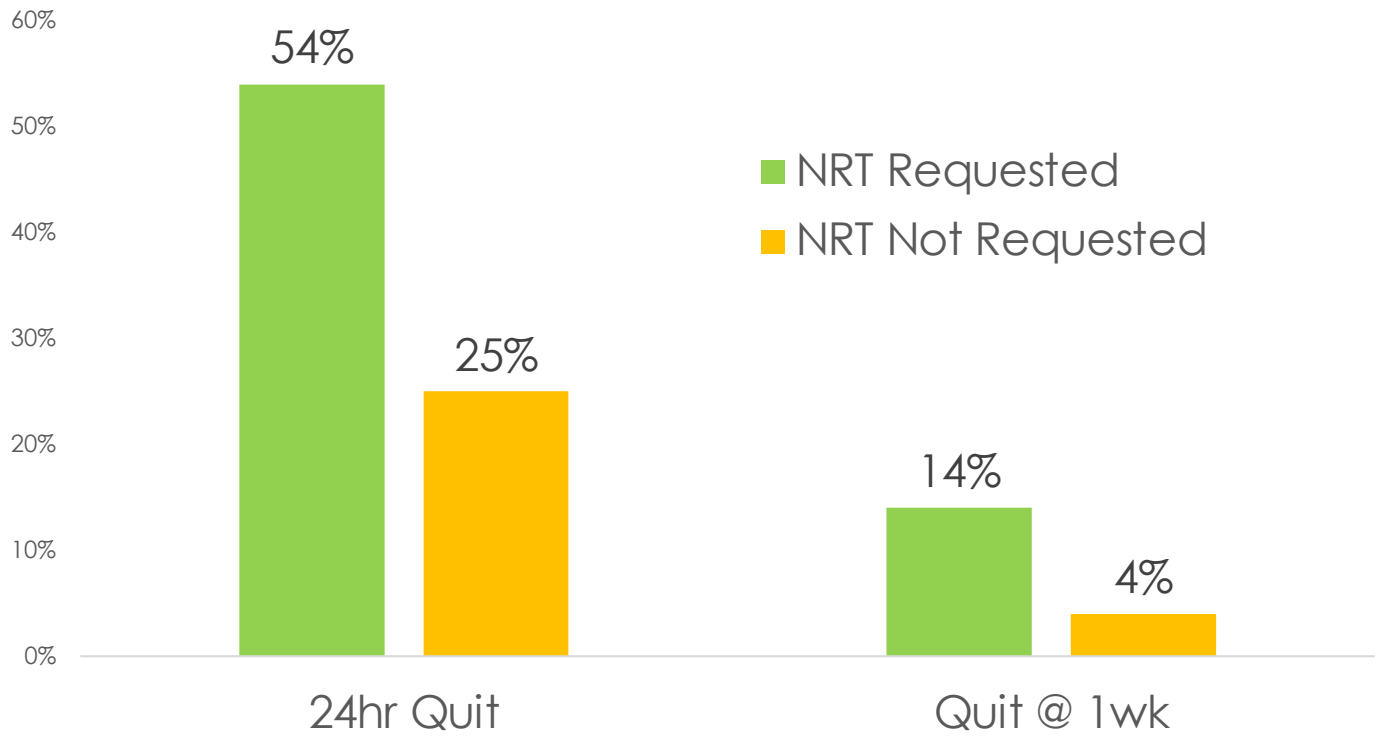
NRT USE

- **During hospitalization:**
  - Few (13%) refused NRT during hospitalization
    - Lower FTCD score, no prior NRT use

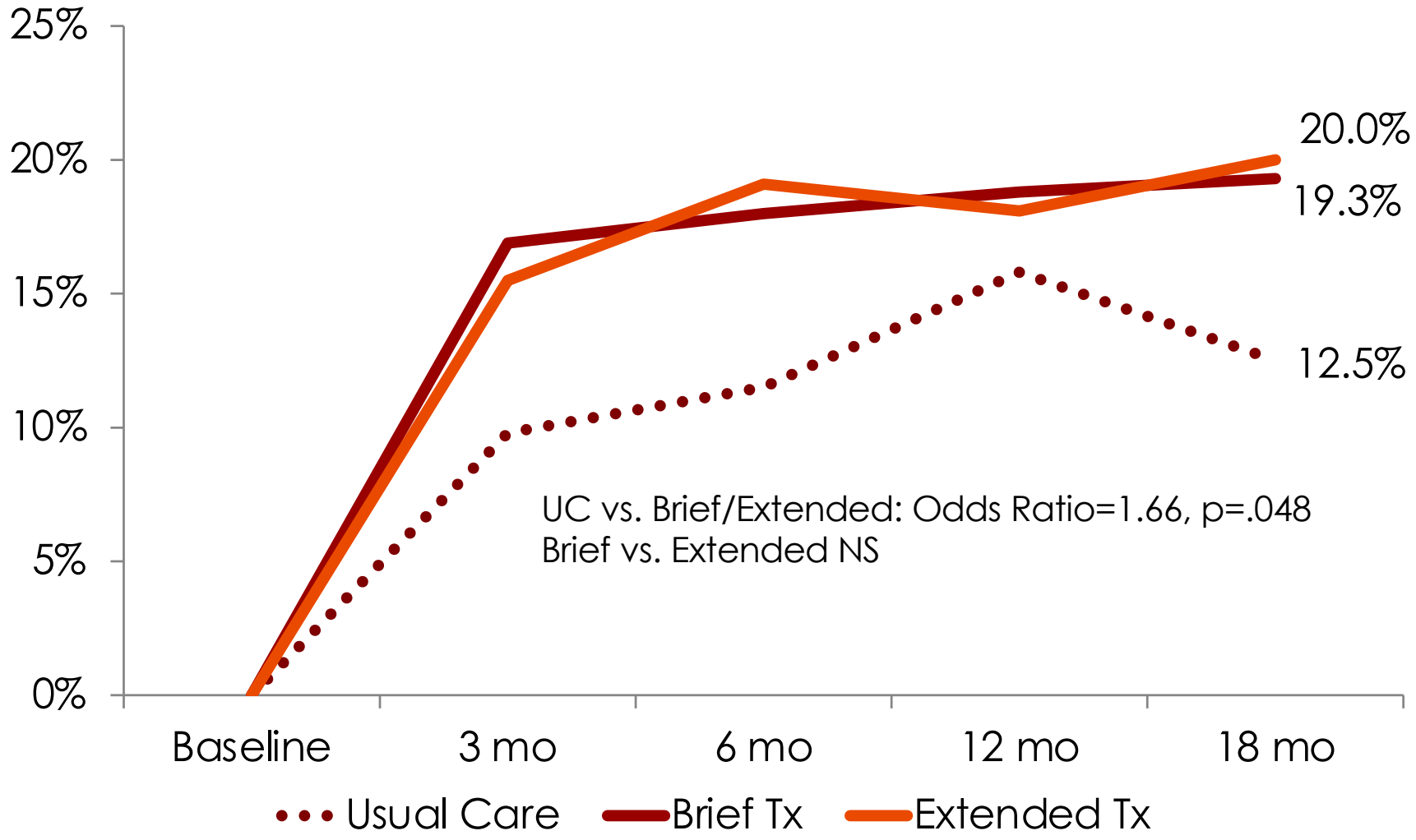
- **Post-Hospitalization:**
  - Most (88%) treatment participants used study-NRT post-hospitalization

Schuck et al. (2014) Tob Control

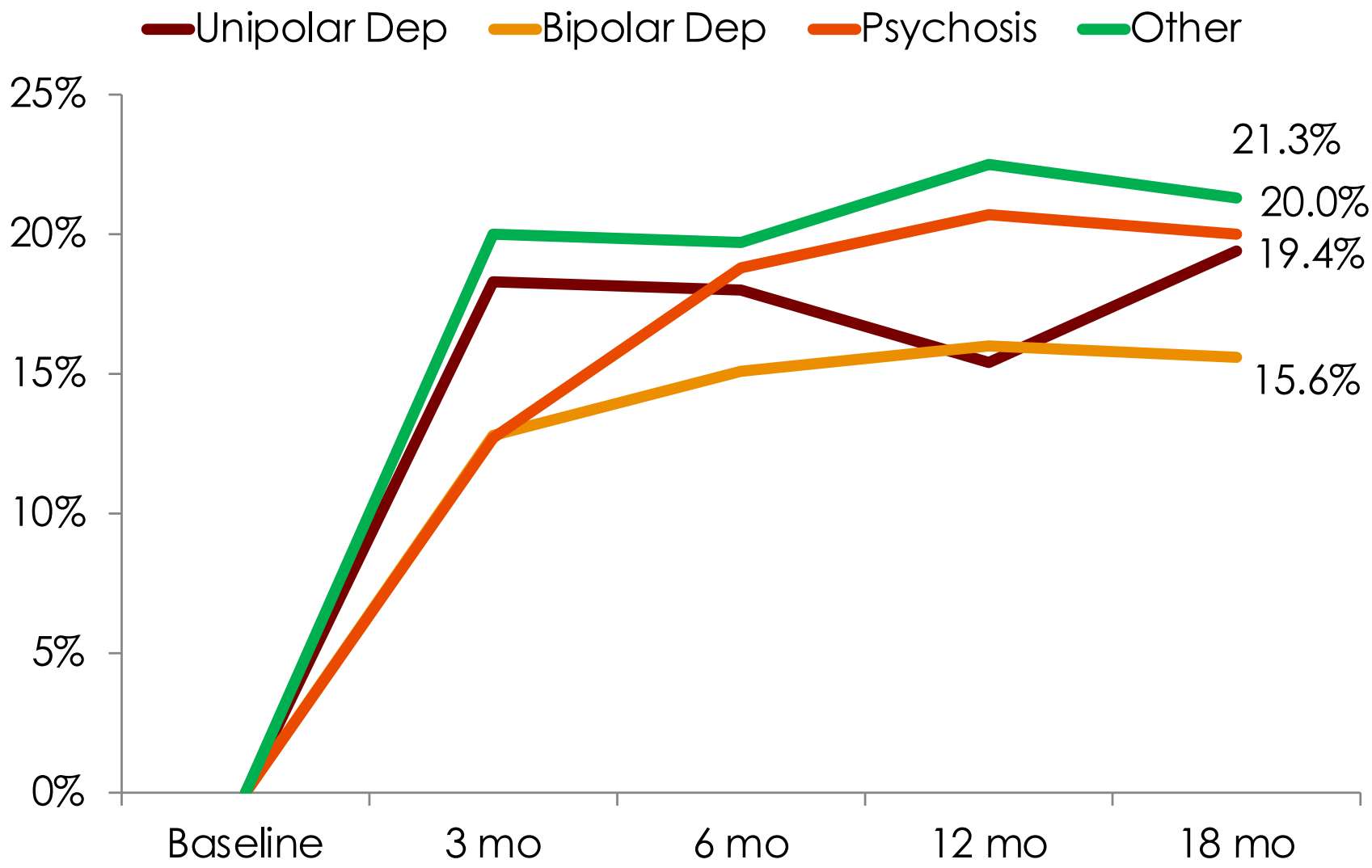
NRT Requested @ Hospital D/C and Smoking Status @ 1 week



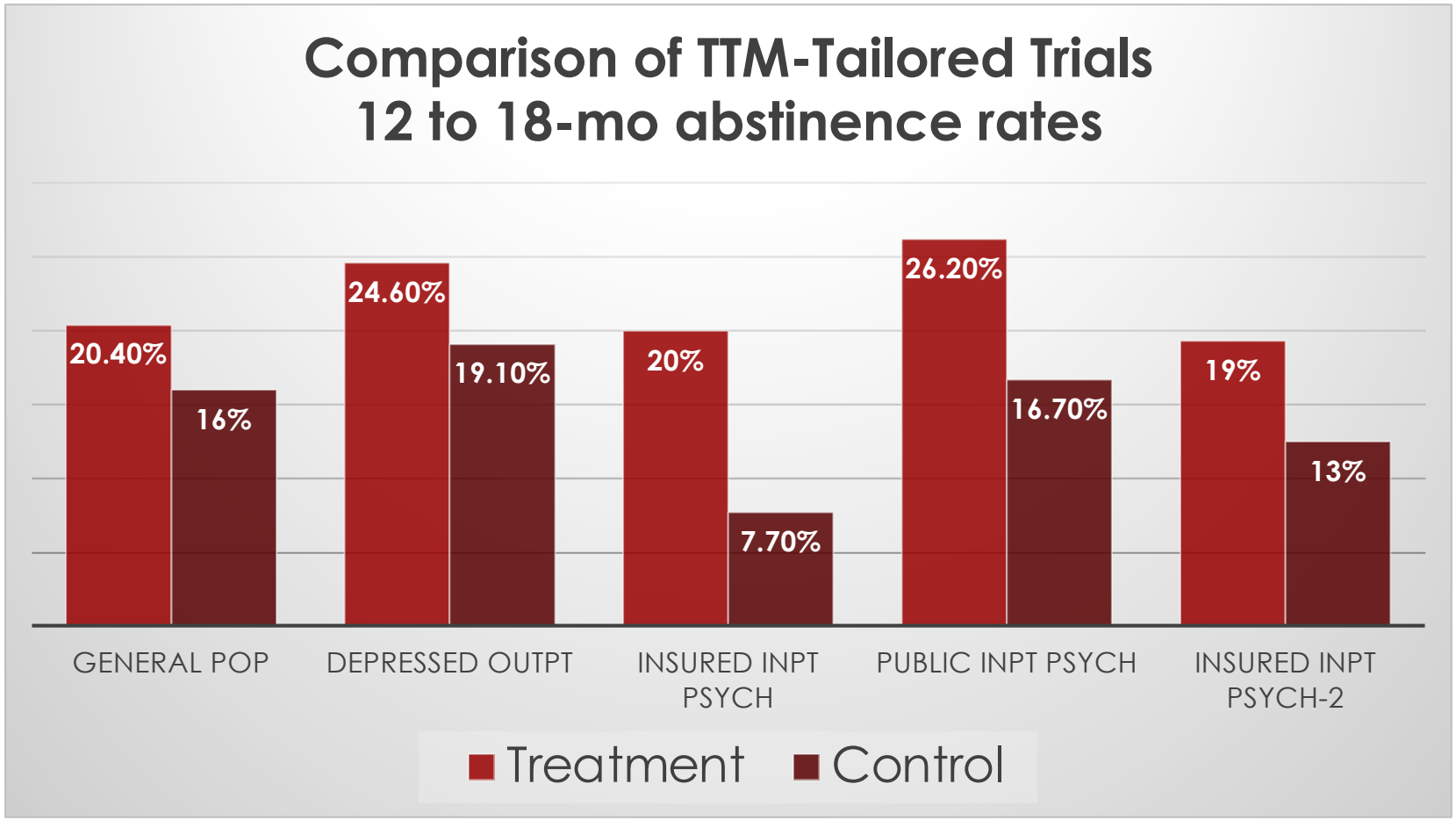
ABSTINENCE over TIME by CONDITION



ABSTINENCE OVER TIME by DIAGNOSIS



REPLICATION of TREATMENT EFFECTS



Hall (2006) AJPH; Prochaska (2014) AJPH; Hickman (2015) NTR

INTEGRATING TOBACCO TREATMENT within PTSD SERVICES

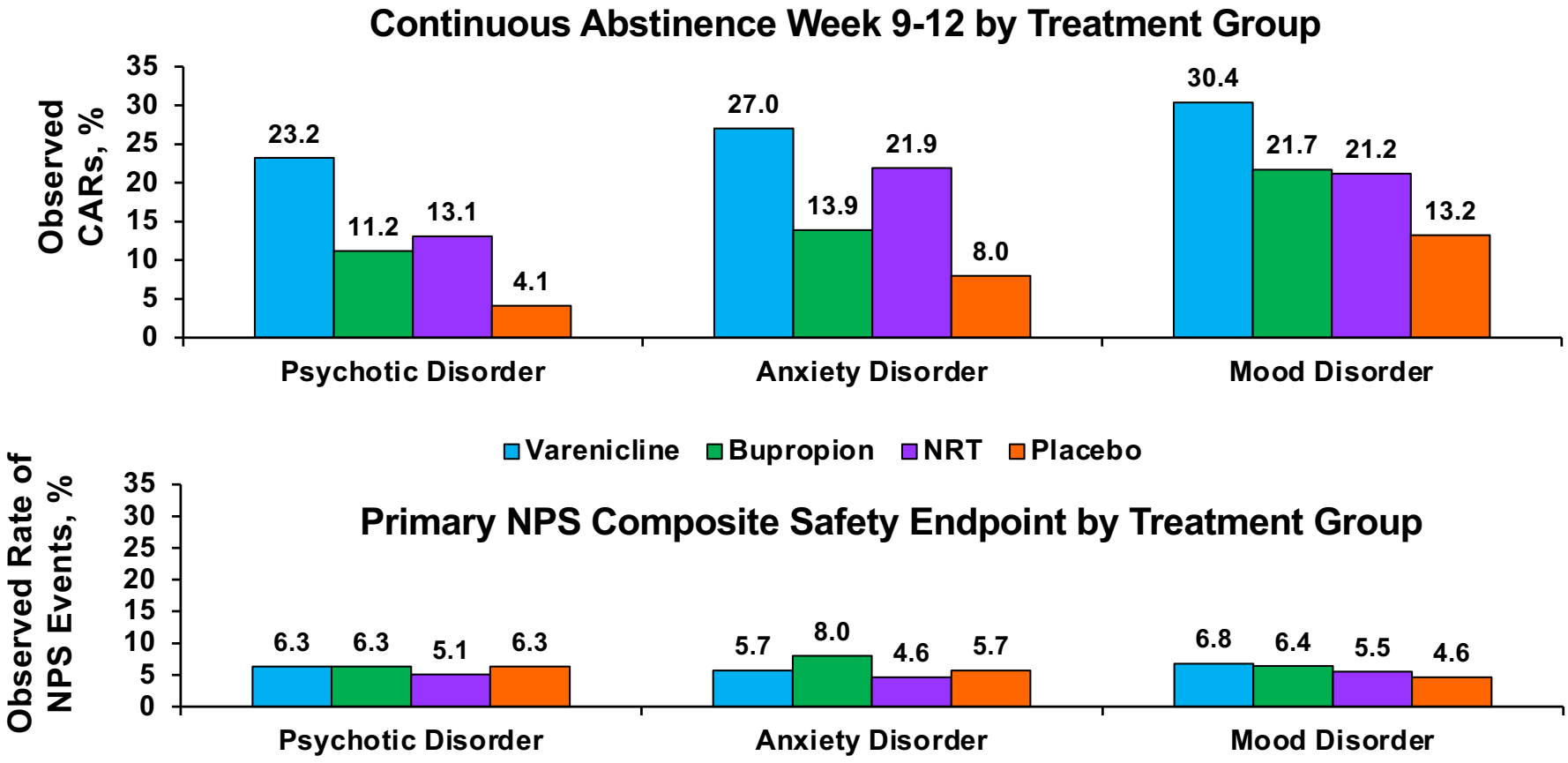
- Multi-site RCT with 943 clients from 10 VA Medical Centers, train-the-trainer model
- Integrated care (IC) vs. Usual care (UC)
- Cessation outcomes: **2-fold increase in quitting**
  - 18-mo 7 day PPA: IC 18.2% vs. UC 10.8%
- Strongest predictor of tx effect: # of counseling sessions received
- Quitting had no detriment on PTSD symptoms
- IC = $1,286 and UC = $551, for $32,257 per QALY

McFall et al 2010 JAMA
Barnett et al 2015 NTR

Efficacy & Neuropsychiatric Safety

in those with Psychotic, Anxiety & Mood Disorders: EAGLES Trial

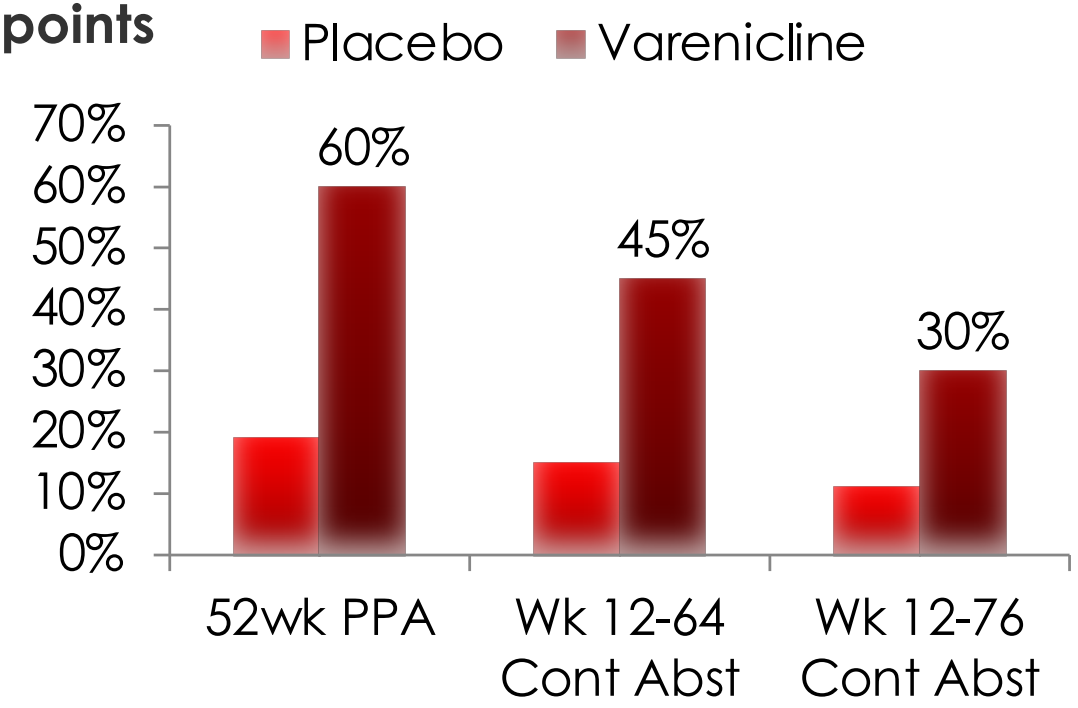
(N=8144, n=4116 psych+)



AE Evins (2019) J Clinical Psychopharmacol

52-WKs of VARENICLINE for RELAPSE PREVENTION in SCHIZOPHRENIA & BIPOLAR

- N = 87 participants
- 2+ wks cont abst @ wk 12 of open treatment
- Randomized to CBT with varenicline vs. placebo from wks 12-52 and followed to wk 76
- **Significant effects @ all time points**



Evins et al. (2014) JAMA

2 META-ANALYSES of BUPROPION for QUITTING SMOKING in PERSONS with SCHIZOPHRENIA

- 6 RCTs, N = 260 total (19 – 59)
- EOT: RR = 2.57 (95% CI 1.35, 4.88)
- 6 mo FU: RR = **2.78** (95% CI 1.02, 7.58)
- Gen Pop: RR = **1.69** (95% CI 1.53, 1.85)

Bupropion for quitting smoking found to be well tolerated in patients with schizophrenia who are stabilized on an adequate antipsychotic regime

Tsoi et al. (2010) Cochrane Lib
Banham & Gilbody (2010) Addiction

PUBLIC HEALTH POLICY

PRICE $ENSITIVITY

- Smoking by individuals with substance abuse or mental illness was significantly **sensitive to cigarette prices**:
  - 10% increase in price →18% decline in smoking

Ong et al. (2010) AJPH

SMOKING BANS in RESTAURANTS & BARS

- **Statewide smoking bans in restaurants and bars associated with lower smoking prevalence:**
  - 6% decline among men with alcohol use disorders
  - 10% decline among women with anxiety disorders
  - No effect for smokers with mood disorders

Smith, Young-Wolff, et al. (2014) NTR

Reducing Nicotine = Fewer Smokers

Decreasing nicotine in cigarettes could result in 5 Million fewer smokers within one year.

And prevent 33 Million from ever becoming a smoker.

Source: U.S. Food and Drug Administration

Typical Cig:
15.8 mg nicotine/gram tobacco

Low Nicotine Cig:
0.4 mg nicotine/gram tobacco or less

NICOTINE & SMOKING

- Low nicotine content cigarettes:
  - **Less reinforcing** than regular cigarettes in smokers with co-morbid substance use + affective disorders
  - **Reduced smoking + dependence** without worsening depressive symptoms in smokers with depressive symptoms
  - Evidence of **minimal compensatory smoking**

Higgins et al (2017) JAMA Psych;
Tidey et al (2017) NTR;
Pacek et al (2016) Drug Alc Dep;
Dermody et al (2016) Alc Clin Exp Res

Why the high prevalence of smoking in those with mental illness?

- Is it…
  - the diag
  - the env
  - the pro
  - the mar ıment?
- Is it the f

Is it inevitable?

ACTION POINTS

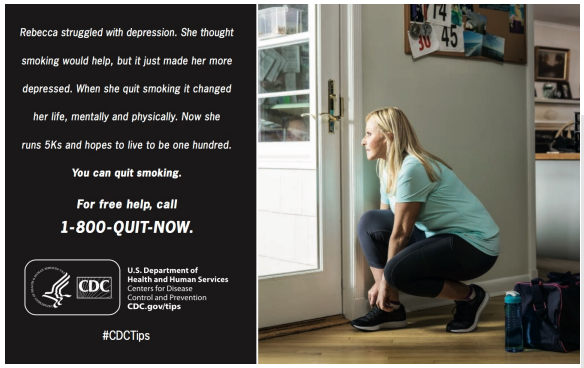
Integrative Approaches addressing the **Product**, **Person**, & **Treatment Systems**

- Ban the sale of **menthol tobacco**
- Raise **tobacco taxes**
- Prohibit **tobacco retailers** within 500 feet of MH treatment settings
- Adopt **smoke-free air laws** in treatment settings (+ bars / restaurants)
- Incorporate tobacco treatment in MH **professional training**

http://rxforchange.ucsf.edu

ACTION POINTS

Integrative Approaches addressing the **Product**, **Person**, & **Treatment Systems**



- **Counter marketing** (create the new norm)
- **Include BHPs** in tobacco treatment research, report on subgroup effects
- Treat tobacco use in frontline **MH staff**
- **Integrate** tobacco cessation into MH treatment
- Integrate MH consults within **quit-lines**
- Require **addiction graphic warning** label on cigarettes + cigars
- **Reduce nicotine** to minimally or non-addictive levels