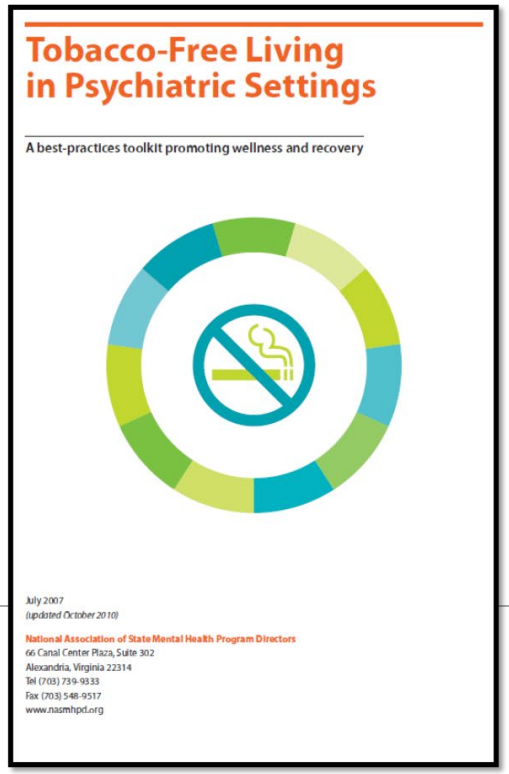
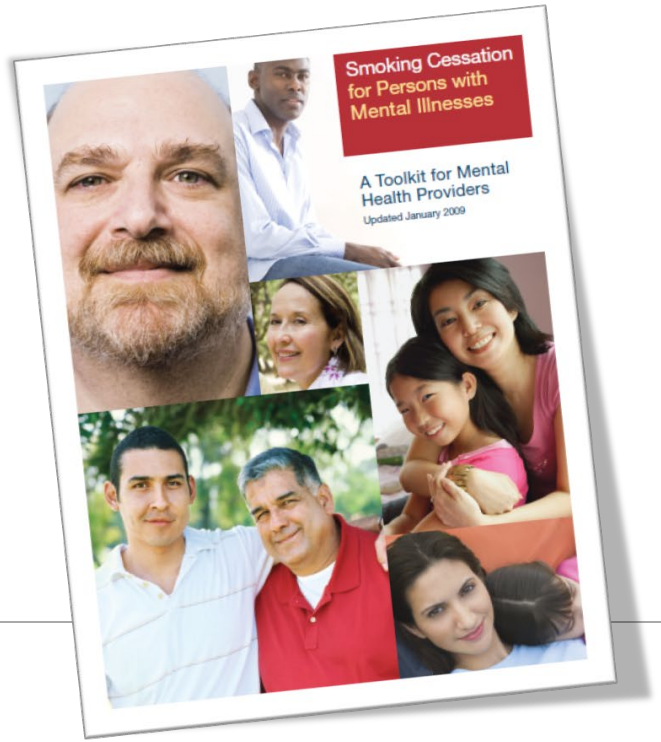
Tobacco Treatment Approaches for Individuals Living with Behavioral Health Challenges





Chizimuzo Okoli, PhD, MPH, MSN RN, NCTTP
Professor, University of Kentucky College of Nursing
Director of Tobacco Treatment Services, Eastern State Hospital

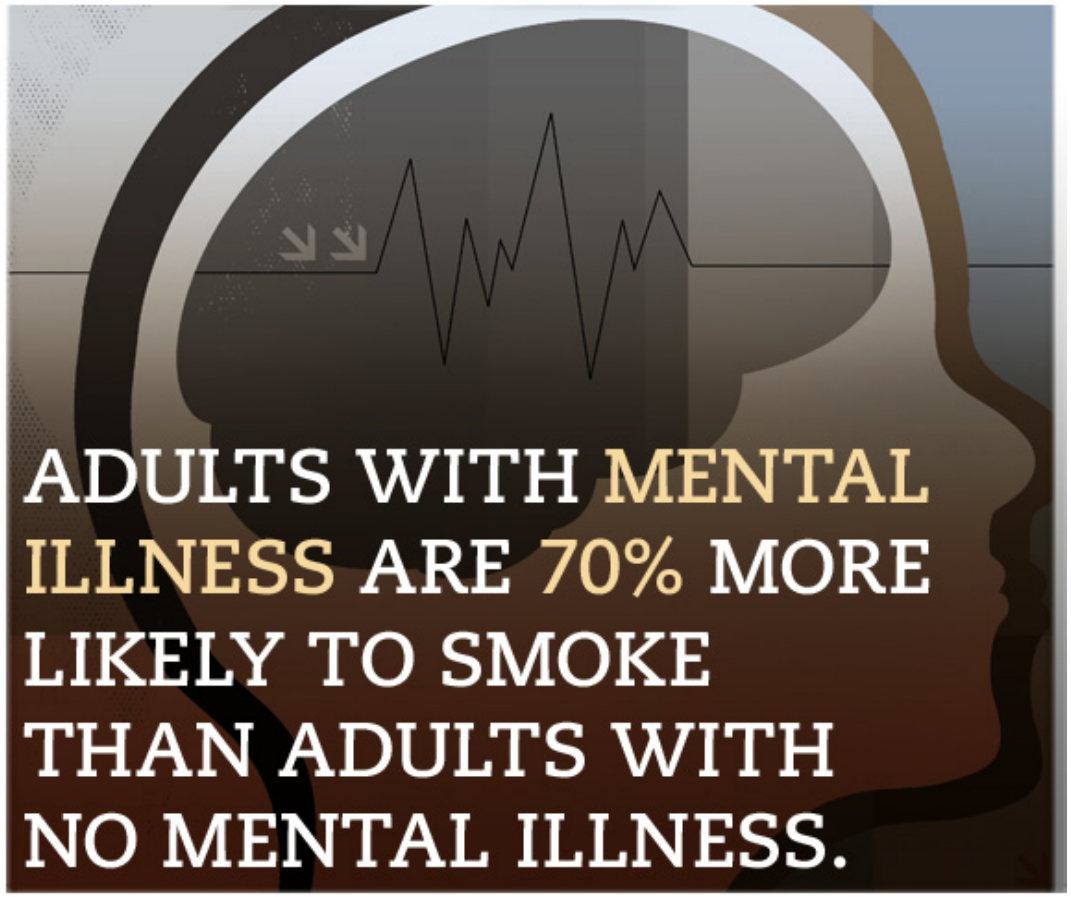
Learning outcomes

1. Discuss tobacco use among persons with behavioral health challenges

2. Examine best practices in tobacco treatment and policy implementation

3. Depict a logic model process for implementing tobacco control efforts within behavioral health systems

Background and Significance



Adverse effects of smoking among persons with behavioral health challenges

Smokers with Mental illness :

- Die 10-25 years earlier
- Have more depression and anxiety
- Have more substance use problems
- Have more cardiovascular and cardiopulmonary problems
- Are more likely to commit suicide
- Have sexual problems

Nonsmokers with Mental illness :

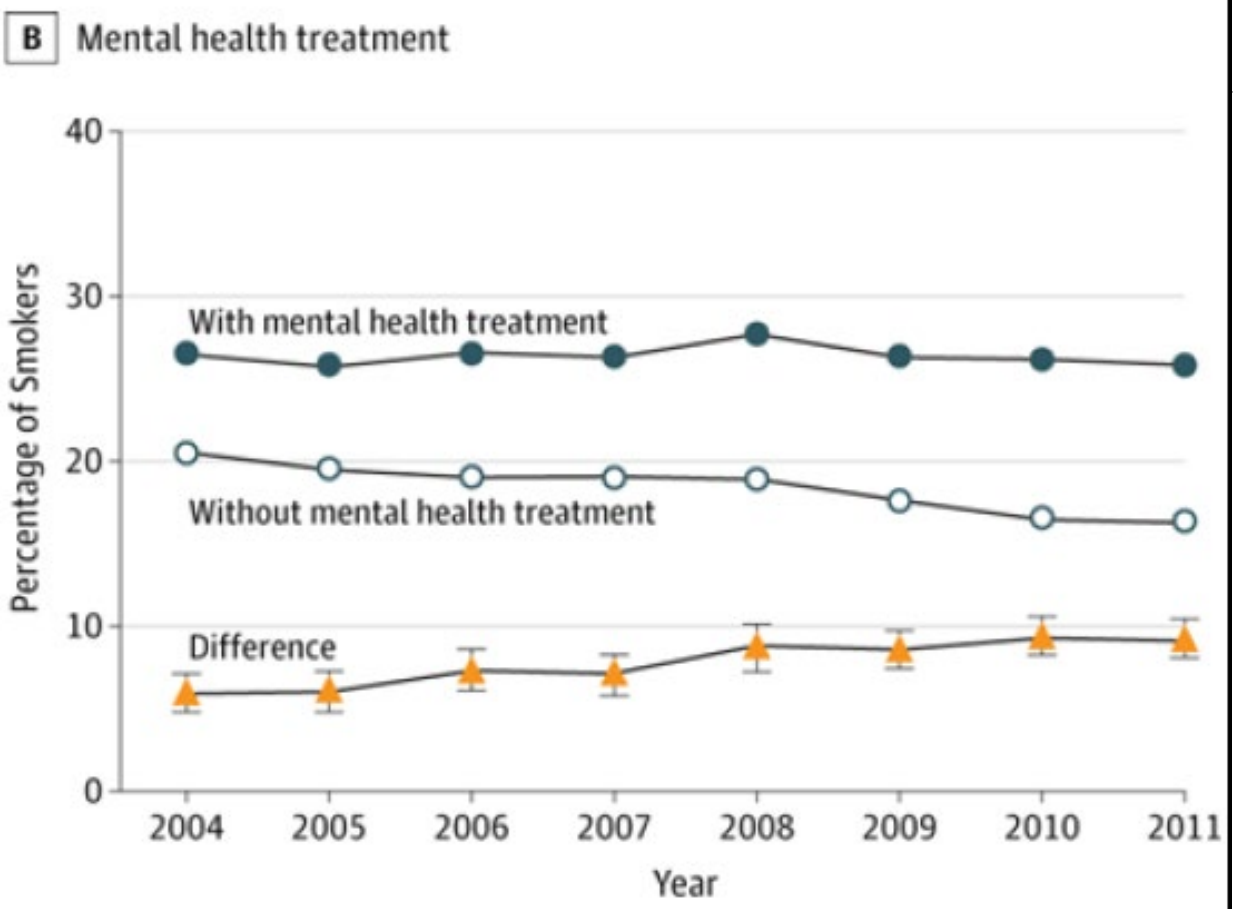
- Have better health
- Live longer
- Need less medication
- Have less depression
- Save more money

Smoking keeps consumers from achieving recovery:

- Reduces financial stability
- Decreases opportunities for jobs
- Decreases ability to secure housing

Parks, Svendsen, Singer, Foti (2006). Morbidity and Mortality in People with Serious Mental Illness. National Association of State Mental Health Program Directors (NASMHPD). Medical Directors Council www.masmhpd.org ; Hennekens CH, Circulation, 1998; 97:1095-1102; Steinberg ML, et al., Tobacco Control, 2004; Taylor et al., BMJ, 2014

Trends in smoking prevalence by mental health treatment status over time (2004 to 2011)



"This suggests that tobacco control policies and cessation interventions targeting the general population have not worked as effectively for persons with mental illness."

(SOURCE: 2004-2011 Medical Expenditure Panel Survey [MEPS])

Cook, B.; Wayne, G.; Kafali, E.; Liu, Z.; Shu, C.; Flores, M. Trends in smoking among adults with mental illness and association between mental health treatment and smoking cessation. *JAMA* **2014**, *311*, 172-182.

Clinical Practice Guidelines: Assessments and Intervention Planning

"All smokers with psychiatric disorders, including substance use disorders, should be offered tobacco dependence treatment, and clinicians must overcome their reluctance to treat this population…. Treating tobacco dependence in individuals with psychiatric disorder is made more complex by the potential for multiple psychiatric disorders and multiple psychiatric medications."

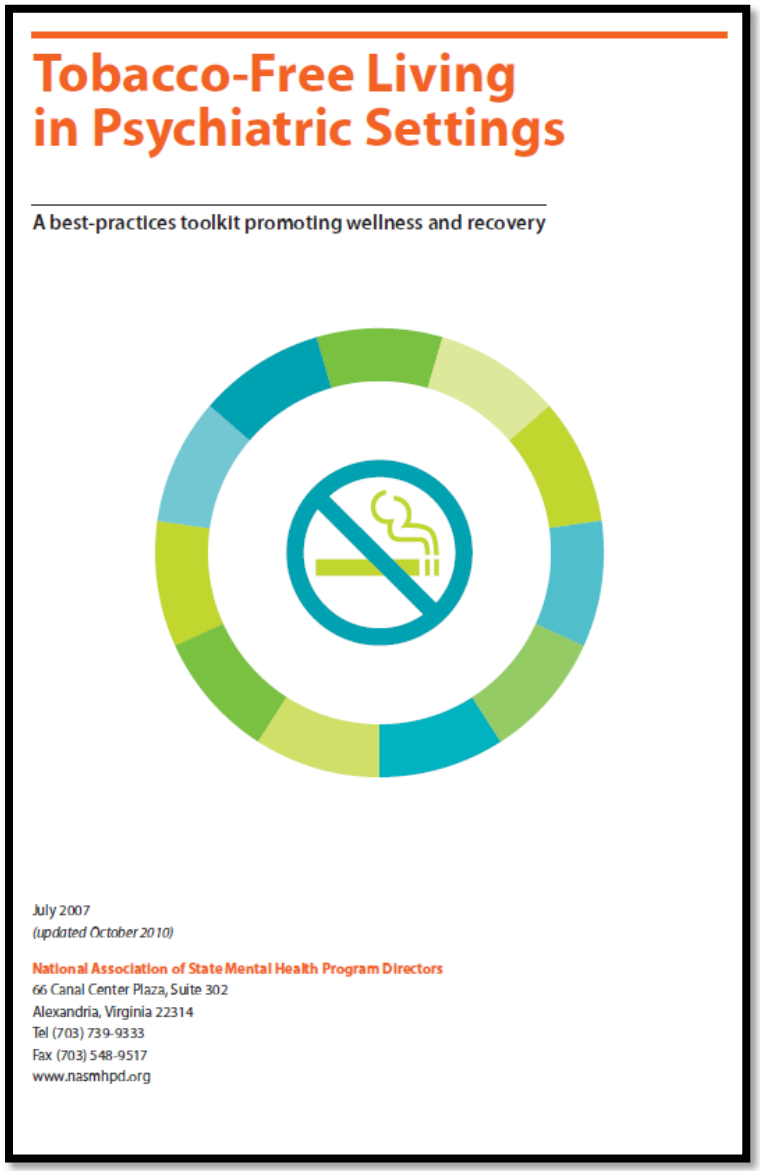
(*Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline)*

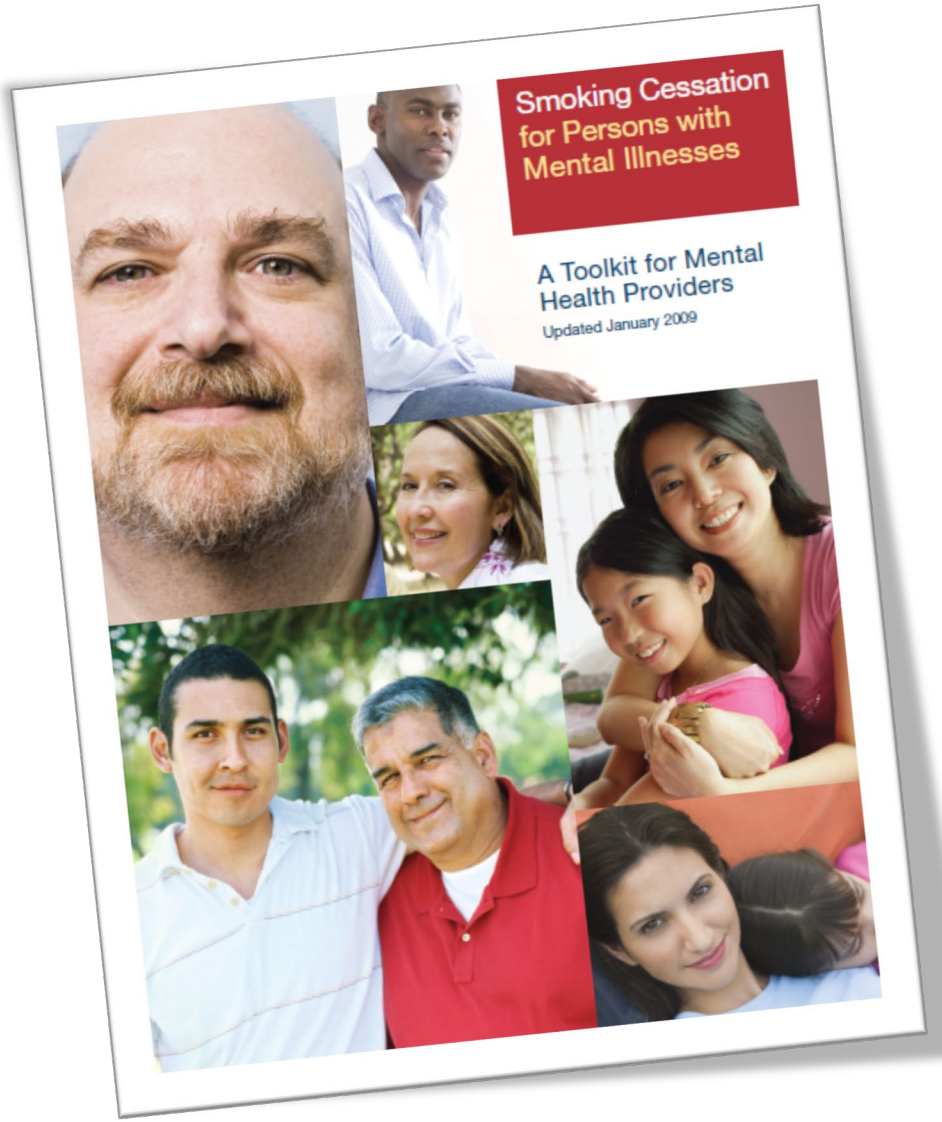
Fiore M, Jaén C, Baker T, et al. *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline.* Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. ;2008

CDC Recommendations for behavioral health settings

- Stopping practices that encourage tobacco use (such as not providing cigarettes to patients and not allowing staff to smoke with patients)
- Making entire campus 100% tobacco-free
- Including tobacco treatment as part of mental health treatment and wellness

http://www.cdc.gov/vitalsigns/pdf/2013-02-vitalsigns.pdf





https://www.samhsa.gov/sites/default/files/.../tobacco-free-psychiatric-settings.pdf
https://www.integration.samhsa.gov/Smoking_Cessation_for_Persons_with_MI.pdf

Going Tobacco Free: Overview

Planning:

- Situation
- Priorities
- INPUTS (RESOURCES)
- OUTPUTS (ACTIVITIES & PARTICIPANTS)

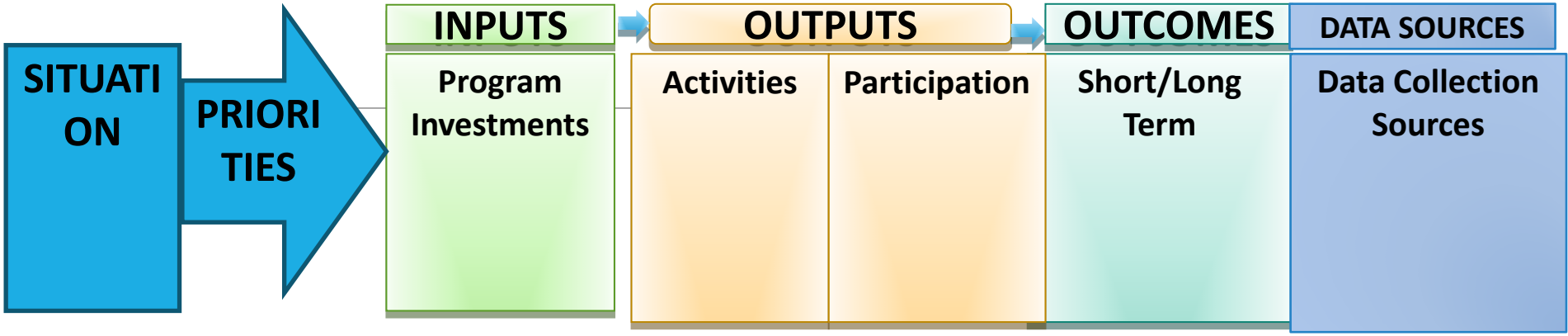
Implementation:

- Communication to staff and members
- Survey/Forms development
- Pre-implementation (baseline) Assessments
- Beginning of intervention
- Post implementation assessments

Evaluation

- RE-AIM Framework
- OUTCOMES
  - Process Evaluation
  - Outcome Evaluation

Logic Model for Implementation and Evaluation



Situation

Statement defining the need/purpose of your initiative.

For example “Need to provide a healthy environment to achieve wellness and recovery goals by de-normalizing tobacco use and promoting tobacco cessation”

Priorities

1) Implement Process
   a) Create Timeline
   b) Identify/develop data sources for monitoring outcomes
   c) Educate staff & members

2) Evaluate Process
   a) Process
   b) Outcome
   c) Impact

INPUTS (RESOURCES)

Components	Description
Partnerships	Senior Administrative Team, community partnerships e.tc.
Management	Internal Team
Data collection Personnel	IT, other staff
Funding	Grant or Internal funds
Databases	Electronic Medical Records, survey instruments
Data/Financial analysts	Identify Personnel
Posters/Signs	Obtain from Local Health Department, American Lung Association

Outputs (ACTIVITIES/PARTICIPATION)

1) Implement Process

a) Develop project timeline
b) Develop forms/Identify data sources for tracking outcomes
c) Present tobacco free campus messages all staff and members

2) Evaluate Process

a) Process: Determine Reach, Dose, Fidelity (Adherence)
b) Outcome: Short term (6-month) clinical, patient, program, & financial outcomes
c) Impact: Long term (1-year) clinical, patient, program, & financial outcomes

Sample Timeline

ITEMS	INITIATION	COMPLETION
Communication to staff and members (This could include incentive based contests!!)	Sept 2019	Dec 2019
Forms/Survey development	Sept 2019	Jun 2020
Pre implementation (Baseline) Assessments	Jul 2020	Dec 2020
Beginning of intervention	Jan 2021	--
Post-implementation assessments	Jul 2021	Dec 2021

Evaluation Framework: RE-AIM Model

Components	Description
Reach	Absolute number, proportion, and representativeness of participants
Effectiveness	The impact of the initiative/program on outcomes (including clinical, patient, program, and financial)
Adoption	Absolute number, proportion, and representativeness of settings or agents that are involved in the initiative
Implementation	Adherence or fidelity to the components or protocol of the initiative
Maintenance	Degree to which the initiative is institutionalized as part of routine practice Long term effect of the program beyond 6 months

Glasgow et al. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. Am J Public Health. 1999;89(9):1322---1327.
Gaglio et al. (2013). The RE-AIM framework: a systematic review of use over time. Am J Public Health, 103(6), e38-e46.

PROCESS/IMPLEMENTATION EVALUATION

Variable	Definition	Time Period	Data Source	Analysis
Reach	Number of staff & members to whom the intervention was delivered	6 months before/6- months after implementation	EMR HR records Surveys	-Frequencies (%)
Dose	Number of times digital signs shown, & number and types of posters put up	During implementation	-Tracking sheet	Counts
Fidelity	Adherence to the tobacco free initiative components (signage, education, providing smoking cessation)	After implementation	- A checklist of all initiative components	Yes vs. no

CLINICAL OUTCOME EVALUATION (EXAMPLES)

Variable	Definition	Time Period	Data Source	Analysis
Psych medication type and dose	Change in type and dose of psych medications provided to members	6-mnths pre and 6-mnths post	-EMR	- chi-square analysis (type) -Independent sample t-tests (dosage)
O2 levels	- Change in O2 levels of members	6-mnths pre and 6-mnths post	-EMR	-Independent sample t-tests (change in level)
Blood pressure	-Change in blood pressure of members	6-mnths pre and 6-mnths post	-EMR	-Independent sample t-tests (change in level)
Nicotine Replacement Therapy use	-Change in use of Nicotine Replacement Therapy by members	6-mnths pre and 6-mnths post	-EMR	-Independent sample t-tests (change in total number of prescriptions)

PATIENT & STAFF OUTCOMES EVALUATION (Examples)

Variable	Definition	Time Period	Data Source	Analysis
Tobacco cessation/ reduction	-Change in tobacco use and amount used by members	6-mnths pre and 6-mnths post implement ation	-EMR -Surveys	-Chi-square analysis (tobacco use status) -Independent sample t-tests (amounts)
Opinion and satisfaction with tobacco free initiative	-Change in opinion & satisfaction with initiative	6-mnths pre and 6-mnths post implement ation	-Survey	-Chi-square or independent sample t-tests (based on measurement)

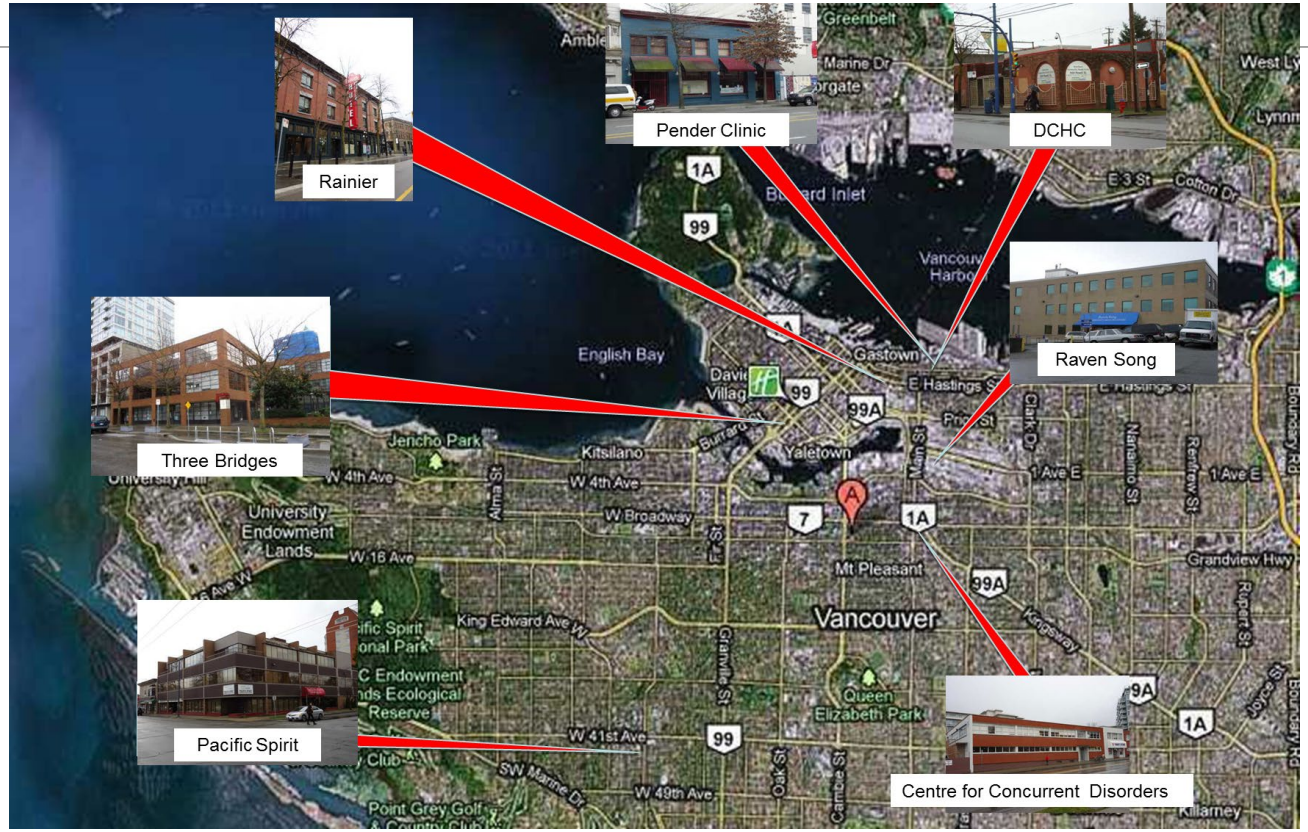
PROGRAM OUTCOME EVALUATION (EXAMPLE)

Variable	Definition	Time Period	Data Source	Analysis
Attendance & Program Utilization	Attendance at programs and utilization of programs	6-mnths pre/post	EMR	Independent sample t-tests (meant attendance)
Butt counts	-Butts on property	6-mnths pre/post	-Data collection tool	-Independent sample t-tests
Perceived initiative adherence	-Staff and member perceived initiative adherence	6-mnths post	-Survey	- Frequencies (%)

Implementing tobacco treatment programs within community mental health and addictions programs

Tobacco Dependence Clinics,

Vancouver Coastal Health Authority, British Columbia, Canada



1. Khara, M., & Okoli, C. T. (2011). The Tobacco-Dependence Clinic: Intensive Tobacco-Dependence Treatment in an Addiction Services Outpatient Setting. *The American journal on addictions*, *20*(1), 45-55.
2. Okoli, C. T., Anand, V., & Khara, M. (2017). A Retrospective Analysis of the Outcomes of Smoking Cessation Pharmacotherapy Among Persons With Mental Health and Substance Use Disorders. *Journal of Dual Diagnosis*, *13*(1), 21-28.

Phases of Treatment

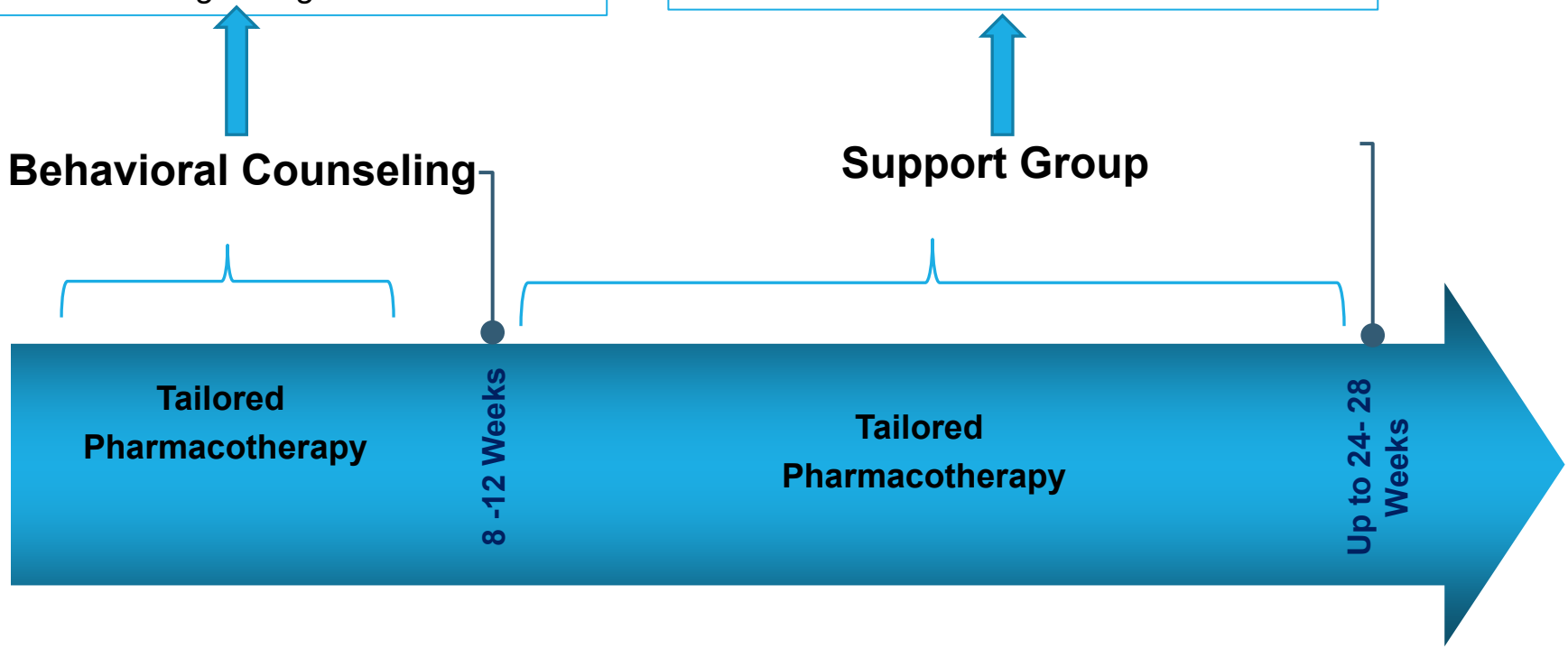
MANUALIZED 'CLOSED GROUP'

Phase 1: Process engagement – weeks 1-2

Phase 2: planning for change – weeks 3-4

Phase 3: sustaining change – weeks 5-8

NON MANUALIZED 'OPEN GROUP'

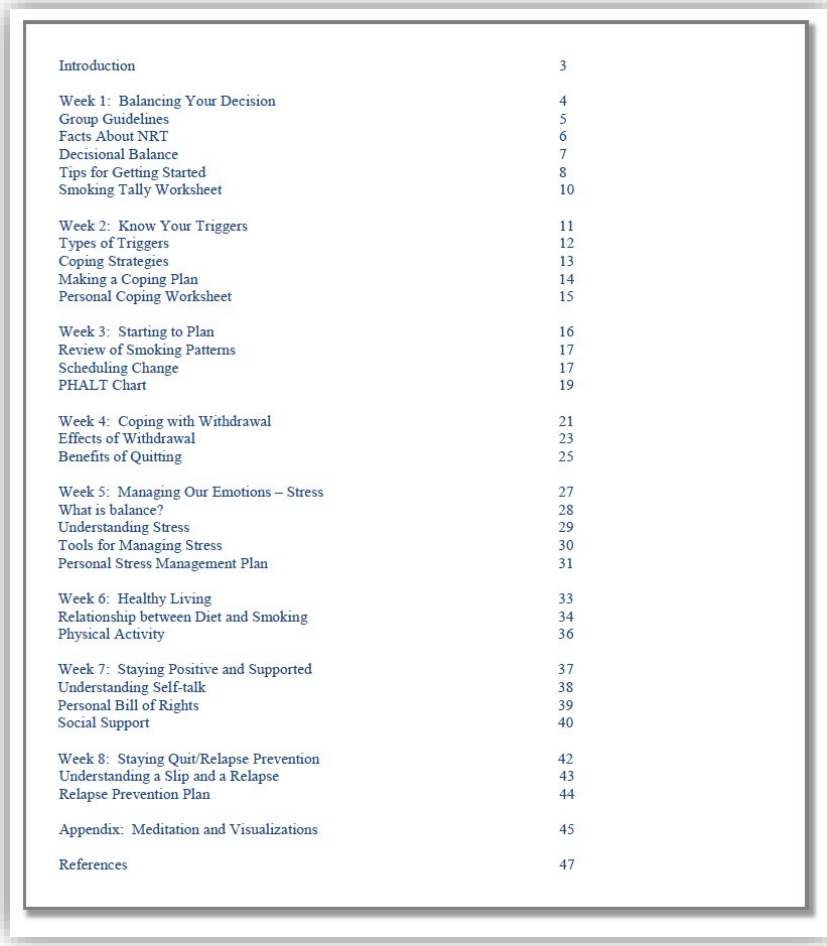


Behavioral Counseling (Weeks 1-8)

Phase 1: Engaging in the process – weeks 1-2

Phase 2: Planning for change – weeks 3-4

Phase 3: Sustaining change – weeks 5-8



Combination Pharmacotherapy

Nicotine Replacement Therapy

Patch

Gum

Lozenge

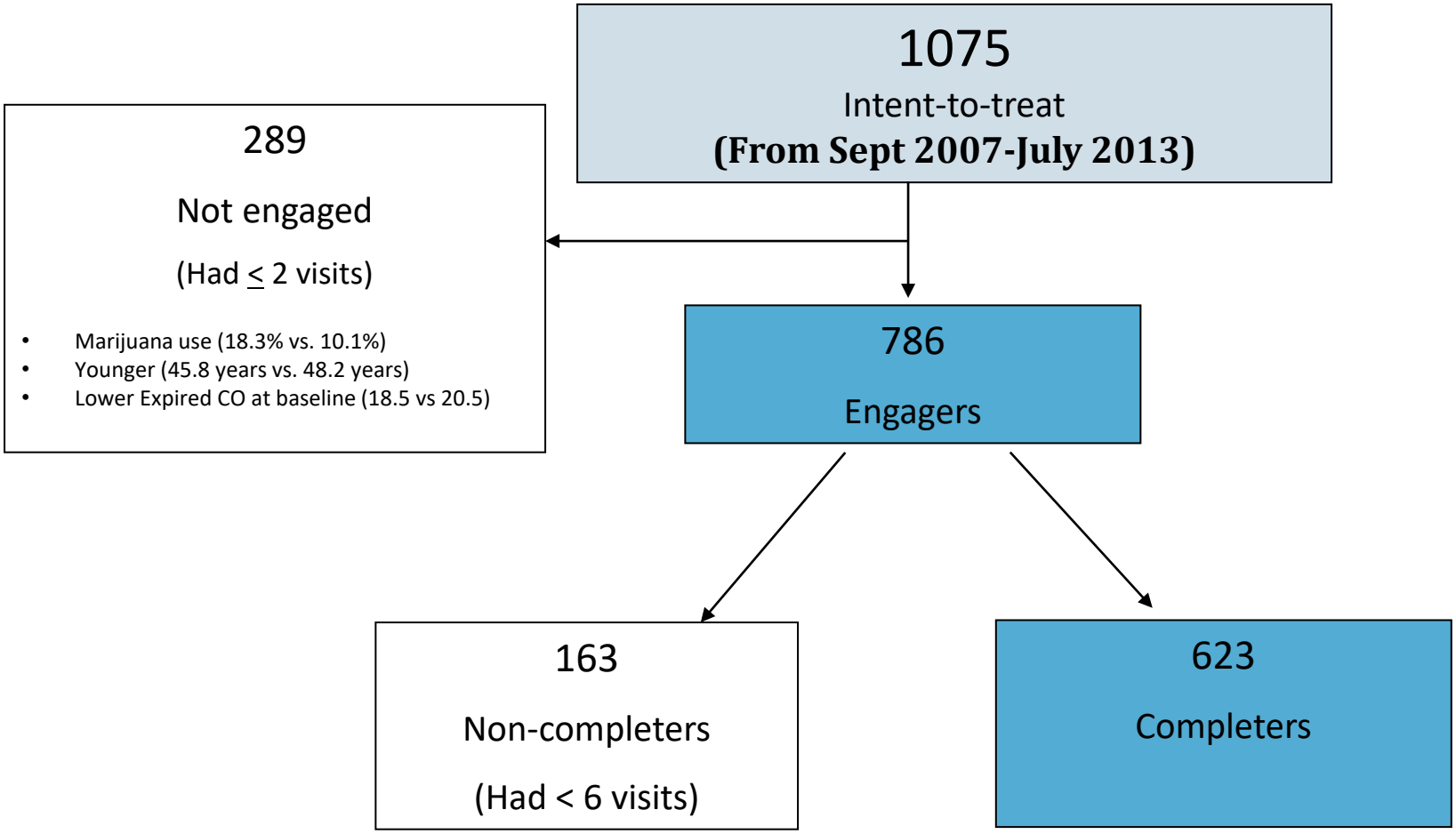
Inhaler

Oral Medications

Zyban

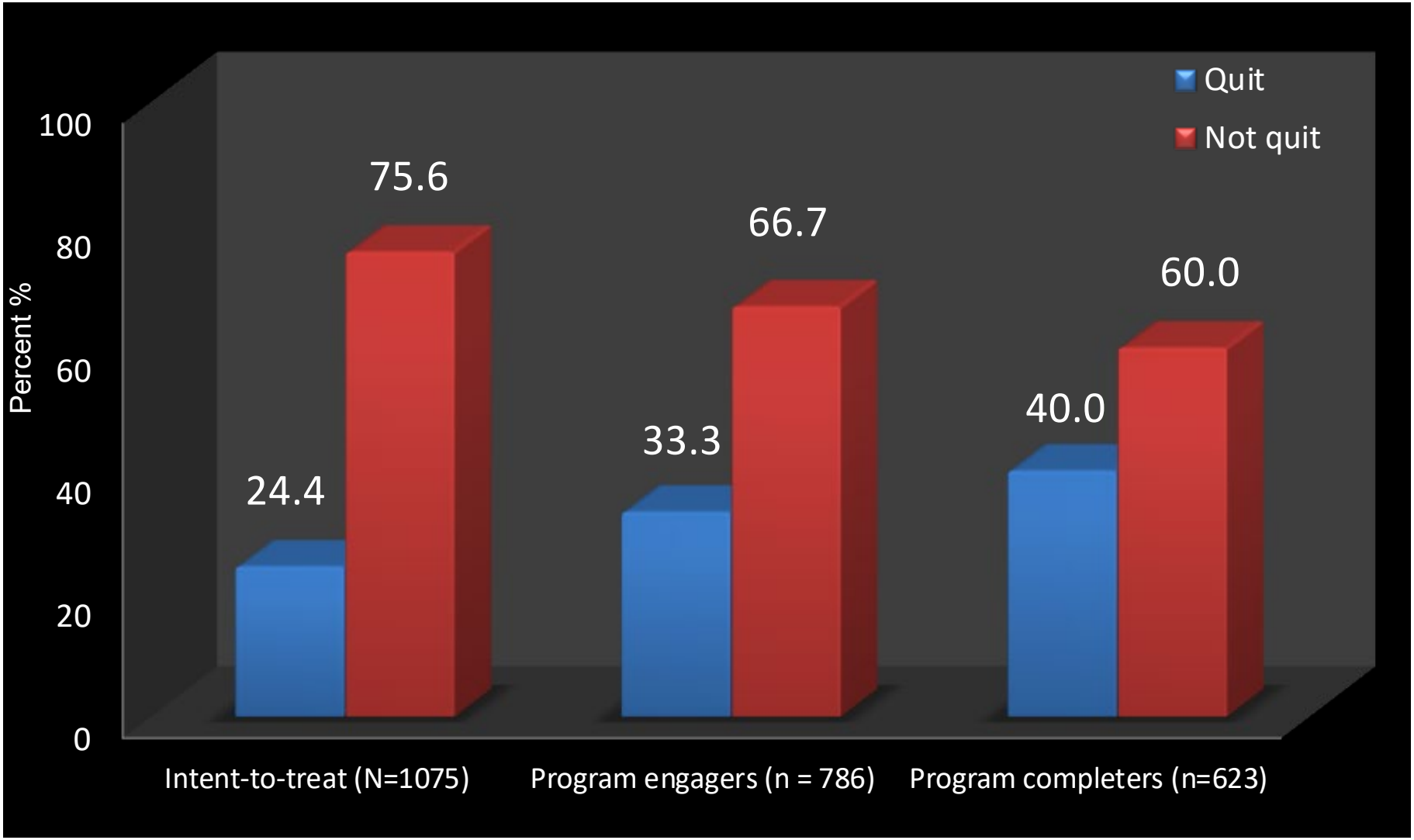
Chantix

Sample



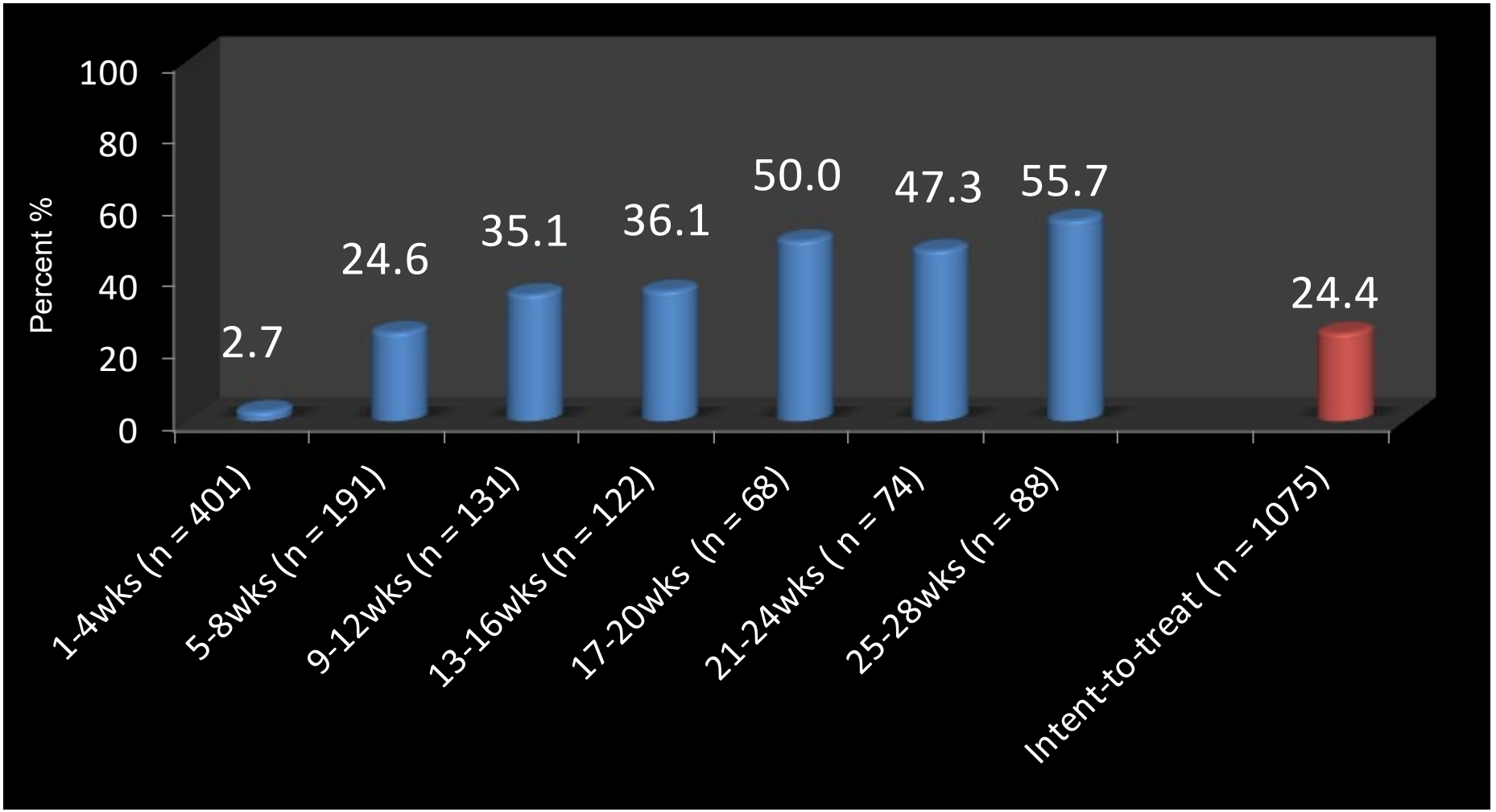
Analysis is based on a retrospective chart review of participants in the Tobacco Dependence Clinic program (between Sept 2007 and Mar, 2012) from 8 clinics, in Vancouver, Canada

Smoking cessation* outcomes at end-of-treatment



*Smoking cessation at end-of-treatment (i.e., anytime between 8 weeks to 26 weeks) based on 7-day point-prevalence of abstinence verified by expired CO levels

Smoking Cessation by length of stay in the program (n = 1075) Sept 2007-July 2013



Statistically significant linear-by-linear associations $\chi 2=195.7$ (df = 1), $p < .0001$

QUESTIONS?