

## Health Equity and Community Engagement

### DIFFERENTIAL CHANGES IN YOUTH TOBACCO USE BEFORE AND AFTER IMPLEMENTATION OF MASSACHUSETTS' STATEWIDE FLAVOR RESTRICTION POLICY

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**OBJECTIVES/GOALS:** This study examined youth tobacco use, disaggregated by sexual and gender minority (SGM) identity and race, in Massachusetts before and after the state implemented a flavored tobacco restriction. We assessed if the policy differentially impacted groups that have had higher rates of flavored tobacco use (i.e., SGM and African Americans [AAs]). **METHODS/STUDY POPULATION:** Data for this analysis came from the 2019 and 2021 Massachusetts Youth Risk Behavior Survey (YRBS), a biennial, national survey conducted among high school students, provided by the Massachusetts Department of Elementary and Secondary Education. Changes in current use of cigarettes and e-cigarettes between 2019 and 2021 were examined for the entire sample and by SGM identity and race/ethnicity. Current cigarette use and current e-cigarette use were defined as reporting any use of the product in the past 30 days. We received confirmation from the IRB that because the data are de-identified and available to the public, this research is considered Not Human Subjects Research. **RESULTS/ANTICIPATED RESULTS:** Between 2019 and 2021, current cigarette use and current e-cigarette use decreased for the entire sample (3.78% to 2.79% and 27.69% to 15.74%, respectively). Decreases were also observed after disaggregating results, but smaller changes were observed among minoritized groups (i.e., SGM and AAs), particularly for e-cigarettes. Current e-cigarette use decreased 25.56% among individuals identifying as SGM (28.14% to 20.95%) compared to a 49.33% decrease among non-SGM individuals (27.63% to 14.0%). Among all races, AAs had the lowest prevalence of current e-cigarette use in 2019 (15.10%), but also saw the lowest percentage decrease (17.68%). Among whites, current e-cigarette use decreased 45.75% from 32.33% in 2019 to 17.54% in 2021. **DISCUSSION/SIGNIFICANCE:** After implementation of Massachusetts' flavored tobacco restriction, current cigarette and e-cigarette use declined among Massachusetts youth overall and among groups that have been most affected by flavored tobacco. However, minoritized groups (i.e., SGMs, AAs) had lower percentage decreases compared to non-minoritized groups.

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### Designing a parent-adolescent-provider intervention to support adolescent girls' use of dual prevention strategies: Results from the Teen and Parent Survey

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**OBJECTIVES/GOALS:** This study examines health provider and caregiver influences on adolescent dual prevention strategies, or the use of condoms and another form of contraception, to inform clinically

focused triadic intervention, involving caregivers, adolescents aged 15-17, and health providers. **METHODS/STUDY POPULATION:** Data for the 2021 Teen and Parent Survey were two online, cross-sectional surveys, a national sample of adolescents aged 15-19, and a survey of caregivers of 15-17-year-old adolescents. Data were matched to create a dyadic dataset (n=273). Drawing from the Actor-Partner-Dependence Model we will conduct a secondary retrospective analysis, specifically cross-sectional univariate, bivariate, and multivariate logistic regression analyses on sets of influences around contraception and sexual health: communication with parents and health providers, information delivery of sexual health, condom attitudes and self-efficacy around preventative behaviors. **RESULTS/ANTICIPATED RESULTS:** In preliminary unadjusted analyses, 91% of the sample were cis-gender females (n=249), of which 32% (n=87) had sexual contact with someone who could get them pregnant. In the past, 35% (n=86) discussed birth control pills and 9% (n=24) discussed long-acting contraception with a health provider. In the last health visit, 29% (n=72) discussed STI prevention. Caregivers discussed sexual decision-making (49%, n=144), how to prevent pregnancy (62%, n=169), and how to prevent STIs (55%, n=151) at least once in the past year. At last sex (n=49) most used condoms (47%, n=23), followed by birth control pills (33%, n=16), and withdrawal (14%, n=7). Additional predictors and adjusted analyses will be further examined. **DISCUSSION/SIGNIFICANCE:** Dual prevention strategies can be influenced by caregivers and health providers, but they are contingent on communication. Triadic interventions may consider involving both caregiver and health provider communication around sexual health prevention.

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### Translating Alzheimer's Disease Research to Improve Dementia Screening Through Health Message Design in the Community: A Qualitative Study

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**OBJECTIVES/GOALS:** This study engaged Black adults who reside in a rural area of Kentucky to explore their beliefs, norms, knowledge, attitudes, and health-related behaviors about Alzheimer's disease (AD) (RQ1) and what message elements are most relevant for designing a health message aimed at encouraging them to get screened for AD (RQ2). **METHODS/STUDY POPULATION:** This qualitative study was guided by the Integrative Model of Behavior. Participants were recruited from a faith-based institution in rural Kentucky. Black adults aged 50+ years were invited to participate in the study, which consisted of two focus groups. Group 1 gained information about behavioral determinants (RQ1) and examined which message design elements were important to Black adults by asking for feedback on a handout from the Alzheimer's Association that encouraged AD screening (RQ2). The handout was redesigned based on feedback from Group 1. Group 2 was involved in a discussion of the redesigned handout, asking for further feedback. Focus groups were audio recorded and transcribed

verbatim. Data analysis included thematic analysis of transcripts of the focus groups and quantitative analysis. RESULTS/ANTICIPATED RESULTS: Participants (N=18) were all female and Black with a mean age of sixty-two years. For RQ1, Results revealed that 1) limited knowledge of AD led to feelings of not being able to do anything about the disease, whereas awareness and education led to hope; 2) past healthcare experiences informed subsequent beliefs and behaviors, and 3) culture impacted beliefs, with a cultural norm of “what happens in our house, stays in our house” being prominent. For RQ2, results revealed the importance of regionally specific messaging for AD. Generic statements that applied broadly did not appeal to participants. Message delivery, layout, and format for low literacy individuals are key for maximizing audience impact. Pictures give hints about the message and aid in understanding. DISCUSSION/SIGNIFICANCE: Barriers such as past experiences, lack of knowledge, and cultural norms negatively impact the likelihood that Black adults will get screened for AD, resulting in delayed healthcare or healthcare avoidance. Regionally specific health messaging for AD has the potential to encourage modifications in health-related behaviors.

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### **Ethnoracial Disparities in Subjective Cognitive Decline Among Sexual Minority Men in the U.S.\*†**

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OBJECTIVES/GOALS: Sexual minority men (SMM) of color are at greater dementia risk than their White and non-SMM counterparts. The purpose of this study is to examine the relative effects of ethnoracial minority status, sexual minority status, and the intersection of both on dementia risk for men in the U.S. using subjective cognitive decline (SCD) as a proxy for dementia. METHODS/STUDY POPULATION: Data will be weighed to represent population estimates from 35 states' 2019-2022 Behavioral Risk Factor Surveillance System Survey to describe SCD among 4 study groups consisting of SMM and non-SMM who are from minoritized ethnoracial groups (i.e., minoritized ethnoracial gay and bisexual men, minoritized ethnoracial heterosexual men), and White SMM and White non-SMM (i.e., White gay and bisexual men, White heterosexual men) aged ≥45 years. Logistic regressions and adjusted odds ratios will determine SCD prevalences and test for differences between prevalence and demographic characteristics (i.e., education, employment, income, marital status, health coverage, and depression). RESULTS/ANTICIPATED RESULTS: Due to excess chronic stress from belonging to multiple intersecting marginalized identities, we expect that SMM from minoritized ethnoracial groups will have a greater prevalence and higher odds of SCD after accounting for demographic factors when compared to groups that benefit from both “White Privilege” and heterosexism (White non-SMM, White SMM, and minoritized ethnoracial non-SMM). We also expect the odds of SCD to be higher in minoritized ethnoracial SMM when compared to White non-SMM and minoritized ethnoracial non-SMM. The odds of SCD are expected to be higher in White SMM compared to White non-SMM.

DISCUSSION/SIGNIFICANCE: This is the first population-based study to apply an intersectional lens to examine dementia risk across the axes of race, sexual orientation, and gender identity. Findings from this study can inform targeted interventions to address the needs and experiences of LGBTQ+ subgroups at risk or living with dementia.

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### **Developing a community laundromat intervention to increase reproductive health literacy outreach**

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OBJECTIVES/GOALS: The project goal was to conduct formative work using community-based participatory research (CBPR) to inform the development of a laundromat-based reproductive health literacy intervention (LI) informed by Passhe-Orlow and Wolf's Conceptual Model. We provide insights to support the development of similar health literacy interventions. METHODS/STUDY POPULATION: In Phase I, we recruited female patrons over the age of 18 living in DC from 4 community laundromats. Participants completed a survey with validated measures to assess reproductive health knowledge, self-efficacy, and intentions to seek care. Open-ended questions assessed participants' experiences accessing care, communication with health providers, and laundromat use. Data informed the development of a 2-3 minute reproductive health literacy intervention (LI) storyboard. In Phase II, in-depth interviews were conducted with reproductive health providers (midwives, obstetricians-gynecologists, women's health registered nurses, women's health nurse practitioners) working in the communities where the laundromats are located. LI acceptability and appropriateness were explored. RESULTS/ANTICIPATED RESULTS: For Phase I, we recruited 60 patrons. Participants (68.3%) expressed interest in a laundromat-based reproductive health literacy intervention (LI). Identified reproductive knowledge gaps included: unaware of fertile days (50.0%); believe prenatal care should begin after 2nd trimester of pregnancy (50.0%); unclear about pregnancy spacing (85.0%); unable to identify use for folic acid (91.7%); believe once a cesarean always a cesarean (53.3%). In Phase II, all 14 providers supported increasing community accessibility to health information: “we have to move beyond doing public health education in a provider's office. That's very outdated.” Providers identified the LI as an approachable, informative, and accessible way to disseminate health information. DISCUSSION/SIGNIFICANCE: Patron and provider input informed our choice of content, style, and delivery of the reproductive health literacy intervention. An essential aspect of our CBPR approach, this research will inform effective, appropriate reproductive health education despite barriers presented by access, transportation, and work schedules.