Investigating Poly-Tobacco Use among Mississippi Middle and High School Students

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BACKGROUND

Poly-tobacco use is the combined use of cigarettes and other forms of tobacco (e.g., smokeless tobacco, cigars, pipes; Bombard, Pederson, Koval, & O’Hegarty, 2009). Using multiple forms of tobacco may lead to increased health problems, such as increased nicotine exposure, and nicotine addiction (Bombard, Pederson, Nelson, & Malarcher, 2007). Adolescents who engage in poly-tobacco use, compared to cigarette only users, are at an increased risk for participating in deviant behavior, such as skipping school and driving under the influence (Bombard et al., 2009). There is also an increased risk of using other substances such as illicit drugs and alcohol (Bombard et al., 2009). Young adults, adolescents, and males are the populations indulging in higher rates of poly-tobacco use (Bombard et al., 2009). According to Bombard et al. (2009), half of adolescents that smoke cigarettes currently are also poly-tobacco users.

OBJECTIVE

To determine the percentage of Mississippi middle and high school students who engage in poly-tobacco use and to investigate the trend of tobacco use as youth shift away from cigarette use only.

METHODOLOGY

Participants

110,660 Middle School Students
- Female: 48.7%, Male: 51.3%
- White: 42.3%, Black: 50.7%, Other: 7%

137,060 High School Students
- Female: 50.3%, Male: 49.7%
- White: 41.0%, Black: 52.6%, Other: 6.4%

2011 Mississippi Youth Tobacco Survey

A multi-stage sample design was applied with public middle and high schools selected proportional to enrollment size. Classrooms were chosen randomly within selected schools and all students in selected classes were eligible for participation. Data were collected by means of an anonymous and confidential self-administered questionnaire. The questions were group administered in classrooms during a normal class period by teachers following standardized procedures.

RESULTS

Very few tobacco users are using cigarettes exclusively; specifically, 19.4% of middle school students and 24.4% of high school students use cigarettes only. For poly-tobacco use, middle school students and high school students were most likely to use cigarettes and cigars (13.1% and 22.8%, respectively). The prevalence of any current tobacco use decreased from 2000 to 2011 for both middle school students (25.7% to 10.6%, p < .05) and high school students (37.3% to 26.1%, p < .05). However, poly-tobacco use among tobacco users increased substantially during this time period.

DISCUSSION & FURTHER IMPLICATIONS

Results suggest that adolescents are engaging in poly-tobacco use, indicating a shift from cigarette only use to other tobacco products. Tobacco programs and policies could benefit from changing prevention efforts from cigarettes only to other forms of tobacco use.

KEY

Cigarette Smoker Only
Cigarette & Cigar Smoker
Cigar Smoker Only
SLT User Only
Current Cigarette
Current Cigar
Current SLT
SLT User & Cigarette
Cigarette & SLT User
Cigarette, Cigar, & SLT User

Females (43.8%) are smoking more cigarettes exclusively compared to males (14.5%), p < .001.
Males (27.8%) are using more cigarettes.
Cigars, and SLT in combination compared to females (4.2%), p < .01.
Black students (23.5%) are smoking more cigars exclusively compared to white students (2.9%), p < .001.
White students (14.7%) are using more cigarettes and SLT in combination compared to black students (2.9%), p < .001.

Males (32.9%) are using more SLT exclusively compared to females (7.5%), p < .01.
White students (41.0%) are using more SLT exclusively compared to black students (5.4%), p < .01.
White students (18.5%) are using more cigarettes and SLT in combination compared to black students (2.9%), p < .01.
Black students (25.6%) are using more cigarettes and cigars in combination compared to white students (5.0%), p = .001.

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