

## **A Randomized Trial of the Effect of E-cigarette TV Advertisements on Intentions to Use E-cigarettes.**

Farrelly MC<sup>1</sup>, Duke JC<sup>2</sup>, Crankshaw EC<sup>2</sup>, Eggers ME<sup>2</sup>, Lee YO<sup>2</sup>, Nonnemaker JM<sup>2</sup>, Kim AE<sup>2</sup>, Porter L<sup>3</sup>.

### **Author information**

<sup>1</sup>RTI International, Research Triangle Park, North Carolina. Electronic address: mcf@rti.org.

<sup>2</sup>RTI International, Research Triangle Park, North Carolina.

<sup>3</sup>Florida Department of Health, Tallahassee, Florida.

### **Abstract**

#### **INTRODUCTION:**

Adolescents' use of electronic cigarettes (e-cigarettes) and exposure to e-cigarette TV advertising have increased in recent years, despite questions about their safety. The current study tests whether exposure to e-cigarette TV advertisements influences intentions to use e-cigarettes in the future and related attitudes.

#### **METHODS:**

A parallel-group randomized controlled experiment was conducted and analyzed in 2014 using an online survey with a convenience sample of 3,655 U.S. adolescents aged 13-17 years who had never tried e-cigarettes. Adolescents in the treatment group viewed four e-cigarette TV advertisements.

#### **RESULTS:**

Adolescents in the treatment group reported a greater likelihood of future e-cigarette use compared with the control group. ORs for the treatment group were 1.54 ( $p=0.001$ ) for trying an e-cigarette soon; 1.43 ( $p=0.003$ ) for trying an e-cigarette within the next year; and 1.29 ( $p=0.02$ ) for trying an e-cigarette if a best friend offered one. Adolescents in the treatment group had higher odds of agreeing that e-cigarettes can be used in places where cigarettes are not allowed (OR=1.71,  $p<0.001$ ); can be used without affecting those around you (OR=1.83,  $p<0.001$ ); are a safer alternative to cigarettes (OR=1.19,  $p=0.01$ ); and are less toxic (OR=1.16,  $p=0.03$ ).

#### **CONCLUSIONS:**

Exposure to e-cigarette advertising had relatively large and consistent effects across experimental outcomes. Together with the simultaneous increase in e-cigarette advertising exposure and e-cigarette use among adolescents, findings suggest that e-cigarette advertising is persuading adolescents to try this novel product. This raises concerns that continued unregulated e-cigarette advertising will contribute to potential individual- and population-level harm.

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