

MDAnderson Cancer Center

Making Cancer History®

# **ASPIRE & Other Tools From Youth & Family Cancer Prevention Program**

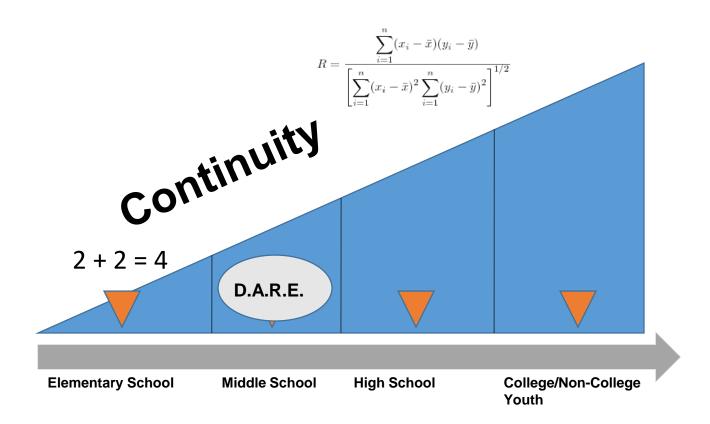
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## **Prevention of Tobacco Use Among Youth**

- The goal raise a new generation of **youth free of nicotine dependence**
- More than **36 years of experience** in creating tobacco prevention programs
- Teacher-taught curricula have not shown lasting effect
- Tobacco prevention are often perceived as "boring" (rightfully!)
- e-Technology offers unparalleled opportunities to deliver prevention
- Kids love technology
- Entertainment education might be a key component in tobacco prevention

#### **Our Vision for Health Education**



#### **Publications**

informa

Nicotine & Tobacco Research Volume 10, Number 9 (September 2008) 1477-1485

Impact of A Smoking Prevention Interactive Experience (ASPIRE), an interactive, multimedia smoking prevention and cessation curriculum for culturally diverse high–school students

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Received 13 August 2007; accepted 26 February 2008

Few studies have examined the long-term efficacy of computer-based smoking prevention and cessation programs. We analyzed the long-term impact of A Smoking Prevention Interactive Experience (ASPIRE), a theoretically sound computer-based smoking prevention and cessation curriculum for high school students. Sixteen predominantly minority, inner-city high schools were randomly assigned to receive the ASPIRE curriculum or standard care (receipt of the National Cancer Institute's Clearing the Air self-help booklet). A total of 1160 students, 1098 of whom were nonsmokers and 62 smokers at baseline, were included. At 18-month follow-up, among baseline nonsmokers, smoking initiation rates were significantly lower in the ASPIRE condition (1.9% vs. 5.8%, p<0.05). Students receiving ASPIRE also demonstrated significantly higher decisional balance against smoking and decreased temptations to smoke. Differences between groups in self-efficacy and resistance skills were not significant. There was a nonsignificant trend toward improved smoking cessation with ASPIRE, but low recruitment of smokers precluded conclusions with respect to cessation. ASPIRE demonstrated the potential for an interactive multimedia program to promote smoking prevention. Further studies are required to determine ASPIRE's effects on cessation.

#### Introduction

School-based interventions hold considerable promise with regard to tobacco control education and promoting tobacco-free lifestyles among youth. The school environment is compelling because most

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Correspondence: Alexander V. Prokhorov, The University of Texas M. D. Anderson Cancer Center, PO Box 301439—Unit 1330, Houston, TX 77230-1439, USA. Tel: +1 (713) 745 2382; Fax: +1 children and adolescents spend much of the daytime at school, can be easily reached there, and are more receptive to health-related educational programs in a disruption-free atmosphere than elsewhere (Botvin, 2000). Short-term studies of school-based smoking prevention programs have reported lower rates of subsequent youth smoking (Dent et al., 1995; Sussman et al., 1993). However, mixed evidence exists with respect to the efficacy of school-based smoking prevention programs, and there has been no demonstrated lasting effect on smoking prevalence (Wiehe, Garrison, Christakis, Ebel, & Rivara, 2005).

School-based smoking cessation programs have traditionally encountered recruitment, dissemination, and fidelity challenges. Most youth smokers who intend to quit smoking are not aware of the availability of smoking cessation programs at their Nicotine 8 Tobacco Research, 2017, 908–915
doi:10.1092/htt/hnx/308
Original investigation
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Original investigation

#### The Short-term Effects of ASPIRA: A Web-based, Multimedia Smoking Prevention Program for Adolescents in Romania: A Cluster Randomized Trial

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#### Abstract

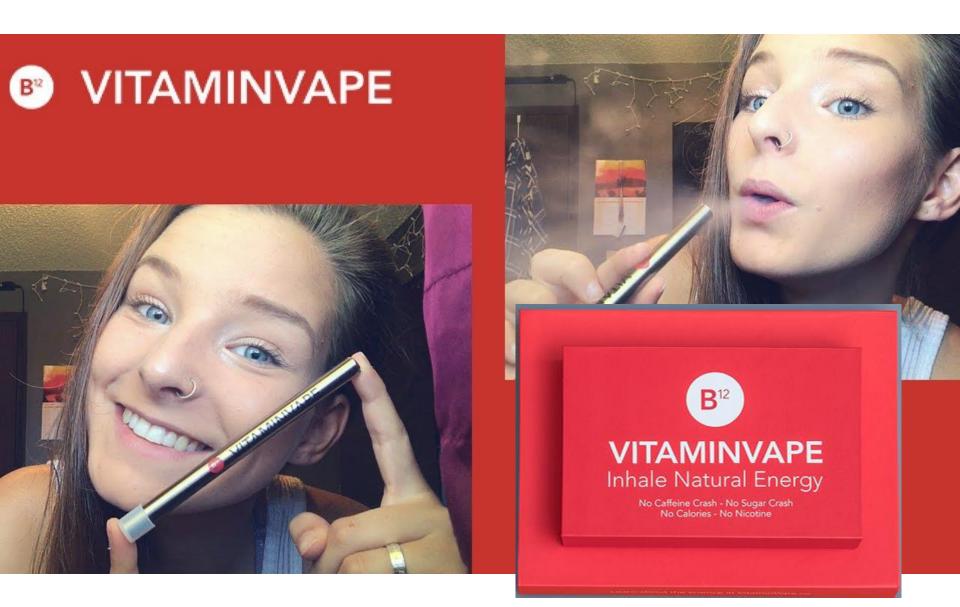
Introduction: Although web-based, multimedia smoking prevention programs have been tested in several high-income countries, their efficacy in Central and Eastern Europe is unknown. The aim of this trial was to assess the short-term effects of ASPIRA, among Romanian and Hungarian speaking ninth graders in Tirgu Mures, Romania. ASPIRA is the Romanian acronym for the translated and adapted version of ASPIRE, "A Smoking Prevention Interactive Experience," an evidence-based smoking prevention program originally developed to prevent tobacco use among high school students in the United States. Methods: Sixteen high schools inTirgu Mures, Romania were randomized to receive five weekly sessions of the ASPIRA web-based, multimedia program or to a control condition. Socio-demographic data, psychosocial characteristics, and smoking behavior were collected from students at baseline and at 6 months. A hierarchical logistic regression analysis was conducted to test the efficacy of the intervention on smoking initiation and current smoking among 1369 students.

Results: Never-smoker students in the intervention arm were 35% less likely to report smoking initiation 6 months after the baseline assessment (OR = 0.85, 95%CI: 0.44–0.97). Reduced smoking initiation was observed most notably among students who were exposed to at least 75% of the ASPIRA program. There was no statistically significant effect of the intervention on current tobacco use (OR = 0.80, 95%CI: 0.44–1.46).

Conclusions: ASPIRA, an adapted version of the evidence-based, multimedia ASPIRE program that was originally developed and tested in the United States may decrease smoking initiation among multi-ethnic adolescents in Central and Eastern Europe.

Implications: (1). Web-based, multimedia smoking prevention programs may be effective tools to prevent smoking initiation among multi-ethnic adolescent communities in Central and Eastern Europe. (2). The degree of exposure is critical, only high exposure to the multimedia smoking prevention program is associated with reduced smoking initiation.

## Novelties are being introduced...





# ASPIRE

MDAnderson.org/ASPIRE

# ASPIRE Trailer (MDAnderson.org/ASPIRE, click Student)

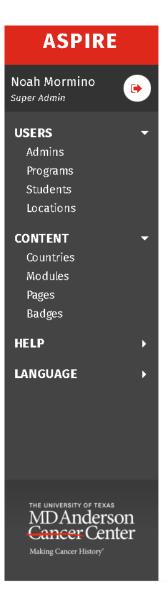
# <u>ASPIRE</u>

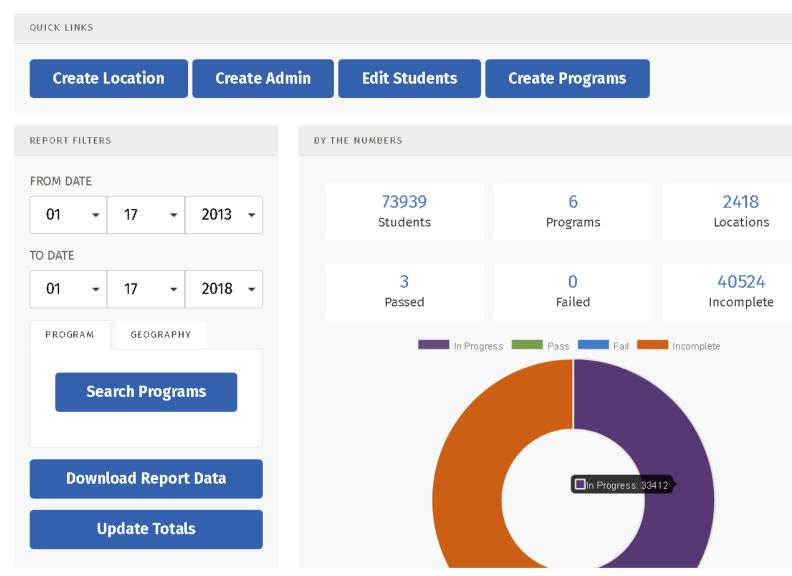
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# **Unique Features**

- Multiplatform
- Registration: seamless and intuitive
- Back-end/Database captures information
- Variety of nicotine & tobacco products, marijuana

## **ASPIRE** Reports and More:





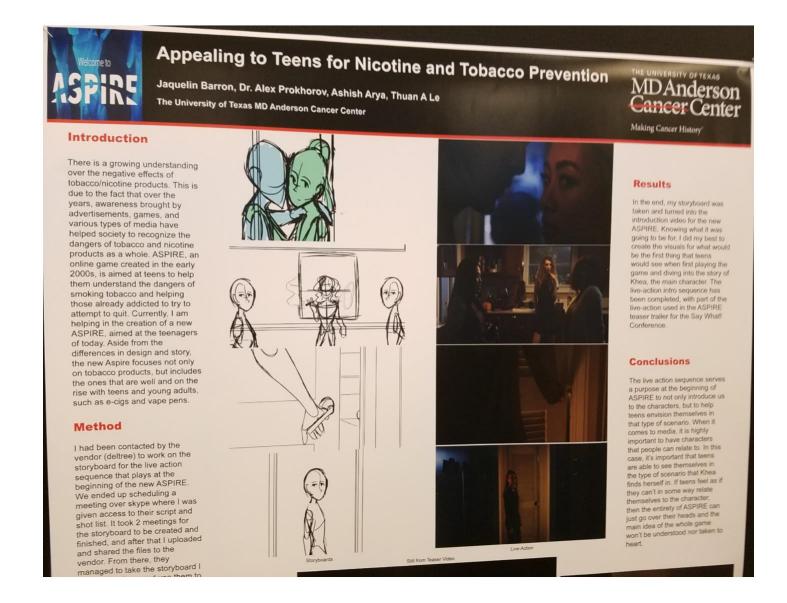
## Only Old People Get Cancer...? (Doctors, Patients)



#### Summer Student Interns from Furr High School (HISD)



## **Teenagers Assisted Our Team in Creating Characters**



# Can E-Cigarette Use Lead to Cigarette Smoking?

There is growing evidence that young e-cigarette users who have never smoked tobacco before may be more likely to try smoking cigarettes then youth who have never used any kind of tobacco or nicotine product at all.

Association of Electronic Cigarette Use With Initiation of Combustible Tobacco Product Smoking in Early Adolescence

Leventhal, et al.

JAMA, 2015

-2,530 9th grade adolescents across 10 Los Angeles high schools reported use of e-cigarettes and any combustible tobacco products during a 1 year time span

-Those who had ever used e-cigarettes at baseline compared with nonusers were more likely to report initiation of combustible tobacco use over the next year.





Intentions to Smoke Cigarettes Among Never-Smoking US Middle and High School Electronic Cigarette Users: National Youth Tobacco Survey, 2011–2013

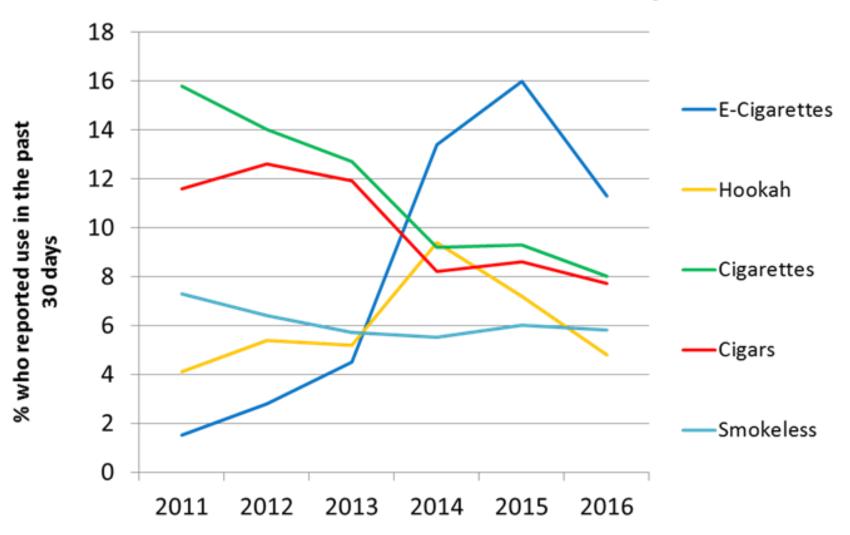
Bunnell, et al.

Nicotine & Tobacco Research, 2014

-Data from the nationally representative 2011, 2012, and 2013 National Youth Tobacco Surveys of students in grades 6–12 was analyzed -Intention to smoke conventional cigarettes was 43.9% among ever e-

-Intention to smoke conventional cigarettes was 43.9% among ever ecigarette users and 21.5% among never users; E-cigarette use is associated with increased intentions to smoke cigarettes

# National Youth Tobacco Survey, 2016



## **Smartphone Apps**

- The use of smartphones in the US is nearly ubiquitous (92%)
- Digital divide among SES groups is not pronounced
- Advantage: Real time intervention!



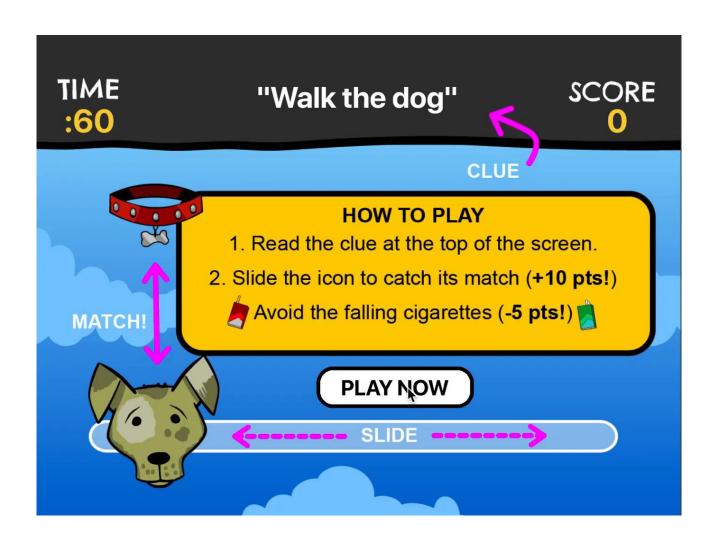
## Vaper Chase (iPhone & Android)



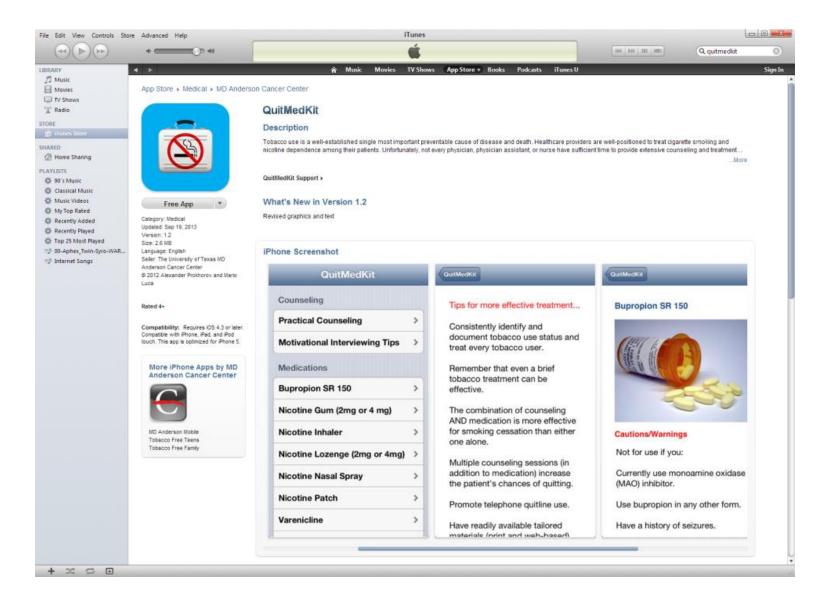
#### **Tobacco Free Teens**



#### **Tobacco Free Teens**



#### QuitMedKit



#### QuitMedKit



#### **Dissemination Plans**

#### Launch & dissemination sites:

- Ultimate Goal: at least 80% of schools <u>nationwide</u>
- Schools & Universities (Independent School Districts, KIPP, Alternatives, etc.)
- Faith-based organizations (Interfaith Ministries, several religious leaders are on board)
- Community entities (YMCA/YWCA, Boys & Girls Clubs, 4H, Healthcare settings, etc.)
- NCI designated Cancer Centers, National School Nurse's Association, etc.
- Medical facilities
- International collaboration: Mexico, Colombia, Peru, Dominican Republic, Lebanon, Romania, Hungary; Pending: Brazil, Portugal, Spain, India, China, Philippines, Jordan

#### **Questions?**

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