

**CONTACT: Kelli McElhinny  
Lisa Rossi  
PHONE: (412) 647-3555  
FAX: (412) 624-3184  
E-MAIL: McElhinnyKM@upmc.edu  
RossiL@upmc.edu**

**EMBARGOED FOR RELEASE UNTIL 4 P.M., EST, APRIL 3**

**AWARENESS AND ANALYSIS OF TOBACCO ADVERTISING  
MAY GO A LONG WAY (BABY) TO PREVENT TEEN SMOKING**

**PITTSBURGH, April 3** – Most smokers pick up the habit as adolescents, drawn to cigarettes, in part, by advertisements featuring attractive models in playful poses, or cool movie characters whose mystique is enhanced by the fact that they smoke. Teens would be less likely to smoke by learning to view ads and other types of media more analytically, the results of a study in the current issue of *Archives of Pediatric and Adolescent Medicine* suggest.

The study provides some of the first quantitative evidence that training teens about the messages and motivations behind various types of media has the potential to reduce teen smoking. Researchers from the University of Pittsburgh School of Medicine developed a scale to measure smoking media literacy (SML), or the ability to analyze and evaluate the messages, motivations and tactics behind advertisements and other mass media portrayals of tobacco, and found that the results correlated with teens' current smoking patterns, intentions to smoke and attitudes about smoking.

Surprisingly, association between SML and smoking behaviors was stronger, in some cases, than other known predictors, such as socioeconomic status, parental smoking and stress.

"Many of the other factors that influence smoking behaviors are things that we cannot control," said Brian Primack, M.D., Ed.M., assistant professor in the school's division of general internal medicine, and lead author of the study. "Media literacy is one of the few areas in which we can actively affect change."

More than 1,200 suburban Pittsburgh high school students who participated in the study were assigned scores ranging from 0-10 based on their responses to an 18-item survey. Students responded to statements such as, "When people make movies and TV shows, every camera shot is very carefully planned," "Most movies and TV shows that show people smoking make it look more attractive than it really is," and "Advertisements usually leave out a lot of important information," by indicating whether

- more -

they strongly agreed, agreed, disagreed or strongly disagreed. Higher scores represented increased SML. After controlling for 17 variables such as peer smoking, self-esteem and rebelliousness, SML still had a statistically significant association with current smoking (defined as smoking within the last 30 days), intention to smoke and general attitudes about smoking.

According to the results, a variance as small as one point on the 10-point scale corresponded with a noteworthy divergence in smoking behaviors. For instance, a student who scored a 7 was 22 percent less likely to currently be a smoker than his classmate whose SML score came in at 6, just one point lower, even after controlling for all other factors. That same student would be 31 percent less likely to be susceptible to future smoking, according to the study's results.

These findings could be particularly valuable for traditional school-based intervention programs, which tend to rely heavily on negative messages and reprimands and frequently fail in their objective to prevent teen smoking. The study suggests that such tobacco control programs could be far more effective if they incorporated SML training. Schools could also better evaluate SML educational program effectiveness by quantifying outcomes through pre- and post-training measurements.

"It's encouraging that media literacy, which is so eminently teachable, shows such promise as a component of a comprehensive tobacco intervention program," Dr. Primack said. "Our ability to measure that awareness, using the scale we developed as a tool, can provide hard evidence about which programs are effective as well."

Despite the study's promising findings, the researchers have identified several areas that warrant further examination. For example, norms – students' expressed perception of how acceptable or unacceptable smoking is among their family and friends – was the one area that showed no significant independent association with SML after controlling for all variables. The researchers plan to explore that relationship to determine if there truly is no link, or if the norm measurement tool that they used was not representative of the true nature of smoking norms. Also, the student population surveyed was homogeneous in terms of race, ethnicity and geography, so the results will need to be confirmed in more diverse populations. Finally, a longitudinal study that tracks the relationship between higher SML scores and future decisions to begin smoking could provide valuable insight.

Other study authors include Michael Fine, M.D., M.Sc., Melanie A. Gold, D.O., and Galen E. Switzer, Ph.D., University of Pittsburgh School of Medicine; Stephanie R. Land, Ph.D., University of Pittsburgh Graduate School of Public Health; and Renee Hobbs, Ed.D, Temple University. The study was funded by the Maurice Falk Medical Fund and Tobacco Free Allegheny.