DOUGLAS LUKE, PHD
PEG ALLEN, MPH
GRETCHEN ARIAN, PHD MYRA CRAWFORD, PHD MPH
S. HEADEN, PHD
C. SPIGNER, DRPH
P. TASSLER, PHD
J. UREDA, PHD

Teens' Images of Smoking and Smokers

Dr. Luke is Associate Professor of Community Health, Saint Louis University School of Public Health, St. Louis, Missouri. Ms. Allen is Community Research Coordinator, University of New Mexico, Albuquerque. Dr. Arian is Research Associate, University of Illinois, Chicago. Dr. Headen is Research Associate, Center for Health Promotion and Disease Prevention, University of North Carolina, Chapel Hill. Dr. Tassler is Senior Epidemiologist, Vermont Department of Health. Dr. Crawford is Director, Division of Research, Department of Family and Community Medicine, School of Medicine, University of Alabama, Birmingham. Dr. Spigner is Associate Professor, School of Public Health and Community Medicine, University of Washington, Seattle. Dr. Ureda is Professor, Arnold School of Public Health, University of South Carolina, Columbia.

SYNOPSIS

The authors used qualitative and quantitative data to identify and interpret specific images teens have about smoking and smokers. Qualitative data were collected in 1996 from 793 teenagers participating in 125 focus groups at eight different sites across the United States.

Most focus groups were homogeneous with respect to gender, ethnicity, and smoking status. Ages ranged from 12 to 18 years, and about half of the participants were female. The majority of participants (62%) were white and African American, the remainder (38%) were Hispanic, American Indian, and Asian/Pacific Islander. Groups were comprised of smoking and non-smoking teens. Focus group activities were used to elicit image-related discussions about attitudes, beliefs, and perceptions of smoking.

Investigators identified seven consistent and distinctive image themes: *Appearance* (smoking is dirty and unattractive), *Activity* (nonsmokers have busy, active lives), *Drugs and sex* (smokers are substance abusers and are sexually active), *Rebellion* (smokers belong to rebellious groups), *Affect* (smokers are depressed, angry, and stressed-out), *In control* (nonsmokers have self-control and are independent), and *Pride* (nonsmokers are proud of themselves, their families, and their heritage).

A large scale, multi-site qualitative research approach can increase understanding of teen smoking. The identification of distinctive images of smoking can help researchers develop more sophisticated models of the processes of teen smoking than currently exist.

Address correspondence to:

Dr. Luke, Saint Louis Univ. School of Public Health, Sulus Center, 3545 Lafayette Ave., Ste. 300, St. Louis MO 63104-1399; tel. 314-977-8108; fax 314-977-8150; e-mail <dluke@slu.edu>.

een smoking is one of the largest threats to our nation's health. Every day in the United States more than 6000 teenagers try their first cigarette.¹ Current smoking among high school students increased from 28% in 1991 to 36% in 1997—an increase of almost 30% in just six years.² Although we currently have very good data on the epidemiology and risk factors of teen smoking,^{3,4} less is known about the *processes* by which teenagers decide to start or not start smoking.

One way the tobacco industry has most effectively influenced teenagers to start smoking has been to promote the image of smoking as an attractive, hip, and exciting activity.⁵ The public health community, on the other hand, has tried to show teens that smoking is, in fact, dangerous and unattractive. In effect, there is an ongoing battle between the industry and public health over how to shape the image of smoking and smokers. By image, we mean the set of attitudes, beliefs, and perceptions that may influence teens one way or another in their decisions to start, not to start, to continue, or to stop smoking.

The primary goal of the current study is to identify the actual images that typical teenagers have about smoking, smokers and nonsmokers. This study explicitly uses a qualitative framework for identifying and interpreting images about smoking. This approach is valuable because research on images of smoking is in its early stages and qualitative methods are very useful in the formative periods of research programs. Also, by using methods that allow teens to speak in their own voices, it is much more likely that the results will have validity for other teens, thus avoiding the problems of an 'adultist' perspective.⁶

METHODS

Tobacco Control Network. In 1995 the Centers for Disease Control and Prevention (CDC) funded a series of collaborative studies to examine aspects of teen smoking. CDC's goal was to supplement the existing quantitative and epidemiologic data concerning teen smoking by collecting rich qualitative data on important teen smoking issues, including sociocultural, ecological (social environment at school and in the home, for example) and policy factors. By funding more than one research group, CDC was able to collect data from a much wider array of teenagers than is usually possible in qualitative research.

These groups, informally known as the Tobacco Control Network (TCN), collected qualitative data from thousands of teens in more than 500 focus groups in 13 different locations across the US from 1996 to 1998. In its first year, TCN collected data from more than 1100 male and female teenagers belonging to five ethnic groups (African American, white, American Indian, Hispanic, and Asian/Pacific Islander) residing in widely dispersed regions of the lower 48 states. To our knowledge, this is the first such multi-site, collaborative qualitative research project that used common protocols to examine a major public health issue. More information about the general results from the entire TCN project, with emphasis on the functional value of smoking, is available elsewhere.⁷

The TCN concentrated in the first year on sociocultural factors of teen smoking, with special emphases on smoking initiation, the perceived functional value of smoking for teens, messages teens receive about smoking, and the images teens have about smoking and smokers. The current study reports detailed analyses of the image data collected during year one of the study from 8 of the 11 TCN groups that had complete image data and chose to participate in this analysis. Table 1 lists these sites, along with descriptive information about the type of teens and focus groups at each of the sites during year 1 (1996).

Participants. During 1996, we obtained and analyzed qualitative image data from 793 teenagers participating in 125 focus groups at eight different research sites. Most sites (6 of 8) used school-based recruitment. Slightly more than half (53%) of the participants were female. Approximately 70% were 14 or 15 years old (range from 11 to 19). Most participants were African American (36%) or white (26%), with Hispanic (16%), American Indian (16%), and Asian/Pacific Islanders (6%) also represented. Approximately 42% of participants were current smokers (who had smoked at least one puff in the past 30 days). The remaining participants were either nonsmokers (had never smoked even one puff of a cigarette), or were experimenters (had tried smoking, but not in the past 30 days).

Data collection. Each participant signed a consent form that had been approved by the particular study site's Institutional Review Board. Some of the sites that were not allowed to use passive parental consent also had a parent or guardian sign a consent form. Participants were assured confidentiality, especially with regard to school officials and parents.

Focus groups. Data were collected using traditional focus group methodology.⁸ Focus groups were conducted by investigators who had received training in both general focus group facilitation procedures as well as the specific

	Groups (N = 125)	Teens (N = 793)	Age range		
Site	Number	Number	Years	Stratification	
Saint Louis, MO	8	48	14-15	Gender, Ethnicity (W, AA), Smoking Status	
Birmingham, AL	13	85	14-18	Gender, Ethnicity (W, AA), Smoking Status	
Baltimore, MD	17	98	13-19	Gender, Ethnicity (W, AA), Smoking Status ^a	
Chicago, IL	12	69	11-18	Gender, Ethnicity (W, AA), Smoking Status	
Albuquerque, NM	38	234	13-16	Gender, Ethnicity (H, Al), Smoking Status	
Seattle, WA	5	49	13-19	Gender, Ethnicity (API)	
Chapel Hill, NC	13	106	13-15	Gender, Ethnicity (W, AA, AI), Smoking Status, Urban ^b	
Columbia, SC	19	104	11-18	Gender, Ethnicity (W, AA), Smoking Status	

Table I. Characteristics of teen focus groups at participating sites, US, 1996

^aSix of 17 Baltimore groups were mixed (smokers, nonsmokers) on smoking status ^bEight focus groups were taken from urban areas, five groups from rural areas

W = White AA = African American H = Hispanic AI = American Indian API = Asian/Pacific Islander

group questions and activities used by the Tobacco Control Network.⁷ Although a common discussion guide was used by all sites to guide the focus group activities, facilitators were trained and encouraged to depart from the "script" whenever needed. Focus group sessions lasted from 1 to 2 hours and were audio- or videotaped. Many focus groups took place in schools, but others were held in community centers, churches, and commercial establishments (such as the basement of a restaurant, or a professional focus group recording studio).

Previous qualitative studies have found that group discussion can go more smoothly and produce better data when the groups are relatively homogeneous.⁹ All of the TCN focus groups were stratified by gender and race or ethnicity. Six of the eight sites also stratified by smoking status, and one site stratified by urban or rural location. One focus group from St. Louis would be all African American female smokers, for example, while another one would be African American male smokers. TCN originally hoped to also stratify by age, but that turned out to be impractical given the constraints of the other, more important, stratification variables. For example, many sites had difficulties recruiting enough female African American smokers. Therefore, an age stratification requirement would have made it impossible to have complete homogeneous groups based on ethnicity, gender, and smoking status. That said, approximately 50% of the focus groups had relatively narrow (<4 years) age ranges.

Image activities. We used a variety of questions and activities to elicit discussion about the beliefs, attitudes, and perceptions that teens have about smoking and people who smoke. All of the groups were asked general questions about images. For example, a standard question was "What do you think of a person who smokes?" Although there were a few set questions about images, most discussion was a result of follow-up questions that prompted the teens to be more specific and encouraged more of them to participate in the discussion, or to elicit more information about the topic.

Six of eight research sites also used a photo-sort activity to obtain information about images. This photo-sort task used pictures of teenagers from a photo essay book entitled *In My Room: Teenagers in Their Bedrooms.*¹⁰ (Investigators at two sites, New Mexico and Washington State, selected additional pictures from youth and fashion magazines that were more ethnically representative of the teens participating in those groups.) As the title suggests, each picture shows a teenager posing in his or her bedroom. Participants were shown a picture and then asked to decide whether or not the pictured teen was a smoker or not. The group facilitator then would ask follow-up questions to guide a discussion on the group's attitudes, beliefs, and perceptions about smokers and nonsmokers.

The photo-sort activity was useful for several reasons. First, a group activity like this usually circumvents the "I go, you go" pattern of facilitator question followed by a single answer from a single participant. The photo-sort activity invariably led to lively and rich discussions among the teens, with much less frequent facilitator participation. Focus group participants in general, and teenagers in particular, often give fairly brief answers to questions that are about sensitive topics. But a group activity quickly breaks down the teens' reserve; participants end up sharing more and are more detailed in their responses to subsequent questions. The photographs of other teens provided a rich and complex array of visual cues that could be used by the group participants in their image descriptions. Participants could talk about the type of clothes worn by the teens in the pictures; their hair, makeup, or weight; whether they had tattoos; what types of posters were hanging on the walls; whether the room was messy or not. Group participants became "visual sociologists," using smoking as the lens through which to view teen lives and environments.¹¹ Essentially, the pictures were used as catalysts for energetic discussions of images of smoking and smokers.

Two sites used another technique, the Personality Game, which entails asking group participants to imagine a typical teenager standing just outside the door. They are told that the teenager is either a smoker or nonsmoker. The participants are then asked to discuss their images of this teen, based on the assumption that the imagined teen is a smoker (or nonsmoker).

Data coding and analysis. Audio and videotapes were professionally transcribed, and the transcribed files entered into NUD*IST, a qualitative data analysis software system.¹² A qualitative analysis codebook was collaboratively developed by the TCN using an iterative process. The resulting coding system was a set of hierarchical, descriptive codes (as opposed to interpretive or pattern codes¹³) applied to the verbal text units in the focus group transcripts. A text unit was defined as a single utterance of an individual focus group member. This could be a short comment (such as "Uh huh"), a single sentence ("I think people who start smoking are stupid, because they're only going to become addicted"), or a much longer series of uninterrupted sentences making up a single explanation, answer, or story.

The codebook was developed so that each site would code their own transcripts using the same codes and applied in the same way. Sites were allowed to add their own codes for their own research purposes, but the base codes were meant to be used by all eleven sites. The full final shared codebook contained 127 individual codes, organized into seven high-level categories (Group, Teen Activities, Tobacco Behavior, Reasons, Perceptions, Context, and Messages). Table 2 lists a few example codes from the codebook.

The code labels were constructed so that the hierarchical nature of the coding scheme would always be evident, thus aiding in training and reliability. Most image discussions would receive the Perceptions codes. For example, a statement "She probably smokes 'cause she's overweight and wants to lose weight," would receive a (5 1 1) code because this is a perception about an individual smoker. In contrast, the comment "Smoking is a white thing" would receive a (5 2 1) code because it is a perception about an entire group of people who are seen as smokers. Each code label (see examples in Table 2) includes the full coding hierarchy to aid in coder training and reliability. For example, the (4 2 12) code has the three part label "/REASONS/Not to Smoke/addiction" which reminds the coders that statements about addiction are coded and collected into the REASONS category of codes. [Note: The full codebook is available from the corresponding author.]

Table 2. Example of descriptive codes used indata collection from focus groups, TobaccoControl Network

NUD*IST Code ID	Code label					
(2)	• /GROUP/Race/white					
(1 5 3)	 /GROUP/Smoking Status/smoker 					
(2 2 5)	/TEEN ACTIVITIES/Risky/sex					
(3 6 3)	 /TOBACCO BEHAVIOR/Products/ cigarettes 					
(4 7)	 /REASONS/To Smoke/peers 					
(4 2)	/REASONS/To Smoke/addiction					
(4 2 1 2)	 /REASONS/Not to Smoke/addiction 					
(5)	/PERCEPTIONS/Individuals/smokers					
(5 2)	/PERCEPTIONS/Individuals/nonsmokers					
(521)	/PERCEPTIONS/Groups/smokers					
(5 2 2)	/PERCEPTIONS/Groups/nonsmokers					
(631)	/CONTEXT/Who/family					
(7 3 4)	/MESSAGES/Media/billboards					

Coding training was conducted to ensure reliability between and within research sites. Inter-rater agreement was required to be 90% or greater before actual coding could proceed. (This rate of agreement is considered high for a coding scheme that allows for multiple codes to be assigned to any individual text unit.) Most sites used consensus coding to code their transcripts. Two coders would code each transcript independently, and then they would combine their codes working out any coding disagreements.

The primary analysis task was to identify interesting and important image themes that were consistently observed across multiple focus groups and research sites. Specifically, an image theme was an identifiable pattern of perceptions, attitudes, or beliefs about smoking or smokers (or non-smoking and non-smokers). An image theme can be thought of as filling in the blanks in two types of statements: "Smokers are _____;" or "Smoking is _____." "Smoking is cool," for example, or "People who smoke don't have anything better to do," are both simple examples of image statements.

Early in the data coding and analysis stages it became clear that investigators were seeing common image themes emerge across different groups and sites. A preliminary list of seven possible themes was identified. After a second round of content analyses, two of the original seven themes were dropped due to lack of empirical support and a recognition that these themes did not fit our working definition of an image theme. Two new image themes were identified at this stage, bringing the total number back to seven.

Each participating research site was given a set of content analysis summary forms that were developed to help analyze, summarize, and integrate the findings.

RESULTS

Image themes. Seven image themes were identified from the iterative content analysis process. Each theme was consistent in that it was expressed by multiple teens across a number of focus groups and research sites. Specifically, the seven themes that emerged were all observed in at least half of the research sites, and, with one exception, were observed in more than half of the 125 focus groups. Also, themes needed to be theoretically interesting or important by relating in some way to existing empirical or theoretical knowledge about teen smoking, or to suggest new ways to think about evaluation, prevention, or intervention.

In the following sections each theme is defined and discussed with supporting examples of the words and lan-

guage of the teen participants themselves. These examples are chosen from a much larger set of possibilitiesfor each theme literally dozens or even hundreds of examples exist. Table 3 presents a definition of each theme with information about its consistency across groups and research sites and the typical language associated with it. The observed support column in Table 3 indicates the degree to which the particular theme was observed by research site and by focus group. A theme was considered to be observed at a particular research site if the theme was mentioned or discussed at least once by more than 50% of the focus groups at that research site. The group percent column indicates the percentage of focus groups (across all research sites) that mentioned the theme at least once. In the following section each observed theme will be defined briefly, and selected quotes will be presented that represent each theme.

Appearance. Teens found smoking to be dirty and unattractive. This was the strongest and most consistent theme expressed by the teen participants, identified by seven of eight research sites and by 78% of all focus groups. Almost all of the teens, both smokers and nonsmokers, saw smoking as a dirty habit that smelled bad and made teens' skin, teeth, and clothing less attractive.

- He's a neat freak, saying I'm not gonna' stench my clothes with cigarette smoke.
- I mean, she [a smoker] don't look like, you know, a clean person.

However, teens seemed to generalize beyond the physical characteristics of smoking, and felt that smokers themselves were unattractive:

 You know most of the girls in my school who smoke are either herpes queens, or dirty or smelly or ugly, most of the girls who don't are usually nice looking.

Activity. Teen participants viewed nonsmokers as having busy, active lives, while smokers have nothing better to do. This theme was observed almost as consistently as was appearance—activity was identified by seven of eight sites and 74% of the focus groups. Many participants suggested that busy kids did not have time to smoke, while smokers had plenty of time on their hands:

- [She is a smoker] ... because she looks like she does nothing, watches TV.
- You think I'd be smoking if I had something better to do?

	Observed support		Language used by participants to describe smokers and nonsmokers for each theme	
Image theme	Sites (Number)	Groups (Percent)	Smokers	Nonsmokers Clean-cut, buffed, pretty, takes care of themselves
 Appearance Smoking is dirty and unattractive 	7	78	Dirty, smelly, stinky, reeking, scummy, strung out, baggy clothes, saggy eyes, run down, grungy clothes, tattoos, pierced body parts, too-heavy makeup	
 Activity Nonsmokers have busy, active lives 	7	74	Nothing better to do, nothing else to do	Better things to do, busy saving the world, doesn't have time, active, going places, busy with sports, cars, clubs, women, computers, music, makeup, religion
 Drugs and sex Smokers are substance abusers and are sexually active 	7	71	Stoner, junkie, boozers, alkies, drinkers, does everything, easy, herpes queen, roadhopper, prostitutes	Good, preppy, innocent
 Rebellion Smokers belong to rebellious groups 	6	69	Skateboarders, moshers, musicians, anarchists, hippies, thugs, cholos, gangbangers, taggers, skinheads, Klan member	Athletes, artists, environ- mentalists, parents, kids
 Affect Smokers are depressed, angry, and stressed-out 	6	68	Depressed, unhappy, quiet, sulky, hidden feelings, holding things in, lonely, stressed out, wired, mad, bored, worried, not smiling, down	Happy, joyful
 In control Nonsmokers have self-control and are independent 	5	52	Out of control, unorganized, weak-minded, addicted, follower, peer pressure	Organized, take care of themselves, striving for goal
 Pride Nonsmokers are proud of themselves, their families, and their heritage 	4	35	Doesn't care about anything	Proud, powerful, passionate, confident of herself, respect, proud of family, proud of her African American heritage, proud of woman heritage

Table 3. Summary of image themes observed among 125 focus groups at 8 sites, with examples of language used to describe smokers and nonsmokers

Some of the discussions linked up themes of achievement with nonsmoking:

- A lot of people that I know who smoke, they aren't as involved as those who don't smoke... Those I know who are constantly smoking aren't involved in anything that I know of that's, like, positive...like, they're not the ones who are running the student council, they're not the ones who are into sports.
- She has more important things to do than smoke.

Drugs and sex. Many teens felt that smokers are also substance abusers and are sexually active. Cigarette smoking was often linked with drinking, and with using marijuana:

- She drinks, so she smokes.
- Looks like she smokes a lot more than cigarettes, too.
- She got a E & J bottle over there, she gonna' smoke and get her a drink.

It was unclear from the references to other substances whether teens viewed this in a positive or negative way. However, the link between smoking and sexual activity tended to have a negative, judgmental tone:

- She looks like a roadhopper [a barhop and prostitute].
- They look like prostitutes.

Rebellion. Approximately 7 out of 10 of the focus groups viewed smokers as belonging to rebellious groups. Smokers were viewed as belonging to or attracted to groups such as skateboarders, hippies, gangs, and others. During group discussions, teens often made the connection to rebellion explicit:

- [He's a smoker]...cause he's got the earring—he's got, like, these traces of rebellious stuff.
- She's a rebel. She like going against everything her parents say.

In reply to a question about what types of groups tend to smoke:

• The more rebel types. And they try to be different. But the more they try to be different, they become the same.

On the other hand, nonsmokers were often seen as conformists:

 Nonsmokers are the kids who make good grades, behave, and do what they're supposed to do.

Affect. Participants in the majority of research sites (75%) and focus groups (68%) felt that smokers are depressed, angry, and stressed-out. In general, any negative psychological state (such as depression, anxiety, boredom, or anger) was associated with smoking:

- Most people that have a negative attitude about life smoke. Because they're gonna die anyways.
- Yes, she probably smokes—depressing type.
- Nah, she doesn't smoke; she, like, she ain't stressed out.

Nonsmoking was not related to as great a number of specific psychological or affective state, other than happiness:

- She's not a smoker...too happy.
- And they're [nonsmokers] more happier than you.

Although most of the discussions simply linked smoking with negative emotional states, there were occasional observations about smoking being used as self-medication:

- She looks like she stresses so I think she might have a cigarette here and there.
- They smoke to solve all their problems...she is holding something inside and she want to say it but she just can't get it out, like her parents are not easy to talk to or something. She looks like the kind that would smoke to relieve her problems.

In control. Nonsmokers were viewed as having self-control and being independent by slightly more than half of the sites (62.5%) and focus groups (52%). Nonsmokers were viewed as having control not only over the decision to smoke, but also having enough control to resist peer pressure:

- I know how to control myself and not do it, not smoke.
- She's strong minded and strong willed she has better sense than to go along with it [smoking].
- I'm saying if you a weak-minded person, then you going to go follow and do what they say, or whatever. If you strong minded, you'll be, like, well, that sounds slick, but that's just not something I gotta' do. Weak-minded people, they easy to fall into peer pressure.

Pride. Half of the research sites observed a theme where teens indicated that nonsmokers are proud of themselves,

their families, and their heritage. This theme was observed most strongly in focus groups that used the photo-sort activity as one of the image activities. (None of the other identified themes were restricted to groups that just used the photo-sort.) This theme was particularly strong for African American teens:

- She's got too much pride to smoke.
- She is too into her ancestry to smoke.
- She's proud of her heritage, you know, African American culture.

Roles of gender and ethnicity. A major goal of the entire TCN project was to examine the influence of gender and ethnicity on teen smoking.⁷ We examined the roles of gender and ethnicity in shaping teens' images of smoking by looking for differences among focus groups in their discussions of images. We then examined how gender and ethnicity were embedded within the image themes themselves. The types of image themes observed did not differ appreciably by group stratification. The observed themes were evident in both female and male focus groups, as well as in white, African American, and Hispanic groups. The one exception to this consistency was that the *Pride* theme was observed more often in the African-American and Asian/Pacific Islanders focus groups.

However, gender and ethnicity did have different saliencies for some of the themes. By saliency, we mean not how *often* a theme is expressed in female or male groups, but how a theme is shaped by, or associated with gender or ethnicity. For example, gender was most strongly related to the themes of *Appearance*, *Drugs and Sex*, and *In control*. For example, the attractiveness of smoking was most relevant to girls wanting to be attractive to boys:

• Smoking makes you look sexy, is glamorous (female)

Boys, on the other hand, generally did not see smoking as sexually attractive, and even felt that it could get in the way of sexual activity:

- Like, guys are thought of as cool, girls are thought of as scummy if they smoke.
- Like, a lot of boys don't like it when girls smoke.
- He can get girls and stuff, and then he might have bad cigarette smoke breath, therefore they won't want to kiss and therefore he can't get 'em in the sack.

The use of alcohol and other drugs was mentioned more often about boys, while a link between smoking and

sexual activity more often was discussed in relation to girls. Finally, the *In control* theme played out differently for boys and girls: independence and resisting peer pressure was more important to boys, while being in control was seen as more important for girls.

Ethnicity had a slightly more complicated relationship to the image themes. Group participants did not make comparative statements about ethnicity and smoking as directly as they did for gender. The link between smoking and drug use was stronger for African American and Hispanic teens, while drinking and smoking was more associated with white and Native American groups:

• The only time they smoke cigarettes is when they smoke a blunt or something (African American female)

Smoking as an act of societal rebellion was more salient for African Americans, especially males. On the other hand, the *Pride* theme resonated very strongly with African American focus groups. (This may be due in part to the evocativeness of one of the photographs used in the group activities by four of the research sites. However, many African American participants made the connection between pride and family, and not wanting to disappoint parents or other family members.)

• She look like she too into the black thing. Black power.

Finally, teen participants saw whites as being more stressed out:

• Black people, when they smoke, they tend to chill. White people, they be so stressed out.

DISCUSSION

The first study to come out of the TCN project showed important gender and ethnicity differences in the functional value of smoking, and family messages communicated to teens.⁷ The results of the current study, in contrast, show that American teens have a set of consistent images about smoking and smokers. This consistency is demonstrated by the remarkable similarities in the discussions on images from disparate groups of teenagers: boys and girls; whites, blacks, Hispanics, and American Indians; inner city, suburban and rural residents; and smokers, experimenters, and nonsmokers. Other qualitative studies have shown that qualitative methods can be used to assess perceptions of smoking,^{14,15} but this is the first study to identify a set of images from a large group of teens, and show that these images are stable across a number of important sociodemographic dimensions.

The image battle. One of the most important findings of this study is that despite the overwhelming resources available to the tobacco industry, they are not decisively winning the battle to shape the image of smoking among teens. In fact, young people have a remarkably negative picture of smoking: in their minds, smoking is dirty and unattractive, smokers are neither happy nor do they have enough interesting things going on in their lives. Even the teens who themselves smoke saw smoking in a fairly negative light. This suggests that teens are not naïve consumers of the tobacco marketing message. They understand the downside of smoking.

The one area in which the tobacco industry has apparently been effective, however, is in linking smoking with rebellion. Teens see smokers either as belonging to or being attracted to rebellious and alternative groups such as musicians, skateboarders, and gang members. Furthermore, teens link smoking to other risky activities such as drinking, using other drugs, and sexual activity. Given that adolescence is a time to try out many risky behaviors, this connection between smoking, rebellion, drugs and sex is potentially a powerful lure for teenagers. The ironic paradox embedded within these images is that although many teens see smokers as being independent rebels, they simultaneously see nonsmokers as being in control and not caving in to peer pressure. **Implications for public health.** A number of important implications for public health researchers and practitioners can be gleaned from this study on smoking images. First, with the financial and political support of agencies such as CDC, it is clear that large-scale multisite qualitative studies can be successful. These results can provide an answer to traditional methodologists who often criticize qualitative studies for their small scale. Second, the particular image themes identified here can be the first steps in enriching our understanding of the process by which young people decide whether to smoke or not. More traditional quantitative studies can use these themes to help develop more sophisticated models of the processes of teen smoking.

Finally, examination of these teen images may help public health practitioners design more effective preventive and educational interventions. For example, continuing to emphasize the health dangers of smoking may be ineffective because teens are attracted to smoking precisely because of its association with risk. A better approach, instead, may be to adopt something similar to Nike's "If you let me play sports" advertising campaign. If teens see nonsmokers as having busy, fulfilled lives, and smokers as being bored, depressed and stressed-out, the public health community can make better use of this more attractive "carrot" than its historically negative "stick" of traditional health warnings.

This study was supported by grant No. U48/CCU710806-03-3 from the Centers for Disease Control and Prevention.

References-

- National Cancer Institute (US). Tobacco research implementation plan: priorities for tobacco research beyond the year 2000. Bethesda (MD): Tobacco Research Implementation Group, The Institute; Nov 1998.
- Centers for Disease Control and Prevention. Tobacco use among high school students—United States, 1997. MMWR Morb Mortal Wkly Rep 1998;47:229-33.
- Centers for Disease Control and Prevention. Preventing tobacco use among young people: a report of the Surgeon General—executive summary. MMWR Morb Mortal Wkly Rep 1994;43:RR-4.
- Tyas SL, Pederson LL. Psychosocial factors related to adolescent smoking: a critical review of the literature. Tob Control 1998;7:409-20.
- Kluger R. Ashes to ashes: America's hundred-year cigarette war, the public health, and the unabashed triumph of Philip Morris. New York: Alfred A. Knopf; 1996.
- Milburn K. Peer education with young people about sexual health: a critical review. Edinburgh (Scotland): Health Education Board for Scotland; 1995.
- Mermelstein R, Tobacco Control Network Writing Group. Explanations of ethnic and gender differences in youth smoking: a multi-site qualitative investigation. Nicotine Tob Res 1999;1:S91-8.

- 8. Kreuger RA. Focus groups: a practical guide for applied research. 2nd ed. Thousand Oaks (CA): Sage Publications; 1994.
- Basch CE. Focus group interview: an underutilized research technique for improving theory and practice in health education. Health Educ Q 1987;14:411-48.
- Salinger A. In my room: teenagers in their bedrooms. San Francisco: Chronicle Books; 1995.
- Harper D. On the authority of the image: visual methods at the crossroads. In: Denzin NK, Lincoln YS, editors. Collecting and interpreting qualitative materials. Thousand Oaks (CA): Sage Publications; 1998. p. 130-49.
- Qualitative Solutions and Research Pty Ltd. QSR NUD*IST user guide. Thousand Oaks (CA): Sage Publications Software; 1997.
- Miles MB, Huberman AM. Qualitative data analysis. 2nd ed. Thousand Oaks (CA): Sage Publications; 1994.
- 14. Michell L. Loud, sad or bad: young people's perceptions of peer groups and smoking. Health Educ Res 1997;12:1-14.
- Nichter M, Vuckovic N, Quintero G, Ritenbaugh C. Smoking experimentation and initiation among adolescent girls: qualitative and quantitative findings. Tob Control 1997;6:285-95.