Cannabis caught between smoke and mirrors

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Many of the teens that come into the mobile clinic where Dr. Seth Ammerman works as a pediatrician smoke pot. Recently, Ammerman has noticed a trend. These teens are often under the impression that because cannabis is natural—and legal—it’s not harmful.

In San Francisco, one of the counties serviced by the mobile clinic Ammerman works at, big billboards listing the benefits of cannabis could be seen, he said.

“Kids see this and they think it’s really true,” Ammerman said.

Cannabis is being legalized by piecemeal in the United States. But social attitudes have changed considerably, making the stimulant seem harmless or even healthy. This message largely comes from an advertisement perspective of an industry that’s set to hit $50 billion by 2026. Public health experts see parallels with the tobacco industry. And are concerned that kids absorbing the advertisements are not getting the message that cannabis can be harmful to their developing brains.

Lawmakers have made some efforts to limit kids’ exposure to these ads. For example, as part of California’s legalization of cannabis for recreational use in 2017, the state banned advertising these products next to interstate highways, schools and playgrounds. Yet, Ammerman still thinks it’s a problem.

While cannabis teen use has not increased, many expect that to change. Researchers from RAND Corporation have found that teens are suffering from cannabis use disorder more than alcohol problems.

“More and more pediatricians are being asked 'hey would you recommend it for my kid','” Ammerman said. “Or even parents are saying, hey, you know, it's fine for me. So what's wrong if my kid uses it?”
Cannabis legalization first got its foothold in the United States when Californians voted in 1996 that cannabis should be considered a medicine. The medical marijuana movement has led to the impression that the plant is a healing product in all circumstances, when it’s not.

“People view it differently because of the way it started out with the medical piece,” Elizabeth D’Amico, a behavioral scientist, said. “There’s just confusion about it.”

D’Amico, a researcher for the think tank RAND Corp, remembers noticing how cannabis advertisement increased when California was ramping up to vote whether the recreational use of cannabis should be legal, back in 2010.

Ballot 19, the voter initiative in 2010, failed. But it inspired D’Amico, who was in the midst of a survey that followed 7th graders as they moved up the Californian public school system, to examine substance use among teens.

She added a question to the survey that asked whether or not they had seen advertisement for medical marijuana in the past three months. It turned out that the amount of advertisement the teens saw tripled in the seven years D’Amico and her colleagues screened the students.

Moreover, D’Amico’s survey found that the more medical cannabis advertisements the students saw, the more likely they were to have consumed it. She published her paper in the Drug and Alcohol Dependence journal in July of 2018.

It’s important to note that cannabis does have therapeutic effects, especially with people suffering from pain, insomnia and multiple sclerosis. But it’s another story when brains are still developing. Research shows that cannabis use during the youthful years of brain development can upset its wiring.

The human brain communicates with the rest of the body through a vast network of neurons, receptors and neurotransmitters.

“Drugs work by hijacking systems that are already in the brain,” said Robert Freedman, who studies how addictive behaviors affect the body at Wayne State University.

The reason cannabis gets humans high is because the chemicals produced in the plant are very similar to ones produced by our own nerve cells; what scientists call endocannabinoids. The plant cannabinoids are similar enough in shape that they can fit in the receptors intended for the endocannabinoids.
“Cannabis doesn’t activate that system, it blocks it,” Freeman said. As a result, he continued, nerve cells are less able to grow.

While the brain’s communication network is developed before birth, it continues to be shaped throughout life. The endocannabinoid system has been found to regulate movement, emotion, appetite and sleep. Scientists have shown that the cannabinoids produced by our bodies are critical in wiring the brain as it develops.

While alcohol is still the number one substance used by high schoolers, D’amico, the RAND researcher, found that cannabis use disorder was three times more prevalent than alcohol use. The results were published in Pediatrics, the journal from the American Academy of Pediatrics in December of 2016.

Public health experts see parallels with other addictive substances whose manufacturers have been accused of marketing to children.

“Almost all advertising has been informed by tobacco because tobacco was uniquely successful creating the need over the 20th century for shredded leaf wrapped in paper, that became an essential part of daily life,” said Robert Jackler, the director of the Stanford Research Center into the Impact of Tobacco Advertising.

The use of sweet and fruity flavors is a page from the tobacco playbook. While edibles such as blackout brownies are part of the landscape in California, it’s prohibited in the state of Minnesota.

Edibles are also illegal across Canada, which made recreational use of cannabis legal in October of 2018. Because of the way legalization is shaking out in the United States, the cannabis market is regulated state by state with varying rigor.

Another strategy from the tobacco industry has been ad placement. “They advertise where young people are,” Jackler said.

California and Washington have prohibited ad placement in public transit and interstate highways. But Medmen, a cannabis business with a national footprint, is looking for ways around that. As part of a $4 million ad campaign, the company has turned to influencers to promote their goods on social platforms such as Instagram.

A possible solution could be federal oversight. When the Food and Drug Administration got wind of e-cigarette companies appealing to teens with their marketing strategies, an investigation was quickly ordered. Six months
Later, the federal agency proposed new rules to combat the epidemic of vaping teens that had spread across the United States.

This kind of oversight does not exist for the cannabis industry in the United States. But Ammerman, the mobile clinic pediatrician, says there’s a need for a central agency that looks out for the national public health.

Until then, the cannabis messaging will remain conflicted with messaging coming from advertisers, public health officials and medical experts, with no clear idea of who to believe.