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To Reduce the Cost of Teenage Temptation, Why Not Just Raise the Price of Sin?

By DAVID LEONHARDT

WHEN you look back on all the attempts to curb teenage drinking, smoking and drug use over the last couple of decades, you start to ask yourself a question that countless parents have asked: Does anybody really know how to change a teenager's behavior?

Sometimes the government and advocacy groups have used straight talk, like Nancy Reagan's "Just Say No" campaign. Other times they have tried to play it cool. They drop an egg into a sizzling frying pan and announce, "This is your brain on drugs," or they print mock advertisements that pretend to market cancer. It all feels like a delicate exercise in adolescent psychology.

Much of this back and forth is unnecessary. There is in fact a surefire way to get teenagers to consume less beer, tobacco and drugs, according to one study after another: raise the cost, in terms of either dollars or potential punishment.

In just about every state that increased beer taxes in recent years, teenage drinking soon dropped. The same happened in the early 1990's when Arizona, Maryland, New Jersey and a handful of other states passed zero-tolerance laws, which suspend the licenses of under-21 drivers who have any trace of alcohol in their blood. In states that waited until the late 90's to adopt zero tolerance, like Colorado, Indiana and South Carolina, the decline generally did not happen until after the law was in place.

Teenagers, it turns out, are highly rational creatures in some ways. Budweisers and Marlboros are discretionary items, and their customers treat them as such. Gasoline consumption, by contrast, changes only marginally when the price of a gallon does.

"When people think about drugs, alcohol, even cigarettes, they think about addiction and this strong desire to consume them. They don't think price has an effect," said Sara Markowitz, an economist at Rutgers University in Newark, who studies public health. "That's just wrong. And it holds among kids even more so than among adults."

Not only that, but unprotected sex tended to become less common after the changes in the law, according to studies. Gonorrhea and H.I.V. rates dropped. So did drunken-driving deaths and, for boys, suicides. Whatever the policies' downsides - and they are not insignificant - they have some of the clearest benefits of any government action.

They are also a useful reminder of how often the power of incentives is underestimated. Taste, style, trendiness and advertising all do affect human behavior. A study in the Archives of Pediatric and Adolescent Medicine this month, for example, found that antitobacco television ads do seem to reduce smoking. But nothing has quite the sway that an economic carrot or stick does.

When a big superstore moves into town, many shoppers who claim to prefer the coziness of mom-and-pop stores trek out to the megamall for the lower prices. (You know who you are.) When the government cut welfare payments in the 1990's, many people who had been receiving them went back to work.

Even when inscrutable teenagers and addictive substances are involved, the basic dynamic does not change.

Tax increases on alcohol and tobacco have been fairly common in recent years, allowing researchers to look for the crucial before-and-after effect that helps separate correlation from causation. Alaska, Nebraska,

Nevada, Tennessee and Utah have all increased alcohol taxes since 2002. Georgia, Kentucky, Tennessee and Virginia - tobacco-growing states all - are among those that have raised cigarette taxes.

Just because states with higher taxes have lower teenage drinking and smoking rates does not mean that one caused the other. An outside force - like a highly educated population, which might tend to eschew beer and cigarettes but vote for higher taxes - could instead be the underlying cause.

But if drinking or smoking always seems to fall after a tax increase, then the case becomes far stronger. Looking across the states and taking into account all the other factors that can be measured, researchers have found that a 1 percent increase in the price of beer leads to a drop in teenage consumption of between 1 and 4 percent, Dr. Markowitz said. For cigarettes, a 1 percent price increase causes roughly a 1 percent decline in smoking.

Using the same method, researchers can also answer a question that has long occupied public health specialists. It is generally accepted that youngsters who drink, smoke and use drugs are also more likely to take dangerous risks, like having unprotected sex. But does one lead to the other? Or as Christopher Carpenter, an economist at the University of California, Irvine, puts it, are there simply "bad kids" given to misbehaving in all sorts of ways?

Depending on your definition of misbehavior, the answer is both. When alcohol taxes rose, the number of teenagers who reported having had sex in recent months did not change, according to a study by Michael Grossman of the City University of New York and Dr. Markowitz. Nor did the number of partners they had.

But fewer teenagers had unprotected sex. The number of new gonorrhea cases and - though the evidence on this was weaker - new H.I.V. cases also dropped. Since teenagers get these diseases at far higher rates than the rest of the population, any decline can be a big deal.

The enactment of zero-tolerance driving laws also appeared to lead to a fall in sexually transmitted diseases. For boys between the ages of 15 and 20, suicide rates fell 7 percent to 10 percent after a law was put in place, Dr. Carpenter found. (The fact that the effects seem to be concentrated among boys and whites is a mystery that awaits future research.)

"When zero-tolerance laws were being debated, it wasn't like, 'Let's reduce drunk-driving deaths - and gonorrhea and suicide,' " he said. "This is an unintended, surprising consequence."

Zero-tolerance laws also have the advantage of being aimed specifically at teenagers. New alcohol taxes, on the other hand, take money from millions of people who do not spread venereal diseases or drive drunk.

But zero tolerance is now the law of the land in all 50 states, Dr. Carpenter said. There is no more public health uptick to get from it. So until somebody comes up with a smart new incentive, another "Don't Drink and Drive" campaign might be the best tool out there.