Press Release

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SAFE Glen Cove Coalition: Prevalence of Substance Use Disorders by Time Since First Substance Use Among Young People in the US; Concern for Marijuana Use

A new study, published in JAMA Pediatrics and led by a team of scientists at the National Institute on Drug Abuse (NIDA), sought to gain a better understanding of how adolescent brains respond to a variety of recreational drugs. Previous research suggested that early exposure to marijuana, nicotine and alcohol might lead to faster development of substance use disorders. But the new analysis cast a wider net, looking at the effects of nine different drugs, including opioid painkillers, stimulants, marijuana, alcohol, cigarettes, cocaine, heroin, methamphetamine and tranquilizers. This study examines the association of time since first substance use with substance use disorders among young people in the US.

The researchers used data from the government's National Survey on Drug Use and Health, a closely watched annual study that tracks substance use and mental health issues among Americans. The new research focused on two age groups: adolescents between the ages of 12 and 17, and young adults aged 18 to 25. Alcohol was by far the most commonly used substance in both groups: A quarter of adolescents and 80 percent of young adults said they had used it. About half of young adults said they had tried cannabis or tobacco. But among adolescents, that number was smaller: Roughly 15 percent said they had experimented with cannabis, and 13 percent said they had tried tobacco.

The research suggests that young people may be particularly vulnerable to the intoxicating effects of certain drugs, and that early exposure might prime their brains to desire them. The findings have implications for public health policymakers, who in recent years have called for increased screening and preventive measures to reverse a sharp rise in marijuana vaping among teenagers. Most troubling to the researchers was how many people went on to develop a substance use disorder (SUD), indicating that their experimentation had spiraled into an addiction. The researchers found that within a year of first trying marijuana, 11 percent of adolescents had become addicted to it, compared to 6.4 percent of young adults. Even more striking was that within three years of first trying the drug, 20 percent of adolescents became dependent on it, almost double the number of young adults.

Adolescents who tried prescription drugs were also more likely to become addicted. About 14 percent of adolescents who took prescription stimulants for recreational use went on to develop a substance use disorder within one year, compared to just 4 percent of young adults. And while 7 percent of young

adults who tried opioid painkillers became addicted soon after taking them, that figure rose to 11.2 percent among younger users. Results-Adolescents and teenagers who experiment with marijuana and prescription drugs are more likely to get hooked on them than young people who try these drugs for the first time when they are college-aged or older, according to a new analysis of federal data.

For alcohol and tobacco, however, there was not much of a difference between the two age groups: Both older and younger youth had a similar rate of developing a substance use disorder. And for illicit drugs such as cocaine and heroin, the number of adolescents using them was too small for the researchers to draw any meaningful conclusions.

NIDA maintains one possible explanation for the findings is that young people who have a greater predisposition to developing an addiction may be more likely to seek out illicit drugs at an earlier age. It is known that cannabis and other drugs can have a potent effect on adolescent brains because they are still developing. Younger brains exhibit greater plasticity, or ability to change, than the relatively static brains of older individuals. As a result, drugs like cannabis are more likely to alter synaptic connections in younger brains, leading to stronger memories of pleasure and reward and occurs much faster in the adolescent brain.

Studies show that regularly using marijuana can affect cognition in adolescents, leading to impairments in parts of the brain that are involved in learning, reasoning and paying attention. Yet in recent years the booming popularity of e-cigarettes has led to a sharp increase in the number of adolescents who vape nicotine and marijuana, a trend that has alarmed public health officials. Some studies suggest that adolescents may also be more likely to try marijuana as more and more states legalize its recreational use. As states implement new marijuana regulations, policymakers should work on measures aimed at protecting adolescents. Pediatricians and dentists should screen for drug use in their young patients by asking them about it.

According to NIDA researchers, as it relates to marijuana, the drugs that were available when parents today were teenagers are very different from the drugs that are available now as the content of THC is much higher, and the higher the THC content, the greater the risk of adverse effects. Researchers also cautioned parents not to dismiss marijuana use in teens and adolescents as something that is harmless.

JAMA Pediatrics is a monthly peer-reviewed medical journal published by the American Medical Association. It covers all aspects of pediatrics. For more information please visit www.jamanetwork.com.

The National Institute on Drug Abuse (NIDA) is a United States federal-government research institute whose mission is to "lead the Nation in bringing the power of science to bear on drug abuse and addiction." For more information please visit www.drugabuse.gov.

The SAFE Glen Cove Coalition is concerned about marijuana use and its consequences on the health and development of youth. To learn more about the SAFE Glen Cove Coalition please follow us on www.facebook.com/safeglencovecoalition or visit SAFE's website to learn more about marijuana use at www.safeglencove.org.