There are many different definitions of “gateway drug use”. Some are clearly not true, typically because they are too specific or simplistic. A good example would be to wrongly assert that most youth who use alcohol go on to use marijuana, and then go on to use other drugs. In many youth populations, the majority of youth who regularly use alcohol don’t go on to use of other substances. There is still a remarkably strong gateway effect, in that pre-teens and teens who don’t use alcohol are very unlikely to start use of post-gateway drugs (heroin, meth, or cocaine, for example) so long as they don’t begin to regularly use alcohol. When this is expanded to say that at least one gateway substance is almost always used before any other drugs, it becomes even more universal.

Understanding what’s behind the gateway phenomenon is a vital part of understanding patterns of substance use and abuse. Understanding why certain substances function as gateway drugs helps understand: (1.) The development of substance use and abuse, and; (2.) How and why youth who already regularly use a gateway substance may need a very different type of preventive intervention than youth who don’t regularly use any psychoactive substance.

**Development of Substance Use and Abuse**

The following is based on the “Comprehensive Theory of Substance Abuse Prevention,” which is available upon request ([amarkwood@chestnut.org](mailto:amarkwood@chestnut.org)).

The pattern of rapid increase in percent of youth who use alcohol and other drugs as a cohort of youth move from pre-teen to late teen years is largely driven by social influence and substance availability. Though that is an appropriate focus for discussion of the gateway phenomenon, an important additional dimension to understanding substance use is recognizing that there are some youth who are at heightened risk of substance use and abuse due to “profound childhood challenges” in the first few years of life. Such challenges can occur as early as conception, due to neurological problems from genetic and (prenatal) environmental sources, or from circumstances of young childhood. Quoting from the Comprehensive Theory:

> The meaning of “profoundly challenged” centers on impact of life events and/or early neurologic impairments on a child’s social-emotional functioning. This refers not to intelligence or physical abilities, but the capacity to function socially in some positive manner. Not all children exposed to child neglect, child abuse, or domestic violence will develop early risk for substance use, but such traumas put children at risk for a variety of later behavioral problems, with precocious substance use and substance abuse being among the possible problems.
The power of the damage done by profound childhood challenges is substantial enough to be an important exception to the general rule of the pre-eminence of social influence and substance availability as main risk factors toward substance use and abuse. Among the subset comprised of all youth who experienced profound childhood challenges, the problems caused by those challenges can rival social influence as an active risk factor for substance use and abuse. However, among the general population, most youth have not experienced childhood challenges of sufficient magnitude to substantially undermine their ability to function in a social manner. That is why it is appropriate to focus the current discussion, regarding the gateway phenomenon, on the main factors of social influence and substance availability. Those factors powerfully affect all young people, including those who have the additional complication of impaired social functioning from an early age.

Social influence is not synonymous with peer pressure. The subjective experience of social influence is typically not one of being pressured but rather attaining personal insight on what has been missing in one’s life, based on what is perceived in the social environment. While social influence can occur at any age, it tends to be most powerful in childhood and adolescence. Early adolescence may feature blatant copying of behaviors based on a clear goal of “fitting in” with one’s peers, while later adolescence may be more characterized by individualism in many. In both instances, though, the behavior is part of the central developmental task of adolescence: through some combination of discovery and decisions, establishing one’s identity. It is a process of establishing the ways in which one is like others, and ways in which one is different. This is the internal source of the power of social influence as a risk factor for substance use, or a protective factor against use, depending on a young person’s social environment, or their perception of that environment.

The question of whether to use alcohol (or any other gateway substance) typically enters the realm of social influence when a young person perceives that many peers or some highly respected peers use that substance. Such perceptions can be heavily based on media portrayals of teens, as well as an adolescent’s direct experiences, and can range from accurate to grossly inaccurate. In the vast majority of cases of erroneous perceptions, the error is an overestimate of peer use rather than an underestimate. These overestimates of peer use are one major driver of risk of use.

Over time, young people may perceive not only that peers use, but that they continue to use and appear to suffer no major health or social consequences. Any facts taught or told to young people about dangerous effects of any of the gateway drugs are very likely to be tested by perceptions about youth who use them. Unless a particular fact about a danger of a specific gateway drug is validated by being somewhat common and observable among teen users, it may easily be dismissed as adult hyperbole, rather than a fact about probabilities of damage.

Based on the processes described so far, one can begin to see why some substances function as gateway drugs. In order for the social influence process to lead to substance use, there must be at least one substance that is widely available to youth and that appears
to be used by peers without substantial negative effects. If many substances with such characteristics are available, the specific gateway drug(s) used will depend on the relative availability and apparent popularity and safety of the drugs as perceived by each teen or pre-teen.

Once a young person tries using a substance, they begin to be influenced by what they experience when using. The more pleasurable the sensations caused by drug use and the more enjoyable the social interactions that seem to go along with use, the more likely use will continue. The sensations involved are apparently influenced by genetics, as research has established some genetic susceptibility to drug abuse and dependency, and a tendency for those who have such susceptibility to experience more pleasure from use than those who don’t share the genetic susceptibility. It is important to note that genetic susceptibility is not required for substance use to continue and become more problematic. Genetic susceptibility can heighten risk, but sustained heavy use can cancel any genetic or other protective advantage that some youth may have at the time of their first use.

**Post-Gateway Substance Use and Abuse**

Until a young person begins regular use of a gateway substance, they may be susceptible to primary prevention efforts that counter social influence toward use, by some combination of decreasing exposure to pro-use messages and images, increasing exposure to anti-use messages and images, and educating youth on how to analyze and neutralize the impact of messages that imply that youth substance use is widespread and safe. Once a young person starts regular use of a gateway substance, primary prevention efforts based on social influence are likely to be insufficient. Rather than having to depend on perceptions of others’ use, the young person who tries drinking or smoking and finds it to be pleasurable and/or relatively safe may continue use mainly based on their own experiences. Their continued use puts them at higher risk for initiating use of other substances. Consideration of why this is the case is important for selection of further prevention or intervention strategies.

As was discussed or implied previously, one explanation for the increased risk is that some proportion of those who begin regular use have other risk factors that contributed to initiation and that also make use of other drugs more likely. However, that is not the only explanation and may not be the main reason for the observed increase in likelihood of other substance use (and of drug dependence and other problems) once a young person is regularly using a gateway substance. Gateway drug use can facilitate other drug use in a variety of ways. (1.) The lack of observed major negative effects on oneself and on peers who are using a substance can seem to validate a young person’s perception that trying to get high isn’t as dangerous as many adults warn it is. Some youth may recognize that heavy use of a substance or use of more than one substance raises the risk, but other youth may not see this. (2.) Connecting a young person to a peer group that both skews perception of peer norms toward substance use and provides a potential avenue to procurement of illicit drugs can greatly facilitate use. (3.) Depending on the interaction of substance(s) used, user vulnerability, and frequency of use, gateway substance use can
impair key aspects of thought involved in decision making about other drug use. Marijuana is particularly suited to this effect due to the combination of its subtle, yet measurable impact on thought and the longer amount of time it remains in a person, compared to drugs that aren’t fat-based. (4.) Even if risk is perceived, it can be overtaken by the appeal of repeating a “high”, especially to the extent that dependency is developing. The sensation of being high can be extremely motivating, especially to persons more vulnerable to that effect. An extension of this is that in some instances regular use of one substance may chemically “prime” the brain for use of other substances that affect the brain similarly, but this kind of effect seems to be less common than some of the other avenues of gateway effect.

The upshot of all this is that efforts to stop or decrease substance use may need to be different according to whether the youth in question have already started regular use of at least one gateway substance. Although there are some strategies that apply both to non-using and already using segments of the youth population (particularly many regarding substance availability), other strategies may not only be different for the two subpopulations but actually contradictory if applied to the wrong group. Probably the best examples of this potential conflict are strategies that focus on preventive education regarding post-gateway substances. While it is appropriate for some information about post-gateway substances to be part of a school curriculum or preventive education program, any substantial focus on those issues in a class for the general population of youth runs the risk of implying that such substance use is common among teens, and this in turn can engage the mechanism of social influence toward use. The percent of high school seniors using cocaine, LSD, methamphetamine, or heroin has varied over time, but past year use of each of those substances has never reached 10%, and of 2010 was at or under 3%. For the general population of teens, prevention should focus on larger issues about substance use and specifics about gateway drugs, taking care to avoid implying that even gateway use is a typical or appropriate part of teen years.

For youth who are already regularly using a substance, approaches that focus on social influence or on general dangers of substance use are not likely to succeed. Although some proportion of these youth may eventually learn on their own through life experience to stop use, many others will not be able to reverse a spiral toward heavier use and worse consequences without some form of individual intervention by family, friends, and/or substance abuse treatment professionals. Youth initiation of regular use of a gateway substance is therefore a very significant step, implying higher risk of later problems, higher risk of trying other substances, much lower chance of success of general preventive messages, and increasing need for intervention of some kind. The observation that some people are able to continue to use without spiraling into greater self-destruction is far from being an adequate response to concern about the toll of substance use on individual youth, their families, and their communities. There are many good reasons to try to stop youth before the gateway, at the gateway, or as soon after regular use starts as can be done.
A Note about Variation in Gateway Substances

Alcohol has been an especially common gateway substance, so has been featured in the above discussion. However, the list of what substances serve as gateway drugs does vary over periods of time and across regions. Currently most American youth start with alcohol use, though some may first use tobacco, inhalants, marijuana, or some other substance. The term “use” in this case refers to ongoing use of a substance: more than just one or two times. Youth who use a gateway substance (especially alcohol) only once or twice are essentially non-users, or more like non-users than regular users.

From the current perspective, a decade into the 21st century, there is legitimate speculation that prescription drugs may be becoming a gateway drug. Prescription drug abuse has increased tremendously during the past ten years as prescription drugs have become more easily available and widely distributed. Prescription drugs seem to serve in some cases as intermediate gateway drugs: not the first used, but part of a quick progression from just alcohol or marijuana to post-gateway drugs like methamphetamine or heroin. While some youth may begin regular “non-medical” use of prescription drugs without having used any illicit drugs, it is still currently rare to find a young person who began non-medical use of a prescription drug before they began to drink regularly. Unfortunately, the combination of alcohol and prescription drug use can greatly increase the danger to young people who use both simultaneously.