The US legal cannabis market is growing rapidly, and California is leading the way. It has the largest legal cannabis market in the world, and the industry is expected to continue expanding. For better or for worse, many states have adopted practices similar to those in California; across the US, California has become a bellwether. Because of its geographic, economic, and cultural diversity, California is a laboratory for the vast natural experiment studying how state and local policies are associated with cannabis use and related harms and is able to generate valuable lessons for decision makers in other jurisdictions.

On the positive side, arrests for cannabis possession offenses, a conveyor belt to widespread incarceration, have continued to decline. A system for legal access has been created, which has also created enormous tax revenue and new jobs for Californians. Unfortunately, however, California has failed to take seriously the public health concerns about cannabis, particularly as they pertain to vulnerable populations. Emblematic of the misalignment of state priorities with public health objectives, the California State Fair will hold its first-ever cannabis competition in July 2022. Prizes will be awarded for the cannabis flower with the highest concentration of the cannabinoids tetrahydrocannabinol (THC) and cannabidiol. Cannabis products with high concentrations of THC, cannabis’s main psychoactive ingredient, are associated with psychosis and psychotic symptoms, dependency, and other health problems. The prize for highest THC content epitomizes the lack of governmental recognition that this cannabis characteristic drives cannabis use disorder and its negative health consequences.

Meanwhile, rates of cannabis use among California’s most vulnerable populations continue to increase. Research has documented worrisome growth in cannabis use among pregnant individuals in Northern California since 2009, with relative rates of daily use increasing most rapidly and the prevalence more than doubling by 2017, accompanying large increases in prevalence and frequency of use among adults in general. Cannabis exposures reported to the California Poison Control System tripled between 2010 and 2020, particularly among children who ingested candies and gummies. And though research has so far suggested little effect of legalization on adolescent prevalence rates, studies have also shown growing persistence of youth use and progression to higher-potency products.

Although cannabis has valuable therapeutic uses for certain conditions in adults and even for rare seizure disorders in children, public health implications associated with wide availability, particularly of high-potency products, need to be taken seriously when developing regulations for recreational markets. Frequent cannabis use during adolescence is associated with risk of cannabis addiction; impairments in attention, memory, and learning; and mental health issues. Cannabis use during pregnancy is associated with low offspring birth weight, and recent research from the National Institutes of Health’s landmark Adolescent Brain Cognitive Development study found that exposure to cannabis in utero was associated with neurodevelopmental problems in 9-year-old children. Highlighting growing concerns related to the effects of cannabis on the developing brain, the US Surgeon General issued an advisory in 2019 recommending that adolescents and pregnant individuals abstain from cannabis use, noting in particular the harms associated with higher-potency THC products.
Despite the evidence of negative effects, particularly on vulnerable populations, the balance of cannabis regulation in California, as well as most states in the US, favors industry-friendly regulations rather than true public health protections beyond those gains achieved by eliminating prohibition. Yes, California state policies include package warnings about use in pregnancy and during adolescence. However, the warnings are printed in size 6-point font and relegated to less-visible or even hidden placements. More prominent warnings, like those required globally for tobacco, could help alert consumers to potential health risks of cannabis use, particularly for youth, and of exposure to cannabis in utero. California also has enacted strict age requirements for sales, but a recent study shows that 85% of a random sample of retailers throughout the state did not require proof of age until inside the establishment, where positive messaging, advertisements, and child-friendly products are featured and can be seen by youth accompanying their parents but seated in a waiting room. The cannabis industry is not held accountable for misleading or inadequate information regarding the safety of cannabis during pregnancy, which is why cannabis retailers have been caught recommending the use of cannabis for pregnancy-related symptoms. Although California limits the amount of the psychoactive ingredient in a package of concentrates or oils, the limits are so high that a standard vaping cartridge containing 80% THC has the equivalent of 160 5-mg doses of THC. This would be similar to selling beer in standard packages equivalent to a keg.

We learned with alcohol and tobacco that tightening regulations once markets are in place is difficult, given the power these industries wield once they generate jobs and tax revenue. In California, the state government reissued proposed regulations that weaken or eliminate important safeguards with potential to protect youth and pregnant individuals, including allowing warnings to be hidden, allowing the sale of teen-friendly cannabis flavor additives (terpenes) to inhaled products, weakening the definition of youth-appealing advertisements, expanding branded merchandise known to increase adolescent use, and allowing smoke-filled on-site consumption lounges to start serving food and drinks. The state government also continues to omit provisions that effectively address overconcentration of cannabis retailers, despite robust alcohol, tobacco, and now cannabis research showing that greater retail availability is associated with increased use. Finally, the industry is pressing for and is in negotiations with the state government regarding reductions in cannabis taxes that fund the very initiatives necessary to support public health objectives.

Now, more than ever, where states decide not only to decriminalize but also to permit cannabis commerce, it is imperative to ensure that legal access is in fact safe and does not promote more dangerous products that undermine our public health goals. We are still learning what the best practices are for cannabis, but the science is clear from decades of lessons from tobacco and alcohol research that weak safeguards negatively influence public health and do not bode well for the mental and physical well-being of the next generation. Without robust oversight of what industry is intentionally putting in its products (beyond testing for unintentional contaminants) and strict limits on high-potency products, the cannabis industry will continue to evolve in ways inconsistent with the public’s health. Rather than prizes for the most addictive, high-potency cannabis products, states should consider taxes tiered to THC content, which have been adopted by New York State; potency limits, which have been used by Quebec and recently proposed in Connecticut; strong, rotating front-of-package health warnings and warnings on advertisements now under consideration in California; and prohibitions on flavored products, which have been pioneered by California’s Contra Costa County. As a nation, we have a collective responsibility to the next generation. It is time to stop harming children by allowing industry to invent increasingly potent and youth-appealing products and end stigmatizing pregnant individuals who use a product sold by an industry that profits from misleading claims of safety. Instead, where legalization is in place, let us create an environment that protects the vulnerable and steers those adults who use cannabis toward moderate use of safer products.
Why Industry-Friendly Cannabis Market Regulation is Not Good Public Health

REFERENCES