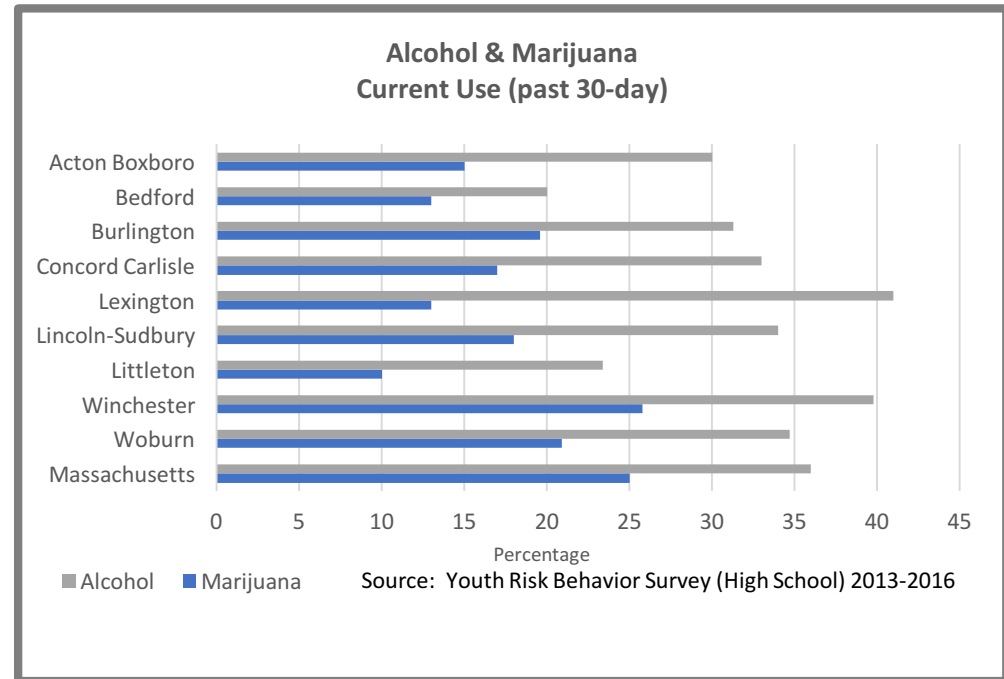


### A Brief Overview: Alcohol, Marijuana and Prescription Drug Use

Alcohol has long been, and remains, the most commonly used drug for youth, despite growing concerns about marijuana and opioid use. Youth who start drinking before the age of 15 are 6 times more likely to develop alcohol dependence or abuse.<sup>1</sup> Communities are also grappling with the recent legalization of marijuana leaving many looking for ways, such as zoning and referendums, to protect youth from increased availability. Finally, concerns about marijuana and alcohol are often dwarfed by terrifying statistics about the current opioid epidemic. In Massachusetts in 2015, unintentional opioid overdose deaths were 22.6/100,000 residents.<sup>2</sup> The majority of people who overdose are over 25 years old, White, and male. Prescription drugs – which for some leads to heroin as it’s cheaper and more accessible - are second only to marijuana for the most abused drug for youth.<sup>3</sup> The prescribing rate for opioids for adolescents and young adults nearly doubled between 1994 to 2007.<sup>4</sup> For the purpose of this overview, we will focus on marijuana, specifically the current state of legalization in Massachusetts and what communities can do to protect youth from Marijuana.

### Marijuana

**Decriminalization:** In 2008 Massachusetts decriminalized the possession of small amounts of marijuana (less than 1 ounce, about 50 joints). In 2012, medical marijuana was passed by referendum, and most recently, marijuana was legalized by a ballot initiative which passed in November 2016, and went into effect in December 2016. Adults 21 or older can now possess or use up to an ounce of marijuana and grow up to 12 plants per household (up to 6 plants per person). Commercial business for marijuana will not begin until



<sup>1</sup> Centers for Disease Control

<sup>2</sup> Data Brief: Opioid Overdose Deaths among Massachusetts Residents [www.mass.gov/eohhs/docs/dph/quality/.../data-brief-overdose-deaths-may-2016.pdf](http://www.mass.gov/eohhs/docs/dph/quality/.../data-brief-overdose-deaths-may-2016.pdf) Accessed 3/18/17

<sup>3</sup> Monitoring the Future Survey, 2013

<sup>4</sup> Fortuna R.J., Robbins B.W., Caiola E., Joynt M., Halterman J.S. (2010) Prescribing of controlled medications to adolescents and young adults in the United States. *Pediatrics*,126(6):1108-1116.

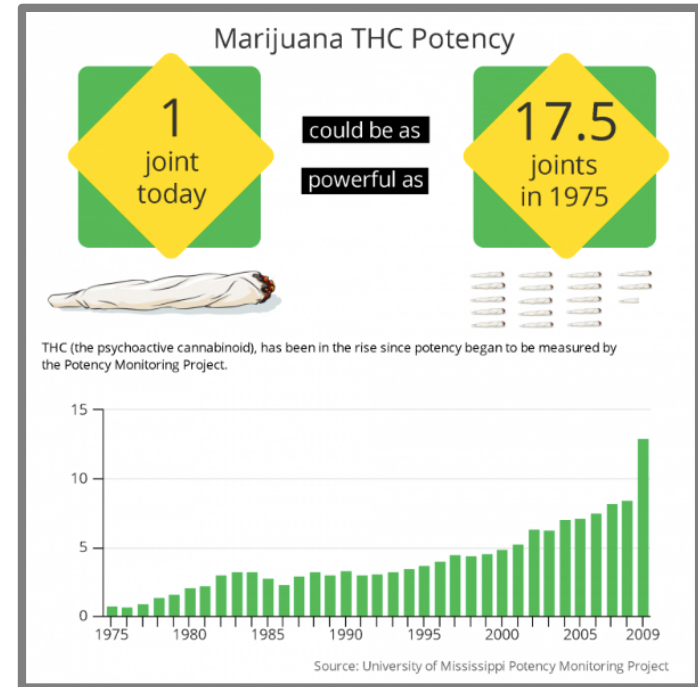
January 2018 when the first licenses will be issued. It is important to note that only sales from a retailer are legal and this market will not open until 2018.<sup>5</sup> Selling marijuana outside of the regulated market is a crime punishable by up to 2 years of incarceration and up to a \$5000 fine. Despite being legalized in several states, marijuana remains forbidden under federal law.

**Addiction and Youth:** Those who begin using marijuana before age 18 are 4-7 times more likely to develop a marijuana use disorder according to the National Institute on Drug Abuse. Also, studies suggest that 9% of people who use marijuana become dependent on it (NIDA). For teens, that number is about 17%. Dependence is characterized by withdrawal symptoms such as irritability, mood and sleep difficulties, restlessness and other forms of discomfort.

**Marijuana Potency and Its Impact:** Marijuana has become more potent over the last several decades. The mind-alerting ingredient, THC (tetrahydrocannabinol), was on average 3-4% in the 60's, 70's and 80's and in 2014 it was 12%<sup>6</sup>. Significantly for youth, regular use of marijuana can be detrimental to brain development. A prospective study of 1037 individuals in New Zealand found that "persistent marijuana use disorder with frequent use starting in adolescence was associated with a loss of an average of 6 or up to 8 IQ points measured in mid-adulthood."<sup>7</sup> It can also lead to an increase risk of psychosis.<sup>8</sup> Finally, edible marijuana presents a particular concern because it may be inadvertently consumed by young children, but also because there is a *delay in onset of about 30 minutes*, potentially leading to consumption of large amounts of marijuana.

**What Can Communities to Prevent Substance Misuse?**

- ✚ Ban marijuana shops through local referendum.
- ✚ Limit marijuana shops to 20% of the number of liquor stores in that city/town, and regulate the shop's location, signage and hours.<sup>9</sup>
- ✚ Provide prevention programming at schools to athletes before they reach high school, and require attendance by parents.
- ✚ Conduct social norms campaigns (education which shows students that the majority of their peers do not use marijuana).
- ✚ Educate about delay in onset as well as safely storing marijuana (especially edible marijuana). For other community-based prevention strategies, see the National Institute on Drug Abuse, Planning for Drug Abuse Prevention in the Community.



**Go to CHNA15.org for more data, and to learn about CHNA 15's work.**

<sup>5</sup> Miller, J. (2016, Dec. 13). With pot law, Mass Enters Legal Gray Zone. *Boston Globe*

<sup>6</sup> ElSohly, M.A., Mehmedic Z., Foster S., Gon C., Chandra S., Church J.C., (2016) Changes in Cannabis Potency Over the Last 2 Decades (1995–2014): Analysis of Current Data in the United States, *Biological Psychiatry*, 79(7):613-9.

<sup>7</sup> Meier M.H., Caspi A., Ambler A., et al. (2012) Persistent cannabis users show neuropsychological decline from childhood to midlife. *Proceedings of the National Academy of Sciences of the United States of America*, 109(40):E2657-E2664.

<sup>8</sup> Kuepper 2011, Large 2011, Di Forti 2015

<sup>9</sup> Levenson, M. (2016, Nov. 15) Not in my backyard: Mass. Communities hope to shut out local pot shops *Boston Globe*