



CLAIM	RESPONSE
-------	----------

**“[D]id you know that marijuana is on average 300 to 400 percent stronger than it was thirty years ago?”**  
- *Health Canada advertisement (Daro, 2014)*

- Scientific evidence suggests that cannabis potency, as measured by levels of THC, has increased in recent decades in some jurisdictions. In the United States, recent studies have cited average increases of 3% to 12% in THC content over the past three decades (El Sohly, 2014), which is equivalent to a 300% increase. Significant increases have not been detected for European countries other than the United Kingdom and the Netherlands (McLaren, Swift, Dillon, & Allsop, 2008).
- THC levels alone paint an incomplete picture of the impacts of cannabis potency. Other factors, such as the preparation and method of consumption, complicate our understanding of the effect of cannabis potency. For example, the common practice of mixing cannabis with tobacco effectively dilutes potency to levels below what would be experienced if it were smoked pure.
- Concerns over increases in cannabis potency are rooted in the assumption that higher levels of THC are harmful to health. However, the harms of increased cannabis potency are not yet fully understood by scientists. Perhaps counterintuitively, some research suggests that higher cannabis potency may actually lead to a reduction in health harms (especially related to smoking), as consumers might reduce the volume they consume (Van der Pol et al., 2014).
- It is important to remember that increases in cannabis potency in the United States have taken place despite increased efforts in reducing the illegal cannabis supply (Werb et al., 2013). Moreover, because stronger strains provide higher profits per unit weight, trends towards increasing potency are primarily a result of criminal-market economics. Prohibition has not been able to keep cannabis potency down, and has arguably contributed to driving it up.
- Importantly, under prohibition, illegal cannabis markets face zero quality control requirements. A strict, legally regulated market for cannabis would put the regulation of THC levels in the hands of governments and public health officials, not criminal entrepreneurs. In the case that cannabis potency is found to be associated with greater health harms, the regulation of cannabis markets by governments becomes even more vital.

**BOTTOM LINE:** Although this claim overstates the existing evidence, studies do suggest that there have been increases in THC potency over time in some jurisdictions.

**REFERENCES:**

Daro, I.N., 2014. The government’s scary anti-pot ad only bolsters the case for legalization. *Canada.com*. Postmedia News, Toronto.

El Sohly, M.A., 2014. Potency Monitoring Program quarterly report no.123 – reporting period: 09/16/2013-12/15/2013. University of Mississippi, National Center for Natural Products Research, Oxford.

McLaren, J., Swift, W., Dillon, P., Allsop, S., 2008. Cannabis potency and contamination: A review of the literature. *Addiction* 103, 1100-1109.

Van der Pol, P., Liebrechts, N., Brunt, T., van Amsterdam, J., de Graaf, R., Korf, D.J., van den Brink, W., van Laar, M., 2014. Cross-sectional and prospective relation of cannabis potency, dosing and smoking behaviour with cannabis dependence: An ecological study. *Addiction* 109, 1101-1109.

Werb, D., Kerr, T., Nosyk, B., Strathdee, S., Montaner, J., Wood, E., 2013. The temporal relationship between drug supply indicators: An audit of international government surveillance systems. *BMJ Open* 3.