## TO LIBERALIZE OR NOT TO LIBERALIZE THE RECREATIONAL USE OF CANNABIS: THIS IS NOT THE QUESTION

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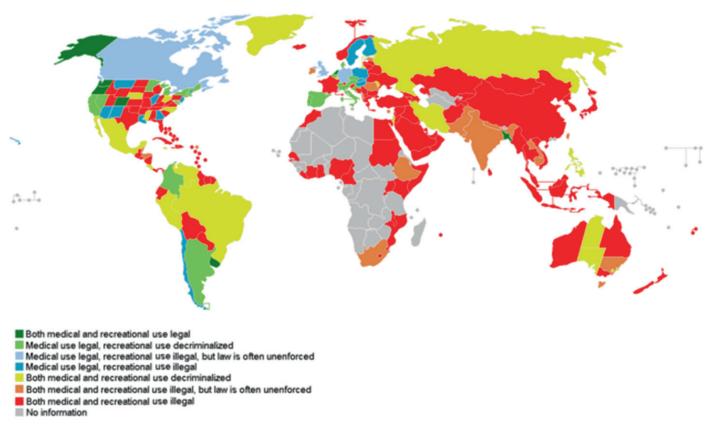
Despite years of war on its distribution, cannabis continues to be the most widely used substance of abuse in the world after alcohol, caffeine and tobacco. In practice, there is no nation that has not passed a law aimed at regulating the recreational use of cannabis. However, the legal consequences established by different countries are far from standard-ized; the use of street cannabis is variably considered to be legal or essentially legal, decriminalized, illegal but often unenforced, and, more commonly, illegal (Fig. 1). Furthermore, this scenario has not yet stabilized. In the last few years, some nations have re-examined their laws regulating the recreational use of cannabis and others are now considering this. In Italy, the current discussion is focusing on the pros and cons of changing from a decriminalized position to legal consumption.

Overall, the regulations on how to counteract the diffusion of street cannabis are largely written in the water because, despite years of passionate debate, there is no evidence that one option is unequivocally preferable to another. Therefore, the decision to liberalize or not to liberalize the recreational use of cannabis is essentially based on political considerations.

From a medical perspective, however, there is no doubt that cannabis has negative effects on human health and that the search for relationships between current regulations on the recreational use of cannabis and medical sequelae related to its consumption will have pivotal consequences on public health policies. From the point of view of health care, mental health reasonably has a major role. This conclusion does not come exclusively from the well-documented potential of cannabis to induce use disorders. Although a causal link has not been definitively proven, a large and continuously increasing body of evidence demonstrates that cannabis users have structural and functional abnormalities on brain imaging; develop acute and possibly long-lasting impairment of learning, memory and attention; frequently show apathy and avolition that may contribute to educational, social and volitional underachievement; are more prone to traffic accidents, and present an appreciable risk for the development of severe mental illnesses over time, particularly full-blown schizophrenia and schizophrenia spectrum disorders <sup>1</sup>. Taken together, these facts show that psychiatrists are in the firing line

of the detrimental effects of cannabis. Nevertheless, psychiatry has until now been excluded, at least in Italy, from official decisions and planning on the diffusion of street cannabis and the management of the associ-

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## FIGURE 1.

World Map showing the legal status of cannabis for medical and recreational purposes by country. Source: Wikipedia, the free encyclopedia. Date 30 January 2016. Source Own work Author Povke19991211.

ated clinical problems. Therefore, the Italian Society of Psychiatry (SIP) formally affirm their right and obligation to play a leading role in the current Italian debate on changing from the current decriminalized position of today to free access to the use of cannabis for recreational purposes. The SIP, as a professional institution, refutes any suggestion that they hold the balance in relation to the politicians' final decision but rather offers its competence and cooperation for constructive discussion and optimized application of the law, whatever it will be.

Acknowledging that the point of departure for an honest debate on the legal aspects related to the recreational use of cannabis is that both street cannabis and cannabis-related psychiatric problems are increasing phenomena, the SIP can begin by presenting a number of crucial issues, some of which apply to decriminalized and legal use of street cannabis, whereas others are especially important in the event of liberalization.

With regard to both decriminalized and liberalized use of street cannabis, educational campaigns unequivocally based on the message that recreational consumption of cannabis, especially when frequent and heavy, is bad, and sometimes extremely bad, for mental health are an absolute priority. Due to ignorance, ingenuity, party spirit or a mixture of these factors, too much of the current information on street cannabis continues to offer the idea that use of cannabis is substantially risk free. It is also important that the educational messages are systematically included in broader campaigns stressing that any distinction between hard and soft substances is not only scientifically indefensible but also misleading for promoting balanced and responsible opinions on the recreational use of substances in general. Good educational campaigns must be even stronger, if possible, in the event of liberalization of the recreational use of cannabis; otherwise, liberalization risks creating public opinion that the so-called soft substances are safe and confusion between the recreational and therapeutic use of cannabis. On the contrary, we are well aware that the two uses are incomparable and require independent rules. Support for an unequivocal separation between the two uses of cannabis may also be inferred, for example, from the sharp contrast in the literature showing that lower potency cannabis preparations are associated with therapeutic potential and the clinical experience showing that the negative health effects of cannabis increase with increasing potency <sup>2</sup>.

Another hot topic involves the health consequences associated with the recreational use of cannabis during adolescence. Many independent lines of evidence underline that the unhealthy effects of cannabis are maximized during adolescence. However, although essential, educational campaigns for adolescents are not enough to protect against street cannabis. Therefore, it is absolutely essential that the correct information on the recreational use of cannabis is coupled with the resolution to prosecute with severe sentences those who are caught pushing to young people.

It is essential that the issue of the potency of legal cannabis is resolved before any law on liberalization comes into force. Two main types of evidence lead to this conclusion. The first is that, in many countries, the concentration of  $\Delta^9$ -tetrahydrocannabinol has increased over the years to the point that it is difficult to consider the cannabis of today as the same cannabis as at the start of the millennium. For example, in the last 20 years, the percentage of  $\Delta^9$ -tetrahydrocannabinol has increased almost three-fold in the United States, and contemporaneously the  $\Delta^9$ -tetrahydrocannabinol/cannabidiol ratio has changed from approximatively 15 to almost 80.<sup>2</sup> Second, evidence once again from the United States underlines that samples from states that allow the use of cannabis have a much higher percentage of  $\Delta^9$ -tetrahydrocannabinol than samples from prohibitionist states.<sup>2</sup> This observation strongly supports the inference that laws on recreational use of cannabis affect the potency of street cannabis. Thus, it seems therefore realistic to suggest the parallel illegal market will quickly try to retain customers by offering street cannabis with a higher potency than the legal substance. In order to counteract this risk, two principal strategies may be hypothesized. The first implies a head-to-head competition between legal and illegal cannabis sales that will lead to an endless race to increase the potency of cannabis; this option is clearly unacceptable in practice for obvious ethical and medical reasons. The other strategy implies pre-identifying an unequivocal cut-off for the maximum content of  $\Delta^9$ -tetrahydrocannabinol allowed in legal cannabis and putting the necessary deterrents in place against the sale of street cannabis with a higher potency.

If and when legal cannabis enters the market, it is also highly recommended that, like cigarettes, the packages highlight that the recreational use of cannabis is associated with increased probabilities of mental deficit and disorders.

Furthermore, it is essential that any law regulating the recreational use of cannabis states in advance the funds to be assigned to psychiatry for supporting clinical governance, pre-clinical and clinical research, and educational campaigns. A law promoting the legal recreational use of cannabis could easily allow funding to be raised from the sale of cannabis. In turn, more restrictive laws would allow money to be shifted from the budget used for fighting the distribution of cannabis. In any case, politicians must keep in mind that the best way to counteract the recreational use of cannabis lies in education. Funds for education are therefore a top priority.

Last but not least, the passage from decriminalized use to liberalized recreational use of cannabis has the relevant added value of making tenable comparative studies on the incidence of cannabis-related clinical events that occur under the two different regulatory regimens. Such as research strategy could help to define once and for all a truly evidence-based preference between liberalized and decriminalized recreational use of cannabis. To miss such an opportunity could be a mortal sin.

## References

<sup>1</sup> Volkow ND, Swanson JM, Evins AE, et al. *Effects of cannabis use on human behavior, including cognition, motivation, and psychosis: a review.* JAMA Psychiatry 2016;73:292-7.

<sup>&</sup>lt;sup>2</sup> ElSohly MA, Mehmedic Z, Foster S, et al. Changes in cannabis potency over the last 2 decades (1995-2014): analysis of current data in the United States. Biol Psychiatry 2016;79:613-9.