

Drug legalization and public health: general issues, and the case of cannabis¹

Robin Room

Centre for Alcohol Policy Research, La Trobe University, Melbourne, Australia

Centre for Social Research on Alcohol and Drugs, Stockholm University, Stockholm, Sweden

Psychoactive substances have been a part of human experience since before recorded history began. They serve many purposes: as sources of pleasure, relief of distress, wakefulness or sleep, energy or tranquillity. They also bring health and social problems, both for the user and for others.

Whether through custom or law, access to and use of most of the substances has often been subject to social control. There is a considerable history of cultural and national prohibitions on use of psychoactive substances. For instance, there was a national prohibition on alcohol in 13 autonomous countries during the first decades of the 20th century (Schrader, 2010), and alcohol use is forbidden for observant Moslems and discouraged or forbidden in some strands of other major world religions. Historically, there have also been prohibitions on tobacco and other substances (Austin, 1978). For substances which have a substantial effect on behaviour, cultures have generally chosen either to tolerate use but attempt to limit it or to forbid its use (Room & Hall, 2013).

Where use of a substance which affects behaviour is not prohibited, there are commonly rules around its availability and use, and often formal regulations and laws. Such laws may specify, on the one hand, who can use and under what circumstances, and on the other, how, where and when the substance can be promoted and sold or served. Where such a substance is legally available in a society with a market economy, controls on the promotion and marketing of the substance become a crucial public health issue – as experience with the difficulty in limiting markets in alcohol and tobacco in the last century makes clear.

In this chapter, our focus is on legalization in the full sense of the term – where a substance is legally produced and supplied, with whatever restrictions, for unrestricted use by the consumer. Thus we are not concerned with decriminalization or depenalization, where penalties are removed or softened for the end-user, but criminal penalties for producing or supplying the substance remain in place. We give particular attention to legalization of cannabis, since this is the main current arena where issues of legalization and public health are in play.

Public health approaches to legalization

A public health approach to legalization of substances which are attractive enough to carry risks of overuse and of other harms will inevitably be some variation on policies of “permit but discourage”, as a relevant book is titled (Bogart, 2011). Where private interests are supplying the

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substance in a market economy, there will always be pressure to expand the market, whether by advertising and other promotion to potential consumers, or by the “ratchet mechanism” (Mäkelä et al., 1981) of pressure to loosen restrictions on availability on policymakers, regulators or enforcers.

A public health approach to legalization thus needs to look in two directions: on the one hand, at loosening the constraints under which a substance has been in a prohibited status, and on the other hand, at installing mechanisms which limit availability and control promotion so as to discourage heavy use (Rehm et al., 2013) or other risky consumption, and which are resistant to commercial pressures for weakening. Concerning the constraints which require prohibition, we pay primary attention here to the international level, since it can be argued that that has been the level which has been overriding until recently, and which is still important. Concerning limiting the market, our attention will be primarily at the national or subnational level (the latter particularly in federal countries), since these are the primary levels for market regulation in the interests of public health. It should be recognised, however, that prohibitory impulses are not limited to the international level. In the last half-century, many governments have been elected on the basis of platforms of cracking down on illicit drugs, and in many places the weight of popular sentiment is still towards drug prohibition. On the other side, it must also be recognised that the forces seeking to open up and “grow the market” are not only at national and local levels. Large and powerful multinationals dominate the alcohol and tobacco markets, not to mention the markets in medical psychopharmaceuticals, and if unchecked are likely to move to a dominant position in the market in any other substance with wide appeal not long after its legalisation. Beyond their marketing expertise, such global corporations tend to be far quicker than regulatory agencies at transferring successful innovations from one jurisdiction to another.

This discussion does not deal with provisions for medical use of a substance under prescription. Where this alternative exists in an otherwise prohibitory system, the fact of the prohibition may indeed distort the functioning of the prescription system (see Babor et al., 2010b, Chapters 6 & 12). In a further distortion, in some states in the U.S. making “medical marijuana” available as a medication was in part seen as a stepping-stone towards full legalization, and rules around medical availability have been set quite loosely; 5% of adults in California, for instance, had used medical marijuana by 2012 (Ryan-Ibarra et al., 2012). Where cannabis for nonmedical use becomes legally available, medically prescribed cannabis may be expected to lose prominence --- although lighter restrictions on availability for medical marijuana, including a lower price because it was not taxed, meant that this was not the case in the months after Colorado’s legalization of recreational cannabis (Ghosh et al., 2016). Meanwhile, in the dozen or so countries other than in North America which now provide for prescription of cannabis, the medical availability is often little different from the situation for other prescription psychopharmaceuticals.

Drug control at the international level

Nowadays there is a global system of drug control which includes many psychoactive substances, but by no means all. It is governed by three international treaties, dating from 1961, 1971 and 1988, to which most countries are parties. Under the treaties, governments can permit medical or scientific use of the substances subject to the treaties, but no other use is allowed (Babor et al., 2010b).

Among other goals, the treaties can be regarded as intended to promote public health. A major justification offered in the preamble to the 1961 treaty is that it is aimed against “addiction to narcotic drugs”. Among the criteria for including a substance under the control of the 1971 treaty is that there is “evidence that the substance is being or is likely to be abused so as to constitute a public health and social problem warranting the placing of the substance under international

control". In another public health-related facet, the treaties also aim to facilitate "adequate provision" of supplies of the substances for medical use.

But the division of the United Nations system which has charge of the drug control treaties, the Office on Drugs and Crime (UNODC), is responsible for international crime control, rather than public health. While the system had always been multiply motivated, crime control and the illicit market became its dominant concern in the late 20th century (Carstairs, 2005), as epitomized by the combination of the UN drugs and crime offices in 1997. In the Cold War era, drug criminalization and control was a rare international arena in which the two sides could mostly agree. In compliance with the treaties, laws in most countries criminalize not only markets in substances controlled under the treaties, but also a consumer's possession of the substances other than for medical purposes. At national levels, too, criminal justice concerns and agencies are at least as much involved as public health concerns and agencies, and often take priority.

A fourth international treaty, the Framework Convention on Tobacco Control, which took effect in 2005, is unambiguously a public health treaty, under the jurisdiction of the World Health Organization, and with production and distribution remaining legal. Tobacco became ever more identified as a public health menace in the second half of the 20th century, but as a legal substance with politically strong corporate and state producers, it seemed inconceivable to prohibit it, and sporadic attempts to bring it under the drug treaties were quickly stifled. Unlike the drug treaties, the tobacco treaty's provisions are primarily "soft law", recommending actions to parties rather than requiring them. Nevertheless, experience in the first decade of the treaty suggests considerable success in motivating parties to adopt measures that it recommends (e.g., Sanders-Jackson et al., 2013).

Many psychoactive substances are not covered by the international treaties. Some are in wide traditional use in particular global regions – e.g., khat, betel nut – and some are more local, but use is primarily as a folk custom without highly centralized and capitalised production and distribution. Others are "new psychoactive substances" (NPSs), a mixed category including both newly invented or promoted substances and some longer-established but not listed under the conventions (Seddon, 2014).

And then there is alcohol, which is both widely used and highly commercialized, but which is not covered by any international treaty. If it were to be considered for coverage under the 1971 drug treaty, it would clearly qualify for scheduling in terms of the treaty's criteria (Room, 2006); but since this would require that all nonmedical use be prohibited, the drug control system has never formally considered it for scheduling. When the present author attempted to get the WHO's Expert Committee on Drug Dependence to review it for consideration for scheduling under the drug treaties, there was resistance to considering the motion, which was then referred for consideration "at some future Expert Committee meeting" (WHO, 2012). An alternative approach would be a separate convention on alcohol, for instance adapted from the tobacco convention (Room, 2006). But so far there has been no political appetite for this; for elites and staff in the international arena, it is "our drug", available for instance in the luncheon cafeteria at the World Health Organization headquarters.

Issues at the intersection between international controls and legalization

In current circumstances, a major reason why international agreements on psychoactive substances matter is the growing scope and power of global and other multilateral trade treaties. Psychoactive substances have been an important part of international trade since the wine amphorae of ancient times. Legal trade in such substances – for instance, in alcohol and tobacco products -- is rarely excluded from trade treaties, and there have been a number of judgements in

World Trade Organization (WTO) disputes disallowing national control measures on alcohol and tobacco (Ziegler & Ziegler, 2006). Despite formal provisions for exceptions on public health grounds, the narrow wording of the exceptions and the rules and the nature of the expertise drawn on for adjudication of disputes generally weigh against the public health interest (Rehm & Room, 2009; Liberman & Mitchell, 2010; McGrady, 2011). The tobacco control treaty in its current form does not include language addressing conflict with trade treaties, but such provisions are an important issue for future treaties grounded in public health concerns.

Although the three drug treaties also do not specifically address trade treaty provisions, there has been no WTO dispute filed concerning substances under their control (Babor et al., in press); presumably their prohibitionist stance and tight regulatory provisions concerning trade in controlled medications have warded this off. To the extent drugs are legalized, countering the market-opening intentions of the trade treaties becomes an important policy agenda. National or subnational regulations of legalized drugs need to be protected by treaty from attack in trade disputes and lawsuits.

For the substances scheduled under the international drug control treaties, the situation has been changing. There are three primary areas in which there has been movement as of 2016. The first is the setting of a modern precedent by which a country can remove itself from the treaty requirements for prohibition of a particular substance. Coca-leaf chewing is a long-established custom in Andean nations, and specifically in Bolivia, but had been included in the prohibitions of the 1961 treaty. After failing in an attempt to remove coca leaves from coverage by the treaty (just as cannabis leaves had always been excluded), in 2012 Bolivia withdrew from the 1961 convention and in 2013 successfully re-acceded with a reservation concerning the prohibition on coca leaves. There were minor symbolic and fiscal punishments along the way from the US and the European Union, but Bolivia's successful initiative confirmed a path by which a country can use internationally recognised procedures to remove itself from drug treaty coverage of a particular substance (Room, 2012b).

The second area has been a more general revulsion in much of Latin America against the "war on drugs" model of drug control. Efforts to eliminate the illicit drug trade, the primary markets for which have been in the U.S. and Europe, have taken a considerable toll on many Latin American countries. In 2009 a Latin American Commission on Drugs and Democracy, headed by ex-presidents of Brazil, Colombia and Mexico, issued a report arguing for decriminalization of cannabis use and to "reframe the strategies of repression against the cultivation of illicit drugs" (Latin American Commission..., 2009). The push by some Latin American countries for reform of the system has continued, though so far with little effect; for instance, Mexico, Colombia, Guatemala, Ecuador, Uruguay and St. Lucia together pushed for opening up the debate at the 2016 United Nations General Assembly Special Session (UNGASS) on drugs, brought forward at the instance of Latin American countries from an originally scheduled 2019 to April, 2016 (IDPC 2014:10).

The third area is the developing area of cannabis legalization. Other than in Uruguay, the movement has come primarily from civil society rather than governments, and is in the process of disrupting the international status quo, although there has been no change yet in the formal position of the international control system. Whereas the earlier Netherlands "coffee shops" system could be argued to be formally within the treaty limits, accomplishing this left it with the "back door problem" of having no provision for legal production (MacCoun, 2011). De-facto legalization of cannabis production as well as retail sale has come in Europe primarily through the growth of cannabis clubs in Spain, Belgium and elsewhere (Kilmer et al., 2012; de Corte, 2015), with each club locally organized. The formal systems of legalized cannabis production, processing and sale which have emerged in a growing number of US states have been legalized by citizens' ballot initiatives, not through elected legislators. Change from the national political level has begun to emerge, with Uruguay moving first at this level, and Canada committed also to legalize (Room, 2014, Rehm et al.,

2016). Defenders of the international control system are now putting a new emphasis on the system being “flexible and resilient” (IDPC, 2014), but there is no question that these systems are outside the bounds set by the treaties.

While there have been a number of suggestions of amendments to the treaties (Room, 2012c) or of a new Framework Convention on Cannabis Control to supersede the 1961 treaty with respect to cannabis (Room et al., 2010, pp. 162-191), there has as yet been no concrete sign of change in the international drug control system. Full legalization of any drug by the international treaties remains in defiance of the treaties, unless a maneuver like Bolivia’s is undertaken. On the other hand, the legalization of cannabis in states of the U.S. has compromised the moral authority of the country which has had the primary role in building and maintaining the drug prohibition system (Babor et al., in press). It is no longer clear that there would be substantial general international reaction against a controlled legalization of cannabis, as is now being undertaken in Uruguay and in Canada, although (as is the case for Uruguay and the US states) neighboring jurisdictions may well take a strong interest in developments at their borders.

Cannabis does not generally rank high in comparisons of the relative harmfulness of psychoactive substances, and there has now been a half-century in which it has had some popularity among middle-class youth in high-income countries. For most other drugs with substantial illicit use which are under international control, there would probably be a stronger international reaction, and legalization seems further off. Thus primary attention is paid in the remainder of this chapter to cannabis, where legalization already exists or is pending in a number of places.

Legalizing in the shadow of prohibition: a century’s experience with building regimes for alcohol and cannabis

There is plenty of precedent for building legal regulatory regimes when prohibition of production and sale of psychoactive substance is the alternative. U.S. states had to do this in a period of months following the election of November 1932, when it became clear that US federal alcohol prohibition was coming to an end. The states could draw on a considerable literature on relevant experience elsewhere (Catlin, 1931; Fosdick & Scott, 1933), including experiences with ending prohibition in Canada and Norway, for instance, as well as regulatory regimes elsewhere. There was also the U.S. experience from pre-Prohibition times, less than 15 years before.

Regimes for legalized alcohol. For alcohol, there were two basic choices in societies which had had a strong alcohol temperance history (Levine, 1992), so that alcohol was not regarded as just another foodstuff: the state could monopolize the market, or private interests could be licensed under a specific “liquor licensing” system. Government monopolies of alcohol sale were set up at the municipal level in Sweden and other Nordic countries and in the southern U.S. in the latter half of the 19th century (Room, 2000), in some places serving alcohol and in others selling it to take away. The often proved highly profitable -- which helped them to survive in a number of states, provinces and countries through the era of privatization in recent decades. Currently, the monopoly covers only part of the market, usually for take-away alcohol; in almost all jurisdictions with a monopoly today, there is also a liquor licensing system, for instance for restaurants. In terms of public health interests, alcohol monopolies typically have fewer outlets and shorter sales hours, putting some limits on availability. With a “disinterested management” not driven by a profit motive and staff in secure government jobs, conditions on sales and restrictions on purchasers (e.g., not selling those under legal age) are more likely to be complied with. An alcohol monopoly also fills a position in the market which in private hands would be lobbying to relax regulations so that sales could be increased. Studies of privatizations of alcohol monopolies have found that monopolies have an effect in holding down levels of alcohol sales and of alcohol-related problems (Her et al., 1999; Hahn et al., 2012).

In liquor licensing systems, as they operated until recent decades in societies which had had a strong alcohol temperance history, the number of licences granted was usually restricted, so that the licensee had the advantage of a non-saturated market. In return for this privileged position, the licensee was expected to follow detailed regulations limiting conditions of sale in the interest of public health and order. The systems adopted in this era were much more restrictive than today: in Canada, limits on purchase amounts per visit were common; in Sweden there was an individualised monthly ration of take-away spirits, primarily for males, with one in ten males denied a ration; in the U.K. and Australia, tavern opening hours were restricted (Room et al., 2006; Room, 2012a). Many of these restrictions were abandoned in the course of the second half of the 20th Century, in successive deregulatory waves, and substantial increases in alcohol consumption and alcohol-related problems ensued (e.g., Mäkelä et al., 1981; Norström, 1987; AMS, 2004). The U.S. alcohol control systems which cannabis legalization initiatives have promoted as a model are thus considerably less restrictive than at their inception in the 1930s.

There is a substantial scholarly literature available on the effects of regulatory controls on levels and patterns of alcohol consumption and on rates of alcohol-related problems (Babor et al., 2010a). Reflecting the historical experience since the 1950s, many of the studies are based on what happened when restrictions were removed or loosened (Olsson et al., 2002).

Regimes for legalised cannabis. There are two longstanding systems for legal availability of cannabis: in India and in the Netherlands. India had a historic tradition of consumption of cannabis for religious and secular purposes. Under the 1961 international drug treaty, countries with traditional patterns of use of scheduled drugs were allowed a 25-year period to eliminate this, and the Indian government reluctantly outlawed cannabis preparations forbidden under the treaty in 1985. However, at India's instance the treaty had specified that it was only the "fruits and flowering tops" of cannabis plants which were forbidden by the treaty. So bhang, an infusion of cannabis leaves, is legally sold at government-licensed shops in at least 5 states in India (Room et al., 2010, pp. 99-100). However, there seems to be no serious study available in English of the functioning and effects of these Indian state systems, which have operated largely under the radar of the international drug control system and of policy research.

The Dutch system of de-facto legalisation of retail sales of cannabis in "coffee shops" was set up after passage of a national drug law reform in 1976. National regulations specify a number of restrictions on the coffee shops: there can be no hard drugs or alcohol on the premises; quantities to be sold are limited (no more than 5gm. per customer per day); no sales or access to persons under 18 are allowed; advertising is forbidden. In 2013 access was limited to residents of the Netherlands only, though enforcement of this is a local matter (van Ooyen-Houben & Kleemans, 2015). Additional conditions, including a ban on coffee-shops, can be imposed locally. That for many years the Netherlands was known as the only high-income country in which cannabis for recreational use was (de-facto) legally available has resulted in considerable cannabis tourism. In part due to the resulting foreign-policy pressures, the policies have varied considerably over the 40 years of de-facto legalization (van Ooyen-Hoube & Kleemans, 2015).

In November 2012, voters in the U.S. states of Colorado and Washington voted to legalise cannabis production and sale, in 2014 Alaska and Oregon followed suit, and in November 2016 were joined by California, Nevada, Maine and Massachusetts, so that recreational cannabis has now been legalized for one-quarter of Americans. As of 2016, the U.S. state systems were still operating in a grey area legally, since cannabis remained legally prohibited under U.S. federal law. The federal government announced in 2013 that it would tolerate state legalization so long as the states had "strong and effective enforcement systems" which conformed to eight federal enforcement priorities (Caulkins et al., 2015b). But the continuing legal prohibition at the national level had major

effects on how state legalizations proceeded, for instance ruling out the option of a state monopoly on production or sale (Pardo, 2014), and so far effectively dissuading large multinational corporations from entering the market, since the prohibition makes it hard to raise capital for expansion and ignoring it would adversely affect their corporate tax rate. The continuing national prohibition also allows aggressive state and local market regulations which would otherwise contravene the US constitution's requirement of unfettered interstate trade.

In early 2012 the President of Uruguay proposed the legalization of cannabis production and use, and late in 2013 the law carrying this into effect was passed (Pardo, 2014). By mid-2016, while the new Colorado and Washington systems were fully functional, the Uruguay system was functioning only in part: home-growing and cannabis clubs had been authorised, but sales of cannabis grown under the control of a government monopoly and sold through pharmacies was not yet functioning, in part because of resistance from the pharmacies (Marshall, 2016).

Except for the Dutch experience, evaluations of the effects of cannabis legalizations are still very preliminary. In the forty years since the "Dutch model" was adopted, there have been substantial developments in the policy, responding in part to developments in the market (van Ooyen-Houben & Kleemans, 2015). Levels of cannabis use changed modestly, increasing after de-facto legalization, particularly after a proliferation of retail outlets and promotion, but then falling again as the system was somewhat tightened. That production and distribution have not been legalized has kept prices much higher than is now true in the US legalizing states, and thus restrained levels of consumption (McCoun, 2011). For the U.S. experience, reports on the era when medicinal cannabis became available suggest some increase in use, more at lower- than at higher-income levels, and a "professionalization" of distribution -- a shift from "gifting toward selling" (Davenport & Caulkins, 2016). An early report on the Washington state experience with legalization of recreational cannabis after July 2014 found the expected dramatic drop in prosecutions for cannabis possession, but that replacing illicit supply of cannabis with a regulated market was far from complete; and there was an increase in detected driving under the influence of cannabis (Roffman, 2016). As Hall and Weier (2015) note, "it may well be a decade before we can decide whether the legalization of cannabis use [in the U.S.] has increased population cannabis use and harms related to such use".

Cannabis legalization: The public health dimension in designing and regulating legal markets

The systems adopted in Colorado, Washington and other legalizing US states have reflected a number of considerations. All full legalizations in the US so far have been by popular initiative, and distrust of how the political system would implement a proposition worded only in general terms has meant that the regimes proposed in the initiatives are often specified in considerable detail, in over 100 pages of text. The coalitions which put together the proposals have included libertarians, those concerned about arrest rates for those involved in the illicit market, and cannabis aficionados – but also those with a financial interest in a legal market, notably including those already involved in supplying the legal medical marijuana market, which is already well established in the early-legalizing states. On the other hand, the initiatives include counterbalancing provisions to increase their appeal to a hesitant electorate. One appeal to electors has been the prospect of money being raised for worthy causes in the state budget from taxing cannabis in the legal market. Another has been to place cannabis in the same frame as alcohol, a legally available substance: "regulate marijuana like alcohol" has often been the title of US state legalization initiatives. Such a framing suggested a separate state licensing and regulatory regime with civil controls backed up by criminal laws, like the "alcoholic beverage control" authority in each US state. Other provisions seek to

prevent problems from cannabis use. Thus both the Washington and Colorado initiatives tightened the standard for the crime of “drugged driving”, specifying a relatively low limit of the main psychoactive substance in cannabis, THC, in a driver’s blood as the threshold above which driving is a crime. A further discipline on the U.S. systems as they have developed has been the federal enforcement priorities mentioned above. And, as noted, the shaping of the systems has also been influenced, less intentionally, by the continuing fact of illegality at the federal level.

As Caulkins et al. (2015b) emphasise, while the emerging US legalized systems differ in a number of details, they all follow the “for-profit commercial (or so-called alcohol) model” in their general architecture, whereas Caulkins et al. enumerate a dozen “supply alternatives to status quo prohibition”. From a public health perspective, the future results from the model the US states are following seem highly problematic. There are health and social risks from heavy cannabis use, even if they are less serious than from alcohol or tobacco, and a consolidated and eventually multinational legal cannabis industry operating under the for-profit commercial model will offer substantial stumbling-blocks to a public health approach. Already, public health researchers are describing the “legal cannabis industry adopting strategies of the tobacco industry” (Subritzky et al., 2016) and proposing approaches aimed at “avoiding a new tobacco industry” (Barry & Glantz, 2016b).

The moves toward legalization in North America have stimulated a substantial literature on public health considerations in the design and detailed provisions of regulatory systems for a legalized market. In terms of the alternative architectures described by Caulkins et al., public health-oriented discussions have tended to emphasise a state-monopoly or public authority model, where government-appointed agencies control the supply chain (e.g., Pacula et al., 2014; Rehm & Fischer, 2015; Barry & Glantz, 2016b). This is the primary model in the Uruguayan system (Walsh & Ramsey, 2016; Marshall, 2016). Caulkins and Kilmer (2016) add the consideration that “the ‘personality’ of the regulatory agency may matter more than the specific regulations. Will legalization vest power in an assertive agency that views its mission as reducing health harms ... or a ‘good government’ agency that merely insists that rules are followed.... Or, worse yet, does the agency, perhaps over time, end up viewing the industry as its primary constituency?” Experience with government monopolies in gambling, tobacco and alcohol warns us that public health is not necessarily the primary focus of such agencies; in regard to this, where the agency is located in government – whether it is in or reporting to a department with primary responsibility for state revenues, for consumer affairs, or for public health – may well be a crucial decision.

Otherwise, public health-oriented discussions of cannabis legalization have emphasised that “the devil is in the details”, as a Canadian contribution is titled (Rehm et al., 2016). Accordingly, public health-oriented analyses have presented and discussed regulatory provisions in substantial detail (e.g., Caulkins et al., 2015b), sometimes with comparative charts of the features of existing cannabis regulatory regimes (Pardo, 2014), and sometimes in comparison to a “public health standard” (Barry & Glantz, 2016b). An analysis of the two competing 2016 California ballot propositions on legalization compared their provisions with recommendations from a Blue Ribbon Commission and from a public health-oriented research committee (Barry & Glantz, 2016a). Public health concerns have also been expressed around unexpected features of the newly legalized commercial markets, such as the substantial retail promotion of marijuana edibles (McCoun & Mello, 2015) and the proliferation of intake of cannabis by “vaping” (vaporization) (Budney et al., 2015).

The overriding public health issue in legalization: building a durable regime of mild discouragement in the face of vested commercial interests

Cannabis may be less inherently harmful than alcohol (Lachenmeier & Rehm, 2015; Nutt et al. 2010), but it is far from harmless (Hall & Weier, 2015; Room et al., 2010). There are differences in types and degrees of potential harm between different potencies, cannabinoid composition, and modes of use, as well as issues of potential contamination in the supply chain, and regulatory regimes provide the opportunity for public health-oriented controls and incentives favouring less harmful products which are not available to the state when a market is illegal. The new legal cannabis systems in Colorado, Washington and Uruguay are all strongly committed to regulating these aspects of the market (Pardo, 2014). A substantial part of the harm from cannabis is from traffic injuries caused by driving while intoxicated; along with the legalisation of cannabis, the new regimes have been updating their legislation and enforcement to deter such driving.

But a central public health issue, discouraging heavy use, is less likely to be tackled. Like other psychoactive substances when widely available and used, the distribution of consumption of cannabis is highly concentrated; for instance, it is estimated from population survey responses in 2012-13 that the 13% of U.S. cannabis users who used it daily accounted for 56% of the consumption (Davenport & Caulkins, 2016). The concentration of consumption means that commercial interests in cannabis sales are inevitably substantially dependent on sales to quite heavy users. Any regulatory regime which effectively discourages regular heavy use will be against their economic interests.

The challenge for a public health approach to legalization of cannabis or any other potentially harmful psychoactive substance is thus the challenge of building a system which provides for availability and use while effectively holding down levels of use. This can be done by generally applicable measures which limit physical or economic availability to all adults; or it can be done by individually-oriented restrictions, such as an effective rationing or licensing system, which limits the supply to those who would otherwise be heavy users, as the “motbok” rationing system in Sweden did concerning alcohol prior to 1955 (Norström, 1987). In the current era, such individually-oriented systems, with the labelling, stigmatization and bureaucratization inevitable with the individualization of controls, have proved unsustainable (the medical prescription system can be viewed as an interesting exception to this). The most efficient and sustainable way to hold down levels of use is thus with general limits on availability, such as through excise taxes and limits on places and times of availability.

This is a challenge which is better faced at the point of legalization than at later times. Once legal private interests have been created in a legal market, they will become effective advocates particularly against any impairment of their existing financial opportunities under the system. Thus it will always be politically easier to impose restrictions when the system is initiated than at any later time. In constructing the system, it is also crucial to give attention to insulating it from pressures to loosen controls and expand the market. The strongest argument in the interest of public health for constructing the market to minimise commercial interests (e.g., by setting it up as a government monopoly) is that such arrangements can be more effectively insulated from commercial pressures to “grow the market”.

Moving away from the global drug prohibition regime has been a substantial project for many in the ‘60s generation, and for that matter in later generations. The multilevel architecture of the regime, constructed particularly in the post-World War II era, and brought to its full fruition in the eras of Nixon and Reagan, has proved durable, and signs of any real change have only become

apparent after 2010. Now, as full legalization at least of cannabis has become a reality, public health discussion of drug policy has had to broaden its scope. For years the focus had been particularly on “harm reduction”, defined essentially in terms of countering the health harms which accompany the prohibition regime for marginalized heavy users (Room, 2010). With legalization, the meaning of harm reduction expands to include the whole range of users. Thus legalization of cannabis is bringing to the fore the issue of how to construct and control legal markets in psychoactive substances in the public interest, so that -- against the grain of a neoliberal era which has prioritised free markets -- sale and use of the substance is permitted but not promoted. How well public health advocates and others arguing in the public interest succeed in this for cannabis may well set the frame for how calls for legalization of other psychoactive substances will be considered and judged.

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