

Drug policy, values and the public health approach – four lessons from drug policy reform movements

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ABSTRACT

Drug policies affect a large set of outcomes and may reflect the concerns of several policy stakeholder groups. Researchers analysing policies typically employ a public health approach, extended to reflect concerns beyond population health and longevity. I argue that the resulting approach, as currently practised, fails to capture several concerns seen as important by recent drug policy reform movements, that is, the full harms of illegal markets, the subjectively valued consumption of intoxicants, the dysfunctionality of current policy processes in the drug field and the value of the knowledge gained from policy experiments. I illustrate this by referring to the book Drug policy and the public good, a public health-based review of research evidence and its relevance for drug policy written by leading international researchers in the field. KEYWORDS —

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Introduction

How well does the public health approach currently reflect the concerns and outcomes that should inform drug policy discussions?

Drug policy is changing, and it has been for some time. Policy options that were once considered irresponsible, politically impossible or even illegal under international law have been implemented in a number of regions and nations. The most striking examples concern cannabis, where four US states and the District of Columbia have legalised recreational marijuana, while the nation of Uruguay is set to implement a system of state-run cannabis sales outlets in 2015.

Among researchers, a widespread approach for analysing drug policies is the public health approach. In its "puristic" form, this would judge policies exclusive-

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ly by their effects on population health and longevity, but in practice most researchers will expand its scope to reflect a broader set of outcomes and concerns valued by policy stakeholder groups. As the adjustment is typically judgement-based, however, the resulting approach may still fail to reflect the full set of values relevant to ongoing policy debates.

To illustrate this, I examine four "lessons" from drug policy reform movements and the extent to which these are reflected in a leading public health text on drug policy. The lessons reflect concerns and values that are central to ongoing reform movements but which arguably remain insufficiently represented in current public health-oriented work.

The public health approach

In academic work, one of the leading frameworks for assessing drug policy is the public health approach. As defined by the World Health Organization (WHO), public health refers to "all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole" (WHO 2015). In practice, however, most researchers will reject a "puristic" approach that judges policies exclusively based on their effects on population health and longevity, agreeing that other concerns and outcomes should affect policy design.

As a "best practice" example of how a broader public health approach represents the myriad objectives of drug policy, I will use the book Drug policy and the public good (henceforth DPPG, Babor 2010). Written by leading international researchers in the drug policy field, the book gives a broad overview of drug policy research and was well received by the academic community, winning the British Medical Association's Award for Public Health Book of the Year 2010. Unless otherwise specified, references in what follows are to this text.

DPPG explicitly discusses the relationship between research and policy. While population health and longevity remain important outcomes, the authors note that "concerns about justice, freedom, morality, and other issues beyond the health domain have an important place in drug policy formulation". (DDPG, p. 8) They also delimit the role of the researcher, stating that scientists "have no more standing than anyone else in a society to say which specific outcomes a society should care about the most, or whether such outcomes are good, bad, or indifferent" (p. 251). What scientists can do instead is to say what "the likely consequences of exercising particular options" will be (p. 252).

Such a view leaves the researcher with two potential roles. The first would be limited to presenting a list of available policies and the evidence we have regarding their effects on various outcomes people care about. The second would extend this and attempt to identify a set of defensible policy views: given some set of stated aims and concerns, what policies would be appropriate to achieve these and which would be clearly counterproductive? If different groups support different policies because they emphasise different concerns, this is a disagreement over normative questions that research cannot answer. If a group supports policies that fail to promote their own stated aims, we might reasonably class their views as non-defensible or uninformed. This may be the case for some of our current policies on drugs. As the authors of DPPG write: "In many countries, a policymaker's goals might be better served by repealing existing policies or abolishing certain programmes and agencies, rather than attempting new approaches" (p. 58).

Three drug policy reform movements: a simplified account

The broad thrust of drug policy has long focused on minimising use, employing a criminal justice approach domestically in combination with treatment services and pursuing a broad collaborative effort to eradicate crops and disrupt supply lines globally. In the last two decades, however, three "movements" have raised other concerns, causing several countries and regions to modify or deviate from this line.

Arguably, the reform movement that has had the largest effect on policy is the harm reduction movement, which promotes policies that "reduce the health, social and economic harms of drug use to individuals, communities and societies" (Rhodes and Hedrich, 2010). A primary focus of such efforts is to reduce the health-related harms of continued drug use. As such, the movement fits well with a public health approach and has achieved substantial impact, particularly on policies towards hard drug users in Europe: syringe exchange programmes aiming to stop the spread of HIV and other diseases in user populations, opioid (and heroin) maintenance treatment programmes that accept continued use while stabilising and improving the health and personal situation of users, as well as injecting rooms staffed by health personnel that can assist with medical issues and treat overdoses.

A second movement, particularly identified with Latin American political leaders, has emphasised the harms of illicit markets, in particular the destabilising violence, corruption and social problems caused by drug cartels in producer countries. This concern led to the establishment of the Latin American Commission on Drugs and Democracy, which published a report in 2009 calling for help in "breaking the taboo" on drug policy debate, and arguing for a public health-oriented approach and a more diversified set of policies. In 2013, the presidents of Mexico, Columbia and Guatemala called for a reevaluation of the current UN drug policy framework, which will be discussed in a UN General Assembly Special Session on Drugs (UNGASS) in 2016, and the Organization of American States (OAS) released a major policy review calling for a reconsideration of global drug control strategies (Scenario Team, 2013; General Secretariat, 2013).

The third movement is the cannabis legalisation movement, which in the US has pursued ballot measures as a way to implement policy changes that would otherwise have been politically difficult to achieve. This has led to medical marijuana laws (MML) in 23 US states and the District of Columbia, and to the legalisation of recreational marijuana in four states and in DC. The policies are partly driven by a demographic shift, with opposition to legalisation concentrated in the age cohorts too old to have used cannabis in their own youth (Silver, 2009; Silver, 2010). To many users, it seems, their own experience with cannabis and cannabis users has led them to agree with the research consensus that cannabis is less harmful than alcohol and

to conclude that cannabis is better regulated as a legal intoxicant (Palali & Van Ours, 2014; Williams, Ours, & Grossman, 2011). Additionally, the movement has emphasised the racial disparity in the enforcement of existing drug laws.

These three movements have worked to change drug policy at a number of levels, often influencing each other or joining forces. The Latin American Commission on Drugs and Democracy led to the Global Commission on Drug Policy, a group that also drew on political leaders from Europe and the US. The resulting reports in 2011 and 2014 voiced concerns from all three movements. And while the US has historically been a hard-line enforcer of the "Drug War" approach, its recent statements have indicated a softer line towards countries that wish to experiment with alternative drug policies (Brownfield, 2014). This is commonly speculated to be a direct result of the legalisation measures that have passed within its own borders.

Lesson 1: Take the full harms of illegal markets into consideration

The harms of illegal markets are one of the main issues raised by the Latin American reform movement. For our purposes, we may break these into four components.

The first component is the cost of enforcing the prohibition, reflecting the value of the resources used in police, legal and penal systems. These costs typically comprise the major share of total drug policy expenditures across both "liberal" and "restrictive" nations, equalling 75% in both Sweden (p. 227) and the Netherlands (p. 160).

The second component consists of the consequences of this enforcement on people who nonetheless continue use. Such users now face a "legal risk" on top of any use-related harms, with research indicating that being "treated as a criminal" may have "substantial costs to the individual" (p. 167), such as adverse effects on employment, relationships, accommodation and further contact with the criminal justice system (p. 169).

The third component consists of the inefficiency of the illegal supply side. Under prohibition, an illicit market has to produce, distribute and transact in a way that reduces the risk of being detected by law enforcement, while compensating the people involved for their work and their perceived legal and other risks. This raises the illegal price substantially (p. 68). Price increases may be desirable to reduce consumption, but this price increase comes at a substantial cost. Relative to a legal market, it strongly increases the number of individuals needed to grow and distribute any given quantity of the goods. If we could produce the same level of drugs legally, taxed to keep prices at their old levels, the majority of those working in illegal markets would be freed up to do other more valuable - things with their life than circumvent drug laws and risk penal punishment. In the short term, many of those currently working in the illegal sector may have reduced opportunities in legal sectors due to low education and lack of legal job experience, but over time we would expect a legal market to reduce the recruitment of young people - typically users (p. 243) - into long-term criminal careers.

While this third cost component of illegal markets is noted in DPPG, it is not given much weight. After noting that this has been a "prominent" harm of opiate markets in London and after mentioning that people with criminal records may "find it difficult to re-enter legitimate labour markets" (p. 76), the authors state that many may choose to disregard these harms since the "direct 'victims' of these harms are the drug sellers themselves" (p. 77). This ignores a substantial harm of such inefficiencies. As the authors note elsewhere. a policy of jailing all drug users "would be extraordinar[il]y expensive" partly because it would remove "a significant number of working-age people from economic productivity" (p. 236). In a similar way, a price increase generated by increasing the inefficiency of the supply side increases the number of people needed to produce and distribute a given quantity. This generates recruitment into the criminal sector, harming society by squandering labour that could be productively employed elsewhere.

Finally, illegal markets will also impose harms on people who do not directly participate in these markets. For cannabis markets in western countries such harms are usually a moderate nuisance, reflected in, for instance, somewhat lower property prices close to open markets (Adda, Mc-Connell, & Rasul, 2014). Illicit markets in general will see disputes being settled by violence more often than in legal markets, which may affect innocent bystanders. The main issues of this sort, however, tend to be experienced in supplier countries that suffer from increased corruption and widespread violence. Such violence has been much emphasised by the Latin American reform movement, but received little emphasis in DPPG. A chapter on illegal markets notes that "Drug production and trafficking can contribute to political instability and violence" (p. 75), while a fact box in a case study of Mexico highlights the issue of drug trafficking gangs. It notes, among other things, that "over 4000 people were estimated to have been killed in drug-related violence in the first ten months of 2008" (p. 223).

For Latin American leaders "[t]he intensity of the violence associated with drug trafficking [...] has been the principal factor in driving the concern of senior level officials" on the drug issue (General Secretariat, 2013). According to the OAS report, some 25-45% of homicides in their region are due to organised crime. Recent research confirms that this is causally related to strict drug policy enforcement. Using close elections as a quasi-random shock to enforcement policies in Mexico, estimates indicate that "there are 27 to 33 more drug trade-related homicides per 100 000 municipal inhabitants per annum after a [conservative] PAN mayor takes office [relative to a non-PAN mayor], with effects persisting throughout the mayor's term and plausibly beyond" (Dell, forthcoming: see also Gavrilova, Kamada, & Zoutman, 2014). To place this in context, the United Nations Office on Drugs and Crime (UNODC) figures for homicide rates per 100,000 in Europe and the US is 3 and 4.7, respectively.

In DPPG's defence, both the OAS report and the increasing awareness of this issue are quite recent. The issue does, however, raise the question of whether current global policies seem palatable to western societies partly because a substantial share of their costs is "exported" to poor countries far away where their visibility – to western electorates as well as researchers – is low. The OAS report estimates that "drug

production-related activities [...] cost between 4,600 and 7,000 lives each year" in Colombia. Using the rate implied by the lower estimate, this would correspond to some 30,000 homicides in the US, or a tripling of the current US rate, or some 70,000 homicides in Europe. As the OAS report states, it is "precisely [demand from consuming countries] that stimulates violence in the rest of the chain". This was also the conclusion of researchers studying the effect of increased coca prices and demand on drug cartel violence (Angrist & Kugler, 2008).

The point is not that the public health approach ignores the harms from illegal markets, but rather that it does not seem to prompt researchers to systematically display the benefits and harms of different policies in a way that brings out the trade-offs we are actually facing and making in policy. To the extent that trade-offs are explicitly considered, they tend to be trade-offs that can be expressed in terms of health (hence the success and acceptance of harm reduction) - less so policy tradeoffs between health and other outcomes.

Comparison of the harms of use and the harms of illegal markets illustrates the same point: starting with the illegal market, black market cannabis is reported to cost around USD 5-15 per gram, while the production costs of legal cannabis are largely negligible (Caulkins et al., 2012). This gives us an estimate of the amount of criminal activity that was generated to produce and distribute a gram of cannabis.

Turning to harms from use, studies reporting the "social costs" of use attempt to identify the negative health and social consequences of cannabis use, quantify their likelihood of seriousness and calculate the expected harm that follows from an extra unit of consumption (Caulkins et al., 2002). For cannabis, the estimate provided takes the current policy regime as given, thus including lost productivity due to criminal careers, incarceration and crime. If we remove these cost components and adjust for inflation, the "social costs" per unit of use come to around USD 7.50.

While these numbers are neither precise estimates nor universally valid, they do indicate that even the inefficiency cost alone of the illegal market is comparable to the harms from use. Adding the other harm components of markets would suggest that total market harms under current policies may considerably outweigh the harms from use. This appears hard to perceive from within the public health framework.

Lesson 2: Many users see their own use as a net-positive in their own life

The public health tradition seems to pay scant attention to the subjectively perceived benefits from use of intoxicants. perhaps as a result of the approach's roots in efforts to reduce communicable diseases and environmental pathogens where such concerns are largely irrelevant. In DPPG, pleasure from illegal drug use is invoked exclusively to explain why people use drugs (p. 17), but this and other user-perceived benefits are never seen as policy-relevant1. The closest may be a statement that some societies may have a "belief in individual liberty from government interference [that] is so deeply valued that substantial health harm seems a reasonable price to pay for it" (p. 8). This, however, is a different point in that even here all drug use seems to be viewed as a net-harm proposition for the user.

This view naturally leads to a presumption that the best policy - all else being equal - is the most restrictive policy. Commenting on the legalisation initiatives in the US, one of the DPPG authors recently worried that the initiatives were "losing sight of the public health agenda", writing that a "public health approach to a legal cannabis market should [...] be aiming to hold down use, at least by soft control measures which apply across the board without singling out specific users" (Room, 2014). Legislation should "include restricting or prohibiting advertising and promotion, limiting the number of sales points and the hours of sale, and keeping the price relatively high [... as well as] limiting the scope of private interests to 'grow the market'" (Room, 2014). These concerns are also reflected in DPPG, which at one point states that the lack of innovation in illegal markets is a benefit of current policies:

It is fortunate that there are no large-scale, organized, and well-funded programmes under way to invent new psychoactive substances, improve the efficiency of coca or poppy cultivation or refining, or invent new ways of bundling current drugs with other supplements. [...] The considerable innovation in cannabis cultivation over the past decade [...] may be seen as something of a caution [...]. "

The presumption, then, seems to be that all use is net-negative, and that innovation can only have the effect of increasing harm — disregarding the possibility of harmreducing innovations such as electronic nicotine delivery devices that have come to provide reasonably harmless alternatives to cigarettes (D. J. Nutt et al., 2014). Similarly, the popularity of "vaping" and edibles in the legal Colorado markets may also be seen as having a "harm-reducing" aspect, helping users avoid most of the harm from inhaling combusted plant materials.

One reason for this disregard of subjectively perceived benefits from use may be the existence of a "pathological" tail in the distribution of users. While risks are an expected and unavoidable part of human existence, risky behaviours are often distributed unevenly, with some individuals exhibiting particularly damaging behaviour patterns that seem hard to rationalise as informed and conscious choice. For example, we will find that the top 10% of drinkers consume more than 50% of alcohol (Kerr & Greenfield, 2007), 20% of cocaine users consume 70% of all cocaine (p. 30), and 22% of cannabis smokers consume 67% of all cannabis (Light et al., 2014). Few would argue that alcoholics and heavy, often dependent, drug users should be seen as expressing informed consumer choice. It may also have to do with cigarette smoking, where "freedom to use" was a favourite argument of a tobacco industry that did its best to ignore, distort and create doubt around both the health harms and addiction risk of cigarettes.

While these and other factors may explain why public health researchers ignore consumption benefits, this is clearly a normative stance in conflict with DPPG's stated goal of merely providing objective evidence that relates policies to relevant outcomes. Many in the cannabis legali-

Table 1.

	Tobacco	Alcohol	Cocaine	Cannabis	Reference
Share of users "ever" dependent" (%)6	31.8%	15.4%	16.8%	9.1%	(Anthony, Warner, & Kessler, 1994)
Average duration of dependence spells (years) ⁷ (Empirical median in parentheses)	40.2 (26)	25.1 (14)	8.0 (5)	12.0 (6)	(Lopez-Quintero et al., 2011; Heyman, 2013)
"Expected" time as dependent per ever-user (years).	12.8	3.9	1.3	1.1	Calculated from the rows above
Physical (social) harm from use (0–3)	1.9 (1.4)	2.2 (2.2)	2.3 (2.2)	1.5 (1.5)	(D. Nutt et al., 2007)
Attitude towards use (Net Pleasure Index (NPI) based on internet-based global drug survey of drug users; unclear study population)	Negative: 70–90% of smokers express regret. NPI: Low	Positive for majority? NPI: Low	NPI: Medium	Positive for majority NPI: High	(ITC Project, 2014; Palali & van Ours, 2014; Williams, van Ours, & Grossman, 2011; Drug Pleasure Ratings, 2015)

sation movement defend people's use of cannabis and other intoxicants, and see nothing ethically wrong or dubious with such consumption in and of itself². Use does carry risks of harm, but they would argue that these harms are an unfortunate, undesirable and unavoidable part of an overall package that may nonetheless be net-positive in people's lives.

One aspect of this issue is a trade-off familiar from alcohol policy: the (self-judged) net-positive consumption of the many, against the likely net-negative problem use of the few. While people will differ in how they weight these concerns, it is clear that the trade-off between these will differ across intoxicants in relevant and identifiable ways. An intoxicant that is more harmful and addictive would also be expected to have a larger share of consumers with net-negative consumption value.

To illustrate this, table 1 compares dependence risk, dependence duration, consumption harms and expressed regret for users of cannabis, alcohol, cocaine and tobacco. The numbers imply that the expected duration of dependence per beginning cigarette smoker is 12.8 years, per beginning alcohol drinker 3.9 years, per beginning cocaine user 1.3 years and per beginning cannabis smoker 1.1 years.

Dependence will likely be seen as negative in itself, but the harm from a reduced ability to regulate consumption will increase with the harmfulness of the consumption. Put simply: being physiologically or psychologically dependent on coffee is a relatively minor issue, as consumption is unlikely to result in serious mental, physical or social harms. Using relative scores for harms caused by these substances suggests that one year of dependence to cocaine and alcohol impose the most harms, followed by cigarettes and then cannabis, consistent with the ratings of relative harm discussed in DPPG (chapter 2.8). In line with this, cannabis users who are scored as dependent typically report problems with regulating their use level and with the amount of time spent getting hold of cannabis, whereas far fewer report that their "marijuana use is causing problems with work/school home and with family or friends" (Caulkins et al., 2012).

As a final factor, we may also examine regret and self-judged value. Regret is particularly high for tobacco users: surveys in a number of countries find that around 90% of current smokers express regret at having become a smoker (Fong et al., 2004). While directly comparable numbers are lacking for cannabis users, research finds that personal experience with cannabis tends to increase positive judgements of cannabis and liberal cannabis policies (Palali & Van Ours, 2014; Williams, Ours, & Grossman 2011). Using a crude "Net Pleasure Index" from the Global Drug Survey finds low values for tobacco and alcohol, medium for cocaine and high for cannabis (as well as for MDMA and the classic psychedelics) ("Drug Pleasure Ratings" 2015). The online survey was based on 22,000 people recruited over the internet. The representativeness of the study population is unclear, and the "net" ratings are a simple difference between average scores on 10 positive and 10 negative types of drug effects.

The point here is not that this rough assessment is sufficient to establish conclusively how much emphasis we should place on people's desire to consume different intoxicants, but that the risks and dangers of dependence vary substantially across different drugs. Consumer benefits are clearly of limited relevance with cigarettes, where health damage from consumption is substantial, average dependence time per user 12 years and the share of regretful users 90%. This is also likely to prove true for heroin. For other drugs, such as classical psychedelics, researchers

report no dependence potential (p. 20) and minimal health risks (D. Nutt et al., 2007), while use is associated with reduced psychological distress and suicidality in large-scale surveys (Krebs & Johansen, 2013; Hendricks et al., 2015; Johansen & Krebs, 2015). For such drugs, even a puristic public health approach would seem to point towards legalisation.

Alcohol, cocaine and cannabis inhabit the middle ground between these extremes, albeit with substantial differences. Expected dependence time per ever-user is almost 4 times as long for alcohol as for cocaine and cannabis, while harms from use appear substantially larger for cocaine and alcohol than for cannabis. The evidence suggests that alcohol and cannabis are seen, by most users, as playing a netpositive role in their life. This, in turn, means that even increases in the number of users or consumption may be judged as net-positive by a majority of the individuals affected.

Lesson 3: Current drug policies may not be defensible

A common claim from the drug policy reform movements is that our current policy process is broken, impervious to empirical evidence and embracing policies that are largely expressions of moral panic and primitive desires to punish deviant subcultures (cf. executive summary of Global Commission on Drug Policy, 2014).

Sprinkled throughout DPPG, there are ample comments and claims that support this perspective. The drugs people decide to use have a "strong symbolic value", with the choice serving to "demarcate the boundaries of inclusion and exclusion in a social group" (p. 16). "The symbolic

powers of psychoactive substances also make them a prime arena for political action" (p. 17), meaning that a "discussion of drug policy [...] cannot focus only on a rational consideration of social engineering; it must also recognize the symbolic dimension" (p. 17). Perceptions of drug harm reflect this, being historically shaped by "moral panics", with "use often associated with derogated racial minorities" (p. 218). Many harsh policies mainly express "the social values" and "moral outrage" of communities (p. 159 and 162). When the same policies are turned against "us" rather than "them", however, they become unacceptable and result in decriminalisation (p. 164 and 168).

In this sense, it may be wrong to view harsh policies as rational attempts to reduce harms. There is a "distressingly weak" evidence base for supply control and law enforcement efforts (p. 162); current policy "takes little account of the available research" (p. 251); there is "gross neglect" of the issue by funding and research communities (p. 162); and "there is no doubt that many drug policies that are known to be ineffective continue to exist. and many that are known to be effective suffer from disuse" (p. 258). This is odd: if drug policies are thoughtful attempts to reduce harm, "it is difficult to understand why policymakers would not want their policies to be based on good quality evidence" (p. 258).

The international policy process does not fare any better, with existing conventions built on a view of illegal drugs that is "increasingly at odds with current knowledge" (p. 218), and to a large extent reflecting a US desire to globalise their own policies. The international war on drugs has

"often served as a flexible instrument for forwarding general American policy interests" (p. 214); cannabis was included in the 1961 convention under "heavy international pressure" so as to "globalize the [American] Marijuana Tax Act" (p. 205); the 1971 convention was established "as a reaction to the rise of youth counterculture of the late 1960s" (p. 214); and poor nations are regularly threatened with "serious fiscal and reputational consequences" (p. 215) if they fail to comply with US policy requests.

These quotes suggest that the reform movement may be correct in viewing the current drug policy process as a problem in itself. Policies may be largely motivated by concerns other than the "official" ones, and popular support may reflect moral panic, prejudices towards out-groups and disinformation. Research on the effects of central policy choices are neither funded nor desired nor taken into account by the drug policy establishment (on this last point, see MacCoun & Reuter, 2008).

Perhaps the starkest illustration of this was former US President Nixon, who popularised and promoted the "War on Drugs" and attempted to "hardwire" the global prohibition scheme through international conventions and US political pressure. After his own Shafer commission on cannabis policy concluded that the public impression of the drug's dangers were overblown and did not justify criminalisation of use, his own Oval Office tape recordings reveal his private response (CSDP, 2002), featuring statements such as: "[E]very one of the bastards that are out for legalizing marijuana is Jewish. What the Christ is the matter with the Jews, Bob, what is the matter with them? I suppose it's because most of them are psychiatrists." His cannabis policy appears to be a clear expression of out-group prejudice ("You see, homosexuality, dope, immorality in general. These are the enemies of strong societies. That's why the Communists and the left-wingers are pushing the stuff, they're trying to destroy us."), and he also tied drug use to grass-level political opposition ("... radical demonstrators that were here ... two weeks ago ... They're all on drugs, virtually all."). The conclusion: "We need, and I use the word 'all out war', on all fronts ... we have to attack on all fronts."

Many years later, John Ehrlichman, Nixon's domestic policy advisor at the time, expanded on the political incentives involved to journalist Dan Baum⁴:

The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar Left, and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black. But by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did" (Smith 2012).

Nixon is clearly an extreme case, and most people in politics and the drug policy establishment are likely to be genuinely concerned about the harms of drugs. Given the widespread (and frequently overblown) fear of drugs in the electorate, however, coupled with the established control regimes with narrow mandates and strong, persistent cultures, we might reasonably worry that current drug policies fail to reflect and respond to what we know. The observation that reform-friendly politicians tend to moderate or reverse their views when gaining power, while others take up the reform cause only after leaving office, is consistent with this.

Current policies may therefore be nondefensible, as they may involve policy choices that work against their own stated aims. While DPPG notes this possibility in the abstract, they seem reticent to point out actual instances or cases of this, by and large keeping up the pretence that current policies are carefully designed and reasonable attempts to improve health and social outcomes. Their own evidence review, however, repeatedly conflicts with this stance. Dividing drug policy into three main areas, the first area includes "efforts to persuade children [or other non-users] not to try the substances" (p. 5). After evaluating the most widely used programmes, however, they characterise these as largely ineffective, symbolic gestures whose main function may be to calm parents of adolescent children (p. 121). A second policy area includes efforts said to "help heavy users either to stop drug use or to use drugs in less dangerous ways" (p. 5). For hard drug users, however, opiate substitution therapy is described as standing "apart from other interventions in terms of the strong level of evidence supporting its benefits" (p. 138). And yet the approach remains under-used and is often regarded as "drug liberal". As for other people in treatment, we might question whether a desire to help "heavy users"

is the true motivation for providing treatment as a quasi-voluntary or mandated alternative to punishment for arrested users (p. 167). Only a small minority of illegal drug consumers are likely to be heavy users (p. 28), and the majority of such arrests will involve cannabis, a substance carrying less risk than alcohol of dependence and harmful consequences for both users and their surroundings. Pressuring such users into treatment seems about as sensible and "helpful" as a policy of widespread police sweeps in supermarkets to pressure anyone buying beer into alcohol abuse treatment.

The final policy area concerns "laws, regulations, and initiatives to control the supply of illegal drugs" (p. 5). When the evidence on policy effects is reviewed, however, the widespread policy of largescale arrests, primarily for cannabis use and possession, is claimed to have no effect on the number of users (p. 175 and 255) while imposing clear harms on those arrested, as discussed above. As for the international efforts that have led to widespread violence and corruption in supplier countries, they note that "[e]fforts by wealthy countries to curtail cultivation of drug-producing plants in poor countries have not reduced aggregate drug supply or use in downstream markets, and probably never will" (p. 254).

It is unclear why DPPG seems to shy away from explicitly criticising nations for their current policies or the dysfunctionality of the current policy process. To some, it may come across as an undue deference to the current policy establishment and the "Very Serious People" who promote and defend it, though it may also be seen as a well-intentioned effort to "remain relevant" and lightly "nudge" society towards better policies without alienating readers with strong pre-existing policy views. In any case, the result is that perhaps the biggest obstacle to improved drug policies - the current policy establishment's hard line and lack of responsiveness to evidence, coupled with widespread fear and disinformation among the public - is left undiscussed. By toning down the criticism, refusing to point to actual instances of non-defensible policies and by putting a positive gloss on the intentions and reasonableness of the current policy establishment, the authors end up making it all too easy for things to continue as before.

Lesson 4: The most valuable outcome from policy experiments is likely to be knowledge

Ultimately the purpose of drug policy research is to improve drug policy by clarifying the outcomes of different policies on different outcomes. The most valuable evidence in this regard is provided by "[s] tudies of what happens when there is a change [in policy]" (p. 99). For many policies supported by the reform movements, however, such evidence is unobtainable as long as countries abide by existing international conventions. Hence the slogan from the reform movement asking us to "break the taboo on debate and reform", and their push for a 2016 UNGASS section on drug policy to reform existing conventions.

The UPPG notes this concern once, stating their hope that

the INCB [International Narcotics Control Board] might be persuaded to be less disapproving of national experiments such as heroin maintenance in Switzerland and a few other European nations that add to the world's knowledge about alternative policies and that push the boundaries of the existing system.

Arguably, the point should be further stressed given that it is the only way we have any chance of learning more about the consequences of different potential policies.

In the main, DPPG assesses different policies as though they were attempts to define an "ideal policy", implicitly trying to answer the question: if we had to choose one policy and we had to choose it today, based on what we currently know, how would this proposed policy measure up? From this perspective, untested policies will tend to have larger uncertainties and more unknowns, increasing their overall risk and making them less attractive.

The importance of the knowledge we would gain from trying alternative policies means that we might want to also ask an additional question: if we were to choose a policy portfolio that differed over regions and time, what would be the best way of benefiting from what we know while ensuring that we learn more about our alternatives? Untested policies would still have larger uncertainties and more unknowns, but this would also tell us that we would learn more from trying these policies.

In practice, of course, a policy assessment should have a mix of both perspectives. Implementing a policy, even for a limited period in a limited area, will have real effects on real people, and we need to consider what these may be. But implementing a new policy, even for a

limited period in a limited area, will also teach us something new that can be used to improve the conditions for many more, elsewhere and later. When deliberating whether to test a new drug in a human trial, for instance, it would be irresponsible not to consider the safety of participating individuals. But unless we also consider the potential value of the drug for people outside the trial, the costs, risks and effort of conducting the trial would seem completely pointless.

Obviously, we should not overstate the precision of the knowledge we would gain in this way. Residual uncertainty and arguments over effects are likely to remain endemic in the field. One could always claim that the evidence is ambiguous, that effects may differ in new regions, that "unknown unknowns" may yet appear, etc. Such residual uncertainty, however, is still preferable to the current situation, where many base their support of status quo policies on extreme and unlikely worstcase scenarios for alternatives, demanding a level of certainty for new policies that go far beyond what can conceivably be produced. Viewed in this light, the US experiment of "quasi-legalisation" under medical marijuana laws with large statelevel variation in the restrictions on appropriate use could arguably be celebrated as a sensible and careful experimentation with increased legal access. While the efforts that led to these laws may have been a strategic move by groups whose ultimate aim is legalisation of recreational use, they nonetheless created a policy variation that has taught us that increased legal access to cannabis in no way needs to result in the dramatic negative outcomes typically predicted in the general policy debate.

Research papers have found associations between the introduction of medical marijuana laws and increase in use among young adults, but research also finds that the consequences include a decline in traffic fatalities (Anderson, Hansen, & Rees, 2013), a decline in suicides among young males (Anderson, Rees, & Sabia, 2014), a reduction in heroin use and opiate overdose deaths (Bachhuber et al., 2014; Chu, Forthcoming) as well as in crime (Morris et al., 2014). Adolescent use, however, appears largely unchanged (Anderson, Hansen, & Rees, forthcoming; Harper, Strumpf, & Kaufman, 2012). This research, obviously, is in no way the final word - and other researchers report negative policy effects (e.g., Pacula et al., 2013; Wen, Hockenberry, & Cummings, 2014). The fact that we are even discussing which way the effects go, however, tells us that the consequences are far from the calamity that the drug policy establishment has typically predicted - and that even "flawed" and makeshift ballot initiatives have produced important and valuable policy knowledge we would otherwise not have learned.

Conclusion

The above "lessons" are in no way an exhaustive list of the outcomes or concerns that drug policy should reflect. To name two important issues, I have neither discussed harms that use imposes on third parties, nor the particular concerns that are raised regarding adolescent use. Instead, my goal has been to highlight some of the central concerns emphasised by three intertwined "reform movements" currently working to change global drug policies: illegal markets, consumer benefits and the value of policy knowledge. I argue that these concerns deserve greater emphasis in discussions of drug policy. Not because everyone would agree that these concerns should be reflected in policy, but because they are issues that some policy stakeholders see as very important. If we truly mean that scientists "have no more standing than anyone else in a society to say which specific outcomes a society should care about the most, or whether such outcomes are good, bad, or indifferent" (p. 251), then these outcomes and concerns should be reflected in research by virtue of their importance to these stakeholder groups.

The "lesson" dealing with the dysfunctionality of the current policy process differs from the others in this regard. Here, the issue is not that there is an outcome that is downplayed, but rather that DPPG seems to shy away from criticising the only kind of policies it can criticise given its self-proclaimed mandate: the strong disconnect between current drug policies and their stated aims (typically, to reduce the number of drug users and reduce the harms to individuals and society from use). While there are many statements that imply criticism of poorly thoughtout policies in the abstract, there are few if any that point to actual instances where nations would benefit from a change in policy. As a simple example, their extended case study of Sweden (chapter 14.3) notes Sweden's high rate of arrests for users, their low use of opiate substitution therapy and the high mortality rate of hard drug users compared to other countries. The obvious disconnect between the book's own evidence on widespread user arrests and opiate substitution therapy, set against Sweden's stated aims of "preventing unemployment, segregation and social distress," is never made explicit. A summary of the nation's policies tags the treatment availability as "high" and the enforcement as "moderate".

While my hypothesis is that the four lessons reflect concerns that are underemphasised or ignored by researchers working in the public health field, I have chosen to use a specific text to illustrate this. This raises the possibility that the chosen text fails to properly represent the common use of this framework. The stature of the authors and the positive reception the book received from the research community, however, indicate that it is fair to see it as a representative or even as a "best case" example of how the approach is applied. This use of DPPG also means that I have provided neither a general review of the book, nor a criticism of either the book or its authors. Quotes and references are intended to document the extent to which DPPG reflects the concerns emphasised by policy reform movements, as well as the parts of its research review that directly bear on the factual basis of reform movement claims. The relevant portions of the book are thus the evidence and arguments relevant to a subset of the concerns DPPG attempts to consider, and should not be misconstrued as a representative picture of the book's full set of arguments and overall emphasis. As my extensive references to the book document, it is both comprehensive, clearly written and with a wealth of useful information and pointers to existing research. It provides a "best case" example of how the public health approach plays out in the drug policy field and explicitly attempts to reflect on the role of researchers, the separation of normative and descriptive ("positive") judgements, and the importance of outcomes and concerns beyond population health and longevity. To the extent that a reader agrees with any of the above lessons, the implied shortcomings in DPPG are likely to be all the more present when the same approach is wielded by less capable hands.

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NOTES

- 1 For prescription drugs, they note that a drug's pleasure potential may affect the likely "effectiveness of a regime or regime change" aiming to restrict use (p. 184). For such drugs, they also note that a variety of subjectively valued uses may be "illegitimized" when access is restricted (p. 200).
- 2 To give one example, Ethan Nadelmann's Drug Policy Alliance states on their website that "an individual's decision to use or not use drugs is a matter of personal choice and does not determine whether he or she is strong or weak, responsible or irresponsible, moral or immoral" ("Drug Use, Privacy and Personal Choice | Drug Policy Alliance", 2015).
- 3 This may also help explain why even smokers appear to be positive towards restrictive tobacco policies, with 74% of surveyed smokers in a large-scale Uruguayan survey reporting that they would support a total ban on tobacco products if cessation clinics were provided to help existing smokers quit (ITC Project,
- 4 It is worth noting that Ehrlichman is

- speculated to have been disappointed by Nixon's not pardoning him for his role in the Watergate scandals before resigning in 1974, for which Ehrlichman served 18 months in prison and was disbarred from the practice of law.
- 5 This phrase, popularised in a different context by economist Paul Krugman, refers to people whose views are given weight and taken seriously as sensible perspectives despite being at odds with available research and evidence.
- 6 Numbers are averaged over gender and weighted by the reported gender risk of ever-using.
- 7 Average duration for ever-dependent users based on exponential decay model from Heyman. His estimates indicate a minor share of users remain long-term dependent. For these the duration is set to 60 years. Remaining dependent users appear to have a constant annual risk of exiting addiction. Setting maximum duration at 60, their average was calculated by 10,000 simulated dependence careers. R-code available on request.

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