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Viewpoint

# Why we should all be more careful in drawing conclusions about how COVID-19 is changing drug markets

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How will COVID-19 impact illicit drug markets? This is a question that some academics, practitioners, and journalists have attempted to answer in the wake of the spread of COVID-19, and many others are likely to engage with in the coming months. Some of the already published contributions have made bold statements (e.g. Felbab-Brown, 2020; Saggers, 2020), while others have put forth more cautious considerations (e.g. Hamilton & Stevens, 2020; Volkow, 2020). Here, I will discuss why we must take extra care when seeking to make predictions on this issue.

The specific purpose of this paper is to outline some of the common limitations of recent analyses so that we can avoid making the same mistakes in future attempts. The discussion will focus on five elements: 1) evidence; 2) theory; 3) some anecdotal observations; 4) duration, intensity, and timing of the lockdown 5) and context. In so doing, I will cite examples from different stages of drug markets, i.e. production, trafficking, and consumption. These examples will serve to demonstrate how limited our knowledge is of drug markets both during and after the pandemic.

## We have never been through anything like this before

At present, there is a relative dearth of empirical evidence from which to predict the impact of a pandemic on drug markets. In modern history, we have never witnessed anything that comes close to that which we are currently living through. Indeed, there are hitherto no studies examining the impact of large-scale outbreaks of infectious disease upon drug markets.

In the absence of empirical evidence, anyone is free to make their own predictions. For instance, in regards to the demand for drugs, some authors have said that drug users will be consuming less (Dietze & Peacock, 2020; Global Initiative Against Organized Crime, 2020), while others posit that they are consuming more –at least initially– because people are currently stockpiling (Hamilton & Stevens, 2020; The Economist, 2020). Other sources claim that drug users are seeking alternative products to those that they ordinarily consume (Grierson, 2020; Hamilton, 2020), while others yet still purport that drug users may be changing their preferred mode of administration (Global Initiative Against Organized Crime, 2020).

Predictions about drug supply are perhaps even more extreme. Some authors state that very little will change with respect to cocaine trafficking (Sergi, 2020) or that 'heroin business remains highly functional, but slightly altered'(Daly, 2020), while others predict that drug traffickers are, or will be, resorting to alternative routes (Solomon, 2020) or alternative modes of delivery, such as drones or the dark web (Dietze & Peacock, 2020; Solomon, 2020). Other sources claim that dealers are imposing minimum orders upon users (The Economist, 2020), shifting from cash to contactless payments (Daly, 2020), and diluting drugs with different chemicals (Dietze & Peacock, 2020; Grierson, 2020) without altering the price (Saggers, 2020).

While the predictions are not necessarily mutually exclusive, it is nevertheless hard to conceive all of them being true. One should also note that, in many cases, it is altogether unclear whether these statements derive from some general observations, theoretical argument, or are simply the author's opinion.

## Theories are not meant for this context

In the absence of empirical evidence, authors may resort to some theoretical framework to explain future drug trafficking patterns. Theories are powerful tools insofar as they help us decipher social phenomena, including drug trafficking trends. However, one must

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question how good are traditional criminological theories for explaining drug trafficking during a pandemic?

Traditional explanations of crime are often criticised on the grounds of their Western European and North American centricity, and, as such, for failing to consider crime in different contexts, such as Africa, Asia, and South America (e.g. Carrington, 2017; Messner, 2015).

In a similar vein, how sure can we be that these same theories are relevant for our current predicament? That is to say, if routine activity theory – I am merely citing this theory as an example – could be a poor tool for describing crime patterns in Indonesia, to what extent would it be appropriate for explaining drug trafficking in the current situation?

It is not merely that we have a paucity of empirical evidence, then, but rather that our conventional tools are not specifically designed for forecasting drug markets at this juncture. Indeed, there are no theories that have been developed to explain drug trafficking in a pandemic.

## Things do not always go as we expect

In the absence of better alternatives, people may resort to 'common sense' to predict the impact of COVID-19 on drug markets. Given the scale and nature of current events, it is fair to assume that this will have a massive impact on drug markets. However, there is historical precedence of similarly shocking events producing little effects, i.e. the Taliban Cut-back.

In 2000, the Taliban regime announced a ban on opium poppy cultivation. In 2001, Afghan opium production decreased to less than 10% of its 2000 level (see Fig. 1). Such a massive change in supply would lead any analyst to predict a similarly drastic change in the market. However, this is not what happened. Despite this unprecedented shock, there were only modest indications of change observed in Western European markets. Some pointed towards the existence of heroin inventories available for shipment as ameliorating the impact of this cutback.

As this example illustrates, we do not know how producers and traffickers will adapt to this situation. Common sense beliefs are not always reliable.

## Duration of the lockdown

In the next three sections, I am going to discuss three key elements that are often overlooked in evaluative studies within the fields of criminology, but that are crucial in healthcare studies: duration, intensity, and timing of the intervention.

A key element for understanding the impact of health care interventions is its duration. Similarly, if we want to understand the impact of COVID-19 on drug markets, we must consider how long the lockdowns will be in place.

Some of the aforementioned contributions that analyse the impact of COVID-19 were published in the initial stages of the contagion when the lockdown was on the verge of being implemented. At that time, we did not know how long the situation would last. While some countries are now gradually lifting some of the restrictions, we still do not know for how many more months our movements will be restricted and when we will return to normality.

Hence, we lack a key piece of information, i.e. duration, from which to draw any robust conclusions. Is an eight-week lockdown able to change drug markets? What if the lockdown persists for six or more months? The best answer to these questions is that we do not know. We can only assume that its impact will be more meaningful than any short-term restrictions.

## Intensity of the lockdown

As healthcare professionals are aware, the more intense the treatment, the greater the impact. The same applies to the impact of the lockdown.

The lockdown took different forms across countries. For example, China, Italy, and the UK all had different levels of enforcement for their lockdowns. China adopted what many consider an extremely strict approach. Private vehicles were banned, and most public transport ceased to run. In some areas people were completely barred from leaving their properties. Italy adopted a more moderate approach. People were allowed to leave their properties just for necessary activities, such as going to work, buying essential goods, or for health matters. During the lockdown (March 9th – May 18th), Italian authorities checked over 14 million people and sanctioned 4.2% of them. By comparison, the lockdown in the UK was considerably more relaxed, insofar as people could go out once a day for shopping, to exercise, for medical issues, and to travel back and forth from work.

The different intensity of the lockdown across countries is another element that most analyses completely overlook, which, in turn, minimises the heterogeneity of 'interventions'. For example, retrieving illicit drugs was probably impossible for users in China and relatively hard for people in Italy. Conversely, it may have been relatively easy for users in the UK, as they could go outside once a day and law enforcement did not stop people unless they were involved in a public gathering. The different intensity of the lockdown across countries can thus have important consequences on users and their ability to access illicit drugs. Hence, these differences should not be discounted.

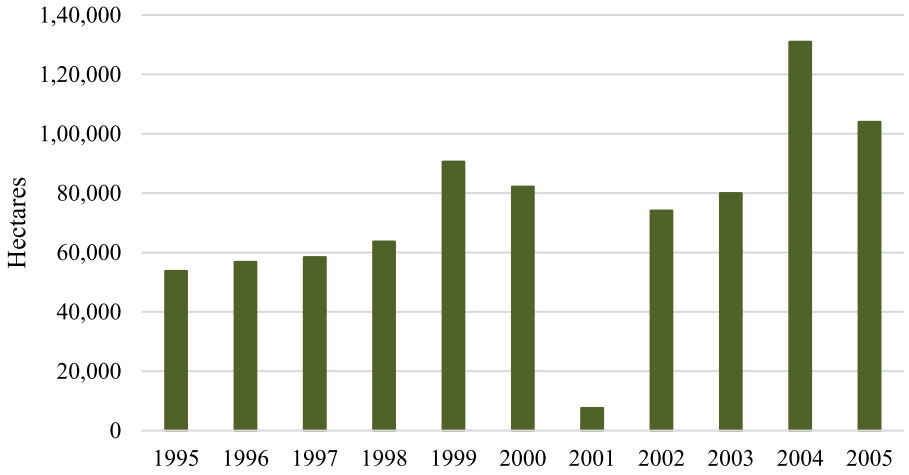


**Fig. 1.** Opium poppy cultivation (Ha) in Afghanistan, 1995–2005. *Source: Author's elaboration on UNODC data.*

## Timing of the lockdown

Healthcare professionals are cognisant that the timing of treatment plays a key role in health outcomes. Similarly, the different times at which lockdowns were imposed in countries can activate different mechanisms and lead to different outcomes.

Here, I will refer to the cases of Afghanistan and Myanmar to exemplify how lockdown timing can lead to different outcomes. These two countries are responsible for around 89% of the worldwide production of illicit opiates, and both have been subject to movement restrictions from the end of March (UNODC, 2019). However, in Myanmar opium harvest takes place at the very beginning of the year, while in Afghanistan opium harvest starts at the end of April. This means that the lockdown did not impact on production in Myanmar, but it could make it harder for farmers and traffickers to find and sell their products to buyers (UNODC, 2020). This, in turn, can lead them to drop their prices. Conversely, farmers in Afghanistan may struggle to find both labourers for the harvest and acetic anhydride, a key chemical component in the manufacture of heroin. This may lead to a reduction in opiate production, and, in turn, an increase in prices.

The intervention, i.e. the lockdown, is the same in both countries, but because it occurred at different times, it can lead to opposite outcomes. None of the current analyses have considered this additional layer of complexity.

## Context

Finally, I discuss another key element that requires consideration when examining the impact of an intervention: context. Which countries will be more heavily affected by COVID-19? One potential argument is that the lockdown will have a more significant impact on geographically isolated countries, such as Australia, New Zealand, and Japan. Indeed, anecdotal evidence from the Australian heroin drought – a sudden and prolonged decrease in the availability and purity of heroin along with an increase in price at the end of 2000 – potentially lends support to this argument. A review of the evidence suggests that the Australian drought was probably the result of a combination of different factors, including Australia's remote geographical location (Degenhardt, Reuter, Collins & Hall, 2005, 2006). Hence, we could similarly conclude that Australia, and countries with similar features, are more vulnerable to external shocks, such as an extended period of lockdown.

The counterargument to this is that drug markets in these countries are more resilient to external shocks, simply because they have more experience with them. Indeed, contrary to more connected countries, drug traffickers in Australia have always had to work in more adverse circumstances. This may make them more prepared and quicker to adapt to the shock imposed by the restrictions of movement.

The key point here is that we do not know which one of these two arguments is correct. Both are logical explanations, but none of them have been tested so far.

## Conclusions

We have little or no empirical evidence, not to mention that our tools might be of little use to predict how drug markets will adapt to the current situation. As the Taliban Cut-back example shows, common sense does not always find correspondence in reality. Additional issues such as context, duration, intensity, and timing of lockdown are not mere 'academic pedantry', but, rather, are key features that must be considered when evaluating the impact of COVID-19.

This does not mean that any attempt to make predictions based on historical events, traditional theories, and experience are completely useless. Authors, however, should acknowledge all the uncertainties, limits, and caveats of their predictions, avoid bold statements, and argue that in the current circumstances, we can offer no more than an educated guess.

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## Declaration of Competing Interests

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