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# Surveillance of sexualised drug use – the challenges and the opportunities

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ABSTRACT

Sexualised drug use (SDU), the use of drugs in a sexual context, has emerged as a marker of high-risk sexual activity and poor sexual health among gay, bisexual and other men who have sex with men, however, there are no robust estimates of the prevalence of SDU. The primary sources of surveillance data on SDU should include both sexual health and drug treatment services. The challenges to achieving comprehensive, timely and valid SDU surveillance include establishing case definitions, selecting appropriate surveillance settings, and normalising the monitoring of SDU at clinical services. In this commentary we propose a means to address these challenges and discuss other sources of SDU data from ad hoc population surveys and sentinel systems. We also present case studies of SDU surveillance development in England and Switzerland. The patterns of SDU will be affected by a rapidly changing drug market and, as a result, surveillance systems must continuously adapt to ensure that they are fit for purpose and can provide data to guide policy.

## Introduction

Gay, bisexual and other men who have sex with men (MSM) continue to be disproportionately affected by sexually transmitted infections (STIs), HIV and other bloodborne viruses (BBVs). In 2016, 40% of the new HIV diagnoses in the European Union and European Economic Area were in MSM (European Centre for Disease Prevention and Control & World Health Organisation Regional Office for Europe, 2017). The re-emergence of STIs in MSM has been recognised in Western Europe since the late 1990s (European Centre for Disease Prevention & Control, 2013; Fenton & Imrie, 2005; Hughes & Field, 2015), but there have been acute increases in reported diagnoses of syphilis and gonorrhoea between 2005 and 2014 (European Centre for Disease Prevention & Control, 2016a, 2016b). The drivers for this recent surge in STIs are manifold but likely stem from a normalisation of anal sex among MSM, particularly outside steady partnerships, as well as the increasing knowledge among HIV-positive men that, under effective antiretroviral treatment, HIV can neither be acquired as a "super infection" nor transmitted (Aghaizu et al., 2016; Campbell et al., 2009; Fenton & Imrie, 2005; Hasse et al., 2010; Rodger, Cambiano, Bruun, & et al., 2016; Van de Ven, Rawstorne, Nakamura, Crawford, & Kippax, 2002).

The use of drugs in a sexual context, sexualised drug use (SDU), has emerged as a marker for high-risk sexual activity, including multiple condomless anal sex partners, and STIs among MSM (Gilbart et al., 2015; Hegazi et al., 2017). In their article in this issue of the *Int J Drug Policy*, Edmundson et al. summarised the published literature from 2007 to 2017 and presented prevalence estimates for SDU among MSM accessing a variety of settings in the UK. They concluded that a robust estimate of prevalence remains elusive (Edmundson et al., 2018). In this commentary, we complement their literature review by discussing the challenges of performing surveillance for SDU and presenting case studies of SDU surveillance development in two countries. We then provide recommendations for how robust SDU surveillance could be achieved.

## The challenges of conducting surveillance for sexualised drug use

National and international public health and drug agencies aim to measure the prevalence of drug use and associated harms, as well as the trends and patterns of drug use, in order to determine the burden of these harms and to detect outbreaks and other emerging health threats. This monitoring poses unique challenges because of the illicit and hidden nature of drug use. Further, harmful drug use and SDU remain relatively uncommon in the general population, so population-based surveys tend to underestimate its prevalence. Conducting surveillance among the users of clinical or drug services has the potential to generate

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reliable data, but there are challenges to achieving this, including establishing case definitions which are fit for purpose, selecting the appropriate surveillance setting, and normalising the monitoring of SDU.

*Establishing the case definition for surveillance*

First, the adoption of standardised case-definitions of SDU will allow the monitoring of trends and enable comparisons within and between different countries. However, the practice of SDU is nuanced, with greater sexual health risks associated with the use of drugs such as methamphetamine, γ-hydroxybutyrate/γ-butyrolactone [GHB/GBL], ketamine and mephedrone compared to other illicit drugs. Recently published evidence has shown that use of mephedrone has largely been restricted to the UK (Schmidt et al., 2016). It is a matter of debate whether this greater sexual health risk is predominantly due to: i. the disinhibitory effects of the drugs, a feature shared with other illicit drugs such as cocaine, but also with alcohol, the drug most commonly used in sexual settings; ii. their use in extended sex sessions ('sex parties'), in combination with the use of erectile "dysfunction" drugs such as oral PDE-5 inhibitors or injectable Prostaglandin E1, easily lasting for days; iii. reduced algesia or; iv. a combination of all three factors. Usage in extended sex sessions and reduced algesia are of particular importance if poor sexual health includes not only STIs and BBVs but, for example, mucosal trauma, ranging from painful anal fissures to life-threatening ruptures of the rectum or distal colon (Cohen, Giles, & Nelson, 2004; de Bakker & Bruin, 2012).

Additionally and as an example, Public Health England (PHE) defines 'Chemsex' as the use of drugs (particularly methamphetamine, GHB/GBL and mephedrone; hereafter: '3-chems') before or during planned sexual activity to sustain, enhance, disinhibit or facilitate the experience (Public Health England, 2015); this was informed by research conducted in London (Bourne, Reid, Hickson, Torres-Rueda, & Weatherburn, 2014). Given its analgesic effects, some researchers also include ketamine in their Chemsex case definition (Bourne et al., 2014; Schmidt et al., 2016)]. PHE further defines 'Slamming' as the injection of mephedrone or methamphetamine during sex. The drugs associated with Chemsex and Slamming outside of England will vary depending on the availability of drugs, thus should be informed by local patterns of drug use. In France, for example, the definition of Slamming does not specify the associated drugs: '[Slamming is] a phenomenon defined by 3 characteristics: injection, sexual party and psychostimulant drugs' (Batisse, Peyrière, Eiden, Courné, & Djezzar, 2016). New drugs appear continuously on the European market − despite emerging at a slower pace in 2016 – and new stimulants are reviewed by national drug agencies and the EMCDDA Early Warning System (European Monitoring Centre for Drugs & Drug Addiction, 2017b).The PHE and any other substance-specific definitions will therefore need ongoing review in light of future changes to the drug market.

Another obstacle to standardising case definitions is establishing appropriate recall intervals. History of SDU can be collected with a degree of currency, such as at last sexual intercourse, or over a clinically relevant period, such as 3, 6, or 12 months, although the former would not be sensitive enough to identify people practising occasional SDU and the latter is subject to recall bias with increasing distance in time. In England, as outlined in the first case study below, the proposed question to assess SDU through STI surveillance at sexual health services is based on attendees' last sexual intercourse. In Switzerland, for example, individuals attending 'Checkpoints' (sexual health centres for MSM) and other HIV voluntary counselling and testing centres are asked about illicit drug use in the last 12 months (see below).

To improve comparability across countries, the European MSM Internet Survey (EMIS), which covered 50 countries in 2017, has introduced recency curves as a comprehensive way to look at time dynamics of population behaviour on the basis of cross-sectional data. The Recency Scale Format (e.g. "When was the last time you did X"), was developed because several EMIS partners had previously run national surveys using Fixed Time Format (e.g. "Have you done X in the last 6 months?" or "How many times have you done X in the last 12 months?). Recency Scale Format questions produce data that can be split at the timescales offered in the response set. In EMIS a quasi-logarithmic scale was used: Within the last 24 h/7 days/4 weeks/6 months/12 months/5 years/More than 5 years ago/Never. At the individual level the Recency Scale Format does not give a measure of frequency so individuals cannot be identified or grouped on the basis of the frequency of their behaviour. However, it produces data that can be aggregated to give cumulative proportions engaged in the event within each time period.

The ordinal data in Recency Scale Format provides a variety of time-related information in cross-sectional designs. The exposed fraction is the cumulative proportion answering affirmatively up to and including 'more than 5 years ago'; the unexposed fraction is the proportion responding 'never'. The frequency of the event in the population involved is reflected in the size of the increases between time points, with small increases indicating more frequent use. Newly introduced events are reflected in small or no further increases in the cumulative proportion beyond the time of introduction. Cessation of events in the population is reflected in a small proportion involved recently, but a large proportion ever involved (Schmidt et al., 2016).

EMIS-2010 covered illicit drug use with the Recency Scale Format, but not the (sexual) context for their use, however, the 2017 version of the questionnaire includes three additional questions to cover SDU in a section 'about combining sex and substances': "When was the last time you had sober sex (that is, NOT under the influence of alcohol or any other drug)?"; "When was the last time you used stimulant drugs to make sex more intense or last longer?"; and "When was the last time you combined stimulant drugs and sex with more than one man at the same time?".

EMIS questions have already been used widely, covering 38 countries in 2010 and 50 in 2017, and using this format in future national and international MSM surveys would facilitate the generation of comparable trend data across countries.

*The appropriate setting for surveillance*

Sexualised drug use is most likely to be identified at either sexual health or drug treatment services, however, there has historically been little joined-up working between these services. This reflects a necessary and unavoidable difference in clinical expertise and care provision. As it stands, due to a lack of awareness or confidence in performing these risk assessments, it may be difficult for most sexual health services to assess the harms associated with drug use and the need for drug treatment (Pakianathan, Lee, Kelly, & Hegazi, 2016); it is equally difficult for most harm reduction and drug treatment services to take a detailed sexual history (Spector & Pinto, 2011). These services are also typically funded separately, and have different eligibility criteria and catchment areas (Bowden-Jones, 2017).

To provide holistic care for people with problematic SDU (characterised by dependence, psychiatric and somatic harm), appropriate care pathways are required between sexual health and drug treatment services. This does not, however, address the fact that the objectives of surveillance from these services also varies: surveillance of SDU at sexual health services is vital to determining how, on a population-level, it influences the risks of STIs and BBVs. Contrarily, the aim of surveillance at drug treatment services is to monitor patterns and trends in drug use and drug-related harm.

Therefore, a common limitation of the national tools for monitoring drug use at drug treatment services is that no data on sexual activity, orientation, or sexual risk-taking are collected. As a result, there is currently no routine quantitative monitoring of SDU in Europe at drug treatment services. However, this is changing in some countries. The UK, for example, has made the recording of sexual orientation mandatory for clients of national drug treatment services in 2016 (Public Health England, 2017).