UKDPC

UK DRUG POLICY COMMISSION

The Impact Of Drugs on Different Minority Groups: A Review Of The UK Literature

Part 2: Lesbian, Gay, Bisexual & Transgender (LGBT) groups

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List of Abbreviations

BCS	British Crime Survey
CEBPP	Centre for Evidence-Based Policy and Practice
DES	data extraction sheet
EPPI Centre	Evidence for Policy and Practice Information and Co-ordinating Centre
GHB	Gamma hydroxybutyrate
HIV	Human immunodeficiency virus
LGB	Lesbian, gay and bisexual
LGBT	Lesbian, gay, bisexual and transgender
LSD	Lysergic acid diethylamide
MSM	Men who have sex with men
OPM	Office for Public Management
UKDPC	UK Drug Policy Commission

Executive summary

The Office for Public Management (OPM) was commissioned by the UK Drug Policy Commission (UKDPC) to conduct a review of the literature relating to a range of aspects of drug use among lesbian, gay, bisexual and transgender (LGBT) communities. This review forms part of a wider programme of work being undertaken by the UKDPC, the aim of which is to provide an overview of what is known about the differing needs and challenges associated with drug use among diverse minority communities within the UK. This research is funded by the Home Office.

UKDPC's specific objectives for the review were to provide an overview of the evidence relating to LGBT groups on the following issues:

1. The extent and nature of drug use.
2. The need for and access to prevention and treatment programmes.
3. The interaction with police and the criminal justice system.

The literature search, review and synthesis were informed by good practice guidelines issued by government agencies and universities (Government Social Research, undated; EPPI-Centre, 2007; Hartley, 2004). These have been developed with the specific aim of facilitating the synthesis of diverse material to inform the evidence-based policy and practice movement within the UK. The search was conducted in partnership with search specialist Alan Gomersall, Deputy Director of the Centre for Evidence-Based Policy and Practice (CEBPP). The review was conducted over a number of stages and literature was identified from a series of database searches and by advisory group members and other experts. After a rigorous sifting process, 23 items were included for review.

We found significant variability in the robustness of quantitative material included in this review, and that the qualitative materials often provided only minimal information on methodology. Some of the larger scale quantitative studies were clearly of high quality, using rigorous methods and large samples. Smaller scale local surveys that aim to provide a snapshot of issues relevant to target communities or focus on very specific subgroups or use of particular substances are less likely to define their methodologies. There are also differences in the drug use variables measured in the different studies, including lifetime use, use in last

year and use in last month. This means comparison across studies and interpreting findings should be done with caution.

Terminological difficulties also need to be taken into account. The literature included in this review appears to use the term LGBT to describe the multiple individual groups within LGBT groups, and it is evident that the term is sometimes used to describe all individual groups, even where one or more of these is not represented or discussed in the study. Some studies appear to examine 'the LGBT community' taken as a whole, and others make comparison between individuals within that broad definition of community. This is particularly the case with transgender groups, who are less represented in samples within the literature but who do appear as 'T' in the LGBT terminology. In addition, different descriptors are used to refer to men that may be bisexual or gay: for example, MSM (men who have sex with men), gay men, homosexual men.

Main findings

Objective 1: The extent and nature of drug use

Prevalence of use

There is a substantial amount of literature available on the prevalence of use of specific drug types among LGBT communities (particularly gay men). This ranges from large-scale national surveys to targeted pieces of research with local communities. Findings tend to vary based on the differences in the subpopulations and drug types studied.

Recreational drug use among LGBT groups appears to be higher than among heterosexual groups, although there are differences between individual populations in the wider LGBT population. However, reliable claims about prevalence of drug use in individual populations are made difficult due to the differences in the timescales over which use is recorded. For example, lifetime prevalence appears higher among lesbian women than among gay men, while prevalence of use over the last year or last month (at the time of the studies) appears higher among gay men than it does among lesbian women, suggesting higher current use among gay men than lesbians. Based on available data, it can be estimated that about 75% of non-heterosexual individuals have taken recreational drugs during their lifetime while between 30% and 50% have used drugs in the last year. The most reliable information comes from an analysis of British Crime Survey (BCS) data on prevalence of drug use and sexual orientation published by the Home Office (Hoare, 2010). The findings indicate that respondents who identified themselves as LGB were about three times more likely to report having taken illicit drugs compared to

heterosexual respondents: 32.8% of LGB respondents reported taking any drug[1] compared to 10.0% of heterosexual respondents.

In addition, our review identified more prevalence data related to gay men than to lesbian women. Drug use among individuals identifying as gay or MSM has been reported to be particularly high in London. Since the late 1990s, the prevalence of use of specific drugs in this group has changed, with the use of drugs such as amyl nitrite (poppers), cannabis, amphetamine and LSD becoming less common, and the use of drugs such as cocaine, ecstasy, ketamine and GHB increasing. It is difficult to make a similar comparison for use by lesbian women, as the studies are fewer in number and do not provide a consistent picture of prevalence.

Patterns of use

The available literature focuses primarily on recreational drugs. Those most often mentioned are cannabis, amyl nitrite (poppers), cocaine, ecstasy, ketamine, amphetamine and methamphetamine (crystal meth). Cannabis and poppers are usually reported as the two most commonly used drugs, with last year prevalence usually varying between 15% and 30%. With the exception of cannabis, use of these drugs appears more common among gay and bisexual men compared to other LGBT groups. There are also variations in levels of use of cannabis and poppers within the gay and bisexual male communities. Cannabis use is more common among gay and bisexual men from black and mixed ethnic backgrounds than among those from white backgrounds. White gay and bisexual men, on the other hand, seem to be twice as likely as black men to use poppers. Use of poppers appears frequently to be linked to sexual activity. Levels of cocaine use and ecstasy use are broadly similar. Levels of ketamine and cocaine use among LGBT groups appear to have increased over the past decade, while levels of amphetamine use appear to have decreased.

Drugs mentioned less often in the context of patterns of drug use are GHB, LSD, heroin and crack cocaine. There are also a number of studies looking at the non-prescribed use of steroids, Viagra, tranquilisers and at poly-drug use. A survey carried out in London gyms in 2000 showed approximately one in seven gay men (15.2%) had used steroids in the previous 12 months. Levels of steroid use also appear to be much higher in London than in other UK cities and higher among HIV-positive men than among HIV-negative men and never tested men. Additionally, a study looking at the prevalence of Viagra use among nightclubbers found that both lifetime and last month prevalence of Viagra use was elevated among non-

1 In the BCS, "'any drug' comprises cocaine powder, crack cocaine, ecstasy, LSD, magic mushrooms, heroin, methadone, amphetamines, cannabis, tranquilisers, anabolic steroids, ketamine, amyl nitrite, glues and any other pills/powders/drugs smoked".

heterosexual nightclubbers. Evidence suggests too that poly-drug use is common within LGBT communities, particularly among gay and bisexual men. Based on the findings by Hickson et al. (2009), only a small proportion of drug users report use of only one drug, and these are mainly exclusive users of either poppers or cannabis. Common combinations of drugs include cannabis and poppers, and cocaine, ecstasy and ketamine, this latter combination appearing common among crystal meth users.

The literature suggests that there are associations between drug use and risky sexual behaviour, including exposure to HIV infection. However, although several studies point to relationships between drug use (particularly the use of crystal meth, ecstasy, GHB, cocaine and ketamine) and risky behaviours, they are cautious in assuming the causality between the two. Some suggest that the relationship is not causal, but that it is more accurate to suggest that some individuals reporting drug use and sexual risk behaviour are psychologically more inclined to risk. Several studies also report strong links between Viagra use and sexual risk, with Viagra identified as a secondary drug used to counter the physical effects of stimulant drugs.

Objective 2: The need for and access to prevention and treatment programmes

Good practice in prevention and treatment

There was a paucity of evidence in the literature reviewed on what represents good practice in drug treatment and prevention. In particular, there were no studies that had measured outcomes or conducted robust evaluations of services. Instead, there were a handful of documents that were either short articles about specific services, for example the Armistead Centre in Liverpool (Mathews, 2005), or small-scale local surveys that focused primarily on prevalence but also at times asked respondents about their satisfaction with or needs for drug treatment and prevention services (Buffin and Mirza, 2009; Jefferson and Tkaczuk, 2005). The services discussed in the literature included some that are used by the LGBT community on a self-referral basis, and others that are provided as outreach or as awareness-raising activity.

The literature indicates that – from a service-user perspective – good practice is closely connected to treatment and prevention programmes being cognisant of the specific needs of the LGBT population. In addition to providing clinic-based support, this often includes proactively marketing the support available through social venues accessed by the community. Commitment to understanding LGBT needs at a strategic level (such as through publishing a 'kitemark' or quality standards) should translate at a staff delivery level to a non-judgmental, empowering approach which makes appropriate information available to allow service-users to choose the support they need. Good practice is also characterised by provision of information and support on the wider health and emotional well-being needs of LGBT people,

which shows LGBT groups that services are aware of the wider context in which their drug use may occur.

Access to drug treatment and prevention programmes

There is little data available on access to drug treatment and prevention programmes. However, available evidence points to low uptake of services with predictions of increased need in the future.

There are relatively low levels of awareness and uptake of treatment and prevention services among LGBT groups. The literature identifies the causes for low awareness and uptake as the absence of perceived problematic drug use within LGBT groups, and users' perception that services do not cater for some of the commonly used drugs within the community, such as GHB. LGBT groups may also perceive their needs to be outside government priorities, with this perception fuelled by the failure to include LGBT groups in the national drugs strategy, and a public health focus on harm associated with opiate and crack use, which the evidence shows are less likely to be drugs of choice for LGBT groups. Community-based support is shown to be popular among LGBT groups, with health professionals playing an important role in identifying appropriate support. Furthermore, LGBT groups recognise the benefits of drug treatment and prevention services that draw on the capacity within the LGBT community, including its venues, networks and resources (e.g. internet sites).

Objective 3: The interaction with police and the criminal justice system

In the available literature, there is little reference to interaction between the LGBT community and the police and criminal justice system in respect of drug problems, with this topic discussed in just two of the documents included in the review. It is important to note that the literature covering this issue relates primarily to men who have sex with men (MSM), with poor coverage of the issues specifically affecting women.

Similar issues across the wider LGBT community mean that it is not possible to report extensively on either the extent of interaction or the experiences of the LGBT community and the criminal justice system. Yet while the literature on the interaction between LGBT individuals and the police and criminal justice system in relation to *drug problems* is limited (as defined by the limits of this review), there is extensive literature relating to other aspects of interaction between these groups which may overlap with some of the issues connected to drug problems. Research in this respect includes that on safety, criminalisation, discrimination, searching and prisons, some of which resonates with the findings of the literature included in

this study. Common themes include historical relations, trust and work to improve mutual understanding.[2]

Existing research on LGBT groups and police tends to focus on domestic violence, personal safety and discrimination, among other areas. The LGBT community most commonly comes into contact with police and the criminal justice system in prison settings, where researchers understand the majority of drug treatment and prevention services are provided to this group. The evidence shows that historically poor relations between the police and the LGBT community can present a barrier to interactions with the police, and that proactive police action to support the LGBT community may be most effective in tackling existing levels of distrust.

Gaps identified

Extent and nature of drug use

The available evidence indicates a number of areas in which further research would be valuable. The amount of research focusing on drug use among gay men and/or MSM far outweighs the amount of research on drug use among other members of the LGBT community. A number of studies focus exclusively on men and data on drug use among women and transgender people usually comes from research that looks at the LGBT community in general and hence is limited in identifying nuances specific to drug problems of particular subcommunities. Bisexual people are also given limited attention, with most authors seeing gender (as opposed to sexual orientation) as the primary analytical category. Studies on gay men and/or MSM often include bisexual men in their samples, without exploring potential differences in the patterns of drug use and related behaviours. Transgender people have been particularly ignored in the available literature. Some studies include them in their samples but without identifying any possible differences in drug use between transgender individuals and the rest of the LGBT community.

A number of studies point to the fact that drug treatment services do not have a sufficient understanding of the specific drug-related problems of the LGBT community. This implies that there are particular benefits arising from further research. These benefits include enabling services to meet the community's needs more appropriately and to provide greater support, leading in turn to improved outcomes for the LGBT community. Much of the research on drug use in the LGBT community has focused on the associated risk of HIV transmission, to the detriment of research on other aspects of high-risk behaviour and the use of recreational drugs.

2 References to research in this area were provided by Dr Kath Browne, Brighton University.

There are also concerns that the health inequalities experienced by the LGBT communities are not well understood. For example, Douglas Scott et al. (2004) argue that substance misuse has the greatest impact on health inequalities between the LGB and heterosexual communities.[3] This links to the need for and access to drug prevention and treatment programmes, which is explored in the next section.

Prevention and treatment programmes

Several studies show that drug prevention and treatment services need to be more accurately attuned to the needs of the LGBT population. For this to happen, more evidence is required so that the appropriate service provision can be commissioned. Specifically, qualitative data on recreational drug use (e.g. use not solely relating to 'addiction'), on the different drugs used by LGBT groups, and evidence relating to inhibiting factors for those who do not access services are required in order to better understand service needs (Browne et al., 2009). There appears as well to be a need for improvements in the information provided to the LGBT community about drug treatment and services.

Interaction with police and the criminal justice system

In light of the paucity of evidence on the LGBT community and interaction with the police and criminal justice system, there appears to be a need for research specifically addressing this issue, including the extent of LGBT people's interaction with the police and criminal justice system in relation to drugs and the experiences of LGBT people's interaction with the police and criminal justice system in relation to drugs, both in the community and in custodial settings.

3 Transgender people are not included in their report.

1. Introduction

The Office for Public Management (OPM) was commissioned by the UK Drug Policy Commission (UKDPC) to conduct a review of the literature relating to a range of aspects of drug use among lesbian, gay, bisexual and transgender (LGBT) communities. This review forms part of a wider programme of work being undertaken by the UKDPC, the aim of which is to provide an overview of what is known about the differing needs and challenges associated with drug use among diverse minority communities within the UK. This research is funded by the Home Office.

UKDPC's specific objectives for the review were to provide an overview of the evidence relating to LGBT groups on the following issues:

1. The extent and nature of drug use.
2. The need for and access to prevention and treatment programmes
3. Interaction with the police and criminal justice system

Representatives from the UKDPC and OPM review team recognised from the outset that the nature of the population under study had a number of implications for the literature review, including:

- objectives 1 and 2 are likely to generate more literature than objective 3;
- there is likely to be a paucity of robust quantitative studies;
- there may not be adequate coverage of the full range of LGBT groups that are of interest to this review;
- findings from studies derived from particular localities and regions may not necessarily be applicable at the national level; and
- methods used and quality of data generated are likely to vary considerably.

Both UKDPC and OPM colleagues acknowledged that there was likely to be a dearth of good quality relevant material and that there may be numerous gaps in the evidence base. To redress these gaps, a second element of this review is a review of data sources held at the UK Data Archive in order to identify datasets that record sexual orientation and drug use as variables. Appendix 1 provides an overview of these datasets.

This literature review is designed to 'map out the terrain'. We adopted a strategic approach to the available literature, honing in on particular areas that appeared to have the greatest potential to yield valuable insights and learning to inform UKDPC's policy and planning work.

The rest of the report reads as follows:

Chapter 2 describes the methods used for searching, securing and reviewing the material. It also provides an overview of the main characteristics of the reviewed literature in terms of methods used, types of literature or study and the quality of the literature. Challenges relating to methodologies, terminology, data analysis and reporting are also discussed.

Chapters 3, 4 and 5 look in turn at each of the three objectives: chapter 3 presents findings on the extent and nature of drug use amongst LGBT groups; in chapter 4 we look at the need for and access to prevention and treatment programmes and chapter 5 considers the interaction of LGBT groups with the police and criminal justice system. We should note that the amount and type of evidence available varies across the three objectives. In each chapter, we have presented any gaps in the evidence identified in the course of the review.

Chapter 6 concludes the report by drawing together the key themes.

2. Method and overview of material included

Literature search and review process

Our approach to the literature search, review and synthesis has been informed by good practice guidelines issued by government agencies and universities (Government Social Research, undated; EPPI-Centre, 2007; Hartley, 2004). These have been developed with the specific aim of synthesising diverse material to inform the evidence-based policy and practice movement within the UK.

In recognition of the value of qualified search specialists to the overall quality of reviews (Wade et al., 2006), we worked with search specialist Alan Gomersall, Deputy Director of the Centre for Evidence-Based Policy and Practice (CEBPP). Alan provided expert advice and support as we developed our search strategies. The stages of the review process were as follows:

1. Initial and revised search of databases

Representatives from the UKDPC and OPM worked in partnership to develop the approach to the database searches. We agreed that it needed to be underpinned by an iterative process of progressive and informed filtering. Initial searches were broad and allowed us to ascertain the broad contours of the terrain and identify the extent and type of relevant literature available on the databases. This broad approach helped to ensure that none of the critical items were missed. Each subsequent search was based on decisions informed by the findings of preceding searches and guided by the overall objectives of the review.

The initial broad search terms were developed in accordance with the aims and objectives of the project and compiled by OPM and our literature search expert at CEBPP with contributions from UKDPC. OPM's and UKDPC's specialist and specific understanding of drug problems among LGBT groups within the UK added value to this search process. A full list of search terms used can be found in Appendix 2.

Our search expert conducted a total of 12 searches across 13 databases. The experience of the initial searches fed into the refinement of search terms. For example, the use of a broad search strategy produced a number of irrelevant results relating to child protection, which resulted in further strategies excluding 'child' as a search term. Four general search strategies were used at this stage:

- **Broad search strategy:** For example, (lesbian, gay, transsexual, bisexual etc.) + (drug, substance, narcotic) + (use, abuse, misuse).
- **Search strategy with 'NOT' clause:** (lesbian, gay, transsexual, bisexual etc.) + (drug, substance, narcotic) + (use, abuse, misuse) + NOT (America, China, South Africa, Japan etc) + NOT (child).
- **Search strategy with 'NOT' and 'AND' clause:** (lesbian, gay, transsexual, bisexual etc) + (drug, substance, narcotic) + (use, abuse, misuse) + NOT (America, China, South Africa, Japan etc) + AND (England, Wales, Scotland, United Kingdom, Leicester, Bradford etc) + NOT (child).
- **General Simple Search Strategy:** For example, (lesbian, gay) + (drug).

We conducted a number of trial searches using the broad search strategy. These yielded an extremely long list of results, which included a great deal of international material. A 'NOT' clause was thus added in order to refine the search. This helped to filter the results and make the results list more manageable to sift. This search strategy was then further developed by the addition of 'INCLUSION' or 'AND' clauses, which specified a range of regions, cities and areas across the UK. This helped us to filter the results yet further.

The search strategy was tailored appropriately to the nature of the various databases. The search systems of a small number of databases (e.g. DrugScope) would only allow very simple searches, using one or two search terms. However, by using a number of different combinations of terms, we were able to ensure that the search process was exhaustive. In the case of DrugScope, numerous reading lists published by the organisation were also consulted to identify relevant literature.

We shared all material identified with the UKDPC. As expected, there was a significant dearth of empirical material identified through the searches. Appendix 3 shows the databases that were searched, the specific search strategies used and the results obtained.

The search and reviewing process was designed to be robust, and every effort has been made to ensure that no relevant item has been omitted. At the initial stages of the search, we did not filter results on the basis of their quality. We agreed with UKDPC that decisions about quality standards to be used should come at a later stage, once we had a better understanding of the extent and quality of the material available and after further discussions about the purpose and audience for the review.

2. Website searches

In light of the limited number of items identified, OPM and UKDPC agreed that it would be helpful to search the websites of LGBT representative and charity organisations for grey literature. We thought that these organisations were likely to have conducted research at grassroots levels that, although perhaps not of high quality, could potentially be relevant for this review. Eleven websites were searched in full, the results of which can be found in Appendix 4.

3. Input from experts

Consultation with experts can be an effective way of identifying relevant material, including grey literature and very recent material that might not yet be included on bibliographic databases. Experts, particularly when they are drawn from a variety of backgrounds, can often give good indications of the importance of various sources of material (and different individual items).

Our original proposal was to consult with a number of relevant experts, including practitioners, academics, policymakers and representatives from community groups. However, since a project advisory group was in the process of being set up to comment and advise on the design, progress and outputs of the project, it was agreed that we would draw on the expertise of this group as their knowledge would contribute significantly towards identifying any valuable additional materials. The group comprises ten experts from a range of different backgrounds. In addition to these advisory group members, seven other experts were also contacted in order to identify relevant literature. A full list of advisory group members and experts consulted with can be found in Appendix 5.

4. Defining inclusion and exclusion criteria

Following the broader search, a set of inclusion and exclusion criteria was developed to generate a shortlist of relevant material to be included in the review.

We did not feel it was appropriate to set inclusion and exclusion standards prior to carrying out the initial searches. We wished to ensure that the standards we did develop were informed by our initial searches, which yielded helpful clues about the relative distribution of various sources of material and their likely content and quality. In searching and reviewing less well-researched areas, the imposition of objective inclusion or exclusion standards prior to any search being carried out can mean that potentially useful material is excluded. It can also mean that too little or too much literature is included in the review (Government Social Research (undated).

The eventual set of inclusion criteria was agreed in consultation with UKDPC and included:

- Focus on project aims.
- Published between 1999 and 2009.
- About LGBT communities in the UK.

5. Review of evidence against quality standards

UKDPC and OPM considered that, due to the lack of empirical data identified, the use of stringent quality standards to exclude literature could potentially result in a very small number of documents for review. Therefore it was agreed that OPM should review the full shortlist of literature identified and that all literature would be assessed against agreed quality standards in order to develop appropriate caveats for the interpretation of findings. **These quality assessments and caveats are included throughout the report.**

Material that met the inclusion standards was read and reviewed in full. To facilitate a systematic extraction of relevant information, a data extraction sheet (DES) was designed so that identification of relevant evidence was consistent and directed at answering the review questions. The DES was designed in collaboration with UKDPC. A copy of the blank DES is provided in Appendix 6.

Different quality standards were used to assess the reliability and validity of the different studies. The choice to vary quality standards was made in recognition of the wider debates around appropriateness of standards in relation to different types of studies.[4]

We agreed in consultation with UKDPC that the quantitative studies would be assessed using US Census Bureau standards (13 standards) (US Census Bureau, 2006) on the minimal information to accompany any report of survey or census data. The majority of qualitative studies were small local-level studies, so we agreed with UKDPC that a set of five simple standards recommended by the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) (University of London, Institute of Education) was most appropriate for this review. The full list of quality standards can be found in Appendix 7.

The quantitative studies reviewed were scored out of 13 and assigned ratings of low, medium or high quality based on comparative scoring. The qualitative studies

4 However, there can be different preferences across different policy fields; see Nutley et al. (2007), Oakley et al. (2005), Bambra (2005), Attree and Milton (2006), Popay et al. (1998), Spencer et al. (2003).

reviewed were scored out of 5 and also assigned ratings of low, medium and high quality.

These rating categories were defined by considering the relative weight of the quality standards. A number of standards refer to very basic information that tends to accompany all studies and does not in fact shed very much light on the quality of the study. For quantitative studies this basic information includes:

- organisational sponsor of a survey;
- organisation that conducted the survey;
- wording of the questions asked.

For the qualitative studies the basic information includes:

- aims clearly stated;
- context clearly stated.

Standards relating to this basic information in qualitative and quantitative studies were given less weight when defining the rating categories of low, medium and high.

The more significant standards are those that shed light on the quality of the study and are also less likely to be discussed or addressed in study reports. For the quantitative studies these include:

- a discussion of the statistical precision of the results;
- description of estimation procedures;
- discussion of non-sampling errors;
- discussion of methods employed to ensure data quality.

For the qualitative studies the more significant standards include attempts to establish reliability and clear description of methods.

This approach helped to ensure that studies that meet only the less significant standards are not assigned an inflated rating and that studies that meet the more significant standards received an appropriate rating.

6. Final synthesis

The reviewed material was subjected to broad content analysis, with key themes and associations drawn out.

Overview of material included

The literature search and review process detailed above resulted in a total of 23 documents being selected for inclusion in the review. The documents included in the review consist of a combination of journal articles, local-level and small-scale research conducted by LGBT organisations and research centres, and larger scale surveys. The documents also included an analysis of reported drug use in the British Crime Survey (BCS) in 2007/08 and 2008/2009 by sexual orientation, which was undertaken by the Home Office (Hoare, 2010).

The majority of the literature included in this report focuses on drug use by gay men or men who have sex with men (MSM). A number of studies focus on more specific subgroups from within this community, such as gym-goers and MSM with a positive or negative HIV status. In most cases, bisexual men constitute part of the sample; however, differences in drug use between men defining themselves as gay and men defining themselves as bisexual are rarely elaborated on.

- One report focuses on drug use among lesbians and bisexual women, and a further five documents that focus on the LGBT or LGB (lesbian, gay and bisexual) communities in general provide data on lesbians and bisexual women, which is often compared with data on gay and bisexual men.
- There is very little research investigating the use of drugs among transgender people, with only three of the empirical studies reviewed having included transgender individuals in their samples. These small numbers do not allow us to draw conclusions about the transgender population.
- Of the 23 documents that were shortlisted and reviewed, 17 employed quantitative approaches, including small- and large-scale surveys. Five documents employed qualitative methods, and these mostly supplemented findings from quantitative approaches. Finally, six documents were a combination of theoretical and secondary research.[5]

Quality standards

- Quantitative studies were assessed against a number of quality standards and assigned a score out of 13. As a number of the standards referred to very basic information (organisational sponsor, survey/poll conductor) that all studies provide, it is clear that not all the standards are of equal importance when assessing the quality of the work itself. Definitions of 'low', 'medium' and 'high' quality are influenced more directly by standards that account for the robustness and reliability of the evidence itself, such as statistical precision, sampling methodologies etc.

5 Note that the numbers add up to more than 23 documents in total as some studies used both quantitative and qualitative methodologies.

- Using this convention, the studies were generally of low and medium quality (low: 6; medium: 8; high: 3). Low quality studies were assessed as such primarily due to a lack of information on methods used, sample design, quality of data generated, weighting and estimation procedures, the statistical significance of findings and the analysis procedures used. Medium quality studies were primarily weak on providing sufficient information about sample design, quality of data generated and weighting and estimation procedures.
- Qualitative studies were assessed against a number of quality standards and assigned a score out of 5. The same convention for assessing 'low', 'medium' and 'high' quality was applied. These also tended to be of low and medium quality (low: 2; medium: 2; high: 1). This lower rating tended to be so because methods were not clearly described. Finally, two pieces of secondary research were of low quality and one was of high quality.
- The full list of material reviewed (including the quality rating assigned to each document) can be found in Appendix 8. Throughout this report we refer to the quality of studies cited where we feel that this adds to the reader's understanding of the points raised or indicates the need for caution in extrapolating from data provided.
- A small number of studies were identified as being potentially relevant but could not be included due to the scope and timing of this review. A list of this material can be found in Appendix 9.

Challenges relating to data and methods

Robustness of material generated through quantitative approaches

- As is apparent from the discussion above there is significant variability in the robustness of quantitative material included in this review. Larger scale studies which have employed more rigorous methods, such as the analysis of BCS data by Hoare (2010), the different editions of the *Gay Men's Sex Survey* reported by Weatherburn et al. (2000) and Hickson et al. (2007), and Bolding et al.'s (2006) study on methamphetamine (crystal meth) use among gay men in London tend to be of much higher quality than smaller scale studies with methodologies that may not be clearly defined. This has meant that it is both difficult and inappropriate to make inferences based on comparisons across such studies.
- A number of the studies included in this review are small-scale local surveys, for example in Leeds, Nottinghamshire, and Wiltshire and Swindon. The aim of these studies is to provide a snapshot of the issues relating to drug use in these communities within local areas, rather than to provide data that is generalisable or representative of wider LGBT communities.
- It is important to note that statistical significance and sampling errors are only reported by approximately half the quantitative studies and thus interpreting the significance of findings and assessing the generalisability of data is difficult. The

studies that do include information on statistical representativeness commonly do so by including standard error estimates in datasets or by indicating general confidence interval levels.

- A number of studies focus on very specific subgroups, for example young people, people attending nightclubs and gyms and people visiting HIV clinics. This means that several of the studies included in the review relate to populations not addressed in other studies. This is a further factor limiting the extent to which comparisons can be made across studies.
- A number of different drug types or drug groups are investigated across the studies included in this review, which adds to the difficulty of comparing across studies. These include:
    - specific illegal drugs (heroin, cocaine, crystal meth etc.);
    - recreational drugs (this group can range from 4-5 recreational drugs to 8-9);
    - illicit drugs;
    - anabolic steroids (use without prescription);
    - Viagra (use without prescription); and
    - tranquilisers (use without prescription).
- There is also considerable diversity in the drug use variables that are measured, which include lifetime use, use in last year and use in last month. In approximately half the quantitative studies the wording of questions asked is not provided. Additionally, there is diversity in the terminology used for different sample groups, for example: MSM, gay men, homosexual men.

Robustness of material generated through qualitative approaches

Only five studies included material generated through qualitative approaches. This material typically supplemented findings from the quantitative research that was the main focus of these studies. This meant that very little information on the qualitative methodology used was reported. Information that was included consisted primarily of recruitment approaches and sampling strategies, research instruments used and analysis of data collected.

The available evidence base is presented in the following sections of this report and needs to be understood against the context of the caveats highlighted here.

Challenges relating to terminology and definitions

The research specification for this review was to address drug use among LGBT groups. The literature included in this review appears to use the term LGBT to describe the multiple individual groups within LGBT groups, and it is evident that the term is sometimes used to describe all individual groups, even where one or more of these is not represented or discussed in the study. In this way, research findings tend to be wrongly attributed to groups, which have not in fact been

included in the sample. Some studies appear to examine 'the LGBT community' taken as a whole while others make comparison between individuals within that broad definition of community.

This is often the case with transgender groups, who are less represented in samples within the literature, but who appear as 'T' in the LGBT terminology. Additionally, we are aware of the problematic use of 'bi' in LGBT and the difficulty of using this term to discuss two genders, illustrated in the tendency of some research to conflate sexual orientation and gender in its terminology.

Recognising the difficulties that the use of specific terminology poses, we report the findings from individual studies using the terms adopted in the original sources. For example, we use the term 'homosexual' if an author uses it to define their sample. Where appropriate, we highlight the implications that the use of particular terminology may have.

Our use of LGBT in relation to 'population', 'groups', 'community' or 'people' in this review acknowledges the multiple groups and identities that may be understood by the term and, where possible, we have taken care to specify which individual groups the data refers to (and by inference, those which are excluded).

Common terms used throughout the review are provided below to clarify what is meant by their use.

- **Lifetime prevalence**
  - Those who have used drugs at some point in their lifetime at the time of the study.
- **Last year prevalence**
  - Those who have used drugs at some point within the last year at the time of the study.
- **Last month prevalence**
  - Those who have used drugs at some point within the last month at the time of the study.
- **Class A drugs**
  - Includes cocaine powder, crack cocaine, ecstasy, LSD, magic mushrooms, heroin and methadone.
- **Stimulant drugs**
  - Includes cocaine powder, crack cocaine, ecstasy, amphetamines and amyl nitrite.
- **LGBT**
  - Lesbian, gay, bisexual and transgender.
- **LGB**
  - Lesbian, gay and bisexual.
- **MSM**
  - Men who have sex with men.

3. Extent and nature of drug use

Prevalence of drug use

There are a number of quantitative surveys that examine the prevalence of drug use among LGBT groups. The studies included in this section were generally of medium and high quality, and where possible findings from higher quality studies have been presented before those of lower quality. Available data, however, are often difficult to compare due to the different timescales that the studies use to investigate the issue. In most reviewed studies, respondents had been asked about their drug use in the 12 months prior to the study. However, a number of authors adopt different timescales, such as the last five years (Browne et al., 2009), last three years (Varney, 2008) or the last month (King et al., 2003; Buffin and Mirza, 2009). In this section, we present the evidence of the prevalence of drug use using the three most commonly used timescales: *lifetime*, *last year* and *last month*.

Generally, the literature on the prevalence of drug use suggests that members of LGBT communities are more likely to use recreational drugs than people from heterosexual communities.

Lifetime prevalence of drug use

King et al. (2003), drawing on data collected in England and Wales from relatively large samples of 505 heterosexual men, 656 gay men, 588 heterosexual women and 430 lesbians, report that gay and lesbian participants are more likely than heterosexual participants to have used recreational drugs. Participants were recruited through snowball sampling by placing adverts in a number of media with public venues and organisations. (Although open to biases in selection, the authors chose snowballing as an effective method in the absence of a sampling frame in which to use probabilistic sampling.) In terms of lifetime drug use, lesbian respondents were most likely to report having used recreational drugs (79%), followed by gay men (77%), heterosexual men (72%) and heterosexual women (60%).

The percentage of gay men reporting as having used recreational drugs in the study by King et al. (2003) is very similar to one reported more recently by Keogh et al. (2009). Based on findings from the large-scale (N = 6,155) national study, *Gay Men's Sex Survey 2007*, Keogh et al. report that three-quarters (76%) of gay and bisexual men in the UK have used recreational drugs at some point in their life. Unfortunately, the literature included in this review does not provide a comparable

national study of lesbian lifetime drug users with which the percentage reported by King et al. could be compared.

Last year prevalence of drug use

The most robust source of prevalence data included in this review is the British Crime Survey, which provides nationally representative and age standardised data.[6] The Home Office has published an analysis (Hoare, 2010) of combined 2007/08 and 2008/09 BCS data, to provide estimates of the use of illicit drugs by respondents identifying themselves as LGB (*N* = 985 across the two years). The findings indicate that respondents who identified themselves as LGB were about three times more likely to report having taken illicit drugs compared to heterosexual respondents: a third, or 32.8% of LGB respondents[7] reported taking any drug[8] compared with one in ten (10.0%) of heterosexual respondents[9]. In addition, 11.1% of LGB respondents, compared with 3.6% of other respondents, reported taking a Class A drug over the 12 months prior to the survey. The use of stimulant drugs was almost five times as prevalent among LGB respondents (20.8%) as among the rest of the population (4.3%). These differences might have been due to the LGB respondents being younger on average than the rest of the population (since drug use is more common among younger people) but they remain when looking at the age-standardised data also included in this analysis.

There was a smaller gender difference in reported drug use among LGB respondents compared to heterosexual respondents, as far as last year prevalence is concerned. While almost twice as many heterosexual men as women had taken any drug (13.3% and 6.8%, respectively), the difference between gay/bisexual men and gay/bisexual women was smaller (38.2% and 26.9%, respectively). Age-standardised data reveals a similar difference between heterosexual men and women, whereas the difference between gay/bisexual men and gay/bisexual women increases (36% and 20.7%, respectively). The contrast between heterosexual and gay/bisexual respondents is even greater with regards to gender when we consider the use of Class A drugs, with 5.1% of heterosexual men reporting drug use compared to 2.1% of heterosexual women, and 12.6% of gay/bisexual men reporting drug use compared to 9.4% of gay/bisexual women (Hoare, 2010).

The only other study that provides prevalence figures for gay and bisexual women is the *Lesbian and Bisexual Women's Health Check 2008* (Hunt and Fish, 2008),

6 Age-standardisation adjusts rates to take into account the age profile of the population under study.
7 Out of 964 people who identified themselves as gay or bisexual and answered the questions on drug use.
8 In the BCS, "'any drug' comprises cocaine powder, crack cocaine, ecstasy, LSD, magic mushrooms, heroin, methadone, amphetamines, cannabis, tranquilisers, anabolic steroids, ketamine, amyl nitrite, glues and any other pills/powders/drugs smoked".
9 Based on a sample of 45,088 people.

which is based on reports from 5,310 respondents. The study provides slightly higher prevalence figures among gay and bisexual women compared with the BCS analysis: roughly a third (34.7%) of the English sample and a slightly lower proportion (30.2%) of the Welsh sample had used recreational drugs during the year prior to the study, compared to reported prevalence of drug use in the last year of 26.9% in the BCS surveys. However, it should be noted that Hunt and Fish use a narrower definition of recreational drugs (for example, excluding amyl nitrite and tranquilisers)[10] compared with the BCS, which makes direct comparisons difficult. Additionally, the results from this study should be treated with caution as there is a lack of information available about the sampling methodology used.

In terms of drug use in the last year among gay and bisexual men, other studies included in this review report higher prevalence figures than that reported in the BCS analysis (38.2%). For example, in their study investigating the use of crystal meth among gay men in London (N = 1,307), Bolding et al. (2006) found that approximately 50% of respondents had used recreational drugs in the 12 months prior to the study.[11] It is important to note that the list of drugs that Bolding et al. asked respondents to report included Viagra, which is not included in the BCS surveys. Additionally, a targeted sample was recruited for this survey from gyms and HIV testing clinics. These factors, along with the fact that the sample was restricted to London, need to be considered when making comparisons across studies.

Hickson et al. (2009), who compare findings from the *Gay Men's Sex Survey* in 1999 (N = 2,480) and 2005 (N = 3,913), also report high prevalence figures for drug use[12] in the last year among MSM: 59.7% and 59.9%, respectively. The authors also report that drug use was significantly more common among MSM respondents residing in London, with 67.5% (n = 795) of London-based respondents reporting drug use in 2005, compared to 57.4% (n = 1,334) of respondents from other areas of England and Wales.

The data reported by Hickson et al. (2009) suggest that the prevalence of drug use in the last year among MSM has neither increased nor decreased. However, there has been a change evident over time as far as the use of particular drugs is concerned, with some drugs becoming more common and others having fewer users. The annual national *Gay Men's Sex Survey*, conducted by Sigma Research, has considered last year prevalence of individual drug use among gay and bisexual men in three of its editions: 1999 (Weatherburn et al., 2000), 2005 (Hickson et al., 2007) and 2007 (Keogh et al., 2009). A snapshot of the change in the prevalence of use of these

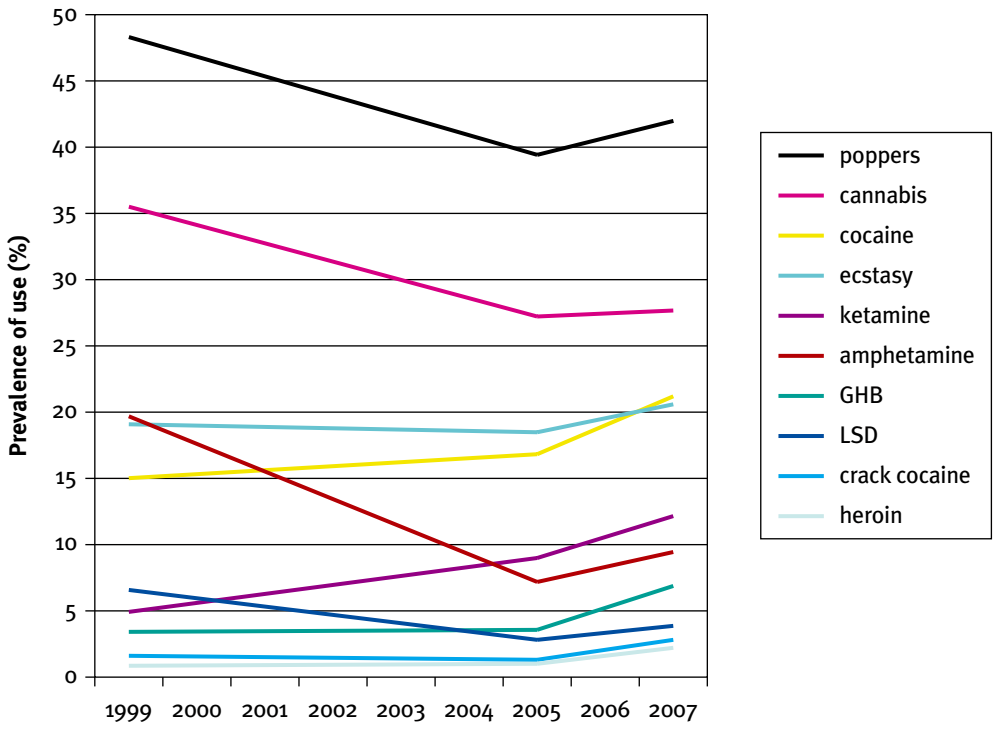
10 Respondents were asked about their use of any of the following drugs: cannabis, ecstasy, LSD, speed, crystal meth, cocaine, crack cocaine, ketamine, GHB and heroin.
11 Respondents were asked about their use of the following drugs: crystal meth, ecstasy (MDMA), cocaine, ketamine, speed (amphetamine) and Viagra (sildenafil).
12 Respondents were asked about their use of the following drugs: alkyl nitrites, cannabis, ecstasy, cocaine, ketamine, amphetamine, GHB, LSD, crack and heroin.

drugs over time is presented in Table 1 and Figure 1. However, given the significant variation in sample size, comparisons across the years should be made with caution. Unfortunately, no equivalent longitudinal data is available for other LGBT groups. Drug use in relation to particular drug types is discussed in more detailed below.

Table 1: Last year prevalence of drug use among gay and bisexual men from Gay Men's Sex Surveys (GMSS) in 1999, 2005 and 2007

Survey edition	GMSS 1999	GMSS 2005	GMSS 2007
Authors	Weatherburn et al. (2000)	Hickson et al. (2007)	Keogh et al. (2009)
Geographical focus	England and Wales	United Kingdom	United Kingdom
Sample size (valid responses)	N=9007	N=16310	N=6155
Poppers/amyl nitrite	48.4%	39.4%	42.0%
Cannabis	35.5%	27.7%	27.7%
Cocaine	15.0%	16.8%	21.2%
Ecstasy	19.2%	18.5%	20.7%
Ketamine	5.0%	9.1%	12.2%
Amphetamine/ Speed	19.8%	7.2%	9.5%
GHB/GBH	3.4%	3.6%	7.0%
LSD/Acid	6.6%	2.8%	3.9%
Crack cocaine	1.6%	1.4%	2.8%
Heroin	0.9%	1.0%	2.3%
Viagra	3.6%	17.4%	No data
Methamphetamine/ Crystal	No data	2.8%	4.7%
Tranquilisers	No data	4.1%	8.7%
Steroids	1.4%	No data	No data
Magic mushrooms	No data	No data	3.9%

Figure 1: Last year prevalence of use of individual drugs among gay and bisexual men (from Gay Men's Sex Surveys (GMSS) in 1999, 2005 and 2007)



Although there may be some issues of comparability between years (sample sizes and coverage vary) the data shown in Table 1 and Figure 1 suggests the reported last year use of poppers, cannabis, amphetamine and LSD has generally declined. Conversely, the use of cocaine, ketamine and GHB appears to have increased. The use of crack cocaine and heroin, although they remain uncommon among gay and bisexual men, also appears to have increased.

Last month prevalence of drug use

The prevalence of recreational drug use in the last month has been reported by King et al. (2003) and appears quite high for both heterosexual and lesbian and gay respondents:[13]

- gay men: 52% (n = 327) had used recreational drugs during the last month;
- heterosexual men: 45% (n = 223) had used recreational drugs during the last month;
- lesbians: 44% (n = 185) had used recreational drugs during the last month;
- heterosexual women: 33% (n = 194) had used recreational drugs during the last month.

13 King et al. (2003) do not specify how they define 'recreational drugs' or what drugs they include in this category.

The findings also provide additional evidence that non-heterosexual respondents are more likely to report drug use than heterosexual respondents. However, compared to the data from the BCS discussed above, the differences between heterosexual and non-heterosexual respondents and between male and female respondents reported by King et al. are much smaller.

It appears from the evidence discussed above that, in general, drug use among non-heterosexual groups is higher than among heterosexual men and women. However, it is important to note that while there is relatively good evidence on the prevalence of drug use among non-heterosexual men, data relating to non-heterosexual women is more limited, with bisexual and transgender people receiving very little coverage in the literature. The higher level of illicit drug use among gay and bisexual adults may be due, in part, to the younger age profile of individuals identifying themselves as members of this group. Analysis of data from the BCS showed that around one-third (33%) of the heterosexual population included in the analysis was aged between 16 and 29, while this age group made up over half (52%) of the gay or bisexual population. As levels of illicit drug use are known to be higher among younger adults, the age profile may have an effect on drug use estimates for gay or bisexual adults. This may be particularly the case with women where the difference in age profile is even clearer. Roughly a third (32%) of heterosexual females are aged between 16 and 29, whereas almost twice this proportion (62%) of gay/bisexual females are in the same age bracket. The difference is slightly less marked for men: 34% of heterosexual men are aged between 16 and 29 compared with 45% of gay/bisexual men. However, marked differences in drug use prevalence between gay and bisexual men and women and the remainder of the population are still found even when age is taken into account through the use of age-standardisation (Hoare, 2010).

Given the difficulty of comparing prevalence data in studies that use different timescales, drug groupings and sampling methods, as noted at the start of this section, there is value in using prevalence data to consider patterns of use of individual drugs. In the following section, evidence on the use of the most common drugs is discussed, accounting for factors such as age, gender and geographical location.

Summary

Available evidence suggests that drug use among non-heterosexual groups is higher than among heterosexual groups. Prevalence of drug use has been studied primarily through self-completion questionnaires, where respondents are asked about drug use with reference to various time periods (most often their lifetime, the last year or the last month). Therefore, it is often difficult to make comparisons across studies. Accurate assessment of the prevalence of drug use among LGBT groups is also difficult due to differences in sampling methodologies and variations in definitions of 'recreational drugs' across studies.

Based on available data, it can be estimated that about three-quarters (75%) of non-heterosexual individuals have taken recreational drugs during their lifetime, while between 30% and 50% have used drugs in the last year. However, there are differences between individual groups within the LGBT community, with gay men or MSM usually being cited as the group in which drug use is most common. Drug use among individuals identifying as gay or MSM has been reported to be particularly high in London. Since the late 1990s, the prevalence of use of specific drugs in this group appears to have changed, with the use of drugs such as amyl nitrite (poppers), cannabis, amphetamine and LSD becoming less common, and the use of drugs such as cocaine, ketamine and GHB increasing.

There is considerably less evidence on drug use among other members of the LGBT community, with bisexual and transgender groups being particularly under-researched in relation to prevalence of drug use. Therefore, it is very difficult to estimate drug use among individual LGBT groups and more quantitative research is needed to provide a more consistent picture of prevalence of drug use in this population. There is also a need for more comparative data to enable comparisons to be drawn within LGBT groups as well as between LGBT groups and the heterosexual population.

Patterns of drug use

Given that the term 'recreational drugs' is often defined differently by authors, as well as interpreted differently by respondents, there is value in analysing prevalence of drug use by looking at use of individual drugs rather than all/any drugs. There is a substantial amount of literature available on the prevalence and patterns of use of specific drug types among LGBT groups, particularly gay men. This ranges from large-scale national surveys to targeted pieces of research with local communities. In this section, evidence on the use of the most common drugs is discussed, accounting for factors such as age, gender and geographical location.

The following subsections focus on the recreational drugs that are most often mentioned in the available literature: cannabis, amyl nitrite (poppers), cocaine, ecstasy, ketamine, amphetamine and methamphetamine (crystal meth).

Recreational drugs mentioned less frequently in the literature (LSD, GHB, heroin and crack cocaine) are discussed together. The following three subsections consider the non-prescribed use of tranquilisers, steroids and Viagra.[14] The last subsection discusses poly-drug use.

The data on the patterns of drug use come from 15 research studies. Table 2 provides details of the studies' geographical focus, samples and quality.

Table 2: List of studies providing data on patterns of drug use (in alphabetical order)

Authors, year and title of publication	Geographical focus and year of data collection	Sample(s)[15]	Quality
Bolding et al. (2002) *Use of anabolic steroids and associated health risks among gay men attending London gyms*	London, 2000	Gym members: Gay men, *N* = 772 *Comparisons by HIV status, steroid use, side effects of steroid use and mental health*	Quant: 10.5; Medium
Bolding et al. (2006)[16] *Use of crystal methamphetamine among gay men in London*	London, 2002–2005	Gay men, *N* = 1,307 *(1) gay men using Central London gyms, N = 653* *(2) HIV-positive men attending an HIV treatment clinic, N = 388* *(3) HIV-negative men attending an HIV testing clinic, N = 266* *Comparisons also by sexual behaviour*	Quant: 13; High

14 These drugs are addressed in the same section, as although they are not illegal, the literature reviewed discusses their use in the context of misuse.

15 The *N* values present the numbers of respondents who provided answers to the relevant questions on drug use, which are sometimes smaller than the sample sizes reported by authors.

16 It is worth noting that the prevalence figures reported in this study are generally higher than those reported in other studies, particularly in comparison with BCS data (Hoare, 2010). This is because the purpose of this study was to study prevalence patterns among a 'high risk group' – gay men who were gym goers and who had attended HIV testing treatment clinics.

Table 2: continued

Authors, year and title of publication	Geographical focus and year of data collection	Sample(s)[15]	Quality
Bonell et al. (2010) *Methamphetamine use among gay men across the UK*	United Kingdom, 2007	Gay/bisexual men, *N* = 6,155 *Comparisons by age, HIV testing history and sexual behaviour*	Quant: 9.5; Medium
Browne et al. (2009) *Count Me In Too: LGBT lives in Brighton & Hove (Drugs & alcohol: Additional findings report)*	Brighton and Hove, 2006	LGBT, *N* = 809 *Male 56% ; female 41% ; trans/other 3%* *Les/gay 87% ; bi 6% ; queer 3.5% ; other 3.5%*	Quant: 10; Medium
Buffin and Mirza (2009) *OUTing Notts: A study into the substance misuse needs and experiences of LGBT people across Nottinghamshire*	Nottinghamshire, 2008–2009	LGBT, *N* = 122 *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	Quant: 7; Low
Hickson et al. (2007) *Consuming passions: Findings from the United Kingdom Gay Men's Sex Survey 2005*	United Kingdom, 2005	MSM, *N* = 16,310	Quant: 10; Medium
Hickson et al. (2009) *Illicit drug use among men who have sex with men in England and Wales*	England and Wales, 1999, 2005	MSM 1999, *N* = 2,480 MSM 2005, *N* = 3,913	Sec: 4.5; High

Table 2: continued

Authors, year and title of publication	Geographical focus and year of data collection	Sample(s)[15]	Quality
Hoare (2010) Nationally representative estimates of illicit drug use by self-report sexual orientation, 2007/08 and 2008/09 British Crime Survey	England and Wales, 2007–2009	Heterosexual, *N* = 45,008 *Male N = 20,575; female N = 24,513* *Gay/bisexual N = 964* *Male N = 502; female N = 462*	Quant: 11.5; High
Hunt and Fish (2008) *Prescription for change: Lesbian and bisexual women's health check 2008*	Great Britain, 2007	Lesbian/bisexual women, *N* = 6,178	Quant: 4; Low
Jefferson and Tkaczuk (2005) *Outing drugs*	Wiltshire and Swindon, 2004–2005	Gay/bisexual men, *N* = 95	Quant: 10.5; Medium
Keogh et al. (2009) *Wasted opportunities: Problematic alcohol and drug use among gay men and bisexual men*	United Kingdom, 2007	Gay/bisexual men, *N* = 6,155	Quant: 11.5; High Qual: 5; High

Table 2: continued

Authors, year and title of publication	Geographical focus and year of data collection	Sample(s)[15]	Quality
McCambridge et al. (2006) *The rise of Viagra among British illicit drug users: 5-year survey data*	United Kingdom, 2003[17]	Nightclubbers, *N* = 1,095 *(1) heterosexual, N = 939* *(2) bisexual, N = 100* *(3) homosexual, N = 56*	Sec: 2; Low
Noret and Rivers (2003) *Drug and alcohol use among LGBTs in the city of Leeds*	Leeds, year of data collection not provided	LGBT, *N* = 98 *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10*	Quant: 6.5; Low Qual: 3.5; Medium
Varney (2008) *A review of drugs and alcohol use amongst the lesbian, gay, bisexual and transgender community in London*	London, 2007	LGBT, *N* = 171 *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	Quant: 4; Low Qual: 2; Low
Weatherburn et al. (2000) *Vital statistics: Findings from the national Gay Men's Sex Survey 1999*	England and Wales, 1999	Gay/bisexual men, *N* = 9322	Quant: 10; Medium

It is important to consider factors such as sample size, sampling methodology and geographical representation when interpreting the data, which often makes it difficult to draw accurate comparisons between studies in relation to drugs used. In the following subsections, the studies included in the tables have been listed in order of descending quality – with those with higher quality scores appearing higher up in the tables. [17]

17 The study is based on longitudinal data collected over a period of five years (1999, 2000, 2001, 2002, 2003); however, sexual orientation is specifically considered only in the 2003 sample.

Cannabis

Table 3: Cannabis – reported patterns of use

Study	Sample	Reported prevalence: (%)	Time period
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	21.3	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6,155)	56.4	Lifetime
		27.7	Last year
Hickson et al. (2009)	MSM 1999 (*N* = 2,480)	34.5	Last year
	MSM 2005 (*N* = 3,913)	31.7	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	31	Regular use
Browne et al. (2009)	LGBT (*N* = 809) *Male 56% ; female 41% ; trans/other 3%* *Lesbian/gay 87% ; bi 6% ; queer 3.5% ; other 3.5%*	66	Last 5 years
		33	Last year
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9,322)	35.5	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	27.7	Last year
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	54	Lifetime
		30	Last year
		16	Last month
Noret and Rivers (2003)	LGBT (*N* = 98) *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10*	29.3	Last year

Table 3: continued

Study	Sample	Reported prevalence: (%)	Time period
Hunt and Fish (2008)	Lesbians and bisexual women (*N* = 6178)	33.3	Last year
Varney (2008)	LGBT (*N* = 171) *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	19	Last 3 years

While lifetime prevalence of cannabis use in LGBT communities has been reported to be approximately 55% (Keogh et al., 2009; Buffin and Mirza, 2009); prevalence of drug use in the last year across the studies included in this review has been generally estimated to be about 30% (Hickson et al., 2007; Browne, 2009; Keogh et al., 2009; Hickson et al., 2009; Hunt and Fish, 2008; Noret and Rivers, 2003). In the analysis of the BCS (Hoare, 2010) the prevalence of reported cannabis use in the last year is slightly lower, at just over a fifth (21.3%), but this is likely to reflect the fact that this is based on a household sample whereas a number of the other studies use snowball sampling or focus on samples obtained in recreational settings. This prevalence figure of 21.3% is significantly higher than that of reported cannabis use in the last year by heterosexual groups (8.1%), a difference which remains when looking at age-standardised data.

In the literature on drug use among LGBT groups, cannabis is often reported to be the most commonly used drug (Hoare, 2010; Browne et al., 2009; Varney, 2008) or the second most commonly used drug after poppers (Weatherburn et al., 2000; Jefferson and Tkaczuk, 2005; Hickson et al., 2007; Keogh et al., 2009; Hickson et al., 2009). The relative popularity of cannabis and poppers seems to depend on whether LGBT groups are considered as a whole or individually. While prevalence figures for gay and bisexual men tend to find the use of poppers to be greater than the use of cannabis, the opposite is often the case when lesbian and bisexual women are included in the sample (that is, an LGB sample). The analysis of BCS data (Hoare, 2010) indicates only a small difference in last year prevalence figures between non-heterosexual men and women, with about a fifth (19.7%) of the former reporting have used cannabis in the last year and a slightly higher proportion (23%) of the latter group. However, there is a significant difference in prevalence of use of poppers, with the latter being much more likely to use the drug (see the subsection below), which is likely to explain the difference.

There is conflicting evidence when the prevalence of cannabis use is considered according to age. However, it appears that, generally, younger LGBT individuals are more likely to use cannabis than older people (e.g. Hickson et al., 2007; Browne et al., 2009; Keogh et al., 2009). The findings by Hickson et al. (2007) also suggest that cannabis is used more often by gay and bisexual men from black and mixed ethnic backgrounds compared to gay and bisexual men from white and Asian ethnic backgrounds.

Poppers (amyl nitrite)

Table 4: Poppers (amyl nitrite) – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	15.2	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6,155)	62.8	Lifetime
		42.0	Last year
Hickson et al. (2009)	MSM 1999 (*N* = 2,480)	47.6	Last year
	MSM 2005 (*N* = 3,913)	43.7	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	43	Regular use
Browne et al. (2009)	LGBT (*N* = 809) *Male 56% ; female 41% ; trans/other 3%* *Lesbian/gay 87% ; bi 6% ; queer 3.5% ; other 3.5%*	26	Last 5 years
		22	Last year
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9,322)	48.4	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	39.4	Last year

Table 4: continued

Study	Sample	Reported prevalence: %	Time period
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	43	Lifetime
		24	Last year
		16	Last month
Noret and Rivers (2003)	LGBT (*N* = 98) *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10*	27.3	Last year
Hunt and Fish (2008)	Lesbians and bisexual women (*N* = 6,178)	12.5	Last year

The analysis of the BCS found that 15.2% of gay or bisexual men and women have used poppers in the previous year compared to only 1.4% of heterosexual men and women (Hoare, 2010). Additionally, it is in the use of poppers that the most significant gender difference was detected, with 23.7% of gay/bisexual men and only 1.8% of gay/bisexual women reporting the use over the last 12 months.

The rest of the studies included in Table 4 were of low to medium quality, and were often reported using snowball sampling methodologies or were small local studies (e.g. Noret and Rivers, 2003; Jefferson and Tkaczuk, 2005). In some of these studies, poppers are often reported to be the most commonly used drug, with the prevalence of use in the last year among LGBT people in general varying between 22% and 27%, which is considerably higher than the BCS figure of 15.2% (Browne et al., 2009; Noret and Rivers, 2003). However, as with the BCS data, the studies also report a marked gender difference. Across the studies, approximately 10% of lesbians and bisexual women reported using poppers in the previous 12 months (Browne et al., 2009; Noret and Rivers, 2003; Hunt and Fish, 2008; Buffin and Mirza, 2009) compared to 31–48% of gay and bisexual men (Weatherburn et al., 2000; Hickson et al., 2009; Browne et al., 2009; Buffin and Mirza, 2009; Hickson et al., 2009; Keogh et al., 2009; Noret and Rivers, 2003; Jefferson and Tkaczuk, 2005). Nevertheless, the highest last year prevalence figures are from 1999, and the use of poppers among gay and bisexual men appears to have decreased slightly when looking at longitudinal data (Hickson et al., 2009), even though almost two-thirds report using poppers at some point in their life (Keogh et al., 2009).

Generally, poppers seem to be more commonly used by younger than older individuals (e.g. Browne et al., 2009; Keogh et al., 2009). Additionally, white gay and bisexual men seem to be twice as likely as their black counterparts to use poppers (Hickson et al., 2007).

Jefferson and Tkaczuk (2005), exploring gay and bisexual men's reasons for using drugs, found that many report 'better sex' as a beneficial effect when using poppers, indicating that poppers are often used to aid sex.

Cocaine

Table 5: Cocaine – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Bolding et al. (2006)	Gay men, gyms (*N* = 653)	44.0	Last year
	Gay men, HIV treatment clinic (*N* = 388)	41.8	
	Gay men, HIV testing clinics (*N* = 266)	40.2	
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	7.9	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6,155)	34.5	Lifetime
		21.2	Last year
Hickson et al. (2009)	MSM 1999 (*N* = 2,480)	12.6	Last year
	MSM 2005 (*N* = 3,913)	22.3	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	16	Regular use
Browne et al. (2009)	LGBT (*N* = 809) *Male 56%; female 41%; trans/other 3%* *Lesbian/gay 87%; bi 6%; queer 3.5%; other 3.5%*	45	Last 5 years
		23	Last year

Table 5: continued

Study	Sample	Reported prevalence: %	Time period
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9,322)	15.0	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	16.8	Last year
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	26	Lifetime
		9	Last year
		4	Last month
Noret and Rivers (2003)	LGBT (*N* = 98) *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10*	10.1	Last year
Hunt and Fish (2008)	Lesbians and bisexual women (*N* = 6,178)	(›1/10)	Last year
Varney 2008	LGBT (*N* = 171) *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	17	Last 3 years

Cocaine has been cited in the literature as the third most commonly used drug (Hoare, 2010; Browne et al., 2009; Keogh et al., 2009) or the second most commonly used drug (Varney, 2008). The studies looking at prevalence of reported cocaine use suggest that the percentage of LGBT individuals who have used the drug in the previous year varies between 7.9% and 23% across studies (e.g. Hoare, 2010; Browne et al., 2009; Noret and Rivers, 2003). The highest prevalence (23%) was reported by Browne et al. (2009) who surveyed LGBT individuals in Brighton and Hove, using convenience sampling (media, advertising and mainstream and LGBT services). The other studies reported figures more in line with the BCS figure of 7.9%. This compares to 2.9% of heterosexual people reporting use of cocaine in

the last year. However, when looking at age-standardised data the difference in prevalence between non-heterosexual and heterosexual people falls slightly (6.1% and 2.9%, respectively).

The data from the BCS (Hoare, 2010) show no significant differences between gay or bisexual men and women in relation to the use of cocaine, with 8.4% of men and 7.7% of women reporting cocaine use in the previous year. Additionally, the study by Browne et al. (2009) focusing on the LGBT community in Brighton and Hove also found that the prevalence of current use is the same for men and women.

The studies focusing exclusively on gay and bisexual men tend to report relatively high figures for prevalence of cocaine use in this group (ranging between 15% and 22.3%), which is especially the case in London (e.g. Weatherburn et al., 2000, and Hickson et al., 2007, reports on the *Gay Men's Sex Survey*). Bolding et al. (2006) report that as many as 40-45% of London-based gay men had used cocaine over the previous year. However, the sample of gay men used in the study was very specific and can be described as 'high risk' as they were recruited from HIV testing clinics and gyms. Nevertheless, there is evidence that the use of cocaine in the gay male community has increased in the last decade (e.g. longitudinal data from the *Gay Men's Sex Survey*), which is also the case in the general population.

In terms of age, the use of cocaine seems most common for LGBT individuals in their 20s and 30s (Browne et al., 2009; Hickson et al., 2007, Buffin and Mirza, 2009).

Ecstasy

Table 6: Ecstasy – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Bolding et al. (2006)	Gay men, gyms (*N* = 653)	47.3	Last year
	Gay men, HIV treatment clinic (*N* = 388)	41.5	
	Gay men, HIV testing clinics (*N* = 266)	42.9	
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	7.0	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6,155)	34.4	Lifetime
		20.7	Last year

Table 6: continued

Study	Sample	Reported prevalence: %	Time period
Hickson et al. (2009)	MSM 1999 (*N* = 2,480)	17.0	Last year
	MSM 2005 (*N* = 3,913)	24.1	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	18	Regular use
Browne et al. (2009)	LGBT (*N* = 809)	48	Last 5 years
	Male 56% ; female 41% ; trans/other 3%	24	Last year
	Lesbian/gay 87% ; bi 6% ; queer 3.5% ; other 3.5%		
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9,322)	19.2	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	18.5	Last year
Noret and Rivers (2003)	LGBT (*N* = 98)	21.2	Last year
	Male n = 74; female n = 23; trans n = 1		
	Lesbian/gay n = 88; bisexual n = 10		
Buffin and Mirza (2009)	LGBT (*N* = 122)	30	Lifetime
	Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1	15	Last year
		7	Last month
	Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4		
Hunt and Fish (2008)	Lesbians and bisexual women (*N* = 6,178)	(›1/10)	Last year

Table 6: continued

Study	Sample	Reported prevalence: %	Time period
Varney 2008	LGBT (*N* = 171) *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	16	Last 3 years

The reported levels of ecstasy use over the last year among LGBT communities are similar to the reported levels of cocaine use. Hoare (2010) reports a figure of 7.0%, only slightly lower than the 7.9% reported for cocaine. This is higher than the prevalence of reported ecstasy use over the last year by heterosexual respondents of 1.7%. This difference falls slightly when looking at age-standardised prevalence figures for non-heterosexual and heterosexual respondents (5.2% and 1.8%, respectively).Two small-scale local studies have cited ecstasy as the third most common drug among their respondents (Jefferson and Tkaczuk, 2005; Varney, 2008). Other studies that have reported the use of ecstasy by LGBT people have reported last year prevalence figures ranging between 15% and 25% (Browne et al., 2009; Noret and Rivers, 2003; Buffin and Mirza, 2009), which is considerably higher than the BCS figure of 7.0%. However, these are usually of lower quality, have small sample sizes or are based in a single local area (e.g. Brighton and Hove).

The data from the BCS show a relatively small difference between gay/bisexual men and women in terms of their use of ecstasy in the last year, with 7.9% of men and 6.0% of women reporting using it. In all the other studies that compared the use of ecstasy between males and females, men have been found to be more likely than women to use the drug (Browne et al., 2009; Noret and Rivers, 2003; Varney, 2008; Buffin and Mirza, 2009).

Evidence also suggests that younger LGBT individuals are more likely to use ecstasy. The use of the drug seems most common in LGBT people in their 20s and 30s (e.g. Hickson et al., 2007; Keogh et al., 2009; Buffin and Mirza, 2009). Some data also suggests that its use might have slightly increased over the last decade (Hickson et al., 2009).

According to Jefferson and Tkaczuk (2005), the good effects of ecstasy most frequently experienced by gay and bisexual men were ‘better confidence’ and ‘better time socialising’.

Ketamine

Table 7: Ketamine – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Bolding et al. (2006)	Gay men, gyms (*N* = 653)	36.3	Last year
	Gay men, HIV treatment clinic (*N* = 388)	28.1	
	Gay men, HIV testing clinics (*N* = 266)	25.6	
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	2.6	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6155)	20.5	Lifetime
		12.2	Last year
Hickson et al. (2009)	MSM 1999 (*N* = 2480)	4.0	Last year
	MSM 2005 (*N* = 3913)	12.7	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	1–3	Regular use
Browne et al. (2009)	LGBT (*N* = 809) *Male 56% ; female 41% ; trans/other 3%* *Lesbian/gay 87% ; bi 6% ; queer 3.5% ; other 3.5%*	20	Last 5 years
		13	Last year
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9322)	5.0	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	9.1	Last year
Noret and Rivers (2003)	LGBT (*N* = 98) *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10%*	5.1	Last year

Table 7: continued

Study	Sample	Reported prevalence: %	Time period
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	23	Lifetime
		11	Last year
		4	Last month
Varney 2008	LGBT (*N* = 171) *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	11	Last 3 years

Based on the data from the BCS (Hoare, 2010), last year prevalence of ketamine use is 2.6% among gay and bisexual men and women and 0.5% among heterosexual people. Other literature provides higher figures for the use of ketamine among members of LGBT communities, which varies between 4% (Hickson et al., 2009) and 13% (Browne et al., 2009) for last year use, with lifetime prevalence of about 20% (Keogh et al., 2009; Buffin and Mirza, 2009). However, it is important to note that a number of these studies only look at gay and bisexual men and thus do not reflect gender differences, whereas the BCS data does. Additionally, Bolding et al. (2006) report significantly higher prevalence figures, but as noted earlier the sample of gay men used in their study was very specific and can be described as 'high risk' as they were recruited from HIV testing clinics and gyms.

Data consistently indicate that men are more likely than women to use ketamine. According to Hoare (2010), 3.6% of gay and bisexual men and 1.6% of lesbian and bisexual women have taken ketamine during the last year. In other studies, last year use of ketamine use among gay and bisexual men has been reported to vary between 7.0% (Noret and Rivers, 2003) and 19.0% (Browne et al., 2009), while the figures for use by lesbians and bisexual women vary between 0% (Noret and Rivers, 2003) and 10.0% (Buffin and Mirza, 2009). Compared to other drugs, the increase in the use of ketamine by gay and bisexual men over the last decade has been most apparent, with data from 1999 reporting that 5.0% of gay and bisexual men had

used ketamine in the previous year (Weatherburn et al., 2000) compared to 9.1% in 2005 (Hickson et al., 2007) and 12.2% reported in the most recent *Gay Men's Sex Survey* (Keogh et al., 2009).

The use of ketamine does not vary substantially across age groups, although teens and over-50s have been reported as the least likely to be users (e.g. Keogh et al., 2009; Varney, 2008; Buffin and Mirza, 2009).

Amphetamine (speed)

Table 8: Amphetamine – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Bolding et al. (2006)	Gay men, gyms (*N* = 653)	12.3	Last year
	Gay men, HIV treatment clinic (*N* = 388)	12.6	
	Gay men, HIV testing clinics (*N* = 266)	13.5	
Hoare (2010)	Gay or bisexual men and women (*N* = 964) *Male 502, female 462*	4.6	Last year
Keogh et al. (2009)	Gay and bisexual men (*N* = 6155)	29.3	Lifetime
		9.5	Last year
Hickson et al. (2009)	MSM 1999 (*N* = 2480)	18.9	Last year
	MSM 2005 (*N* = 3913)	9.4	
Jefferson and Tkaczuk (2005)	Gay and bisexual men (*N* = 95)	6	Regular use
Browne et al. (2009)	LGBT (*N* = 809) *Male 56%; female 41%; trans/other 3%* *Lesbian/gay 87%; bi 6%; queer 3.5%; other 3.5%*	13	Last 5 years
		7	Last year
Weatherburn et al. (2000)	Gay and bisexual men (*N* = 9322)	19.8	Last year
Hickson et al. (2007)	MSM (*N* = 16310)	7.2	Last year

Table 8: continued

Study	Sample	Reported prevalence: %	Time period
Noret and Rivers (2003)	LGBT (*N* = 98) *Male n = 74; female n = 23; trans n = 1* *Lesbian/gay n = 88; bisexual n = 10%*	11.1	Last year
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	30	Lifetime
		7	Last year
		5	Last month

Data from the BCS (Hoare, 2010) suggest that 4.6% of gay and bisexual people have used amphetamines in the last year. This compares to 1.1% of heterosexual people having reported using amphetamines in the last year. This difference reduces a little when considering age-standardised prevalence for non-heterosexual and heterosexual people (3.6% and 1.1%, respectively). Evidence from other studies, again, provides higher prevalence figures, with between 7% and 11.1% of LGBT individuals reporting using amphetamines in the previous year (e.g. Browne et al., 2009; Buffin and Mirza, 2009; Noret and Rivers, 2003) and about 30% reporting taking the drug at some point in their life (Keogh et al., 2009; Buffin and Mirza, 2009).

The analysis of the BCS suggests that among gay and bisexual people, men and women have similar levels of amphetamine use (4.1% and 5.3%, respectively). Some small-scale local studies conducted in Leeds and Nottinghamshire suggest that men are slightly more likely than women to be amphetamine users (Noret and Rivers, 2003; Buffin and Mirza, 2009). Amphetamine is also more often used by younger rather than older LGBT people, with individuals in their early 20s being most likely to use the drug (e.g. Noret and Rivers, 2003; Buffin and Mirza, 2009; Hickson et al., 2009). Data from the 2005 *Gay Men's Sex Survey* also suggests that amphetamine use is more common among gay and bisexual men with lower incomes and no education beyond the age of 16 (Hickson et al., 2007).

Evidence from the *Gay Men's Sex Surveys* over the last decade suggests that there has been a significant decrease in the use of amphetamine over this time period. According to data by Weatherburn et al. (2000), Hickson et al. (2009) and Keogh

et al. (2009), use might have decreased by as much as 50% since the late 1990s. However, it should be noted that amphetamine use has also declined significantly among the general population (Hoare, 2009).

Methamphetamine (crystal meth)

Table 9: Methamphetamine – reported patterns of use

Study	Sample	Reported prevalence: %	Time period
Bolding et al. (2006)	Gay men, gyms (*N* = 653)	20.7	Last year
	Gay men, HIV treatment clinic (*N* = 388)	12.6	
	Gay men, HIV testing clinics (*N* = 266)	8.3	
Keogh et al. (2009)	Gay and bisexual men (*N* = 6,155)	9.5	Lifetime
		4.7	Last year
Browne et al. (2009)	LGBT (*N* = 809) *Male 56%; female 41%; trans/other 3%* *Lesbian/gay 87%; bi 6%; queer 3.5%; other 3.5%*	7	Last 5 years
		5	Last year
Hickson et al. (2007)	MSM (*N* = 16,310)	2.8	Last year
Bonnell et al. (2009)	Gay and bisexual men (*N* = 6,155)	4.7	Last year
Buffin and Mirza (2009)	LGBT (*N* = 122) *Male n = 76; female n = 42; trans-gendered n = 2; bi-gendered n = 1* *Lesbian n = 29; gay n = 68; bisexual n = 22; other n = 4*	7	Lifetime
		0	Last year
		0	Last month

Table 9: continued

Study	Sample	Reported prevalence: %	Time period
Varney 2008	LGBT (*N* = 171) *Male n = 134; female n = 58* *Lesbian/gay n = 166; bisexual n = 8; heterosexual/straight n = 12; other/no answer n = 5*	3	Last 3 years

The most recent *Gay Men's Sex Survey* reported on by Keogh et al. (2009), a high quality study, reported that 4.7% of gay and bisexual men have taken crystal meth in the last year. Similar results have been obtained by Bonell et al. (2010), who examined the prevalence of methamphetamine use across the UK, using a cross-sectional survey of a convenience sample of gay men. The last year prevalence of the use of the drug was higher in London than in other regions:

- London: 7.8%
- South England: 3.3%
- Mid/East England: 3.5%
- North England: 2.8%
- Wales: 4.8%
- Scotland and Northern Ireland: 2.2%.

Based on the findings from their large-scale study looking at the use of crystal meth among gay men in London, Bolding et al. (2006) estimate that approximately one in ten London-based gay men use the drug in a year. The literature indicates that the prevalence of crystal meth use depends on the setting in which gay men are surveyed. For example, in the study by Bolding et al. (2006), gay men recruited in gyms had used crystal meth more often (19.5%) than gay men recruited in HIV treatment (12.6%) and testing clinics (8.3%). According to the authors, the testing clinics attracted a cross-section of gay men, hence these estimates might be more applicable to a wider population of gay men. Conversely, the gym data might "reflect more closely crystal meth use among gay men who are part of the club-drug scene" (Bolding et al., 2006: 1628).

Several studies suggest that crystal meth is most frequently used by gay men in their 30s (Hickson et al., 2007; Keogh et al., 2009), and that women are less likely than men to use the drug (Browne et al., 2009; Buffin and Mirza, 2009).

LSD, GHB, heroin and crack cocaine

The available literature consistently shows that, compared to the drugs discussed so far, use of LSD, GHB, heroin and crack cocaine is substantially less common within LGBT communities.[18]

Despite available statistics suggesting that almost one in five LGBT individuals is estimated to have used LSD at some point in their lifetime (Keogh et al., 2009; Buffin and Mirza, 2009), regular use of the drug seems relatively low, with the most recently reported last year prevalence figures from high quality studies varying between 1% and 4% (Hoare, 2010; Hickson et al., 2007; Keogh et al. 2009). Limited evidence suggests that females and individuals in their 20s might be more likely to use LSD compared to other groups (Hickson et al., 2007; Buffin and Mirza, 2009). Recent evidence points to a downward trend, with national data from the *Gay Men's Sex Survey* suggesting that the use of LSD among gay and bisexual men is decreasing, with more than 6% last year prevalence reported in 1999 and about 3% reported in 2005 and 2007 (Weatherburn et al., 2000; Hickson et al., 2009; Hickson et al., 2007; Keogh et al., 2009). This reflects general population trends, with the 2008/09 BCS reporting that last year LSD use has fallen from 1% in 1996 to 0.2% in 2008/2009 (Hoare, 2009).

An opposite trend has been observed in the use of GHB, which, according to data from high and medium quality studies, more than doubled between 1999 and the mid-2000s (Weatherburn et al., 2000; Hickson et al., 2009; Hickson et al., 2007; Keogh et al., 2009). Based on the evidence, it can be estimated that between 5% and 7% of gay and bisexual men used GHB in the last year, with the most recent figures closer to the former (Browne et al., 2009; Hickson et al., 2009; Hickson et al., 2007; Keogh et al., 2009). There is limited evidence from local studies on the extent to which GHB use is common among lesbians and bisexual women. Browne et al. (2009) report a very small figure of 0.3%. Buffin and Mirza (2009) reported a last year prevalence figure of 7% among lesbian and bisexual women, but due to the small size of the sample, this amounts to only three women and should thus be treated with caution.

The use of heroin and crack cocaine within LGBT communities has been found to be low compared to other drugs. Only 0.5% of the gay/bisexual respondents in the analysis of BCS data indicated having used heroin in the previous year, which amounts to only five respondents. Similarly, 0.7% of the gay/bisexual respondents reported the use of crack cocaine in the last year. Despite these low prevalence

18 The reported levels of use of methamphetamine are most often similar to the levels of use of these less common drugs. However, since the drug has been given more attention in the literature, it has been considered separately in our review.

figures, heterosexual population estimates for both drugs are even lower, with both heroin and crack cocaine use in the last year estimated at 0.1%. These differences remain the same when looking at age-standardised prevalence data (Hoare, 2010).

Some small-scale local studies of comparatively lower quality (Noret and Rivers, 2003; Buffin and Mirza, 2009) suggest that the use of heroin may be more prevalent among female members of the LGBT community, while male members are more likely to use crack cocaine. However, these findings are not supported by BCS data, which indicates that more male than female gay and bisexual respondents reported using heroin (0.8% compared with 0.1%) and crack cocaine (1.1% compared with 0.2%) (Hoare, 2010).

The data from the *Gay Men's Sex Surveys,* all of which are of medium quality, suggest that the use of both heroin and crack cocaine may have increased among gay and bisexual men over the past decade, as shown in Table 10.

Table 10: Change in use of heroin and crack over time from GMSS surveys

	1999 (Weatherburn et al., 2000): %	**2005 (Hickson et al., 2007): %**	**2007 (Keogh et al., 2000): %**
Heroin	0.9	1.0	2.3 (n = 142)
Crack cocaine	1.6	1.4	2.8 (n = 172)

Hickson et al. (2009), in their community-based cross-sectional surveys with gay men across England and Wales, also report an increase in drug use among MSM between 1999 and 2005 (from 1.5%, *n* = 38, to 2.1%, *n* = 82), although their data suggests that heroin use has remained largely constant (1.1%, *n* = 28, and 1.0%, *n* = 37, for 1999 and 2005, respectively). These findings are not reflected in the small-scale local studies, although Jefferson and Tkaczuk (2005) note that heroin use is far more likely to remain 'hidden' than other drug use, suggesting that the real number of users might be higher.

According to Hickson et al. (2007), based on the findings from the 2005 *Gay Men's Sex Survey*, religious practice of respondents was significantly related to the use of GHB, LSD, heroin and crack cocaine, with Islamic men being most likely to use all the four drugs. Respectively for GHB, LSD, heroin and crack cocaine, 4.9% (*n* = 9), 3.3% (*n* = 6), 3.8% (*n* = 7) and 5.4% (*n* = 10) of the sample of 184 men identifying Islam as their religious practice reported having used the four drugs at least once a month. There were no reported figures of more than 2% in relation to any of the four drugs for any of the other religious groups (including Christianity, Buddhism,

Paganism, Judaism, no religion and other), apart from last month GHB use of 2.3% (*n* = 3) for respondents identifying Judaism as their religious practice. Hickson et al. (2007) provide no explanation for the relatively high prevalence of use of GHB, LSD, heroin and crack cocaine among Islamic men.

Tranquilisers

Data from the BCS points to a significant difference between heterosexual and gay/lesbian people in relation to tranquilisers use, with 0.5% of the former and 2.2% of the latter reporting using tranquilisers in the last year (Hoare, 2010). General population use was reported to be 0.6%. Men appear more likely to be users compared to women (2.7% and 1.7%, respectively), but these differences are not statistically significant. Several small-scale local studies report that, within the LGBT community, women are slightly more likely than men to use tranquilisers (Noret and Rivers, 2003; Buffin and Mirza, 2009). However, the comparatively lower quality of these local studies and their small sample sizes mean that these findings should be treated with caution.

Data from the more recent editions of the *Gay Men's Sex Survey* (2005 and 2007) suggests that the last year use of tranquilisers among gay and bisexual men in the UK more than doubled during the two-year period from 2005 to 2007, from 4.1% to 8.7% (Hickson et al., 2007; Keogh et al., 2009).

Available data suggests that the most common users of tranquilisers are in their 30s and 40s (Hickson et al., 2007; Keogh et al., 2009; Buffin and Mirza, 2009; Noret and Rivers, 2003).

Steroids

The use of anabolic steroids appears more prevalent among non-heterosexual than heterosexual people, based on the data from the BCS (Hoare, 2010), with 0.6% and 0.1% reporting use in the last year, respectively, but the difference is not statistically significant although it remains when looking at age-standardised prevalence figures. Although this is a low estimate, other evidence suggests that there are certain groups in the LGBT community where the use of steroids is quite common. For example, Bolding et al. (2002) report that approximately one in seven gay men (15.2%) surveyed in central London gyms in 2000 (N = 772) had used steroids in the previous 12 months. The authors report that the level of use in London is far higher than in other UK cities. They also note that steroid users are more likely than non-steroid users to use recreational drugs.

Bolding et al. (2002) found that in their sample of gay men attending gyms in London, the prevalence of steroid use is higher among HIV-positive men (31.7%) compared with HIV-negative men (14.5%) and never tested men (4.7%). Overall, 11.7% of respondents had injected steroids in the previous 12 months, with prevalence highest among HIV-positive men (24.6%), compared with HIV-negative men (10.9%) and never tested men (4.1%). None of the steroid injectors reported sharing injecting equipment, and the majority (94.1%) reported that they always used clean disposable needles and syringes. According to Bolding et al. (2002), the reasons for which the men used steroids were:

- to become bigger and stronger (46%);
- to look attractive (30%);
- for medical reasons (12%);
- to look healthy (8%); and
- to improve performance in sport (3%).

Studies in which gay male participants were not recruited in gyms report much lower figures of steroid use than Bolding et al. (2002). Weatherburn et al. (2000), based on the findings from the *Gay Men's Sex Survey 1999,* report a figure of 1.4% (n = 126). Unfortunately, the 2005 and 2007 editions of the survey do not provide data on steroid use. As far as local studies are concerned, both Noret and Rivers (2003) and Jefferson and Tkaczuk (2005) reported that three male respondents in their samples had used steroids (4% and 3% of all the men surveyed, respectively). There were no steroid users among non-heterosexual men surveyed by Buffin and Mirza (2009).

Viagra

According to Hickson et al. (2007), 17.4% (*n* = 2,838) of the men taking part in the 2005 edition of the *Gay Men's Sex Survey* had used Viagra in the last year. No comparative data exists in the other editions of the survey.

A study by McCambridge et al. (2006) analysed secondary data on the prevalence of Viagra use among British nightclubbers, examining lifetime and last month prevalence of use. The data analysed had been gathered from readers of a specialist dance music magazine, and the sample consisted of 1,134 individuals, of whom 60% were men. The number of participants who described themselves as either homosexual or bisexual was 156. The authors reported that both lifetime and last month prevalence of Viagra use was elevated among the non-heterosexual nightclubbers:

- homosexual participants: 37.5% lifetime use; 16% last month use;
- bisexual participants: 25% lifetime use; 8% last month use;
- heterosexual participants: 13.5% lifetime use; 3.5% last month use.

McCambridge et al. (2006) also found a gender difference in Viagra use among the nightclubbers. Prevalence was highest among men describing themselves as homosexual (lifetime and last month prevalence were 42% and 20%, respectively). Levels of use among men describing themselves as bisexual and heterosexual men were broadly similar, although no exact percentages were reported. Among women, heterosexual and homosexual women reported similar levels of use. However, prevalence was elevated among those describing themselves as bisexual (lifetime and last month prevalence were 29% and 8%, respectively).

A recommendation on the need to research Viagra and illicit drug use by gender follows the suggestion that research on Viagra use should not be limited to the male population, as "female illicit drug users, as well as their male counterparts, may be more confident about drug experimentation than non-users" (McCambridge *et al.*, 2006: 113). A small-scale local study by Buffin and Mirza (2009) in Nottinghamshire also found that Viagra use was not restricted to men, with 11% (*n* = 8) of men and 5% (*n* = 2) of women reporting using Viagra in the last year, with respective figures of 22% (*n* = 17) and 12% (*n* = 5) for lifetime prevalence. Three male respondents and no female respondents in the Leeds study by Noret and Rivers (2003) reported using Viagra in the last year.

Poly-drug use

Available evidence suggests that poly-drug use is common within LGBT communities, particularly among gay and bisexual men. Based on the findings by Hickson et al. (2009), in their community-based cross-sectional surveys with gay men across

England and Wales, only a small proportion of drug users report use of only one drug, and these are mainly exclusive users of either poppers (17.2% of all the men reporting poppers use) or cannabis (5.9% of all the men reporting cannabis use). Of those reporting the use of cocaine, ecstasy, ketamine, amphetamine, GHB, LSD, crack cocaine and heroin, less than 1% reported not having used any other drugs.

In the small-scale local study by Jefferson and Tkaczuk (2005), three in ten respondents (31%) indicated regular poly-drug use, with the exclusion of alcohol and tobacco. Buffin and Mirza (2009) report that 44% (n = 53) of their respondents had used more than one substance during a typical session in the last month, although alcohol and tobacco were also taken into account. Nevertheless, the combination of cannabis and poppers was said to be common, as was mixing cocaine, ecstasy and ketamine. The latter combination of drugs is also reported by Bolding et al. (2006) as common among crystal meth users in London. According to their data, gathered from participants attending central London gyms and HIV testing and treatment clinics, the most popular combination of two drugs is ecstasy and cocaine, followed by ecstasy and ketamine.

Summary

There is a substantial amount of quantitative data examining the prevalence and patterns of use of individual drugs, usually looking at last year prevalence of use. The studies most often examine the use of illicit recreational drugs, including cannabis, poppers (amyl nitrite), cocaine, ecstasy, ketamine and amphetamine. The use of methamphetamine (crystal meth), especially among gay men, has also received increasing attention. Less common illicit drugs usually included in the studies on the prevalence and patterns of drug use are GHB, LSD, heroin and crack cocaine. Some studies additionally examine illegal use of tranquilisers, steroids and Viagra.

Data from the BCS (Hoare, 2010), the only nationally representative household survey providing data relevant to this review, usually provides significantly lower figures on the prevalence of drug use than other research, which often adopts less robust methodology, such as snowball sampling. However, research in local settings or with particular groups of the LGBT population sheds light into specific patterns of use of individual drugs.

Cannabis and poppers are usually reported as the two most commonly used drugs, with prevalence of use in the last year usually varying between 15% and 30%. However, there are substantial gender differences in the use of poppers, which are significantly more common among non-heterosexual men than non-heterosexual women.

Summary (continued)

Prevalence figures for cocaine and ecstasy are very similar, with prevalence of use in the last year varying between 10% and 20% in most studies. Significant gender differences are rarely reported in terms of use of these two drugs; however, individuals in their 20s and 30s are often found to be most likely users. Last year prevalence of ketamine use can be estimated as between 3% and 13%. Studies consistently indicate that men are more likely than women to use the drug and, among gay and bisexual men, the increase of the use of ketamine over the last decade has been most apparent. In contrast, evidence suggests that the use of amphetamine has decreased, with last year prevalence currently estimated between 5% and 10%. The use of crystal meth in the UK shows clear patterns, with London-based gay men in their 30s constituting the most likely user group and overall last year prevalence data from less specific LGBT groups rarely exceeding 7%. The use of GHB, LSD, heroin and crack cocaine remains relatively low; however, some evidence suggests a recent increase in the use of heroin and crack cocaine, and particularly GHB, among gay and bisexual men. Tranquilisers, steroids and Viagra have all been found to be more common among non-heterosexual men than heterosexual men.

Finally, evidence also consistently shows that poly-drug use is common among LGBT groups, with very few users reporting use of only one type of drug.

Factors associated with drug use

HIV, risky sexual behaviour and drug use among gay men

Research consistently suggests that sexually active gay men who use certain illicit drugs are more likely to engage in sexual-risk behaviours[19] (Drumright et al., 2006, cited in Hickson et al., 2009). HIV status is also associated with drug use, as HIV-positive men are generally more likely to use all types of recreational drugs (Hickson et al., 2007). However, research comparing individuals' reports of sexual events involving or not involving drug use suggests that sexual risk behaviour is associated with use of poppers (alkyl nitrites), amphetamine and sniffed cocaine among HIV-negative men (Colfax et al., 2004, cited in Hickson et al., 2009), while HIV-positive men engaging in high-risk sexual behaviour report using particularly methamphetamine and cannabis (Drumright et al., 2006, cited in Hickson et al., 2009).

However, other research suggests such associations may not be causal since both drug use and sexual risk behaviour are likely to be in part the result of individuals' disposition to risk (Prestage et al., 2007, cited in Hickson et al., 2009).

19 Behaviours that increase one's risk of contracting sexually transmitted diseases.

In other reports, authors have examined drug use and high-risk sexual behaviour and identified their interrelation and the associated danger of acquiring HIV-positive status. However, the authors also emphasise that because much of this research comes from the USA (little UK-based research exists), there are limits to how far the same conclusions can be drawn in a UK context (i.e. Bonell et al., 2008).

A study by Matthews (2005) of gay and bisexual men in Liverpool has also explored the link between drug use and increased sexual risks. The findings indicated that 39% of respondents reported that they would be more likely to have unsafe sex when using drugs. Several other reports look at the contextual factors around drug use and sexual behaviour. For example, the study by Bolding et al. (2006) on the use of crystal meth indicated that there was a link between its use, high-risk sexual behaviour and increased use of Viagra.

In an editorial drawing on data from three studies conducted in 2004 and 2005, Ruf et al. (2006) affirm this finding, showing that high-risk sexual behaviour is connected to drug use, in which the likelihood of unprotected sex is increased, particularly among HIV-positive men:

"Recent studies ... have found a strong correlation between substance use and sexual risk after controlling for potential confounders, showing the use of 'party drugs' (including crystal meth, ecstasy, GHB, cocaine and ketamine) before or during sex to be independently associated with unprotected anal intercourse with casual partners of unknown HIV serostatus, particularly among HIV positive men." (Ruf et al., 2006: 96)

Other literature also supports the link between drug use and gym attendance. For example, in the study by Bolding et al. (2006), crystal meth use among HIV-positive men surveyed in HIV treatment clinics was lower than crystal meth use among HIV-positive men surveyed in gyms. In the same study, a similar pattern of use was reported among HIV-negative men, with fewer HIV-negative men surveyed in testing clinics reporting having used crystal meth in the previous year compared to HIV-negative men surveyed in gyms. A possible reason for this may be that those accessing both HIV testing and treatment clinics are more likely to take precautions around drug use and less likely to engage in high-risk sexual behaviour. A study looking at steroid use among gay men in London also found that HIV-positive men using steroids were more likely to engage in high-risk sexual behaviour than HIV-positive men not using steroids (Bolding et al., 2002).

Although the links between high-risk sexual behaviour and drug use appear clear, Bolding et al. (2006) acknowledge the limitations of the research methodology, which reveals relationships but does not account for causality. Having some

qualitative (or 'case cross-over') data might help to answer some of the questions about the nature of the relationship between drug use and sexual risk behaviour, which might not be straightforwardly causal, as the authors suggest:

"Men who used crystal meth, as well as those who used other recreational drugs, were more likely to report high-risk sexual behaviour than other men. They were also more likely to use Viagra, look for sex online or offline and to have had an STI. A number of studies in the United States have shown a similar association between crystal meth and high-risk sexual behaviour. It is possible that some men are drawn to recreational drugs (including crystal meth) and high-risk sex, rather than the drugs per se leading to greater sexual risk." (Bolding et al., 2006: 1628)

The use of Viagra has been linked with other recreational drug use as well as with sexually risky behaviour. Authors such as McCambridge et al. (2006) note that once again much of this research comes from the USA. McCambridge et al. (2006) cite a relatively small US study by Crosby and DiClemente (2004), which found no evidence of increased sexual risk behaviours among MSM using Viagra, but did find a high prevalence of ecstasy and cocaine use. Crosby and DiClemente's findings contradict those of Swearingen and Klausner (2005) (also cited in McCambridge et al., 2006), who, in their review of 14 US studies, report that Viagra users were found to be approximately four times as likely to have engaged in unprotected anal sex. They also suggest that associations between Viagra use, risky sexual behaviour and sexually transmitted infections may extend more widely than has been typically reported.[20] McCambridge et al. (2006), also argue that the links between the use of Viagra and the use of other recreational drugs and high-risk sexual behaviour are easy to discern:

"Temporary erectile incapacity associated with alcohol or stimulant drugs, for example, may be ameliorated with Viagra. Greater friction may occur during sex as a result of enlarged erection, heightening the risk of sexually transmitted infections." (McCambridge et al., 2006: 113)

Methamphetamine use was also found to be higher among men reporting sexual risk behaviours:

"Concerns about gay men's methamphetamine use arise because of its physical and psychological harms, and association with sexual risk behaviour (Drumright, Patterson & Strathdee 2006) and HIV infection (Buchacz et al., 2005). Association with sexual risk behaviour remains even after controls for individual psychological disposition to risk (Drumright, Little, et al., 2006)." (Bonell et al., 2010:244)

20 Also cited in McCambridge et al. (2006).

Summary

The literature gives strong evidence of associations between drug use and risky sexual behaviour, including exposure to HIV infection. However, although several studies point to relationships between drug use (particularly crystal meth, ecstasy, GHB, cocaine and ketamine) and risky behaviours, the evidence is less consistent about the nature of the causality between them. Some suggest that the relationship is less clearly causal, but that it is more accurate to suggest that some individuals reporting drug use and sexual risk behaviour are psychologically more inclined to risk. Several studies also report strong links between Viagra use and sexual risk, with Viagra identified as a secondary drug to counter the physical effects of stimulant drugs.

Drug use and physical and mental health problems among gay men

In addition to the associations of drug use with HIV and other sexually transmitted infections, a number of articles drew attention to physical health problems outside of the area of genitourinary infections. For example, the study by Bolding et al. (2006) on crystal meth use among gay men in London reports the risk of erectile dysfunction associated with the use of the drug. This links to the aforementioned high prevalence of Viagra use among crystal meth users. As stated above, McCambridge et al. (2006) also note that Viagra may ameliorate temporary erectile incapacity associated with stimulant drug use. The authors also mention potential cardiovascular problems associated with illicit drugs. Cardiovascular disorders, along with liver problems, are also mentioned by Bolding et al. (2002) in relation to steroid use. Their own research finds that over half of the steroid users who took part in the study reported testicular atrophy as a side effect and over a third reported experiences of pain in injection sites and acne.

Bolding et al. (2002) report that gay men who use steroids (N = 111 in the study) are more likely to experience a range of mental health problems, such as:

- rage: 52.8%;
- insomnia: 47.7%;
- depression: 25.2% experienced depression between cycles of use; and
- hypertension: 19% of all the steroid users who took part in the study experienced this.

Steroid users were also significantly more likely than non-users to report suicidal thoughts in the previous six months, with 22.6% of participants who used steroids having thought about suicide compared with 11.2% who did not. The authors

emphasised, however, that cause and effect could not be established and that it might be *"that men who tend to be depressed or have suicidal thoughts choose selectively to use steroids"* (Bolding et al., 2002: 201).

In their study on mental health and quality of life of gay men and lesbians in England and Wales, King et al. (2003) looked at drug use among these groups but did not examine its relation to specific mental health problems. Any association between sexuality, drug use and mental health cannot be established on the basis of their findings.

Summary

There is some evidence linking the use of specific drugs with physical and mental health problems. Stimulant drugs (especially crystal meth) have been associated with erectile dysfunction among MSM. Research suggests that gay and bisexual men engaging in sexual activities who suffer from erectile dysfunction as a result of stimulant drug use often ameliorate the effects of the drugs by taking Viagra. Stimulant drugs, as well as steroids, have also been associated with cardiovascular problems. In addition, testicular atrophy has been found to be relatively common among steroid users, as well as a range of mental health problems such as depression and suicidal thoughts.

Knowledge gaps identified

From the available body of evidence, clear messages emerge on the need for more research into specific issues surrounding the LGBT community and drug use.

Most importantly, the amount of research focusing on drug use among gay men and/or MSM far outweighs the amount of research on drug use among other members of the LGBT community. While a number of studies focus exclusively on men, data on drug use among lesbians, bisexual women and transgender people usually comes from research that looks at the LGBT community in general and hence is limited in identifying nuances specific to drug problems of these groups. Bisexual people are also given limited attention, with most authors seeing gender (as opposed to sexual orientation) as the primary analytical category. Consequently, studies on gay men and/or MSM often include bisexual men in their samples, without exploring potential differences in the patterns of drug use and related behaviours. Transgender people have been particularly ignored in the available literature, with some studies including them in their samples; however, those studies are not able to identify any possible differences in drug use between transgender individuals and the rest of the LGBT community.

Individual studies usually investigate drug use across different drug types. However, special attention is sometimes paid to particular drugs as some of them become

more common in specific subgroups of the LGBT community. For example, Bolding et al. (2006) and Bonell et al. (2010) identify the UK's research deficit into the prevalence of the use of crystal meth compared to the USA and Australia, and call for further exploration of the use of the drug among British gay men.

A number of the authors point to the fact that drug treatment services do not have a sufficient understanding of the specific drug-related problems of the LGBT community. This implies that there could be particular benefits arising from further research. These benefits include enabling services to meet the community's needs more appropriately and to provide greater support, leading in turn to improved outcomes for the LGBT community. Moreover, as Mathews (2005) argues, addressing the currently under-researched risk behaviour of recreational drug users would increase our understanding of the behaviours associated with drug use, providing policymakers and drug services with knowledge on how to target preventive work with this community.

It is evident from our literature review, and often emphasised by authors (e.g. Bonell et al., 2010), that much of the research on drug use in the LGBT community has focused on the associated risk of HIV transmission, to the detriment of research on other aspects of high-risk behaviour and the use of recreational drugs. Also, the nature of the relationships between sexual behaviour and drug use needs further exploration. For example, Bonell et al. (2010) are critical of the tendency for research to date to focus on comparisons between men who use drugs and men who do not. The authors appear to call for more research into *when* drug use takes place among gay men:

"These studies cannot establish causality or whether substance use actually accompanies sex. They are also vulnerable to confounding by differences between substance-users and non-users, such as propensity to risk." (Bonell et al., 2010: 418)

The issue of time also appears relevant to research on drug use among gay men and the time since HIV diagnosis. Researchers believe that there is a need for studies examining the relationships between high-risk sexual behaviour, drug use and time since diagnosis, to test the hypothesis that HIV-positive gay men may use drugs as a result of the psychological impact of their diagnosis on their behaviour (Bonell et al., 2010).

There are also concerns that the health inequalities experienced by the LGBT communities are not well understood. For example, Douglas Scott et al. (2004) argue that substance misuse has the greatest impact on health inequalities between the LGB and heterosexual communities. This links to the need for and access to drug prevention and treatment programmes, which is explored in the following chapter.

4. Need for and access to prevention and treatment programmes

Good practice in drug treatment and prevention

Availability of evidence

There was a paucity of evidence in the literature reviewed on what represents good practice in drug treatment and prevention. In particular, there were no studies that had measured outcomes or conducted robust evaluations of services. Instead, there were a handful of documents that were either short articles about specific services, for example the Armistead Centre in Liverpool (Mathews, 2005), or small-scale local surveys that focused primarily on prevalence but which also at times asked respondents about their satisfaction with or needs for drug treatment and prevention services (Buffin and Mirza, 2009; Jefferson and Tkaczuk, 2005). These small-scale studies presented data either gathered from those accessing services on a self-referral basis or reporting on attendance by those who are known to service providers.

It should also be noted that the limited focus on lesbian and bisexual women within the overall literature identified in this review is reflected in a lack of evidence relating to these groups' access to treatment and prevention. Therefore, although referencing 'LGBT' groups/communities, this chapter almost exclusively concerns research on men.

The services discussed in the literature included some that are used by the LGBT community on a self-referral basis, and others that are provided as outreach or as awareness-raising activity.

Walk-in, self-referral and outreach services

A report about the Armistead Centre, a local service for gay and bisexual men in Liverpool (Mathews, 2005), notes the effectiveness of drop-in services, which provide service users with the opportunity to share information with other service users and staff and also to receive individual support. The author describes this drop-in service as a 'safe space', suggesting that this environment gives men the opportunity to discuss any issues and raise questions without fear of discrimination. Diversionary activities also feature in this service, via the provision of physical activities such as self-defence classes, with the aim of building individuals' confidence.

There is limited evidence on outreach activity in the literature included in this review. What evidence we did find mentions outreach services using different settings in order to raise awareness of their provision among the target community (Mathews, 2005; Varney, 2008). These settings include nightclubs visited by gay and bisexual men, where outreach workers liaise with door security staff to distribute information and to promote support services. By building links with door staff, services have been given access to the social venues visited by the LGBT community.

The fact that outreach staff are provided with drugs awareness training, which has developed their capacity to deal confidently with issues around substance misuse on the premises, was also felt to be another example of good practice. Yet despite the existence of some outreach services, there is little evidence on awareness or experience of outreach among the target population. The only data we found comes from a survey by the Metropolitan Police LGBT Independent Advisory Group, reporting that four-fifths (83%) had never been approached by an outreach worker (Varney, 2008: 21), suggesting that outreach services may be severely limited.

Other examples of outreach include 'netreach' (establishing contact with male sex workers through websites where they advertise sex to men), which is noted as a service provided in Liverpool (Mathews, 2005).

Empowering attitudes

Literature on drug use among LGBT groups identifies several important factors influencing access to drug prevention and treatment. These include 'trust', service users feeling 'comfortable' and 'confident' to approach services about their needs, and a sense of reciprocity among staff dealing with LGBT people and substance misuse (e.g. Buffin and Mirza, 2009).

It appears that existing walk-in and outreach support services for the LGBT community share a common ethos, namely that service users should be empowered through the services they access. This means providing drug users with information about available services and treatment, and signposting them to further information and support. Mathews (2005) highlights the need for service providers to treat the men they meet positively, which helps to build trust and encourage better sharing of information: "A non-judgmental approach is vital when undertaking this type of work" (Mathews, 2005: 11).

The evidence suggests that building confidence among LGBT service users is conducive to providing an effective resource. In a study by Jefferson and Tkaczuk (2005), a survey on levels of satisfaction with local services in Wiltshire and

Swindon indicates that approximately two-thirds of service users would value the use of a 'kitemark'. This would show the quality standards reached by services providing drug treatment and prevention programmes to the target population, with the finding suggesting that there is a need for greater confidence among users in the trustworthiness of services and their ability and capacity to meet needs effectively. Likewise, clear advertising of the fact that a 'mainstream' service works with and understands the experiences and needs of LGBT people was shown to be important in a recent study in Nottinghamshire (Buffin and Mirza, 2009). Linked to this, service credibility arises as an issue in qualitative research on uptake of services in London:

"More community based projects that aren' t lame would be a good way to promote people being healthy and feeling apart of something larger." (Varney, 2008: 22)

A reference to action targeted at users of specific drugs has been made by Bolding et al. (2006). The authors note the link between HIV prevention work and those dealing with crystal meth use. The importance of providing ongoing support and resource for programmes aimed at drug misuse alongside wider sexual health initiatives is emphasised, a theme which is apparent in other areas of this literature review.

Summary

The literature indicates that, from a service-user perspective, good practice is closely connected to treatment and prevention programmes being cognisant of the specific needs of the LGBT population. In addition to providing clinic-based support, this often includes proactively marketing the support available through social venues accessed by the community. Commitment to understanding LGBT needs at a strategic level (such as through publishing a 'kitemark' or quality standards) should translate at a staff delivery level to a non-judgmental, empowering approach, that makes appropriate information available to allow service-users to choose the support they need. Good practice is also characterised by provision of information and support on the wider health and emotional well-being needs of LGBT people, which shows LGBT groups that services are aware of the wider context in which their drug use may occur.

Access to drug treatment and prevention programmes

There is little data available on access to drug treatment and prevention programmes. The limited evidence that is available points to low uptake of services and predicts increased need in the future.

Awareness of services

Only two of the studies included in this review provide empirical data on gay men's awareness of services. In a survey of gay men in Swindon and Wiltshire by Jefferson and Tkaczuk (2005), which asked respondents to indicate their familiarity with drug and alcohol services, 36 of 95 respondents (38%) were not aware of any drug and alcohol services. When the same respondents were asked about specific services, awareness of the services available ranged from 24 people to 1 person, showing that fewer than a third knew about available drug and alcohol services in the area. Likewise, awareness of services among the LGBT community in London was quite low in the study by Varney (2008). Although based on a very small sample of eight qualitative survey responses (two of which were from organisations), the study suggests a general perception that there are few services and that they are under-resourced and have limited promotion.

Uptake of services

A small number of quantitative studies based in both urban and rural settings provide figures on the uptake of drug treatment and drug services. Although the statistics present a varied picture of uptake (ranging from 1% to almost 7%), it is generally relatively low in proportion to the size of the LGBT population who use or have used drugs (as identified in the previous section). For example, only 4% (n = 4) of the sample in a survey in Leeds had attended a drug or alcohol support group (Noret and Rivers, 2003). Similarly, in a Nottinghamshire-based study, only 6% (n = 7) had sought help with a drug or alcohol problem (Buffin and Mirza, 2009).

Mathews' (2005) article on the Armistead Centre in Liverpool reports that it has 5,000 people on its database and that this number was rising at the time of publication. However, it is difficult to assess whether this is a relatively high or low figure as it cannot be compared accurately with other data on the use of drug treatment and prevention programmes. Jefferson and Tkaczuk's (2005) study reveals very low levels of use of drug and alcohol services, with uptake by no more than one or two of the gay men surveyed (of a total of 95).

Potential barriers to access

Accessibility issues were raised by participants in a Nottinghamshire-based study by Buffin and Mirza (2009), which showed that having to travel to support groups from a rural area could pose a barrier to access. Recent quantitative data gathered in Brighton and Hove showed that 2% of those using illegal drugs had accessed drug misuse services (Browne et al., 2009), with the relatively low number attributed to a perceived lack of problematic use among LGBT drug users. Noret and Rivers (2003) provide a similar explanation for the low reported use of drug

services of LGBT people in Leeds. Jefferson and Tkaczuk (2005) show that when gay and bisexual men were asked whether they preferred to access drug and alcohol services outside the county, 46% said 'no', compared to 2% who said they would, and this would suggest that accessing a service near to where an individual lives may not present a barrier, such as concern about anonymity. The remaining 52% did not specify their preferences.

It is possible to see how the lack of specific data on needs and preferences for services could pose problems for those commissioning and planning services and taking decisions on how to raise awareness of the support available for LGBT people experiencing drug and alcohol misuse.

Unmet and rising need

Among researchers addressing drug use within LGBT groups, some make the distinction between services that address the specific needs of this group and 'mainstream' services, leading to the suggestion that provision for this group may be perceived to sit outside that provided to the whole population. Browne et al. (2009) use the term 'mainstream' in relation to services addressing dependent opiate and crack cocaine use. This suggests that perceptions of what services are out there may be limited by users' understanding that support for problems associated with use of drugs other than opiates and crack cocaine is not available.

Evidence appears to suggest a mismatch between the numbers of drug users who might benefit from services and perceived need within the community itself, caused by myriad factors – including government messaging, which affects common understandings of public health priorities:

"Local drug treatment services will and do work with anyone who uses drugs problematically (regardless of substance used); however resources are necessarily focused towards prioritising those at most risk of drug-related harm and death; this would include prioritising those with co-morbidity (mental and physical health problems), parents, pregnant users and homeless people." (Browne et al., 2009: 141)

This implies that there are opportunities for services to both challenge perceptions of risk and harm among the LGBT community, and to broaden the audience receiving information about available services. This appears to be supported by evidence, which suggests that 10% of drug users would like more control over their use (Browne et al., 2009).

In a study looking at non-opiate use among gay men, Bonell et al. (2010) observe that reports published by the Department of Health in 2002 and 2007 point to a

lack of adequate drug treatment and prevention programmes to address the needs of gay men. In addition to highlighting underprovision for this target population, the authors note that substance misuse treatment and prevention for gay men is absent from public health strategy. Not being a priority target group may have led to inadequate public discourse about the treatment and prevention needs of gay men, and subsequently to inadequate service provision for this population. In making this point, Bonell et al. (2010) argue that Drug and Alcohol Action Teams (DAATs) and health promotion teams are failing to address the specific needs of the gay male population. GHB is one such example, with research indicating a lack of provision for services addressing its use within the LGBT community (Browne et al., 2009). A further area of underprovision highlighted by the researchers is drug use support that makes links with familial-relational problems, showing that such support may prove valuable in providing more holistic care, which takes account of wider emotional and well-being needs.

Information provision, campaigns and health promotion are felt to be other areas of need among some members of the LGBT community who use drugs (Varney, 2008; Browne, et al. 2009). Specific examples of information suggested include signposting through health promotion cards distributed by the police (Varney, 2008).

The current focus of substance misuse provision

As noted above, there is some provision of drug prevention outreach services. However, it is not possible from the selected literature to identify how widespread such services may be.

Evidence from several sources suggests that drug treatment services may explicitly or implicitly advertise their services to particular subgroups of the LGBT population. Browne et al. (2009), for example, found that treatment services tended to focus on those people presenting the largest number of negative outcomes associated with drug misuse, whether for themselves as individuals (e.g. morbidity and homeless users) or for the wider community. As a result, the services have focused mainly on the threat posed by heroin and crack cocaine use. While this finding may be due to the limited numbers of people choosing to self-refer, it could also be influenced by the perceptions of potential service users based on messages sent by services to this group. Similarly, Keogh et al. (2009) note that messages communicated at a national level can lead to members of the LGBT community, and subsequently services, perceiving greater risk in respect of particular drugs. For example, they identify messages such as those issued by central government departments as leading to the understanding that crystal meth poses greater risk and is more

harmful than other drugs, which could result in services and users neglecting to address the impact of other, more frequently used drugs, including alcohol.

Bonell et al. (2010) highlight the need for greater resource allocation to services that address preventing substance misuse among gay men. They argue for a particular focus on extending support services and readiness to deal with substances other than methamphetamine because the risk behaviours associated with gay men's use of methamphetamine are well documented in comparison with under-reporting of other drugs:

"Given the overall persuasiveness of the evidence reviewed above, together with the evidence about the extent of gay men's alcohol and drug use and their anxieties arising from this, it would be prudent to invest in substance use prevention, treatment and support services for gay men. These should address alcohol and drugs including but not limited to methamphetamine." (Bonell et al., 2010: 419)

Joined-up working for dual diagnosis

In addition to increasing demand, Ruf et al. (2006) note that better joint working between different services targeted at MSM, particularly between mental health and substance misuse services, would help meet the needs of the population. This could suggest that there is a need for increased provision of services that will enable dual diagnosis.

Ruf et al. (2006) also point out that substance misuse issues are often not discussed by MSM who present at Genitourinary Medicine (GUM)clinics, despite the fact that recreational drug use is an item on many GUM sexual history pro forma and that many health workers do possess the essential skills to offer early interventions. The authors suggest that this may be because of clinical staff's lack of knowledge and time restrictions or patient reluctance to discuss this kind of 'socially censured' behaviour.

Improving services

GP practices are often the first point of contact with health services for gay and bisexual men and are thus important venues for providing information in a gay-friendly environment (Jefferson and Tkaczuk, 2005); however, they can be perceived by some to be "moralistic about drugs" (Buffin and Mirza, 2009: 37). Jefferson and Tkaczuk (2005) outline how the training on sexuality issues offered to staff in settings that provide drug and alcohol services may have a significant impact on gay and bisexual men's experience of support. Although most services surveyed in Wiltshire and Swindon do consider sexual orientation in their employment practices, approximately two-thirds do not collect data on their clients' sexual orientation

(Jefferson and Tkaczuk, 2005). The authors state that this is a missed opportunity because of the way in which patients' sexual orientation can impact on their drug use, a finding backed up by other research, including Buffin and Mirza (2009), who suggest that commissioners should know more about outcomes among the LGBT community.

The above evidence links to the findings from Brighton and Hove, which reveal that over 50% of drug users in the LGBT community would welcome a 'healthy living centre' that provides support tailored to the needs of LGBT groups (Browne et al., 2009). This suggests that users may perceive mainstream services as not adequate. Adapted services for the LGBT community are also mentioned by Varney (2008), who points to both a lack of awareness of provision in some parts of the community and a need for the active training of professionals which, it is implied, would encourage greater trust and uptake among the community. However, it is not the case that all LGBT people would like a separate drugs service, as these could only be accessed by those who are openly 'out' (Buffin and Mirza, 2009).

There was more agreement that services should take proactive steps to show the LGBT community that they are LGBT-friendly (e.g. through rainbow stickers in windows and links with LGBT organisations). Tentative analysis of higher prevalence data among lesbian, bisexual and transgender women than women in general suggests that there may be a need for specific harm-reduction services and information targeted at lesbian, bisexual and transgender women (Buffin and Mirza, 2009). Taken together, the literature for all LGBT groups makes it apparent that researchers see a need for services to go beyond the tokenistic (such as producing a statement about commitment to equality of access and treatment). Reference is made to both LGBT-specific training for professionals working in services and improved communication of this knowledge between services and potential service users (Noret and Rivers, 2003; Buffin and Mirza, 2009).

A recent study carried out in London produced recommendations for the police service on how to play a more proactive role in information and signposting for the LGBT community (Varney, 2008). This is discussed in more depth in the following section on interaction with the criminal justice system. In addition, the author points to the role of the LGBT media and LGBT groups on the Internet as important forces influencing perceptions about drug treatment and services. Varney (2008) notes the failure of LGBT media to inform people about the negative effects of drug use (perhaps resulting from the apparent conflict between advertisers and health promotion messages).

Situational advertising is viewed as an important way of providing drugs information to the LGBT community, as suggested by study participants (Buffin and Mirza,

2009), for example at a range of entertainment venues and through recognised staff at these locations (e.g. bar staff wearing t-shirts). This shows that it may be important for the LGBT community to receive information about support and services through trusted actors.

Peer support is a further crucial factor for the LGBT community, with several studies (e.g. Keogh et al., 2009) identifying friends or other members of the community as important sources of information on drug use. Evidence shows that some people would prefer to receive information from friends about available services or treatment, which is likely to be due to several reasons, including trust and concerns about confidentiality.

Support groups

It is difficult to know whether the sources included in this review use the term 'support' consistently, as the literature talks both about support groups (fulfilling an emotional support role) and support more generally (such as that provided by GPs and other health services). The role of support groups is studied in a small number of reports, revealing a pattern of challenges associated with low awareness and negative perceptions which may deter potential service users from using such groups. The examples reported are mainly of services attempting to reach LGBT groups specifically, such as that given in a Leeds-based study, which outlines the problems such a support group may face:

"Although one group had tried to run a specific LGBT group, poor advertising and a lack of awareness within LGBT communities resulted in a low attendance rate. Lack of awareness appears a major barrier preventing LGBTs accessing such services." (Noret and Rivers, 2003: 20)

There is qualitative data from research with young people showing that LGBT youth groups would be welcomed among the young LGBT population, which may in turn provide an alternative context in which to socialise aside from entertainment venues visited by adults associated with drug use. Youth support groups could also help fill the gap in general support provided for LGBT young people in schools (Buffin and Mirza, 2009).

Summary

There are relatively low levels of awareness and uptake of treatment and prevention services among LGBT groups. The literature identifies the causes for low awareness and uptake as the absence of perceived problematic drug use within LGBT groups, and users' perception that services do not cater for some of the commonly used drugs within the community, such as GHB. LGBT groups may also perceive their needs to be outside government priorities, with this perception fuelled by the failure to include LGBT groups in the national drugs strategy and a public health focus on harm associated with opiate and crack cocaine use, which the evidence shows are less likely to be drugs of choice for LGBT groups.

Furthermore, LGBT groups recognise the benefits of drug treatment and prevention services which draw on the capacity within the LGBT community, including its venues, networks and resources (i.e. internet sites).

Gaps identified

The studies included in this review indicate gaps both in the evidence around LGBT groups' access to drug treatment and prevention, and in the current extent of service provision.

Gaps in the evidence – information provision

Several studies suggest that drug treatment and prevention services need to be more accurately attuned to the needs of the LGBT population. For this to happen, more and better data is required so that the appropriate service provision can be commissioned. Specifically, qualitative data on recreational drug use (i.e. use not solely relating to 'addiction') and on the different drugs used by LGBT groups and evidence relating to inhibiting factors for those who do not access services are required in order to improve understanding of service needs (Browne, 2009). Failure to gather information on the LGBT population and its substance misuse is likely to perpetuate inadequate understanding and provision for this group, as explained by Ruf et al.:

"In the absence of adequate information, we will continue to be poorly positioned to decide whether, or how, to prioritise drug use interventions both at a local level, and in terms of a more comprehensive response within the National Drug Strategy." (2006: 96)

In addition to the need for services to understand and respond to the LGBT community more effectively, there appears as well to be a need for improvements in the information provided to the LGBT community about drug treatment and services.

Jefferson and Tkaczuk (2005) make a number of recommendations about the need for better information to be provided about available services, to improve the uptake of substance misuse services among the LGBT community. These included:

- "Production of a leaflet designed for gay and bisexual men about drugs and alcohol and the local services available
- Health promotion work in the gay and bisexual male community about the links between drug and alcohol use and sexual risk-taking behaviour.
- Literature designed for gay and bisexual men be made available by drug and alcohol services to their clients." (Jefferson & Tkaczuk, 2005: 45-46)

Gaps in service provision

The literature mentions a number of specific subgroups who require additional support for drug treatment and prevention. Among these are:

- MSM, who require more health support (Ruf et al., 2006);
- mental health professionals, who require greater awareness and understanding of the mental health issues of gay men and lesbians and for whom this training should be standard, and "who need to be aware of the potential for substance misuse and self-harm in this group" (King et al., 2003: 552);
- injecting steroid users, for whom further support on harm minimisation is needed (Bolding et al., 2002)
- young LGBT individuals, who require youth-focused support and prevention work on issues such as discrimination and stigma (Noret and Rivers, 2003).

Other gaps

A further area in which researchers see a need for more research is the sharing of effective models and pathways of working with LGBT groups. Additionally, factors affecting access to drugs services among the LGBT population may pose a research gap, as shown in some of the evidence synthesised in this review (e.g. access affected by location and transport, in Buffin and Mirza, 2009).

5. Interaction with the police and criminal justice system

The Limited Evidence

Within the documents included in this review, there is little reference to interaction between the LGBT community and the police and criminal justice system in respect of drug problems, with this topic discussed in just two of the documents included in the review. It is also important to note that the majority of the literature covering this issue relates to MSM, with poor coverage of the issues specifically affecting other LGBT groups. For example, there is a reference to the reporting of domestic violence by lesbian and bisexual women in a report by Hunt and Fish (2008) on lesbian and bisexual women's health. The authors note that half of lesbian and bisexual women reporting abuse have experienced an unsatisfactory response from the police; however, there is no such comparable data on interaction with the system as a result of drug misuse, and therefore it is not possible to draw firm conclusions in this respect.

Similar issues across the wider LGBT community mean that it is not possible to report extensively on either the extent of interaction or the experiences of the LGBT community and the criminal justice system. Yet while the literature on the interaction between the LGBT population and the police and criminal justice system in relation to *drug problems* is limited (as defined by the limits of this review), there is extensive literature relating to other aspects of interaction between these groups which may overlap with some of the issues connected to drug problems. Research in this respect includes that on safety, criminalisation, discrimination, searching and prisons, some of which resonates with the findings of the literature included in this review. Common themes include historically poor relations, trust and work to improve mutual understanding.[21]

Identification of problematic drug use

Keogh et al. (2009) note that drug use among LGBT people is often identified in the context of the criminal justice system, and that over-reliance on treatment of MSM within the system risks neglecting to focus on substance misuse among non-offending MSM. It could also be inferred that substance misuse treatment for gay men in prison may come relatively late in their personal history of use.

21 References to research in this area were provided by Dr. Kath Browne, Brighton University.

Where access to drug treatment is limited by entry into the criminal justice system, researchers believe members of the LGBT population may be missing out on intervention:

"An almost exclusive focus on access to treatment through the criminal justice system means non-offending users are disadvantaged in access. We think this might particularly disadvantage gay men." (Keogh et al., 2009: 45)

This statement is followed by a call for rebalancing of the context in which services are delivered, with a greater focus on community-based and outreach services to the LGBT community.

Perceived criminality

There is some qualitative evidence that points towards issues of social acceptability and drug use, where people using drugs on a recreational basis do not want to be associated with the act of purchasing illegal drugs:

"How men accessed drugs demonstrates the extent to which their use is normal on the commercial gay scene. Many men did not purchase illegal drugs as this would contravene their sense of themselves as unconnected with crime." (Keogh et al., 2009: 23)

This quote shows that there may be underlying perceptions about drug users, and that people categorise themselves and others into those who buy drugs and those who do not. The latter category is described by the author as those who do not intend to take drugs but who take them as a result of socialising with a peer group which does. In this case, the evidence shows that the fact that drugs are not purchased, but given by friends, means that users tend to normalise their own drug use and not view it as criminal.

Role of the police

A study of drug use among the LGBT community in London makes significant reference to the role of the police and their interaction with LGBT people in collecting data on prevalence, working with other agencies and supporting the community (Varney, 2008). It makes a number of recommendations about how the police can better engage with the target group, indicating that the police are currently viewed by some of the population as disconnected from a number of the issues affecting the community. This is evidenced in data from some of those surveyed in which they express their wish for the police to be 'proactive' in promoting information about services and more approachable. Improving public relations to build trust among this target group is a need identified in this report,

and one which is reinforced by the above-cited report on lesbian and bisexual women (Hunt and Fish, 2008). Included in the barriers to building trust are perceptions of institutional discrimination and expectations that police do not know how to identify problematic substance misuse by LGBT people.

The report by Varney (2008) further highlights the situational limits facing police when seeking to help the community, with drug-taking in private settings (rather than public venues) restricting police knowledge about the issue. In terms of the role LGBT liaison officers play, only just over half those surveyed (52%) are aware of such posts, emphasising the need for better dissemination of information about where the LGBT community can interact with the police. The study by Varney (2008) revealed that, while police presence in public venues is supported, those surveyed expressed their wish for it to be non-intrusive and constructive in signposting towards health promotion, indicating a concern that police support is balanced appropriately.

Summary

The interaction between LGBT groups and the police in respect of drugs is an under-researched area, with existing research on LGBT groups and police tending to focus on domestic violence, personal safety and discrimination, among other areas. The LGBT community most commonly comes into contact with police and the criminal justice system in prison settings, where researchers understand the majority of drug treatment and prevention services are provided to this group. The evidence shows that historically poor relations between the police and the LGBT community can present a barrier to interactions with the police, and that proactive police action to support the LGBT community may be most effective in tackling existing levels of distrust.

Gaps identified

In light of the paucity of evidence on the LGBT community and interaction with the police and criminal justice system, there appears to be a need for research specifically addressing this issue. Areas for further research could include:

- the extent of LGBT people's interaction with the police and criminal justice system in relation to drugs;
- experiences of LGBT people's interaction with the police and criminal justice system in relation to drugs (both in the community and in custodial settings); and
- awareness among LGBT groups of the role police provide in drug services support and signposting.

6. Conclusions

This review has highlighted a number of areas in which further research into the prevalence and patterns of drug use among LGBT people would help to give a more complete evidence base about this important subject. While drug use among LGBT groups appears higher than among heterosexual groups, the particular profile of use among communities is not well understood. Most problematically, many of the studies focus on gay men and/or MSM rather than on other subgroups of the LGBT community. Where evidence on use among lesbians and bisexual women is available, it is often drawn from studies that look at the LGBT community in general rather than on focused studies on these two groups. Transgender people have been particularly ignored. While they are sometimes included in research samples, studies have not been able to identify any differences in the prevalence and patterns of use among this group and among the rest of the LGBT community.

In addition to the focus on particular groups, the available evidence often uses different timescales over which to record use, arriving at different relative levels of use across the four groups (or often three groups, with transgender people excluded from most studies), depending on whether lifetime, last year or last month prevalence is used. It is also the case that in the evidence reviewed a large number of studies have worked with convenience samples, rather than nationally representative ones, which, for one reason or another, are likely to over-represent drug users. For example, a number of studies have focused on gym members or club-goers. Although the analysis of BCS data (Hoare, 2010) goes some way in filling this gap, further research is needed to better understand the prevalence and patterns of drug use among the wider LGBT population in order to inform service planning.

In addition to focusing primarily on gay men and MSM, much of the research on drug use in LGBT communities has looked at it in the context of the risk of HIV transmission. Some studies suggest that there are shortcomings in this existing research, in that it does not allow us to establish a causal relationship between drug use and risky sexual behaviour. This focus also means that there are gaps in our understanding of the relationship between drug use and other forms of high-risk behaviour among LGBT groups.

In the absence of reliable data, treatment and service providers are likely to find it difficult to understand the particular needs of these groups and hence to be able to tailor provision effectively. The form and content of information, where it is available, and the nature of treatment, support and advice offered and who is offering it all need to be developed on the basis of an understanding of the different drugs used by LGBT groups, how and in what setting they use them and the factors that inhibit or promote use of services. Absence of reliable evidence also means that a strategic approach to drugs interventions among this community itself, and in relation to other groups, can neither be developed nor properly evaluated.

Commissioning is one mechanism through which further evidence could be gathered. Outcomes-based commissioning requires commissioners to understand the needs of their local populations, the nature of provision in their area and how this meets existing needs, and to use the commissioning process as a way of shaping local markets and monitoring providers' performance. At present LGBT groups are not protected by the specific positive duties that apply to gender, race and disability, but the Equality Act 2010, signed into law in April 2010, includes gender reassignment and sexual orientation amongst the nine "protected characteristics". The Act places a duty on public authorities to address disadvantages and meet the needs of people with a relevant protected characteristic, where these are different from the needs of others not sharing that characteristic.[22] Good local authorities are 'levelling up' to the new single duty, recognising that people have multiple identities and are hence subject to multiple discriminations. Indeed, some of the studies reviewed here highlight young LGBT people and those with mental health problems as two of the groups needing additional or properly tailored treatment and prevention services. One of the studies reviewed suggests that drug use has the greatest impact on health inequalities between the LGB and heterosexual communities. A good needs analysis, carried out as part of the commissioning cycle, should help local commissioners to map their population across a number of dimensions and identify the particular needs of different subgroups.

Engagement with local stakeholders is also part of the commissioning cycle. At present, evidence suggests that levels of awareness and uptake of treatment and prevention services are low among LGBT groups, for a number of reasons, including the perception that their needs are outside government priorities. This points to the need for local dialogue with LGBT groups about their particular needs – which should be happening as a matter of course, as public bodies develop single equalities schemes. It indicates too that the national drugs strategy needs not only to include LGBT groups but also to ensure that it takes a wider view that includes all

22 Equality Act 2010; http://www.opsi.gov.uk/acts/acts2010/ukpga_20100015_en_1. The coalition Government has not yet specified when the Act will come into force.

subgroups and that its perspective is not restricted to the association between drug use and HIV transmission.

This review also suggests that the police have an important role to play, particularly in collecting prevalence data, working with other agencies and in supporting communities, but that there are a number of barriers that need to be overcome, including the lack of reliable evidence about the specific interactions relating to drug use. Historically, relations between the police and LGBT groups have been poor, and currently the police are seen as disconnected from the issues affecting the LGBT communities. Much of the contact between the LGBT community and the police and the criminal justice system is likely to happen in prison settings and research suggests that the majority of drug treatment and prevention services are provided to LGBT groups in a prison setting. Some evidence exists that suggests there is value in the police taking a more proactive approach, promoting information about services and raising awareness of roles such as LGBT liaison officers.

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Appendix 1. UK Data Archive datasets

Abbreviation	Full Title	Key variables	Sample size (disability/illness, limiting)	Region	Year
SN5029	Indirect Harm and Positive Consequences Associated with Cannabis Use, 2001-2003	Sexual orientation, age started using cannabis/other drugs, context of first use, combining with other drugs	Not Accessible	England	2001-2003
SN6274	Young Life And Times Survey, 2008	Have felt sexually attracted to (only males/ only females), used illegal drugs, used solvents to get high	Not Accessible	Northern Ireland	2008
SN6145	Towards Better Sexual Health: a Survey of Sexual Attitudes and Lifestyles of Young People in Northern Ireland, 2000-2002	Ever kept sexual orientation secret from (mother, father, friends etc), Ever by choice taken illegal drugs(full list)/solvents	358 (kept secret from mother, 35.3%)	Northern Ireland	2000-2002
SN6066	British Crime Survey, 2007-2008	Sexual orientation, ever/last twelve months taken illegal drugs (full list)	Gay or lesbian 294, Bisexual 168	England and Wales	2007-2008
SN5339	Poverty and Social Exclusion in Northern Ireland, 2002-2003	Sexual preference, alcohol or drug abuse health problem, severity of alcohol or drug abuse problem	Same sex preference 36, both sexes 22	Northern Ireland	2002-2003
SN 5223	National Survey Of Sexual Attitudes And Lifestyles II, 2000-2001	Sexual experiences/Sexual attraction only with same sex/only opp. sex, equally opp. and same sex, injecting non-prescribed drugs ever/last time/five years, one year	Not Accessible	Great Britian	2000-2001

Appendix 2. Search terms used

Broad Search Terms

Group 1: Drug (s) Substance Narcotic (s)	**Group 3:** *(This group of terms is likely to be picked up by searching for Group 1 and Group 2 terms)* Preval (ent, ence) Pattern (s) Behaviour (s)
Group 2: Use (abuse, misuse) Problem (s) Addict (s, ion, ed) Depend (ence) Habit Recreation (al) Lifestyle (s)	**Group 4:** LGBT Lesbian Gay Transgender

Appendix 3. Database search results

	Databases searched	Search date	Search terms	Search date range	Items identified	Items exported by searcher	Comments
1	SPP	13/10/09	((((gay* or lesbian* or transsex* or handicap* or homosex*) and ((drug or substance or narcotic*) and (abuse or misuse))) not (America* or china or south Africa or child* or far east))	1999 – 2009	58	58	70% international literature A number of irrelevant articles on HIV prevalence and prevention A number of irrelevant articles on lgb groups and mental health problems Some relevant studies on specific lgb treatment programmes Some general LGBT health needs (substance abuse included) Nothing on drug markets and enforcement
2	HMIC	14/10/09	(((gay* or lesbian* or transsex* or homosex*) and ((drug or substance or narcotic*) and (abuse or misuse))) not (America* or china or australia* or south Africa or child* or far east)).	1999 – 2009	13	12	90% international material 10% irrelevant
3	CommunityWise	15/10/09	Lesbian* or gay* or transsex* or homosex* and (drug* or substance*)	1999 – 2009	48	45	All international material

	Databases searched	Search date	Search terms	Search date range	Items identified	Items exported by searcher	Comments
4	CJA	15/10/09	((gay* or lesbian* or transsex* or homosex* or gender) and ((drug or substance or narcotic*) and (abuse or misuse)) and (england or wales or scotland or united adj kingdom or London or liverpool or leicester or Bradford or birmingham)) not (America* or United states or USA or china or south Africa or child* or far adj east)	1999 – 2009	8	5	No relevant material
5	NCJRS	15/10/09	((gay* or lesbian* or transsex* or homosex* or gender) and ((drug or substance or narcotic*) and (abuse or misuse)) and (england or wales or scotland or united adj kingdom or London or liverpool or leicester or Bradford or birmingham)) not (America* or United states or USA or china or south Africa or child* or far adj east)	1999 – 2009	15	11	Varied and irrelevant material
6	Web of knowledge	16/10/09	((gay* or lesbian* or transsex* or homosex* or gender) and ((drug or substance or narcotic*) and (abuse or misuse)) and (england or wales or scotland or united adj kingdom or London or liverpool or leicester or Bradford or birmingham)) not (America* or United states or USA or china or south Africa or child* or far adj east)	1999 – 2009	11	5	Irrelevant literature on mental illness – no reference to lgbt groups
7	PsychInfo	16/10/09	(((gay* or lesbian* or transsex* or homosex* or gender) and ((drug or substance or narcotic*) and (abuse or misuse)) and (((england or wales or scotland or united) adj kingdom) or London or liverpool or leicester or Bradford or birmingham)) not ((America* or United states or USA or china or south Africa or child* or far) adj east))	1999 – 2009	16	12	A few relevant but duplicated articles Irrelevant studies on gender differences in drug use Irrelevant studies on co morbidity of schizophrenia and substance abuse

	Databases searched	Search date	Search terms	Search date range	Items identified	Items exported by searcher	Comments
8	Embase & Medline	16/10/09	(((gay* or lesbian* or transsex* or homosex*) and ((drug or substance or narcotic*) and (abuse or misuse)) and (((england or wales or scotland or united) adj kingdom) or London or liverpool or leicester or Bradford or birmingham)) not ((America* or United states or USA or china or south Africa or far) adj east))	1999 – 2009	51	39	90% of material is irrelevant and focuses on: HIV, Hep B, and sex workers – drug abuse is discussed as a risk factor A few articles relevant to this review on crystal meth use and recreational drug use among gay men.
9	ASSIA	19/10/09	((gay* or lesbian* or transsex* or bisex* or homosex*) and ((drug or substance or narcotic*) and (abuse or misuse)) and (england or wales or scotland or united adj kingdom or London or liverpool or leicester or Bradford or birmingham)) not (America* or United states or USA or china or south Africa or child* or far adj east)	1999 – 2009	19	12	A few relevant studies on prevalence of crystal meth use, performance and image enhancing drug use and Viagra use among gay men Some irrelevant studies on mental health and psychological needs of gay men
10	Scopus	19/10/09	((gay* or lesbian* or transsex* or bisex* or homosex*) and ((drug or substance or narcotic*) and (abuse or misuse)) and (england or wales or scotland or united adj kingdom or London or liverpool or leicester or Bradford or birmingham)) not (America* or United states or USA or china or south Africa or child* or far adj east)	1999 – 2009	55	2	Irrelevant material

	Databases searched	Search date	Search terms	Search date range	Items identified	Items exported by searcher	Comments
11	DrugScope	19/10/09	gay, lesbian, United Kingdom	1999 – 2009			A large number of reflective articles/ think pieces on drug abuse amongst gay men in Druglink magazine and Pink Paper newspaper – about crystal meth use, the club scene etc A number of booklets/leaflets from local PCTs and NHS Trusts about services available for the lgbt community UK Gay Men's sex survey (with stats on drug abuse) A few studies on prevalence (London, North West England)
12	BL Direct	19/10/09	Drug abuse, gay, lesbian	1999 – 2009	6	6	All international material

Appendix 4. Website searches

Spectrum	Dr. Kath Browne with Nick McGlynn and Dr. Jason Lim Drugs & Alcohol – Additional Findings Report. LGBT Lives in Brighton & Hove Dr. Kath Browne Trans People – Additional Findings Report Dr. Kath Browne with Dr. Jason Lim Bi people – Additional Findings Report Opinion leader research Drug information needs among LGBT people
Galop	Deborah Gold & Katherine Cowan Mapping LGBT Westminster: Investigating the needs and experiences of LGBT people in Westminster
LGBT Advisory Group	Dr Justin Varney A Review of Drugs and Alcohol Use Amongst the Lesbian, Gay, Bisexual and Transgender Community in London
Stonewall research list	R Dyter , P Lockley Drug Misuse Amongst People from the Lesbian, Gay and Bisexual Community: A Scoping Study Nathalie Noret and Ian Rivers Drug and Alcohol Use Among LGBTs in the City of Leeds
Adfam	Adfam Drug And Alcohol Family Support Services And The Lesbian, Gay, Bisexual And Transgender (Lgbt) Community A Literature Review
Sigma Research	Christopher P. Bonell, Ford C.I. Hickson, Peter Weatherburn and David S. Reid Methamphetamine use among gay men across the UK C Bonell, P Weatherburn, T Rhodes, F Hickson, P Keogh, J Elford Addressing gay men's use of methamphetamine and other substances

Other websites searched:

- Queeryouth
- Broken rainbow
- Terrence Higgins Trust
- Lesbian and gay foundation
- 'Fair for all' research library

Appendix 5. Advisory group members/experts consulted

Advisory group members

Haleh Afshar (chair), UKDPC Commissioner
Paul Turnbull, Institute for Criminal Policy Research, Kings College London
Karim Murji , Faculty of Social Sciences, The Open University
Annette Dale Pereira, UKDPC Commissioner
Kate Davies, Assistant Director Strategy, Equality and Diversity – NCtPCT / UCLAN
Kath Browne, University of Brighton
Lawrence Taggart, School of Nursing, University of Ulster
Harry Sumnall, Centre for Public Health, Liverpool John Moores University
Howard Meltzer, University of Leicester
Sara Skodbo, Principal Researcher, CDAR, Home Office

Other experts consulted:

Gordon Hay, Senior Research Fellow, Centre for Drug Misuse Research, University of Glasgow
Mike Ashton, Drug and Alcohol Findings, London
Monty Moncrieff, Hungerford Drug Project, Turning Point, London
Jane Fountain, Professor of Substance Use Research, International School for Communities, Rights and Inclusion (ISCRI), University of Central Lancashire
Gareth Hewitt, Head of Substance Misuse, Strategy Implementation & Finance Team, WAG
Sandie Saunders, Strategy and Commissioning Manager, Drugs and Alcohol, Bolton
Home Office Equalities Forum

Appendix 6. Data extraction sheet

Note page numbers in brackets when referencing

Record findings by lgbt group

Title	
Author(s)	
Date published	
ID Number (from spreadsheet)	
Date document analysed by OPM	
Content Overview (from abstract)	
Methodology – consider the research questions/ hypotheses posed; the research design; the sampling strategy (including sample size and response rates in quantitative research); the nature and quality of the fieldwork; the process of analysis; and the nature and robustness of findings.	
Quality Assessment (TBD)	
Sector background of published document – (e.g. academic discipline, health, policy guidance, think tank, research centre, charity etc)	
Sample group(s) discussed, e.g. sexuality ethnic group age gender faith disability nationality or national background	

Geographical focus	
Evidence/information relating to **Review 4a: Prevalence and patterns of drug use within different lgbt groups**	
Prevalence – Quantitative (or qualitative) evidence about: the number/percentage of people with drug misuse problems across different lgbt groups change over time comparisons across groups *(Record findings by lgbt group)*	
Patterns: Quantitative or qualitative evidence about lgbt groups' drug use across: e.g., drug types drug use methods regions gender deprivation/socio-economic class frequency of use length of time of use reasons for use etc Also note change over time and comparison across groups *(Record findings by lgbt group)*	
Evidence/information relating to **Review 4b: Lgbt groups need for and access to prevention and treatment programmes**	
Good practice in drug treatment and prevention: Drug prevention and treatment needs of lgbt groups What works in drug treatment and prevention for lgbt groups Can include: Evaluations/reviews of effectiveness of specific lgbt programmes or general programmes that are working well with lgbt groups *(Record findings by lgbt group)*	
Access to drug treatment and prevention programmes: Experiences of accessing drug treatment/prevention programmes Extent and types of targeted drug treatment and prevention programmes for lgbt groups *(Record findings by lgbt group)*	

Evidence/information relating to **Review 4c: Lgbt groups interaction with the police and criminal justice system**	
Prevalence/Impact of drug enforcement activity on lgbt groups: stop and search arrest sentencing other enforcement activities *(Record findings by lgbt group)*	
Research gaps identified	
Policy implications identified	
Key conclusions of study	
Additional references to obtain (*add to spreadsheet)*	

Appendix 7. Quality standards for review

1. US Census Bureau Standard: Minimal Information to Accompany any Report of Survey or Census Data

1. The organizational sponsor(s) of a survey;
2. The organization(s) that conducted it;
3. The wording of questions asked and description of derived measures that are the subject of the report;
4. A definition of the population under study, and a description of the sampling frame used to identify this population;
5. A description of the sample design;
6. The size of sample, and disposition of sample cases (e.g., numbers of interviewed cases, ineligible cases, and nonresponding cases);
7. If applicable, information on eligibility criteria and screening procedures;
8. A discussion of the statistical precision of the results, at least for the major estimates. This could include estimates of sampling variances, standard errors, or coefficients of variation, or presentation of confidence intervals;
9. Description of estimation procedures, including weighting, editing, and imputation methods;
10. If applicable, clear indication of which results are based on parts of the sample, rather than on the total sample;
11. Method and dates of data collection;
12. Discussion of nonsampling errors that may (or are known to) affect the data; and
13. Discussion of methods employed to ensure data quality.

2. EPPI Centre – Qualitative research quality standards

1. Aims clearly stated
2. Context of study clearly described
3. Sample clearly described
4. Methods clearly described
5. Attempts to establish reliability and/or validity of data analysis

Appendix 8: Material reviewed

- Quantitative methodologies quality assessment categories: **Low: >0 and ≤8; Medium: ···8 and ≤11; High: ···11**
- Qualitative and secondary methodologies quality assessment categories: **Low: >0 and ≤3; Medium: >3 and ≤4; High: >4**

Author	Title	Published by	Date	Quality assessment score
Weatherburn et al	Vital Statistics: Findings from the UK Gay Men's Sex Survey 1999	Sigma Research	2000	Quant: 10; Medium
Bolding G. Sherr L. Elford J.	Use of anabolic steroids and associated health risks among gay men attending London gyms.	Addiction. 97(2)(pp 195-203),	2002	Quant: 10.5; Medium
King Michael; et al	Mental health and quality of life of gay men and lesbians in England and Wales.	British Journal of Psychiatry. 183(12), pp.552-558.	2003	Quant: 10 Medium
Noret, N and Rivers, I	Drug and Alcohol Use Among LGBTs in the City of Leeds	York St John College	2003	Quant: 6.5; Low Qual: 3.5; Medium
Carolan, F and Redmond, S	Research into the needs of young people in Northern Ireland who identify as lesbian, gay, bisexual and/or transgender (LGBT)	YouthNet	2003	Quant: 7.5; Low
Scott, Douglas et al	Sexual exclusion: homophobia and health inequalities – a review of health inequalities and social exclusion experienced by lesbian, gay and bisexual people	UK Gay Mens Health Network	2004	Sec: 1; Low
Mathews, L	Boys just want to have fun.	WYM – Working with Young Men, vol.4, no.2 (May). pp10-12.	2005	NA

Author	Title	Published by	Date	Quality assessment score
Jefferson G., Tkaczuk N.	Outing drugs: report of the community-led research project focusing on drug and alcohol use by Gay Men's Health Wiltshire and Swindon amongst the gay and bisexual male communities in Wiltshire and Swindon.	Swindon: Gay Men's Health, 2005. 64p.	2005	Quant: 10.5; Medium
Bolding et al	Use of crystal methamphetamine among gay men in London.	Addiction. 101(11)(pp 1622-1630),	2006	Quant: 13; High
Ruf M. Lovitt C. Imrie J.	Recreational drug use and sexual risk practice among men who have sex with men in the United Kingdom.	Sexually Transmitted Infections. 82(2)(pp 95-97),	2006	NA
McCambridge et al	The Rise of Viagra among British Illicit Drug Users: 5-Year Survey Data	Drug and Alcohol Review, vol. 25, no. 2, pp. 111-113, Mar 2006	2006	Sec: 2; Low
Hickson et al	Consuming passions: Findings from the UK Gay Men's Sex Survey 2005	Sigma Research	2007	Quant: 10; Medium
Bonell et al	Addressing gay men's use of methamphetamine and other substances	Addiction Research & Theory, 2008, 16(5): 417-420.	2008	NA
Hunt R, and Fish, J	Prescription for Change: Lesbian and bisexual women's health check 2008	Stonewall	2008	Quant: 4; Low
Browne et al	Bi people – Additional Findings Report	Count me in to	2008	Quant: 10; Medium
Varney, J	A Review of Drugs and Alcohol Use Amongst the Lesbian, Gay, Bisexual and Transgender Community in London	LGBT Advisory Group	2008	Quant: 4; Low Qual: 2; Low
Bonell, et al	Methamphetamine use among gay men across the UK	International Journal of Drug Policy, 2009,.	2009	Quant: 9.5; Medium
Keogh, et al	Wasted opportunities. Problematic alcohol and drug use among gay men and bisexual men	Sigma Research	2009	Quant: 11.5; High Qual: 5; High
Browne et al	Drugs & Alcohol – Additional Findings Report. LGBT Lives in Brighton & Hove	Count me in to	2009	Quant: 10; Medium

Author	Title	Published by	Date	Quality assessment score
Gold, D and Cowan, K	Mapping LGBT Westminster: Investigating the needs and experiences of LGBT people in Westminster	Westminster City Council	2009	Qual: 3.5; Medium
Buffin, J and Mirza, I	Outing Notts: A study into the substance misuse needs and experiences of LGBT people across Nottinghamshire	Safer Nottingham Drug and Alcohol Team	2009	Quant: 7; Low
Hickson et al	Illicit drug use among men who have sex with men in England and Wales	Addiction Research and Theory. 2009; 1-9	2009	Sec: 4.5; High
Hoare, J	Nationally representative estimates of illicit drug use by self-report sexual orientation, 2007/08 & 2008/09 BCS	Home Office	2010	Quant: 11.5; High

Appendix 9. Potentially relevant material not included in review

	Author	Title	Published by	Date
1	Opinion Leader Research	Drug information needs among LGBT people	Home Office	2004
2	Keogh, Peter, Reid, David, Weatherburn, Peter	Lambeth – LGBT Matters: The needs and experiences of Lesbians, Gay men, Bisexual and Trans men and women in Lambeth	Sigma Research	2006
3	Mitchell, Martin, Howarth, Charlie, Kotecha, Mehul and Creegan, Chris	Sexual orientation research review 2008	EHRC	2008
4	Graham, Sarah	Death by diversity? Working with the LGBT community	Addiction Today, August, 2009	2009