

PrEP in the press: A corpus-assisted discourse analysis of how users of HIV-prevention treatment are represented in British newspapers

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Abstract

This research reports on newspaper representations of PrEP, a HIV-prevention drug recently made available on a trial basis to at-risk individuals in England. Using corpus-assisted queer critical discourse analysis, we investigate the linguistic representations of the users of PrEP within three leading British newspapers from across the political spectrum between 2014-18. We find that users of PrEP are most frequently positioned as ‘men who have sex with men’ or ‘gay men’, a representation that we argue limits public awareness of HIV itself, and of available HIV prevention. Furthermore, while the most left-leaning newspaper in our corpus focuses on the human benefit of PrEP, the most right-leaning newspaper takes a moralistic stance which frames gay men as risk-taking and therefore less deserving of healthcare funding than other groups. We therefore argue that certain representations of PrEP’s beneficiaries are implicitly homophobic, and that most representations are unhelpfully restrictive.

Keywords: PrEP; HIV; corpus linguistics; queer critical discourse analysis, homophobia

1. Introduction

Pre-exposure prophylaxis (or PrEP) commonly refers to a drug that has been designed to prevent Human Immunodeficiency Virus (HIV) infection. In 11 clinical trials among different populations and in different geographical areas, the drug (often under the brand

name ‘Truvada’) has been shown to provide high levels of protection against the transmission of HIV (Reyniers et al 2017), representing a significant development in research into this global pandemic. However, there have been issues with making the treatment available to those who would benefit: in England, for example, the National Health Service (NHS) proposed that as a preventative treatment, it was the responsibility of local health authorities to fund the provision of PrEP. A High Court ruling overturned this decision in 2016, however, holding NHS England legally responsible for commissioning the drug. PrEP was made available in September 2017 via existing sexual health clinics as part of an ongoing trial, but only for 13,000 eligible research participants. Campaigners in England urged the government to extend the trial and thus provide the drug to more at-risk individuals; those at risk include cisgender¹ and transgender men who have sex with men, transgender women who have sex with men, and HIV negative individuals with HIV positive sexual partners (Public Health England 2018). It was announced in March 2020 that local authorities would receive funding over the next two years to enable ‘anyone who is at a high risk of contracting HIV [to] receive PrEP from their local sexual health clinic’ (Department of Health and Social Care 2020) – a significant step forward in the fight against HIV and AIDs.

News of the trials and the debate regarding where funding should come from was reported in many English newspapers, typically identifying PrEP as a drug which would specifically benefit gay men. Popular right-leaning newspaper *The Daily Mail*, for example, featured a front-page story in August 2016, in which PrEP was referred to as a ‘promiscuity pill’ which would encourage gay men to have unsafe sex. The decision that the NHS should fund the drug was framed as representing ‘a skewed sense of values’ because the trial would take away funding from other groups, including children with cystic fibrosis and ‘blood cancer sufferers’

¹ Cisgender people are those who identify with the sex assigned to them at birth; transgender people do not.

(Borland and Spencer 2016). Indeed, research into the representation of PrEP has shown how the press coverage has positioned responsibility and 'blame' at the level of the individual, shifting the focus away from the state's role in providing treatment and care to those at risk of HIV (Jaspal and Nerlich, 2017; Mowlabocus, 2019). Here, we extend this research by applying a corpus-assisted queer critical discourse analysis to five years (2014–2018) of news coverage of PrEP, presented as three sub-corpora based on three major publications: *The Daily Mail*, *The Independent* and *The Guardian*. We apply methods of corpus analysis to show the extent to which the press coverage relies on particular labelling strategies to identify users and potential beneficiaries of PrEP, before using those labelling patterns to select a smaller set of articles to analyse qualitatively, through the lens of queer critical discourse studies. This enabled us to identify the broader patterns of representation across the UK press, as well as how those major publications diverge in their focus and discussion of particular kinds of people for whom the provision of PrEP is key.

2. Representations of PrEP and its users in the UK press

Several studies have examined, through qualitative analyses, the ways in which PrEP has been represented in the British press. Mowlabocus (2019) focuses on the chronological development of newspaper articles about PrEP, finding that it was typically represented as a 'wonder drug' when it first became a newsworthy topic. He identifies a 'discursive U-turn' in *The Daily Mail* once the NHS agreed to fund PrEP, finding that the NHS was framed as actively denying other groups treatment in favour of providing 'gays' with a 'lifestyle drug'. Mowlabocus argues that this reveals a shift in how gay sex is popularly represented now, as opposed to in the 1980s as more straightforwardly immoral: the problem is not that men were having sex with other men, "but that they were asking the state to support their sexual 'freedom'. Gay sex was permissible, so long as it was 'privatized' and did not rely on state

intervention" (Mowlabocus, 2019: 14). Gay men's relationships, in other words, have been normalised in part thanks to homonormative representations of gay sex itself being framed as a private, domestic matter and homosexuality being primarily about equal rights to a loving relationship (Duggan 2002). Mowlabocus argues that the PrEP debate has essentially reminded the public of the health inequalities for men who have sex with men when it comes to HIV/AIDs (Acquired Immunodeficiency Virus), disrupting this normative ideal. A consequence of this, Mowlabocus finds, is that gay men have been marked in these newspapers as "irresponsible and aberrant sexual actors, who were not 'rational' enough to make the right life 'choices'" (Mowlabocus, 2019: 15).

Lovelock's (2018) content analysis of representations of gay men includes an account of how *The Daily Mail* covered the NHS's decision to provide PrEP. Like Mowlabocus, Lovelock finds discourse which problematises the state funding a drug that enables sex between men. He argues that homophobia is realised in *The Daily Mail* via representations of austerity, a key aspect of the British government's economic and social policy in the 2010s; gay sex is seen as risky, drug-fuelled, wasteful, irresponsible, and a burden on the NHS. Also like Mowlabocus, Lovelock argues that this is facilitated by an increasing neoliberal ideology of personal responsibility and less reliance on the state. Gay men, he argues, are positioned as a drain on national resources which should be going instead to support heteronormative family life; "HIV is constructed as a 'gay' issue, confined to 'other' social groups, and which becomes relevant to responsible, heterosexual citizens insofar as it unfairly consumes their taxation contributions" (2018: 232). Similarly, Jaspal and Nerlich's (2017) thematic analysis of articles covering PrEP in British newspapers revealed that, while it is often described in hopeful terms, PrEP is also framed as potentially dangerous in encouraging sexual risk-taking. Like Lovelock, they find that the drug is frequently characterised as a drain on the NHS with a focus on the potential implications for other diseases. In this way, Jaspal and Nerlich argue

that an opposition is constructed between taxpayers ('us') and men who have sex with men ('them'). They show that 'gay men' were identified as the sole group to benefit from PrEP, with "little acknowledgement of the other groups that might benefit from it, such as heterosexual serodiscordant couples and intravenous drug users" (2017: 492).

Given the findings of this research into newspaper representations of PrEP, it is clear that the links between NHS funding and the likely beneficiaries of the drug warrant further investigation. This is especially true given the implied homophobia in much of the data identified by Jaspal and Nerlich, Mowbalocus, and Lovelock, and the role of the media in disseminating these ideas. After all, newspaper representations of social groups continue to have considerable influence; McLaughlin et al's (2016) study of posts about PrEP on the social networking site Twitter notes that news headlines with a negative tone regarding PrEP and its presumed users were more well-shared than positive ones.

Both Jaspal and Nerlich (2017) and Mowlabocus (2019) conduct their analyses on large datasets of newspaper articles, collectively covering a period from 2008-2016, and their work relies on qualitative methods of thematic analysis and critical discourse analysis. We build on this here by conducting a combined corpus linguistics and critical discourse studies approach. This allows us to uncover the 'incremental effect' (Baker 2006: 13) of how patterns of representation create discourses; by systematically looking at the frequency with which, for example, particular labels are used to identify social actors, we can see the construction of such discourses in action (Baker et al., 2008). We take a critical approach in our analysis, drawing on critical discourse studies to explicitly problematise the representation of users and beneficiaries of PrEP in our corpus. In the following section, we consider theory from critical discourse studies and show how we have used this in our analysis. We also demonstrate the contribution of queer theory to our theoretical and analytical approach.

3. Theoretical and analytical approach

3.1 Queer critical discourse studies

Studies into PrEP representations outlined above have shown the prevalence of stereotypes of men who have sex with men as promiscuous and irresponsible, positionalities which pejoratively frame this group as deviant. Through our analysis, we intend to highlight the heteronormative ideologies underpinning this framing. We therefore draw on queer theory, the political aim of which is to reveal and problematise that which reinforces essentialist, normative ideologies relating to gender and sexuality (Hall 2013). In this way, our work takes a queer linguistics approach – what Motschenbacher (2011: 149) defines as "critical heteronormativity research from a linguistic point of view".

Our research also follows Fairclough *et al* (2011: 357)'s account of critical discourse studies as "a problem-oriented interdisciplinary research movement [united by] a shared interest in the semiotic dimensions of power, injustice, abuse, and political-economic or cultural change in society". We wish to show how language is used to communicate particular ideological perspectives in our newspaper texts, and to reveal the subtle ways in which a heteronormative status quo is maintained. As such, we make use of critical discourse analysis (CDA), a framework which directs us to consider the ideologies articulated in a text's production and consumption, conduct close linguistic analysis of it, and evaluate its broader cultural consequences (Jørgensen and Phillips 2002: 69).

As Leap (2015: 676) argues, since queer linguistics seeks to disrupt and challenge dominant discourses of gender and sexuality, CDA may be an 'especially effective framework'. Thurlow (2016), furthermore, calls for critical discourse analysts to make use of queer theory. Unlike 'feminist CDA', which uses the framework to problematise patriarchy, sexism, and the gender binary (Lazar 2005), and despite a number of studies using CDA to enable queer linguistic

research (e.g. Peterson 2010, Motschenbacher 2019), the naming of this approach as ‘queer CDA’ is not yet common (though see Jones and Mills 2014). Here, our aim is to reveal the heteronormative biases evident in our corpus of newspaper articles by actively identifying linguistic constructions which frame PrEP negatively due to an association made with gay men. As such, we see our approach best defined as queer CDA.

3.2 Conducting corpus-assisted critical discourse analysis

Following the approach established by Baker *et al.* (2008: 297), we combine CDA with methods from corpus linguistics, in order to "reveal the degree of generality of, or confidence in, the study findings and conclusions, thus guarding against over- or under-interpretation". We used wordlists to identify the most frequently referenced nouns in the data and n-gram analysis to consider the wider descriptions of potential PrEP users. N-grams are "contiguous words that constitute a phrase, or a pattern of use, and that recur in a corpus" and have been one of the key processes for exploring word associations since the 1960s (Cheng *et al.* 2006: 412). Baker (2006: 61) has argued that homophobic strategies used by the British press need not always be explicit, as it is their cumulative effect that makes them powerful. N-gram analysis therefore allows us to investigate word associations on the basis of frequency. Corpus analysis tools automatically compute data to identify repeated strings of words of various lengths (i.e. n-grams), thereby highlighting repeated ways of labelling certain agents within the discourse.

Once we established a sense of the broader picture, we wanted to consider individual texts, acknowledging the context in which those language features have been used. We used the results of our corpus analysis to identify a smaller sample of articles (‘downsampling’), from each of our three publications, to which we could apply a closer, qualitative analysis drawing on approaches from CDA. The focus of both our CDA and corpus analysis is how users of

PrEP are represented. In our CDA, in particular, we consider which potential beneficiaries of the drug are included or excluded, how they are labelled and described, the extent to which they are given agency, how they are positioned in relation to broader structures (typically the NHS), and what normative ideologies are relied upon in those representations. As this is a *queer* CDA, we problematise discourse which frames people or behaviours as ‘other’ via the reproduction of heteronormative ideals, a process known as ‘implicit homophobia’ (van der Bom et al 2015; Morrish 2010). In this way, our approach to discourse analysis did not involve predefining linguistic features of interest, which could limit our scrutiny of particular instances of representation. Instead, our corpus analysis identified particular terms that were favoured throughout the dataset to refer to potential beneficiaries of PrEP and, through close reading, we gained insight into how such language operates within each downsampled text. Our analysis considers not only lexical choices (particularly premodification) and grammatical constructions (including agency) in each text, but also the use of stance, argumentation, and structural choices.

4. Corpus building

The corpus was built by searching for UK publications through Nexis®, using the search terms: 'PrEP' AND 'HIV' OR 'prophylaxis' OR 'Truvada'. In 2013, there were only seven articles published that featured our search terms, which came solely from publications focused more intently on pharmaceutical news (e.g. *The Pharma Letter*, *Anti-Infective Drug News*). As such, we take 2014 as the beginning of the coverage of 'PrEP' in the mainstream UK press. In the period from 1st January 2014 until 31st December 2018, this search returned 434 articles (272,539 words) from 97 different publications. Forty-two per cent of the articles came from just three national newspapers, hence our decision to focus on these: *The Daily Mail* (76 articles; 65,330 words); *The Independent* (64 articles; 43,900 words); and *The Guardian* (43

articles; 38,598 words). These were therefore taken forward as individual sub-corpora for our analysis, providing the opportunity to compare right-leaning (*The Daily Mail*), centrist (*The Independent*) and left-leaning (*The Guardian*) perspectives (Smith 2017)². This extends upon the findings of Mowlabocus (2019), Lovelock (2017), and Jaspal and Nerlich (2017) regarding the overall discourse surrounding PrEP in the British press. By comparing these three newspapers, we are able to investigate how the ideological perspectives of each publication are realised linguistically and thus understand both the similarities and differences between them. For research using queer CDA, it is particularly important to understand whether and how heteronormativity is reproduced in publications reflecting both conservative and liberal perspectives. Through close comparison of how these three newspapers discuss PrEP, we can see the extent to which users of the drug are othered; this offers insight into how widespread, and therefore how salient, homophobic representations are in British society.

5. Analysis

5.1 Description of users: frequency analysis

As detailed above, our first question in relation to this dataset was how the press refer to the users and beneficiaries of PrEP. We answered this by generating wordlists of the most frequent nouns in our subcorpora, using the *#LancsBox* tool (Brezina, Timperley and McEnery, 2018). These are reported in Table 1 in terms of occurrences (#) and – given the different sizes of the sub-corpora – relative frequency (RF).

² These categories incorporate both print and online versions of the publications, though in the case of duplication, only one example was included. In the case of *The Independent*, this also includes *iIndependent*.

TABLE 1: THE MOST FREQUENT NOUNS TO APPEAR IN EACH PUBLICATION

	The Guardian	#	RF	The Independent	#	RF	The Daily Mail	#	RF
1.	hiv	512	132.65	hiv	748	170.39	hiv	1138	174.19
2.	man	268	69.43	prep	353	80.41	prep	567	86.79
3.	people	263	68.14	nhs	286	65.15	drug	518	79.29
4.	prep	258	66.84	people	268	61.05	man	444	67.96
5.	drug	189	48.97	drug	254	57.86	people	345	52.80
6.	nhs	173	44.82	man	248	56.49	nhs	332	50.82
7.	health	171	44.30	health	202	46.01	infection	304	46.53
8.	sex	146	37.83	year	173	39.41	risk	302	46.27
9.	infection	130	33.68	treatment	173	39.41	treatment	265	40.56
10.	aids	128	33.16	infection	165	37.59	year	247	37.81

Many of the nouns are shared across the publications and make reference to the infection (*hiv, infection, aids*); treatment (*PrEP, drug, treatment*); health service provision (*nhs, [NHS/Public Health] England, health [clinics, services, act]*); and users in the terms 'man' and 'people'. The corpus tool searches for nouns in their lemmatised form, incorporating both singular and plural forms i.e. 'man' and 'men'.³ The results show that for each sub-corpus, the instances of 'man' were overwhelmingly in the plural form (*The Guardian*: 247 of 268 instances, 92.2%; *The Independent*: 234 of 248 instances, 94.4%; *The Daily Mail*: 400 of 444 instances, 90.1%) and so we use 'men' to refer to these occurrences. While 'people' is an inclusive term, the frequency of 'man' shows that this is represented as an issue that most explicitly affects 'men'. Indeed, in comparison to the 479 instances of 'man/men' in the

³ Since 'people' can be pluralised, this is treated as a separate lemma from 'person/s'.

corpus, there are 97 instances of 'woman/women', 41 instances of 'transgender' and 2 instances of 'non-binary'.

The lists for *The Independent* and *The Daily Mail* each include 'year', which typically indicate timelines ('earlier this year', 'over the next three years') and rates ('2,500 new HIV infections every year', '\$13,000 a year'). *The Guardian* list features 'sex': the largest pattern for which occurs as 'men who have sex with men' and is discussed in the n-gram analysis below. The remaining term that appears in *The Daily Mail* list is 'risk', which does occur slightly further down in the lists for *The Independent* (154 instances; RF: 35.08; rank: 11th) and *The Guardian* (94 instances, RF: 24.35; rank: 15th). This also offers some insight into the description of users of PrEP, who are described as '(people) at risk', again discussed below. Since the terms 'man' and 'people' appeared in all three lists and explicitly referred to types of agents (which may not exclusively be users of PrEP), these were used as the basis for further n-gram analysis, as well as the selection criteria for identifying the articles we examined through qualitative analysis.

5.2 Description of users: n-gram analysis

We conducted an n-gram analysis to identify recurring articulations of the lemmas 'man' (i.e. 'man' and 'men') and 'people' in each sub-corpora, which gave us longer descriptions of those 'men' and 'people'. The corpus analysis tool *#LancsBox* automatically computes n-grams of a specified length (typically three-, four- or five-word strings) that include the search term, regardless of its position in the string. In order to reduce the list of n-grams to a manageable size, we set a minimum frequency threshold of at least ten instances and increased the n-gram length until there were no further examples that occurred at least 10 times. The tables below

show the most frequent n-grams of at least four words (at least one of which is 'man/men' or 'people') in each sub-corpus.⁴

TABLE 2: MOST FREQUENT N-GRAMS IN *THE GUARDIAN**The Guardian*

<u>men who have sex with men</u>	<u>32</u>
among men who have sex with men	10
gay and bisexual men	18
people living with hiv	11

TABLE 3: MOST FREQUENT N-GRAMS IN *THE INDEPENDENT**The Independent*

men who have sex with men	24
gay and bisexual men	24
people living with hiv	13

⁴ We include only the longest n-gram when shorter n-grams occurred exclusively in that string. For example, if all instances of 'men who have sex' were included in the longer string 'men who have sex with men', only the latter appears in the table.

TABLE 4: MOST FREQUENT N-GRAMS IN *THE DAILY MAIL**The Daily Mail*

<u>gay and bisexual men</u>	<u>52</u>
among gay and bisexual men	22
gay and bisexual men in	11
gay and bisexual men are	10
cases of HIV among gay and bisexual men	10
men who have sex with men	34
<u>people who are at high risk</u>	<u>16</u>
when taken consistently, PrEP has been shown to reduce the risk of HIV infection in people who are at high risk by	11
people living with HIV	11
<u>for people who do not</u>	<u>12</u>
people who do not have HIV but	10

5.2.1: 'men who have sex with men'

Results show that coverage in *The Guardian* favours the term 'men who have sex with men' over any other. The frequency of the n-gram across publications reflects the fact that this group is recognised as the most affected by and most 'at risk' from HIV infection⁵, as well as the convention, established in public health discourses, to avoid presuming individuals' sexual identity (e.g. as a 'gay man'). Furthermore, news reporting the outcomes of trials is dependent on the populations that were recruited (and the terms used to identify them). The first scientific trial of PrEP in the UK, for example, recruited "HIV-negative gay and other men who have sex with men who had had anal intercourse without a condom in the previous 90 days" (McCormack et al., 2016: 53). One effect of this is that 'men who have sex with

⁵ According to leading HIV charity Avert: <https://www.avert.org/professionals/hiv-social-issues/key-affected-populations/men-sex-men>

men' are foregrounded as the group representative of all potential PrEP users and reported in terms of infection rates and percentages, restricting the broader representation of those who need PrEP and the sense of the individual lives affected by HIV infection. Looking at these occurrences in context does show that in some instances, the authors of the articles looked to mitigate this restricted representation. In *The Guardian*, for example, such restrictions are openly discussed in the early part of the corpus:

So PrEP, for the foreseeable future, will be confined to highly developed countries such as the US and Britain, where the people most at risk of HIV infection tend to be **men who have sex with men**- which includes gay, bisexual and transgender women- and the partners of injecting drug users. And even among those groups, it is likely to be an option that some people will choose- and some will not. (*The Guardian*, 18-10-2014).

Similarly, *The Daily Mail* quotes Gottfried Hirnschall of the World Health Organization in identifying the most 'at risk groups' as "men who have sex with men, sex workers, transgender persons, specifically transgender women, persons who inject drugs and persons who are in prisons or other closed settings" (*The Daily Mail*, 11-07-2014). However, in other contexts the significance of HIV infection to people who are not 'men who have sex with men' can only be inferred; in the closing line of an article in *The Independent*, we are told that "Nearly half of all new infections are among men who have sex with men" (*The Independent*, 30-10-2014). This would suggest that more than half of infections are people who are not 'men who have sex with men', however they are not identified or represented. While there are attempts to also represent (gay, bisexual and transgender) women, or 'persons who inject drugs' alongside 'men who have sex with men', the corpus analysis shows that this does not occur with a comparable frequency.

5.2.2 'gay and bisexual men'

The analysis shows that in *The Independent*, the term 'gay and bisexual men' is just as frequent as 'men who have sex with men', whereas the other publications tend to favour one or the other. Twenty-one of the 24 references to 'gay and bisexual men' in *The Independent* also include a numerical component (a percentage, a number of diagnoses) or reference to a 'decline' or 'reduction', suggesting that the use of this term may also be influenced by trial reports. There is, nonetheless, some modification of the label to more accurately represent the populations being discussed; for example in *The Guardian*, we find references to "African American gay and bisexual men" (*The Guardian*, 30-05-2018) and "Australian-born gay and bisexual men" (*The Guardian*, 17-10-2018), as the authors report on studies from other countries. Other examples of 'gay and bisexual men' in *The Guardian* sub-corpus similarly shift the focus away from PrEP specifically, to the social and historical experiences of 'gay and bisexual men' with respect to, for example, public health campaigns around AIDS in the 1980s (*The Guardian*, 29-09-2014), or the position of 'gay and bisexual men' as a 'marginalized group' alongside 'migrants, transgender people and sex workers' within an urban strategy to end the AIDS epidemic by 2030 (*The Guardian*, 22-06-2016).

'Gay and bisexual men' was the most frequent of the n-grams in *The Daily Mail* sub-corpus and, similar to *The Independent*, was frequently used in reference to rates of infection. This is indicated by the n-grams in Table 4, that refer to 'cases', along with the prepositions 'among' and 'in' (i.e. in 2016). Nine of 11 instances of the construct 'gay and bisexual men are' referred to being 'at risk', 'most susceptible' or 'most affected'. Looking at the occurrences in context shows how sexual identity is conflated with sexual practices, as in the example: "Gay and bisexual men are most susceptible to catching HIV because anal sex carries a 10 times higher

risk of infection than vaginal" (*The Daily Mail*, 03-10-2017), where it is anal sex that carries elevated risks, not the identification as a gay or bisexual man.

5.2.3 'people living with HIV'

Though the coverage of 'people living with HIV' precludes them from PrEP treatment (they could still benefit from post-exposure prophylaxis, (PEP)), they are of course active participants in measures intended to restrict further transmission. The rates of 'people living with HIV' are utilised in the case for prevention (*The Independent*, 16-09-2016) and broader coverage of 'people living with HIV' is discussed in terms of the scale of the issue in Africa (*The Daily Mail*, 19-07-2016; *The Independent*, 04-08-2016; *The Guardian*, 15-06-2016); a broader provision of care that includes improving diagnosis (*The Daily Mail*, 03-07-2017; *The Guardian*, 08-08-2018); as well as the detrimental mental health aspects that arise from the stigma associated with HIV infection (*The Daily Mail*, 01-12-2017; *The Independent*, 01-12-2015; *The Guardian*, 11-11-2015). *The Independent*, in particular, communicated a sense of the 'long and healthy lives' of 'people living with HIV' (18-02-2015; 10-05-2017; 16-11-2017) and *The Guardian* offered more contextual detail for particular populations of 'people living with HIV', such as austerity measures in the UK (11-11-2015) and sanitation and water provision in parts of Africa (10-10-2016).

5.2.4 'people who are at high risk'

The term 'people who are at high risk' indicates how research and news coverage alike target groups in terms of urgency (i.e. 'risk'), though this only occurred once in *The Guardian* and seven times in *The Independent*. Curiously, an n-gram of twenty-two components occurred eleven times in *The Daily Mail* sub-corpus and reads: 'when taken consistently, PrEP has been shown to reduce the risk of HIV infection in people who are at high risk by', concluding in either 'up to 92 per cent' (9 instances) or 'more than 90 per cent' (2 instances). Another

instance matched the string in the latter eighteen elements, reading, 'Used consistently, it *has been shown to reduce the risk of HIV infection in people who are at high risk by*' (*The Daily Mail*, 10-11-2016). A further instance simply omits 'HIV', referring to 'risk of infection' (*The Daily Mail*, 04-01-2017). An n-gram of this length is unusual, and demonstrates how n-gram analysis is a key method in plagiarism detection (Barrón-Cedeño and Rosso 2009). However, since these occurrences appeared in texts from October 2014 through to June 2018, they more likely represent a type of 'boilerplate' text used by the writers at *The Daily Mail* when reporting on PrEP.

FIG. 1 TEXT BOX FEATURING IN *THE DAILY MAIL* ARTICLES ON PREP

WHAT IS PRE-EXPOSURE PROPHYLAXIS?

Pre-exposure prophylaxis, or PrEP, is a way for people who do not have HIV but who are at substantial risk of getting it to prevent HIV infection by taking a pill every day.

The pill (brand name Truvada) contains two medicines (tenofovir and emtricitabine) that are used in combination with other medicines to treat HIV.

When someone is exposed to HIV through sex or injection drug use, these medicines can work to keep the virus from establishing a permanent infection.

When taken consistently, PrEP has been shown to reduce the risk of HIV infection in people who are at high risk by up to 92 per cent.

PrEP is much less effective if it is not taken consistently.

PrEP is a powerful HIV prevention tool and can be combined with condoms and other prevention methods to provide even greater protection than when used alone.

But people who use PrEP must commit to taking the drug every day and seeing their health care provider for follow-up every three months.

Source: Centres for Disease and Control Preventions

Figure 1 represents a text box that frequently featured in 'PrEP' articles in *The Daily Mail*, visually marked out from the rest of the article content and including the hyperlinked

attribution to the Centres for Disease and Control and Preventions (CDP)⁶. In six instances, the full text appeared; in eight instances, the version of the text box included the '22-gram' as well as another n-gram from the list: 'for people who do not have HIV but'. This set text refers to the potential users of PrEP more generally as 'people', who are potentially 'exposed' through practices that are not reported to be exclusive to any sexual or gender identity: 'sex or injection drug use'. Even in a context where the treatment is provided, individual responsibility is foregrounded by reiterating that users 'must commit to taking the drug every day and seeing their health care provider', as well as the possibility ('can') of combining the treatment with using condoms, for 'greater protection'. While this regularly cited text arguably uses more inclusive language, this is attributed to the CDP and the visual separation of the text distance this material from the rest of the article, which is more explicitly presented as generated by the cited author (a journalist for *The Daily Mail*). Whether the journalist incorporates such text uncritically, or simply defers to (the words of) a perceived authority on the topic, readers can surmise that these are not necessarily the words of *The Daily Mail*.

5.2.5 Summary of corpus analysis

The n-gram analysis showed that across each publication, the beneficiaries of PrEP are largely and consistently represented as 'men who have sex with men', though there are discrepancies in how the different publications extend beyond those representations. For example, pre-modification of 'gay and bisexual men' in *The Guardian* showed a more nuanced representation, while in *The Daily Mail*, there is some conflation of 'men who have sex with men' with the identity category of 'gay and bisexual men', indicating a less discerning use of the terms. The focus on the link between HIV and sex between men

⁶ <https://www.cdc.gov/hiv/research/biomedicalresearch/prep/index.html>

potentially marginalises other forms of HIV transmission and subsequently, others who may benefit from PrEP. To further explore the position of these dominant labels alongside other representations of the beneficiaries of PrEP, we conducted a closer textual analysis of a sample of articles that used these labels.

5.3 Downsampling and closer textual analysis

We identified nine articles (three from each publication) that facilitated a longitudinal, cross-publication examination of the representations of potential users of PrEP. We focussed our downsampling on articles with a high number of references to 'men' and 'people' and which corresponded with periods when a high number of articles was published (typically corresponding with key events relating to PrEP provision in the UK, such as the High Court ruling). Our sample is shown in Table 5.

Throughout the three stages, users of PrEP in these articles are most frequently represented as gay men. Less consistent is the representation of PrEP itself, which is described positively as a 'wonder drug' in the first *The Daily Mail* article, then pejoratively as a 'promiscuity pill' in the second and a 'controversial drug' in the third. All three *The Guardian* articles take a firmly positive stance towards PrEP, framing the NHS as having a responsibility to provide it and using first-person opinion pieces to defend it. *The Independent* articles have a less consistent message, with the first framing PrEP as facilitating gay men's sexual preference to not wear condoms, the second problematising such a stance by likening PrEP morally to the contraceptive pill, and the third providing a straightforward - ultimately positive - account of decreasing HIV cases. In the analysis that follows, we offer a comparative analysis of the newspapers at each of the three stages, focusing specifically on the construction of the users of PrEP.

TABLE 5: DOWNSAMPLED ARTICLES FOR ANALYSIS

	<i>The Guardian</i>	<i>The Independent</i>	<i>The Daily Mail</i>
February 2015	'Daily pill Truvada cuts spread of HIV by 86%, study shows' 25 Feb 2015	'HIV pill: The logic of paying £500 a month so gay men don't have to wear condoms' 24 Feb 2015	'Healthy gay men should be given HIV treatment to PREVENT infection, 'game-changing' trial suggests' 24 Feb 2015
August 2016	'The NHS must show it cares about gay men's lives - and roll out PrEP HIV drugs.' 2 Aug 2016	'If PrEP is a 'lifestyle drug', then so is my NHS-funded contraception' 4 Aug 2016	'NHS fights back against ruling forcing it to hand out 'promiscuity pill' that prevents HIV as the £20m cost will hit its ability to treat cancer and give limbs to amputees' 2 Aug 2016
Spring/ Summer 2017	'Sex without fear - my experiment with the HIV-prevention drug PrEP' 22 June 2017	'HIV cases among gay men fall dramatically as experts hail 'most exciting development in 20 years' 3 Oct 2017	'New HIV cases drop by 21% among gay and bisexual men in just one year as controversial PrEP prophylactic drug spreads' 3 Oct 2017

5.3.1 Stage 1: February 2015

The first stage of analysis corresponds with a press release of the results of an initial (non-NHS funded) PrEP trial. As a result, the study itself is the main focus of the articles analysed. Interestingly, *The Daily Mail* is the most explicitly positive about the study, foregrounding the fact that it was carried out in England and calling it 'groundbreaking'. The article focuses on the scientific discovery element of the study as opposed to the social impact that the drug could have, yet there is also a discussion of its potential users. These users are described in *The Daily Mail* article as 'gay men', 'men who have sex with men', 'gay and bisexual men' and, in one case, 'men at high risk of HIV infection'. The variation here is due in part to the quotes that are used to frame the article, and the effect is to make all of these categories of

men synonymous with one another. What is perhaps most interesting is the selection of labels used by the article in its opening sentences:

Healthy gay men should be given anti-viral drugs to 'slash the number of cases of HIV', a groundbreaking new study has suggested. The Proud study, conducted in England (...) showed that pre-exposure to the HIV drug Truvada can reduce the risk of infection in men-who-have-sex-with-men (MSM) by as much as 86 per cent.

The phrase 'healthy gay men' is repeated from the article's headline (Table 5); the choice of the adjective 'healthy' over the more accurate 'HIV negative' may represent a stylistic need to avoid jargon, but it also implies that HIV positive men are *not* healthy. This is misleading; whilst HIV remains a life-threatening virus if left untreated, current antiretroviral drugs can enable those who are HIV positive to reduce their viral load to undetectable levels, meaning they can lead long, healthy lives. Furthermore, by premodifying 'gay' with 'healthy', the construct of 'unhealthy gay men' is also implied; the message may therefore be conveyed that this treatment is only for *some* gay men - those who are in some way deserving of it (indicated by the modal verb 'should'). By not being explicit that the division here is based on those who are HIV negative and those who are HIV positive, a moralistic stance is constructed which implies that some gay men do not look after themselves well enough or that gay men with HIV are not healthy.

The Independent also positions gay men as the primary potential users of PrEP, but more specifically the article focuses on gay men who do not use condoms. There is ambiguity in this article in terms of whether a moralistic judgement is being delivered upon these men; the headline's phrase 'the logic of paying £500 a month so gay men don't have to wear condoms' seems paradoxical in presenting a 'logical' case in support of PrEP while highlighting the expense and the risk-taking sexual behaviour (i.e. not wearing a condom) of 'gay men'. A

judgemental tone is reinforced later in the article, as it is stated that 'condom use is not what it should be [amongst gay men]'; modality is used here to express concern and evaluation, allowing the author to position themselves as morally superior and frame condomless sex as the reason for the creation of PrEP.

The Guardian article takes a more explicit stance that PrEP should be provided and, unlike *The Independent's* discussion, does not foreground condomless sex as a reason that it is needed. Unlike *The Daily Mail* and *The Independent*, the users of PrEP in this article are primarily 'men who have sex with men', which is sometimes qualified as those at particularly high risk of contracting HIV. In defining what is meant by 'high risk', the article states:

...there are thought to be around 10,000 to 15,000 people in the high-risk category, those who have multiple partners and sometimes do not use condoms.

The lexical choice of 'people' rather than 'men' (or 'gay men') is striking, as is the fact that the pronoun 'those' is used without a noun in the subject position. This leaves space for the possibility of other groups (a) being at risk and (b) potentially benefiting from PrEP. Though the rest of the article clearly frames PrEP as a drug being targeted at men who have sex with men, in this moment they are not isolated (or othered) as the *sole* beneficiaries of it.

Furthermore, the idea of being at risk is presented neutrally and with mitigation through the adverb 'sometimes'. This indicates variability in the practice of men who have sex with men and implies that these high-risk men sometimes *do* use condoms. In this sense, the article provides no evaluation of the behaviour of men who do not use condoms and instead neutrally describes the activity, unlike *The Independent's* equivalent piece.

5.3.2 Stage 2: August 2016

The second set of articles were published following the High Court ruling that the NHS - not local health authorities - would be responsible for funding PrEP. The articles were published within a couple of days of the press release. The article analysed from *The Daily Mail* is the online version of the front-page piece ('What a Skewed Sense of Values') mentioned in our introduction, and is highly critical of the provision of PrEP at the expense of other treatments. The article works to position the drug as dangerous for two main reasons: it is a 'promiscuity pill' which will encourage unsafe sex, and a costly treatment which will take away the NHS's ability to look after and treat others. The heavy implication here is that other diseases are more deserving of NHS funding than HIV, and that users of PrEP are risk-takers who are less deserving of scarce NHS provision.

In *The Daily Mail* article, the potential beneficiaries of PrEP are again restricted to gay men. More specifically, it states that the:

drug will be given to gay men who don't have HIV but are at high risk of being infected through unprotected sex

This implies that the target users are men who do not use condoms and who therefore are intentionally putting themselves at risk (by not protecting themselves). PrEP is described as a 'preventative medicine' and contrasted with 'vital cataract surgery' and 'life-saving' cancer treatments. Furthermore, the users (risk-taking gay men) are constructed in direct opposition to other patients:

One MP yesterday suggested it would be difficult to justify the cash spent on the HIV drug to a cancer patient who had been denied a life-saving treatment.

To some degree, this is a focus on cost efficiency and the question of whether the NHS should spend money on prevention or cure. Yet the premodification of 'treatment' but not 'HIV drug' with 'life-saving' disguises the fact that 'the HIV drug' is *also* a 'life-saving treatment'. Though cancer patients are being 'denied' treatment, the intermediary decision-maker is omitted, which means that if readers are looking for a responsible party, the only other named agent is the risk-taking gay men described in the opening sentence of the article.

The Independent article from the same period takes a directly opposing view. The fact that the NHS will fund a drug to prevent HIV is positioned as 'good news', and the article challenges the idea that its users are only risk-taking gay men. It states that "the NHS already funds drugs for HIV-positive mothers to avoid transmitting the illness to their children"; this foregrounds the fact that women and children are at risk of HIV, a strategy drawing on traditional ideas of protecting these groups and thus highlighting their vulnerability. Unlike *The Daily Mail* article, which frames the only beneficiaries of PrEP as promiscuous gay men, this legitimises the provision of the drug in broader terms. The article goes on to argue that the drug is essential because:

Now, in 2016, cases of HIV in the UK are on the rise (...). An estimated 100,000 are living with the disease (two thirds are men) and in London, numbers among gay men rise to one in eight. In 2014, a record 17 people were diagnosed per day.

It is telling that, following '100,000', no subject is included to describe those living with the disease. Rather than specify a particular group, this opens up potential users of PrEP as literally anyone, though it is emphasised that men are most likely to have it. By not premodifying this with 'gay' or 'men who have sex with', the reader is not required to imagine any particular, recognisable social group. Gay men are mentioned after this, demonstrating that the unmarked 'men' who make up two thirds of those people living with HIV do not all

necessarily hold this identity. This recognises the high prevalence of HIV in this particular group, but avoids the overly simplistic alignment of HIV with one recognisable (and easily demonised) group. The article ends with a first-person account from the author, a heterosexual woman choosing to use the contraceptive pill rather than condoms to avoid pregnancy. The author compares her situation with 'those who need PrEP' choosing to use the drug rather than condoms to avoid HIV. This clarifies the stance of the article: refusing to fund PrEP while still funding the contraceptive pill would punish one group's sexual activity while facilitating another's. It is enormously important, of course, that the verb 'need' is used in this context; this positions sex between people at risk of HIV as a legitimate, natural activity.

Finally, *The Guardian's* article from this period also makes an assertive stance in favour of the NHS funding PrEP. It positions the main users of PrEP as gay men, but does so in order to set up opposition between this group and (a) the NHS, who are represented as being uncaring about gay men's lives, and (b) 'the morally self-righteous', who think gay men should simply wear condoms. The headline states 'The NHS must show it cares about gay men's lives'. This challenges the NHS organisation to demonstrate human feelings, thus implying it has responsibilities towards this particular group. In response to the argument that condoms should be sufficient, the author writes:

But - in the real world rather than the non-existent world of the morally self-righteous - things are more complicated. People get carried away; people get drunk (yes in the real world people sometimes drink more than the recommended daily amount); condoms break. (...) The standards set by the "morally pure" cause harm - or even kill.

Here, it is not gay men specifically who inhabit the 'real world' being invoked, but *people*; these 'people' are framed in opposition to 'the morally self-righteous' and 'the morally pure'.

Furthermore, the author does not elide the fact that users of PrEP may be putting themselves at risk when they 'get carried away', it simply acknowledges that this is a normal human trait of *people* 'in the real world'. This has a similar effect as *The Independent* article from this same period in aligning men who put themselves at risk of HIV with women who put themselves at risk of pregnancy. It goes a step further, of course, by framing those against PrEP as potentially causing harm or death.

5.3.3 Stage 3: Autumn 2017

Our final stage of qualitative analysis is the only instance when the articles representing our three publications did not cover the same story. October 2017 marked one year since the launch of the NHS trial. *The Daily Mail* and *The Independent* published articles based on Public Health England figures showing that HIV infection rates among gay and bisexual men had dropped (Public Health England, 2017). *The Guardian* did not cover this but around the same period re-published an article originally written for the gay men's lifestyle magazine *Attitude*, in which a man describes his experience taking PrEP.

The Daily Mail ultimately reports on the facts: fewer new HIV cases have been reported and experts say preventative approaches including PrEP are the cause. However, it also continues to frame PrEP as 'controversial' in its headline (though not in the article itself) and once again focuses on gay men as potential users. In a subsection entitled 'Why are gay men most at risk?', the article uses a matter-of-fact tone:

Gay and bisexual men are most susceptible to catching HIV because anal sex carries a 10 times higher risk of infection than vaginal. This is due to cells in the anus being more susceptible to HIV, as well as fluid in semen and the anus' lining carrying more HIV than vaginal secretions.

Beginning by describing gay men, specifically, as 'most at risk' does to a degree demonstrate that not *only* gay men contract HIV. Indeed, the first line includes the additional identity 'bisexual' when describing this particular group. In this sense, the text is significantly more factual than earlier articles in this newspaper, and the focus on biology that is provided here goes beyond an explicit moralistic judgement about men's sexual practices. However, the high register lexis and biological terminology ('fluid in semen', 'vaginal secretions', 'cells in the anus') emphasise the difference between anal sex and heteronormative intercourse. When compared to a section of the article announcing that HIV is 'on the rise in the over-50s' and 'driven by heterosexual sex' between older divorced people, it is telling that no specific details are given to explain *how* this sex takes place, and no mention is made of secretions or fluids: this sort of sex is normalised.

In *The Independent* article from this period, gay and bisexual men are again consistently identified as the beneficiaries of PrEP. The drug itself is not the main focus of the article, instead the focus is on the range of preventative measures leading to a fall in HIV rates. Nonetheless, PrEP is discussed in relation to a first-person story from an individual who has benefitted from it: 'Harry Dodd, 26, who lives in London':

He said "Growing up gay in the shadow of HIV used to fill me with fear and anxiety. Now I'm on PrEP I feel entirely confident that I'm protected from HIV, and that the test is always going to come back negative. Removing that fear has been personally life-changing, and former anxiety has been replaced with hope for the future eradication of HIV."

This story closes this article, providing a positive message about the future of HIV in the UK. This is reinforced by the contrasting use of 'fear and anxiety' with 'hope' in Dodd's story. By including this first-person quote, the article contradicts many of the tropes surrounding the

use of PrEP - most notably the implication that users of PrEP are sexual risk-takers – by giving voice to an actual user of the drug. This is evident from the presupposition in Dodd's reported speech that he would logically be tested regularly for HIV ('the test is always going to come back negative').

Finally, *The Guardian* takes a piece from *Attitude*, giving space in the newspaper to a journalist who writes for the gay press, rather than reinforcing the other-ness of men who have sex with men by talking about them in the third person. Within this long-form piece, the author never explicitly states his sexual identity (e.g. by saying 'as a gay man'), but instead refers to his experiences as a man who has sex with men. Because there is no 'coming out' moment in the article, sex between men is not othered. Contrary to the stereotype of PrEP as a 'promiscuity pill' and its users as risk-takers, the author describes being driven to tears by the guilt and fear associated with not using a condom. Despite this, the author's experience is ultimately positive and he continues to use PrEP, saying the 'sexual activity I experience is entirely free from fear'.

5.3.4 Summary of qualitative analysis

By looking at a small set of articles within the corpus we can see some of the discursive ways in which users of PrEP are constructed in the respective publications. The first *The Independent* article and all *The Daily Mail* articles frame gay men as risk-taking, irresponsible, and other. In the second two articles in *The Independent* and all *The Guardian* articles, however, we find a more comprehensive picture of the lives of PrEP users, encouraging us to think of individual lives as well as the community groups most directly affected by HIV. This corresponds with observations made through the n-gram analysis, as well as showing how the discourse developed over the time period and how particular aspects were foregrounded in the composition of the articles.

6. Discussion

We have aimed in this study to identify subtle and implicitly homophobic discourse used to problematise the provision of PrEP by the National Health Service. We began with a frequency-based approach to investigate the representation of users of PrEP. Motschenbacher (2018: 151) comments that "A concentration on highly frequent linguistic features is in general useful for the identification and critical analysis of those dominant discourses that are frequently overtly expressed", since "there is a certain merit in showing that such discursive traces do not just occur in a single text or text passage but across a wider range of texts".

Through establishing the most frequently used terms we can also consider cases of marginalisation. In this corpus, for example, there were very few references to PrEP users who are not 'men who have sex with men' or 'gay and bisexual men'. Whilst our quantitative corpus analysis did not reveal evidence that representing PrEP in a restricted way – as a drug used primarily by this specific group of men – was necessarily homophobic, it *was* evident that the cultural link between HIV itself and gay men was reinforced throughout the corpus. The implication that HIV remains a disease solely relevant to men who have sex with men is highly problematic; it serves to frame sex between men as intrinsically dangerous and thus reinforces the stigmatisation of homosexuality. It may also lead other groups to believe that they are not at risk, despite the reported rise of HIV rates amongst older people engaging in heterosexual sex.

By looking across texts at the macro-level, then, we have been able to highlight the discursive pattern of linking PrEP (and HIV) to men who have sex with men, as well as some of the different qualifications of those terms in the context of the respective publications. Extending this to look at representations in the context of specific articles, we were also able to engage with themes in the corpus that would not otherwise have been apparent, including texts

presenting first-person perspectives and experiences with PrEP. Individual users were not shown to be prominent through our corpus analysis alone, but the inclusion of first-person narratives in *The Independent* and *The Guardian* is ideologically significant. The practice enables the representation of the nuances of the PrEP debate and the lived experience(s) of its potential beneficiaries. This humanised representation stands in contrast to the aggregated representations of infection rates and treatment costs, particularly when these are positioned in contrast to individuals who require cancer treatments (as with *The Daily Mail* article, 02-08-2016). We have been able to show through our comparative analysis, then, that representations of the users of PrEP differ in nuanced ways between the three newspapers: not all relied on implicit homophobia. In this way, our findings extend upon previous research into the representation of PrEP.

Through close textual analysis which takes a queer critical approach, however, we have nonetheless identified discourse which *does* subtly invoke homophobia. This supports earlier research outlined earlier. Reflecting the findings of Mowlabocus (2019), our qualitative analysis shows that gay men are specifically framed as risk-takers who ultimately threaten NHS resources. This reinforces a very stigmatised representation of this group and relies on neoliberal ideology concerning the state's provision of financial support. Indeed, within *The Daily Mail* overall and *The Independent* article from 24-02-2015, the very provision of PrEP is framed as encouraging promiscuity and sex without condoms. This relies on the homophobic assumption that gay men are sexually deviant and fundamentally licentious, as also found in Jaspal and Nerlich's (2017) analysis. By representing gay men as sexually irresponsible, their risk of contracting HIV is positioned as a consequence of their own agency - and therefore not the state's responsibility.

Our qualitative analysis of *The Daily Mail* also shows that it is not only gay men but gay sex itself that is othered. In comparison to heterosexual sex amongst older people, sex between men is framed as unusual and risky. HIV is therefore presented as a ‘gay issue’, as Lovelock’s (2018) analysis also shows; again, this is a deeply concerning finding given that it may reduce public awareness of HIV as a disease that can also be contracted by other groups. Though this reflects the focus of the drug trials that have taken place (with, in some cases, text taken verbatim from press releases), the mainstream media nonetheless has a responsibility to go beyond this. Specifically, popular newspapers have important work to do in raising awareness that HIV itself does not discriminate, and that *all* people at potential risk can take action to protect themselves.

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