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International Journal of STD & AIDS

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International Journal of STD & AIDS

• Impact factor: 1.350
An audit of a novel electronic messaging treatment service for Chlamydia trachomatis at a community pharmacy

Sarah J Willetts1, Sarah Cowper2 and Sharon T Cameron2,3

Background

- Chlamydia trachomatis is UK’s most common bacterial STI
- If uncomplicated, can be treated with single dose 1 g azithromycin
- Timely treatment important reducing:
  - transmission
  - reinfection from untreated sexual contacts
  - complications of untreated infection
Background

In 2007, NHS Lothian Sexual Health Services introduced a new service whereby asymptomatic individuals with Chlamydia trachomatis could choose to receive a paper treatment voucher that was redeemable for antibiotics at a community pharmacy.

Background

- In April 2016 option to send a voucher electronically as a text message to a mobile phone was made available
- Made available to patients with uncomplicated C. trachomatis or non-specific urethritis (NSU) and sexual contacts
Method

- Eligible to receive voucher to mobile phone if fulfilled certain criteria
- Could also have voucher sent to contacts
- Each voucher had unique identifier and redeemable within 7 days only
- 108 participating pharmacies

Method: eligibility

- Age 16 or over
- Positive for Chlamydia trachomatis only
- No risk of other infections or complications
- No symptoms
- No history of repeated Chlamydia infection
- No history of intercourse with a male partner who has had sex with men
- Not a commercial sex worker
- Not currently pregnant
Method: exclusion

- Age under 16 years
- Women with signs and symptoms of C. trachomatis infection
- Patients who are clinically unwell (febrile and in acute pain)
- Patients with known hypersensitivity to azithromycin, erythromycin, clarithromycin or any macrolide antibiotics, or any component
- History of liver disease
- History of severe renal impairment
- Porphyria
- Known cardiac arrhythmia
- Weight <45 kg
- Lack of informed consent
Results

• April-Dec 2016 1400 positive CT (24, 336 samples 5.75%)
  • 381 electronic vouchers issued to index patients
  • 168 electronic vouchers to contacts

Results: demographics

• Median age 22 (range: 16-56)
  • 237 females received a voucher
  • 163 males
  • 149 gender unknown
Results: voucher redemption

- 306 out of 549 vouchers (56%) were redeemed at pharmacies
  - (230 were index patients and 76 were contacts)
- Median number of days from voucher issue to redemption was zero i.e. less than one day

Results

- Index patient was significantly more likely to redeem a voucher than a contact (230 vs 76)
  - \(p \leq 0.001\), odds ratio \(1.84\), 95% confidence interval: 1.28–2.66
- Less deprived more likely to redeem voucher
Discussion

• Popular and effective means of providing expedited treatment for uncomplicated Chlamydia at a community pharmacy
• Immediacy of electronic voucher seen as an advantage
  • Free up time and resources in sexual health clinics
  • Convenience for patients

Discussion: weaknesses

• Review findings limited to information in database
• Future research could look at patient and pharmacist views
• Article didn’t address outcome of 44% of unclaimed vouchers
Patients’ perspectives on the development of HIV services to accommodate ageing with HIV: a qualitative study

Alex Pollard1, Carrie Llewellyn1, Vanessa Cooper2, Memory Sachikonye3, Nicky Perry2, Eileen Nixon2, Alec Miners4, Elaney Youssef2 and Caroline Sabin5

Background

• PLHIV near normal life expectancy
  • 30% >50 yrs in UK
  • By 2028 likely >50% >50 years of age
Background

• National recommendations from both Department of Health and British HIV Association promoting integrated model of care for PLHIV
  • Aim to move care of patients away from specialist HIV clinics to GPs
  • Systematic reviews focused on service providers rather than service users perspective

Methods

• 12 focus groups in Brighton and London between Nov 2013 & Feb 2014
  • Focus groups-allow for open responses and detailed exploration of insights, beliefs and experiences
Method: group structure

- All were PLWHIV > 16yrs & receiving HIV care
  - Gender
  - MSM/hetero
  - African/non-African ethnicity
  - <50yrs & >50yrs

Composition of focus groups

<table>
<thead>
<tr>
<th>Focus group number*</th>
<th>Participants</th>
<th>Age mean (range) in years</th>
<th>Years since diagnosis mean (range) in years</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 3 and 10</td>
<td>MSM under 50</td>
<td>12</td>
<td>29 (19-33)</td>
<td>10 (1-27)</td>
</tr>
<tr>
<td>2</td>
<td>MSM 50 and over</td>
<td>7</td>
<td>54 (50-61)</td>
<td>16 (3-20)</td>
</tr>
<tr>
<td>4</td>
<td>African women under 50</td>
<td>6</td>
<td>42 (-1 aged 55)</td>
<td>6 (2-15)</td>
</tr>
<tr>
<td>5</td>
<td>MSM 50 and over</td>
<td>10</td>
<td>56 (-1 aged 49)</td>
<td>17 (5-30)</td>
</tr>
<tr>
<td>6 and 12</td>
<td>African women 50 and over</td>
<td>14</td>
<td>55 (50-71)</td>
<td>7 (3-25)</td>
</tr>
<tr>
<td>7</td>
<td>Non-African women 50 and over</td>
<td>5</td>
<td>60 (52-67)</td>
<td>19 (6-27)</td>
</tr>
<tr>
<td>8</td>
<td>Non-African women under 50</td>
<td>4</td>
<td>44 (40-47)</td>
<td>15 (6-24)</td>
</tr>
<tr>
<td>9</td>
<td>Non-African MSM men 50 and over</td>
<td>5</td>
<td>60 (54-85)</td>
<td>11 (4-19)</td>
</tr>
<tr>
<td>11</td>
<td>African men over and under 50</td>
<td>11</td>
<td>52 (40-61)</td>
<td>16 (11-35)</td>
</tr>
</tbody>
</table>

*MSPH: men who have sex with men.
*Under-subscribed groups (Groups 1 and 6) were repeated (Groups 3, 10 and 12) to achieve target quota sampling.
Method

• 90 minute focus groups
• Two moderators: an experienced focus group facilitator & an HIV researcher
• Participants informed “no right or wrong answers”
• Broad questions about experiences of healthcare & specific questions about non-HIV specialist services

Method: analysis

• Discussions were digitally recorded and transcribed verbatim
• Framework Analysis to identify recurring and important themes
• Two coders independently interpreted data & classified supporting quotes into themes and categories
• Quotes from groups were cross-coded to the themes and sub-themes
• Discussion of any discrepancies
Results

• Duration of diagnosis & degree of comorbidity > influence on experience & perceptions than age
  • Most had valued relationship with HIV clinical staff but especially so amongst those with longer diagnosis and greater comorbidities
  • Staff from other hospital & primary care services seen to lack knowledge, skills & understanding of HIV
  • GP perceived to lack confidence re ART
...the GP I have at the moment, his attitude to whenever I go and see him is ‘Oh that must be HIV related, you need to go to the hospital’. (Group 5. MSM; 50 and over)

The GPs don’t understand anything about HIV because even if you go with just a slight fever or cold they always say ‘We don’t know what medication to give you because it might interfere with your HIV medication I think you go back to your consultant. (Group 12. African Women; 50 and over)
I could never get an emergency appointment [at the GP]... I’d been on antibiotics for two weeks. I could feel my chest infection getting worse and my health was really bad. I happened to have to go to my HIV clinic to pick up my meds and they said – hang on a minute, you what? And when I told them, bang – straight into hospital! (Group 10. MSM; under 50)

At one stage I had four NHS Trusts looking into different bits. My GP hasn’t got a clue what’s going on with my care. My HIV doctor has got a more holistic view of what I am doing but four NHS Trusts working on slightly different bits and trying to investigate what was causing me to go dizzy, not talking to each other. . .And in the end I was saying to them, ‘No, you’re causing me to have mental health problems’ (Group 10. MSM; under 50)
The government is pushing for everybody sharing data. It's a worrying thing, personally [...] computerised data. As I said, it’s sometimes good for your medical team to be communicating, but along the way, in the process, confidentiality might be broken. (Group 11. African men; over and under 50)

Discussion

- clear preference across all groups for care to be retained within specialist HIV clinics
  - skills and confidence of staff
  - care-coordination and communication
  - appreciation of the social/emotional experience of living with a stigmatised condition.
Discussion

The ageing profile of people with HIV and the consequent pressure to share care has fragmented responsibilities and increased stress on inter-service communication without concurrent improvements in coordination.

Strengths and Weaknesses

• large, diverse sample of HIV positive patients from high- and low-prevalence areas
• limited to South-East England
• majority of participants recruited from HIV community organisations
Conclusions

- Patients have strong preferences for maintaining care within trusted specialist services
- Acceptable shared-care must accommodate patients’ views
- Future research could explore the potential of technologies to support inter-service communication
How can those engaging in chemsex best be supported? An online survey to gain intelligence in Greater Manchester
Andrew Tomkins, Roberto Vivancos Chris Ward and Merav Kliner

- Anonymous survey was promoted via several sources including voluntary services and a sexual health clinic in order to establish the risks associated with chemsex and how support services can best be tailored to meet the needs of those in Manchester, UK.
- Quantitative and qualitative data were collected on demographics, drug use, sexual practices and barriers and facilitators to accessing support.

Background

- Chemsex - sex whilst under the influence of drugs. Taken immediately before or during a sexual session.

- Methamphetamine, gamma-hydroxybutyric acid (GHB), gamma butyrolactone (GBL) and mephedrone (meow meow).
• (MSM)-more likely to engage in recreational drug use.

• Three times higher among gay and bisexual men than among heterosexual men (28.4% versus 8.1%).

• 2014 Manchester - Estimated HIV prevalence above the UK national average in the MSM population aged 15–59 (8.6%; UK estimated prevalence 5.9%).
• MSM in Manchester - second highest reported use of crystal methamphetamine, GHB/GBL, and ketamine in the past four weeks (15.5%), surpassing London (13.2%).

• Attendance at a private sex party in the past four weeks was also higher in Manchester (9.2% versus 7.9% in London).

• Despite these findings, there is limited understanding into the characteristics of chemsex users, perceived barriers and facilitators to accessing support services and preferred location of support services on a local level.

• Piloted services - club drug clinic based in the voluntary sector.

• Outreach clinic @ a gay bar venue in the city centre.

• Current chemsex support - sexual health setting providing sexual health testing and treatment, drug counselling and psychological intervention under one roof.
Methods

• The survey was designed to be brief, taking no longer than 15 minutes to complete and included 20 questions

• Was available for 10 weeks Jan 2016-april 2016

• The survey was promoted via two voluntary sector organisations in Greater Manchester: The LGBT Foundation & George House Trust (HIV support, advice and advocacy service).

• The Reach clinic, a chemsex support clinic at the Hathersage Integrated Contraception, Sexual Health and HIV service.

Survey was structured into three sections:

• 1. ‘You and your health’: Which included demographics, sexuality and blood-borne virus status

• 2. ‘Drug use and sex’: Which included type of drug use, involvement in chemsex, routes of drug administration, frequency of drug use and risky sexual practices

• 3. ‘Access to support services’: Where participants would choose to access support, previous access to support, barriers and facilitators to
Results

• 52 people completed the survey.
• 35 (67%) LGBT Foundation
• 14 (27%) via George House Trust
• 2 (4%) via the Reach clinic at the Hathersage Centre.
• One participant (2%) stated they had accessed via a ‘Facebook post by a friend’.
• Of the 52 participants who completed the survey, all were men who identified as being MSM.
• The most frequently reported age group was 25–34 years.

<table>
<thead>
<tr>
<th>Age range (years)</th>
<th>Participants (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16–24</td>
<td>0</td>
</tr>
<tr>
<td>25–34</td>
<td>21 (40%)</td>
</tr>
<tr>
<td>35–44</td>
<td>17 (33%)</td>
</tr>
<tr>
<td>45–54</td>
<td>10 (19%)</td>
</tr>
<tr>
<td>55–64</td>
<td>4 (8%)</td>
</tr>
<tr>
<td>≥65</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1. Age range of survey respondents.
Blood bourne virus status

- 39 (75%) HIV-positive
- 8 (14%) HIV-negative
- 5 (10%) Unaware of their HIV status.
- 11 (21%) Hepatitis C positive,
- 21 (40%) Hepatitis C negative
- 20 (38%) Unaware of their hepatitis C status.
- All 11 (21%) of hepatitis C positive participants were also co-infected with HIV

Figure 1. Respondents’ recreational drug use in the last 12 months.
• The most frequently reported route of administration was swallowing (39, 75%).

• Half of participants had snorted drugs (26). Nineteen (37%) had injected intravenously (referred to as ‘slamming’).

• Seven (13%) reported smoking drugs and three (6%) reported rectal administration of drugs.

Frequency of recreational drug use:
• Once in the last 3/12 (28, 54%).
• 1/12 was reported by 17 (33%)
• 4 (8%) reported weekly,
• 2 (4%) Daily and
• 1 (2%) did not report.

Chemsex Parties:
• Social networking smartphone applications (e.g. Grindr, BBRT) (40, 77%).
• 18 (35%) reported word of mouth/friends/ social networks.
• 4 (8%) reported via online dating sites
• 3(6%) via saunas and one
• (2%) via nightclubs or bars.
Table 2. Risky sexual practices reported whilst under the influence of recreational drugs.

<table>
<thead>
<tr>
<th>Sexual practice</th>
<th>Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group sex</td>
<td>41 (79%)</td>
</tr>
<tr>
<td>Condomless anal sex – insertive</td>
<td>33 (63%)</td>
</tr>
<tr>
<td>Condomless anal sex – receptive</td>
<td>31 (60%)</td>
</tr>
<tr>
<td>Anilingus</td>
<td>15 (29%)</td>
</tr>
<tr>
<td>Condomless oral sex</td>
<td>14 (27%)</td>
</tr>
<tr>
<td>Sharing sex toys</td>
<td>13 (25%)</td>
</tr>
<tr>
<td>Being fisted</td>
<td>10 (19%)</td>
</tr>
<tr>
<td>Fisting</td>
<td>9 (17%)</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>2%</td>
</tr>
</tbody>
</table>

Support services:

- When asked if respondents were aware of current support services in Greater Manchester, 24 (46%) reported they were, 27 (52%) reported they were not aware and one (2%) did not complete the question.

- The following question was asked to gauge where respondents would prefer to access care:

  ‘If you could choose to access advice or support about your drug use, where would you choose?’

- The majority of participants (41, 79%) stated they would prefer to access care in a specialist chemsex service within a sexual health clinic

- Ten (19%) reported in the voluntary sector while only one (2%) would want to access care in a standard drug service, and none in an outreach clinic in a bar/club/sauna
Barriers to accessing support.

- At one end is the fear of having one’s sexual practices and drug use ‘being known’.
- On the other hand, a common response was around the feeling as though one is ‘in control’ of the drug taking.

‘not enough information on how it works and how they can help me’.
‘I have tried only a few times, realised it’s not for me so trying to avoid people who use’;
‘I feel I’m in control of it’
‘I didn’t know’.

Strengths and limitations:

https://www.hiv-druginteractions.org/checker
CASE STUDY !!!

Presents to the STI clinic with 3/12 history of multiple genital ulcers on the glans penis
• 45 year old
• MSW
• ‘apparently’ Healthy,
• sexually active
• Married, denies extramarital sexual contact
• Uncircumcised man
• Multiple, slightly tender, minimally indurated ulcers of varying sizes with well-defined irregular margins, covered with unhealthy granulation tissue, all around the glans
• Denies dysuria or urethral discharge

• General physical exam was normal

• The patient had received systemic as well as injectable antibiotics and two courses of acyclovir with minimal transitory improvement
Results are back!!
• Tzanck smear was **negative** for multinucleate giant cells

• Syphilis: **Negative**
• HIV: **Negative**
• HSV type-specific serology: **Negative**
Polymerase chain reaction (PCR) was positive for 173bp of *Mycobacterium tuberculosis*. 
• Radiological investigations including X-ray chest and ultrasound of the abdomen, to find any collateral evidence of TB, were normal.

• The patient was prescribed antitubercular therapy (ATT) for six months that resulted in complete resolution of lesions with atrophic scarring.

• TB of the penis is an uncommon presentation, even in countries like India where the incidence of pulmonary and extra-pulmonary TB is high.
• It is implied that in the TB non-endemic areas of the world, physicians will not be familiar with the clinical manifestations of this entity. However, in this HIV era, with an increase in the global TB load, physicians are more likely to encounter atypical presentations of TB.
• Recently, penile TB has been reported in an HIV-positive man on antiretroviral therapy, probably as a manifestation of immune reconstitution inflammatory syndrome.
• Clinical presentation is extremely varied

• TB of the penis may present as painless nodules, indurated swelling of the glans, single or multiple genital ulcers, fungating growth and urethral discharge with or without erectile dysfunction

• The infection may be acquired during sexual contact with a partner suffering from genitourinary TB
• Contaminated fomites

In general, intact penile mucosa is said to be resistant to TB. However, it has been suggested that TB bacilli may get inoculated in the penile abrasions caused by the trauma of vigorous sexual activity.
• Delay in the treatment may lead to urethral stricture and erectile dysfunction.

• Penile TB presenting as genital ulceration and not responding to antibiotics has been reported in a male kidney transplant recipient patient whose wife was found to have genital TB.

Tuberculosis of the glans penis: an important differential diagnosis of genital ulcer disease.
Archana Singal, Deepika Pandhi, Vandana Kataria and Vinod K Arora
HIV/AIDS conspiracy beliefs and intention to adopt preexposure prophylaxis among black men who have sex with men in Los Angeles.
Ronald A Brooks, Vincent C Allen Jr, Rotrease Regan, Matt G Mutchler, Ramon Cervantes-Tadeo and Sung-Jae Lee

• This analysis examined the association between HIV/AIDS conspiracy beliefs and intentions to adopt PrEP among black MSM.

• Strategies PrEP implementers may want to employ to address the influence that HIV/AIDS conspiracy beliefs may have on the adoption of PrEP among black MSM, a population disproportionately affected by HIV/AIDS.

Background

• USA Black men (MSM) are the group most affected by the HIV/AIDS epidemic.

• In 2014, black MSM accounted for over three-quarters (79%) of all new HIV diagnoses among black males and had the largest percentage (39%) among MSM of all racial/ethnic groups.

• Recent data indicate low uptake of PrEP among black MSM.

• PrEP utilization was highest among whites (74%) with a smaller proportion reported for African Americans (10%)
Conspiracy theories may deter PrEP adoption.

**Genocidal conspiracies**
‘AIDS was created by the government to control the black population’

**Treatment-related conspiracies**
‘People who take the new medications for HIV are human guinea pigs for the government’

- 70% of African Americans agreed that ‘the government is withholding information about the disease from the public.’
- In another study, 52% of black MSM agreed that ‘HIV is a manmade virus.’
• HIV/AIDS conspiracy beliefs have been identified as barriers to HIV prevention, adherence to antiretroviral therapy and associated with negative attitudes toward condoms and high-risk sexual behaviour.

• PrEP acceptability study with black MSM were analyzed to assess the association between HIV/AIDS conspiracy beliefs and intention to adopt PrEP.

• This analysis moves beyond barriers identified in prior research, such as cost, side effects, accessibility, attitudes toward PrEP, and concern with drug resistance.

Methods

• Convenience sample of black MSM was recruited in Los Angeles California to complete an interviewer-administered survey.
• Recruited from CBO’s serving black MSM, community presentations, internet postings on Craigslist.org, postings on Facebook pages of CBOs serving black MSM, and participant referrals.

Inclusion criteria

• African American/black men,
• 18 years of age or older,
• HIV-negative by self-report, had sex with a male partner in the prior six months, resided in Los Angeles County.
• Participants provided informed consent and were compensated $35 for their participation. A university-based Institutional Review Board approved all study materials.
Measures:

- Demographic characteristics, age and education, HIV/AIDS conspiracy beliefs, PrEP adoption intention, and PrEP awareness and use.
- Participants indicated how much they agreed or disagreed on HIV conspiracy beliefs and PrEP adoption and intention.

Results

- A total of 428 individuals were screened for the study.
- Of those, 289 were eligible and 224 completed the study interview.
- More than half (60%) of the participants indicated a high intention to adopt PrEP.
- The mean age of participants was 34 years old.
- One-third (33%) of participants had heard of PrEP but none had ever used PrEP.
- PrEP adoption intention did not differ by age, education, PrEP awareness and use, and if participants agreed with at least one HIV/AIDS conspiracy belief.
Table 1. Demographic characteristics, agreement with any HIV/AIDS conspiracy beliefs, PrEP awareness and use by PrEP adoption intention (n=224).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total population</th>
<th>PrEP adoption intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>High N (%)</td>
</tr>
<tr>
<td>Total sample</td>
<td>234</td>
<td>134 (56.8)</td>
</tr>
<tr>
<td>Demographic characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age in years (M = 33.5, SD = 11.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>114 (49.1)</td>
<td>63 (55.3)</td>
</tr>
<tr>
<td>30+</td>
<td>110 (49.1)</td>
<td>62 (56.4)</td>
</tr>
<tr>
<td>Education completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;11th grade</td>
<td>31 (13.5)</td>
<td>11 (35.5)</td>
</tr>
<tr>
<td>High school</td>
<td>73 (31.8)</td>
<td>46 (62.9)</td>
</tr>
<tr>
<td>Some college</td>
<td>95 (41.2)</td>
<td>55 (57.9)</td>
</tr>
<tr>
<td>&gt;=College degree</td>
<td>25 (10.6)</td>
<td>13 (52.0)</td>
</tr>
<tr>
<td>Agreed with any HIV/AIDS conspiracy beliefs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>139 (62.9)</td>
<td>64 (46.4)</td>
</tr>
<tr>
<td>No</td>
<td>82 (37.1)</td>
<td>64 (79.0)</td>
</tr>
<tr>
<td>Awareness of and PrEP use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PrEP awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>74 (31.8)</td>
<td>44 (59.5)</td>
</tr>
<tr>
<td>No</td>
<td>150 (68.2)</td>
<td>90 (60.0)</td>
</tr>
<tr>
<td>PrEP use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0 (0.0)</td>
<td>--</td>
</tr>
<tr>
<td>No</td>
<td>224 (100.0)</td>
<td>134 (59.8)</td>
</tr>
</tbody>
</table>

Table 2. Agreement with HIV/AIDS conspiracy beliefs by high and low PrEP adoption intention (n= 224).

<table>
<thead>
<tr>
<th>HIV conspiracy beliefs</th>
<th>% Agree\textsuperscript{a} total population</th>
<th>% Agree, of those who indicated high PrEP adoption intention</th>
<th>% Agree, of those who indicated low PrEP adoption intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genocidal beliefs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a cure for AIDS, but it is being withheld from the poor</td>
<td>47.3</td>
<td>42.9</td>
<td>54.0</td>
</tr>
<tr>
<td>HIV is a manmade virus</td>
<td>46.6</td>
<td>42.9</td>
<td>52.3</td>
</tr>
<tr>
<td>AIDS is a form of genocide against blacks</td>
<td>18.0</td>
<td>14.3</td>
<td>23.6</td>
</tr>
<tr>
<td>AIDS was created by the government to control the black population</td>
<td>16.6</td>
<td>14.9</td>
<td>19.1</td>
</tr>
<tr>
<td>HIV was created and spread by the CIA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment-related beliefs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People who take the new medications for HIV are human guinea pigs for the government</td>
<td>21.0</td>
<td>13.7</td>
<td>31.8</td>
</tr>
<tr>
<td>The medicine used to treat HIV causes AIDS</td>
<td>2.7</td>
<td>0.7</td>
<td>5.7</td>
</tr>
<tr>
<td>The medicine that doctors prescribe to treat HIV is poison</td>
<td>9.5</td>
<td>5.3</td>
<td>16.1</td>
</tr>
</tbody>
</table>
Discussion

- Beliefs that HIV was invented as a way to systematically harm black people in the U.S (conspiracy theories) are associated with a lower intention to adopt PrEP among black MSM.

- These beliefs about the origin and treatment of HIV/AIDS held by some black people in the U.S. should be viewed as rational thinking given the legacy of medical mistreatment, and continued racism and discrimination experienced by African Americans within the health care system.

- In this study, two distinct types of HIV/AIDS conspiracies were examined (treatment-related and genocidal) and both were independently associated with a lower intention to adopt PrEP.

- In prior research, mistrust of HIV medications was related to lower acceptance of and adherence to antiretroviral therapy among HIV-positive individuals.

- Concern that taking an HIV medication when HIV-negative would make one more susceptible to HIV infection because of the medication.

- This suggests a need for accurate, culturally-tailored information on the use of HIV antiretroviral medications for treatment and prevention targeted to this population, as well as measures to address medical mistrust and existing HIV/AIDS conspiracies.
• Health care system, and individual level

• These measures should involve CBOs, community members, PrEP advocates, medical providers, and public health practitioners.

• Community liaisons, particularly those who are using PrEP, may be more trusted than public health practitioners or medical providers.

• In prior work, the writers found that facilitators of PrEP adoption included positive testimonials from peers who are using PrEP.

• In facilitating PrEP uptake, it is important to consider the messengers of PrEP information to black MSM, particularly in a population where medical mistrust and HIV/AIDS conspiracies are prevalent.

• Increase the social and cultural acceptability of PrEP in this population.
Limitations:

- The cross-sectional design of the study precludes us from inferring causality.
- In addition, the study population consisted of a nonprobability sample of black MSM in Los Angeles and, therefore, the findings may not be generalizable to black MSM in Los Angeles or elsewhere.
- Because PrEP delivery sites were not fully operational at the time of the present study, PrEP adoption intentions were assessed and may not reflect actual uptake behaviour.
- Another limitation of this study is the focus was solely on black MSM. Endorsement of HIV/AIDS conspiracy beliefs has also been evidenced among Latinos in the U.S., another population heavily impacted by HIV/AIDS.
- Future research may want to assess the influence of HIV/AIDS conspiracy beliefs on PrEP uptake among Latinos and other at-risk marginalized populations in the U.S.
- Despite these limitations, the writers findings contribute to the literature on how the persistence of HIV/AIDS conspiracy beliefs continues to influence HIV prevention efforts in the black community.
- The writers findings also underscore the need to develop PrEP awareness campaigns that are culturally appropriate, but also sensitive to the influence HIV/AIDS conspiracy beliefs may have on PrEP adoption in this population.